CATALOGUE

OF THE

BIRDS

IN THE

BRITISH MUSEUM.

ZOOLOGICAL GARDENS
1875
CALCUTTA

BOOK NO.
998

VOLUME VIII.

LONDON:
PRINTED BY ORDER OF THE TRUSTEES.
1883.

ZOOLOGICAL GARDENS
1875.
CALCUTTA

CATALOGUE

OF THE

PASSERIFORMES,

OR

PERCHING BIRDS,

IN THE

COLLECTION

OF THE

BRITISH MUSEUM.

CICHLOMORPHÆ: PART V.

CONTAINING THE FAMILIES

PARIDÆ AND LANIIDÆ

(TITMICE AND SHRIKES),

AND

CERTHIOMORPHÆ

(CREEPERS AND NUTHATCHES).

BY

HANS GADOW, PH.D.

1183 B
1044

LONDON:
PRINTED BY ORDER OF THE TRUSTEES.
1883.

ACC NO.- 458
Date - 12/12/06

PRINTED BY TAYLOR AND FRANCIS,

RED LION COURT, FLEET STREET

598
CAT
N.8

ZOOLOGICAL GARDENS
1875.
CALCUTTA

PREFACE.

The Eighth Volume of the 'Catalogue of Birds in the British Museum' contains an account of all the species of Titmice, Shrikes, Creepers, and Nuthatches known at present. It was prepared by Dr. H. Gadow, who has also completed the manuscript of the succeeding volume, which will contain the Cinnyrimorphæ and is already in the press. The total number of species described amounts to 402, of which no less than 337 are in the British Museum; they are represented by 2944 examples.

Of the principal donors I have to mention H. I. and R. Highness the Crown Prince Rudolph of Austria, B. H. Hodgson, Esq., F. D. Godman, Esq., O. Salvin, Esq., Capt. Stackhouse Pinwill, W. E. and C. G. Oates, Esqrs., H. Seebohm, Esq., Lord Walsingham, Capt. Shelley, and Lieut.-Col. Irby.

In consequence of the author's departure from London, it was found necessary to intrust the correction of the proof-sheets, and especially the revision of the lists of specimens, to the experience of Mr. Sharpe; but all corrections were submitted to the author for his approval before the sheets were sent to press.

ALBERT GÜNTHER,
Keeper of the Department of Zoology.

British Museum,
June 28, 1883.

INTRODUCTION.

The systematic arrangement followed in the present volume is, in part only, my own. I had to accommodate my views to those held and expressed by the authors of the previous volumes, notably in vol. iv. p. 6, where the limits of the last two families of the Cichlomorphæ, Paridæ and Laniidæ, were defined, and in vol. v., where the limits of the family Turdidæ were so much contracted that, in order to render a Catalogue of Cichlomorphous genera complete, I had to admit into the families which fell to my share genera which, in my opinion, ought to have been placed elsewhere.

It is easy to form a satisfactory diagnosis of so-called typical families if we confine ourselves to such forms as we consider taxonomic centres; but if we have to include the more peripheral forms, which are frequently highly specialized, as well as the more generalized forms, where the various groups inosculate with and overlap each other, the task of defining the families becomes extremely difficult, as was already experienced by the author of the fourth volume (p. 6).

The combination of the *Parinæ* with the *Regulinæ* seems to me artificial, and the latter probably had better have been treated in vol. vi. Moreover, *Regulus* and *Leptopœcile* being apparently closely allied to each other, I found it impossible to give a diagnosis of the family Paridæ.

A discussion of the probable relationship between the *Paridæ* and *Sittinæ* had become unnecessary through the establishment of the group Certhiomorphæ (Cat. B. vol. iii. p. 3).

Regarding the Laniidæ I beg to refer to pp. 88 and 89.

The intrinsic arrangement of the families contained in this volume is my own; and I have tried to justify it by the diagnoses of the subfamilies and genera. Besides other characters hitherto not applied to diagnostic descriptions, the pattern of colour has frequently been resorted to as a most important taxonomic feature, although "not the only character which indicates near relationship."

One single character, no matter whether "structural" or not, as generally used in 'Keys,' hardly ever determines the limit of a family; but a greater number, the coincidence of several characters, although perhaps unimportant by themselves, will suffice for this purpose. Regarding the vexed question of species, I have frequently made use of the designations subspecies and races; but as their synonymy and designations have generally been kept distinct, they can easily be restored to specific rank, whenever this be thought necessary, the whole question being thus left as a mere matter of personal opinion. Besides, it must be borne in mind that the species of the various genera are not equivalent.

I wish to tender my thanks to the following gentlemen, who by the loan of specimens, or kindly permitting access to their collections, have considerably facilitated the completion of this volume:—H. E. Dresser, Esq., O. Salvin, Esq., Captain Wardlaw Ramsay, Dr. Scully, Captain Shelley, H. Schalow, Dr. Reichenow, and Professor Cabanis.

Mr. Sclater put his rich collection of *Vireoninæ* at my disposal, and permitted me to make the fullest possible use of his descriptions and "Keys" to this difficult group. Mr. Seebohm not only gave me access to his large series of birds, but also thoroughly worked out and revised with me several times the Grey Shrikes, the Nuthatches, and many of the Titmice.

Finally, I beg Mr. R. B. Sharpe to accept my thanks for his many acts of courtesy, not only in guiding me at the beginning of my work, but also in lending me throughout his assistance in many difficulties, which, without his aid, would have caused me much additional labour.

H. GADOW.

Cambridge,
June 1883.

SYSTEMATIC INDEX.

Order PASSERIFORMES.

Suborder PASSERES.

I. *ACROMYODI.*

a. Passeres normales.

Section TURDIFORMES.

Group II. Cichlomorphæ.

Fam. Paridæ.

Subfam. Parinæ.

	Page
1. Parus, *Linn.*	3
1. sultaneus, *Hodgs.*	6
2. niger, *Bonn. & Vieill.*	7
3. funereus, *Verr.*	9
4. albiventer, *Shelley*	10
5. leuconotus, *Guér.*	10
6. cyanus, *Pall.*	10
7. flavipectus, *Severtz.*	11
8. pleskii, *Cab.*	12
9. cæruleus, *L.*	12
a. persicus, *Blanf.*	14
10. teneriffæ, *Less.*	14
11. minor, *Temm. & Schleg.*	15
12. cinereus, *Bonn. & Vieill.*	16
13. major, *L.*	19
14. monticolus, *Vig.*	20
15. amabilis, *Sharpe*	22
16. elegans, *Less.*	22
17. venustulus, *Swinh.*	23
18. xanthogenys, *Vig.*	24
a. haplonotus, *Blyth*	25
19. spilonotus, *Blyth.*	26
19 *a.* rex, *David*	367
20. cristatus, *L.*	27
21. melanolophus, *Vig.*	28
22. rufonuchalis, *Blyth*	29
23. rubidiventer, *Blyth*	30
24. wollweberi, *Bonap.*	31
25. atricristatus, *Cassin*	31
26. bicolor, *L.*	32
27. inornatus, *Gambel*	32
28. dichrous, *Hodgs.*	33
29. modestus, *Burton*	33
30. rufescens, *Townsend*	34
31. hudsonicus, *Forster*	34
32. cinctus, *Bodd.*	35
33. varius, *Temm. & Schleg.*	37
34. castaneiventer, *Gould*	37
35. nuchalis, *Jerd.*	38
36. semilarvatus, *Salvad.*	38
37. afer, *Gm.*	39
38. rufiventer, *Boc.*	40
39. griseiventer, *Reichenow*	40
40. ater, *L.*	40
α. michalowskii, *Bogdanow*	43
β. rufipectus, *Severtz.*	44
γ. phæonotus, *Blanf.*	44
41. ledouci, *Malherbe*	44
42. atricapillus, *L.*	44
α. carolinensis, *Aud.*	46
43. meridionalis, *Sclat.*	46
44. montanus, *Gambel*	47
45. lugubris, *Temm.*	47
46. songarus, *Severtz.*	48
47. palustris, *L.*	49
α. borealis, *Selys Longch.*	51
48. brandti, *Bogdanow*	53
2. Psaltria, *Temm.*	53
1. exilis, *Temm.*	53
3. Acredula, *Koch*	54
1. melanotis, *Hartl.*	56
2. minima, *Townsend*	56
3. erythrocephala, *Vigors*	56
4. concinna, *Gould*	57
5. jouschistos, *Hodgs.*	58
6. niveogularis, *Gould*	58
7. leucogenys, *Moore*	59
8. caudata, *L.*	59
9. rosea, *Blyth.*	61
α. trivirgata, *Temm. & Schleg.*	62
10. irbii, *Sharpe & Dresser*	63
11. tephronota, *Gthr.*	64
12. glaucogularis, *Gould*	65
4. Ægithalus, *Boie*	66
1. pendulinus, *Linn.*	67
2. coronatus, *Severtz.*	68
3. castaneus, *Severtz.*	68
4. macronyx, *Severtz.*	69
5. flammiceps, *Burton*	69
6. capensis, *Gm.*	70
α. caroli, *Sharpe*	71
7. flavifrons, *Cass.*	72
8. flaviceps, *Sundev.*	72

Page

5. Xerophila, *Gould* 73
1. leucopsis, *Gould* 73
2. pectoralis, *Gould* 74
6. Sphenostoma, *Gould*..... 74
1. cristatum, *Gould* 74
7. Certhiparus, *De Lafresn*... 75
1. albicillus, *Less.*..... 75
2. novæ zealandiæ, *Gm.* .. 76
3. ochrocephalus, *Gm.*..... 76
8. Panurus, *Koch* 77
1. biarmicus, *L.*..... 77

Subfam. REGULINÆ.

9. Regulus, *Koch* 79
1. cristatus, *Koch* 81
2. satrapa, *Audub.*..... 82
3. ignicapillus, *Brehm* 83
4. maderensis, *V. Harcourt* 84
5. calendula, *L.*..... 84
10. Leptopœcile, *Severtz.*.... 86
1. sophiæ, *Severtz.* 86

Fam. LANIIDÆ.

Subfam. GYMNORHININÆ.

1. Pityriasis, *Less.*..... 90
1. gymnocephala, *Temm.*.. 90
2. Gymnorhina, *Gray* 91
1. tibicen, *Lath.*..... 91
2. leuconota, *Gray* 92
3. Cracticus, *Vieill.* 93
1. quoyi, *Less.* 94
2. nigrogularis, *Gould* 95
a. picatus, *Gould* 96
3. cassicus, *Gray* 97
4. leucopterus, *Gould* 98
5. argenteus, *Gould* 99
6. destructor, *Temm.* 100
a. cinereus, *Gould*..... 101
7. mentalis, *Salvad.* 102

Subfam. MALACONOTINÆ.

4. Vanga, *Vieill.* 104
1. curvirostris, *Gm.*..... 104
2. rufa, *Gm.* 105
5. Artamia, *De Lafresn.* 106
1. leucocephala, *Gm.* 107
2. bicolor, *L.*..... 108
3. bernieri, *Geoffr. St.-Hil.* 108
6. Xenopirostris, *Bonap.* ... 109
1. xenopirostris, *De Lafresn.* 110
2. polleni, *Schleg.* 110
3. damii, *Schleg.* 110
4. pachycephaloides, *Elliot* 111
7. Ptererythrius, *Swains.* 112
1. erythropterus, *Vig.* 113
2. æralatus, *Tickell* 114

Page

a. cameranoi, *Salvad.*.... 115
3. rufiventer, *Blyth* 115
4. flaviscapis, *Temm.* 116
5. ænobarbus, *Temm.* 116
6. intermedius, *Hume* 117
7. melanotis, *Hodgs.* 117
8. xanthochloris, *Hodgs.*.. 118
8. Calicalicus, *Bonap.*..... 119
1. madagascariensis, *L.* .. 119
9. Telophonus, *Swains.* 120
1. erythropterus, *Shaw* .. 120
2. trivirgatus, *Smith*..... 122
a. ussheri, *Sharpe* 124
3. senegalus, *L.*..... 124
4. cucullatus, *Temm.* 126
5. blanfordi, *Sharpe*..... 127
6. remigialis, *Hartl. & Finsch* 128
7. minutus, *Hartl.* 128
8. anchietæ, *Bocage* 129
10. Dryoscopus, *Boie*..... 130
1. leucorhynchus, *Hartl.*.. 132
2. nigerrimus, *Reichenow*.. 133
3. funebris, *Hartl.* 133
4. lugubris, *Cab.* 133
5. luehderi, *Reichenow*.... 134
6. angolensis, *Hartl.* 134
7. rufiventer, *Swains.* 134, 367
8. sticturus, *Hartl.* 136
9. major, *Hartl.* 136
a. guttatus, *Hartl.* 137
10. bicolor, *Hartl.*..... 138
11. æthiopicus, *Gm.* 139
12. turatii, *Verreaux* 140
13. sublacteus, *Cass.* 140
14. affinis, *Gray*..... 141
15. hamatus, *Hartl.* 142
16. sabinei, *Gray* 143
17. atrialatus, *Cass.* 143
18. salimæ, *Cab.*..... 144
19. gambensis, *Licht.*..... 146
20. thamnophilus, *Cab.*.... 147
21. cubla, *Shaw* 148
22. tricolor, *Cab. & Reichnw.* 150
11. Laniarius, *Vieill.*..... 150
1. cruentus, *Hempr. & Ehr.* 152
2. atrococcineus, *Burchell*. 152
3. atrocroceus, *Trimen*.... 153
4. barbarus, *L.* 153
5. erythrogaster, *Rüpp.* .. 154
6. hypopyrrhus, *Verr.* 155
7. poliochlamys, *Gadow* .. 155
8. poliocephalus, *Licht.* .. 156
a. monteiri, *Sharpe* 157
9. melanothorax, *Sharpe* .. 157
10. multicolor, *Gray*..... 158
11. sulfureipectus, *Less.*.... 159

Page
12. rubiginosus, *Sundev.* .. 160
13. olivaceus, *Shaw* 161
14. bakbakiri, *Shaw* 162
15. quadricolor, *Cass.*..... 163
16. viridis, *Vieill.* 165
12. Nicator, *Finsch & Hartl.*. 165
1. chloris, *Less.* 166
2. vireo, *Cab.*..... 166
3. gularis, *Hartl. & Finsch* 167
13. Nilaus, *Swains.* 167
1. capensis, *Shaw* 168
2. afer, *Lath.*..... 169
3. affinis, *Bocage* 170
14. Neolestes, *Cab.* 170
1. torquatus, *Cab.* 171

Subfam. PACHYCEPHALINÆ.

15. Falcunculus, *Vieill.*..... 172
1. frontatus, *Lath.* 173
2. leucogaster, *Gould* 174
16. Oreoica, *Gould* 174
1. cristata, *Lewin*..... 174
17. Eopsaltria, *Swains.*..... 175
1. australis, *Lath.*..... 176
2. georgiana, *Quoy & Gaim.* 178
3. flavigaster, *Verr.*..... 179
4. cucullata, *Gray* 179
5. caledonica, *Gm.* 180
6. pulverulenta, *Bp.*..... 180
7. gularis, *Quoy & Gaim.* . 181
18. Pachycephala, *Vig. & Horsf.* 182
1. melanura, *Gould* 185
2. mentalis, *Wall.* 189
3. vitiensis, *Gray*..... 190
a. kandavensis, *Ramsay.* 191
4. gutturalis, *Lath.* 192
5. occidentalis, *Ramsay* .. 193
6. glaucura, *Gould* 194
7. chlorura, *Gray*..... 194
8. schlegeli, *Rosenb.*..... 195
9. fulvotincta, *Wall.* 196
10. soror, *Sclat.* 196
11. innominata, *Ramsay* .. 197
12. collaris, *Ramsay* 197
13. calliope, *Bonap.* 198
14. littayei, *Layard* 198
15. morariensis, *Verr. & Des Murs* 199
16. astrolabi, *Hombr. & Jacq.* 200
17. torquata, *Layard*..... 201
18. graeffei, *Hartl.*..... 202
19. jacquinoti, *Bonap.* 203
20. icteroides, *Peale* 204
21. falcata, *Gould* 205
22. pallida, *Ramsay* 206

Page
23. xantherythræa, *Forster* . 207
24. rufiventris, *Lath.*..... 208
25. rufogularis, *Gould* 209
26. gilberti, *Gould*..... 210
27. xanthoprocta, *Gould* .. 211
28. rufinucha, *Sclat.* 211
29. olivacea, *Vig. & Horsf.*. 212
30. albispecularis, *Salvad.*.. 212
31. hyperythra, *Salvad.*.... 213
32. orpheus, *Jard.*..... 213
33. phæonotus, *Müller* 214
34. griseiceps, *Gray* 215
35. cinerascens, *Salvad.*.... 216
36. griseonota, *Gray*..... 217
37. rufipennis, *Gray* 218
38. dubia, *Ramsay*..... 219
39. simplex, *Gould*..... 219
40. grisola, *Blyth* 220
41. brunneicauda, *Salvad.*.. 220
42. philippinensis, *Walden*.. 221
43. sulfuriventer, *Walden* .. 221
44. monacha, *Gray* 222
44 *a.* arctitorquis, *Sclater* .. 368
45. leucogaster, *Salvad.*.... 222
46. leucostigma, *Salvad.* .. 223
47. lanioides, *Gould* 224
48. cyanea, *Hume* 224
49. hattamensis, *Meyer*.... 225
50. poliosoma, *Sharpe* 226
51. fortis, *Gadow* 369
19. Pachycare, *Gould.* 226
1. flavogrisea, *Meyer* 227

Subfam. LANIINÆ.

20. Urolestes, *Cab.*..... 228
1. melanoleucus, *Jard.*.... 229
21. Laniellus, *Swains.* 230
1. leucogrammicus, *Swains.* 230
22. Corvinella, *Less.*..... 231
1. corvina, *Shaw* 231
23. Lanius 232
1. minor, *Gm.* 235
2. excubitor, *L.* 237
3. major, *Pall.* 239
4. borealis, *Vieill.*..... 240
5. mollis, *Eversm.* 241
6. homeyeri, *Cab.*..... 242
7. leucopterus, *Severtz.*.... 242
8. sphenocercus, *Cab.* 242
9. seebohmi, *Gadow*..... 243
10. robustus, *Baird* 243
11. algeriensis, *Less.* 244
12. uncinatus, *Sclat.*..... 245
13. ludovicianus, *Linn.*.... 245
14. meridionalis, *Temm.* .. 246

Page

15. fallax, *Finsch* 247
16. assimilis, *Brehm* 249
17. hemileucurus, *Finsch & Hartl.* 299
18. grimmi, *Bogdanow* 250
19. dealbatus, *de Filippi* .. 250
20. elegans, *Swains* 251
21. lahtora, *Sykes* 252
22. excubitorius, *Des Murs.* 253
23. souzæ, *Boc.* 254
24. caudatus, *Cab.* 254
25. antinorii, *Salvad.* 255
26. collaris, *L.* 255
a. smithii, *Fraser* 258
27. subcoronatus, *Smith* .. 260
28. tephronotus, *Vigors*.... 261
29. schach, *L.* 261
30. fuscatus, *Less.* 263
31. erythronotus, *Vigors* .. 263
a. caniceps, *Blyth* 265
32. bentet, *Horsf.* 266
33. nigriceps, *Frankl.* 268
34. cephalomelas, *Bonap.* .. 269
35. bucephalus, *Temm. & Schleg.* 270
36. cristatus, *L.* 271
37. superciliosus, *Lath.* 273
38. lucionensis, *L.* 274
39. isabellinus, *Ehrenb.* 277
a. phœnicuroides, *Severtz.* 277
40. speculigerus, *Tacz.* 279
41. vittatus, *Val.* 280
42. nubicus, *Licht.* 282
43. auriculatus, *Müller* 283
44. badius, *Hartl.* 285
45. collurio, *L.* 286
46. collyrioides, *Less.* 289
47. tigrinus, *Drapiez* 289

Subfam. VIREONINÆ.

24. Vireo, *Vieill.* 292
1. calidris, *L.* 293
2. olivaceus, *L.* 294
3. flavoviridis, *Cass.* 295
4. chivi, *Vieill.* 295
5. magister, *Lawrence* 295
6. philadelphicus, *Cass.* 296
7. gilvus, *Vieill.* 296
8. josephæ, *Sclat.* 297
9. amauronotus, *Salv. & Godm.* 298
10. flavifrons, *Vieill.* 298
11. solitarius, *Wils.* 298

Page

a. cassini, *Xantus* 299
β. plumbeus, *Coues* 299
12. vicinior, *Coues* 300
13. atricapillus, *Woodhouse* . 300
14. noveboracensis, *Gm.* 300
15. belli, *Aud.* 301
16. pusillus, *Coues* 302
17. ochraceus, *Salv.* 302
a. pallens, *Salv.* 302
18. huttoni, *Cass.* 303
19. modestus, *Gosse* 303
20. carmioli, *Baird* 303
21. hypochryseus, *Sclat.* .. 304
22. gundlachi, *Lambeye*.... 304
23. latimeri, *Baird* 304
25. Neochloe, *Sclat.* 305
1. brevipennis, *Sclat.* 305
26. Hylophilus, *Temm.* 305
1. thoracicus, *Temm.* 307
2. decurtatus, *Bonap.* 307
3. musicapinus, *Scl. & Salv.* 308
4. pœcilotis, *Temm.* 308
5. amaurocephalus, *Nordm.* 308
6. semibrunneus, *Lafr.* 309
7. flaviventris, *Cab.* 309
8. fuscicapillus, *Sclat. & Salv.* 309
9. aurantiifrons, *Lawrence* . 310
10. brunneiceps, *Sclat.* 310
11. ochraceiceps, *Sclat.* 310
12. rubrifrons, *Sclat.* 311
13. ferrugineifrons, *Sclat.* .. 311
14. luteifrons, *Sclat.* 311
15. semicinereus, *Scl. & Salv.* 312
16. flavipes, *Lafr.* 312
17. olivaceus, *Tsch.* 313
27. Laletes, *Sclat.* 313
1. osburni, *Sclat.* 313
28. Vireolanius, *Du Bus* 314
1. melitophrys, *Bonap.* 314
2. leucotis, *Swains.* 315
3. pulchellus, *Sclat. & Salv.* 315
4. eximius, *Baird* 316
29. Cyclorhis, *Swains.* 316
1. virenticeps, *Sclat.* 317
2. nigrirostris, *de Lafresn.* . 317
3. viridis, *Vieill.* 318
a. ochrocephala, *Tsch.* .. 318
4. albiventris, *Sclat. & Salv.* 319
5. altirostris, *Salv.* 319
6. guianensis, *Gm.* 319
7. flavipectus, *Sclat.* 320
8. flaviventris, *de Lafresn.* 320
9. contrersi, *Tacz.* 321

Group III. CERTHIOMORPHÆ

Fam. CERTHIIDÆ.

Subfam. CERTHIINÆ.

Page
1. Certhia, *L.* 323
1. familiaris, *L.* 323
a. mexicana, *Glog.* 326
2. himalayana, *Vig.* 327
3. discolor, *Blyth* 328
4. nipalensis, *Hodgs.* 329
2. Salpornis, *Gray* 329
1. spilonotus, *Gray* 330
2. salvadorii, *Bocage* 330
3. Tichodroma, *Ill.* 331
1. muraria, *L.* 331
4. Climacteris, *Temm.* 333
1. melanura, *Gould* 334
2. melanonotus, *Gould* 334
3. placens, *Sclat.* 335
4. rufa, *Gould* 335
5. leucophæa, *Latham* 336
6. scandens, *Temm.* 337
7. erythrops, *Gould* 338
8. pyrrhonotus, *Gould* 339
9. mystacalis, *Temm.* 339

Subfam. SITTINÆ.

5. Sitta, *Linn.* 341
1. europæa, *Linn.* 342
a. nagaensis, *Godwin-Austen* 344

Page
2. amurensis, *Swinh.* 345
3. magna, *Ramsay* 345
4. neumayeri, *Michah.* 345
5. syriaca, *Ehrenb.* 346
6. cæsia, *Wolf* 347
7. himalayensis, *Jard. & Selby* 349
8. neglecta, *Walden* 349
9. krueperi, *von Pelzeln* .. 350
10. castaneoventris, *Franklin* 351
11. cinnamomeoventris, *Bl.* . 351
12. leucopsis, *Gould* 352
13. carolinensis, *Wils.* 353
14. canadensis, *Briss.* 354
a. villosa, *Verr.* 355
15. pygmæa, *Vig.* 355
16. pusilla, *Lath.* 356
17. azurea, *Less.* 357
18. formosa, *Blyth* 357
19. frontalis, *Horsf.* 358
20. œnochlamys, *Sharpe* .. 359
6. Sittella, *Swains* 360
1. chrysoptera, *Lath.* 360
2. leucocephala, *Gould* 361
3. albata, *Ramsay* 362
4. pileata, *Gould* 362
a. tenuirostris, *Gould* .. 363
5. leucoptera, *Gould* 363
6. striata, *Gould* 364
7. papuensis, *Schl.* 365
7. Hypositta, *A. Newton* 365
1. corallirostris, *A. Newton* 366

Kirk
ALIPORE

CATALOGUE

OF

BIRDS.

Accno. 458
dt. 12/12/06

Order II. PASSERIFORMES

(Cat. B. vol. iii. p. 1).

Suborder I. PASSERES

(Cat. B. vol. iii. p. 6).

Group II. CICHLOMORPHÆ

(Cat. B. vol. iv. p. 6).

Family PARIDÆ.

Synopsis of Subfamilies.

A. Bill without a notch; tarsus less than twice the length of the hallux without nail .... *PARINÆ*, p. 1.

B. Bill slightly notched; tarsus more than twice and a half the length of the hallux without nail..... *REGULINÆ*, p. 79.

Subfamily PARINÆ.

Bill shorter than the rest of the head, generally conical, and without a notch; nostrils lateral or basal; wings rounded, their tip generally formed by the 3rd to 5th primaries; first primary always present, although short; tail varying in length and shape; toes and tarsi comparatively short, the latter being less than double the length of the hallux without nail; outer toes coalesced at the base

only. Plumage soft, woolly and lax. The principal colours of the plumage are white, black, yellow, and blue; red and green (except olive-yellow) do not occur. Spots on the back and wings are often met with, but transverse bands are never found on any part of the plumage. The sides of the head are frequently coloured differently from the rest of the head; the feathers of the crown are often prolonged into a crest. Sexes generally alike in plumage.

The Parinæ are small, non-migratory, mostly insectivorous birds, inhabiting the whole world, with the exception of the Neotropical Region and the Pacific islands. They comprise 7 genera with about 80 species.

Key to the Genera.

A. PARINÆ TYPICÆ. Nostrils mostly round and entirely devoid of any coriaceous operculum; always hidden by little feathers and bristles. Tongue obtuse, and beset at the tip with horny bristles.

a. Culmen curved; first primary long.

a'. Tail rounded or square; with many scales in front of the tarsus; often with a crest ..... 1. PARUS, p. 3.

b'. Tail rather long and graduated; tarsus covered anteriorly with one scutum, or with the scales almost fused into one; no crest ..... 2. PSALTRIA *, p. 53. 3. ACREDULA, p. 54.

b. Culmen straight; bill very much pointed; tail short, square, or emarginated; tarsus anteriorly covered with many scales; no crest ..... 4. ÆGITHALUS, p. 66.

B. PARINÆ AUSTRALES. Nostrils in a groove, longitudinal, operculated; not covered by feathers, but quite free and exposed. Tongue without bristles (?). Confined to the Australian Region.

[*c*. First primary wanting; second primary very long ..... OREOCHARIS †.]

d. First primary well developed.

c'. Bill higher than broad; tail square; no crest; secondaries equal to four fifths of the wing; nostrils partly covered ..... 5. XEROPHILA, p. 73.

d'. Bill not higher than broad; nostrils exposed.

a''. With a crest; secondaries equal to sixth or seventh primary ..... 6. SPHENOSTOMA, p. 74.

b''. Without a crest; secondaries equal to fourth or fifth, or third or fourth primaries ..... 7. CERTHIPARUS, p. 75.

---

* *Psaltria* is intermediate between *Acredula* and *Parus*. Tail graduated; tarsi anteriorly covered with scales; no crest; first primary longer than half the second primary.

† *Oreocharis*, although referred to in this key, will be included in the account of the *Meliphaginæ* (Cat. B. vol. ix.).

C. PANURINÆ. Nostrils ovate, with a large operculum, the nasal opening situated posteriorly; hidden by small plumes. Tongue horny, obtuse, divided at the end, terminating in a few horny bristles. One genus ..... PANURUS*, p. 77.

1. PARUS.

	Type.
Parus, *Linn. Syst. Nat.* i. p. 341 (1766)	P. major.
Lophophanes, *Kaup, Natürl. Syst.* p. 92 (1829)	P. cristatus.
Cyanistes, *id. op. cit.* p. 99	P. cyaneus.
Pœcile, *id. op. cit.* p. 114	P. ater.
Melanochlora, *Lesson, Rev. Zool.* p. 42 (1839)	P. sultaneus.
Crataionyx, *Eyton, P. Z. S.* 1839, p. 104	P. sultaneus.
Ptilobaphus, *Reichenb. Nat. Syst.* pl. lxii. (1850)	P. sultaneus.
Penthestes, *Reichenb. l. c.*	P. niger.
Machlolophus, *Cab. Mus. Hein.* i. p. 91 (1850)	P. spilonotus.
Bæolophus, *id. l. cit.* (note)	P. bicolor.
Pentheres, *id. op. cit.* p. 92	P. niger.
Melaniparus (!), *Bp. Consp. Av.* i. p. 228 (1850)	P. sultaneus.
Poekilis, *Blasius, List of B. of Eur.* p. 8 (1862)	P. ater.

Head of *Parus major*, with bill to show nostrils (exposed).

Bill short, subulate, more or less conical, blunt at the tip, hardly notched, or without any notch at all; nostrils always round and small, hidden, like the base of the bill, by recumbent little feathers of the forehead, never operculated, the margins being ossified; first primary well developed, but less than half the next one in length; tip of wing formed by 3rd to 5th primaries; tail varying in length and shape; tarsus comparatively short, less than double the length of the hallux, anteriorly covered with many transverse scales, which in some species, in old birds, tend to fuse into one another; many species have a feather-crest. Plumage often beautifully coloured, the principal colours being black, yellow, and blue, whilst green and red are excluded; back and wings frequently spotted, but streaks and cross markings do not occur. Most of the North-American species are plain and dull in colour; African Tits principally black.

Range. About 46 species in the Indian, Ethiopian, Palæarctic, and Nearctic Regions.

---

* *Panurus* does not belong to the *Paridæ*, but perhaps to the *Fringillidæ*. The nostrils are nearer to the culmen than to the edge of the maxilla, the culmen curved, and the first primary very short.

Key to the Species.

A. Only colours black and yellow; high crest. (MELANOCHLORA.) ..... *sultaneus*, p. 6.

B. General colour black; no crest.
  a. All the upper parts uniform black.
    a'. Breast and abdomen blackish.
      a''. Primaries and wing-coverts edged with white ..... *niger*, p. 7.
      b''. No trace of white on the quills; all the upper and under parts uniform blackish slaty ..... *funereus*, p. 9.
    b'. Breast and abdomen white ..... *albiventer*, p. 10.
  b. Centre of mantle dull creamy ..... *leuconotus*, p. 10.

C. Principal colours white and blue; entire throat and most of the underparts white.
  c. Crown of head pure white; all the underparts white ..... *cyanus*, p. 10.
  d. A light yellow crescent on the fore neck .... *flavipectus*, p. 11. / *pleskii*, p. 12.

D. Principal colours black and yellow, with blue or white in the plumage.
  e. Crown and wing-coverts blue.
    c'. Mantle and back olive-grey ..... *persicus*, p. 14.
    d'. Mantle and back yellowish green ..... *cæruleus*, p. 12.
    e'. Mantle and back greyish blue ..... *teneriffæ*, p. 14.
  f. Brown; the whole throat, fore neck, and centre of breast black.
    f'. No crest.
      c''. Sides of neck and ear-coverts white.... *minor*, p. 15.
      d''. Sides of neck and ear-coverts yellow.
        a'''. No white spots on the mantle, back, and quills.
          a⁴. Wing-coverts bluish ..... *major*, p. 19.
          b⁴. Wing-coverts black ..... *monticolus*, p. 20.
        b'''. Large white spots on mantle and quills.
          c⁴. Ear-coverts black like the head.... *amabilis*, p. 22.
          d⁴. Ear-coverts yellow ..... *elegans*, p. 22. / *venustulus*, p. 23.
    g'. With a high black crest; sides of neck and ear-coverts yellow.
      e''. Feathers of crest plain black..... *xanthogenys*, p. 24. / *haplonotus*, p. 25.
      f''. Feathers of crest with yellow tips .... *spilonotus*, p. 26.

E. Dull-coloured birds, with a high crest. (LOPHOPHANES.)
  g. Crest black, all its feathers edged with white *cristatus*, p. 27.
  h. Crest black, without any edgings of white.
    h'. Throat black.
      g''. Entire crown and crest black; no frontal band.
        c'''. Wing-coverts tipped with fawn .... *melanolophus*, p. 28.
        d'''. No tips to the wing-coverts.
          e⁴. Abdomen dark grey.
            a⁵. Larger: wing 3·0 inches ..... *rufonuchalis*, p. 29.
            b⁵. Smaller: wing 2·2 inches ..... *beavani*, p. 29.
          f⁴. Abdomen tawny ochraceous ..... *rubidiventer*, p. 30.

h''. Centre of crown grey; crest black; a narrow white frontal band; two narrow black bands to the auricular region; breast grey ..... *wollweberi*, p. 31.

i'. Throat and breast entirely white; a narrow white frontal band.

i''. Crest black ..... *atricristatus*, p. 31.

k''. Crest brown ..... *bicolor*, p. 32.

i. Crown and crest greyish brown; no trace of black in the whole plumage; throat grey or dull whitish.

k'. All the underparts uniform dull whitish grey ..... *inornatus*, p. 32.

l'. Underparts fawn-coloured; throat darker, more of a dull brownish grey ..... *dichrous*, p. 33.

F. Neither yellow nor blue in the plumage; no crest.

k. Throat and fore neck uniform with rest of underparts, dull whitish greyish olive; all above dull olive brownish grey ..... *modestus*, p. 33.

l. Crown brown; upper breast white.

m'. Throat dark reddish brown; mantle and flanks dark chestnut ..... *rufescens*, p. 34.

n'. Throat black ..... *hudsonicus*, p. 34. / *obtectus*, p. 35. / *cinctus*, p. 35.

m. Crown black.

o'. A fawn-coloured frontal band; throat black; breast and abdomen chestnut-red.

l''. Larger: wing 3·1 inches ..... *varius*, p. 37.

m''. Smaller: wing 2·4 inches ..... *castaneiventer*, p. 37.

p'. No frontal band.

n''. Throat black, the black colour extending down the centre of the breast.

e'''. Ear-coverts pure white.

*g*⁴. Mantle and back glossy black.

*c*³. Forehead black ..... *nuchalis*, p. 38.

*d*³. Forehead white ..... *semilarvatus*, p. 38.

*h*⁴. Mantle and back blue-grey.

*e*⁵. Sides of breast and flanks white. *cinereus*, p. 16. / *boccharensis*, p. 16.

*f*⁵. Sides of breast and flanks grey .. *afer*, p. 39.

f'''. Ear-coverts black; belly rufous.... *rufiventer*, p. 40. / *griseiventer*, p. 40.

o''. The black of the underparts restricted to chin and throat; general colour above grey.

g'''. Whole of the chin, throat, and upper part of the fore neck deep black; line of demarcation of the black colour strongly expressed.

*i*⁴. The black of the upper parts extending down the whole of the hind neck.

*g*⁵. Wing-coverts with white tips; secondary quills not edged with white.

*a*⁶. Ear-coverts and nape-spot white ..... *ater*, p. 40. / *britannicus*, p. 41. / *pekinensis*, p. 41. / *michalowskii*, p. 43. / *phœonotus*, p. 44.

b^6. Ear-coverts and nape-spot yellow ..... *ledouci*, p. 44.
h^5. Wing-coverts and secondaries edged, not tipped, with white.
c^8. Flanks fawn-colour ..... *atricapillus*, p. 44. / *septentrionalis*, p. 45.
d^8. Flanks grey ..... *montanus*, p. 47. / *meridionalis*, p. 46.
k^4. The black of the upper parts restricted to the crown and nape .. *lugubris*, p. 47. / *songarus*, p. 48.
h'''. Only the chin black; upper throat mottled or edged black and white .. *borealis*, p. 54. / *kamtchatkensis*, p. 52. / *palustris*, p. 49.
p''. Throat without any blackish patch; crown of head blackish brown ..... *brandti*, p. 53.

1. Parus sultaneus.

Parus sultaneus, *Hodgs. Ind. Rev.* p. 31 (1831); *id. in Gray's Zool. Misc.* p. 83; *Gray, Gen. B.* i. p. 192; *id. Cat. Mamm. etc. Nepal pres. Hodgs.* p. 72; *Blyth, J. A. S. Beng.* xiii. p. 943; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 369.
Parus flavocristatus, *Lafresn. Mag. Zool.* 1837, pl. 80; *Horsf. P. Z. S.* 1839, p. 162; *Blyth, J. A. S. Beng.* xi. p. 184, xii. p. 955; *Strickl. P. Z. S.* 1846, p. 100; *Blyth, Cat. B. Mus. As. Soc.* p. 102; *id. in Jard. Contr. Orn.* p. 48; *Gould, B. Asia*, pt. xx. pl. 15.
Melanochlora sumatrana, *Less. Rev. Zool.* p. 42 (1839); *Sundev. Av. Meth. Tent.* p. 20.
Crataionyx flava, *Eyton, P. Z. S.* 1839, p. 104.
Crataionyx ater, *Eyton, P. Z. S.* 1839, p. 104.
Melanochlora sultanea, *Jerd. B. Ind.* ii. p. 282 (1863); *Walden, P. Z. S.* 1866, p. 551; *Hume & Davison, St. F.* 1878, vol. i. p. 378; *Hume, St. F.* 1879, pp. 64, 105.
Melanochlora flavocristata, *Cab. Mus. Hein.* i. p. 92 (1850); *Blyth & Walden, B. Burmah*, p. 111.

Adult male. Head above and a long pointed crest, the breast, abdomen, the under tail-coverts, and the axillaries bright yellow; the under wing-coverts blackish at base, tipped with yellow, and with a subterminal white band; all the other parts of the body are glossy green-black, the quills internally edged with whitish; the line of demarcation between the black of the fore neck and the yellow breast is strongly marked; "bill black; feet slaty; iris dark brown" (*Jerdon*). Total length 7–8 inches, culmen 0·7, wing 4–4·2, tail 3·4–3·6, tarsus 0·95–1.

Adult female. All the parts which are black in the male are brownish black, with a peculiar olive-green tinge; chin, cheeks, throat, and fore neck blackish, strongly washed with yellowish. In all the other parts the female closely resembles the male. Wing 3·7 inches, tail 3·3.

Young birds resemble the females, but want the yellow crest.

Obs. Several specimens in the British Museum have some of the outer tail-feathers slightly tipped with white.

Hab. From the Himalayas through Assam, Burmah, and Malacca to Sumatra.

a, *b*, *c*. Ad. st.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of the species.)
d, *e*. [♂], *f*, *g*. [♀] ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
h, *i*. [♂] ad., *k*. [♂ juv.] sk.	Assam.	Gould Collection.
l. Ad. sk.	Assam (*McClelland*).	India Museum.
m. ♀ ad. sk.	Western Pegu hills, lat. 19° N., April 7, 1873.	Eugene W. Oates, Esq. [C.].
n. ♂ ad. sk.	Malewoon, Tenasserim, Dec. 8, 1876.	Eugene W. Oates, Esq. [C.].
o. Ad. sk.	Malacca.	Eyton Collection.
p. Juv. sk.	Malacca.	Hugh Cuming.
q, *r*. [♂ ♀] ad. sk.	Malacca.	A. R. Wallace, Esq. [C.].
s, *t*. ♂ ad., juv. sk.	Malacca (*Cantor*).	India Museum.
u. Ad. sk.	Penang.	India Museum.
v. Bones of body.	Nepal.	B. H. Hodgson, Esq. [P.].

2. Parus niger.

La Mésange noire, *Levaill. Ois. d'Afr.* iii. pl. 137. figs. 1, 2.
Parus niger, *Bonn. et Vieill. Enc. Méth.* p. 508 (1823); *Gray, Hand-l. B.* i. p. 233, no. 3383; *Gurney, in Anderss. B. Dam. Ld.* p. 81; *Sharpe, ed. Layard B. S. Afr.* p. 331; *Ayres, Ibis*, 1880, p. 103; *Bocage, Orn. Angola*, p. 285.
Parus leucomelas, *Rüpp. Neue Wirb.* Taf. 37. fig. 2 (1835); *Heugl. Syst. Uebers.* p. 252; *Gray, Hand-l. B.* i. p. 234, no. 3387; *Heugl. Orn. N.O.-Afr.* i. p. 407.
Parus leucopterus, *Swains. Classif. B.* ii. p. 246 (1837); *id. B. W. Afr.* ii. pl. 42; *Hartl. Orn. W.-Afr.* p. 70; *Monteiro, Ibis*, 1862, p. 338; *Layard, B. S. Afr.* p. 113; *Gray, Hand-l. B.* i. p. 234, no. 3385; *Blanf. Geol. & Zool. Abyss.* p. 356.
Melaniparus leucopterus, *Bp. C. A.* i. p. 228 (1850); *Bocage, Jorn. Lisb.* 1867, p. 333, 1868, p. 22, 1874, p. 51.
Melaniparus leucomelas, *Bp. C. A.* i. p. 228 (1850).
Melaniparus niger, *Bp. C. A.* i. p. 228 (1850).
Pentheres niger, *Cab. Mus. Hein.* Th. i. p. 92 (1850).
Pentheres leucopterus, *Cab. Mus. Hein.* Th. i. p. 92 (1850).
Pentheres leucomelas, *Cab. Mus. Hein.* Th. i. p. 92 (1850).
Penthestes melanoleucus, *Pr. Paul Württemberg, Icon. ined.*
Parus luctuosus, *Licht. Nomencl.* p. 36 (1854).

A. *Northern Race* (P. leucopterus, *Swains.*).

Adult male. Above and below glossy blue-black, less glossy on the abdomen, tail, and under tail-coverts; quills black, the primaries narrowly, the secondaries broadly edged with white; primary wing-coverts black and white; the greater and median series almost pure white, the blackish colour being restricted to the basal or to the central parts of the feathers; lesser wing-coverts black; quills below dusky, with broad white edgings to the inner web; edge of wing and under wing-coverts white, mottled with blackish at the base of the feathers; bill, feet, and claws black.

Female. Less glossy below; the white edgings to the quills are a little narrower, and the upper wing-coverts more blackish brown, than the male.

Obs. Some of the Gambia specimens have the tail-feathers slightly tipped, and one specimen has the outer pair of the feathers narrowly edged with white; thighs and under wing-coverts in another (river Volta) slightly tipped with white.

B. *Southern Race* (P. niger, *Vieill.*).

Adult male. Underparts of the body black, but with a strong brownish tinge; the abdomen, flanks, thighs, and under tail-coverts dark grey, tipped with whitish; most of the tail-feathers are tipped, and the outermost pair externally broadly edged, with white; bill and claws black; iris dark hazel (*Oates*).

Adult females from South Africa resemble the males closely in their upper parts; cheeks, throat, breast, abdomen, and flanks dusky brownish black or dark ashy brown; tail, under tail-coverts, and thighs with white or whitish tips, the outer feathers broadly edged with white.

Obs. Two adult males from Damara Land, shot by Andersson in the months of August and September, differ but slightly from the Northern race: greater wing-coverts black, broadly tipped and narrowly edged with white; tail-feathers with narrow white tips, the outer pair (in one specimen) broadly edged with white; thighs and under tail-coverts black, with whitish tips; throat, breast, flanks, and greater part of abdomen glossy black.

In order to find out whether there are any differences in size between these two or three races, I have measured a large series of these birds from different parts of Africa. The north-eastern and the southern specimens are absolutely the same in size; those from the Gambia and the river Volta seem to be a little smaller.

	Wing. in.	Tail. in.	Tarsus. in.
♂. Angola	3·2	2·9	0·8
♂. Damara	3·15	2·75	0·85
♂. Damara	3·3	3·0	
♂. River Chalumna	3·3	3·0	0·8 to 0·82
♂. Pine Town	3·12	2·82	
♂. Elands Post	3·32	3·02	
♂. River Ramaqueban	3·2	3·02	
♀. Natal	2·92	2·6	
♀. Grahams Town	3·07	2·8	
♀. Tete	3·15	2·85	
♂. River Anseba	3·15	2·55	
♂. Kokai	3·02	3·45	0·8
♂. Bard el Mandeb	3·3	2·9	0·78
Ad. [♂]. River Volta	3·0	2·55	0·75
Ad. [♂]. River Volta	2·92	2·5	0·75
Ad. River Gambia	2·85	2·5	
Ad. River Gambia	3·0	2·7	
Ad. River Gambia	3·15	2·7	
Ad. River Gambia	3·12	2·8	

Hab. The whole of the Ethiopian Region from Abyssinia to the Gambia and southwards to the Cape.

Northern Race (P. leucopterus).

a, *b*. Ad. st.	Africa.	Purchased.
c. Ad. st.	River Gambia.	Purchased.
d. Ad. sk.	River Gambia.	R. B. Sharpe, Esq.
e. Ad. sk.	River Gambia.	J. Gould, Esq.
f, *g*. Ad. sk.	River Volta (*Governor Ussher*).	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Congo (*Dr. Lucan*).	R. B. Sharpe, Esq. [P.].
i. Ad. sk.	Angola.	J. J. Monteiro, Esq. [C.].
k. ♂ ad. sk.	River Anseba, 4000 feet, July 17, 1868.	W. T. Blanford, Esq. [C.].
l. Ad. sk.	Bard el Mandeb, Bogos Land (*Esler*).	R. B. Sharpe, Esq. [C.].
m. ♂ ad. sk.	Kokai, Bogos, July 12, 1868 (*Jesse*).	F. D. Godman and O. Salvin, Esqrs. [P.].

Southern Race (P. niger).

a. Ad. st.	South Africa.	Purchased.
b. Ad. sk.	South Africa.	Gould Collection.
c. ♀ ad. sk.	Grahams Town (*T. C. Atmore*).	R. B. Sharpe, Esq.
d. ♂ ad. sk.	Elands Post (*T. C. Atmore*).	R. B. Sharpe, Esq.
e. Ad. sk.	King William's Town.	Capt. H. Trevelyan [P.].
f. ♂ ad. sk.	River Chalumna.	Capt. H. Trevelyan [P.].
g. ♂ ad. sk.	Pine Town, Natal, May 28 (*T. L. Ayres*).	R. B. Sharpe, Esq.
h. ♀ ad. sk.	Natal (*T. Ayres*).	F. D. Godman and O. Salvin, Esqrs. [P.].
i. Ad. sk.	Natal.	R. B. Sharpe, Esq.
k. ♂ ad. sk.	Tati, Matabele Land, Oct. 3, 1874 (*F. Oates*).	C. G. and W. Oates, Esqrs. [P.].
l, *m*. ♂ ♀ ad. sk.	River Ramaqueban, Sept. 4, 1873 (*F. Oates*).	C. G. and W. Oates, Esqrs. [P.].
n. Ad. sk.	Tete, Zambesi (*Sir J. Kirk*).	Livingstone Expedition [C.].
o. ♂ ad. sk.	Elephant Vley, Damara Land (*Andersson*).	R. B. Sharpe, Esq.
p. ♂ ad. sk.	Otjimbinque, Sept. 29, 1866 (*Andersson*).	R. B. Sharpe, Esq.

3. Parus funereus.

Melanoparus funereus, *Verr. J. f. O.* 1855, p. 104.
Parus funereus, *Hartl. Orn. W.-Afr.* p. 70 (1857); *Gray, Hand-l. B.* i. p. 234, no. 3356.

Adult (type of species). General colour of upper and under parts slaty black, inclining to dark grey on the flanks, abdomen, and under tail-coverts; head with a slight greenish tinge; quills and most of the wing-coverts narrowly edged with greyish; inner web of quills pale; "bill black; feet dark lead-colour" (*Hartl.*).

e. ♂ pull. sk.	Gilgit, June.	Major Biddulph [C.].
f. [♂] ad.; *g*. Imm. sk.	Cashmere.	Gould Collection.
h–k. Ad. sk.	Peshawur.	Colonel Way [P.].
l, *m*. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
n, *o*. ♂ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
p. [♂] imm. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
q. Juv. sk.	Mussoorie.	Capt. Stackhouse Pinwill [P.].
r. Ad. sk.	Simla.	Capt. G. F L. Marshall [C.].
s. Ad. sk.	Kumaon (*Strachey*).	India Museum.
t, *u*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
v, *w*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of *P. nipalensis*.)
x, *y*. ♂ ♀ ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
z. Ad. sk.	Kandeish.	India Museum.
a'. Ad. sk.	Godavery valley.	W. T. Blanford, Esq. [C.].
b'. Ad. sk.	Madras.	Dr. Jerdon [P.].
c', *d'*. Ad. sk.	Madras.	Rev. H. H. Baber [P.].
e'. ♂ ad. sk.	Travancore.	Major Biddulph [C.].
f'. Ad. sk.	Ceylon (*Thwaites*).	Purchased.
g'. Ad. sk.	Ceylon.	Major V. Legge [P.].
h', *i'*. Ad. sk.	Bootan (*Pemberton*).	India Museum.
k'. Ad. sk.	Nazeerah, Upper Assam (*Dr. Reid*).	R. B. Sharpe, Esq. [P.].
l'. Ad. sk.	Assam (*McClelland*).	India Museum.
m'. Ad. sk.	Bhamo, Burmah, November.	E. W. Oates, Esq. [C.].
n'. ♂ ad. sk.	Foot of Arrakan hills, Dec. 9.	E. W. Oates, Esq. [C.].
o'. Ad. sk.	Fokien, China.	Gould Collection.
p'. Ad. sk.	E. Java.	A. R. Wallace, Esq. [C.].
q', *r'*. Ad. sk.	W. Java (*E. C. Buxton*).	F. Nicholson, Esq. [P.].
s'. Ad. sk.	Java.	Gould Collection.
t', *u'*. ♂ ♀ ad. sk.	Lombock.	A. R. Wallace, Esq. [C.].
v', *w'*. ♂ ♀ ad. sk.	Lombock (*Wallace*).	Gould Collection.
x'. ♂ ad. sk.	Flores.	A. R. Wallace, Esq. [C.].
y'. ♀ juv. sk.	Flores.	A. R. Wallace, Esq. [C.].
z', *a''*. Ad. st.	N.W. India.	Capt. Boys [C.].
b'', *c''*. Ad. sk.	Himalayas.	India Museum.
d''. Skeleton.	Java.	Purchased.

a. P. beccharensis.

a. ♂ ad. sk.	Aral lake.	Purchased.
b. ♂ ad. sk.	Ferghanah, Turkestan, Dec. 2.	Dr. Severtzoff.
c. ♂ ad. sk.	Kojuk, Afghanistan, April 27, 1881.	Col. Swinhoe [P.].
d. ♀ ad. sk.	Kandahar, Jan. 9, 1881.	Col. Swinhoe [P.].

The sexes are alike in plumage. Total length about 5·5 inches, culmen 0·5, wing 3·4, tail 2·2, tarsus 0·7.

Hab. Gaboon.

a. Ad. sk.	Gaboon.	Purchased. (Type of the species.)

4. Parus albiventer.

Parus albiventris, *Shelley, Ibis*, 1881, p. 116; *id. P. Z. S.* 1881, p. 578.

General plumage black; median wing-coverts white; greater wing-coverts and the quills edged with white on their outer webs; the white edges of the inner primaries and outer secondaries shaded with ashy olive; primary-coverts with almost obsolete pale edges; the outer tail-feathers with the greater portion of the exterior web and the ends of the feathers white, the next pair having the end half of the outer webs very narrowly edged with white; centre of the chest, abdomen, thighs, and under tail-coverts white; under wing-coverts white; inner margins of the quills cream-colour; bill black; legs slate-colour. Total length 7·75 inches, culmen 0·4, wing 3·3, tail 2·75, tarsus 4·8.

Hab. Ugogo, Central East Africa.

5. Parus leuconotus.

Parus leuconotus, *Guérin, Rev. et Mag. Zool.* 1843, p. 162; *Heugl. Orn. N.O.-Afr.* i. p. 408, iv. p. cix; *Gal. & Ferret, Voy. en Abyss.* iii. p. 222, t. 9. fig. 1; *Blanf. Geol. & Zool. Abyss.* p. 356.
Parus dorsatus, *Rüpp. Syst. Uebers.* p. 42, pl. 18 (1845); *Heugl. System. Uebers.* no. 253.
Melaniparus leuconotus, *Bp. Consp.* i. p. 228 (1850).
Pentheres leuconotus, *Cab. Mus. Hein.* i. p. 92 (1850).

Adult male. Glossy blue-black, with the exception of the mantle, which is dingy or creamy white; outer pair of tail-feathers with a narrow white edge; the outer web of the terminal half of the primary-quills in some specimens slightly edged with whitish; inner margin of quills whitish; edge of wing and under wing-coverts jet-black, the greater series greyish with dark tips; bill black; feet lead-colour; iris fuscous. Total length under 5 inches, culmen 0·5, wing 3–3·2, tail 2·4–2·55, tarsus 0·8.

The *females* and *immature* birds are mostly dull black; the mantle white, with a vinous-brown tinge.

Hab. Highlands of Abyssinia.

a. Ad. sk.	Abyssinia.	Purchased.
b. Ad. sk.	Agula, Tigré, 7000 feet, May 16, 1868.	W. T. Blanford, Esq. [C.].

6. Parus cyanus.

Parus cyanus, *Pallas, N. Comm. Acad. Sci. Imp. Petrop.* xiv. p. 588, tab. 13. fig. 1 (1770); *Lath. Gen. Syn.* ii. p. 538 (1781–85); *Retzius, Faun. Suec.* p. 267; *Temm. Man. d'Orn.* p. 295 (1820); *Vieill. Gal. Ois.* i. p. 87, pl. 68; *Naum. Vög. Deutschl.* iv. pl. 95. fig. 3; *Pallas,*

Zoogr. Ross.-As. i. p. 552; *Brehm, Handb. Vög. Deutschl.* p. 463; *Less. Man. d'Orn.* i. p. 318; *id. Traité d'Orn.* p. 456; *Werner, Atlas* (Granivores), pl. 15; *Nilss. Skandin. Faun.* i. p. 342; *Gould, B. Eur.* iii. pl. 153; *Schinz, Eur. Fauna*, p. 218; *Sundev. Svensk. Fogl.* pl. 68. fig. 5; *Wright, Finlands Foglar*, i. p. 183; *Fritsch, Vög. Eur.* pl. 27; *Holland. Wirbelth. Pommerns*, p. 60; *Hume and Henders. Lahore to Yark.* p. 167; *Dresser, B. Eur.* iii. p. 143, pl. 114; *Blanf. East. Persia*, p. 231; *Seebohm, Ibis*, 1880, p. 189.
Azure Titmouse, *Penn. Arct. Zool.* p. 426 (1785).
Azure Tit, *Lath. Gen. Syn. Suppl.* i. p. 189 (1787).
Parus saebyensis, *Sparrm. Mus. Carls.* tab. 25 (1786–88).
Parus knjaescik, *Gm. Syst. Nat.* i. p. 1013 (1788).
Cyanistes cyaneus, *Kaup, Nat. Syst.* p. 99 (1829).
Parus cyaneus, *Schleg. Rev. Crit.* p. xlvi (1844); *Bp. Consp.* p. 229; *Kjærböll. Danm. Fugle*, pl. xxiv.
Cyanistes elegans, *Brehm, Naumannia*, 1855, p. 285.
Cyanistes cyanus, *Taczan. J. f. O.* 1872, p. 442
Parus cyanus tianschanicus, *Severtz. J. f. O.* 1873, p. 347.

Adult male. General colour above white, with a greyish-blue tinge on the mantle; head all round white, with the exception of a black streak through the eye; occiput separated from the hind neck by a dark-blue irregular band, which gets broader behind the ear-coverts; upper wing-coverts blackish, strongly washed with blue; the greater wing-coverts and scapulars blackish at base, the terminal half white, forming a broad alar band of that colour; primary-quills blackish, the basal half of the external web blue, the rest whitish; secondaries externally blue, with large white tips which become larger and larger towards the innermost secondaries; central tail-feathers dark blue, with irregular white tips; the outer tail-feathers are almost entirely white, with a greyish spot only at their basal quarter; the other tail-feathers are bluish grey at their inner web, blue at their outer web, and largely tipped with white; upper tail-coverts grey and blue, with whitish tips; all the underparts are white, with the exception of a dark greyish-blue spot in the middle of the breast; under surface of quills pale grey, with whitish edgings to the inner web; bill blackish. Total length 5·6 inches, culmen 0·4, wing 2·6–2·8, tail 2·5, tarsus 0·7.

Hab. Northern Palæarctic Region.

a, *b*. Ad. st.	Europe.	Purchased.
c. Ad. sk.	Siberia.	Purchased.
d. Ad. sk.	Omsk.	Dr. Finsch [C.].
e. Ad. sk.	Omsk.	Dr. Finsch [C.].

7. Parus flavipectus.

Parus flavipectus, *Severtz. Turk. Jevotnie*, p. 133 (1873); *id. J. f. O.* 1873, pp. 346, 371; *id. Str. F.* 1875, p. 423; *Dresser, Ibis*, 1876, p. 92.
Cyanistes flavipectus, *Severtz. Turk. Jevotnie*, pl. viii. fig. 7 (♀).

Adult male. Upper parts of head white, with a slight bluish hue on the occiput; greater wing-coverts, secondaries, and about the terminal half of most of the tail-feathers pure white; lower part of

fore neck and chest rich sulphur-yellow; throat pure white. In all other points of coloration and in the form of the tail this species resembles *P. cyanus*, whilst *P. pleskii* is nearer allied to *P. cæruleus*.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂	0·38	2·65	2·55	0·68
♀	0·40	2·65	2·30	0·70

a. ♂ ad. sk. Ferghana, Turkestan, 26th October. Dr. Severtzow [C.].

8. Parus pleskii.

Parus pleskii, *Cab. J. f. O.* 1877, p. 213, pl. 3. fig. 1; 1878, p. 109.

Adult male. Nearest allied to *P. cyanus* and *P. cæruleus*, but differing from the former in the four following points:—Greater part of crown strongly washed with pale blue; throat and chin blackish, the single feathers slightly tipped with white; part of fore neck and upper part of breast washed with lemon-yellow; the white on the tail confined to the outer web of the outermost pair, and very narrow edgings and tips to the next pair; "bill horny colour; legs grey; iris dark brown" (*Pleske*). Total length 4·5 inches, culmen 0·4, wing 2·6, tail 2·25, tarsus 0·65.

The *female* has the chest only very slightly tinged with yellow.

Hab. Western Siberia and Northern Russia.

a. ♀ ad. sk. Moscow, 12th Oct. Purchased.

9. Parus cæruleus.

Blue Titmouse, *Penn. Arctic Zool.* p. 427 (1785).

Parus cæruleus, *Linn. S. N.* i. p. 341 (1766); *Lath. Gen. Syn.* ii. p. 543; *Beseke, Vög. Kurlands*, no. 193; *Retzius, Faun. Suec.* p. 269; *Koch, System. baier. Zool.* p. 205; *Temm. Man. d'Orn.* p. 290; *Roux, Orn. Prov.* p. 190; *Less. Traité d'Orn.* p. 456; *Pall. Zoogr. Ross.-As.* i. p. 554; *Naum. Vög. Deutschl.* iv. pl. 95; *Nilsson, Skandin. Faun.* i. p. 341 (1835), i. p. 408 (1858); *Schinz, Europ. Faun.* p. 217; *Gould, B. Eur.* ii. pl. 154; *Moquin-Tandon, Orn. Canar.* p. 18; *Yarrell, Brit. B.* i. p. 330; *Selys-Longch. Orn. Belge*, p. 104; *Blyth, Cat. B. M. A. S. B.* p. 104; *Bp. C. A.* p. 229; *Naceyro, Cat. Av. Galizia, Mem. R. Acad. Madrid*, p. 106 (1850); *Kjærbölling, Danmarks Fugle*, pl. xxviii.; *Horsf. & Moore, Cat. B. M. E.I. Comp.* p. 372; *Schlegel, Vog. Nederl.* pl. 126; *Sundev. Svensk. Fogl.* pl. xvi. fig. 1; *Wright, Finl. Foglar*, i. p. 181; *Fritsch, Vög. Eur.* pl. 17. fig. 20; *D'Orbigny, Ois. d'Eur.* pl. xxviii.; *Gould, B. Gr. Brit.* vol. ii. pl. 24; *Keulemans, Onze Vogels*, pl. 14; *Holland. Wirbelth. Pommerns*, p. 60; *Salvad. Faun. Ital.* ii. p. 66; *Danford & Brown, Ibis*, 1875, p. 303; *Dresser, B. Eur.* iii. p. 131, pl. 113; *Moore, Brit. Birds*, ordo ii. no 55; *Yarrell, Brit. B. ed. Newton*, p. 483.

Cyanistes cæruleus, *Kaup, Natürl. Syst.* p. 99 (1829); *Cab. Mus. Hein.* i. p. 90.

Adult male in summer plumage. Mantle, back, and scapulars yellowish green; upper tail-coverts greyish blue; cheeks, ear-coverts,

and forehead white, which colour gradually passes into Prussian blue on the crown; from each side of the forehead a white streak, passing over the eye and meeting with its fellow on the occiput, thus isolating the blue cap from the dark blue band which surrounds the hinder part and the sides of the neck; this band then passes forwards under the cheeks and joins a triangular patch of blackish colour on the chin and upper throat; a narrow streak of blackish blue runs from the nostrils through the eye and over the ear-coverts, meeting the dark blue neck-band; smaller wing-coverts dark blue, the greater ones tipped with white; primary-quills blackish, external web pale blue, with whitish edgings to the terminal half; the inner secondaries with rather large white tips, the external web bluish, and edged with yellowish; tail blue, the outermost pair of feathers with a narrow white edge; quills below dark grey internally, with conspicuous whitish edgings; edge of wing blue; under wing-coverts white; breast, flanks, and under tail-coverts sulphur-yellow; the breast with a longitudinal irregular patch of dark blue; abdomen whitish; feet and claws bluish black; bill dark horn-colour. Total length about 4·5 inches, culmen 0·4, wing 2·5–2·7, tail 2·3, tarsus 0·65.

The sexes are alike in plumage.

In *winter the plumage* is more fluffy, the blackish feathers of the throat are edged with whitish, and the white edging to the outer web of the outermost pair of tail-feathers is remarkably broader.

Nestling. General colour above dingy olive-green; crown of head and neck-band dull blackish, with an olive tinge; all the parts which are white in the adult bird are yellow in the nestling, like the whole underparts of the body; secondary quills and greater wing-coverts with whitish-yellow tips, and, like the tail, with only a slight trace of bluish.

Obs. The Blue Titmice of the British Islands are always somewhat more dingy coloured than the continental, which, again, attain their richest coloration in Spain.

Hab. Found all over Europe and Asia Minor, with the exception of Russia.

a. Pull. sk.	England.	J. Gould, Esq. [C.].
b. Pull. sk.	England.	Purchased.
c. Ad. st.	Surbiton.	Dr. Günther [P.].
d. Ad. st.	England.	Purchased.
e. Ad. st.	Leicestershire.	Th. Walker, Esq. [P.].
f, *g*. Ad. st.	Cambridgeshire.	Mr. J. Baker.
h, *i*. Pull. st.	Cambridgeshire.	Mr. J. Baker.
k, *l*. ♂ ♀ ad. sk.	Cambridgeshire, Jan. 1866 (*O. S.*).	F. Godman & O. Salvin, Esqrs. [P.].
m. ♂ ad. sk.	Cambridgeshire, Jan. 1857 (*J. Baker*).	F. Godman & O. Salvin, Esqrs. [P.].
n. ♂ ad. sk.	Haddenham, Cambridgeshire, May 21, 1856 (*O. S.*).	F. Godman & O. Salvin, Esqrs. [P.].
o, *p*. Ad. sk.	Avington, Hampshire, Nov. 25, 1872.	Capt. Shelley [P.].
q, *r*. Ad. st.	Devonshire.	Col. Montagu [P.].

s. ♂ ad. sk.	Borregaard, Norway, March 20, 1859 (*P. Godman*).	F. Godman & O. Salvin, Esqrs. [P.].
t. Ad. sk.	Belgium, May 1876.	Purchased.
u. Pull. sk.	Belgium, May 15, 1872.	Purchased.
v Ad. st.	Leiden.	R. B. Sharpe, Esq.
w. Ad. st.	Leiden.	R. B. Sharpe, Esq. [P.].
x. Ad. st.	Holland.	M. Kuhl, Esq. [P.].
y, *z*, *a'*. Ad. st.	Mongeron, near Paris.	R. B. Sharpe, Esq. [P.].
b', *c'*, *d'*, *e'*. Ad. sk.	Mongeron, near Paris, Feb. 11, 1875.	R. B. Sharpe, Esq. [P.].
f'. Ad. sk.	Bordeaux.	Gould Collection.
g'. ♀ ad. sk.	Asia Minor, Feb. 16, 1865 (*Robson*).	Gould Collection.
h'. ♂ ad. sk.	Asia Minor.	Purchased.
i', *k'*, *l'*. ♂ ♀ ad. sk.	Ortakeuy, Turkey, Nov. 5, 1871 (*Robson*).	R. B. Sharpe, Esq. [P.].
m'. [♂] ad. sk.	Ortakeuy, Nov. 4, 1871 (*Robson*).	R. B. Sharpe, Esq. [P.].
n', *o'*. Ad., in spirit.	Prussia.	Dr. H. Gadow.
p'–*t'*. Skulls.	S. Germany.	Dr. Günther.

Subspecies *a*. **Parus persicus.**

Parus (Cyanistes) persicus, *Blanf. Ibis*, 1873, p. 89; *id. East. Persia*, p. 230, pl. xvi. fig. 2 (1876).

The differences between this Persian species and the common Blue Titmouse are only differences of degree. The general colour of the Persian specimens is duller; the mantle, hind neck, and upper back are grey, with a slight tinge of olive, which colour becomes more pronounced on the lower back; the greater wing-coverts are tipped with white, the tips themselves are broader than is generally the case in *P. cæruleus*; breast, abdomen, and under tail-coverts are yellowish buff, instead of the strong greenish-yellow colour of these parts in the common Blue Titmouse; the dusky black feathers on the lower breast are the same in both species, but the blue of the crown and of the hind neck is rather dull in the Persian form. The measurements, as given by Mr. Blanford, are:—culmen 0·29–0·32 inch, wing 2·4–2·65, tail 1·98–2·02, tarsus 0·62–0·68.

Hab. Southern Persia.

a. ♂ ad. sk.	Oak-forest, near Shiraz.	Sir Oliver St. John [P.].

10. **Parus teneriffæ.**

Parus cæruleus, var. teneriffæ, *Less. Traité d'Orn.* i. p. 456 (1831).
Parus ultramarinus, *Bp. Rev. Zool.* 1841, p. 146.
Parus cæruleanus, *Math. Rev. Zool.* 1842, p. 76; *Gray, Gen. B.* pl. 52; *Levaill. jun., Expl. Scient. Alg., Atlas, Ois.* pl. 7. fig. 2.
Cyanistes ultramarinus, *Bp. C. A.* i. p. 229 (1850); *Cab. Mus. Hein.* i. p. 90; *Loche, Cat. Mamm. et Ois. Alg.* p. 77; *Loche, Expl. Alg.* p. 300, pl. 7. fig. 1.
Parus violaceus, *Bolle, J. f. O.* 1854, p. 455.
Parus teneriffæ, *Dresser, B. Eur.* iii. p. 139.

A. *Continental or Eastern Race* (P. ultramarinus). — *Adult.* Mantle, back, and scapulars greyish blue; crown of head deep blue, shading almost into black towards the occiput: the collar round the neck is perfectly black on the fore neck and on the sides of the neck, blue-black on the hind neck; in all the other parts this species resembles the European *P. cæruleus* closely, but is generally of a darker and richer coloration. Culmen 0·35–0·4, wing 2·25–2·40, tail 1·8–2, tarsus 0·65.

B. *Insular or Western Race* (P. teneriffæ).—Specimens from the Canary Islands have the secondaries and greater wing-coverts without white on the tips, or at least this colour is reduced to a small whitish edging.

Hab. Represents *P. cæruleus* in Northern and N.W. Africa, including the Canary Islands.

a. Ad. sk.	Tangiers.	Purchased.
b, c. Ad. sk.	Tangiers.	Col. Irby [P.].
d, e. Ad. sk.	Algeria.	Purchased.
f. Ad. sk.	Algeria.	Gould Collection.
g, h. ♂ ad. sk.	Souk Harras, Algeria, April 1857 (*O. S.*).	F. D. Godman & O. Salvin, Esqrs. [P.].
i. Ad. sk.	Tunis.	L. Fraser, Esq. [C.].
k. ♀ ad. sk.	Teneriffe (*F. G.*).	F. D. Godman & O. Salvin, Esqrs. [P.].
l, m, n. ♂ ad. sk.	Teneriffe (*F. G.*).	F. D. Godman & O. Salvin, Esqrs. [P.].

11. Parus minor.

Parus minor, *Temm. & Schleg. Faun. Jap., Aves*, p. 70, pl. 33 (1850); *Bp. Consp.* i. p. 229; *Gould, B. Asia*, pt. x.; *Swinh. Ibis*, 1860, pp. 55, 131; *id. P. Z. S.* 1871, p. 437; *Dybowsky, J. f. O.* 1875, p. 249; *Taczan. Bull. Soc. Zool. France*, i. p. 162 (1876); *Pjevalsky, in Dawson Rowley's Orn. Misc.* 1877, p. 187; *David & Oustal. Ois. Chine*, p. 278; *Seebohm, Ibis*, 1879, p. 33.

In the eastern part of the Palæarctic Region, in Japan and China, *P. major* is represented by a smaller and closely allied species. The general distribution of colour is the same as in the European species; but the Japanese and Chinese species has the sides of the breast and the flanks white instead of sulphur-yellow, with a faint greyish creamy hue; on the occiput there is constantly found a little white patch between the black of the crown and the yellow hind neck.

The *female* is a little less bright in colour than the male.

Immature birds are much like those of *P. major*, but have the underparts dingy white with a slight creamy tinge.

Total length about 5 inches, culmen 0·47–0·5, wing 2·55–2·7, tail 2·3–2·45, tarsus 0·75.

Hab. Japan, Eastern Siberia, Manchuria, and the greater part of China, where it gradually changes into *P. cinereus*.

a. Ad. sk.	Hakodadi, Oct. 21, 1864 (*H. Whitely*).	Gould Collection.
b. ♂ ad. sk.	Yokohama, Feb. 20, 1870 (*Capt. Conrad*).	R. B. Sharpe, Esq. [P.].
c. ♂ ad. sk.	Hakodadi, Jan. 28, 1865.	Henry Whitely [C.].
d. ♂ ad. sk.	Hakodadi, Feb. 12, 1865.	Henry Whitely [C.].
e. Ad. sk.	Japan.	Purchased.
f, *g*. Ad. sk.	China.	Gould Collection.
h. Ad. sk.	China.	Purchased.
i. ♂ ad. sk.	Chekiang, May.	Purchased.
k. Ad. sk.	Sanda valley, May 19, 1868, 1700 feet elevation.	Dr. Anderson [C.].

12. Parus cinereus.

La Mésange à poitrine noire, *Levaill. Ois. d'Afr.* iii. pl. 139. fig. 2 (1802).

La Mésange grise à joue blanche, *Levaill. Ois. d'Afr.* iii. pl. 139. fig. 1.

Parus atriceps, *Horsf. Tr. Linn. Soc.* xiii. p. 160 (1820); *Horsf. Zool. Research. Java*, pl. (1824); *Temm. Pl. Col.* 207. fig. 2; *Lesson, Traité d'Orn.* p. 456; *Sykes, P. Z. S.* 1832, p. 92; *McClelland, P. Z. S.* 1839, p. 162; *Jerdon, Madr. Journ.* 1840, p. 7; *Gray, Gen. B.* i. p. 192; *Blyth, Journ. As. Soc. Beng.* xiii. p. 943; *Walden, Ibis*, 1877, p. 304; *Nicholson, Ibis*, 1879, p. 167; *Legge, Birds of Ceylon*, p. 557.

Parus cinereus, *Bonn. et Vieill. Tabl. Cont. Méth.* p. 506 (1823), *ex Levaill.*; *Blyth, J. A. S. Beng.* xvi. p. 460; *id. Cat. B. M. A. S. Beng.* p. 103; *Bp. Consp. Av.* p. 229; *Cab. Mus. Hein.* i. p. 92; *Blyth, in Jard. Contr. Orn.* p. 48; *Kelaart, Prodr. Cat.* p. 121; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* p. 370; *Layard, Ann. & Mag. N. H.* 1853, xii. p. 267; *Gould, B. Asia*, pt. x. pl.; *Jerdon, B. Ind.* ii. p. 278; *Layard, B. S. Afr.* p. 112; *Gray, Hand-l. B.* i. p. 231, no. 3335; *Walden, Ibis*, 1869, p. 315; *Holdsw. P. Z. S.* 1872, p. 460; *Hume & Henders. Lahore to Yarkand*, p. 167; *Cock & Marshall, Str. F.* 1873, p. 384; *Ball, Str. F.* 1874, p. 417; *David & Oustal. Ois. Chine*, p. 279; *Wardlaw Ramsay, Ibis*, 1880, p. 62.

Parus nipalensis, *Hodgs. Ind. Rev.* p. 31 (1838); *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 72; *Blyth, J. A. S. Beng.* xi. p. 459, & xii. p. 182; *Blyth & Walden, B. Burm.* p. 112; *Scully, Str. F.* 1879, pp. 329, 367; *Blanford, J. A. S. Beng.* 1869, ii. p. 181; *Biddulph, Ibis*, 1881, p. 73; *Scully, op. cit.* p. 568.

Parus cæsius, *Tick. J. A. S. B.* (*fide auctt.*); *Swinhoe, P. Z. S.* 1871, p. 361; *Hume, Nests & Eggs Ind. B.* ii. p. 405; *Brooks, Str. F.* 1875, p. 253; *Butler, ibid.* 1875, p. 491; *Hume, ibid.* 1876, p. 402, 1878, i. p. 376; *Butler, ibid.* 1877, p. 221; *Ball, ibid.* 1878, ii. p. 220; *Hume & Davison, ibid.* 1878, p. 376; *Davidson & Wenden, ibid.* 1879, p. 95.

Parus schistinotus, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844).

Parus commixtus, *Swinhoe, Ibis*, 1868, p. 63, & 1871, p. 361; *Blyth & Walden, B. Burm.* p. 111; *David & Oustal. Ois. Chine*, p. 280; *Hume, Str. F.* 1878, i. p. 376.

Parus commixus, *Gray, Hand-l. B.* i. p. 231, no. 3341.

North-western Race (P. boccharensis).

Parus boccharensis, *Licht., Eversm. Reise Zool.* p. 131; *Joubert, Bull. Sci. Hist. Nat.* ix. p. 77; *Severtz. J. f. O.* 1873, pp. 346, 385.

Adult. Entire mantle and back bluish grey instead of yellowish green. In all the other parts this species resembles *P. minor* perfectly. Total length about 5 inches, culmen 0·45, wing 2·5–2·6, tail 2·3, tarsus 0·7–0·75.

Young birds have the mantle and rest of the back dull grey, and the parts which are black in the adult dull black or brownish black; below dingy whitish.

Hab. The Grey Indian Titmouse has a very extensive range, being found all over India from the Himalayas to Ceylon, and the southern half of China, as well as in Hainan, Java, Lombock, Flores.

Obs. In the collection of the British Museum there is one specimen from the N.W. Himalayas (moulting), one from Behar, one from Ceylon, one from Fokien, another from Eastern Java, three from Lombock, which have the tips of some of the feathers of the mantle just visibly washed with yellowish green—an interesting indication of the close affinity between the Japanese species (*P. minor*) and *P. cinereus*. Some of the typical specimens labelled by Mr. Swinhoe's own hand as *P. commixtus*, now in Mr. Seebohm's collection, are really intermediate between the olive- and the grey-backed form; others, again, from the same localities (South-eastern China) are scarcely distinguishable from *P. cinereus*, and only on close examination is a faint olive tint visible on some parts of the mantle. As these seven slightly aberrant specimens in the British-Museum collection were obtained from the most varied localities of the Indo-Malayan and Chinese regions, it seems to me to prove that this modification of colour is not an indication of geographical race.

The occurrence of the olive tint on the mantle of *P. cinereus* may be nothing but the sign of an immature male, especially as the young birds of both species, *P. cinereus* and *P. minor*, have the mantle more or less dull olive-green. This, however, is a mere supposition, as of all the specimens examined by me, and more than thirty in number, only a few are sexed by the collectors themselves.

North-western Race (P. boccharensis).—In Turkestan and Afghanistan *P. cinereus* is represented by a somewhat larger and paler race. General colour above pale or French grey; greater wing-coverts and secondaries broadly edged with white; the two outer pairs of tail-feathers almost completely white; the white nuchal spot well developed; throat and centre of breast and abdomen black.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Aral Lake	0·46	2·75	2·9	0·70
♀. Kandahar	0·45	2·74	2·7	0·70
♂. Afghanistan	0·45	3·0	2·65	0·80
♂. Turkestan	0·46	2·70	2·80	0·67

a. Ad. sk.	Afghanistan (*Griffith*).	India Museum.
b. Ad. sk.	Khooner (*Griffith*).	India Museum.
c, d. ♂ ♀ ad. sk.	Gilgit, March 10, 1878, 5000 ft.	Major Biddulph [C.].

13. Parus major.

Great Titmouse, *Penn. Arctic Zool.* p. 425 (1785).
Parus major, *Linn. S. N.* i. p. 341 (1766); *Lath. Gen. Syn.* ii. p. 536; *Beseke, Vög. Kurlands*, no. 192; *Bechstein, Vög. Deutschl.* iv. p. 713; *Retzius, Faun. Suec.* p. 268; *Drümpelmann, Thierr. Russl., Lief., Esth- u. Kurlands*, p. 22, pl. iii. ♂ (1811); *Koch, System. baier. Zool.* p. 204; *Temm. Man. d'Orn.* p. 287; *Roux, Orn. Provenç.* p. 186, pls. 117 & 118; *Less. Traité*, p. 456; *Nilsson, Skandin. Faun.* p. 331; *Schinz, Europ. Faun.* p. 331; *Selys-Longch. Faune Belg.* p. 104; *Moquin-Tandon, Ornith. Canarienne*, p. 17; *Thompson, Nat. Hist. Ireland*, p. 201; *Naceyro, Cat. Av. de Galicia, in Mem. R. Acad. Madrid*, 1850, p. 105; *Bp. C. A.* i. p. 229; *Cab. Mus. Hein.* i. p. 90; *Kjærbölling, Danm. Fugle*, pl. xxiii.; *Sundev. Svensk. Fogl.* pl. xvi. fig. 3; *Wright, Finl. Foglar*, i. p. 174; *Loche, Expl. Algér., Ois.* i. p. 296; *Keulemans, Onze Vog.* pl. 12; *Holland. Wirbelth. Pommerns*, p. 61; *Salvad. Faun. Ital.* ii. p. 67; *Sundev. Av. Meth. Tent.* p. 17; *Dresser, B. Eur.* iii. pl. 106; *Newton, ed. Yarr. Br. B.* i. p. 479; *Malm, Fauna*, p. 180; *Danford & Brown, Ibis*, 1875, p. 313; *Blanf. East. Persia*, p. 227; *Booth, Rough Notes*, pt. ii. pl.
Parus ignotus, *Lath. Gen. Syn.* ii. p. 537 (1781–85); *Less. Man. d'Orn.* i. p. 322; *Blyth, Cat. B. Mus. As. Soc.* p. 103.
Parus stromei, *Bonn. et Vieill. Enc. Méth.* p. 504 (1823).
Parus fringillago, *Pall. Zoogr. Ross.-As.* i. p. 555 (1831).
Parus robustus, *Brehm, Vög. Deutschl.* p. 461 (1831).

Adult. Mantle, scapulars, and upper back yellowish green, shading off into pale yellow on the hind neck; lower back, upper tail-coverts, and the centre tail-feathers bluish grey; rest of the tail-feathers dusky, externally bluish grey, the two outer ones tipped with white, which extends up the outer web of the external feather; crown of head and sides of neck glossy blue-black; the middle part of the breast and the whole abdomen black; thighs and under tail-coverts black at base, the rest white; under wing-coverts white, with a little blackish patch near the edge of the wing; edge of wing itself black, with white edgings; all the rest of the underparts sulphur-yellow; wing-coverts greyish blue, the greater series with white tips; quills blackish, the primaries narrowly edged with bluish or whitish; the secondaries broadly edged with dirty yellow; feet bluish black or lead-colour; iris and bill dark brown or black. Total length about 5·5 inches, culmen 0·45–0·52, wing 2·75–3, tail 2·45–2·5, tarsus 0·73–0·8.

The *female* has the black parts less glossy and the longitudinal black stripe on the breast less developed than in the male.

Immature birds have the head above and the throat dull black; ear-coverts pale yellow or whitish; no black on the abdomen; wing-coverts grey with olive edgings; underparts pale dingy yellow.

Nestling. Head dark grey; underparts of the body, including the thighs and under tail-coverts, pale yellow; throat dark grey, extending down the central line to about the middle of the breast; tail dark grey, outer pair of feathers nearly entirely white.

Obs. Some of the specimens obtained by Mr. Blanford in Southern Persia have the margins of the webs of *all* the quills bluish grey, and

the colour of the back and mantle is more grey than in the European birds; the yellow of the underparts is much paler.

In some old specimens of this species from various parts of Europe there are a few white feathers on the hind neck, just between the yellow of the latter and the black crown of the head, sometimes producing a small, though rather conspicuous white spot on the occiput.

Hab. Whole of the Western Palæarctic Region, from Ireland to Siberia, and from Norway to Algeria, Palestine, and Persia.

a, *b*. Pull. st.	England.	Mr. J. Baker.
c, *d*, *e*. ♂ ad. st.	Cambridgeshire.	Mr. J. Baker.
f, *g*. ♂ ♀ ad. sk.	Cambridgeshire, Jan. 1866 (*J. Baker*).	F. D. Godman and O. Salvin, Esqrs. [P.].
h–*p*. ♂ ♀ ad. st. & 6 pull. st.	Norfolk, June.	Lord Walsingham [P.].
q. ♂ ad. st.	Cookham, Berks.	Mr. W. Briggs [P.].
r. ♂ ad. sk.	Cookham, Aug. 29, 1870.	R. B. Sharpe, Esq. [P.].
s. ♂ ad. st.	Maidenhead, Berks.	Gould Collection.
t, *u*. ♀ ad. sk.	Surrey (*F. G.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
v, *w*. ♂ ad. sk.	Avington, Hants, Nov. 25, 1872.	E. Shelley, Esq. [P.].
x, *y*. ♂ ♀ ad. sk.	Avington, Nov. 1873.	R. B. Sharpe, Esq. [P.].
z. ♂ ad. sk.	Stockholm, Oct. 10, 1872.	W. Meves, Esq. [C.].
a'. ♂ juv. sk.	Stockholm, July 15, 1873.	W. Meves, Esq. [C.].
b'. Ad.; *c'*. Pull. sk.	Belgium.	Brussels Museum [P.].
d'. ♂ ad. sk.	Seville.	Howard Saunders, Esq. [P.].
e', *f'*. ♂ ad. sk.	Gibraltar.	Major Irby [P.].
g', *h'*. ♂ ♀ ad. sk.	Haskeuy, Turkey (*W. Pearce*).	R. B. Sharpe, Esq. [P.].
i'. ♀ ad. sk.	Sidon.	Rev. Canon Tristram [C.].
k'. ♂ ad. sk.	Gennesareth.	Rev. Canon Tristram [C.].
l'. [♂] ad. sk.	Erzeroom (*Dickson & Ross*).	Gould Collection.
m'. [♂] ad.; *n'*. Pull. sk.	Persia.	C. Darwin, Esq. [C.].
o', *p'*. ♂ ad. sk.	Shiraz, 4750 feet, June 1879.	Sir O. St. John [C.].
q'. ♀ ad. sk.	Shiraz lake, 4700 feet, June 8, 1872.	W. T. Blanford, Esq. [C.].
r'. ♂ ad. sk.	N.W. of Shiraz, 5000 feet, June 22, 1872.	W. T. Blanford, Esq. [C.].
s'. Ad. sk.	Algeria.	M. Verreaux.
t', *u'*. In spirit.	Prussia.	Dr. H. Gadow [P.].
v'. Skeleton.	England.	G. Ingall, Esq. [P.].
w'. Skeleton.	England.	Purchased.
x'. Skull.	England.	Purchased.
y'–*e''*. Skulls.	S. Germany.	Dr. Günther [C.].

14. Parus monticolus.

Parus monticolus, *Vigors, P. Z. S.* 1830, p. 22; *Gould, Cent. Him. B.* pl. 20. fig. 2; *Frankl. P. Z. S.* 1831, p. 119; *Hodgs. in Gray's Zool. Misc.* p. 83; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 72; *id.*

Gen. B. i. p. 192; *Blyth, Cat. B. Mus. As. Soc.* p. 103; *id. in Jard. Contr. Orn.* 1851, p. 49; *Horsf. & Moore, Cat. B. M. E.I. Co.* p. 369; *Gould, B. Asia*, pt. x.; *Jerd. B. Ind.* ii. p. 277 (1863); *Hume & Henders. Lahore to Yarkand*, p. 167; *Brooks, Str. F.* 1875, p. 253, & 1879, p. 487; *Scully, op. cit.* 1879, p. 323.

Parus monticola, *Bp. C. A.* i. p. 229 (1850); *David et Oust. Ois. Chine*, p. 280.

Parus insperatus, *Swinh. Ibis*, 1866, p. 308; *id. P. Z. S.* 1871, p. 361; *David & Oust. Ois. Chine*, p. 281.

Adult. General distribution of colour very similar to that of *P. major*, from which species *P. monticolus* differs as follows:—1st, the Himalayan birds are much smaller; 2nd, they are much brighter coloured; 3rd, the greater and median series of upper wing-coverts are black, edged and tipped with pure white; smaller series edged with bluish grey.

Head above, sides of neck, chin, throat, upper part of breast, centre of the breast, and the abdomen glossy blue-black; rest of the underparts beautiful sulphur-yellow, with a slight greenish tinge on the flanks; under tail-coverts, thighs, and some of the feathers of the lower abdomen black, with large white tips or edgings; part of the loral region, the ear-coverts, and a patch on the occiput pure white; hind neck yellow, shading off into the yellow-green mantle; lower back grey; upper tail-coverts and tail-feathers blackish, with a strong blue tinge; the tail-feathers with white tips, the outer pair with the tip and greater part of the outer web white, the rest black; quills black, externally edged with blue and white, the white tips to the secondaries rather large; upper wing-coverts black, the greater and median series with large white tips and edgings, the smaller ones with bluish-grey edgings all round; edge of wing and under wing-coverts black and white; bill blackish; feet and claws leaden grey; iris black.

The *female* resembles the male in colour and in size.

Immature and *young* birds are coloured like those of *P. major*.

Total length about 4·5 inches, culmen 0·5, wing 2·5–2·62, tail 2·2–2·4, tarsus 0·75.

Hab. Himalayas and mountain-regions of Assam and Southern China from 5000 feet upwards.

Obs. Specimens from Formosa are said to be a little smaller in size, and to have a little less white on the inner secondaries; the white, being restricted to the tips of these feathers, does not extend over the outer web. There are, however, several specimens from the continent of Asia which show every intermediate state between the typical *P. monticolus* and the supposed Formosan species (*P. insperatus*, Swinh.). Adult specimens from Formosa measure—wing 2·45 inches, tail 2·1, tarsus 0·7, culmen 0·45.

a. [♂] ad. sk.	Cashmere (*Dr. Bellew*).	India Museum.
b. Ad. sk.	Cashmere.	E. M. Langworthy, Esq. [P.].
c. ♂ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
d, e, f. Ad. et juv. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].

g. Ad. sk.	Simla, Sept.	Capt. C. H. T. Marshall [P.].
h. [♀] ad. sk.	Murree, August.	Colonel Way [P.].
i. Ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
k–p. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
q. Juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
r. Ad. sk.	Nepal (*Hodgson*).	India Museum.
s. Ad. sk.	Darjeeling (*Pearson*).	India Museum.
t, *u*. Ad. sk.	Bootan (*Pemberton*).	India Museum.
v. Ad. sk.	Fungshan, Formosa, Dec. 1865.	R. Swinhoe, Esq. [C.].

15. Parus amabilis.

Parus amabilis, *Sharpe*, *Trans. Linn. Soc. Zool.* new ser. i. p. 338, pl. 53. fig. 2 (1876); *Wardlaw Ramsay*, *Orn. Works. Tweedd.* p. 658 (1881).

Adult female (type of species). Head all round with the jugular region shining blue-black; hind neck and interscapulary region bright sulphur-yellow; remainder of the back beautiful ashy grey; upper tail-coverts blue-black; tail black, the centre tail-feathers tipped with white, the remainder also white along their outer web; wings blue-black, the wing-coverts broadly tipped with white, forming alar bars; quills tipped with white, the primaries externally washed with ashy grey, the innermost secondaries also white towards the tip of the inner web; rest of the under surface of the body bright yellow; under wing-coverts white, with a black spot near the margin of the lower coverts; bill black. Total length 4·5 inches, culmen 0·45, wing 2·85, tail 1·75, tarsus 0·75. (*Sharpe*, *l. c.*)

Young. Very different from the adult. It is brown above, with an olive-greenish tinge, the head and face browner. Below it is yellow, duller than in the adult, the throat olive; wings and tail browner than in the adult, with the same white spotting, but not so pronounced. (*Sharpe*, *l. c.*)

Hab. Island of Balabac, Philippines (*J. B. Steere*).

a. Juv. sk.	Balabac.	Prof. Steere [C.].

16. Parus elegans.

Parus elegans, *Lesson*, *Traité d'Orn.* p. 456 (1831); *Pucheran*, *Rev. et Mag. Zool.* 1854, p. 68; *Bp. C. R.* xxxviii. p. 63; *Blyth*, *Ibis*, 1867, p. 34 (note); *Walden*, *Tr. Z. S.* 1875, p. 199; *id. P. Z. S.* 1877, pp. 688, 696, 756, & 762, 1878, p. 286; *Wardlaw Ramsay*, *Orn. Works Tweedd.* p. 658 (1881).

Parus quadrivittatus, *Lafresn. Rev. Zool.* 1840, p. 129; *Bp. C. A.* i. p. 229.

Adult. Head above, hind neck, part of cheeks, chin, throat, and upper part of breast glossy black; ear-coverts, region below the eye, sides of neck, and an irregular spot on the centre of the hind neck, the breast, abdomen, under tail-coverts, and thighs lemon or bright yellow, the flanks washed with greenish; mantle with numerous

large spots of black, pale yellow, or white; lower back and rump olive-green, towards the rump more yellow; upper tail-coverts and tail-feathers deep black, all the tail-feathers with broad white tips; the three outer pairs besides these tips with large white subterminal spots to the outer web; lesser wing-coverts entirely black; the greater and median series and the quills deep black; the former and the secondary quills with very large white tips; the primary-quills and the primary wing-coverts with narrow tips and with narrow whitish-yellow edgings to the outer web; under wing-coverts white, edged with yellow and mottled with blackish; quills internally edged with white; bill black; feet bluish black.

Obs. Immature birds and females have the back more yellow and olive-grey, the white spots and the white wash getting more pronounced in old birds, sometimes giving the back a nearly white appearance.

Total length about 7·3 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Immature	0·44	2·45	1·55	0·7
Adult	0·48	2·65	1·85	0·75
Adult (Palawan).....	0·5	2·43.	1·52	0·68
Adult (Manila)	0·5	2·45	1·52	0·68

Hab. Philippine Islands; hitherto found in Luzon, Guimaras, and Palawan only.

a, *b*, *c*. Ad. st.	Philippine Islands.	Purchased.
d, *e*. Imm. or ♀ sk.	S. Luzon.	Hugh Cuming, Esq. [C.].
f. [♀] ad. sk.	Manila, Luzon.	Gould Collection.
g. Imm. sk.	Guimaras.	Prof. J. B. Steere [C.].
h. [♂] ad. sk.	Palawan.	Prof. J. B. Steere [C.].

17. Parus venustulus.

Parus venustulus, *Swinh. P. Z. S.* 1870, p. 133, 1871, p. 361; *Gould, B. As.* pt. xxiii.; *Dav. & Oust. Ois. Chine*, p. 281.

Adult (type of species). Intermediate in coloration between *P. monticolus* and *P. elegans*. Crown of head, cheeks, chin, throat, sides of neck, and sides of the mantle glossy blue-black; nape and centre of mantle with irregular large white spots; a stripe below the eye and ear-coverts white; lower back, rump, and scapulars bluish grey, the former washed with white, the scapulars broadly edged with black and washed with yellowish green; wing-coverts black, the greater and median series with large pale whitish-yellow tips; quills brownish black, narrowly edged with greenish olive, the innermost secondaries nearly black with white tips; quills below broadly edged with white; upper tail-coverts glossy black; tail black, deeper and richer on basal half, edged with greenish grey on apical portion, and tipped with yellowish; the fifth rectrix with white on inner edge, this colour increasing outwardly to the first

or outermost, which has the greater part of basal half of outer web white; underparts, with the exception of the throat, bright sulphur-yellow, no black along the centre of the breast; flanks a little greenish; under wing-coverts and edge of wing black at base, rest white with narrow yellow edgings; "bill indigo-black; iris blackish brown; feet and claws deep lead-colour" (*Swinhoe*). Total length, according to Swinhoe, about 4 inches, culmen 0·4, wing 2·4, tail 1·3, tarsus 0·64.

Hab. Central China, mountainous districts of Szechuen, in the valley of the Blue River between Kweifoo and Ichang

Obs. The only specimen I have been able to examine was collected by Mr. Swinhoe near Kweifoo, May 1869, and is now in Mr. Seebohm's possession. The bill, as Swinhoe remarks, "is typical, but large and thick for so small a species."

18. Parus xanthogenys.

Parus xanthogenys, *Vigors, P. Z. S.* 1831, p. 23; *Gould, Cent. Him. B.* pl. 29. fig. 1; *Sykes, P. Z. S.* 1832, p. 92; *Jerd. Madr. Journ.* xi. p. 7; *Hodgs. in Gray's Zool. Misc.* p. 83; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 72; *id. Gen. B.* i. p. 192; *Blyth, Cat. B. Mus. As. Soc.* p. 103; *Bp. C. A.* i. p. 228; *Blyth in Jard. Contr. Orn.* 1851, p. 50, pl. 1; *Hutton, J. A. S. Beng.* xvii. pt. ii. p. 960 (1848); *Horsf. & Moore, Cat. B. Mus. E.I. Comp.* p. 371 (1854); *Gould, B. Asia*, pt. ix. pl. 14.

Parus griffithii, *Blyth, J. A. S. Beng.* xvi. p. 444 (1847); *Hume, Str. F.* 1878, p. 405.

Machlolophus xanthogenys, *Cab. Mus. Hein.* i. p. 91 (1850); *Jerdon, B. Ind.* ii. p. 279; *Brooks, Ibis*, 1875, p. 253.

Adult. Mantle, back, and rump olive-green; scapulars black, with broad edgings of the same colour as the back; upper tail-coverts and edges of the outer web of some of the tail-feathers bluish grey; tail black with white tips, the outer pair of feathers with the whole outer web white; wing-coverts black, broadly tipped with white or pale yellow; quills black, the innermost secondaries largely tipped and edged with white, rest of the secondaries with smaller tips and externally edged with bluish grey; primaries externally edged with white; the basal third or quarter of both inner and outer web of the primaries is pure white, producing thus a conspicuous alar band; crown of head glossy black, with a long crest of feathers; a superciliary stripe, the occiput, lores, cheeks, and sides of the neck and breast bright yellow; the chin, throat, and a broad irregular line down the centre of the breast, occupying the whole of the abdomen, deep black; flanks and axillaries dull greenish yellow; under wing-coverts and under tail-coverts pale yellow; edge of wing yellow or white, and, like a spot on the under coverts, mottled with blackish; thigh-feathers whitish or yellow, blackish at base; bill black; feet plumbeous; iris light brown.

There is no difference between the sexes in colour.

Immature birds have the throat dingy greyish yellow, and the

black on the abdomen is not developed; flanks, sides of breast, and abdomen dull yellow.

In order to compare this species with the so-called *P. haplonotus*, I here give the measurements of a series of specimens:—

		Wing. in.	Tail. in.	Tarsus. in.
Adult.	Nepal	2·5	2·05	0·7
Adult.	Nepal	2·7	2·15	0·75
Adult.	N.W. Himalayas	2·65	2·0	0·7
Adult		2·7	2·1	0·67
Adult		2·76	2·15	0·76
Adult ♂.	N.W. Himalayas	2·95	2·25	0·75

Total length about 5·5 inches, culmen 0·46–0·52.

Hab. N.W. Himalayas to Nepal.

a, *b*. ♂ ♀ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
c. [♂] ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
d. ♂ ad. sk.	Simla, July 1866 (*Beavan*).	Gould Collection.
e. ♀ ad. sk.	Murree, August 1878.	Colonel Way [P.].
f. [♂] ad. sk.	Mussoorie.	E. W. Oates, Esq.
g. ♂ ad.; *h*. Juv. sk.	Behar.	B. H. Hodgson, Esq. [P.].
i. Ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
k. ♂ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
l, *m*. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
n, *o*. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
p. Juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
q, *r*, *s*. Ad. sk.	India.	Purchased.
t. Skeleton.	India.	Purchased.

Subspecies α. Parus haplonotus.

Parus xanthogenys, *Jerd.* (*nec Vig.*) *Madr. Journ.* xi. p. 7; *Blyth, J. A. S. Beng.* xi. p. 59.

Parus aplonotus, *Blyth, J. A. S. Beng.* xvi. p. 44.

Parus jerdoni, *Blyth, J. A. S. Beng.* xxv. p. 445; *Gould, B. Asia*, pt. ix.

Machlolophus jerdoni, *Jerdon, B. Ind.* ii. p. 280 (1863); *Ball, Str. F.* 1874, p. 417; *Butler, Str. F.* 1875, p. 492; *Hume, Str. F.* 1876, p. 260; *Fairbank, Str. F.* 1877, p. 407.

Machlolophus aplonotus, *Hume, Str. F.* 1878, vol. ii. p. 405, 1879, p. 105.

P. xanthogenys is replaced, southwards of its range, by a larger and less brightly coloured race. The general colour above is olive-grey, darker than it is as a rule in *P. xanthogenys*; the tips of the greater and median wing-coverts are pure white, never yellow (yellowish in immature birds); the yellow of the head and on the sides of the neck and breast is pale; the flanks and part of the abdomen are greenish yellow, sometimes with a strong tinge of grey. Jerdon mentions, as another difference, that in *P. jerdoni* the yellow superciliary stripe is not continued forward over the eye;

this, however, is not always the case, as in some specimens from Ootacamund and Travancore this stripe, although less bright than in *P. xanthogenys*, extends as far as the nostrils. Total length from 5·75–6 inches, culmen 0·5–0·55.

		Wing. in.	Tail. in.	Tarsus. in.
Adult ♂.	Ootacamund	3·15	2·5	0·8
Adult ♂.	Travancore	3·0	2·3	0·78
Adult ♀.	Travancore	2·8	2·2	0·78
Adult		2·9	2·25	0·78

Hab. Southern and Central India.

a. [♂] ad.; *b*. Juv. sk.	S. India.	Purchased.
c. Juv. sk.	Madras.	T. C. Jerdon, Esq. [P.].
d. [♂] ad. sk.	Western Ghats.	Gould Collection.
e. [♂] ad. sk.	Saugor (*W. T. Hooper*).	India Museum.
f, *g*. ♂ ♀ ad. sk.	Mynall, Travancore, Nov. 12, 1878.	F. W. Bourdillon, Esq. [C.].
h. [♂] ad sk.	Ootacamund, April 26, 1867.	Gould Collection.
i, *k*. ♂ ad. sk.	Coonoor, Nilghiries, Nov. 10, 1881.	W. Davison, Esq. [P.].

19. Parus spilonotus.

Parus xanthogenys, *Blyth, J. A. S. Beng.* xvi. p. 445 (*nec Vigors*); *Bp. C. A.* i. p. 228.
Parus spilinotus, *Blyth, Cat. B. Mus. As. Soc.* p. 103; *id. in Jard. Contr. Orn.* p. 49, fig. 2; *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 371.
Machlolophus spilonotus, *Cab. Mus. Hein.* i. p. 91 (1850); *Gould, B. Asia*, pt. ix. pl. 15; *Blyth & Walden, B. Burm.* p. 112; *Hume & Davison, Str. F.* 1878, p. 377.
Parus subviridis, *Tickell, J. A. S. Beng.* xxiv. p. 267, xxviii. p. 413.
Machlolophus spilinotus, *Jerdon, B. Ind.* ii. p. 281 (1863).
Machlolophus subviridis, *Blyth & Walden, B. Burm.* p. 112 (1875).

Intermediate in size between *P. xanthogenys* and *P. jerdoni*, but much brighter coloured than the former. Mantle with broad black longitudinal spots, the yellowish-green colour being restricted to the centre and to the tips of the feathers; lower back olive-green or olive-grey; crest very long, some of the feathers broadly tipped with bright yellow; the occiput, part of the hind neck, the lores, the region in front of and all round the eye, a broad superciliary stripe, cheeks, ear-coverts, and sides of neck bright yellow; bill black; feet plumbeous; iris light brown. Total length (adult male from Nepal) about 5·5 inches, culmen 0·55, wing 2·8, tail 2·15, tarsus 0·72.

Hab. Eastern Nepal, Bootan, and Assam, extending into Tenasserim.

a. Ad. st.	Nepal.	J. Gould, Esq. [P.].
b. [♂] ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
c. Imm. sk.	Nepal.	Gould Collection.
d. [♂] ad sk.	Nepal.	Gould Collection.
e, *f*, *g*. [♂] ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
h. Ad. sk.	Tenasserim (*Tickell*).	Gould Collection.

20. Parus cristatus.

Parus cristatus, *Linn. Faun. Suec.* p. 97 (1761); *Beseke, Vög. Kurlands*, no. 191; *Bechst. Vög. Deutschl.* iv. p. 738; *Retzius, Faun. Suec.* p. 268; *Koch, Syst. baier. Zool.* p. 207; *Temm. Man. d'Orn.* p. 290; *Roux, Orn. Provenç.* p. 192, pl. 121; *Pall. Zoogr. Ross.-As.* i. p. 555; *Nilsson, Skandin. Faun.* i. p. 336 (1835), i. p. 413 (1858); *Degland & Gerbe, Orn. Eur.* i. p. 563; *Schinz, Europ. Faun.* p. 218; *Selys-Longch. Faune Belge*, p. 105; *Bp. Consp.* i. p. 228; *Naceyro, Cat. Av. Galic., Mem. R. Acad. Madrid*, 1850, p. 106; *Sundev. Svensk. Fogl.* pl. 16. fig. 2; *Wright, Finl. Fogl.* i. p. 177; *Keulemans, Onze Vog.* pl. 13; *Holland. Wirbelth. Pommerns*, p. 60; *Sundev. Av. Meth. Tent.* p. 17; *Newton, ed. Yarr. Br. B.* p. 499; *Danford & Brown, Ibis*, 1875, p. 304; *Booth, Rough Notes*, pt. ii. pl.

Crested Titmouse, *Lath. Gen. Syn.* ii. pt. ii. p. 545; *Penn. Arctic Zool.* p. 427.

Lophophanes cristatus, *Kaup, Natürl. Syst.* p. 92 (1829); *Cab. Mus. Hein.* i. p. 90; *Salvad. Faun. Ital.* ii. p. 70; *Dress. B. Eur.* iii. pl. 115; *Malm, Fauna*, p. 182; *Giglioli, Ibis*, 1881, p. 195.

Parus mitratus, *Brehm, Vög. Deutschl.* p. 467 (1831).

General colour above greyish olive-brown, with a slight rufous or ochraceous tinge on the rump; wing-coverts, quills, and tail greyish brown; quills internally edged with whitish; crown of head of a mottled black and white appearance, all the feathers of the head being black at their bases and more or less broadly edged and tipped with white, the result of this being that on the occiput the black is the more prevailing colour; the occipital feathers are much elongated and form a rather high crest; nasal region, ear-coverts, and greater part of the sides of the neck white, these white parts being crossed by several black lines; a narrow black streak running from the loral region through and behind the eye, then forming an angle on the hinder margin of the ear-coverts; chin, throat, and fore neck sooty black, this colour extending as a narrow band round the neck behind the white parts, and meeting on the nape with that of the other side; breast, centre of belly, axillaries, and under tail-coverts dull white; flanks and rest of underparts washed with fulvous; bill black; feet lead-colour; iris brown.

There is no difference between the two sexes in coloration. *Young* birds have the crest somewhat shorter.

This bird is subject to great variation in size. Total length more than 4 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Wermland....	0·47	2·15	1·85	0·72
♂. Berlin	0·5	2·50	2·12	0·75
♀. Gibraltar	0·44	2·45	2·05	0·68

Hab. All over Europe.

a, *b*. Ad. st.	Scotland.	J. Wolley, Esq. [P.].
c. Ad. sk.	Scotland.	F. D. Godman and O. Salvin, Esqrs. [P.].
d. Ad. sk.	Europe.	Gould Collection.
e. Ad. sk.	Europe.	Purchased.
f. ♂ ad. sk.	Wermland, Sweden, Jan. 1873.	W. Meves, Esq. [C.].
g. ♀ ad sk.	Wermland, Sweden, Dec. 20, 1872.	W. Meves, Esq. [C.].
h, *i*. ♂ ♀ ad. sk.	Gibraltar.	Colonel Irby [P.].
k. Ad. sk.	Berlin.	F. D. Godman and O. Salvin, Esqrs. [P.].
l. Ad. in spirits.	Mark Brandenburg.	Dr. H. Gadow [P.].
m. Skeleton.		Purchased.

21. Parus melanolophus.

Parus melanolophus, *Vigors, P. Z. S.* 1830, p. 22; *Gould, Cent. Himal. B.* pl. 30. fig. 2; *Jerd. Madr. Journ.* xi. p. 8; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 73; *Gray, Gen. B.* i. p. 192; *Blyth, Cat. B. Mus. As. Soc.* p. 104; *Bp. Consp.* i. p. 228; *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 372; *Gould, B. Asia*, pt. xi. (1859); *Biddulph, Ibis*, 1881, p. 72.

Parus melalophus, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844).

Machlolophus melanolophus, *Cab. Mus. Hein.* i. p. 91 (1850).

Lophophanes melanolophos, *Jerd. B. Ind.* ii. p. 273 (1863); *Brooks, Str. F.* 1875, p. 253; *Wardlaw Ramsay, Ibis*, 1880, p. 61.

Adult male. Mantle, back, upper tail-coverts, and lesser wing-coverts bluish or iron-grey; quills and tail ashy grey, externally edged or washed with the bluish-grey colour of the back, secondaries with narrow white tips; greater and median wing-coverts like the quills, but with round whitish or pale buff-coloured terminal spots; crown of head and hind neck glossy blue-black, the former with a long and somewhat recurved crest of the same colour; lores, region below the eyes, ear-coverts, cheeks and part of the sides of the neck, and a large patch on the nape pure white; chin, entire throat, and upper part of breast deep black; rest of breast, abdomen, and flanks iron-grey; sides of breast, axillaries, under wing- and under tail-coverts rufous; inner web of quills edged with whitish; bill blackish; feet plumbeous. Total length about 4·5 inches, culmen 0·4, wing 2·3–2·5, tail 1·75, tarsus 0·68.

Immature birds have the general colour above dull ashy grey; crown of head black, with a short crest, and the white patch on the nape little developed; cheeks and ear-coverts dingy white; under surface of body dull ashy with a slight wash of fulvous, which becomes more distinct on the abdomen and under tail-coverts; flanks with a tuft of fawn-colour.

Hab. N.W. Himalayas, ranging into Eastern Afghanistan.

a. Ad. sk.	Cabul (*Griffith*).	India Museum.
b. Ad. sk.	Gilgit, 10,500 ft., June 3.	Major J. Biddulph [P.].

c, d, e. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
f, g. Ad. et juv. sk.	N.W. Himalayas.	Capt. Boys [C.].
h. Ad. sk.	N.W. Himalayas.	India Museum.
i. Ad. sk.	N.W. Himalayas.	Purchased.
k. Ad. sk.	Simla.	Eugene W. Oates, Esq.
l. Ad. sk.	Simla.	Purchased.
m. [♂] ad. sk.	Murree.	Colonel Way [P.].
n. [♂] ad. sk.	Sikkim.	Purchased.

22. Parus rufonuchalis.

A. *Western Race* (P. rufonuchalis).

Parus rufonuchalis, *Blyth, J. A. S. Beng.* xviii. p. 810; *id. Cat. B. Mus. As. Soc.* p. 103; *id. Jard. Contr. Orn.* 1851, p. 50; *Bp. C. A.* i. p. 229; *Gould, B. Asia*, pt. xi.; *Biddulph, Ibis*, 1881, p. 72; *Scully, Ibis*, 1881, p. 568.

Lophophanes rufonuchalis, *Jerdon, B. Ind.* ii. p. 273 (1863); *Hume & Henders. Lahore to Yarkand*, p. 167 (1873); *Brooks, Str. F.* 1875, p. 253; *Wardlaw Ramsay, Ibis*, 1880, p. 62.

B. *Eastern Race* (Parus beavani).

Lophophanes beavani, *Jerd. B. Ind.* ii. p. 275 (1863, *ex Blyth MS. in Mus. As. Soc.*); *David & Oust. Ois. Chine*, p. 285 (1877).

Parus beavani, *Gray, Hand-l. B.* i. p. 233, no. 3376 (1869); *Brooks, Str. F.* 1879, p. 487.

Parus melanolophus, *Dav. N. Arch. Mus., Bull.* vii., *Cat. Ois. Chine*, no. 211 (1871).

Parus atkinsoni, *Jerd. B. Ind.* ii. p. 276 (1863); *Gray, Hand-l. B.* i. p. 231, no. 3343 (1869); *Blanf. J. A. S. Beng.* xii. pt. ii. p. 57 (P. atkinsoni=P. beavani *juv.*); *id. Str. F.* 1879, p. 183; *Hume, t. c.* p. 189.

Adult. Similar to *P. melanolophus* in coloration, but much larger in size, and wanting the buff tips to the wing-coverts. General colour above dark grey, sometimes with a bluish, sometimes with an olive tinge; wing-coverts, wings, and tail uniform ashy grey, externally washed with iron-grey, especially on the wing-coverts; crown of head and hind neck jet-black, with a crest of black feathers, which are shorter and less recurved than in *P. melanolophus*; on the occiput and nape a large patch of white, usually with a strong wash of ferruginous colour; cheeks, ear-coverts, and part of the sides of the neck white; chin, throat, and upper half of breast jet-black; rest of breast, abdomen, and flanks dark grey; axillaries and under tail-coverts ferruginous; most of the under wing-coverts blackish, edged with whitish; quills with whitish edgings to the inner webs; "bill black; feet plumbeous; iris brown" (*Jerdon*). Total length about 5 inches, culmen 0·52, wing 2·2–3, tail 2–2·1, tarsus 0·8.

Immature birds have the crown and throat dull brownish black; all the rest of the underparts and the back dull olive-grey.

Hab. From Samarcand to Afghanistan, and thence throughout the Himalayas to Kokonoor and the mountains of Southern China.

Nepalese specimens constitute a smaller race, *P. beavani*. The

black colour does not extend so far down on the throat, and the general colour above is darker, the blue tinge of the grey being more pronounced. We do not consider these differences sufficient for specific distinction.

α. P. rufonuchalis.

a. Ad. sk.	Gilgit, 10,500 ft., June.	Major Biddulph [P.].
b. Juv. sk.	Nulter valley, Gilgit, 9,500 ft., July 20.	Major Biddulph [P.].
c. ♂ ad. sk.	Valley of Astor, Cashmere, October.	Major Biddulph [P.].
d. Ad. sk.	Cashmere.	R. B. Sharpe, Esq. [P.].
e. Juv. sk.	Cashmere (*Dr. Bellew*).	India Museum.
f. [♀] juv. sk.	Chini.	J. Gould, Esq.
g. [♂] ad. sk.	Chini.	J. Gould, Esq.

β. P. beavani.

a, *b*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
c, *d*. Ad. sk.	Nepal (*Hodgson*).	India Museum.
e. Pull. sk.	Sikkim.	W. T. Blanford, Esq. [P.].
f. Ad. sk.	Darjiling.	W. Fotheringham, Esq. [P.].
g. Ad. sk.	Khasia hills (*Jerdon*).	Gould Collection.

23. Parus rubidiventer.

Parus melanolophus, *Hodgs.* (*nec Vig.*) *in Gray's Zool. Misc.* p. 83 (1844); *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 73.
Parus rubidiventris, *Blyth, J. A. S. Beng.* xvi. p. 445 (1847); *id. Cat. B. Mus. As. Soc.* p. 104; *id. in Jard. Contr. Orn.* p. 50, f. 1 (1851); *Gray, Gen. B.* iii. *App.* p. 9; *Bp. C. A.* i. p. 228; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 372; *Gould, B. Asia*, pt. xi.; *Gray, Hand-l. B.* i. p. 233, no. 3377.
Machlolophus rubidiventris, *Cab. Mus. Hein.* i. p. 91 (1850).
Lophophanes rubidiventris, *Jerd. B. Ind.* ii. p. 274 (1863); *Przew. in Dawson Rowley's Orn. Misc.* ii. p. 190, sp. 88; *David & Oustal. Ois. Chine*, p. 284.

Adult male. Above pale olive-grey, rump and the upper tail-coverts washed with sandy buff; wings, tail, and wing-coverts uniformly ashy grey, with no spots whatever; head much like that of *P. melanolophus*; breast, abdomen, flanks, under wing- and under tail-coverts buff, with a greyish tint; throat dull black, never so dark as in *P. melanolophus*. Total length less than 5 inches, culmen 0·43, wing 2·45–2·55, tail 1·8, tarsus 0·75.

Obs. One might perhaps suppose that this bird is the female of *P. rufonuchalis*; but in the British Museum are specimens which were distinctly marked as males, and show the colours above described.

Hab. Nepal; Kansu? (*cf.* David & Oust. l. c.).

a, *b*, *c*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
d. ♂ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
e. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].

24. Parus wollweberi.

Lophophanes wollweberi, *Bp. C. R.* xxxi. *Sept.* 1850, p. 478; *Westerman, Bijdr. Dierkunde*, iii. p. 15, pl. (1851); *Cassin, N. A. B.* p. 19; *Baird, Cass. & Lawr. B. N. Am.* p. 386, pl. 53. fig. 1; *Sclat. P. Z. S.* 1858, p. 299; *Cooper, Birds Calif.* i. p. 43; *Coues, Key N. A. B.* p. 80; *Sclat. & Salv. Nomencl. Av. Neotr.* p. 5; *Baird, Brew. & Ridgw. N. A. B.* i. p. 93; *Coues, B. Colorado Vall.* p. 117; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 56.

Parus annexus, *Cass. Pr. Ac. N. Sc. Phil.* v. *Oct.* 1850, p. 103, pl. i.

Lophophanes galeatus, *Cab. Mus. Hein.* i. 1850, p. 90 (1850).

Adult male. General colour above, including the hind neck, scapulars, and most of the wing-coverts grey, with an olive tinge; primary-coverts, quills, and tail greyish brown, externally edged with the same colour as the back; forehead and central portion of crown ashy grey, sides of crown and crest black; frontal region white, bases of the feathers black; ear-coverts, cheeks and the region behind and above the eye, and parts of the sides of the neck pure white; this white colour is bordered behind, on the sides of the neck and on the nape, by a black semicollar; another black band runs through the eye, bordering the ear-coverts behind and uniting with the sooty black of the throat and fore neck; underparts dull whitish, with a greyish or fulvous tinge, the fulvous being principally pronounced on the flanks, abdomen, and under tail-coverts; "bill black; feet dark hazel" (*Salvin*). Total length about 4·5, culmen 0·37, wing 2·55, tail 2·35, tarsus 0·65.

Hab. Mexico, New Mexico, Arizona, and Western Texas.

a. Ad. st.	Mexico.	Purchased.
b, *c*. Ad. sk.	Mexico.	J. Gould, Esq.
d. Ad. sk.	Mexico.	

25. Parus atricristatus.

Parus atricristatus, *Cass. Pr. Acad. N. Sc. Phil.* 1850, p. 103, pl. ii.

Lophophanes atricristatus, *Cass. Ill. B. Calif. & Tex.* i. p. 13, pl. iii. (1853); *id. N. A. B.* p. 19; *Baird, Birds N. Am.* p. 385; *Cooper, Birds Calif.* i. p. 43; *Sclat. & Salv. Nomencl. Av. Neotr.* p. 5; *Baird, Brew. & Ridgw. N. A. B.* i. p. 90; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 55.

Lophophanes atrocristatus, *Coues, B. Colorad. Valley*, p. 116 (1878).

General colour above, including scapulars and most of the wing-coverts, ashy grey with a slight olive tinge; greater wing-coverts, quills, and tail dark brown, edged with the same colour as the back; crown and crest sooty black; nape and sides of neck pale grey, this colour passing through the whitish ear-coverts; a narrow frontal band, cheeks and whole throat, fore neck, breast, and centre of abdomen white; flanks pale reddish chestnut; lower abdomen, axillaries, and under tail-coverts cream-colour; under wing-coverts and inner edges of quills whitish. Total length more than 5 inches, culmen 0·45, wing 2·80, tail 2·55, tarsus 0·8.

The *female* has the crest duller black. "Iris dark brown; feet hazel; bill dark lead-colour" (*Salvin*).

Hab. Texas and Mexico, especially in the valley of the Rio Grande; southwards as far as Vera Cruz.

a. Ad. sk. Mexico. Purchased.

26. Parus bicolor.

La Mésange hupée de la Caroline, *Briss. Orn.* iii. p. 561; *Buff. H. N. Ois.* v. p. 451.
Crested Titmouse, *Catesby, Nat. Hist. Carol.* i. pl. 57.
Parus bicolor, *Linn. S. N.* i. p. 340 (1766); *Bonn. et Vieill. Enc. Méth.* p. 507; *Less. Traité d'Orn.* p. 456; *Nuttall, Man. Orn.* p. 236 (1832), with woodcut; *Audub. Orn. Biogr.* i. pl. 301; *Wilson, Am. Orn.* i. p. 137, pl. viii. fig. 5; *Audubon, Am. B.* ii. p. 143, pl. 125; *Giraud, B. Long Island*, p. 78 (1844); *De Kay, New York Fauna, Birds*, p. 59, pl. 45. fig. 101 (1843); *Neuwied, J. f. O.* 1858, p. 118; *Baird, Birds N. Am.* p. 384.
Toupet Titmouse, *Lath. Gen. Syn.* ii. pt. ii. p. 544.
Bæolophus bicolor, *Cab. Mus. Hein.* i. p. 91 (1850).
Lophophanes bicolor, *Bp. C. A.* i. p. 228 (1850); *Sclat. Cat. Am. B.* p. 14, no. 87; *Maynard, B. Florida*, p. 32 (1872); *Coues, Key N. A. B.* p. 80; *Coues, B. N.-West*, p. 19; *Baird, Brew. & Ridgw.* i. p. 87; *Coues, B. Colorad. Valley*, p. 113.
Lophophanes missouriensis, *Baird, B. N. Am.* p. 384 (1858).

General colour above as in *P. atricristatus*, but crown and crest brown; forehead and frontal band dark sooty brown; underparts dirty yellowish white, tinged with brownish; "bill dark lead-colour, blackish at the tip; feet bluish lead-colour; iris dark brown" (*Neuwied*). Total length about 6 inches, wing 3·15, tail 2·5, tarsus 0·9. (*Baird, Br. & R.*)

Hab. North America eastwards of the Missouri river.

a. Ad. st. North America. Purchased.

27. Parus inornatus.

Parus inornatus, *Gambel, Pr. A. N. Sc. Phil.* 1845, p. 265; *id. J. Acad. N. Sc. Philad.* n. s. i. p. 35, pl. vii. (1847).
Lophophanes inornatus, *Cassin, Ill. B. Calif. & Texas*, p. 19 (1853); *Baird, B. N. Amer.* p. 386; *Sclat. Cat. Am. B.* p. 14, no. 88; *Cooper, B. Californ.* i. p. 42; *Coues, Key N. Am. Birds*, p. 80; *Baird, Brew. & Ridgw. N. Am. B.* i. p. 91; *Coues, B. North-West*, p. 20; *id. B. Colorad. Vall.* p. 114.

General colour above, including the crest and crown of the head, greyish olivaceous brown; wing-coverts, quills, and tail brown, externally tinged with the colour of the back; nostril-feathers and loral region dirty yellowish; ear-coverts, sides of head, and all the underparts dirty or creamy white, slightly more fulvous on the flanks, lower abdomen, and under tail-coverts; the bill of this species is remarkably strong and high, its colour is leaden like the feet. The sexes are alike in coloration. Total length less than 5 inches, culmen 0·46, wing 2·6–2·7, tail 2·2–2·35, tarsus 0·78.

Hab. California, Southern Pacific States, and southern parts of the Rocky Mountains.

a. Ad. st.	California.	Purchased.
b. Ad. sk.	California.	Purchased.
c. ♂ ad. sk.	Colorado Valley, California.	A. Forrer, Esq. [C.].
d, *e*. Ad. sk.	Western N. America.	Purchased.

28. Parus dichrous.

Parus dichrous, *Hodgs. in Gray's Zool. Misc.* (1844), p. 83; *id. J. A. S. Beng.* xiii. p. 943; *id. Ann. N. H.* xv. p. 326; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 73; *id. Gen. B.* i. p. 192; *Blyth, Cat. B. Mus. As. Soc.* p. 104; *Bp. C. A.* i. p. 228; *Blyth in Jardine Contr. Orn.* 1851, p. 51; *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 372; *Gould, B. Asia*, pt. xi.; *A. David, N. Arch. Mus., Bull.* vii., *Cat. Ois.* no. 210 (1870).

Lophophanes dichrous, *Jerd. B. Ind.* ii. p. 273 (1863).

Lophophanes dichroides, *Prjev. in Dawson Rowley's Orn. Misc.* pt. vi., *B. of Mongol.* p. 189 (1877); *David et Oustal. Ois. Chine*, p. 284.

Adult. Above uniform dull brownish grey with an indistinct olive tint; crown with a long and somewhat recurved crest of the same colour; forehead and sides of head dirty creamy white; behind the ear-coverts a band of creamy or whitish colour on the sides of the neck; all the underparts, including the under wing-coverts, pale ochraceous, slightly washed with greyish on the flanks and on the throat; "bill dusky bluish; feet plumbeous; iris brick-red" (*Jerdon*). Total length about 4·5 inches, culmen 0·45, wing 2·8, tail 2, tarsus 0·8.

Hab. The Brown-crested Tit is a rather rare bird, although its range is a very wide one; it is found throughout the Himalayas from Cashmere eastwards, and, again, in the hilly parts of Kansu and Moupin (*Prjevalski and David*).

Obs. Prjevalski separated his single specimen obtained in Kansu from *P. dichrous* under the name of *P. dichroides*, because of a whitish semicollar on the sides of the neck. *All* the specimens, however, from Nepal (which is the real habitat of the typical *P. dichrous* of Hodgson) have the collar mentioned in the above description.

a. ♀ ad. sk.	Between Simla and Mussoorie.	Capt. Stackhouse Pinwill [P.].
b–e. ♂ ♀ ad. et juv. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
f. ♂ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
g–k. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of the species.)
l. Ad. sk.	Nepal (*Hodgson*).	India Museum.
m. [♂] ad. sk.	Darjiling.	W. Fotheringham, Esq. [P.].

29. Parus modestus.

Sylviparus modestus, *Burton, P. Z. S.* 1835, p. 154; *Blyth, Cat. B. Mus. As. Soc.* p. 104; *Bp. C. A.* i. p. 333 (1850); *Blyth, in Jard. Contr. Orn.* 1851, p. 51; *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 373; *Jerdon, B. Ind.* ii. p. 267; *Swinh. P. Z. S.* 1871, p. 362; *David & Oust. Ois. Chine*, p. 277.

Parus sericophrys, *Hodgs. J. A. S. Beng.* xiii. p. 942 (1844), *Blyth,*

op. cit. xvi. p. 446 (1847); *id. in Gray's Zool. Misc.* p. 83; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 73; *id. Gen. B.* i. p. 192.
Ægithalus modestus, *Gray, Hand-l. B.* i. p. 237, no. 3430 (1869).

General colour above light olive-green, inclining to yellowish on the rump; wing-coverts, quills, and tail dusky brown, edged with greenish yellow; forehead more greyish and less olive than the crown and hind neck; above the eye a faint yellowish streak; sides of head and all the underparts dingy yellowish, with a faint greenish tinge to the flanks and the lower abdomen; "bill and feet lead-colour; iris light brown" (*Jerdon*). Total length about 3·5 inches, culmen 0·35, wing 2·15–2·3, tail 1·3, tarsus 0·6.

Hab. Himalayas.

a, b. Ad. sk.	Nepal (*Hodgson*).	India Museum.
c, d. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of *P. sericophrys.*)
e, f. Ad.; *g, h.* Juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].

30. Parus rufescens.

Parus rufescens, *Townsend, J. A. N. Sc. Philad.* vii. p. 190 (1837); *Audub. Orn. Biogr.* iv. p. 371, pl. 353; *id. B. Am.* ii. p. 158, pl. 129; *Cassin, N. Am. B.* p. 18; *Baird, Birds N. A.* p. 394; *Sclat. Cat. Am. B.* p. 14, no. 86; *Cooper, Birds of Californ.* p. 47; *Coues, Key N. Am. B.* p. 81; *id. B. N. West*, p. 22; *Baird, Brew., & Ridgw. N. A. B.* i. p. 104.
Pœcila rufescens, *Bp. C. A.* i. p. 230 (1850).
Parus sitchensis, *Kittlitz (fide Giebel, Th. Orn.* iii. p. 32).

Entire crown of head, hind neck, interscapular region, throat, and fore neck sooty brown; back, rump, scapulars, and outer margins of some of the wing-coverts brownish chestnut; wing-coverts and quills blackish grey, with whitish edgings to the outer webs; tail blackish grey, externally slightly lighter; cheeks, ear-coverts, sides of neck, and breast white, more dull towards the abdomen and the flanks; sides of breast and flanks chestnut-coloured; under wing-coverts and internal margins of webs whitish; bill and feet horny brown. Total length about 4 inches, culmen 0·39–0·4, wing 2·3–2·37, tail 1·9–2·0, tarsus 0·62–0·64.

Hab. Pacific States of North America.

a. Ad. st.	[Alaska.]	Purchased.
b. Ad. sk.	West side of Rocky Mountains.	J. K. Lord, Esq. [C.].
c. Ad. sk.	Vancouver Island.	J. K. Lord, Esq. [C.].
d, e. ♂ ♀ ad. sk.	Vancouver Island.	A. Forrer, Esq. [C.].
f. ♂ ad. sk.	Upper Klamath Lake, Oregon.	A. Forrer, Esq. [C.].
g. Ad. sk.	California.	Purchased.
h. Ad. sk.	California.	Lord Walsingham [P.].

31. Parus hudsonicus.

Parus hudsonicus, *Forster, Phil. Trans.* 1772, pp. 383, 430; *Penn. Arctic Zool.* p. 425; *Bonn. & Vieill. Enc. Méth.* p. 509; *Audub. Orn. Biog.* ii. p. 543, pl. 194; *id. B. Am.* ii. p. 155, pl. 128; *Cassin, N. A. B.* p. 18; *Baird, B. N. Am.* p. 395; *id. Review,*

p. 82; *Samuels, Orn. New Engl.* p. 185 (1867); *Coues, Key N. A. B.* p. 81; *Baird, Brew., & Ridgw. N. A. B.* i. p. 105.
Hudson's Bay Titmouse, *Lath. Gen. Syn.* ii. pt. 2, p. 557.
Parus hudsonicus, var. littoralis, *Bryant, Proç. Bost. Soc. N. H.* ix. p. 368 (1863).

General colour above yellowish brown with a slight olive tinge; crown of head and hind neck a little purer light brown; wing-coverts, tail, and quills dark grey, with paler greyish edgings to the outer webs; cheeks, ear-coverts, and breast white; sides of neck light grey; throat and fore neck sooty brownish black; abdomen, sides of breast, flanks, and under tail-coverts rusty brown. Total length 5 inches, culmen 0·4, wing 2·4, tail 2·6, tarsus 0·65.

Hab. Found all over the more northern parts of North America.

Obs. The "specimens from the most northern localities seem to be larger than those from Maine and Nova Scotia (*P. littoralis*, Bryant), with proportionally longer tails" (*Baird, Br., & R.*).

a, b. ♂ ♀ ad. sk.	Fort Simpson, April 20, 1862.	B. R. Ross, Esq. [P.].
c. [♀] ad. sk.	North America.	J. Gould, Esq.
d. Skeleton.		Purchased.

32. Parus cinctus.

La Mésange à ceinture blanche, *Montb. H. N. Ois.* v. p. 446 (1778).
La Mésange de Sibérie, *Daubent. Pl. Enl.* vi. pl. 708. fig. 3 (1783).
Siberian Titmouse, *Lath. Gen. Syn.* ii. p. 556 (1781–85).
Parus cinctus, *Bodd. Tabl. Pl. Enl.* p. 46 (1783, *ex Daubent.*); *Gray, Gen. B.* i. p. 192; *id. Hand-l. B.* i. p. 232, no. 3352; *Cab. J. f. O.* 1871, p. 237; *Dresser, B. Eur.* iii. pl. 112; *Finsch, Ibis*, 1877, p. 64.
Parus sibiricus, *Gmel. Syst. Nat.* i. p. 1013 (1788, *ex Lath.*); *Temm Man. d'Orn.* p. 294; *Schinz, Europ. Faun.* p. 220; *Nilss. Skandin. Faun.* i. p. 337, i. p. 414; *Blyth, Cat. B. Mus. As. Soc.* p. 104: *Sundev. Svensk. Fogl.* pl. 16. fig. 5.
Parus lugubris, *Zetterst. Res. Sver. och Norr. Lapp.* p. 120 (1821, *descr. orig., nec Natterer, fide Dresser*).
Parus lapponicus, *Lundahl, Notis. Faun. et Flor. Fenn. Förh. Helsingf.* 1848, pt. i. p. 1, pl. 1. fig. 1; *Wright, Finl. Fogl.* i. p. 178.
Pœcila sibiricus, *Bp. C. A.* i. p. 230 (1850).
Pœcile sibirica, *Cab. Mus. Hein.* i. p. 91 (1850).
Pœcile sibirica vera (*Kaup*), *Brehm, Naumannia*, 1856, p. 369.

Synonymy of *P. obtectus*, Cab.:—

Pœcile submicrorhynchus, *Brehm, Naumannia*, 1856, p. 369.
Parus sibiricus (*non Gm.*), *Radde, Reis. in S.O. Sibir.* ii. p. 198 (1861).
Pœcile cincta, *Swinh. P. Z. S.* 1871, p. 362; *Giebel, J. f. O.* 1873, p. 421; *Heugl. J. f. O.* 1874, p. 396; *Malm, Fauna*, p. 182; *David & Oust. Ois. Chine*, p. 288.
Parus (Poecile) obtectus, *Cab. J. f. O.* 1871, p. 237.
Parus grisescens, *Sharpe & Dress. B. Eur.* iii. sub *P. cinctus* (1871).
Poecile obtecta, *Cab. J. f. O.* 1872, p. 443.
Pœcile affinis, *Prjev. in Dawson Rowley's Ornith. Misc.* pt. vi. p. 188, sp. 85 (1877); *David & Oust. Ois. Chine*, p. 289.
Parus cinctus, subsp. grisescens, *Seebohm, Ibis*, 1879, p. 2.
Poecilia obtecta, *Taczan. J. f. O.* 1872, p. 443.
Poecile sibirica, *Taczan. Bull. Soc. Zool. France*, i. p. 363 (1876).

A. *Western Race* (P. cinctus).—Crown of head and hind neck dusky brown; mantle, scapulars, and back earthy brown with an ochraceous tinge; wing-coverts, quills, and tail blackish; most of the wing-coverts and the inner secondaries rather broadly edged with fulvous; the primaries and the tail edged with greyish white; lores, cheeks, ear-coverts, and sides of head white; throat dull brownish black; on the lower parts of the fore neck the feathers more or less tipped and edged with white; upper part of breast and centre of belly whitish; rest of underparts pale ochraceous; under wing-coverts paler; quills internally margined with whitish; bill black; feet bluish grey; "iris dark brown" (*Finsch*).

There is no conspicuous difference in coloration between the two sexes. In *autumn dress* the whitish edgings to the feathers of the throat are larger and more numerous, causing these parts to have a very mottled appearance. Total length about 5 inches, culmen (♂) 0·48, wing 2·76, tail 2·76, tarsus 0·7; culmen (♀) 0·47, wing 2·5, tail 2·5, tarsus 0·65.

Hab. The Lapp Titmouse has a rather large range. It is found all over the most northern parts of Europe, Russia, and North-western Asia, extending eastwards as far as the Jenesei river. Eastwards of this river, especially in the region of the Lake Baikal, the Lapp Titmouse is represented by the following race.

B. *Eastern Race* (P. obtectus).—In the British-Museum collection there are specimens from Lake Baikal which slightly differ from two specimens of the true *P. cinctus* (♂ and ♀) from the Ob district, in autumn dress; and these differences agree tolerably with those pointed out by Prof. Cabanis.

General colour above slightly duller and less distinct than *P. cinctus*, mantle more greyish, breast white; sides of breast, flanks, and thighs slightly washed with ochraceous fawn-colour. Culmen 0·48 inch, wing 2·63, tail 2·63, tarsus 0·68*.

Hab. Siberia, eastwards from the Jenesei river, especially near Lake Baikal.

a. ♂ juv. sk.	Finland.	F. D. Godman and O. Salvin, Esqrs. [P.].
b, *c*. ♂ ♀ ad. sk.	Bolschoi Ustram, Sept. 11.	Dr. Finsch [C.].
d, *e*. ♂ ♀ ad. sk.	Langiorskaja, Ob river, Sept. 7.	Dr. Finsch [C.].
f. ♂ ad. sk. (moulting).	Parawatzki, Jurti, Sept. 5.	Dr. Finsch [C.].

* Result of the examination of 26 specimens in Mr. Seebohm's collection:—

a. Birds from Sweden, Archangel, and Lower Ob have the mantle, back, and flanks deeper reddish or ochraceous brown.

b. Nine specimens from the Jenesei (66½ north lat.) are much greyer above and paler below.

c. Two specimens from Lake Baikal agree perfectly with the Jenesei birds.

d. Three birds from Krasnojarsk agree with Jenesei birds. They were shot in November and December, and consequently have the fore neck more mottled with white, the black extending further down than in the Jenesei birds, which were shot in spring (April and May).

Intermediate forms very probably occur westwards from the Jenesei river.

g. ♂ ad. sk. (moulting).	Obdorsk, September 4.	Dr. Finsch [C.].
h, i. ♂ ad. sk.	Jenesei river, April 1877.	H. Seebohm, Esq. [P.].
k. ♂ ad. sk.	Krasnoyarsk, Nov. 1878.	H. Seebohm, Esq. [P.].
l. Ad. sk.	Lake Baikal (*Dybowski*).	Warsaw Museum [E.].
m. Ad. st.	Siberia.	Purchased.

33. Parus varius.

Parus varius, *Temm. & Schl. Faun. Jap.* p. 71, pl. 35 (1850); *Bp. C. A.* i. p. 229; *Schleg. Handl. Dierk.* p. 350; *Gray, Hand-l. B.* i. p. 231, no. 3332; *Seebohm, Ibis*, 1879, p. 33; *Blakist. & Pryer, B. Japan*, p. 151.

Adult. Forehead, loral region, cheeks, ear-coverts, and sides of neck cream-colour; chin and throat, crown of head and hind neck, with the exception of an irregular white longitudinal spot on the occiput and on the nape, deep black; upper part of the mantle chestnut or bright red-brown, forming a comparatively narrow band between the hind neck and the upper back; wing-coverts, middle and lower back, upper tail-coverts, tail, and wings uniform bluish grey; quills internally edged with white; breast, abdomen, and flanks chestnut-red, more fawn-colour towards the centre of the abdomen and on the tail-coverts; the black of the throat separated from the upper breast by an irregular cross band, or sometimes by a patch of creamy buff; axillaries and thighs pale buff, grey at base; under wing-coverts and edge of wing grey with buff edgings; bill horn-brown; feet dark lead-colour. Total length about 5 inches, culmen 0·5, wing 3·10, tail 2·25, tarsus 0·72.

The *female* is slightly smaller in size, and has the upper parts not quite so brightly coloured as the male.

Hab. Japan.

a. Ad. st.	Japan.	Purchased.
b. Ad. sk.	Japan.	C. Maries, Esq. [C.].
c. Ad. sk.	Japan.	J. Gould, Esq. [C.].
d, e. Ad. sk.	Hakodadi.	H. Pryer, Esq. [C.].

34. Parus castaneiventer.

Parus castaneoventris, *Gould, P. Z. S.* 1862, p. 280; *id. B. Asia*, pt. xvi.

Parus castaneiventris, *Swinh. Ibis*, 1863, p. 295; *id. P. Z. S.* 1871, p. 361; *David & Oustal. Ois. Chine*, p. 282.

In the island of Formosa *P. varius* is represented by a bird closely resembling the former in coloration, but of considerably smaller size. The chestnut-brown band across the hind neck is but little developed; breast and flanks rich chestnut colour, without the creamy or buff colour along the centre of the breast and abdomen; bill bluish black. Total length less than 4 inches; culmen 0·5, wing 2·4, tail 1·55, tarsus 0·6.

Hab. Confined to the island of Formosa.

a. Ad. sk.	Formosa.	R. Swinhoe, Esq., [C.].

35. Parus nuchalis.

Parus nuchalis, *Jerd.* xiii. p. 131 (1844); *id. Illustr. Ind. Orn.* pl. 46; *Bp. C. A.* i. p. 230; *Blyth in Jard. Contr. Orn.* 1851, p. 49; *Jerdon, B. Ind.* ii. p. 279; *Adam, Str. F.* 1873, p. 385; *Butler, Str. F.* 1875, p. 292, & 1877, p. 221.

Adult. General colour above and below black and white; head above, hind neck, mantle, and back glossy black; on the nape a white spot; tail-feathers black, some with narrow white tips; the outermost pair almost entirely white, the next pair more white than black; wing-coverts brownish black; quills brownish black, the primaries having the basal third of the outer web pure white, the wing thus showing a broad conspicuous alar band of that colour; the inner secondaries with large white tips, and externally broadly edged with white; chin, throat, and a broad line extending down the centre of the breast and abdomen black; cheeks, ear-coverts, sides of neck, breast, flanks, thighs, and under tail-coverts white; most of the under wing-coverts white; near the edge of the wing a black patch; quills internally edged with white; "bill black; feet plumbeous; iris red-brown" (*Jerdon*). Total length about 4·5 inches, culmen 0·42, wing 2·3 to 2·5, tail about 2, tarsus 0·7.

Hab. Tableland of Indian Peninsula.

a. Ad. sk.	India.	Purchased.
b. ♂ ad. sk.	Koochamun (*Adam*), April 28, 1873.	E. W. Oates, Esq.
c. [♂] ad. sk.	[Bootan.]	Purchased.

36. Parus semilarvatus.

Melaniparus semilarvatus, *Salvad. Atti Soc. Ital. Sc. Nat.* viii. p. 375 (1865); *id. J. f. O.* 1868, p. 68; *id. Ibis*, 1879, p. 300, pl. ix.

Adult. General colour black; upper parts and breast with a bluish gloss; abdomen and flanks inclining to sooty brown or black; forehead, nasal plumes, preocular region, and part of the cheeks pure white.

Culmen.	Wing.	Tail.	Tarsus.
in.	in.	in.	in.
0·45	2·8	1·9	0·63
0·50	3·1	2·2	0·07

Obs. Great uncertainty still prevails as to the habitat of this species, only a few specimens being known. The two typical specimens are in the Turin Museum; but the British Museum came into possession of two more than twenty-five years before Salvadori described his types. One of the British-Museum birds is labelled "Philippine Islands;" the other one, "N. China, Fortune Coll." This and the circumstance that *P. semilarvatus* is closely allied to the Indian *P. nuchalis*, makes it probable that its home is somewhere in the Indo-Chinese region: this is supported by the fact that the Turin birds are said to have come from the Himalayas. Salvadori,

on the other hand, suggests Central Africa as their home, on account of the great resemblance of *P. semilarvatus* to the black African Tits.

a. [♂] ad. sk.	Philippine Islands.	
b. Ad. sk.	[N. China.]	Fortune Coll.*

37. Parus afer.

Parus afer, *Gm. S. N.* i. p. 1010 (1788); *Gray, Gen. B.* i. p. 192; *Jard. & Selby, Illustr. Orn.* pl. 117; *Cab. Mus. Hein.* i. p. 92; *Monteiro, P. Z. S.* 1865, p. 95; *Gray, Hand-l. B.* i. p. 231, no. 3331; *Gurney in Anderss. B. Damara Ld.* p. 81; *Sharpe, ed. Layard B. S. Afr.* p. 329; *Ayres, Ibis*, 1880, p. 103; *Bocage, Orn. Ang.* p. 286.
La Mésange grisette, *Levaill. Ois. d'Afr.* iii. pl. 138.
La Mésange brune, *Levaill. Ois. d'Afr.* iii. pl. 139. fig. 2.
Parus cinerascens, *Vieill. Nouv. Dict.* xx. p. 316 (1818); *Bonn. et Vieill. Enc. Méth.* p. 507; *Hartlaub, Orn. W.-Afr.* p. 70; *Layard, B. South Afr.* p. 113; *Chapman's Trav. in S. Afr., Append.* p. 398.
Parus fuscus, *Bonn. et Vieill. Enc. Méth.* p. 505; *Sundev. Œfv. K. Vet.-Akad. Förh. Stockh.* 1857, p. 30.

Adult male. Back, upper tail-, and lesser wing-coverts grey; rest of the wing-coverts and the quills brownish black, the former and the secondaries broadly, the primaries narrowly, edged with dingy white; tail black, with small white tips and a white edge to the outer pair; crown of head, chin, cheeks, throat, and fore neck glossy black, the black extending down the middle of the breast; lores, ear-coverts, and centre of hind neck white; from the ear-coverts the white extends down the sides of the neck, then passing into dingy white and bordering the black triangular patch on the throat and fore neck; sides of breast, flanks, abdomen, thighs, and under tail-coverts pale ashy grey; under wing-coverts whitish; quills below with white edgings along the inner web; bill black; feet lead-colour; iris brown. Total length about 5·7 inches, culmen 0·55–0·6, wing 2·9–3·1, tail 2·4, tarsus 0·75–0·85.

There is no difference in colour between the two sexes.

Immature birds are ashy brown where the adult is grey; tail, throat, and crown of head blackish brown; wings and wing-coverts dark brown, with dingy white edgings; flanks, abdomen, thighs, and under tail-coverts pale ashy brown and dingy whitish.

Hab. South and S.W. Africa.

a. ♂ ad. sk.	S. Africa (*Layard*).	R. B. Sharpe, Esq. [P.].
b. Ad. sk.	Cape Town.	R. B. Sharpe, Esq. [P.].
c. ♂ ad. sk.	Orange river.	Dr. Bradshaw [P.].
d. ♂ ad. sk.	Modder river.	Dr. Exton [P.].
e. ♂ ad. sk.	Transvaal (*Ayres*).	R. B. Sharpe, Esq. [P.].
f. ♂ ad. sk.	Semokwe, Oct. 1873 (*F. Oates*).	W. E. & C.G. Oates, Esqrs. [P.].

* It is to be observed that many of Mr. Fortune's birds came from Luzon.

g. ♂ ad. sk.	Inyati, Sept. 27, 1873.	W. E. & C. G. Oates, Esqrs. [P.].
h. ♂ ad. sk.	Damara Land, Nov. 16, 1866 (*Andersson*).	R. B. Sharpe, Esq. [P.].
i. ♀ ad. sk.	Damara Land, June 4, 1866 (*Andersson*).	R. B. Sharpe, Esq. [P.].
k. Ad. sk.	Benguela.	J. J. Monteiro, Esq. [C.].
l. Ad. st.	Cape of Good Hope.	Purchased.

38. Parus rufiventer.

Parus rufiventris, *Bocage, Jorn. Ac. Lisb.* xxii. 1877, p. 161; *id. Orn. Angola*, p. 287.

Adult. Entire mantle and back slaty grey; upper tail-coverts slightly darker; tail black, with narrow white tips and edges to some of the feathers; wings and wing-coverts blackish brown, externally edged with white; crown black, with a slight gloss; sides of head, chin, and throat dull black, gradually passing over into the slaty-grey of the fore neck and upper chest; breast and abdomen reddish fawn-colour; thighs paler; bill and feet black. Culmen 0·5 inch, wing 3·35, tail 2·6, tarsus 0·8.

Hab. Angola.

a. Ad. sk.	Caconda, Benguela (*Anchieta*).	Lisbon Museum [P.].

39. Parus griseiventer.

Parus griseiventer, *Reichenow, J. f. O.* 1882, p. 210.

Allied to *P. rufiventer*. Head and neck black all round, with the exception of a grey subocular streak extending from the gape along the sides of the head; entire back and sides grey; abdomen steel-grey; under wing- and under tail-coverts white; wings and tail black, edged with white; bill black; feet lead-colour; iris brown. Wing 3·13 inches, tail 2·36.

Hab. Eastern Africa: Lake Tanganyika.

40. Parus ater.

Parus ater, *Linn. S. N.* i. p. 341 (1766); *Beseke, Vög. Kurlands*, no. 194; *Bechstein, Vög. Deutschl.* p. 729; *Retzius, Faun. Suecic.* p. 270; *Koch, System. baier. Zool.* p. 205; *Temm. Man. d'Orn.* p. 288; *Bonn. et Vieill. Enc. Méth.* p. 502; *Roux, Ornith. Prov.* p. 188, pls. 119 & 120; *Nilsson, Skandin. Faun.* p. 334 (1835) & i. p. 411 (1858); *Schinz, Europ. Faun.* p. 217; *Blyth, Cat. B. Mus. As. Soc.* p. 104; *Thompson, Nat. Hist. Ireland*, i. p. 207; *Naceyro, Cat. Av. Galicia, in Mem. R. Acad. Madrid*, i. p. 105 (1850); *Bp. C. A.* i. p. 229; *Cab. Mus. Hein.* i. p. 92; *Kjærbölling, Danmarks Fugle*, pl. 24 (1854); *Sundev. Svensk. Fogl.* pl. 16. fig. 4; *Wright, Finlands Fogl.* i. p. 176; *Salvad. Faun. Ital.* ii. p. 68; *Holland. Wirbelth. Pommerns*, p. 61; *Dresser, B. Eur.* iii. p. 87, pl. 107. fig. 3; *Danford & Brown, Ibis*, 1875, p. 303; *Malm, Faun.* p. 180; *Newt. ed. Yarrell Brit. B.* i. p. 489; *Giglioli, Ibis*, 1881, p. 194; *Booth, Rough Notes*, pt. ii. pl.

Colemouse, *Penn. Arctic Zoology*, p. 424 (1785); *Lath. Gen. Syn.* ii. pt. 2, p. 540.
Poecile ater, *Kaup, Natürl. Syst.* p. 114 (1829).
Parus carbonarius, *Pall. Zoogr. Ross.-As.* i. p. 556 (1831).
Parus abietinum, *Brehm, Vög. Deutschl.* p. 466 (1831).
Parus pinetorum, *Brehm, Naumannia*, p. 285 (1855).

(*English Race.*)

Parus ater *auctt. Britt.* (*nec Linn.*).
Parus britannicus, *Sharpe & Dresser, Ann. & Mag. N. H.* viii. p. 437 (1871); *Dresser, B. Eur.* iii. p. 93, pl. 107. fig. 2.

(*Chinese Race.*)

Parus pekinensis, *David, Ibis*, 1870, p. 155; *Verr. N. Arch. du Mus. Bull.* vi. p. 38; *id.* vii. p. 54; *id.* viii. pl. 5; *Taczan. J. f. O.* 1874, p. 328; *Swinh. Ibis*, 1870, p. 155; *id. P. Z. S.* 1871, p. 361; *David & Oust. Ois. de la Chine*, p. 283, pl. 34.

(*Himalayan Race.*)

Parus æmodius, *Hodgs. Journ. A. S. Beng.* xiii. p. 943 (1844); *id. in Gray's Zool. Misc.* p. 83; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 72; *Blyth, in Jard. Contr. Orn.* 1851, p. 51; *Jerd. B. Ind.* ii. p. 276; *Swinh. Ibis*, 1870, p. 155; *Blanf. J. A. S. Beng.* 1872, ii. p. 57; *Brooks, Str. F.* 1879, p. 487.

A. *Typical, Central Race* (P. ater).—*Adult male in summer plumage.* Mantle slaty blue, passing towards the lower back and on the rump into fulvous-brown; tail and quills greyish black, the latter externally margined with silvery grey, the secondaries narrowly tipped with white; wing-coverts blackish, with broad margins of the colour of the back; the median and greater series with roundish terminal spots of white; crown of head and hind neck glossy black, on the occiput and nape a large patch of white; cheeks, ear-coverts, and sides of neck white; chin and throat dull black, this colour not uncommonly uniting with the black of the hind neck; centre of breast dull white; the rest of the underparts, especially the flanks and the sides, pale buff; under wing-coverts and edge of wing whitish; bill dark brown; feet and claws dark lead-colour; iris brown. Total length about 4·2 inches, culmen 0·4, wing 2·2–2·4, tail 1·7–1·8, tarsus 0·65.

Adult males in winter plumage have the underparts a little more dingy and the bluish colour on the mantle slightly less pronounced.

Female like the male in winter plumage.

Young. Above dull greyish olive; crown dull black; ear-coverts and sides of neck pale yellow; underparts pale yellow, with a strong greyish-buff wash to the flanks; throat dusky; tips of wing-coverts and a patch on the nape yellowish white; bill brown; feet pale brown.

Hab. Found nearly all over the Palæarctic region with the exception of Northern Africa, extending eastwards as far as Japan and Northern China.

B. *English Race* (P. britannicus).—In the British Islands the typical Coal Tit is only an occasional visitor, but is represented by a

differently coloured resident form. These differences seem to me to be strong enough to treat the British Coal Titmouse as a separate race, as has been done before by Messrs. Sharpe and Dresser. General colour above, especially in winter, dull olive-grey; rump and part of flanks fawn buff; tail-feathers and quills externally margined with greenish olive. In all the other details of coloration and of size the British specimens are like *P. ater*.

This well distinguished race seems to be confined to the British Islands.

C. *Chinese Race* (P. pekinensis) is a form of this species which is found in Eastern Asia from the valley of the Jenesei to China inclusive. It is distinguished by having the occipital feathers slightly more elongated into a crest than is seen in European specimens. In the same locality examples without the crest are also found; but it has not yet been determined whether these are typical *P. ater* or not fully adult *P. pekinensis*.

This elongation of the crest-feathers takes place in birds from Krasnojarsk and Jeneseisk as well as from the Ussuri river; examples from Japan and the Amoor country are intermediate between *P. ater* and *P. pekinensis*; two specimens from Askold have also long crest-feathers *.

D. *Himalayan Race* (P. æmodius).—Bill much more slender and more compressed laterally than in *P. ater*; the specimens in the national collection agree with Hodgson's remark *l. c.*

A specimen, labelled by Mr. W. T. Blanford *Lophophanes æmodius* is precisely like many specimens of *P. britannicus*; but the black of the throat extends over the whole fore neck, and the rest of the underparts is dull ochraceous, which colour is much more pronounced than in any *P. ater* or *P. britannicus* I have seen. This specimen is apparently an old bird. Culmen 0·37 inch, wing 2·3, tail 1·8, tarsus 0·74.

Hab. Nepal.

P. ater.

a. Pull. sk.	Europe.	Purchased.
b. ♂ ad. sk.	Sweden, Nov. 24, 1867.	H. E. Dresser, Esq., [P.].
c. ♂ ad. sk.	Borregaard, Norway, March 20, 1859 (*P. G.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
d. Ad. sk.	Antwerp, Oct. 1872.	R. B. Sharpe, Esq. [P.].
e. Ad. st.	France.	R. B. Sharpe, Esq. [P.].
f. Ad. sk.	France.	Gould Collection.
g. ♂ ad. sk.	Vosges.	E. Hargitt, Esq. [P.].
h. ♀ ad. sk.	Pyrennees, April 25, 1872.	A. B. Brooke, Esq. [C.].
i. ♂ ad. sk.	Saxony.	Gould Collection.
j. Ad. sk.	Moravia.	H. E. Dresser, Esq. [P.].

* The figure of *P. pekinensis* in David et Oustalet, Oiseaux de la Chine, pl. 34, exaggerates the supposed differences; the mantle also is incorrectly coloured, suiting neither the Chinese specimens nor the original description of these birds.

k. Ad. sk.	Bordighera, N. Italy.	A. B. Brooke, Esq. [C.].
l, *m*, *n*. Ad. st.	Austria.	Vienna Museum [P.].
o. Juv. sk.	Cedars of Lebanon.	Canon Tristram [C.].
p. Pull. sk.	Cedars of Lebanon.	Canon Tristram [C.].
q. ♂ ad. sk.	Samarova, Oct. 1, 1876.	Dr. Finsch [C.].
r. Ad. sk.	Hakodadi, Oct. 26, 1864 (*H. Whitely*).	Gould Collection.
s. Ad. sk.	Hakodadi, Nov. 22, 1865 (*H. Whitely*).	Gould Collection.
t. ♀ ad. sk.	Hakodadi, Feb. 4, 1865.	H. Whitely, Esq. [C.].
u. ♂ ad. sk.	Hakodadi, Jan. 4, 1865.	H. Whitely, Esq. [C.].
v–*x*. Ad. sk.	Yokohama.	H. Pryer, Esq. [C.].
y. Ad. sk.	Yokohama.	H. Pryer, Esq. [C.].
z, *a'*–*c'*. Ad. in spirit.	Prov. of Brandenburg, Prussia.	Dr. H. Gadow [P.].
d', *e'*. Skulls.	Rauhe Alp.	Dr. Günther.
	P. britannicus.	
a. ♂ ad. sk.	Preston Hall, Shropshire, Jan. 1858.	Gould Collection.
b, *c*. Pull. st.	Cambridgeshire.	Mr. Baker.
d. Ad. st.	Cambridgeshire.	Mr. Baker [P.].
e, *f*, *g*. Pull. sk.	Taplow, Berks.	Gould Collection.
h. Juv. sk.	Taplow.	Gould Collection.
i. ♀ ad. sk.	Formosa, Berks (*J. Gould*).	India Museum.
k. Ad. sk.	Middlesex.	F. D. Godman and O. Salvin, Esqrs. [P.].
l, *m*. ♀ ad. sk.	Surrey, Jan. 1857.	F. D. Godman and O. Salvin, Esqrs. [P.].
n–*s*. Ad. sk.	Avington, Hants, Nov. 25, 1872.	Capt. Shelley [P.].
t, *u*. ♂ ♀ ad. sk.	Avington, Hants, May 1876.	Capt. Shelley [P.].
v. ♂ ad. sk.	Colebrooke, Ireland, March 1870 (*A. B. Brooke*).	R. B. Sharpe, Esq. [P.].
w, *x*. Ad. sk.	Colebrooke, Ireland, Dec. 1871 (*A. B. Brooke*).	R. B. Sharpe, Esq. [P.].
y. Skull; *z*. Skeleton.	England.	Purchased.
	P. æmodius.	
a'. Ad. sk.	Sikkim, 12,000 feet, Sept. 23, 1870.	W. T. Blanford, Esq. [P.].
b', *c'*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. (Types of *P. æmodius*.)

Subspecies *a*. **Parus michalowskii.**

Parus michalowskii, *Bogdanow*, *Tr. Soc. Kazan*, viii. p. 87 (1879).

Like *P. ater*, but larger; upper parts (mantle and back) brownish instead of blue-grey, but not so brown as *P. britannicus*. A female shot in November 1879, measures as follows:—culmen 0·45 inch, wing 2·7, tail 2·05, tarsus 0·73. This seems to be the representative of the Coal Tits in the Caucasus.

Subspecies β. Parus rufipectus.

Parus ater, var. rufipectus (asiatica, *Catalogue*), *Severtz. Faun. Turk.* pp. 66, 134 (1873); *Dresser, Ibis*, 1876, p. 93.
Parus piceæ, *Severtz. J. f. O.* 1873, pp. 346, 373, 1875, p. 172; *id. Str. F.* 1875, p. 423.

In size and colour like *P. ater*, var. *pekinensis*; but the underparts show no white. Breast, abdomen, under tail-coverts, and flanks buffish ochraceous, inclining to pale cream-colour towards the upper and central part of the breast.

♂. Culmen 0·40 inch, wing 2·35, tail 1·65, tarsus 0·70.
♀. „ 0·42 inch, „ 2·34, „ 1·9, „ 0·70.

Hab. Eastern Turkestan.

Subspecies γ. Parus phæonotus.

Parus phæonotus, *Blanf. Ibis*, 1873, p. 88; *id. East. Pers.* p. 228, pl. 16. fig. 1 (1876).

Closely allied to *P. ater*, from which this species differs by its greater size and by the colour of the back. Hind neck, mantle, and entire back olive-brown. The bill much stronger than that of *P. ater*. Total length about 2·6 inches, culmen 0·4–0·45, wing 2·6, tail 1·8, tarsus 0·75.

This Titmouse has hitherto been found only in the oak-forests west of Shiraz, in Southern Persia.

a. ♂ ad. sk.	Oak forest near Shiraz, June 1870, 7000 feet elevation.	Sir Oliver St. John [C.]. (Type of the species.)

41. Parus ledouci.

Parus ledoucii, *Malh. Cat. Ois. Alg. in Mém. de la Soc. d'Hist. Nat. de la Moselle*, 1842; *id. Rev. Zool.* 1846, p. 45; *Bp. C. A.* i. p. 229; *id. Cat. Parzud., Append.* p. 18; *Loche, Cat. Mamm. et Ois. Alg.* p. 78; *id. Expl. de l'Alg., Ois.* p. 298; *Taczan. J. f. O.* 1870, p. 41; *Gurney, Ibis*, 1871, p. 86, pl. 3; *Dress. B. Eur.* iii. pl. 107; *Dixon, Ibis*, 1882, p. 569.

Adult male. Mantle and back olive-grey; cheeks, ear-coverts, sides of neck, and breast sulphur-yellow; abdomen, flanks, and under tail-coverts dingy yellow. In all other respects like *P. ater*. Culmen 0·4 inch, wing 2·3, tail 1·7, tarsus 0·6.

Hab. Algeria.

a. Ad. sk.	North Africa.	Purchased.
b. ♂ ad. sk.	Cedar forests, W. of Batna, May 11, 1882 (*Dixon*).	H. Seebohm, Esq. [P.].

42. Parus atricapillus.

La Mésange a teste noire de Canada, *Briss. Orn.* iii. p. 553, pl. 29. fig. 1 (1760).
Parus atricapillus, *Linn. S. N.* i. p. 34 (1766).
Parus atricapillus, *Pennant, Arctic Zool.* p. 424 (1785); *Audub. Orn.*

Biog. ii. p. 146, pl. 126; *Wilson, Am. Orn.* i. p. 134, pl. viii. fig. 4; *Bonn. et Vieill. Enc. Méth.* p. 508; *Less. Man. d'Orn.* i. p. 320; *Swains. Faun. Bor.-Am. Birds*, p. 226; *Lesson, Traité d'Orn.* p. 456; *Nuttall, Man. Orn.* p. 241; *DeKay, Fauna New York*, p. 60, pl. 45. fig. 100; *Bp. C. A.* i. p. 230; *Cassin, N. A. B.* p. 17; *Sclat. Cat. Am. B.* p. 13, no. 80; *Samuels, Orn. New Engl.* p. 182; *Gray, Hand-l. B.* i. p. 232, no. 3354; *Maynard, B. Florida*, p. 30; *Coues, Key N. A. B.* p. 81; *id. B. N. West*, p. 20; *Baird, Brew., & Ridgw. N. A. B.* i. p. 96.

Parus palustris, *Nuttall, Man. Orn.* p. 79 (1832).

Parus septentrionalis, *Harris, Pr. A. N. Sc.* ii. 1845, p. 300; *Cassin, Ill.* i. pl. xiv. (1835) (*teste Baird, Br. & R.*); *Cassin, N. Am. B.* p. 17 (1856); *Baird, Cass. & Lawr. B. N. Am.* p. 389; *Gray, Hand-l. B.* i. p. 232, no. 3353 (1869); *Baird, Br., & Ridgw. N. A. B.* i. p. 99 (1874); *Coues, B. Colorado Vall.* p. 120; *Sclat. Cat. Am. B.* p. 14, no. 82 (1862).

Pœcile atricapilla, *Cab. Mus. Hein.* i. p. 90 (1850).

Parus septentrionalis, var. albescens, *Baird, B. N. Am.* p. xxxvii. (1858).

Parus occidentalis, *Baird, Cass., & Lawr. B. N. A.* p. 391 (1858); *Sclat. Cat. Am. B.* p. 14, no. 85; *Elliot, N. Am. B.* i. pl. viii. (*ex Baird*); *Cooper, Birds Calif.* i. p. 45; *Gray, Hand-l. B.* i. p. 232, no. 3355 (1869).

Parus atricapillus, var. septentrionalis, *Coues, Key N. A. B.* p. 81 (1872); *id. B. N. West*, p. 21 (1874).

Parus atricapillus, var. occidentalis, *Coues, Key N. A. B.* p. 81 (1872); *Baird, Brew., & Ridgw. N. A. B.* i. p. 101.

Adult. Mantle and upper back light olive-brown or brownish ashy; rump inclining to yellowish brown; wings dark brown, the primaries narrowly, the secondaries broadly edged with white or whitish; greater wing-coverts broadly edged like the secondary quills, the rest edged with grey; tail dark grey, outer webs edged whitish; entire crown, occiput, and hind neck jet-black, this colour extending backwards to the middle of the back; lores, cheeks, ear-coverts, sides of neck, and space between mantle and the black parts pure white; chin, throat, and fore neck deep black; greater part of breast and middle of abdomen dull white; rest of underparts pale buff or light fawn-colour. Total length about 4·5 inches, culmen 0·42, wing 2·45–2·5, tail 2·3–2·5, tarsus 0·65.

Hab. Greater part of North America north of 39th parallel. In the Pacific States it is represented by a somewhat differently coloured race (*P. occidentalis*).

Obs. After the examination of seven specimens of this Tit from the Rocky Mountains and from the Pacific States, I find that the slight differences pointed out by Messrs. Baird, Brewer, and Ridgway for the separation of *P. occidentalis* do not hold good. According to these authors, *P. occidentalis* may be looked upon as simply a long-tailed western variety of the common species.

Specimens from the Upper-Missouri region seem to form a larger and slightly differently coloured race (*P. septentrionalis*); the whitish edgings to the feathers of the wings, tail, and greater wing-coverts are certainly broader and more conspicuous.

Adult ♀. Fort Simpson. Total length about 5·3 inches, culmen 0·42, wing 2·6, tail 2·65, tarsus 0·65.

a. Ad. st.	North America.	Purchased.
b. Ad. sk.	North America.	Gould Collection.
c. Ad. sk.	Hyde Park, Illinois, Mar. 18, 1876.	H. K. Coale, Esq. [C.].
d, *e*. Ad. sk.	Fort Simpson.	Bernard S. Ross, Esq. [P.].
f. Ad. sk.	Fort Dufferin (*G. Dawson*).	N.A. Boundary Commission.
g, *h*. Ad. sk.	Sumass, British Columbia.	J. K. Lord, Esq. [C.].
i, *k*. *l*, *m*, ♂ ♀ ad. sk.	West side of Rocky Mountains.	J. K. Lord, Esq. [P.].
n. Ad. sk.	California.	John Gould, Esq.
o. Skeleton.		Purchased.

Subspecies α. Parus carolinensis.

Parus carolinensis, *Aud. Orn. Biog.* ii. p. 474, pl. 160 (1834); *id. Birds Am.* ii. p. 152, pl. 127; *DeKay, New York Fauna*, p. 61, pl. 54. fig. 123; *Cassin, N. A. B.* p. 17; *Baird, B. N. Am.* p. 392; *Sclat. Cat. Am. B.* p. 13, no. 81; *Coues, Key N. A. B.* p. 81; *Baird, Brew., & Ridgw. N. A. B.* i. p. 102.

Pœcile carolinensis, *Cab. Mus. Hein.* i. p. 90 (1850); *Bp. C. A.* i. p. 230.

Parus atricapillus, *Maynard, B. Florida*, p. 30 (1872).

This bird, according to Messrs. Baird, Brewer, and Ridgway, is a very near ally of *T. atricapillus*. The chief points of difference are:—"the black of the throat extends much further back, is more dense and more sharply defined behind than in *P. atricapillus*; the tail is considerably shorter than the wing, instead of longer; no conspicuous white edgings to wings and tail." Total length about 7·5 inches, wing less than 2·50, tail 2·40.

Obs. The measurements given above (copied from the above-named authors) do not show a considerable difference between the length of the tail and wing. However, in the key to the species (*op. cit.*) I find the following measurements given: culmen 0·35, wing 2·55, tail 2·30, tarsus 0·53.

Hab. "Eastern Province of United States south of about 40°."

a. Skeleton.	N. America.	Purchased.

43. Parus meridionalis.

Parus meridionalis, *Sclater, P. Z. S.* 1856, p. 293, 1857, p. 81, 1858 p. 299; *Baird, Cass., & Lawr. B. N. Am.* p. 392; *Sclat. Cat. Am. B.* p. 14, no. 83; *id. & Salv. Nomencl. Av. Neotr.* p. 4; *Baird, Brew., & Ridgw. N. A. B.* i. p. 94; *Salv. Cat. Strickl. Coll.* p. 63; *id. & Godm. Biol. Centr.-Amer., Aves*, p. 57.

Crown of head, hind neck, the whole throat and fore neck jet-black; cheeks, ear-coverts, and sides of neck pure white; middle line of breast and abdomen whitish, like the under wing-coverts;

all the rest of underparts ashy grey; mantle and back dark ashy grey, with a slight olive tinge; tail and wings like those of *P. atricapillus*, but without the conspicuous white edgings; bill black, feet lead-colour. Total length about 5 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂	0·4	2·63	2·4	0·67
Ad. ♂	0·4	2·7	2·4	0·74
Ad.	0·41	2·7	2·35	0·7

Hab. Mexico.

a, *b*, *c*, *d*. Ad. sk.	Mexico.	Purchased.
e. ♂ ad. sk.	Mexico.	Purchased.
f. Ad. sk.	Mexico.	Gould Collection.
g. ♂ ad. sk.	El Jacale, Mexico, May 1857.	M. A. Sallé [C.].
h. Ad. sk.	Mexico.	Hr. Mann [C.].

44. Parus montanus.

Parus montanus, *Gambel, Pr. A. N. Sc. Philad.* 1843, p. 259; *id. Journ. A. N. Sc.* 2nd ser. i. 1847, p. 35, pl. viii. fig. 1; *Cassin, N. A. B.* p. 18; *Baird, Cass., & Lawr. B. N. Am.* p. 394; *Sclat. Cat. Am. B.* p. 14, no. 84; *Baird, Rev. Am. B.* i. p. 82; *Cooper, Birds Calif.* p. 46; *Coues, B. N. West*, p. 22; *Baird, Brew., & Ridgw. N. A. B.* i. p. 95; *Coues, B. Colorado Valley*, p. 122.

Very similar to *P. meridionalis* in size and colour, but easily distinguished from all the other black-capped Tits by a conspicuous white superciliary stripe and white forehead; as this white band extends backwards as far as the occiput, a black stripe runs through the eye, uniting on the hind neck with the black of the head. General colour above a little lighter grey than in *P. meridionalis*, and the underparts more whitish ashy. Total length about 4·5 inches, culmen (ad. ♂) 0·43, wing 2·65–2·82, tail 2·4–2·5, tarsus 0·7.

Hab. Rocky Mountains and Western N. America.

a, *b*. ♂ ♀ ad. sk.	West side Rocky Mountains.	J. K. Lord, Esq. [P.].
c. Ad. sk.	West side Rocky Mountains.	J. K. Lord, Esq. [P.].
d, *e*. ♂ ad. sk.	Upper Klamath Lake, Oregon.	A. Forrer, Esq. [C.].
f–*h*. Ad. sk.	California.	Lord Walsingham [P.].

45. Parus lugubris.

Parus lugubris, "*Natterer*," *Temm. Man. d'Orn.* i. p. 292 (1820); *Less. Man. d'Orn.* i. p. 318; *Schinz, Europ. Faun.* p. 219; *Dress. B. Eur.* iii. pl. 111; *Danf. & Brown, Ibis*, 1875, p. 303; *Blanf. East. Persia*, p. 229.

Pœcila lugubris, *Bp. C. A.* i. p. 230 (1850).

Pœcile lugubris, *Cab. Mus. Hein.* i. p. 91 (1850); *Degl. & Gerbe, Orn. Europ.* p. 569; *Giglioli, Ibis*, 1881, p. 194.

Penthestes lugubris, *Reichenb. Av. Syst. Nat.* pl. 62 (1850).

Pœcila lugens, *Brehm, Naumannia*, 1856, p. 369.

Pœcila melanocephala, *Brehm, l. c.*
Poikilis lugubris, *Blas. List B. Europ.* p. 8 (1862).

Adult male in spring. Crown of head, nape, throat, and fore neck deep sooty black; cheeks, ear-coverts, and sides of neck pure white; rest of underparts dull white; mantle, back, and lesser wing-coverts pale ashy brown; primary-coverts and bastard wing blackish brown, with narrow light edgings; rest of wing-coverts, quills, and tail greyish brown, with conspicuous white edgings to the outer webs; bill and feet lead-colour; iris dark brown.

Male in winter. General colour above ashy, with a strong olive-brown tinge; crown of head, nape, and fore neck dull blackish brown; flanks and sides of breast tinged with fulvous; outer web of secondaries, of the tail, and of the greater wing-coverts edged with light fulvous instead of whitish.

Female in spring. Like the male in winter plumage; throat dull blackish. In *winter* the coloration of the female is a little duller.

Immature birds have the general colour above and the throat pale olive-brown; head a little darker; quills and tail brown, edged with fulvous; underparts, ear-coverts, and sides of neck dull white; bill and feet horn-colour. Total length 5·5 inches.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
♀	0·5	2·8	2·5	2·75
♂	0·5	2·82	2·6	2·8
♂	0·5	2·82	2·47	2·76
♂ (Persia)..	0·47	2·95	2·52	2·8

Obs. One male specimen from Shiraz has the mantle and back much paler, the breast and rest of the underparts clearer white than in the European specimens.

Hab. South-eastern Europe, extending eastwards through Asia Minor into Syria and Persia.

a. Juv. sk.	S.E. Europe.	Purchased.
b. ♀ ad. sk.	Smyrna, May 1875.	Dr. Krüper [C.].
c. Immat. sk.	Smyrna, June 1875.	Dr. Krüper [C.].
d, e. ♂ ♀ ad. sk.	Mount Olympus, Oct. 10, 1869 (*Dr. Krüper*).	F. D. Godman and O. Salvin, Esqrs. [P.].
f. ♂ ad. sk.	Anascha, Taurus, Asia Minor, March 21, 1876 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
g. ♂ (moulting).	Shiraz, 7000 feet, June 1870.	Sir Oliver St. John [C.].

46. Parus songarus.

Parus songarus, *Severtz. Turk. Jevotn.* p. 134 (1873); *id. J. f. O*, 1873, pp. 346, 386; *id. Str. F.* 1875, p. 423.
Parus sibiricus, *Radde, Reis. S.O. Sib.* ii. p. 198 (1863, *nec Gmel.*).
Pœcila sibirica (*Gm.?*), *Tacz. Bull. Soc. Zool. France*, i. p. 163 (1876), (*teste David & Oustal.*).
Pœcile affinis, *Prjev. in Dawson Rowley's Ornith. Misc.* ii. p. 188 (1877).

Entire crown of head, nape, and centre of hind neck sooty black; mantle, scapulars, and entire back buffish brown; quills, tail-feathers, and wing-coverts brown, with narrow paler edgings; lores, cheeks, and ear-coverts white, passing through pale cream-colour on the sides of the neck into the colour of the mantle; chin, throat, and fore neck dull black, each feather narrowly tipped with white, giving the throat a mottled appearance; sides of breast, flanks, abdomen, and under tail-coverts buffish ochraceous, inclining to pale cream-colour or whitish towards the centre and upper part of breast; under wing-coverts reddish brown like abdomen; "culmen black; feet dark lead-colour; iris dark brown" (*Prjzew.*). Total length 5 inches, culmen 0·52, wing 2·7, tail 2·3, tarsus 0·72.

Hab. Pine-forests of Central Asia, from the Thian-Shan mountains to Kan-Su.

47. Parus palustris.

La Mésange de Marais ou la Nonnette cendrée, *Briss. Orn.* iii. p. 555.
Parus palustris, *Linn. S. N.* i. p. 341 (1766); *Bechst. Vög. Deutschl.* iv. p. 741; *Retzius, Faun. Suec.* p. 270; *Koch, System. baier. Zool.* p. 206; *Temm. Man. d'Orn.* p. 291; *Bonn. et Vieill. Enc. Méth.* p. 502; *Roux, Orn. Provenç.* p. 189, pl. 120; *Pall. Zoogr. Rosso-As.* i. p. 557, tab. 34. f. 2; *Nilsson, Skandin. Faun.* i. p. 339 (1835); *Selys-Longch. Faune Belge*, p. 104; *Thompson, Nat. Hist. Ireland*, p. 206; *Bp. C. A.* i. p. 230; *Kjærböll. Danmarks Fugle*, pl. 23; *Sundev. Svenska Fogl.* pl. 16. fig. 6; *Wright, Finlands Foglar*, i. p. 180; *Holland. Wirbelth. Pommerns*, p. 61; *Salvad. Faun. Ital.* ii. p. 68; *Dresser, B. Eur.* iii. p. 108; *Danford & Brown, Ibis*, 1875, p. 303; *Irby, Ibis*, 1879, p. 344; *Newton, ed. Yarrell Br. B.* p. 495; *Booth, Rough Notes*, pt. ii. pl.
Marsh Titmouse, *Lath. Gen. Syn.* ii. pt. 2, p. 541 (1783).
Parus cinereus communis, *Baldenst. Neue Alpina*, p. 30, t. 2 (1829).
Pœcile palustris, *Kaup, Natürl. Syst.* p. 114 (1829); *Cab. Mus. Hein.* i. p. 91; *Malm, Fauna*, p. 181; *Dav. & Oustal. Ois. Chine*, p. 288.
Parus salicarius, *Brehm, Vög. Deutschl.* p. 405 (1831).
Poikilis palustris, *Blasius, List B. Eur.* p. 8 (1862).
Pœcile communis, *Degl. & Gerbe, Orn. Eur.* i. p. 567 (1867).
Parus palustris, subsp. japonicus, *Seebohm, Ibis*, 1879, p. 32.
Parus palustris japonicus, *Blakist. & Pryer, B. Japan*, p. 150.

Adult male in summer. Mantle and upper back greyish brown, with a very perceptible olive tinge, paler on the lower back and rump and more yellowish instead of olive; tail grey-brown, with whitish tips and margins to the outer pairs of feathers; most of the wing-coverts with the external web coloured like the back, the inner one darker; greater wing-coverts, secondaries, and primaries dark greyish brown, with light olive-brown margins, especially to the outer webs of the innermost secondaries; crown of head and occiput jet-black; cheeks, ear-coverts, and sides of neck pure white; feathers of chin and upper throat black; lower down the feathers become more and more edged with whitish, passing into the dull white colour of the breast and middle of abdomen; sides of breast, flanks, and under tail-coverts more or less washed with buff; quills below

greyish; axillaries and under wing-coverts dull white; bill black; iris dark brown; feet lead-colour.

Male in autumn. General colour above more olive-brown instead of greyish; the black patch on the throat smaller, and the white tips and edgings to the single feathers a little larger; rest of underparts more buff than in spring.

Adult female. Mantle and underparts slightly paler than in the male.

Young. Similar to the male in autumn plumage, but still darker olive-brown on the upper back; crown of head dark brownish black or sooty black, never glossy or jet-black; rump rosy buff; wing-coverts, secondaries, and tail edged with a kind of olive-brown instead of whitish; throat dull black; rest of underparts whitish, with a strong rosy tinge, especially on the flanks, instead of buff; feet paler than in the adult.

Hab. The Marsh-Titmouse is rather common during the whole year in Western and Central Europe, being also found in South Europe and Asia Minor in winter. In the mountainous parts of Central Europe and in the north it is represented by the following subspecies or race, *P. borealis*.—Total length about 4 inches.

Parus palustris.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. England	0·4	2·27	1·9	0·65
♂. Kent	0·45	2·4	2·05	0·67
♂. Stockholm	0·42	2·3	..	0·63
♀. Stockholm	0·42	2·4	2·2	0·7

Parus borealis.

♀. Norway	0·42	2·43	2·25	0·68
♂. Norway	0·48	2·75	2·4	0·69
♂. Norway	0·43	2·27	2·1	0·65
♂. Alps	0·48	2·65	2·4	0·68
♀. Archangel	0·45	2·35	2·25	0·65

a, b. ♂ ♀ ad. st.	Cambridgeshire.	Mr. J. Baker [P.].
c. Nestling st.	Cambridgeshire.	Mr. J. Baker [P.].
d, e. [♂] ♀ ad. st.	Devonshire.	Mr. J. Baker [P.].
f. Ad. st.	Great Britain.	Purchased.
g. Ad. sk.	Great Britain.	Gould Collection.
h. Ad. sk.	Colebrooke, Ireland (*Sir V. Brooke*).	R. B. Sharpe, Esq. [P.].
i, k. Ad. sk.	Middlesex.	F. D. Godman and O. Salvin, Esqrs. [P.].
l, m. Pull. sk.	Maidenhead, Berks.	Gould Collection.
n. ♂ ad. sk.	Preston Hall, Shropshire, Jan. 1866.	Gould Collection.
o. Ad. st.	Avington, Hants.	Capt. Shelley [P.].
p. ♂ ad. sk.	Avington, Hants, May 12.	E. Shelley, Esq. [P.].
q. ♂ ad. sk.	Avington, Hants, Nov. 25.	E. Shelley, Esq. [P.].

r. ♂ ad. sk.	Stockholm, Nov. 9.	Purchased.
s. ♀ ad. sk.	Stockholm, Oct. 18.	Purchased.
t. Ad. sk.	Belgium, May 17.	Purchased.
u. Ad. sk.	France.	Purchased.
v, *w*. Ad. st.	France.	R. B. Sharpe, Esq. [P.].
x. Ad. sk.	Mongeron.	R. B. Sharpe, Esq. [P.].
y. Ad. sk.	Bordeaux.	Gould Collection.
z. ♀ ad. sk.	Wallachia.	H. E. Dresser, Esq. [P.].
a'. ♀ ad. sk.	Turkey, April 20, 1868.	H. E. Dresser, Esq. [P.].
b'. ♂ ad. sk.	Asia Minor, Guiksu, November (*Robson*).	Gould Collection.
c', *d'*. Skeletons.	England.	Purchased.
e'. Skull.	England.	Purchased.
f'. Skull.	S. Germany.	Dr. Günther.

Subspecies *a*. **Parus borealis.**

A. *Western Race.*

Parus cinereus montanus, *Baldenst. Neue Alpina*, ii. p. 217 (1829).
Parus borealis, *Selys-Longch. Bull. Ac. Roy. Bruxelles*, 1843, p. 2; *Sundev. Svensk. Fogl.* pl. 16. fig. 7; *Wright, Finl. Fogl.* i. p. 180; *Nilsson, Skandin. Faun.* i. p. 419; *Salvad. Faun. Ital.* ii. p. 69; *Dresser, B. Eur.* iii. pl. 109; *Seebohm, Ibis*, 1879, p. 32.
Pœcila borealis, *Bp. C. A.* i. p. 230 (1850).
Parus lugubris, *Fairmaire, Rev. Zool.* 1850, p. 276 (*nec Natterer, fide Dresser*).
Parus fruticeti, *Wallengr. Naumannia*, p. 141 (1854).
Parus alpestris, *Bailly, Bull. Soc. Hist. Nat. Savoie*, 1851, p. 22; *Gray, Hand-l. B.* i. p. 232, no. 3350.
Pœcila alpestris, *Brehm, Naumannia*, 1855, p. 286.
Pœcila assimilis, *Brehm, Naumannia*, 1855, p. 286.
Pœcila salicaria alpina, Pœcila salicaria borealis, Pœcila salicaria assimilis, *Brehm, Naumannia*, 1856, p. 370.
Parus baldensteinii, *De Salis, Mém. Soc. H. N. Grisons*, p. 106 (1861).
Poikilis alpestris, Poikilis borealis, *Blasius, List B. Eur.* p. 8 (1862).
Pœcile palustris, *Degl. & Gerbe, Orn. Eur.* i. p. 565 (1867).

B. *Eastern Race* (P. kamtschatkensis).

Pœcila kamtschatkensis, *Bp. C. A.* i. p. 230 (1850).
Parus borealis, *Middend. Reis. N.O. Sibir.* ii. p. 115 (1851, *nec Selys*).
Parus palustris, var. borealis, *Schrenck, Reise im Amurl.* i. p. 307 (1860, *nec Selys*).
Parus palustris, *Swinh. Ibis*, 1861, p. 331.
Parus kamtschatkensis, *Swinh. P. Z. S.* 1863, p. 207, 1870, p. 437, 1871, p. 362; *Dresser, B. Eur.* iii. pl. 110 (1873).
Pœcile baicalensis, *Swinh. Ann. & Mag. N. H.* 1871, p. 257.
Pœcile brevirostris, *Taczanowski, J. f. O.* 1872, p. 444.
Parus palustris, subsp. camtschatkensis, *Seebohm, Ibis*, 1871, p. 32.
Pœcila kamtschatkensis, *Taczan. J. f. O.* 1872, p. 443.

A. *Western Race* (P. borealis).

Crown of head never so glossy black as in *P. palustris*, but always

sooty or even brownish black, this colour extending somewhat further down on the hind neck than in *P. palustris*; general colour more greyish and scarcely inclining to olive; the margins to the secondary quills generally more greyish, broader, and more distinct; bill brownish black; feet leaden brown.

P. borealis seems to be slightly larger in its dimensions than the common Marsh-Titmouse. For measurements see above.

Hab. In Sweden and Norway *P. borealis* is more common than *P. palustris*. The specimens found in Switzerland and Savoy are intermediate both in size and colour between the two forms in question. Birds from Galicia agree with *P. borealis*. The Switzerland-Savoy race (the *P. alpestris*) is another proof of the well-known fact that alpine species resemble northern ones although geographically they may be widely separated.

B. *Eastern Race* (P. kamtschatkensis).

General colour above rather paler than in *P. borealis*. The black of the cap and hind neck in old males seems to extend a little further down, to the interscapular region; iris brown.

The following measurements of specimens from Siberia show that there is really no difference in size of the wings and tails between *P. borealis* and *P. kamtschatkensis*:—

	Wing. in.	Tail. in.
♂ ad.	2·4	2·3
♂ ad.	2·4	2·25
♂ ad.	2·52	2·6
♂ ad.	2·57	2·4
♂ ad.	2·3	2·25

Hab. Represents *P. borealis* in Siberia, Kamtschatka, and Japan.

Parus borealis (Western Race).

a. Ad. st.	Europe.	Purchased.
b. ♀ ad. sk.	Norway, May 24.	R. B. Sharpe, Esq. [P.].
c, d. ♂ ♀ ad. sk.	S. Norway, July 1.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. Ad. sk.	Sweden (*Wheelwright*).	Gould Collection.
f. Ad. sk.	Muoniovara, Lapland, April 19, 1855.	Gould Collection.
g. Ad. sk.	France.	Gould Collection.
h. Ad. sk.	Savoy.	Purchased.
i. ♂ ad. sk.	Alps.	Purchased.
k. ♀ ad. sk.	Central Europe.	Purchased.
l. Ad. sk.	Archangel.	R. B. Sharpe, Esq. [P.].

Parus kamtschatkensis (Eastern Race).

a, b. Ad. sk.	North Russia.	Dr. Günther [P.].
c. ♂ ad. sk.	Kondinsky, Sept. 18.	Dr. O. Finsch [C.].
d, e. ♀ ad. sk.	Bolskoi Ustram, Ob river, Sept. 11.	Dr. O. Finsch [C.].

f. ♂ ad. sk.	Krasnojarsk, Oct. 7, 1878.	Henry Seebohm, Esq.
g. ♂ ad. sk.	Krasnojarsk, Dec. 3, 1878.	Henry Seebohm, Esq.
h, i. ♂ ♀ ad. sk.	Ussuri river.	R. B. Sharpe, Esq. [P.].
k. ♂ ad. sk.	Lake Baikal.	Purchased.
l. Ad. sk.	Hakodadi, Japan, Nov. 22 (*H. Whitely*).	Gould Collection.
m. ♂ ad. sk.	Hakodadi, Nov. 15.	Henry Whitely, Esq. [C.].
n, o, p. Ad. sk.	Hakodadi.	H. Pryer, Esq. [C.].
q. Skeleton.	N. Russia.	Dr. Günther [P.].

48. Parus brandti.

Pœcile brandtii, *Bogdanow, Aves Caucas.* p. 89; *Schalow, J. f. O.* 1880, p. 268; *Reichenow & Schalow, J. f. O.* 1882, p. 220.

"Very similar to *P. palustris*, but with the bill thicker and stronger; crown of head blackish brown instead of black, and not extending backwards as far as the nape; throat without any blackish patch.

"*Hab.* Caucasus" (*Reichenow & Schalow*).

Obs. I have not seen a specimen of this species; it may possibly belong to the *P. lugubris* group.

2. PSALTRIA.

Type.

Psaltria, *Temm. Pl. Col.* pl. 600. fig. 4 (1836) ..... P. exilis.

Head, bill, and tail of *Psaltria exilis*.

Bill rather broad, short and curved; nostrils situated in a groove, and thickly covered with small feathers; first primary longer than half the second primary; secondaries equal to five sixths of whole wing; tail graduated, slightly longer than wing; tarsus anteriorly covered with scales. No crest. Plumage very dull-coloured. Sexes alike. Length of wing about 1·6 inch.

One species, confined to Java.

1. Psaltria exilis.

Psaltria exilis, *Temm. Pl. Col.* 600. fig. 4; *Gould, B. Asia*, pt. vii.; *Bp. C. A.* i. p. 231; *Lucht. Nomencl.* p. 37; *Sundev. Av. Meth. Tent.* p. 17.

Parus exilis, *Gray, Gen. B.* i. p. 192 (1846); *id. Hand-l. B.* i. p. 234, no. 3390.

Adult male. Crown and sides of head, wing-coverts, quills, and tail uniform brown; mantle and back ashy grey, slightly washed

with brownish; all the underparts dull dirty whitish, palest on the abdomen and under tail-coverts; breast washed with fulvous; across the breast a faint collar of brownish; bill dark brown; feet fleshy-yellow. Total length about 3·3 inches, culmen 0·25, wing 1·6–1·95, tail 1·5–1·65, tarsus 0·54.

Adult female. General colour above a little paler than in the male; quills and tail-feathers with faint lighter margins to the outer webs.

Hab. Java.

a. Ad. sk.	Java.	J. Gould, Esq.
b. Ad. sk.	Java.	Purchased.
c. ♀ ad. sk.	W. Java.	A. R. Wallace, Esq. [C.].

3. ACREDULA.

	Type.
Orites, *Moehring, Gen. Av.* p. 45 (1752)	A. caudata.
Acredula, *Koch, Syst. baier. Zool.* p. 199 (1816) ..	A. caudata.
Mecistura, *Leach, Cat. Mamm. & B. Brit. Mus.* p. 17 (1816)	A. caudata.
Paroides, *Brehm, Vög. Deutschl.* p. 468 (1831) ..	A. caudata.
Ægithaliscus, *Cab. Mus. Hein.* i. p. 90 (1850) ..	A. erythrocephala.
Psaltriparus (pt.), *Bp. C. R.* xxxi. p. 478 (1850) .	A. melanotis.
Acanthiparus, *Gould, B. Asia*, pt. vii. (1855)	A. niveogularis.
Psaltrites, *Cab. J. f. O.* 1881, p. 333 (*nomen emendat. pro* Psaltriparus).	

Bill extremely short and stout; culmen strongly curved; nostrils completely hidden by small recumbent feathers; first primary well developed, but shorter than half the length of the next primary; tip of wing formed by the fourth, fifth, and sixth primaries; tail generally much longer than the wing, and much graduated; the scales covering the tarsus in front inclined to fuse into one long scutum. No crest. Plumage very soft, and of light colours.

Range. Palæarctic and Nearctic Regions.

Key to the Species.

a. Crown uniformly coloured.
  a'. Crown grey; underparts dull whitish, with a tinge of fawn ..... *melanotis*, p. 55.
  b'. Crown brown.
    a''. Crown light brown; underparts dull.
      a'''. Throat white ..... *minima*, p. 56. / *plumbea*, p. 56.
      b'''. Throat black ..... *leucogenys*, p. 59.
    b''. Crown bright reddish brown; throat black.
      c'''. Upper breast reddish chestnut, rest of underparts whitish ..... *concinna*, p. 57.
      d'''. Breast and abdomen pale fawn vinous *erythrocephala*, p. 56.
b. Centre of crown, from nostrils to nape, pale, either fawn-coloured or white.
  c' Abdomen and breast rich reddish fawn; from nostrils to nape a broad fawn-coloured band; sides of crown black; throat dull white ..... *jouschistos*, p. 58.

Abdomen and breast pale vinous fawn.
c''. Sides of crown black or blackish brown.
e'''. Centre of crown brown; throat white *niveogularis*, p. 58.
f'''. Centre of crown whitish or pale fawn; throat greyish or blackish grey.
*a*⁴. Across the upper breast faint longitudinal spots; whole mantle and back bluish grey ..... *tephronota*, p. 64.
*b*⁴. No spots across upper breast..... *glaucogularis*, p. 65.
g'''. Centre of crown white; throat white, with much rose and vinous on the shoulders and lower back.
*c*⁴. Præocular and loral region blackish *trivirgata*, p. 62.
*d*⁴. Præocular and loral region white.
*a*⁵. Centre of mantle grey ..... *irbii*, p. 63.
*b*⁵. Centre of mantle black ..... *rosea*, p. 61.
d''. Sides of crown pure white like the whole head..... *caudata*, p. 59.

1. Acredula melanotis.

Parus melanotis, *Hartlaub, Rev. Zool.* 1844, p. 216; *Licht. Nomencl.* p. 37; *Gray, Hand-l. B.* i. p. 234, no. 3391.
Pœcile melanotis, *Bp. C. A.* i. p. 230 (1850).
Ægithaliscus melanotis, *Cab. Mus. Hein.* i. p. 90 (1850).
Psaltria melanotis, *Westerman, Bijdrag. Dierk.* p. 16, pl. (1851); *Cassin, N. Am. B.* p. 20.
Psaltriparus personatus, *Bp. C. R.* xxxi. p. 478 (1850).
Psaltriparus melanotis, *Baird, Cass., & Lawr. B. N. A.* p. 396, pl. 53. fig. 3 (1860); *Sclat. Cat. Am. B.* p. 13, no. 78; *id. & Salv. Nomencl. Av. Neotrop.* p. 4; *Baird, Brew., & Ridgw. N. A. B.* i. p. 108; *Salv. Cat. Strickl. Coll.* p. 66; *id. & Godm. Biol. Centr.-Amer., Aves*, p. 58.

Adult male. Entire crown of head and occiput pale grey; sides of head, including the loral region, and the cheeks glossy black, this colour extending backwards so as to form a narrow collar round the hind neck; wings and tail brown, externally edged with pale grey; mantle and back yellowish brown, with a slight olive tinge; outer pair of tail-feathers with a whitish margin to the outer web; chin blackish; throat and sides of neck white, gradually passing into dull pinkish white; abdomen, thighs, and under tail-coverts pale ochraceous or fulvous; bill and feet black; "iris pale straw-colour" (*Salvin*). Total length about 4 inches, culmen 0·3, wing 1·95, tail 2·2, tarsus 0·6.

Adult female. Sides of head pale brown instead of black; sides of neck a little blackish; throat whitish; rest of underparts fulvous.

Hab. Mountainous regions of Mexico and California.

a. [♀] or juv. sk.	Mexico.	Dr. Kaup [P.].
b, c. ♂ ♀ ad. sk.	Parada, Mexico.	Purchased.
d. ♂ ad. sk.	Mexico.	Purchased.
e, f. Ad. sk.	Mexico.	Purchased.
g. ♀ ad. sk.	California.	Lord Walsingham [P.].

2. Acredula minima.

A. *Western Race* (A. minima).

Parus minimus, *Townsend, J. A. N. Sc. Philad.* vii. 1837, p. 190; *Audub. Orn. Biogr.* iv. p. 382, pl. 382. figs. 5 & 6; *Aud. B. Am.* ii. p. 160, pl. 130; *Gray, Hand-l. B.* i. p. 234, no. 3392.
Pœcile minima, *Bp. C. A.* i. p. 330 (1850).
Psaltria minima, *Cassin, N. A. B.* p. 20 (1856).
Psaltriparus minimus, *Bp. C. R.* xxxi. p. 62 (1854); *Baird, Cass., & Lawr. N. A. B.* p. 397; *Sclat. Cat. Am. B.* p. 13, no. 76; *Cooper, Birds Californ.* p. 48; *Coues, Key N. Am. B.* p. 82.
Psaltriparus minimus, var. minimus, *Baird, Brew., & Ridgw. N. A. B.* i. p. 109 (1874).

B. *Eastern Race* (A. plumbea).

Psaltria plumbea, *Baird, Pr. Acad. N. S. Phil.* vii. 1854, p. 118.
Psaltriparus plumbeus, *Baird, Cass., & Lawr. B. N. Am.* p. 398, pl. 33. fig. 2 (1860); *Sclat. Cat. Am. B.* p. 13, no. 77; *Cooper, Birds Calif.* p. 49; *Coues, Key N. A. B.* p. 82; *id. B. N. West*, p. 23; *id. B. Colorado Vall.* p. 125.
Parus plumbeus, *Gray, Hand-l. B.* i. p. 234, no. 3393 (1869).
Psaltriparus minimus, var. plumbeus, *Baird, Brew., & Ridgw. N. A. B.* i. p. 110 (1874).
Psaltrites helviventris, *Cab. J. f. O.* 1881, p. 333, pl. 4. fig. 1.

Western Race (A. minima).

The whole crown and nape dull brown; general colour above ashy grey, with a slight olive tinge; wings and tail dark brown, externally narrowly edged with pale grey; sides of head and flanks dull fulvous or brownish white; rest of underparts and throat dull white; bill and feet black. Total length under 4 inches, culmen 0·32–0·35, wing 1·75–1·85, tail 2·1–2·2, tarsus 0·55.

Hab. Pacific States of North America.

a. Ad. sk.	Puget Sound.	John Gould, Esq.
b. Ad. sk.	California.	Purchased.

Eastern Race (A. plumbea).

Slightly larger than *A. minima*, and having the crown of the head uniformly coloured with the back instead of brown. Total length about 4·20 inches, wing 2·15, tail 2·50. (*Baird, Brewer, & Ridgway, l. c.*)

"Represents *A. minima* in the Southern Rocky-Mountain region being found in Arizona, New Mexico, Nevada, Wyoming" (*iid. l. c.*).

3. Acredula erythrocephala.

Parus erythrocephalus, *Vigors, P. Z. S.* 1831, p. 23; *Gould, Cent. B. Him. Mts.* pl. xxx. fig. 1 (1832); *Hodgs. in Gray's Zool. Misc.* 1844, p. 83; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 73; *Bp. C. A.* i. p. 230; *Gould, B. Asia*, pt. vii. p. 11; *Brooks, Str. F.* 1879, p. 487.
Orites erythrocephalus, *Blyth, Cat. B. Mus. As. Soc.* p. 104 (1849);

id. in Jard. Contr. Orn. 1851, p. 51; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* p. 374; *Sundev. Av. Meth. Tent.* p. 17.
Ægithaliscus erythrocephalus, *Cab. Mus. Hein.* i. p. 90 (1850); *Jerdon, B. Ind.* ii. p. 270; *Gray, Hand-l. B.* i. p. 234, no. 3423; *Blyth & Walden, B. Burmah*, p. 112; *Brooks, Str. F.* 1875, p. 252.

Adult. Forehead, crown, and nape rich rufous chestnut; sides of head, ear-coverts, and part of the sides of the neck, and a large patch on the throat deep black; between the crown and the ear-coverts a more or less conspicuous white superciliary stripe; general colour above, including scapulars and most of the wing-coverts, bluish grey; quills and tail ashy brown, externally slightly edged with grey; the two outer pairs of the tail-feathers broadly edged and tipped with white; chin, sides of throat and neck pure white; rest of underparts ochraceous, deepest and sometimes with a vinous tinge on the flanks and abdomen; "bill black; feet fleshy yellow; iris brown" (*Jerdon*). Total length about 4 inches, culmen 0·3, wing 2·05, tail 2, tarsus 0·6.

The sexes are alike in plumage.

Young. Crown fulvous, mixed with grey; sides of head dull black; throat greyish; back grey, with brownish tinge; underparts whitish and ochraceous.

Hab. Himalayas.

a, b. Ad. st.	Himalayas.	Purchased.
c–g. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
h, i. Ad. sk.	Murree, Aug. 1878.	Col. Way [P.].
k. Juv. sk.	Simla.	E. W. Oates, Esq. [C.].
l. Ad. sk.	Nepal.	Gould Collection.
m–o. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [C.].
p, q, r. Pull. sk.	Nepal.	B. H. Hodgson, Esq. [C.].
s. Ad. sk.	Nepal.	Purchased.
t, u. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.].
v. Ad. sk.	Darjiling.	W. Fotheringham, Esq. [P.].
w, x, y. Ad. sk.	Bhootan (*Pemberton*).	India Museum [P.].
z. Ad. st.	Assam.	Gould Collection.

4. Acredula concinna.

Psaltria concinna, *Gould, B. Asia*, pt. vii. (1855); *A. David, N. Arch. Mus., Bull.* vii., *Cat. Ois. Chine*, no. 214.
Ægithaliscus anophrys, *Swinh. Ibis* 1878, p. 64.
Ægithalus anophrys, *Gray, Hand-l. B.* i. p. 234, no. 3425 (1869).
Ægithalus concinnus, *Gray, Hand-l. B.* i. p. 234, no. 3426 (1869).
Ægithaliscus concinnus, *Swinh. P. Z. S.* 1871, p. 302.
Acredula concinna, *David & Oust. Ois. Chine*, p. 293 (1877).

Closely allied to *A. erythrocephala*, but lighter-coloured, and remarkably different in the coloration of the underparts: the white superciliary stripe, so conspicuous in *A. erythrocephala*, is indicated only by some slight white filaments; rump reddish fulvous; breast pure white, crossed by a richly-coloured chestnut semilunar band, which becomes broader towards the sides of the breast, and extends backwards on the sides and flanks; centre of abdomen and under tail-coverts white, mottled with rufous chestnut; under wing-coverts

pure white; mantle and scapulars dark slaty blue; quills and tail-feathers blackish brown, externally edged with bluish grey; outer pair of tail-feathers broadly edged and tipped with white; bill black, feet fleshy yellow; "iris yellow" (*Swinhoe*). Length of culmen 0·3, wing 1·8–1·9, tail 1·9–2, tarsus 0·6.

The *young* bird has the quills externally broadly edged with rusty red; general colour below whitish, strongly washed with fulvous.

Hab. China.

a. Ad. sk.	Tingchow, Dec.	R. Swinhoe, Esq. [C.].
b. Ad. sk.	Tingchow, Aug.	R. Swinhoe, Esq. [C.].
c. ♂ ad. sk.	Tingchow, Oct. (*R. Swinhoe*).	Gould Collection.
d. Ad. sk.	Chusan, Feb.	Gould Collection. (Type of species.)
e, *f*. ♂ ad. sk.	Chekiang.	Purchased.

5. Acredula jouschistos.

Parus jouschistos, *Hodgs. in Gray's Zool. Misc.* p. 83 (1844); *id. J. A. S. Beng.* xiii. p. 943; *id. Ann. & Mag. N. H.* xv. p. 326; *Gray, Cat. Mamm. etc. Nepal pres. Hodgs.* p. 73; *id. Gen. B.* i. p. 192; *Blyth, Cat. B. Mus. As. Soc.* p. 104; *id. in Jard. Contr. Orn.* 1851, p. 51.
Ægithaliscus jouschistos, *Cab. Mus. Hein.* i. p. 90 (1850); *Jerdon, B. Ind.* ii. p. 271.
Orites jouschistos, *Horsf. & Moore, Cat. B. E.I. Co. Mus.* i. p. 375 (1854).
Ægithalus jouchistos, *Gray, Hand-l. B.* i. p. 237, no. 3432.

Adult. Crown of head jet-black, except a broad band of fawn-colour, which extends from the nasal plumes over the centre of the crown to the nape; sides of head, including the ear-coverts, the sides of the neck, and the under wing-coverts pale fawn-colour; chin and throat greyish white; all the rest of underparts deep reddish fawn or rufescent; general colour above ashy, with a more or less pronounced olive tinge; upper part of mantle and the rump inclining to fulvous; wing-coverts like back; quills and tail dark brown with grey edgings; most of the tail-feathers tipped with dull white. Bill black; feet fleshy yellow; iris brown. Sexes alike in plumage. Total length a little above 4 inches, culmen 0·34, wing 2·2, tail 2, tarsus 0·65.

Hab. Central and Eastern Himalayas.

a, *b*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of species.)
c. Ad. sk.	Nepal (*Hodgson*).	India Museum.
d. Ad. sk.	Darjiling.	W. Fotheringham, Esq. [P.].
e, *f*. Ad. sk.	Bhootan (*Pemberton*).	India Museum.

6. Acredula niveogularis.

Orites ? niveogularis, *Moore, P. Z. S.* 1854, p. 140 (*ex Gould, MSS.*).
Acanthiparus niveogularis, *Gould, B. Asia*, pt. vii. (1855).
Ægithaliscus niveogularis, *Jerd. B. Ind.* ii. p. 272 (1863).
Ægithalus niveogularis, *Gray, Hand-l. B.* i. p. 237, no. 3431 (1869).

Adult male. Forehead and centre of crown white, gradually passing into pale buff on the occiput and nape; sides of crown brownish black, extending as a broad band from the lores over the eye to the sides of the nape; mantle, scapulars, and back ashy grey, with an olive or fulvous tinge; tail, quills, and wing-coverts brownish grey, narrowly edged with grey; most of the tail-feathers broadly tipped with whitish; cheeks, chin, throat, fore neck, and sides of neck white; across the upper breast a rather indistinct brownish band; ear-coverts brownish buff, with darker longitudinal stripes; all the rest of the underparts reddish fawn or pinky isabelline; bill black, feet fleshy yellow, iris brown. Total length about 4·5 inches, culmen 0·37–0·4, wing 2·4–2·5, tail 2·3–2·5, tarsus 0·65.

Females and *immature birds* have the underparts pale isabelline, the throat, flanks, and abdomen with a strong pinkish tinge; the semicollar across the breast very slightly pronounced.

Hab. Northern and North-western India.

a. Ad., *b.* Imm. sk.	North India.	J. Gould, Esq. [C.]. (Types of species.)
c–e. ♂ sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
f, g. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
h. [♂] ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].

7. Acredula leucogenys.

Orites leucogenys, *Moore, P. Z. S.* 1854, p. 139; *Horsf. & Moore, Cat. B. E.I. Co. Mus.* p. 374.
Ægithalus leucogenys, *Gray, Hand-l. B.* i. p. 236, no. 3424 (1869).
Ægithaliscus leucogenys, *Scully, Ibis,* 1881, p. 567.

Intermediate in coloration between *A. niveogularis* and *A. jouschistos.* Crown of head reddish brown, passing into olive-grey on the rest of the upper parts; from the lores a broad black band through the eye, extending to the sides of the hind neck, where it is mottled with whitish; ear-coverts greyish brown; cheeks and sides of neck pure white; chin and throat deep black, passing into blackish chestnut on the fore neck and ending rather abruptly; rest of underparts like *A. niveogularis*; bill black; feet fleshy yellow. Culmen 0·35 inch, wing 2·1, tail 2·1, tarsus 0·65.

Hab. Afghanistan and Upper Cashmere.

a. Ad. sk.	Afghanistan (*Griffith*).	India Museum. (Type of species).
b, c. Ad. sk.	Pushut (*Griffith*).	India Museum.
d. ♂ ad. sk.	Darel, July 1880.	Major Biddulph [C.].
e. ♂ juv. sk.	Darel, July 1880.	Major Biddulph [C.].

8. Acredula caudata*.

La Mésange à longue queue, *Briss. Orn.* iii. p. 570.
Parus caudatus, *Linn. S. N.* i. p. 342 (1766); *Beseke, Vög. Kurlands,*

* Some of the following references, especially the French ones, belong most probably to the Central form, *A. rosea.*

no. 196; *Bechstein, Vög. Deutschl.* iv. p. 745; *Retzius, Faun. Suecic.* p. 271; *Illiger, Prodrom.* p. 220; *Temm. Man. d'Orn.* p. 296; *Bonn. et Vieill. Enc. Méth.* ii. p. 499; *Roux, Orn. Prov.* p. 193, pl. 122; *Less. Man. d'Orn.* i. p. 319; *id. Traité d'Orn.* p. 457; *Pall. Zoogr. Rosso-As.* i. p. 551; *Swains. Class. B.* ii. p. 256; *Schinz, Europ. Faun.* p. 220; *Nilsson, Skandin. Faun.* i. p. 343 (1835), i. p. 425 (1858); *Bp. C. A.* i. p. 230; *Kjærbölling, Danmarks Fugle*, pl. xxiii.; *Wright, Finlands Foglar*, i. p. 186; *Susemihl, Vög. Europ.* v. Taf. 3; *Schleg. Handl. Dierk.* p. 350; *Gray, Hand-l. B.* i. p. 234, no. 3395; *Harting, B. Middlesex*, p. 58; *Keulemans, Onze Vogels*, pl. 15; *Holland. Wirbelthiere Pommerns*, p. 60.

Long-tailed Titmouse, *Lath. Gen. Syn.* ii. pt. 2, p. 550 (1783).

Acredula caudata, *Koch, System. baier. Zool.* p. 199, Taf. v. fig. 42 (1816); *Cab. Mus. Hein.* p. 90; *Sharpe, Ibis*, 1868, p. 300; *Dresser, B. Eur.* iii. p. 104; *Salvad. Faun. Ital.* ii. p. 66; *Danford & Brown, Ibis*, 1875, p. 303; *Seebohm, Ibis*, 1880, p. 189; *Giglioli, Ibis*, 1881, p. 194; *Blakist. & Pryer, B. Japan*, p. 151.

Mecistura caudata, *Selys-Longch. Faune Belge*, p. 103 (1842); *Licht. Nomencl.* p. 37.

Orites caudata, *Horsf. & Moore, Cat. B. Mus. E.I. Comp.* i. p. 373 (1854); *Sundev. Av. Meth. Tent.* p. 17; *Malm, Fauna*, p. 180; *Prjew. in Dawson Rowley's Orn. Misc.* 1877, p. 190, sp. 89.

Male. Head all round, nape, sides of neck, throat, breast, under wing-coverts, and edge of wing snowy white, this colour becoming duller towards the abdomen; the feathers of the abdomen, flanks, and under tail-coverts pale vinous at their terminal half; hind neck and interscapular region deep black; scapulars and sides of mantle deep vinous red; middle of back having a mottled appearance of black, white, and rosy; rump and sides of back vinous rosy with whitish tips; upper tail-coverts and the two outer pairs of tail-feathers entirely black, the others more and more edged and tipped with white; on the outermost pair the black is restricted to part of the inner web; most of the wing-coverts and the quills brownish black; the secondaries internally and externally broadly edged with white; bill and feet black; iris brown; eyelids bright yellow. Total length 5·5–6 inches, culmen 0·3, wing 2·3–2·55, tail 3·3–3·8, tarsus 0·65–0·7. Sexes alike in plumage.

Immature birds have the sides of the crown, loral and nasal regions more or less washed with dark brown.

Young birds. General colour above sooty brownish black; centre of crown white; most of the wing-coverts and the secondaries blackish, with broad white margins; underparts duller than in the adult bird; bill dark brown, lighter at tip; feet pale brown.

Obs. Specimens from Central Siberia are often remarkable for their somewhat longer tails and brighter coloration.

The White-headed Long-tailed Titmouse has a very wide range, as it is an inhabitant of Northern and Central Europe. It is found in Scandinavia, Germany, Austria, and Russia, extending across Siberia to Japan. In Denmark, Holland, Belgium, France, and the western parts of Germany it changes into the north-western form *A. rosea*. It has occurred a few times in the British Isles.

a. Juv. sk.	Bergen, Norway, July 8.	Gould Collection.
b. Ad. sk.	Sweden.	Gould Collection.
c. ♂ ad. sk.	Sweden.	Gould Collection.
d. ♀ ad. sk.	Stockholm, autumn.	H. E. Dresser, Esq. [P.].
e. ♂ ad. sk.	Stockholm, March.	H. E. Dresser, Esq. [P.].
f, *g*. Ad. st.	Austria.	Vienna Museum [P.]
h. Ad. st.	Ain, France.	R. B. Sharpe, Esq. [P.].
i. Ad. sk.	River Irtisch.	Moscow Museum.
k, *l*. ♂ ♀ ad. sk.	Krasnojarsk, autumn, 1880.	H. Seebohm, Esq. [P.].
m. ♂ ad. sk.	Dauria, March 19, 1872.	Warsaw Museum [E.].

9. Acredula rosea.

Mecistura vagans, *Leach, Cat. Mamm. &c. Brit. Mus.* p. 17 (1816), *descr. nullâ*.
Mecistura rosea, *Blyth, ed. White's Nat. Hist. of Selborne*, p. 111, note (1836).
Mecistura longicaudata, *Macgill. Hist. Brit. B.* ii. p. 454 (1839).
Acredula rosea, *Sharpe, Ibis*, 1868, p. 300; *Salvad. Faun. Ital.* ii. p. 65; *Dresser, B. Eur.* iii. pl. 103; *Giglioli, Ibis*, 1881, p. 194.
Mecistura caudata, *Berlepsch, P. Z. S.* 1879, p. 552.
Parus roseus, *Gray, Hand-l. B.* i. p. 234, no. 3396 (1869).
Parus caudatus *auctt. Britt. passim.*
Acredula caudata, *Newt. ed. Yarr. Br. B.* p. 304 (1871).

Very similar to *A. caudata*; but both sexes have the sides of the crown of the head and the occiput more or less brownish black, the white colour being restricted to the centre of the crown, the frontal, loral, and nasal regions; the underparts are never pure white, but always show a slight dull tinge; and the breast and sides of neck have a few little brownish spots. Sexes exactly alike in plumage. The measurements are the same as those of *A. caudata*. Eyelids orange.

The Common Long-tailed Titmouse is the representative of the long-tailed Titmice in the British Isles, the Netherlands, France, and parts of Western Germany; in Northern Italy it meets with *A. irbii*.

English Specimens.

a. ♂ ad. sk.	Ireland, Mar. 31, 1870 (*Sir Victor Brooke*).	R. B. Sharpe, Esq. [P.].
b. [♀] ad. sk.	Aboyne, Aberdeenshire, Nov. 1871 (*R. B. Sharpe*).	H. E. Dresser, Esq. [P.].
c. [♂] ad. sk.	Hawkstone, Shropshire, Jan. 1855.	Gould Collection.
d, *e*. ♂ ad. st.	Avington, Hants, Nov. 1872.	E. Shelley, Esq. [P.].
f, *g*. ♂, *h*. ♀ ad. sk.	Avington, Hants, Nov. 1872.	Capt. Shelley [P.].
i. [♂] ad. sk.	Berkshire.	J. Gould, Esq.
k, *l*. Pull. st.	Maidenhead, Berks.	Gould Collection.
m, *n*. ♀ pull. sk.	Maidenhead, Berks.	Gould Collection.
o, *p*, *q*. ♂ ad. sk.	Cookham, Berks, Feb. 1874.	R. B. Sharpe, Esq. [P.].

r. ♀ ad. sk.	Cookham, Berks, Feb. 1874.	R. B. Sharpe, Esq. [P.].
s. Pull. sk.	Cookham, Berks.	Gould Collection.
t, *u*. ♂ ♀ ad. sk.	Hampstead.	F. D. Godman and O. Salvin, Esqrs. [P.].
v, *w*. ♂ ♀ ad. sk.	Hampstead.	F. D. Godman and O. Salvin, Esqrs. [P.].
x. ♂ ad. sk.	Surrey, Jan. 1857.	F. D. Godman and O. Salvin, Esqrs. [P.].
y, *z*, *a'*. ♀ ad. sk.	Surrey, Feb. 1857.	F. D. Godman and O. Salvin, Esqrs. [P.].
b', *c'*. ♂ ad. st. *d'*, *e'*. ♀ ad. st. *f'*–*p'* Pull. st.	Drinkstone, Suffolk.	T. Harcourt Powell, Esq. [P.]
q', *r'*. Ad. st.	Cambridgeshire.	Mr. J. Baker [P.].
s', *t'*. Skeletons.		Purchased.
w'. Sternum.		G. Ingall, Esq. [P.].

Continental Specimens.

a. Ad. sk.	Antwerp, Oct. 1873.	R. B. Sharpe, Esq. [P.].
b, *c*. ♂ ♀ ad. sk.	Valkensvaard, Holland, May 18, 1876.	C. B. Wharton, Esq. [P.].
d, *e*. Ad. st.	France.	R. B. Sharpe, Esq. [P.].
f, *g*, *h*. Ad. st.	Mongeron, Seine-et-Oise, Feb. 1875.	R. B. Sharpe, Esq. [P.].
i–*o*. Ad. sk.	Mongeron, Seine-et-Oise, Feb. 1875.	R. B. Sharpe, Esq. [P.].
p, *q*. ♂ ♀ ad. sk.	Piedmont, Nov. 1 and Dec. 1874.	R. B. Sharpe, Esq. [P.].
r, *s*. ♂ ♀ pull. sk.	Piedmont, May 26, 1870.	H. E. Dresser, Esq. [P.].
t. ♀ ad. sk.	Piedmont, May 4, 1870.	H. E. Dresser, Esq. [P.].
u, *v*. ♂ ♀ ad. sk.	Turin, March 1873.	Count Salvadori [P.].
w, *x*. ♂ ♀ ad. sk.	La Tour, Fribourg, April 1876.	M. Léon Olphe-Galliard [P.].
y. Ad. sk.	La Tour, Fribourg, April 1876.	M. Léon Olphe-Galliard [P.].
z. [♂] ad. sk.	Bremen.	Gould Collection.

Subspecies *a*. Acredula trivirgata.

Parus trivirgatus, *Temm. & Schleg. Faun. Jap.* p. 60, pl. 34; *Bp. C.A.* i. p. 23; *Gray, Hand-l. B.* i. p. 234, no. 3398.
Acredula trivirgata, *Cab. Mus. Hein.* i. p. 90 (1850); *Sharpe, Ibis* 1868, p. 301; *Blakist. & Pryer, B. Japan*, p. 151.

Smaller than *A. rosea*; very much like the latter in coloration; but the brownish-black band of the sides of the crown in adult specimens is said to extend over the loral and nasal regions, whilst in *A. rosea* the latter parts are white. There are, however, specimens from Japan, and apparently old birds, which have the feathers of the parts in question white with dark brown tips.

Wing. in.	Tail. in.	Tarsus. in.
2·15	2·9	0·60
2·25	3·1	0·60
2·4	3·2	0·65

Hab. Represents the European Long-tailed Titmouse in Southern Japan.

a, *b*. Ad. sk.	Japan.	J. Gould, Esq.
c. Ad. sk.	Japan.	H. Pryer, Esq. [C.].
d. Ad. sk.	Yokohama.	H. Pryer, Esq. [C.].

10. Acredula irbii.

Parus caudatus, *Naceyro, Cat. Av. Galizia, in Mem. R. Acad. Madrid*, p. 126 (1850).
Parus caudatus *auctt. Hisp. et Ital. passim.*
Acredula caudata, *Salvad. Faun. d'Ital., Ucc.* p. 67 (1871).
Acredula irbii, *Sharpe & Dresser, P. Z. S.* 1871, p. 312; *Dresser, B. Eur.* iii. pl. 105.
Acredula irbyi, *Giglioli, Ibis*, 1881, p. 193.

Differs from *A. rosea* in its smaller size and by the coloration of the back. Hind neck and sides of crown black; the line of demarcation between the black semicollar and the mantle well marked; back without any black; all the feathers of the mantle, the back, rump, and scapulars pale bluish grey at their bases, the rest of the feathers vinous, sometimes with faint whitish tips; the amount of vinous colour varies much on the different parts, the scapulars and the sides of the rump appearing almost entirely vinous, whilst the middle of the back inclines more to blue-grey; upper tail-coverts black with greyish tips. Total length under 5·5 inches.

Wing.	Tail.	Tarsus.
in.	in.	in.
2·4	3·3	0·65
2·45	3·4	0·68
2·1	3·0	0·65

Obs. The three specimens from Piedmont in the British Museum are intermediate between *A. irbii* and *A. rosea*.

Hab. This bird is found in Spain, Sicily, and in the southern half of Italy. In northern Italy it gradually changes into the north-western species (*A. rosea*). Mr. Sharpe shot a beautiful typical specimen of *A. irbii* at Mongeron near Paris.

a. Immat. sk.	Gibraltar.	Colonel Irby [P.].
b. Ad. sk.	Gibraltar.	Colonel Irby [P.].
c. ♂ ad. sk.	Gibraltar, May 2.	Colonel Irby [P.].
d. Nestling sk.	Gibraltar.	Colonel Irby [P.].
e. ♂ ad. sk.	Gibraltar, Feb. 7 (*Irby*).	J. Gould, Esq.
f. ♂ ad. sk.	Piedmont.	H. E. Dresser, Esq. [P.].
g. ♀ ad. sk.	Piedmont, Dec. 14, 1873.	Count Salvadori [P.].
h. ♂ ad. sk.	Sicily.	H. Saunders, Esq. [P.].
i. Ad. sk.	Mongeron, Seine-et-Oise, France, Feb. 1875.	R. B. Sharpe, Esq. [P.].

11. Acredula tephronota.

Orites tephronotus, *Günther*, *Ibis*, 1865, p. 96, pl. 4.
Parus tephronotus, *Gray*, *Hand-l. B.* i. p. 234, no. 3397 (1869).
Mecistura poeltzami, *Severtz. Turk. Jevotn.* p. 135, pl. 8. fig. 1 (1873); *Dresser*, *Ibis*, 1876, p. 172.
Acredula tephronota, *Sharpe*, *Ibis*, 1868, p. 302; *Blanf. East. Persia*, p. 231 (1876); *Dresser*, *B. Eur.* iii. pl. 105. fig. 2.

Closely allied to *A. irbii*, but with a large blackish or greyish patch on the centre of the throat; sides of the crown black; centre of crown dull white with a brownish tinge, this colour extending over the occiput; hind neck pale brownish grey without any black; the whole mantle, upper back, scapulars, and upper tail-coverts pure grey without any black; sides of lower back and rump vinous; wings and wing-coverts black-brown with whitish margins; sides of head and ear-coverts pale brownish; chin white; breast and middle of abdomen dingy white, with faint longitudinal brownish streaks; flanks, under tail-coverts, and lower abdomen pale vinous; bill and feet black; "iris of a light brownish red colour, with an outer bluish-white ring;" eyelids orange. Total length about 5·5 inches, wing 2·25–2·5, tail 2·7–3·2, tarsus 0·7.

Hab. Balkan Peninsula and Asia Minor, and extending into Persia and Turkestan.

Obs. One specimen from Buyukdere (February 1874) has the general colour above exactly like *A. rosea*; but it shows clearly the grey patch on the throat, and little brownish spots arranged in a broken-up semicircle across the upper breast.

a, b. ♂ ♀ ad. sk.	Belgrade, Dec. 1874 (*T. Robson*).	R. B. Sharpe, Esq. [P.].
c, d. Ad. sk.	Havankoi, Turkey (*T. Robson*).	Dr. W. Hoyland [P.]. (Types of species.)
e. ♂ ad. sk.	Buyukdere, Feb. 1, 1874 (*T. Robson*).	R. B. Sharpe, Esq. [P.].
f. ♂ ad. sk.	Bagschakeuy, Dec. 10 (*T. Robson*).	Gould Collection.
g. ♀ ad. sk.	Near Constantinople, Apr. 23 (*T. Robson*).	Gould Collection.
h. ♂ ad. sk.	Constantinople, Nov. 18 (*T. Robson*).	F. D. Godman and O. Salvin, Esqrs. [P.].
i, k. ♂ ♀ ad. sk.	Guiksu, Asia Minor, Nov. 26, 1870 (*T. Robson*).	H. E. Dresser, Esq. [P.].
l. Juv. sk.	Smyrna, May (*Dr. Krüper*).	R. B. Sharpe, Esq. [P.].
m. ♀ ad. sk.	Jamanear Dagh, Asia Minor, Apr. 25 (*C. E. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
n. ♂ ad. sk.	Taurus, Asia Minor, Dec. 23 (*C. E. D.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
o. Ad. sk.	Shiraz, June, 6000 feet.	Sir O. St. John [C.].
p. Ad. sk.	Caspian Sea.	Sir O. St. John [C.].

12. Acredula glaucogularis.*

Orites glaucogularis, *Gould*, *P. Z. S.* 1854, p. 140; *Swinh. P. Z. S.* 1871, p. 362.
Parus trivirgatus, *Swinh. Ibis*, 1860, p. 131.
Mecistura caudata, *Swinh. P. Z. S.* 1863, p. 270.
Mecistura swinhoei, *von Pelzeln, Reis. d. Novara, Vög.* pl. iii. (1865).
Parus glaucogularis, *Gray, Hand-l. B.* i. p. 234, no. 3399 (1869).
Ægithaliscus fuliginosus, *Swinh. P. Z. S.* 1871, p. 362.
Orites caudatus, *Pÿjev. in Dawson Rowley's Ornith. Misc.* ii. p. 190.
Acredula glaucogularis, *Dav. & Oustal. Ois. Chine*, p. 291 (1877).
? Mecistura fuliginosa, *Verr. Nouv. Arch. Mus.* viii. *Bull.* p. 36.
? Orites ouratensis, *David, MS., teste Swinh. P. Z. S.* 1870, p. 430; *id. P. Z. S.* 1871, p. 362.
? Acredula vinacea, *David & Oust. Ois. Chine*, p. 292.
? Acredula fuliginosa, *David & Oust. Ois. Chine*, p. 292.

This bird resembles *A. tephronota*, from which it differs by the distribution of the colours of the head. Lores, nasal region, and a narrow frontal band white with an ochraceous tinge; greater part of crown glossy black, only the centre and occiput dull brownish white, which colour, however, is widely separated from the whitish frontal band by the black of the forehead, whilst in all the other species of *Acredula* the whitish central part of the crown is united with the whitish frontal and nasal regions; patch on the throat grey, each feather with a whitish tip. Total length 5 inches.

	Wing. in.	Tail. in.
♂	2·25	2·6
♀	2·1	2·5

This species is the representative of *A. tephronota* in China.

a. ♂ ad. sk.	Ningpo, March.	R. Swinhoe, Esq. [C.].
b. Ad. sk.	Ningpo.	R. B. Sharpe, Esq.
c. Ad. sk.	China.	J. Gould, Esq. [C.].
d. ♂ ad. sk.	Ningpo, April 29, 1850.	Capt. J. Ince [C.].

* It seems probable that *A. rosea* is the central stock of the palæarctic species of *Acredula*, which have been divided as follows:—

A. caudata (Northern form), Scandinavia to N. Japan.

A. trivirgata (Eastern form), Japan.

A. ROSEA, England to Austria.

A. glaucogularis (South-eastern form), China.

A. irbii (South-western form), Spain and Italy.

A. tephronota (Southern form), Turkey and Asia.

4. ÆGITHALUS.

	Type.
Ægithalus, *Boie, Isis*, 1822, p. 556	Æ. pendulinus.
Pendulinus, *Brehm, Vög. Deutschl.* p. 475 (1831, *nec Vieillot*)	Æ. pendulinus.
Paroides (pt.), *Gray, Gen. B.* i. p. 193 (1847, *nec Brehm*).	
Anthoscopus, *Cab. Mus. Hein.* i. p. 89 (1850)	Æ. capensis.
Cephalopyrus, *Bp.* 1853, *teste Jerd. B. Ind.* ii. p. 267 (1863)	Æ. flammiceps.
Auriparus, *Baird, Rev. Am. B.* p. 85 (1864)	Æ. flavipes.

Head and bill of *Ægithalus pendulinus*.

Bill short and straight, very much pointed; tail and wings short; tip of wing formed by third, fourth, and fifth primaries; first primary spurious or very short in the Palæarctic species, well developed in the American and African species; tarsus in front covered with transverse scales. Crown without a crest. Plumage containing very plain colours only.

Range. Europe, Africa, and North America.

Key to the Species.

A. First primary long (= about half the length of the second primary). Subgeneric group ÆGITHALUS.
  a. Mantle and back fawn and chestnut; underparts creamy.
    a'. Throat white, or nearly so; bill pointed; sides of head black.
      a''. Crown of head greyish white ..... *pendulinus*, p. 67.
      b''. Occiput and centre of crown mottled black and white ..... *coronatus*, p. 68.
      c''. Crown of head chestnut ..... *castaneus*, p. 68.
    b'. Throat blackish; bill blunt; crown of head pale brownish ..... *macronyx*, p. 69.
  b. Mantle and back olive-green; forehead crimson-red; all the underparts bright yellow ..... *flammiceps*, p. 69.

B. First primary very short. Subgeneric group ANTHOSCOPUS.
  a. Head all round yellow; chestnut-red patch on shoulder ..... *flaviceps*, p. 72.
  b. Forehead only bright yellow ..... *flavifrons*, p. 72.

c. Crown pale brownish grey.
a'. Chin and upper throat whitish; all the rest of underparts yellow ..... *capensis*, p. 70.
b'. Whole throat and breast whitish; flanks and abdomen pale fawn ..... *caroli*, p. 71.

1. Ægithalus pendulinus.

Parus polonicus s. pendulinus, *Briss. Orn.* iii. p. 565 (1760).
Parus pendulinus, *Linn. S. N.* i. p. 342 (1766); *Bechst. Vög. Deutschl.* iv. p. 751; *Temm. Man. d'Orn.* i. p. 300; *Bonn. et Vieill. Enc. Méth.* p. 503; *Vieill. Gal. Ois.* i. p. 91; *Roux, Orn. Provençale*, p. 196, pl. 124 *a* (*ad.*) & 124 *b* (*juv.*); *Less. Man. d'Orn.* i. p. 319; *id. Traité d'Orn.* p. 457; *Schinz, Europ. Faun.* p. 220; *Schleg. Handl. Dierk.* p. 350; *Holland. Wirbelth. Pomm.* p. 60; *Danford & Brown, Ibis*, 1875, p. 303; *Irby, Ibis*, 1879, p. 344.
Le Remiz, *Month. Hist. N. Ois.* v. p. 423 (1778).
La Penduline, *Month. Hist. Nat. Ois.* v. p. 433 (1778).
Penduline Titmouse, *Lath. Gen. Syn.* ii. pt. 2, p. 547 (1783).
Parus narbonensis, *Gm. S. N.* i. p. 1014 (1788).
Ægithalus pendulinus, *Boie, Isis*, 1822, p. 556; *Bp. C. A.* i. p. 231; *Cab. Mus. Hein.* i. p. 89; *Radde, Reis. S. O.-Sibirien*, ii. p. 165; *Gray, Hand-l. B.* i. p. 236, no. 4016; *Sundev. Av. Meth. Tent.* p. 30; *Severtzow, Turkest. Jevotn.* p. 135; *Blanf. East. Persia*, p. 232; *Seebohm, Ibis*, 1879, p. 33 (*cf. for* Æ. consobrinus); *Dresser, B. Eur.* iii. pl. 116.
Ægithalus polonicus, *Brehm, Vög. Deutschl.* p. 476 (1831).
Pendulinus medius, *Brehm, Vög. Deutschl.* p. 477 (1831).
Pendulinus macrourus, *Brehm, Vög. Deutschl.* p. 477 (1831).
Ægithalus pendulinus, var. jaxartica, *Severtzow, Turkest. Jevotn.* p. 135, pl. 9. fig. 2 (1873); *Dresser, Ibis*, 1876, p. 175.
Ægithalus consobrinus, *Swinh. P. Z. S.* 1870, p. 133; *ibid.* 1871, p. 362; *David & Oust. Ois. Chine*, p. 294.

Adult male. Ear-coverts, region all round the eye, and a narrow frontal band black; greater part of crown white, separated from the black by a few rufous feathers on the forehead; nape, hind neck, and sides of neck white, with a greyish tinge; cheeks, chin, and throat pure white; mantle chestnut-brown, deepest towards the neck, gradually passing into ochraceous on the back and rump; upper tail-coverts light greyish; tail-feathers dark brown, with broad whitish-yellow edgings to the outer and inner webs; lesser wing-coverts chestnut-red, the greater ones dark brown, with deep chestnut-coloured margins and with pale tips; quills brown, with whitish edgings, which are very broad on the innermost secondaries; underparts cream-colour or ochraceous, slightly deeper on the flanks and thighs; the feathers of the breast with half-concealed subterminal chestnut spots; bill horn-colour; feet bluish black; iris brown. Total length about 3·6–4 inches.

Adult female. Slightly paler in coloration, the black frontal band and the rufous colour on the forehead less pronounced.

Young. Less richly coloured than the adult bird, and having the whole hind neck and the crown ochraceous with a grey tinge;

ear-coverts rufous; no black on the sides of the head or on the forehead.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. China	0·40	2·23	1·75	0·56
♂. Japan	0·37	2·22	1·74	0·57
♂. Piedmont.....	0·40	2·15	1·80	0·56
♀. Asia Minor	0·41	2·05	1·75	0·56

Hab. Southern Europe, Asia Minor, Persia, Turkestan, China, and Japan.

a, *b*. Ad. st.	Europe.	Purchased.
c. ♂ ad. sk.	Piedmont, April 3, 1876.	F. D. Godman and O. Salvin, Esqrs. [P.].
d. ♀ ad. sk.	Piedmont, April 20, 1876.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. Juv. sk.	Genoa (*A. B. Brooke*).	R. B. Sharpe, Esq. [P.].
f. Juv. sk.	Astrachan, April 1872.	Baron von Hügel [P.].
g. ♂ ad. sk.	Kaisarziah, Asia Minor (*C. E. Danford*).	H. Seebohm, Esq. [P.].

2. Ægithalus coronatus.

Ægithalus coronatus, *Severtz. Turkest. Jevotn.* p. 136, pl. 9. fig. 3, ♂ *ad. in spring* (1873); *Dresser, Ibis*, 1876, p. 175.
Ægithalus atricapillus, *Severtz. Turkest. Jevotn.* p. 137, pl. 9. fig. 4, ♂ *ad. in spring*; fig. 5, *juv.* (1873); *Dresser, Ibis*, 1876, p. 174.
Ægithalus stoliczkæ, *Hume, Str. F.* 1874, p. 521.

Apparently slightly smaller than *Æ. pendulinus*, to which it is very closely allied by the distribution of its colours. It chiefly differs from the latter species by the colour of the head, the forehead, lores, and region round the eyes and the ear-coverts being deep black, getting more and more mottled with white towards the occiput and nape, leaving only the centre of the crown near the forehead white; behind the black occiput and nape a brownish-white crescent. Total length about 3·7 inches. ♂: culmen 0·37–0·40, wing 2·05–2·1, tail 1·60–1·63, tarsus 0·56.

Female. Like the male in size and colour.

Hab. Western Turkestan.

3. Ægithalus castaneus.

Ægithalus castaneus, *Severtz. Turk. Jevotn.* p. 136, pl. 9 (1873); *Dresser, B. Eur.* iii. p. 165, pl. 117.
Ægithalus caspius, *Bogdanow, Tr. Soc. Kazan*, viii. p. 91 (1879).

Adult male. Differs from *Æ. pendulinus* in having the crown of the head, the hind neck, and the sides of the neck of the same rich chestnut colour as the mantle; the amount of white on the edges of the tail and wing is greater, and the chestnut part of the feathers on the breast more conspicuous than in *Æ. pendulinus*. This subspecies is slightly larger than the common European bird. Total length

about 4·2 inches, culmen 0·40, wing 2·20–2·30, tail 1·90–1·95, tarsus 0·58–0·60.

Adult female. Occiput and nape dull isabelline; forehead, ear-coverts, and region round the eye black as in the male.

Obs. The amount of chestnut colour on the crown and hind neck varies greatly, and it does not extend all over these parts before the bird is quite adult. In the British Museum is a male specimen, shot in April near Astrachan, which has the greater part of the crown and the sides of the neck behind the ear-coverts deep chestnut-brown, each feather slightly tipped with white, but the nape and hind neck are almost white.

Hab. Confined to the delta of the Wolga.

a. ♂ ad. sk. Astrachan, April. R. B. Sharpe, Esq. [P.].

4. Ægithalus macronyx.

Ægithalus macronyx, *Severtz. Turk. Jevotn.* p. 137, pl. 9. fig. 8, *ad. ♂ in winter* (1873); *Dresser, Ibis*, 1876, p. 175.
Ægithalus rutilans, *Severtz. Turk. Jevotn.* p. 137 (1873); *Dresser, Ibis*, 1876, p. 175.
Ægithalus rutilans, var. cucullata, *Severtz. op. cit.* pl. 9. fig. 6, *ad. ♂ in winter* (1873).
Ægithalus rutilans, var. pectoralis, *Severtz. loc. cit.* fig. 7, *ad. ♂ in winter* (1873).

"The black on the head covers the forehead, sides of the head, and fore parts and sides of the crown; centre of the crown, nape, and hind neck pale brownish yellow, this colour being separated from the pure brown of the back by a narrow light chestnut band; throat greyish white; margins of the quills not whitish, but pale brownish; beak nearly black; legs plumbeous." (*Severtz.* in Dresser's Notes.) The following description is taken from specimens in Mr. Seebohm's collection :—

Adult male. Nearest allied to *Æ. coronatus*. Chin, throat and sides of neck, and fore neck blackish grey; rest of underparts pale ochraceous, but distinctly more richly coloured than in *Æ. pendulinus* or *Æ. coronatus*; claws, and especially the hind toe with its claw, decidedly stronger than these parts in the allied species. Total length 4 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂	0·38	2·18	1·85	0·6
♂	0·40	2·10	1·85	0·6

The *young* birds of *Æ. macronyx* and *Æ. coronatus* much resemble the young ones of *Æ. pendulinus*.

Hab. North-western Turkestan.

5. Ægithalus flammiceps.

Ægithalus flammiceps, *Burton, P. Z. S.* 1835, p. 153; *Blyth, Cat. B. Mus. As. Soc.* p. 104; *Bp. C. A.* i. p. 231; *Blyth, in Jard. Contr. Orn.* 1851, p. 52; *Gray, Hand-l. B.* i. p. 234, no. 3427.

Dicæum sanguinifrons, *Hay, Tr. As. Soc. Beng.* xv. p. 44.
Paroides flammiceps, *Strickl. Contr. Orn.* 1850, p. 148, pl. 66.
Cephalopyrus flammiceps, *Jerdon, B. Ind.* ii. p. 267 (1863).

Adult male. General colour above yellowish green, inclining to brighter yellow on the rump and upper tail-coverts; wing-coverts, quills, and tail brown, externally rather broadly edged with greenish yellow; forehead, top of head, and chin bright orange-red; sides of neck, throat, fore neck, and breast bright golden yellow; under wing-coverts white, edge of wing and axillaries yellow; under wing-coverts white; bill and feet bluish horn-colour. Total length about 3·5 inches, culmen 0·35–0·38, wing 2·3–2·4, tail 1·4, tarsus 0·47.

The *female* has the whole crown and throat greenish yellow; and it is duller and paler in coloration than the male.

Hab. North-western India, extending from Kashmere into Afghanistan.

a. ♂ ad. sk.	India.	J. Gould, Esq. [C.].
	(Specimen figured in Contrib. Orn. 1850, pl. 66.)	
b. ♂ ad. sk.	India.	Purchased.
c. ♂ ad. sk.	Candahar.	Capt. Hutton [P.].
d–g. ♂ ♀ ad. sk.	Near Simla, N.W. Himalaya.	Capt. Stackhouse Pinwill [P.].
h. Ad. sk.	[Nepal.]	Purchased.

6. Ægithalus capensis. (Plate I. fig. 2.)

La Petite Mésange du Cap de Bonne Espérance, *Sonn. Voy. Indes*, ii. p. 206, pl. 115.
Parus capensis, *Gm. S. N.* i. p. 1011 (1788); *Bonn. et Vieill. Enc. Méth.* 1823, p. 509.
Le becque-fleur, *Levaill. Ois. d'Afr.* pl. 134. figs. 1 & 2.
Cape-Tit, *Lath. Gen. Syn.* ii. p. 552 (1781–85).
Sylvia minuta, *Shaw, Natur. Misc.* xxiii. pl. 997 (1813).
Parus fuscus, *Bonn. et Vieill. Enc. Méth.* ii. p. 507.
Sylvia anthophila, *Boie, Isis* (*teste Giebel*).
Ægithalus capensis, *Swains. Class. B.* ii. p. 246 (1837); *Bp. C. A.* i. p. 230; *Licht. Nomenel.* p. 37; *Gray, Hand-l. B.* i. p. 236, no. 3418; *Sharpe, Cat. Afr. B.* p. 35.
Gryllivora capensis, *Swains. Class. B.* ii. p. 238 (1837).
Ægithalus smithi, *Jard. et Selby, Ill. Orn.* pl. 113. fig. 1; *Bp. C. A.* i. p. 231; *Strickl. & Scl. Contr. Orn.* 1852, p. 149; *Sundev. Œfvers. Vetensk.-Ak.* 1850, p. 106.
Ægithalus pensilis, *Hartl. Verz. Mus. Brem.* p. 34 (1844); *Gray, Hand-l. B.* i. p. 236, no. 3419.
Drymoica minuta, *Gray, Gen. B.* i. p. 163 (1846).
Paroides smithi *et* pensilis, *Gray, Gen. B.* i. p. 193 (1846).
Anthoscopus minutus, *Cab. Mus. Hein.* i. p. 89 (1850); *Sundev. Av. Meth. Tent.* p. 30; *Gurney in Anderss. B. Damara Ld.* p. 79; *Sharpe, ed. Layard B. S. Afr.* p. 327.
Anthoscopus capensis, *Cab. Mus. Hein.* i. p. 89 (1850); *Ayres, Ibis*, 1880, p. 103.
Ægithalus punctifrons, *Sundev. Œfvers. Vet.-Akad.* 1850, p. 129; *Heugl. Orn. N.O.-Afr.* i. p. 410; *Gray, Hand-l. B.* i. p. 236, no. 3420.

Ægithalus minutus, *Sundev. Œfvers. K. Vet.-Akad. Forh.* 1850, vii. p. 107; *Gray, Hand-l. B.* i. p. 236, no. 3417.
Parus smithi, *Jard. Edinb. Journ. Nat. Sc.* new ser. i. pl. 5.
Ægithalus? parvulus, *Heugl. J. f. O.* 1864, p. 260; *id. Orn. N.O.-Afr.* i. p. 409; *id. Peterm. Geogr. Mittheil.* 1869, p. 414.
Eremomela parvula, *Heugl. Cab. Journ.* 1867, p. 300.
Ægithalus pensilis, *Verr. in Brem. Mus. (teste Heuglin).*
Paroides capensis, *Layard, B. S. Afr.* p. 114.
Ægithalus parvulus, *Gray, Hand-l. B.* i. p. 236, no. 3421 (1869).
Parus sundevalli, *Giebel, Thes. Orn.* iii. p. 33 (1877).
Ægithalus musculus, *Hartl. Ornith. Centralbl.* 1882, p. 91; *id. J. f. O.* 1882, p. 326.

General colour above pale olive-grey, more yellowish on the rump and on the upper tail-coverts; crown of head more grey; feathers of forehead and loral region blackish brown, with white tips; quills, wing-coverts, and tail light brown, with scarcely any lighter edgings; chin, sides of neck, ear-coverts, and under tail-coverts dull whitish; all the rest of the underparts yellow with a faint dull hue; bill and feet horny or lead-colour. Total length under 3·5 inches, culmen 0·4, wing 1·9–2, tail 1·9, tarsus 0·52.

Female slightly duller in coloration.

Hab. South Africa, ranging into the Transvaal and Damara Land, extending through Central Africa into Sennaar and Abyssinia.

a. ♀ ad. sk.	Ondonga, March 27, 1867 (*C. J. A.*).	R. B. Sharpe, Esq. [P.].
b. Pull. sk.	Damara Land.	C. J. Andersson, Esq. [C.].
c, d. Ad. sk.	Damara Land.	C. J. Andersson, Esq. [C.].
e. Ad. sk.	Damara Land (*C. J. A.*).	R. B. Sharpe, Esq. [P.].
f. Ad. sk.	Matalko, Damara Land, July 16, 1866 (*C. J. A.*).	R. B. Sharpe, Esq. [P.].
g. Ad. sk.	Swakop river, Sept. 18, 1863 (*C. J. A.*).	R. B. Sharpe, Esq. [P.].
h. ♂ ad. sk.	Elephant Vley, Aug. 22, 1859.	C. J. Andersson, Esq. [C.].
i. ♀ ad. sk.	Transvaal (*Ayres*).	R. B. Sharpe, Esq.
k. Ad. sk.	Kingwilliamstown, May 15, 1877.	Capt. H. Trevelyan [P.].

Subspecies *a*. **Ægithalus caroli.** (Plate I. fig. 1.)

Ægithalus minutus, *Sharpe, Cat. Afr. B.* p. 35 (1871, *nec Shaw*).
Ægithalus caroli, *Sharpe, Ibis*, 1871, p. 415.
Anthoscopus caroli, *Gurney in Anderss. B. Damara Land*, p. 80 (1872); *Sharpe, ed. Layard B. S. Afr.* p. 327.

Adult. Similar to *Æ. capensis* in coloration, but altogether paler; upper tail-coverts ferruginous; throat, fore neck, breast, and under wing-coverts dull white, gradually changing into the ferruginous colour of the flanks, abdomen, and under tail-coverts; bill and feet blackish. Sexes alike in coloration. Total length about 3·5 inches, culmen 0·35–0·40, wing 2–2·1, tail 1·25, tarsus 0·55.

Hab. Damara Land.

a, *b*. ♀ ♂ ad. sk.	Ovaquenyama, May 30, 1867 (*C. J. Andersson*).	R. B. Sharpe, Esq. (Type of species.)
c. ♀ ad. sk.	Ovaquenyama, June 6, 1867 (*C. J. Andersson*).	R. B. Sharpe, Esq. (Type of species.)
d, *e*. ♂ ♀ ad. sk.	Elephant Vley, Oct. 8, 1859 (*C. J. Andersson*).	R. B. Sharpe, Esq. [C.].

7. Ægithalus flavifrons.

Ægithalus flavifrons, *Cass. Pr. Ac. Nat. Sc. Philad.* 1855, p. 325, & 1858, pl. i. fig. 2; *Hartlaub, Orn. Westafr.* p. 71.

Male. Forehead bright yellow; entire plumage of the upper parts olive-green tinged with yellow, lightest on the rump; quills and tail dark brown, the feathers of both edged with yellowish green on their outer webs; entire underparts pale yellow tinged with green; inferior wing-coverts white; bill and feet light horn-colour. Total length 3½ inches, wing 2¼, tail 1½.

Hab. Gaboon.

8. Ægithalus flaviceps.

Ægithalus flaviceps, *Sundev. Œfvers. K. Vet.-Akad. Förh. Stockh.* 1850, p. 129.

Conirostrum ornatum, *Lawrence, Ann. N. Y. Lyc. N. H.* 1851, p. 113, pl. v. fig. 1.

Psaltria flaviceps, *Sclat. P. Z. S.* 1856, p. 37.

Paroides flaviceps, *Baird, Cass., & Lawr.* p. 400, pl. 53. fig. 2 (1860) (*called* Ægithalus flaviceps *on the plate*).

Psaltriparus flaviceps, *Sclat. Cat. Am. B.* p. 13, no. 79 (1862).

Auriparus flaviceps, *Baird, Rev. Am. B.* p. 85 (1864); *Cooper, Birds Calif.* p. 51; *Coues, Key N. Am. B.* p. 82; *Baird, Brew., & Ridgw.* i. p. 112; *Coues, B. Colorado Vall.* p. 129; *Salvin & Godman, Biol. Cent.-Amer., Aves*, p. 59.

Parus flavifrons (*Sundev.*) (!), *Gray, Hand-l. B.* i. p. 234, no. 3394 (1869).

Head all round, throat, and fore neck golden yellow, slightly darker on the occiput; lesser wing-coverts deep chestnut; rest of wing-coverts, quills, and tail brown, with paler greyish edgings; all the rest of the upper parts pale ashy brown; underparts uniform dull white; many of the feathers of the back and of the underparts washed with yellow on their middle parts; bill and feet black. Total length about 4 inches, culmen 0·43, wing 1·9–2·1, tail 2, tarsus 0·55–0·58.

Hab. Northern Mexico, Lower California, and Texas.

a. ♀ ad. sk.	La Paz, Lower California.	A. Forrer, Esq. [C.].
b. Ad. sk.	California.	Purchased.

5. XEROPHILA.

Type.
Xerophila, *Gould, P. Z. S.* 1840, p. 175 ..... X. leucopsis.

Bill higher than broad; the nostrils are situated in a semi-operculated groove, round, and are partly hidden by feathers; first primary longer than half the second; secondaries equal to four fifths of the whole wing; tail square; the three anterior toes comparatively short. No crest. Plumage very plain.

Head of *Xerophila leucopsis*.

Xerophila seems to form a link between the true *Parinæ* and those forms which I propose to distinguish as *Austro-Parinæ*.

Range. Australia.

Key to the Species.

a. Under surface white; no pectoral band..... *leucopsis*, p. 73.
b. Under surface white, with a pectoral band of cinnamon-brown ..... *pectoralis*, p. 74.

1. Xerophila leucopsis.

Xerophila leucopsis, *Gould, P. Z. S.* 1840, p. 175; *id. B. Austr.* fol. iii. pl. 67; *id. Handb. B. Austr.* p. 382; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 186 (1878).
Sphenostoma leucopsis, *Gray, Gen. B.* i. p. 194 (1847); *id. Hand-l. B.* i. p. 235, no. 3410 (1869).

General colour above greyish brown, the brown more pronounced on the hind neck and on the crown of the head; quills brown; tail dark brown with white tips; the upper tail-coverts of the same colour as the back, and very long, so as to cover more than half of the tail; loral and nasal regions, sides of head, and the breast dull white, washed with fulvous or yellowish; some of the feathers of the underparts with faintly darker subterminal cross bars; under tail-coverts and abdomen dull yellowish white; under wing-coverts reddish brown; inner web of quills edged with pinkish isabelline; bill and feet brown. Total length 4 inches, culmen 0·45, wing 2·4, tail 1·8, tarsus 0·7.

Hab. South Australia, Victoria, and New South Wales, occurring also, according to Mr. Ramsay, at Port Denison and in S.E. New Guinea.

a, b. Ad. sk.	South Australia.	Sir G. Grey [P.].
c, d. Ad. sk.	River Darling (*Dr. Pechey*).	J. Gould, Esq. [C.].
e. Ad. sk.	Queensland.	J. Gould, Esq. [C.].
f. Ad. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].
g, h. Ad. sk.	Australia.	J. Gould, Esq. [C.].

2. Xerophila pectoralis.

Xerophila pectoralis, *Gould, Ann. & Mag. N. H.* 1871, vol. viii. p. 192; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 186.

The bill of this species, according to Gould, is "almost as thick as that of a Finch." "Face and throat white, passing into greyish white on the ear-coverts; crown and nape hair-brown, mottled with blackish brown, the darker tint occupying the centre of each feather; back chestnut-brown, becoming much darker and richer on the rump; upper tail-coverts hair-brown; two central tail-feathers hair-brown, with lighter edges; the five lateral feathers on each side black tipped with white; across the chest a well-defined band of cinnamon-brown; under surface white, with a mark of chestnut down the centre of each of the flank-feathers; wings dark brown, the secondaries broadly margined with dull buff; under tail-coverts buffy white; bill and feet black. Total length $3\frac{7}{8}$ inches, bill $\frac{3}{8}$, wing $2\frac{1}{4}$, tail $1\frac{5}{8}$, tarsi $\frac{5}{8}$." (*Gould.*)

Hab. Port Augusta, South Australia; Port Denison, North Australia.

6. SPHENOSTOMA.

Type.
Sphenostoma, *Gould, P. Z. S.* 1837, p. 149 ..... S. cristatum.

Bill slightly protracted, compressed and curved; nostrils basal, operculated, quite exposed; first primary well developed; secondaries long, being six sevenths the length of the whole wing; tip of wing formed by fourth and fifth primaries; tail graduated and longer than wing. Plumage very plain; crown with a crest.

Range. Australia.

1. Sphenostoma cristatum.

Sphenostoma cristatum, *Gould, P. Z. S.* 1837, p. 150; *Gray, Gen. B.* i. p. 194, pl. 52. f. 5 (1847); *Reichenb. S. Av.* t. 62. fig.; *Gould, Handb. B. Austr.* i. p. 316; *Gray, Hand-l. B.* i. p. 235, no. 3409 (1869).

Sphenostoma cristata, *Gould, B. Austral.* iii. pl. 17, i. Introd. p. xliii.; *Sturt, Exped. Centr. Austr.* ii. p. 25.

General colour above, including the central tail-feathers, uniform earthy brown, with a more or less strongly pronounced ferruginous tinge; rest of tail dark brown, with large white tips; wings greyish brown, primaries with narrow whitish edges on outer webs; underparts dingy white, washed with greyish or with ferruginous brown; under tail-feathers brown with white tips; feathers of occiput prolonged into a long crest. Total length about 6·5 inches, culmen 0·5–0·58, wing 3·2–3·4, tail 3·7–3·8, tarsus 0·9.

The sexes are alike in plumage.

Hab. New South Wales, Victoria, and South Australia.

a, *b*. Ad. sk.	S.E. Australia.	Capt. Sturt [P.].
c, *d*. Ad. sk.	S.E. Australia.	F.D.Godman and O.Salvin, Esqrs. [P.].
e, *f*. Ad. sk.	S. Australia.	Sir G. Grey [P.].

7. CERTHIPARUS*.

	Type.
Mohoua, *Less. Compl. Buff.* ix. p. 139 (1837)	C. ochrocephalus.
Certhiparus, *De Lafresnaye, Revue Zool.* 1842, p. 69.	C. albicillus.
Clitonyx, *Reichenb. Handb. spec. Ornith.* i. p. 167 (1851)	C. ochrocephalus

Head of *Certhiparus ochrocephalus*.

Bill similar to that of *Sphenostoma*; nostrils operculated and exposed; first primary quill well developed, in *C. ochrocephalus* even longer than three fourths of the next primary, which again is comparatively short; secondaries short, only three fourths to four fifths of the whole wing; tail about equal to the wing in length, either graduated or square (*C. ochrocephalus*); tip of wing formed by fourth, fifth, and sixth primaries. Without a crest.

Range. Confined to New Zealand.

1. Certhiparus albicillus.

Fringilla albicilla, *Less. Voy. Coq.* i. p. 662 (1826).
Parus senilis, *Dubus, Bull. Ac. Roy. Brux.* vi. p. 297 (1839).
Certhiparus senilis, *Lafr. Rev. Zool.* 1842, p. 69.
Certhiparus albicillus, *Gray, Voy. Ereb. & Terr.* p. 6, pl. 5. fig. 2 (1844); *id. Gen. B.* i. p. 194; *Bp. C. A.* p. 228; *id. C. R.* 1854, p. 60.
Certhiparus cinerea, *Ellmann, Zool.* 1861, p. 7465.
Mohoua? albicilla, *Gray, Ibis*, 1862, p. 220.
Orthonyx albicilla, *Gray, Hand-l. B.* i. p. 185, no. 2535 (1869); *Finsch, J. f. O.* 1870, p. 253; *Hutton, Cat. B. New Zeal.* p. 9 (1871); *Buller, B. New Zeal.* p. 101, pl. 12. fig. 1; *id. Man.* p. 16, pl. 9. fig. 2.

Adult. Head and neck all round, breast, and middle of abdomen white; rest of underparts dull white, with a vinous brown tinge; mantle, back, and quills brown; the wing-coverts and outer edges

* Regarding the systematic position of the species included in this genus see Forbes, 'Ibis,' 1882, p. 544.

of quills paler; tail light yellowish brown, quills internally edged with pale yellow; "bill black; feet bluish black, with paler soles and brown claws; iris black" (*Buller*). Total length about 5·5 inches, culmen 0·55, wing 2·75–2·9, tail 2·7–2·9, tarsus 1.

Young. Underparts and crown of head dull white; general colour above pale brown.

Hab. North Island of New Zealand.

a, b, c. ♂ ♀ ad. sk.	New Zealand.	Capt. Stokes [P.].
d, e. Ad. sk.	Bay of Islands, New Zealand.	Antarctic Expedition [C.].
f. Ad. sk.	New Zealand.	Purchased.

2. Certhiparus novæ zealandiæ.

New-Zealand Titmouse, *Lath. Gen. Syn.* ii. p. 558 (1781).
Parus novæ seelandiæ, *Gm. Syst. Nat.* i. p. 1013 (1788).
Parus novæ zealandiæ, *Lath. Ind. Orn.* ii. p. 571 (1790); *Vieill. Nouv. Dict.* xx. p. 330.
Parus zelandicus, *Quoy et Gaim. Voy. Astrol.* i. p. 210, pl. 2. fig. 3 (1830).
Certhiparus novæ zelandiæ, *De Lafresn. Rev. Zool.* 1842, p. 69.
Certhiparus novæ seelandiæ, *Gray in Dieffenb. Travels*, ii. *App.* p. 189 (1843); *id. Voy. Erebus & Terror, Birds*, p. 6, pl. 5. fig. 1; *id. Gen. B.* i. p. 194; *id. Ibis*, 1862, p. 221; *id. Hand-l. B.* i. p. 235, no. 3407.
Certhiparus novæ zealandiæ, *Finsch, J. f. O.* 1870, p. 254; *Hutton, B. N. Zeal.* p. 11; *Buller, B. N. Zeal.* p. 105; *id. Man. B. New Zeal.* p. 21.
Certhiparus maculicaudus, *Gray in Dieffenb. Trav.* ii. *App.* p. 189 (1843); *id. Gen. B.* i. p. 194; *id. Ibis*, 1862, p. 221; *id. Hand-l. B.* i. p. 235, no. 3408.
Parus urostigma, *Forst. Descr. Anim.* p. 90 (1844).

General colour above and crown of head red-brown; tail brighter, all the feathers but the central pair with a large blackish brown subterminal patch on the inner web; wing-coverts and quills dark brown, externally washed with the colour of the back; sides of neck and hind neck dark grey; all the underparts dull white with an isabelline tinge, especially on the abdomen and on the under wing-coverts; under tail-coverts pinkish isabelline; bill and feet brown; "iris grey" (*F. Strange*). Total length 5 inches, culmen 0·45, wing 2·4–2·5, tail 2·4, tarsus 0·9.

The sexes are alike in plumage.

Hab. New Zealand.

a, b. ♂ ♀ ad. sk.	New Zealand (*F. Strange*).	Capt. Stokes [P.].
c. [♂] ad. sk.	South Island, New Zealand.	J. White, Esq. [P.].
d. Ad. sk.	New Zealand.	Dr. A. Sinclair [P.].

3. Certhiparus ochrocephalus.

Yellow-headed Flycatcher, *Lath. Gen. Syn.* ii. p. 342 (1783).
Muscicapa ochrocephala, *Gm. S. N.* i. p. 944 (1788, *ex Lath.*).
Certhia heteroclites, *Quoy et Gaim. Voy. Astrol.* i. pl. 17. fig. 1 (1830).

Mohoua hua, *Less. Compl. Buff.* ix. p. 139 (1837).
Orthonyx icterocephalus, *Lafr. Rev. Zool.* 1839, p. 257.
Orthonyx heteroclitus, *Lafr. Mag. Zool.* 1839, pl. 8.
Mohoua ochrocephala, *Gray, List Gen. B.* p. 25 (1841); *id. Voy. Ereb. & Terr., Birds*, p. 5; *id. Ibis*, 1862, p. 226.
Muscicapa chloris, *Forst. Descr. Anim.* p. 87 (1844).
Orthonyx ochrocephala, *Gray, Gen. B.* i. p. 151, pl. 46 (1847); *id. Hand-l. B.* i. p. 185, no. 2234; *Hutton, Cat. B. New Zeal.* p. 8; *Buller, B. New Zeal.* p. 103, pl. 12. fig. 2 (1873); *id. Man. B. N. Zeal.* p. 16, pl. 9. fig. 1.

Adult male. Head and neck all round and the whole breast bright golden yellow; flanks washed with brownish grey; abdomen and thighs greyish white; mantle, scapulars, and back yellowish brown with an olive tinge; feathers of hind neck washed with the same colour; tail uniform dark olive-yellow; quills brown, edged with olive-yellow; wing-coverts more yellow than brown; edge of wing, under wing-coverts, and inner web of quills lemon-yellow; bill, feet, and iris black (*Buller*). Total length about 6 inches, culmen 0·6, wing 3–3·3, tail 2·7–3, tarsus 1·1.

Adult female like the male, but with the wing-coverts more like the back.

Young birds have the yellow parts strongly washed with olive-brown.

Hab. South Island of New Zealand.

Observation. All the adult specimens I have been able to examine have the tips of the tail-feathers more or less abraded, so that the pointed shafts project.

a. Ad.; *b*. ♂ ad. sk.	New Zealand.	Capt. Stokes [P.].
c. Ad. sk.	South Island, N. Z.	J. White, Esq. [P.].

8. PANURUS.

Type.

Panurus, *Koch, System. d. baier. Zool.* i. p. 202 (1816).. P. biarmicus.
Calamophilus, *Leach, Syst. Cat. M. & B. Brit. Mus.* p. 17 (1816) ..... P. biarmicus.
My[illegible]s, *Boie, Isis*, 1822, p. 556..... P. biarmicus.
H[illegible], *Gloger, Handb. Naturgesch.* p. 281 (1842) .. P. biarmicus.
P[illegible]s (pt.), *Gray, Gen. B.* i. p. 193 (1847).

Nostrils ovate, with a large operculum, the nasal opening situated posteriorly, hidden by small plumes. Tongue horny, obtuse, divided at the end [illegible]minating in a few horny bristles.

Range. [illegible] same as of the single species.

1. Panurus biarmicus.

Parus biarmicus, *Linn. S. N.* i. p. 342 (1766); *Penn. Arctic Zool.* p. 428; *Bechst. Vög. Deutschl.* iv. p. 754; *Retzius, Faun. Suec.* p. 272; *Temm. Man. d'Orn.* p. 298; *Bonn. et Vieill. Enc. Méth.* p. 503; *Vieill. Gal. Ois.* p. 89, pl. 69; *Roux, Orn. Prov.* p. 195, pls. 123*a* & 129*b*; *Less. Man. d'Orn.* i. p. 319; *Less. Traité d'Orn.* p. 457; *Swains. Class. B.* ii. p. 256; *d'Orbigny, Ois. d'Eur.*

pl. 32; *Schinz, Europ. Faun.* p. 221; *Kjærbölling, Danmarks Fugle*, pl. 23; *Kenlemans, Onze Vogels*, pl. 16; *Booth, Rough Notes*, pl. —.

Parus russicus, *Gm. Reise durch Russl.* ii. p. 165, t. 10 (1774).

Bearded Titmouse, *Lath. Gen. Syn.* ii. pt. 2, p. 552 (1783).

Calamophilus biarmicus, *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 17 (1816); *Licht. Nomencl.* p. 37; *Selys-Longch. Faune Belge*, p. 103; *Thompson, Nat. Hist. Ireland*, p. 213; *Butler, Str. F.* 1876, p. 154; *Dresser, B. Eur.* iii. p. 49, pl. 102.

Panurus biarmicus, *Koch, System. baier. Zool.* p. 201, Taf. v. fig. 43 (*bill and tongue figured*); *Bp. C. A.* p. 231 (1850); *Cab. Mus. Hein.* i. p. 89; *Salvad. Faun. Ital.* ii. p. 64; *Sundev. Av. Meth. Tent.* p. 30; *Danford & Brown, Ibis*, 1875, p. 303; *David & Oustalet, Ois. Chine*, p. 295; *Prjev. in Rowl. Orn. Misc.* p. 191, sp. 91 (1877).

Mystacinus biarmicus, *Boie, Isis*, 1822, p. 556.

Ægithalus biarmicus, *Boie, Isis*, 1826, p. 975; *Gray, Hand-l. B.* i. p. 237, no. 3428 (1869).

Mystacinus russicus, *Brehm, Vög. Deutschl.* p. 474 (1831).

Mystacinus arundinaceus, *Brehm, Vög. Deutschl.* p. 474 (1831).

Mystacinus dentatus, *Brehm, Vög. Deutschl.* p. 474 (1831).

Parus barbatus (*Briss.*), *Pall. Zoogr. Rosso-As.* p. 549 (1831); *Holland. Wirbelthiere Pommerns*, p. 60 (1871).

Calamophilus barbatus, *Keys. & Blasius; Wirb. Eur.* p. xliii (1840).

Hypenites barbatus, *Gloger, Handb. Naturg.* p. 281 (1842).

Mystacinus barbatus, *Schleg. Handl. Dierk.* p. 350 (1857).

Paroides biarmicus, *Gray, Gen. B.* i. p. 193 (1847).

Panurus barbatus, *Saunders, Ibis*, 1871, p. 208.

Male. Head above pale bluish grey; lores, region in front of the eye, and cheeks deep black; the feathers of the latter are elongated and, being directed backwards, form a long moustache; hind neck, mantle, and entire back burnt sienna; tail-feathers like the back but rather darker, except the two outermost pairs, which are blackish at their basal half and pale grey at the rest; scapulars white tinged fulvous; lesser wing-coverts greyish, the greater and median ones black, edged with rusty red; the primary-coverts and primary quills dark brown, with broad white margins to the outer webs; secondaries brown, with broad rusty-red edges; chin, throat, and upper breast white, with a slight bluish-grey tinge; sides of neck and breast with a pink tinge; middle of abdomen, under tail-coverts, and thighs whitish creamy, sides and flanks like the back; under tail-coverts deep black; bill pale orange; feet black; iris orange-yellow. Total length 6 inches, culmen 0·35, wing 2·35, tail 3·3, tarsus 0·75–0·8.

Female. Head above greyish fawn; no moustache; under tail-coverts fawn-colour. All the other parts coloured as in the male, but not so bright; feathers of the back with dark-brown longitudinal central streaks.

Young. Centre of back and part of the mantle dull black; rest of upper back and hind neck pale buff; the central tail-feathers have the basal two thirds pale buff, the rest black-brown; the other pairs tipped with white; underparts pale buff, whitish on the throat, centre of breast, and abdomen.

Young males have a blackish stripe along the sides of the crown and a blackish spot in front of the eye; bill and feet brown.

Hab. All over Europe (except in Sweden, Norway, and Northern Russia), extending into Turkestan.

Obs. Specimens from Turkestan (June 2) are very pale above and below, almost creamy whitish; but the new feathers of the tail are of the ordinary rusty-red colour. They represent probably the *Calamophilus sibiricus* of Bonaparte (C. R. xliii. p. 414).

a. Pull. sk.	England.	J. Gould, Esq. [C.].
b. Juv. sk.	Norfolk.	Gould Collection.
c. ♂ ad. sk.	Norfolk.	Gould Collection.
d–i. ♂ ♀ ad. sk.	Norfolk, April 4, 1856 (*O. S.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
k, l. ♂ ♀ ad. sk.	France.	Gould Collection.
m, n, o. ♂ ♂, ♀ ad. sk.	Turkestan, Saissan-Nor, June 2, 1876.	Dr. O. Finsch [C.].

Subfamily REGULINÆ.

Bill shorter than rest of the head; culmen straight, not rounded but keeled, slightly notched. Nostrils basal, with an oval opening in front of a coriaceous groove, indistinctly operculated, covered with a small stiff and peculiarly shaped feather. Nasal and rictal bristles hardly developed. First primary equal to half the second in length; tip of wing formed by fourth, fifth, and sixth primaries. Tail square, or slightly emarginated, the feathers pointed at their tips. Tarsus long, more than twice and a half the length of the hallux without claw, anteriorly covered with one long scutum. Male with a vividly coloured crown; rest of the soft and lax plumage dull olive.

Birds of very small size, inhabiting the entire Palæarctic and Nearctic regions, and extending to the Himalayas.

One genus, with about four species.

9. REGULUS.

	Type.
Regulus, *Koch, Syst. baier. Zool.* p. 199 (1816).....	R. cristatus.
Phyllobasileus, *Cab. Mus. Hein.* p. 33 (1850)	R. calendula.
Corthylio, *Cab. J. f. O.* 1853, p. 83	R. calendula.

Head of *Regulus cristatus* (magnified), to show feather covering the nostril.

Key to the Species.

a. Centre of crown and crest vermilion-red ..... *calendula*, p. 85.
b. Centre of crown and crest orange-red and yellow.
a'. Orange-yellow patch on sides of neck ..... } *maderensis*, p. 84.
b'. No patch on sides of neck. } *ignicapillus*, p. 83.
a''. Centre of crest reddish orange; a whitish superciliary line ..... *satrapa*, p. 82.
b''. Whole crest yellow; no white superciliary line ..... } *cristatus* & *himalayensis*, p. 80.

1. Regulus cristatus.

Motacilla regulus, *Linn. S. N.* i. p. 338 (1766); *Gm. S. N.* i. p. 995 (1788).

Sylvia regulus, *Scop. Ann. I. Hist. Nat.* p. 161 (1769); *Lath. Ind. Orn.* ii. p. 548, pl. 2. (1790); *Bechst. Ornith. Taschenb.* p. 189 (1802); *Meyer & Wolf, Taschenb. Deutschl. Vög.* p. 250; *Temm. Man. d'Orn.* p. 229.

Regulus cristatus, *Koch, System. d. baier. Zool.* p. 199 (1816); *Vieill. N. Dict. d'Hist. Nat.* p. 420, t. 29; *id. Faune Franç.* p. 229; *Temm. Man. d'Orn.* p. 157; *id. Pl. Col.* 631. fig. 3; *Naum. Vög. Deutschl.* pl. 93. figs. 1, 2; *Werner, Atlas, Insectivores*, pl. 60; *Gould, B. Eur.* pl. 148; *Keys. & Blas. Wirb. Eur.* p. lv; *Schlegel, Revue*, p. xliv; *Gray, Gen. B.* i. p. 175; *Blyth, Cat. B. Mus. As. Soc.* p. 186; *Temm. & Schl. Faun. Jap., Aves*, p. 70; *Bp. Consp.* i. p. 291; *Cab. Mus. Hein.* Th. i. p. 34; *Kjærbölling, Danmarks Fugle*, pl. 24; *Sunder. Svensk. Fogl.* pl. 15. fig. 2; *Fritzsch, Vög. Eur.* pl. 19. figs. 5, 6; *Gould, B. Gt. Brit.* ii. pl. 69; *Degl. & Gerbe, Orn. Eur.* i. p. 553; *Gray, Hand-l. B.* i. p. 218, no. 3100; *Droste, Vogelw. Borkums*, p. 89; *Perini, Ornitol. Veronese*, p. 210; *Bettoni, Ucc. Lomb.* pl. 106; *Altum, Forstzoologie*, p. 193; *Newton, ed. Yarr. Brit. B.* p. 449; *Dresser, B. Eur.* ii. pl. 71.

Regulus vulgaris, *Steph. Gen. Zool.* x. pt. 2, p. 758 (1817).

Regulus japonicus, *Bp. C. R. Ac. Sc.* xliii. p. 767 (*sine descript.*, 1856); *Swinh. P. Z. S.* 1863, pp. 336, 451, 602, & 1871, p. 358; *Dav. & Oustal. Ois. Chine*, p. 276.

Regulus aureo-capillus, *Meyer, Taschenb. deutsch. Vogelk.* iii. p. 108 (1822).

Regulus crococephalus, *Brehm, Beitr. Vogelk.* ii. p. 120 (1822); *id. Lehrbuch*, p. 275 (1823).

Regulus flavicapillus, *Naum. Vög. Deutschl.* iii. p. 968 (1823) *Schinz, Eur. Faun.* p. 207 (1840); *Roux, Orn. Provenç.* pl. 234 *Bouteil, Orn. Dauphin.* pl. 27.

Regulus septentrionalis, *Brehm, Vög. Deutschl.* p. 479 (1831).

Regulus chrysocephalus, *Brehm, op. cit.* p. 481.

Regulus auricapillus, *Selby, Brit. Orn.* i. p. 229 (1833).

a. R. himalayensis.

Regulus himalayensis, *Jerd. B. Ind.* ii. p. 206 (1863); *Gould, B. Asia*, ii. p. 206 (1869); *Gray, Hand-l. B.* i. p. 218, no. 3102; *Swinh. P. Z. S.* 1871, p. 358; *David, Nouv. Arch. Mus. Bull., Cat. Ois. Chine*, sp. 196 (1871); *id. & Oustal. Ois. Chine*, p. 276; *Prjev. in Dawson Rowley's Orn. Miscell.* ii. p. 57; *Stoliczka, Str. F.* 1875, p. 246.

Regulus cristatus, *v. Pelz. Ibis*, 1868, p. 308 (*nec Koch*).

Adult male. General colour above dingy or olive-green, passing into yellowish on the rump and on the upper tail-coverts; wing-coverts and secondary quills dark brown with whitish terminal spots, and externally edged with the dingy green colour of the back; primary quills brown, externally edged with yellowish green; basal part of the secondaries white, middle part blackish without any sign of yellowish edgings, rest of the secondaries brown, with yellowish edgings to the outer web and with whitish tips; the wing therefore shows a large blackish patch in the middle, anteriorly bordered by the white tips of the greater wing-coverts; under wing-coverts, edge of wing, axillaries, and inner margin of quills whitish; tail-feathers brown, externally bordered with yellowish green; all the underparts dingy white, more or less strongly washed with greenish yellow or creamy colour; centre of crest bright orange-yellow, bordered on either side and in front by a narrow bright yellow streak, this again bordered by a black or blackish streak; sides of head and ear-coverts dingy greenish grey; region round the eye, lores, and chin whitish; bill blackish brown; legs and claws pale horny brown. Total length about 3·75 inches, culmen 0·4, wing 2·1, tail 1·5, tarsus 0·7.

Adult female. Very much like the adult male in colour; but the centre of the crest is simply bright yellow with no orange colour.

Young birds have the crown of the head without any yellow, and the general colour above is a dusky grey with a dingy olive tinge.

Hab. The Golden-crested Wren is found throughout the Palæarctic Region.

Obs. In the N.W. Himalayas and Western China it is represented by a somewhat larger race (*R. himalayensis*, Gould). The differences in size between the Himalayan and the European birds are but slight, if we compare the former with a large series of *R. cristatus*. The flame-coloured interior of the crest is scarcely more developed in the Asiatic form than in old birds of the European species. The two specimens in the British-Museum collection from the Himalayas measure as follows:—

♂. Wing 2·3 inches, tail 1·64, tarsus 0·7.

♀ (Nepal). Wing 2·03 inches, tail 1·45, tarsus 0·7.

Regulus cristatus.

a. Ad. sk.	Cork, Ireland.	W. Mahony, Esq. [P.].
b. Juv. sk.	Colebrooke, Aug. (*A. B. Brooke*).	R. B. Sharpe, Esq. [P.].
c. Ad. st.	Saffron Walden.	J. Clarke, Esq. [P.].
d. ♂ ad. sk.	Shropshire, Jan.	Gould Collection.
e. Ad. st.	Devonshire.	Col. Montagu [P.].
f. Ad. st. (albino).	Devonshire.	Col. Montagu [P.].
g, *h.* Ad. st.	Avington, Hants.	E. Shelley, Esq. [P.].
i, *k.* ♂ ♀ ad. sk.	Avington, Hants, Nov. 25.	Capt. Shelley [P.].
l. [♂] pull. sk.	Isle of Wight.	T. Butler, Esq. [P.].
m. Pull. sk.	Maidenhead, Berks.	Gould Collection.
n. ♀ ad. sk.	Middlesex (*O. S.*).	F. D. Godman and O Salvin, Esqrs [P.].

o. Ad. st.	Middlesex.	E. Churton, Esq.
p. ♀ ad. sk.	Surrey, Jan. 1857.	F. D. Godman and O. Salvin, Esqrs. [P.].
q, *r*. ♂ ad. sk.	Surrey.	Gould Collection.
s. Ad. sk.	Paris.	Gould Collection.
t. Ad. st.	Mongeron, Seine-et-Oise.	R. B. Sharpe, Esq. [P.].
u. ♂ ad. sk.	S. Norway, March 20, 1859.	F. D. Godman and O. Salvin, Esqrs. [P.].
v, *w*, *x*. ♂ ♀ ad. & juv. sk.	Teneriffe, May 1871 (*F. D. G.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
y, *z*. ♂ ♀ ad. sk.	S. Michaels, Azores, April 1865 (*F. D. G.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
a'. [♀] ad. sk.	Fayal, Azores, March 1865 (*F. D. G.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
b'. ♀ ad. sk.	Japan.	Gould Collection.
c'. ♂ ad. sk.	Japan.	Purchased.
d', *e'*. ♂ ♀ ad. sk.	Hakodadi.	H. Pryer, Esq. [C.].
f', *g'*. ♂ ♀ ad. sk.	Hakodadi, Oct. & Nov. 1864 (*H. Whitely*).	Gould Collection.
h'. Ad. in spirits.	Prussia.	Dr. H. Gadow [P.].

Himalayan Race.

a. [♀] ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
b. [♂] ad. sk.	Nepal.	Gould Collection.
c, *d*. ♀ ad. sk.	Astor, Kashmere, Oct., 11,000 feet.	Major Biddulph [P.].
e. ♂ ad. sk.	Native Sikkim (*Mandelli*).	Eugene W. Oates, Esq.

2. Regulus satrapa*.

Sylvia regulus, *Wils. Am. Orn.* pl. 8. fig. 2 (1808).
Regulus cristatus, *Audub. B. Am.* ii. pl. 132; *id. Orn. Biogr.* ii. pl. 183.
Regulus satrapa, *Licht. Verz. Doubl.* no. 410 (1823); *Gray, Gen. B.* i. p. 175; *Cab. Mus. Hein.* i. p. 34; *Baird, B. N. Am.* p. 227; *Sclater, P. Z. S.* 1857, p. 212; *Bädeker, J. f. O.* 1856, p. 33, pl. 1. fig. 9; *Neuwied, J. f. O.* 1858, p. iii; *Dresser, Ibis*, 1865, p. 476; *Gray, Hand-l. B.* i. p. 218, no. 3104; *Scl. & Salv. Nomencl. Av. Neotr.* p. 4; *Cooper, B. Calif.* i. p. 32; *Baird, Brewer, & Ridgway,*

---

* Regulus cuvieri.

Regulus cuvieri, *Audub. Orn. Biogr.* i. p. 288, pl. 55 (1832); *Gray, Gen. B.* i. p. 175; *Baird, B. N. Am.* p. 228; *id. Rev. Am. B.* p. 66; *Baird, Brew., & Ridgw. N. A. B.* i. p. 175.
Corthylio cuvieri, *Cab. J. f. O.* 1853, p. 83.
Sylvia cuvieri, *Gray, Hand-l. B.* i. p. 216, no. 3070.

Messrs. Baird, Brewer, and Ridgway make the following remarks on this bird:—"This species continues to be unknown, except from the description of Mr. Audubon. It appears to differ mainly from *R. satrapa* in having two black bands (not one) on the crown anteriorly, separated by a whitish one; the extreme forehead being black instead of white as in *R. satrapa*. The specimen was killed in June 1812 on the banks of the Schuylkil River in Pennsylvania."

N. A. B. i. p. 73; *Coues, B. Colorad. Vall.* p. 96 (*cf. for American references*); *id. Key N. A. B.* p. 78.
Regulus cristatus, *Vieill. Ois. Am.* ii. pl. 106 (1807).
Regulus tricolor, *Audub. Orn. Biogr.* ii. p. 476 (1831–39).
Regulus reguloides, *Jardine, Wilson's Am. Orn.* i. p. 127 (1832).
Regulus satrapa, var. olivascens, *Baird, Rev. Am. B.* p. 65 (1864).

This species, although very similar to *R. ignicapillus* in general colour and appearance, can always be distinguished by the following differences:—1. The old male of *R. satrapa* has the hind neck and the sides of the neck grey, with only a very slight olive hue, whilst in *R. ignicapillus* these parts are of the same intense olive-green colour as the mantle, gradually passing into olive-yellow on the sides of the neck; 2. The forehead is white instead of buff or cream-colour; 3. The centre of the crest is no doubt brighter-coloured. The females of both species are alike in colour; and the young birds are without the coloured crown. Length of wing 2·1–2·25 inches, tail 1·75, tarsus 0·65.

Hab. The American Fire-crested Wren is found throughout North America, extending thence into Mexico.

Obs. Professor Baird remarks that "the western specimens are much brighter and more olivaceous above, especially on rump and tail, than the eastern, and may possibly constitute a different race, or variety *olivaceus*." The British Museum has no specimens of *R. satrapa* from Eastern North America.

a, b. ♂ ♀ ad. st.	N. America.	Purchased.
c. ♂ ad. sk.	Chicago, April 12, 1878.	H. K. Coale, Esq. [P.].
d, e. ♂ ♀ ad. sk.	W. side of Rocky Mountains.	J. K. Lord, Esq. [P.].
f, g. ♂ ♀ ad. sk.	W. side of Rocky Mountains.	J. K. Lord, Esq. [P.].
h, i. [♂] ad. sk.	Vancouver's Island.	Dr. Lyall [C.].
k. [♂] ad. sk.	Vancouver's Island.	Gould Collection.
l, m. [♂] ad. sk.	British Columbia.	J. K. Lord, Esq. [C.].
n. [♂] ad. sk.	N. America.	Gould Collection.
o. Juv. sk.	Mexico.	Gould Collection.
p, q. ♀ ad. sk.	Mexico.	Gould Collection.

3. Regulus ignicapillus.

Souci ou Poule, *Buff. Pl. Enl.* pl. 651. fig. 3.
Sylvia regulus, *Bechstein, Ornith. Taschenb.* p. 189 (1802).
Sylvia ignicapilla, *Brehm, in Temm. Man. d'Orn.* p. 231 (1820); *Naum. Vög. Deutschl.* iii. pl. 93. figs. 4, 5, 6.
Regulus ignicapillus, *Meyer, Taschenb. Deutschl. Vogelk.* iii. p. 109 (1822); *Werner, Atlas, Insectivores*, pl. 61; *Roux, Orn. Provenç.* pl. 235; *Temm. Man. d'Orn.* iii. p. 158; *Gould, B. Eur.* pl. 148. fig. 2; *Schinz, Europ. Faun.* i. p. 207; *Keys. & Blas. Wirb. Eur.* p. lv; *Schlegel, Revue*, p. xliv; *Gray, Gen. B.* i. p. 175; *Bp. C. A.* i. p. 291; *Cab. Mus. Hein.* Th. i. p. 34; *Kjærböll. Danmarks Fugle*, pl. 54. fig. 5; *Fritsch, Vög. Eur.* pl. 19. figs. 1, 2; *Degland & Gerbe, Ois. Eur.* i. p. 555; *Gould, B. Gt. Br.* ii. pl. 70; *Schlegel,*

Vog. Nederl. pl. 124; *von Droste, Vogelw. Borkums*, p. 90; *Perini, Ornit. Veronese*, p. 212; *Altum, Forstzoologie*, p. 194; *Newton, ed. Yarr. Brit. B.* i. p. 456; *Dresser, B. Eur.* ii. p. 459, pl. 72. fig. 1.
Regulus pyrocephalus, *Brehm, Beitr. Vogelk.* ii. p. 130, pl. i. fig. 1 (1822); *id. Lehrbuch*, p. 276; *id. Vög. Deutschl.* p. 483.
Regulus mystaceus, *Vieill. Faun. Franç.* p. 231 (1822).
Regulus nilsonii, *Brehm, Vög. Deutschl.* p. 482 (1831).
Regulus brachyrhynchus, *Brehm, t. c.* p. 483 (1831).

Adult male. General colour above olive-green, sometimes with a strong yellow tinge, especially on the sides of the neck; head above much the same in colour as that of *R. cristatus*; but the forehead is cream-colour, from which passes a pure white rather broad streak over the eye and over the ear-coverts; lores and a streak through the eye greyish black; ear-coverts grey; the middle of the crest generally more reddish and less yellow than in *R. cristatus*; underparts dingy white, scarcely washed with cream-colour. In all the other parts this species closely resembles *R. cristatus*. Total length about 3·75 inches, culmen 0·4, wing 2–2·1, tail 1·7, tarsus 0·65–0·7.

The *female* has the crown of the head simply sulphur-yellow, hind neck and sides of neck pale dingy grey, rest of the upper parts grey, with a strong olive tinge.

Young birds have the whole head grey, mottled with blackish terminal spots, the underparts dingy white, with a creamy tinge.

Hab. Europe and Asia Minor.

a. ♂ ad. sk.	England.	Gould Collection.
b. Ad. st.	Cambridgeshire.	Mr. J. Baker [P.].
c, d. ♂ ad. sk.	Europe.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. ♀ ad. sk.	Europe.	Purchased.
f. ♂ ad. sk.	Heligoland, October 1879 (*Gätke*).	E. W. Oates, Esq. [P.].
g, h. ♂ ♀ ad. sk.	Gibraltar.	Col. Irby [P.].
i. Ad. sk.	Maritime Alps.	Gould Collection.
k, l. ♂ ad. & pull. sk.	Sardinia, May 1871 (*A. B. Brooke*).	R. B. Sharpe, Esq. [P.].
m. Ad. sk.	Malta.	Gould Collection.
n. ♂ ad. sk.	Asia Minor.	T. Robson [C.].

4. Regulus maderensis.

Regulus ——?, *Vernon Harcourt, Ann. & Mag. N. H.* 1853, p. 58.
Regulus maderensis, *Vernon Harcourt, P. Z. S.* 1854, p. 153; *Bolle, J. f. O.* 1857, p. 284; *Gray, Hand-l. B.* i. p. 218, no. 3103; *Godman, Ibis*, 1872, p. 173; *Dresser, B. Eur.* ii. p. 465, pl. 72. fig. 2.

Adult male. General colour above yellowish green; sides of neck almost entirely orange-yellow; ear-coverts and a small irregular band round the hind neck grey; forehead, the region immediately round the eye, and a superciliary streak white; centre of crown orange-yellow, bordered in front and on the sides by black feathers; breast washed with orange-yellow. In all the other parts this

species closely resembles *R. ignicapillus*. Total length about 3·7 inches, culmen 0·5, wing 2·1, tail 1·7, tarsus 0·8.

Hab. Madeira.

a. Ad. sk.	Madeira.	E. Vernon Harcourt, Esq. [P.]. (Type of species.)
b, c, d, e. ♂ ♀ ad. sk.	Madeira, June 1871.	F. D. Godman and O. Salvin, Esqrs. [P.].
f, g, h. ♂ ♀ ad. sk.	Madeira.	F. D. Godman and O. Salvin, Esqrs. [P.].
i, k. Ad. in spirits.	Madeira.	Purchased.

5. Regulus calendula.

La Poule ou Souci de Pensilvanie, *Briss. Orn.* iii. p. 584 (1760).
Motacilla calendula, *Linn. S. N.* i. p. 337 (1766); *Audub. B. Am.* pl. 133; *id. Orn. Biogr.* ii. pl. 195.
Parus griseus, *Gmel. S. N.* i. p. 1010.
Sylvia calendula, *Lath. Ind. Orn.* ii. p. 549 (1790); *Wilson, Am. Orn.* pl. 5. fig. 3; *Gray, Hand-l. B.* i. p. 216, no. 3068.
Regulus calendula, *Licht. Verz. Doubl.* no. 408 (1823); *Gray, Gen. B.* i. p. 175; *Baird, B. N. Am.* p. 226; *Sclat. P. Z. S.* 1857, p. 202, 1858, p. 300, 1859, p. 362, 1864, p. 172; *Gould, P. Z. S.* 1858, p. 200 (*Scotland*); *Cooper, B. Calif.* i. p. 33; *Reinhardt, Ibis*, 1861, p. 5 (*Greenland*); *Dresser, Ibis*, 1865, p. 475; *Coues, Key N. A. B.* p. 78; *Scl. & Salv. Nomencl. Av. Neotr.* p. 4; *Baird, Brew., & Ridgw. N. A. B.* i. p. 75; *Coues, B. Colorado Vall.* p. 92 (*cf. for American references*).
Regulus rubineus, *Vieill. Ois. Am. Sept.* ii. p. 49, pls. 104 & 105 (1807).
Phyllobasileus calendula, *Cab. Mus. Hein.* i. p. 33 (1850).
Reguloides calendula, *Bp. C. A.* i. p. 292 (1850).
Corthylio calendula, *Cab. J. f. O.* 1853, p. 83.

In this species the small peculiarly shaped feather which overlaps the nostril is either rudimentary or entirely absent.

Adult male. General colour above dingy olive-grey, passing into olive-green on the lower back and on the upper tail-coverts; the centre of the crest vermilion-red, and not bordered by yellow or black, the whole of the rest of the crown of the head being of the same dull colour as the mantle and hind neck; sides of head, forehead, and ear-coverts somewhat paler and more yellowish; lores and the immediate region round the eyes whitish; all the underparts are dingy creamy white. Total length about 4 inches, culmen 0·4–0·5, wing 2·3–2·4, tail 2·8, tarsus 0·7–0·8.

Young birds are without the coloured crown.

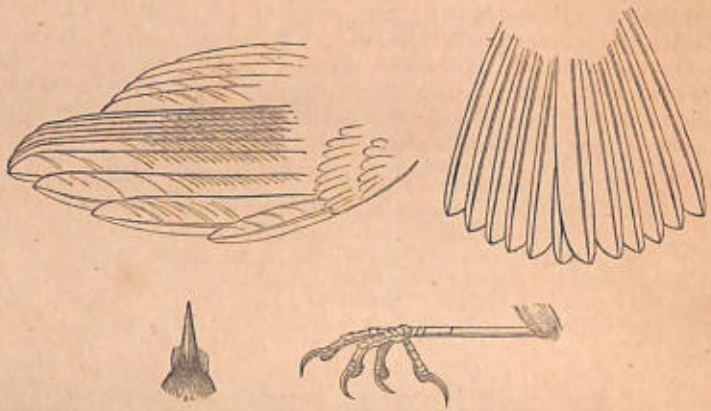
Hab. Nearly the whole of the Nearctic Region, ranging from Repulse Bay and Greenland in the north, southwards to Guatemala.

a. Ad. st.	N. America.	Purchased.
b. ♂ ad. sk.	N. America.	Gould Collection.
c. Ad. sk.	California.	Purchased.
d, e. ♂ ♀ ad. sk.	West side of Rocky Mts.	J. K. Lord, Esq. [P.].
f. ♂ ad. sk.	West side of Rocky Mts.	J. K. Lord, Esq. [P.].
g. ♂ ad. sk.	49th Parallel (*G. Dawson*).	N. A. Boundary Commission.

h. Ad. sk.	Chicago, Sept. 30, 1874.	H. K. Coale, Esq. [P.].
i, k. ♂ ad. sk.	Repulse Bay.	Dr. Rae [P.].
l. ♂ ad. sk.	Loch Lomondside, 1853 (*Dr. Dewar*).	Gould Collection.

10. LEPTOPŒCILE.

	Type.
Leptopœcile, *Severtzow, Turkest. Jevotn.* p. 66 (1873)	L. sophiæ.
Stoliczkana, *Hume, Str. F.* ii. p. 135 (1874)	L. sophiæ.



Details of structure of *Leptopœcile sophiæ*.

Bill straight, slender and rounded at the culmen, like that of *Phylloscopus*. Nostrils longitudinal, with a well-developed coriaceous operculum, half protected by very fine bristles. First primary comparatively long, second primary short; tip of wing formed by fourth, fifth, and sixth primaries. Tail graduated, and equal to wing in length. Tarsus anteriorly covered with one long scutum (in old birds), and more than twice and a half the length of the hallux without claw. Plumage soft and rather thick. Coloration very peculiar.

Range. Central Asia.

This bird does certainly not belong to the *Paridæ*, but is most closely allied to *Phylloscopus* (see Cat. B. vol. v. pp. 2, 37).

1. Leptopœcile sophiæ.

Leptopœcile sophiæ, *Severtz. Turk. Jevotn.* pp. 66, 135, pl. viii. figs. 8 & 9 (♂ ♀) (1871); *Dresser, Ibis*, 1876, p. 171; *Gould, B. As.* pt. xxviii.; *Butler, Str. F.* 1876, p. 153; *David & Oust. Ois. Chine*, p. 290; *Prjev. Ornith. Misc.* pt. vi. p. 191, sp. 92 (1877); *Scully, Ibis*, 1881, p. 116.

Stoliczkana stoliczkæ, *Hume, Str. F.* 1874, pt. ii. p. 513.

Adult. Forehead and a broad band over eyes and ear-coverts yellowish white; crown of head, nape, and chin vinous brown;

throat, fore neck, sides of breast, flanks, under and upper tail-coverts, and rump vinous brown, strongly washed with cobalt-blue, especially the rump and flanks, the bluish colour being hardly perceptible on the crown; mantle, back, wing-coverts, and quills narrowly edged with pale whitish olive; tail black-brown, with a greyish tint on the outer web of the inner pairs; outer web of outermost pair, and outer edge of next pair white; edge of wing, under wing-coverts, and a broad margin to inner web of quills pale cream-colour; centre of breast and abdomen cream-colour; "bill black; feet horny blackish brown; iris bright red" (*Stoliczka*). Total length 4·5 inches, culmen 0·35, wing 2·1, tail 2, tarsus 0·72.

Female. Generally duller-coloured, the reddish-blue colour being confined to the rump; underparts pale brownish white or cream-colour; in size not differing from the male.

Hab. Upper Cashmere, extending into Turkestan.

a–c. Ad. sk.	Kashgar (*Dr. Bellew*).	India Museum [P.].
d, e. ♂ ♀ ad. sk.	Astor, Kashmere, 10,000 feet, Oct. 3.	Major Biddulph [P.].

Family LANIIDÆ.

Bill either strong, with the culmen curved, ending in a hook with a notch, in which case the bill is black or dark brown, or, secondly, culmen straight, with hardly any hook and notch, and then of a bluish-white colour. Form of nostrils very variable. Wings with ten primaries, the first at least half the length of the second (except in *Lanius minor*); tip of wing formed by third, fourth, and fifth, or fourth, fifth, and sixth primaries. Tail very variable in shape, consisting of twelve feathers, not emarginated (except in *Calicalicus*). Tarsus on both sides covered with one long scutum (except in *Nilaus*), anteriorly generally scutellated. Toes four in number, middle toe the largest; nail of hind toe longer and stronger than that of the others. Insectivorous birds; with a few exceptions non-migratory, cosmopolitan; monogamous; nest containing a few coloured eggs, and built in a tree.

This family, the typical birds of which are described under the heading *Laniinæ*, includes some very aberrant forms, which, like *Gymnorhina*, *Eopsaltria*, *Artamia*, *Xenopirostris*, *Nilaus*, *Neolestes*, and *Calicalicus*, render it quite impossible to give a concise diagnosis of what we have to understand by "*Laniidæ*." The diagnosis of the *Laniidæ*, as well as that of *Paridæ*, as given by Mr. Sharpe in vol. iv. p. 7, is, for instance, applicable to the genera *Lanius* and *Parus* only.

In the present case we have to consider *Lanius* as the taxonomic centre of the group, since all that is common to any two or more of the five subfamilies of the *Laniidæ* is typical of *Lanius*. In other words, the genus *Lanius* (and through this the subfamily *Laniinæ*), as defined on page 228, links the five subfamilies together; whilst, on the other hand, any attempt to trace the relationship between *Lanius* and other non-Laniine birds will show that some, or at least one, of the genera belonging to the other four subfamilies are the necessary intermediate forms. Thus, for instance, from *Lanius* we have one fairly continuous series leading through *Cracticus* and *Gymnorhina* to *Strepera*, *Lycocoracinæ*, and the *Corvinæ*; again, through *Pachycephala* and *Eopsaltria* to the *Muscicapinæ*; through *Calicalicus* and *Neolestes* to the *Pycnonotinæ*.

The *Laniidæ*, as described in this volume, form neither a group complete in itself, nor are the lines of distinction always drawn closely enough. Thus *Neolestes* and *Eopsaltria* ought, perhaps, to be left out; *Strepera* ought to stand with *Gymnorhina*. Lastly, how many of the *Campephagidæ* and of the so-called *Timeliidæ* had better be joined, as a sixth subfamily, with the *Laniidæ*, I am at present unable to tell.

Synopsis of the Subfamilies.

a. Nostrils placed almost midway between base and tip of the bill, formed by a longitudinal slit, quite bare of feathers or bristles. — *GYMNORHININÆ*, p. 89.

b. Nostrils basal; either round and ossified, or oval and situated in a partly coriaceous groove.

a'. Feathers of back fluffy, forming a thick and soft cover of the rump; nostrils free, uncovered by bristles or feathers ..... — *MALACONOTINÆ*, p. 103.

b'. Feathers of back not fluffy; nostrils partly covered by feathers or bristles.

a''. Bill laterally compressed, strongly hooked and notched; culmen straight at basal half; nostrils round and completely ossified ..... — *LANIINÆ*, p. 228.

b''. Culmen curved downwards throughout its length, or the bill considerably flattened near the base; nostrils in a coriaceous groove, with an imperfect operculum..... — *PACHYCEPHALINÆ*, p. 172.

c''. Bill generally laterally compressed; nostrils in front of a semiossified or coriaceous groove, circular, non-operculated. Principal colours green and yellow. Length of wing from 2 to 3 inches. (American.) .. — *VIREONINÆ*, p. 292.

Subfamily I. GYMNORHININÆ.

Pattern of colour Crow-like. Bill long and straight, broad and slightly rounded across its base. Nostrils completely bare, situated a long way from the feathers of the face, margins quite ossified. Hallux with claw equal to middle toe and claw in length. First primary equal to two thirds of the second in length; tips of wing formed by third and fourth or fourth and fifth primaries.

Sexes alike in plumage; the young birds brownish, with cross markings on the feathers. The only colours occurring are black, white, grey, and red.

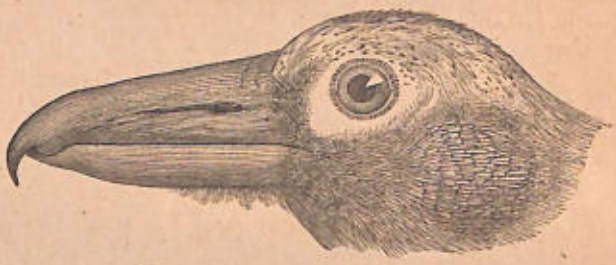
Australian region, extending into Borneo.

Key to the Genera.

a. Head partly bare; plumage red and black. . 1. PITYRIASIS, p. 90.
b. Head covered with feathers; colours black, white, and grey.
a'. Bill very straight and pointed, scarcely hooked; tail little shorter than half the length of the wing ..... 2. GYMNORHINA*, p. 91.
b'. Bill rather curved at the culmen and gonys, strongly hooked; tail little shorter than wings..... 3. CRACTICUS, p. 93.

1. PITYRIASIS.

		Type.
Pityriasis, *Less. Compl. Buff.* ii. p. 397	(1839)	.... P. gymnocephala.
Pityriopsis, *Reichenb. Syst. Av.* pl. lxxxix. fig. 19	(1850)	P. gymnocephala.



Head of *Pityriasis gymnocephala*.

Bill very strong, the culmen completely rounded, and flat at the top, strongly hooked and notched. Nostrils formed by a longitudinal slit, quite free. Bill without any feathers, rictal or nasal bristles. Feathers of the crown, ear-coverts, and lower throat transformed into very peculiar structures. First primary very long, more than two thirds of the second, which is likewise long; wings very long, covering the whole tail, tip formed by third, fourth, and fifth primaries. Tail much shorter than wing, square. Tarsus anteriorly covered with one long scutum and one transverse scale; claws sharp and strong. Only colours black and red.

Range. One species in Borneo.

1. Pityriasis gymnocephala.

Barita gymnocephala, *Temm. Pl. Col.* ii. pl. 572 (1835); *Schl. Handl. Dierk.* i. p. 292.

Pityriasis gymnocephala, *Less. Compl. Buff.* ii. p. 397 (1838); *id. Rev. Zool.* 1839, p. 198; *Gray, List Gen. B.* 1840, p. 36; *Bp. C. A.* i. p. 366; *Chenu, Encl. Ois.* v. p. 79, pl. 16. fig. 3; *Sclater, P. Z. S.* 1863, p. 206; *Walden, Ibis*, 1872, p. 371; *Salvad. Ucc. Born.* p. 159, tav. frontisp.

---

* Hereto belongs, in my opinion, *Strepera* of Cat. B. vol. iii. p. 57.

Cracticus gymnocephalus, *Gray, Gen. B.* i. p. 300 (1845); *Schl. Mus. P.-B., Coraces*, p. 130.
Gymnorhina gymnocephala, *Gray, Hand-l. B.* ii. p. 2, no. 6065.

Adult male. General colour above greyish black, all the feathers with a marginal edging of deeper black; quills black, the primaries white at the middle of the inner web, increasing in extent in the inner ones; head bare, of a yellow colour in life, and covered with little stiff bristles, many of them scarlet at base; loral plumes, sides of face, entire throat, and a collar round the hind neck brilliant scarlet; ear-coverts and a patch on the fore neck covered with dingy-brown bristly plumes, the bases of these feathers scarlet; thighs scarlet; bill black; feet pinkish white; iris dark brown. Total length between 9 and 10 inches, culmen 1·4, wing 5·9, tail 3·35, tarsus 1·3.

Adult female. Similar to the male; but some of the feathers of the flanks edged with scarlet. Total length 9–10 inches, culmen 1·4, wing 6, tail 3·3, tarsus 1·35.

Hab. Borneo.

a. [♂] ad. st.	Borneo.	Hugh Cuming, Esq. [C.].
b. [♀] ad. st.	Borneo.	Hugh Cuming, Esq. [C.].
c, d. [♂] ad. sk.	Sarawak.	A. R. Wallace, Esq. [C.].
e. Ad. sk.	Borneo.	Gould Collection.

2. GYMNORHINA.

Type.
Gymnorhina, *Gray, List Gen. B.* 1840, p. 37 ..... G. tibicen.
Gymnorrhina, *Reichenb. Handb. Naturg.* p. 281 (1850).

Bill considerably longer than rest of head, straight and pointed, slightly notched, not hooked; culmen rounded and flattened. Nostrils longitudinal slits, quite bare of feathers; a few rictal but no nasal bristles present. Wings very long and pointed, covering the whole tail; first primary long, half the length of the second; tip of wing formed by third and fourth primaries. Tail square, less than half the length of the wing. Tarsus anteriorly covered with many transverse scales, which have a tendency to fuse with one another.

The sexes are alike in plumage; the only colours black and white.

Range. Australia and Tasmania.

1. Gymnorhina tibicen.

Piping Roller, *Lath. Gen. Syn. Suppl.* p. 122.
Coracias tibicen, *Lath. Ind. Orn. Suppl.* p. xxvii.
Barita tibicen, *Temm. Man. d'Orn.* i. p. li; *Less. Traité*, p. 345; *Bp. C. A.* i. p. 367.
Cracticus tibicen, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 260; *Gould, Syn. B. Austr.* part i.; *Schl. Mus. P.-B., Coraces*, p. 125.
Gymnorhina tibicen, *Gray, List Gen. B.* 1840, p. 50; *id. & Mitch. Gen. B.* ii. p. 302, pl. 73; *Gould, B. Austr.* ii. pl. 46; *Cab. Mus. Hein.* Th. i. p. 226; *Gould, Handb. B. Austr.* i. p. 175; *Gray, Hand-l. B.* ii. p. 2, no. 6062; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180.
Gymnorrhina tibicen, *Reichenb. Handb. Naturg.* no. 214 (1850).

Adult. Glossy blue-black, with a decided shade of greenish on the underparts; thighs blackish; on the nape and hind neck a large pure white patch; lower back, rump, upper tail-coverts, and tail also white, the latter with a very broad terminal band of black; outer web of the outer pair also black; all the wing-coverts except the primaries pure white, forming a very conspicuous shoulder-patch; edge of the wing also white; bastard wing and primary-coverts black, the latter white at base; under wing- and tail-coverts and vent-feathers white; the axillaries black.

Total length 15 inches, culmen 2·1, wing 10·6, tail 6·5, tarsus 2·3.
„ 15·5 „ „ 2·2, „ 10·8, „ 6·8, „ 2·40.

Another specimen is apparently younger, and has the neck-patch less defined, the feathers on the hinder part mottled with black; feathers of the back with white edgings; rump-feathers with black bases, only the tips being white, producing a strongly mottled appearance.

Young. Top of the head, wings, and terminal part of the tail brownish black; the feathers of the back blackish, narrowly tipped with grey; the whole under surface of the body brown, mottled with darker brown and whitish.

Hab. The whole of Australia, excepting the north coast and Tasmania.

a. Juv. st.	Australia.	
b. Ad. sk.	New South Wales.	J. Gould, Esq. [C.].
c. Ad. sk.	New South Wales.	Gould Collection.
d. ♂ ad. sk.	Goulburn, Dec. 1876.	Australian Museum [P.].
e. Ad. sk.	Queensland (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
f. Juv. sk.	Queensland.	Purchased.
g. ♂ ad. sk.	Sutton River, N.W. Australia, Nov. 2, 1856.	J. R. Elsey, Esq. [P.].
h. Ad. st.	New South Wales.	J. Gould, Esq.
i, k, l. Skeletons.		Purchased.

2. Gymnorhina leuconota.

A. *Larger Race.*

Barita tibicen, *Quoy et Gaim. Voy. de l'Uran., Zool.* p. 100, pl. 20 (*nec Lath.*); *Less. Traité d'Orn.* p. 345.

Gymnorhina leuconota, *Gray, Gen. B.* ii. p. 302, pl. 73; *Cab. Mus. Hein.* Th. i. p. 226; *Reichenb. Handb. Naturg.* no. 215; *Gould, Handb. B. Austr.* i. p. 176; *Gray, Hand-l. B.* ii. p. 2, no. 6063; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180.

Barita leuconota, *Bp. C. A.* i. p. 367.

B. *Smaller Race.*

Cracticus hypoleucus*, *Gould, P. Z. S.* 1836, p. 106; *id. Syn. B. Austr.* part i.

Gymnorhina organicum, *Gould, B. Austr.* ii. pl. 48; *id. Handb. B. Austr.* i. p. 178; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180.

* The name *hypoleucus* was evidently a *lapsus* for *hyperleucus*.

Barita organicum, *Bp. Consp.* i. p. 367.
Gymnorhina leuconota, *Cab. Mus. Hein.* Th. i. p. 226; *Gray, Hand-l. B.* ii. p. 2.

Adult male. Like the adult male of *G. tibicen*, but differing from that species in having the whole back pure white like the neck and rump; "bill bluish lilac, passing into black at the tip; feet blackish grey; iris light hazel" (*Gould*). Total length 14·5 inches, culmen 2, wing 10·2, tail 6, tarsus 2·3.

The sexes are exactly alike in plumage.

Young. One specimen in the collection, marked "a young female," is brown-black where the adult is black; the back is greyish, not white, the lower back mottled, with greyish bases to the feathers; lower abdomen whitish. Another specimen, collected by J. Olive, Esq., has got its full glossy black plumage, but has the middle of the back still mottled with pale silvery grey.

Hab. South Australia, Victoria, and New South Wales.

Obs. In Tasmania *G. leuconota* is represented by a somewhat smaller form (*G. hyperleuca*).

The adult males of the latter measure as follows:—culmen 1·7 inch, wing 9·3, tail 5·8, tarsus 2·1.

A. *Gymnorhina leuconota.*

a. Ad. st.	Australia.	Major-Gen. Hardwicke [P.].
b. Imm. sk.	Australia.	J. Gould, Esq.
c. ♀ juv.; *d.* ♀ ad. sk.	South Australia.	Sir G. Grey [P.].
e. ♂ ad. sk.	South Australia.	J. Gould, Esq.
f. Ad. sk.	Mount Macedon, S. Australia.	J. Gould, Esq.
g. Ad. sk.	New South Wales (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
h. Ad. sk.	Australia.	Purchased.

B. *Gymnorhina hyperleuca.*

a. Ad. st.	Tasmania.	Major-Gen. Hardwicke [C.].
b. Imm. sk.	Tasmania.	J. B. Jukes, Esq. [C.].
c. Juv. sk.	Tasmania.	J. B. Jukes, Esq. [C.].
d. ♂ ad.; *e.* Imm. sk.	Tasmania.	Antarctic Expedition [C.].
f. Ad. sk.	Tasmania.	J. Gould, Esq. [C.].
g. Imm. sk.	Richmond, Tasmania.	Antarctic Expedition [C.].
h. Juv. st.	Near Hobart Town (*F. Strange*).	J. Gould, Esq.

3. CRACTICUS.

	Type.
Cracticus, *Vieill. Analyse*, p. 37 (1816); *id. N. Dict. d'Hist. Nat.* v. p. 355 (1816)	C. cassicus.
Barita, *Cuv. Règne An.* i. p. 340 (1817)	C. cassicus.
Bulestes, *Cab. Mus. Hein.* Th. i. p. 66 (1850)	C. destructor.

Bill like that of *Gymnorhina*, but stouter and strongly hooked.

Nostrils longitudinal slits; rictal bristles. First primary long, two thirds of the second; tip of wing formed by fourth and fifth primaries; wings covering only the first half of the tail, which again is slightly rounded and not much shorter than the wing. Tarsus covered with scales, which often fuse into one long scutum.

Sexes alike in plumage, the only colours of which are black, white, and grey.

Range. Australian region, extending into the Austro-Malayan subregion: seven species.

Key to the Species.

a. Belly black, like the rest of the bird ..... *quoyi*, p. 94.
b. Belly white.
  a'. Throat black.
    a''. Centre of back black, separated from the head by a broad white collar; tail-coverts short, covering less than half the length of the tail ..... *nigrigularis*, p. 95. / *picatus*, p. 96.
    b''. Centre of back pure white in the adult, more or less mottled with the black bases of the feathers in immature birds; tail-coverts long, covering two thirds of the length of the tail ..... *cassicus*, p. 97.
  b'. Throat white.
    c''. Back black, separated from the black feathers of the head by an irregular broad band of white feathers; chin black ..... *mentalis*, p. 102.
    d''. Back grey.
      a'''. Flanks pale brownish or grey.
        *a*⁴. Back dull brownish grey; sides of upper breast brownish ..... *destructor*, p. 100. / *cinereus*, p. 101.
        Back bluish grey; sides of upper breast grey, contrasting with the head, which is deep black ..... *leucopterus*, p. 98.
      b'''. Flanks and sides of breast pure white, like the rest of the under surface; back silvery grey ..... *argenteus*, p. 99.

1. Cracticus quoyi.

Barita quoyi, *Less. Voy. Coquille, Atl. Zool.* p. 639, pl. xix. (1828); *id. Man. d'Orn.* i. p. 140; *id. Traité d'Orn.* p. 345.

Cracticus quoyi, *Gray, Gen. B.* ii. pl. 72. fig. 3 (1845); *Gould, B. Austr.* fol. ii. pl. 53 (1848); *Bp. C. A.* i. p. 367; *Rosenb. Nat. Tijdschr. Ned. Ind.* 1863, p. 235; *id. J. f. O.* 1864, p. 121; *Finsch, Neu-Guinea*, p. 172 (1865); *Gould, Handb. B. Austr.* i. p. 183; *Schleg. Mus. P.-B., Coraces*, p. 124 (1867); *Gray, Hand-l. B.* i. p. 386, n. 5850; *Meyer, Sitzb. k. Ak. Wiss. Wien*, lxix. p. 506 (1874); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 772 (1875), x. p. 138, xv. p. 42 (1879); *Sharpe, Proc. Linn. Soc.* xiii. p. 499 (1878); *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180; *Rosenb. Malay. Archip.* p. 395; *Salvad. Orn. Papuasia e Molucche*, ii. p. 190.

Cracticus crassirostris, *Salvad. Atti R. Acc. Sc. Tor.* ix. p. 430 (1874);

Meyer, Sitzb. k. Ak. Wiss. Berl. xxix. p. 506 (1874); *Beec. Ann. Mus. Civ. Gen.* vii. p. 710 (1875).
Vanga quoyi, *Ramsay, Tr. Linn. Soc. N. S. W.* i. p. 392 (1876).

Adult male. Above and below blue-black, slightly duller below, all the bases to the feathers dusky blackish, the tips only blue-black; quills and tail jet-black, edged with blue-black; under surface of quills dusky black; under wing-coverts, axillaries, and edge of wing black, edged blue-black. Total length 14·5 inches, culmen 2·3, wing 7·65, tail 6·5, tarsus 1·65.

Obs. Australian birds seem rather greener in tint, and a little smaller.

Young. Smoky-black, with very slight gloss; bill ivory-white, blackish at base of both mandibles.

Hab. Papuan Islands, Waigiou, Aru, Mysol, Salwatti, New Guinea, and northern coast of Australia.

a, b. ♂ ♀ ad. st.	Aru Islands.	A. R. Wallace, Esq. [C.].
c. ♂ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
d. Ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
e. Ad. sk.	New Guinea.	Purchased.
f. Ad. sk.	Port Moresby.	Kendal Broadbent [C.].
g, h. Ad. sk.	Port Albany, N. Australia.	Purchased.
i. ♂ ad. st.	Port Essington.	Dr. Sibbald [P.].
k. ♂ ad. sk.	Cape York.	J. Gould, Esq. [C.].
l. Ad. sk.	Cape York.	J. Gould, Esq. [C.].
m–p. Ad. sk.	Cape York (*J. T. Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
q. Juv. sk.	Port Bowen, N.E. Australia.	Purchased.

2. Cracticus nigrigularis.

Cracticus varius, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 261 (*nec Gm.*).
Vanga nigrogularis, *Gould, P. Z. S.* 1836, p. 143; *id. Syn. B. Austr.* part i.
Cracticus nigrogularis, *Gould, B. Austr.* ii. pl. 49; *Gray, Gen. B.* i. p. 300; *Blyth, Cat. B. Mus. As. Soc.* p. 105; *Gould, Handb. B. Austr.* i. p. 180; *Diggles, Orn. Austr.* pl. —. fig. 1; *Ramsay, P. Z. S.* 1875, p. 583.
Cracticus melanoleucus*, *Gray, Gen. B.* i. p. 300.
Cracticus robustus*, *Bp. C. A.* i. p. 367; *Gray, Hand-l. B.* i. p. 386, no. 5848; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180.

Adult. Head and neck all round, throat, and chest glossy black; remainder of under surface, including thighs, edge of wing, under wing- and tail-coverts pure white; round the hind neck a distinct white collar; back itself black, as also the scapulars, the uppermost of the latter with grey bases to the feathers; lower back greyish; rump and upper tail-coverts pure white; central pair of tail-feathers

* Both these names are taken from Latham, whose descriptions seem to me quite unrecognizable.

entirely black, the others broadly tipped with white and having also a large basal spot of white on the outer web of some of the feathers; wing-coverts pure white, most of them black at the base; the bastard wing black; the greater coverts black, with most of the outer webs white; primary-coverts black on the inner, pure white on the outer web; quills black, with a large spot of white near the base of the outer web of the primaries; the secondaries black externally, white on the inner web, three of the inner ones entirely pure white, forming a longitudinal streak down the wing; bill lead-colour at base, black at the tip; feet black; iris brown. Total length 13 inches, culmen 1·9, wing 7·1, tail 5·9, tarsus 1·45.

Obs. The amount of black on the inner secondaries varies much, sometimes the shaft only being black, while in other specimens the black forms a large longitudinal central patch.

Female. Like the male in coloration.

Young. The young birds differ from the adult in having the black parts of the plumage replaced by brown feathers, with dark central streaks and pale margins; the chin, throat, and chest pale sandy, each feather with two narrow (one of them subterminal) transverse brown bars; the white collar round the hind neck often merely indicated by a slight greyish shade.

Hab. Southern and Eastern Australia, as high as Rockingham Bay, Gulf of Carpentaria.

a. Ad. st.	New South Wales.	J. Gould, Esq. [C.].
b, c. Juv. st.	New South Wales.	J. Gould, Esq. [C.].
d. Juv. sk.	New South Wales.	Gould Collection.
e. Ad. sk.	New South Wales.	J. Gould, Esq. [C.].
f. Juv. sk.	New South Wales.	R. Brown, Esq. [C.].
g. Juv. sk.	Interior of S. Australia.	Capt. Sturt [P.].
h. Juv. sk.	Shot to the north of the Barrier Range, between 31° and 29° S. lat.	Capt. Sturt [P.].
i. Ad. sk.	Queensland (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
k, l. Ad. sk.	Queensland.	Purchased.
m. Ad. sk.	Queensland.	Purchased.
n. Ad. sk.	Cape Upstart.	J. B. Jukes, Esq. [P.].
o. ♂ juv. sk.	Burnett River, Queensland, August 1870.	Australian Museum [P.].
p. ♂ ad. sk.	Wide Bay, Queensland, October 1867.	Australian Museum [P.].
q. ♀ juv. sk.	Lake Elphinstone.	Godeffroy Museum.
r. Ad. sk.	Lake Elphinstone.	Purchased.
s. Juv. st.	Tasmania.	Ronald Gunn, Esq. [P.].

Subsp. *a.* **Cracticus picatus.**

Cracticus picatus, *Gould, P. Z. S.* 1848, p. 40; *id. B. Austr.* fol. ii. pl. 50; *Bp. Consp.* i. p. 367; *Reich. Vög. Neuholl.* p. 236; *Gould, Handb. B. Austr.* i. p. 181; *Gray, Hand-l. B.* i. p. 386, no. 5849; *Diggles, Orn. Austr.* pl.; *Ramsay, Proc. Linn. Soc. N.S.W.* ii. p. 180.

This bird is like *C. nigrigularis* in colouring, but smaller in size.

"Bill ash-grey, the tip black; feet dark greenish grey; iris dark reddish brown" (*Gould*). Total length 11 inches, culmen 1·5, wing 6·5, tail 5, tarsus 1·3.

Sexes alike.

Hab. Northern Australia.

a. Ad. st.	Port Essington.	Capt. Chambers, R.N. [P.].
b. ♂ ad. sk.	Port Essington.	J. B. Jukes, Esq. [P.].

3. Cracticus cassicus.

Le Cassican de la Nouvelle Guinée, *d'Aub. Pl. Enl.* 628.
Pied Roller, *Lath. Gen. Syn.* i. p. 415.
Rhamphastus cassicus, *Bodd. Tabl. Pl. Enl.* p. 38 (1783).
Coracias varia, *Gm. S. N.* i. p. 381 (1788); *Lath. Ind. Orn.* i. p. 173 (1790).
Gracula varia, *Shaw, Gen. Zool.* vii. p. 464 (1809).
Cracticus varius, *Vieill. N. Dict.* v. p. 355 (1816); *Bonn. et V. Enc. Méth.* p. 901, pl. 142. f. 3 (1823); *Bp. Consp.* i. p. 366; *Rosenb. Nat. Tijdsch. Ned. Ind.* p. 235 (1863); *id. J. f. O.* 1864, p. 121; *Finsch, Neu-Guinea*, p. 172.
Barita sonnerati, *Less. Traité d'Orn.* p. 346 (1831).
Barita varia, *Cuv. Règn. An.* i. p. 340 (1817); *Temm. Pl. Col.* pt. 46 (1824); *Müll. Naturl. Gesch. Land- en Volkenk.* p. 22 (1839–44).
Cracticus cassicus, *Gray, Gen. B.* ii. p. 300 (1845); *id. P. Z. S.* 1858, p. 193; *Scl. Pr. Linn. Soc.* ii. p. 162 (1858); *Finsch, Neu-Guinea*, p. 172 (1865); *Schleg. Mus. P.-B., Coraces*, p. 127; *Gray, Hand-l. B.* i. p. 386, no. 5851; *Meyer, Sitzb. k. Ak. Wiss. Wien*, lxix. p. 506 (1874); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 823 (1875); *Sharpe, Pr. Linn. Soc.* xiii. p. 82 (1876), 317 (1877), xiv. p. 687 (1879); *Salvad. Orn. Pap. e Molucche*, ii. p. 185.
Cracticus personatus, *Temm. Mus. Lugd.*; *Scl. Pr. Linn. Soc.* ii. p. 162 (1858); *Gray, Cat. B. New Guin.* p. 38; *Rosenb. Nat. Tijdschr. Ned. Ind.* p. 235 (1863); *id. J. f. O.* 1864, p. 121; *Finsch, Neu-Guinea*, p. 172; *Schleg. Ned. Tijdschr. Dierk.* iii. p. 342; *Gray, Hand-l. B.* i. p. 386, no. 5847; *Meyer, Sitzb. k. Ak. Wien*, lxix. p. 506 (1874); *Rosenb. Malay. Arch.* p. 395.
Cracticus varians (*errore*), *Gray, P. Z. S.* 1858, p. 180; *id. Cat. B. New Guin.* p. 34.
Cracticus personatus, var., *Gray, P. Z. S.* 1861, p. 430.
Barita personata, *Temm., Schleg. Mus. P.-B., Coraces*, p. 127 (1867).

Adult male. Head and neck all round, throat, and chest glossy black; rest of under surface, including the thighs and under tail-coverts, axillaries and under wing-coverts, pure white, the outer ones of the latter with black bases; entire upper surface pure white except in the middle of the back, where it is broken by the mottling caused by the black bases of the feathers; scapulars and wing-coverts pure white, with concealed blackish bases; all the outer wing-coverts of each series, bastard wing, and primary-coverts black; quills black; some of the inner secondaries pure white, excepting a mesial black streak, the innermost ones black internally, with a gradually varying amount of white, increasing towards the centre of the wing; tail black, all but the two centre

feathers broadly tipped with white; bill whitish blue. Total length 13·5 inches, culmen 2·05, wing 6·85, tail 5·8, tarsus 1·4.

Adult female. Very similar to the male, but differing considerably in the back, which is black with more or less distinct spots of pure white, larger near the scapulars. Total length 13 inches, culmen 2, wing 6·3, tail 5·3, tarsus 1·35.

Young. Like old female, but browner, and having many of the feathers edged with white or whity-brown; the back nearly entirely black, with a few triangular spots of white.

Obs. There is no doubt that, as Dr. Meyer has stated, the increase of white on the back is a sign of age in these birds. There is little variation in the specimens from different localities, excepting in a very old male from Waigiou, a male from Port Moresby, and one from New Guinea, which have a little black spot near the base of the outer tail-feathers. Two specimens from New Guinea have the terminal half of the tail-feathers white, except the central pair.

Hab. New Guinea and adjacent islands.

a. Ad. sk.	New Guinea.	Purchased.
b. Juv. sk.	New Guinea.	A. R. Wallace, Esq. [C.].
c. Ad. sk.	Dorey.	A. R. Wallace, Esq. [C.].
d. Ad. sk.	Salwati (*Hoedt*).	Gould Collection.
e. ♂ ad. sk.	Port Moresby.	Rev. J. Macfarlane [C.].
f, g. ♂ ♀ ad. st.	Aru Islands.	A. R. Wallace, Esq. [C.].
h, i. ♂ ♀ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
k. Juv. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
l. ♀ ad. sk.	Wokan, Aru Islands.	Voy. of H.M.S. 'Challenger.'
m, n. ♂ ♀ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
o. Juv. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
p. Ad. st.	Waigiou.	A. R. Wallace, Esq. [C.].
q. ♀ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
r. Ad. sk.	Mysol.	Purchased.

4. Cracticus leucopterus.

Cracticus leucopterus, *Gould, B. Austr.* fol. *Introd.* p. xxxv; *Bp. Consp.* i. p. 367; *Gould, Handb. B. Austr.* i. p. 187; *Gray, Hand-l. B.* i. p. 386, no. 5854; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180.
Cracticus destructor, *Diggles, Orn. Austr.* pl. —. fig. 2.
Bulestes leucopterus, *Cab. Mus. Hein.* Th. i. p. 67.

Adult. Above, including the scapulars, some of the wing-coverts, and the rump, silvery grey with faint blackish shaft-streaks; the greater wing-coverts somewhat tinged with brown, strongly mottled with white, especially on the outer web, where they form a conspicuous wing-patch; quills and primary-coverts blackish; some of the inner secondaries pure white all round, the white on the outer webs forming a longitudinal streak down the wing; upper tail-coverts pure white; all the tail-feathers black and tipped with white; base of the tail-feathers shaded with grey to greyish white; head, middle of hind neck, and ear-coverts jet-black, this colour extending downwards from the ear-coverts onto the sides of the neck; a large loral spot, the cheeks, part of the sides of the neck, chin, throat, and

the remainder of the under surface of the body, including axillaries, under wing- and under tail-coverts, and edge of wing pure white, slightly tinged with silvery grey on the sides of the breast; flanks silvery grey; thigh-feathers leaden grey, with white tips; "iris hazel (♀), reddish brown (♂)" (*Gould*).

Obs. One adult male from Perth has the base of the tail-feathers entirely black.

Young. Wings more brownish; the whole under surface of the body, under wing-coverts, and axillaries dull white, with faint greyish subterminal cross bars.

Obs. In order to show that there is no difference in size between the specimens from Queensland and those from Perth, I give the measurements of a series of specimens:—

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
		in.	in.	in.	in.
Queensland..	about 10 in.	1·52	5·9	4·6	1·25
	" "	1·5	6	4·6	1·25
	" "	1·3	5·8	4·5	1·25
	" "	1·35	5·55	4·3	1·2
Perth	" "	1·3	5·7	4·5	1·22
	" "	1·3	5·7	4·5	1·2

Hab. North-eastern and Western Australia.

a–f. Ad. sk.	Queensland.	Purchased.
g. Ad. sk.	Queensland.	Gould Collection.
h. Ad. sk.	Australia.	Sir T. Mitchell [P.].
i. Ad. sk.	Australia (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
k. Ad. sk.	Port Bowen.	Purchased.
l. ♂ ad. sk.	Near Perth, W. Australia, Mar. 27, 1839.	J. Gould, Esq. [C.].
m. ♀ juv. sk.	Perth, April 15, 1839.	J. Gould, Esq. [C.].
n. ♀ ad. sk.	W. Australia, Nov. 3, 1842.	Eyton Collection.

5. Cracticus argenteus.

Cracticus argenteus, *Gould, P. Z. S.* 1840, p. 126; *Gray, Gen. B.* i. p. 300; *Gould, B. Austr.* fol. ii. pl. 51; *Bp. C. A.* i. p. 367; *Reich. Vög. Neuholl.* p. 237; *Gould, Handb. B. Austr.* i. p. 182; *Gray, Hand-l. B.* i. p. 386, no. 5852; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180.

Adult. Differing from *C. leucopterus* in having the back light silvery grey, the white on the scapulars, on the upper tail-coverts, and on the tips of the tail-feathers more extensive, and the whole under surface of the body, including the flanks and sides of the breast, entirely pure white; "bill horn-colour; feet blackish brown" (*Gould*). Total length 10·5 inches, culmen 1·43, wing 5·9, tail 4·7, tarsus 1·2.

Obs. That the above differences are not simply the result of age is shown by a very young specimen (the type of Gould's *C. argenteus*), which has the entire under surface of the body pure white, including

the flanks, sides of breast, axillaries, under wing-coverts, and edge of wing.

Hab. North Australia.

a. Juv. sk.	N.W. Australia.	J. Gould, Esq.	(Type of species.)

6. Cracticus destructor*.

Vanga destructor, *Temm. Man. d'Orn.* p. lix; *Gould, Syn. B. Austr.* part 1.
Barita destructor, *Temm. Pl. Col.* 273.
Bulestes torquatus, *Cab. Mus. Hein.* Th. i. p. 66.
Cracticus torquatus, *Gray, Gen. B.* i. p. 300; *Blyth, Cat. B. Mus. As. Soc.* p. 105; *Bp. Consp.* i. p. 367; *Gould, Handb. B. Austr.* i. p. 184; *Schl. Mus. P.-B., Coraces*, p. 129; *Gray, Hand-l. B.* i. p. 386, no. 5853; *Ramsay, P. Z. S.* 1875, p. 583; *id. Proc. Linn. Soc. N. S. W.* ii. p. 180.
Cracticus destructor, *Gould, B. Austr.* fol. ii. pl. 52; *Reichenb. Vög. Neuholl.* p. 236.

Adult male. Similar to *C. leucopterus*, but differing from it in the following points:—The general colour above, including the scapulars and lesser wing-coverts, is dull brownish ashy grey, varied with darker brown streaks to the centres of the feathers; thighs dull brown; quills dark brown; three of the inner secondaries narrowly edged on the outer and inner web with white, forming a longitudinal bar down the wing; this bar is much smaller than that on the wings of *C. leucopterus*, even in young birds of the latter; instead of the conspicuous scapular patch of *C. leucopterus* only a few of the scapular feathers in *C. destructor* are patched with whitish, the white being invisible when the wings are folded; bill bluish lead-colour at the base, passing into black on the tip; feet blackish lead-colour; iris very dark reddish brown (*Gould*).

Female. Rather browner than the male, and generally of a more dingy appearance; body below more uniformly tinged with pale brownish grey on the sides of breast; flanks pale brownish grey.

Young. Brown; the head uniform with the back; the feathers of the upper parts mesially streaked with ochraceous, much broader on the forehead and the ear-coverts; sides of the neck buffy white, with broad brown centres; wings brown, the coverts edged with pale ochraceous, the median series broadly streaked and tipped with white; the inner secondaries broadly edged with creamy buff; upper tail-coverts creamy buff, mottled and tipped with brown; tail dark brown, tipped with buff on the inner web; lores and cheeks dull white; chin, throat, and under tail-coverts white; remainder of the under surface of the body more or less ochraceous, especially on the axillaries and under wing-coverts; every one of the feathers of the breast and flanks has several faint brownish cross bars.

* The name *torquatus*, of Latham, founded on his "Clouded Shrike" (Gen. Syn. Suppl. p. 73), has been generally employed for this species. The original description, however, appears insufficient for recognition.

Total length.	Culmen.	Wing.	Tail.	Tarsus.
in.	in.	in.	in.	in.
10·5	1·5	5·6	4·6	1·2
10·0	1·3	5·4	4·4	1·2
10·0	1·25	5·4	4·5	1·2

Hab. South Australia.

a, *b*. Ad. st.	New South Wales.	Major-Gen. Hardwicke [P.].
c. Juv. sk.	New South Wales.	J. Gould, Esq. [C.].
d. ♀ ad. sk.	S. Australia.	Sir George Grey [P.].
e. Juv. sk.	S. Australia.	Sir George Grey [P.].
f. Juv. sk.	Port Lincoln.	J. Gould, Esq. [C.].
g. ♀ ad. sk.	Australia (*Chandler*).	J. Gould, Esq.
h. ♂ ad. st.	Australia.	J. Gould, Esq.

Subspecies *a*. **Cracticus cinereus.**

Vanga cinerea, *Gould, P. Z. S.* 1836, p. 143; *id. Syn. B. Austr.* part 1.

Cracticus cinereus, *Gray, Gen. B.* i. p. 300; *Gould, B. Austr.* fol. i. *Introd.* p. xxxv; *Bp. C. A.* i. p. 367; *Gould, Handb. B. Austr.* i. p. 186; *Gray, Hand-l. B.* i. p. 386, no. 5855; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 180.

Bulestes cinereus, *Cab. Mus. Hein.* Th. i. p. 66, note.

Four specimens from Tasmania are in their general appearance very similar to *C. destructor*, but differ from this species in some particulars. One specimen with a black head has the general colour of the back still more brownish ashy than *C. destructor*. The white on some of the secondaries and the scapulars is still less developed; and the white tips to the tail-feathers are also smaller, the central pair being without any tips; the basal third of all the tail-feathers is shaded with grey, white near the base.

Another specimen has the head, except the white lores, dark brownish grey, and looks like the adult female of *C. destructor*.

The young bird is like that of *C. destructor*.

Total length 10 inches, culmen 1·45, wing 5·5, tail 4·6, tarsus 1·24.

Obs. According to Gould this species "may be distinguished from *C. destructor* by its much larger bill, and when fully adult by its grey back." Some specimens obtained from Mr. Gould's collection show certain differences from the Australian bird; but none of them have the back as blue-grey as it is represented in Mr. Gould's 'Synopsis.' If the adult male is as blue on the back as it is there figured, the species is closely related to *C. leucopterus*; but from this bird it differs in the almost entire absence of white on the wing, as well as by its browner coloration above and pale brownish-grey flanks.

Hab. Tasmania; "also occurring on the shores of the opposite part of the continent" (*Gould*).

a. [♀] ad. sk.	Tasmania.	G. MacLeay, Esq. [P.].

b. [♀] ad. sk.	Tasmania.	J. Gould, Esq. [C.].
c. Imm. sk.	Tasmania.	J. Gould, Esq. [C.].
d. Imm. sk.	Tasmania.	Ronald Gunn, Esq. [P.].

7. Cracticus mentalis.

Cracticus mentalis, *Salvad. & D'Alb. Ann. Mus. Civic. Genov.* vii. (1875), p. 824; *Sharpe, Pr. Linn. Soc.* xiii. p. 317 (1877), 499 (1878), 687 (1879); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 281 (1879), iv. p. 99 (1879); *Salvad. Orn. Pap. e Molucche*, ii. p. 189.
Vanga mentalis, *Ramsay, op. cit.* i. p. 392 (1876).
Cracticus spaldingi, *Masters, Proc. Linn. Soc. N. S. W.* ii. p. 27 (1877).

Somewhat like *C. argenteus*, but differing from this species in the following points:—1. The middle of the back in *G. mentalis* is black; 2. The deep black of the head extends down on the sides of the head over the cheeks, and the base of the chin is also black; 3. The black of the hind neck is separated from the middle of the back, which is likewise black, by a large and broad white (although indistinct in the middle) band, the black feathers being broadly margined with white. "Bill grey, black towards the tip; legs and iris black" (*d'Albertis*). Total length 10 inches, culmen 1·4, tail 4·4, tarsus 1·2.

Obs. In the British-Museum collection is another specimen, also from Port Moresby, which has the same plumage as the specimens described above, but wants the black spot at the chin, only a very few blackish feathers being just visible in the angle between the two under jaws. Besides this the specimen is somewhat smaller. Total length 9 inches, culmen 1·3, wing 5·5, tail 4·2, tarsus 1·15.

Young birds are like the adult, but show traces of the immature plumage, having the head and hind neck brown, each feather with whitish central streaks; the white feathers of the sides of the mantle and the upper tail-coverts tipped with brown; the chin-spot is developed.

Hab. South-eastern New Guinea.

a. Ad. sk.	Port Moresby.	O. C. Stone, Esq. [C.].
b, *c*. Ad. sk.	Port Moresby.	Kendal Broadbent [C.].
d. ♂ juv. sk.	Nicura.	Dr. James [C.].
e. Ad. sk.	Astrolabe Mountains.	Mr. A. Goldie [C.].

Subfamily II. MALACONOTINÆ.

Feathers of the back very broad and lax and soft, forming a very thick and almost woolly covering. Bill strong; culmen rather straight, but bent at the apex, toothed and notched. Nostrils free, uncovered by feathers. First primary at least half the length of the second primary; tip of wing formed by primaries 4, 5, 6. Tail about equal in length to wing, except in *L. cruentus*, in which tail = $\frac{3}{4}$ wing in length. No crest. First secondaries about five sixths or more of the length of the whole wing.

Sexes mostly alike in plumage; young birds without cross markings.

Range. Africa; Madagascar; India.

Key to the Genera.

a. Tarsus posteriorly covered with large scales.
  a'. Second primary equal to the secondaries in length; nostrils round and open, margins completely ossified; bill laterally very much compressed.
    a''. Bill long and strongly hooked; nasal bristles and small feathers approaching the hinder margin of the nostrils .... 4. VANGA, p. 104.
    b''. Bill without a hook at the tip; nostrils quite free, not approached by any nasal plumes; bill bluish white.
      a'''. Maxilla fitting completely into (or over) the mandible ..... 5. ARTAMIA, p. 106.
      b'''. Mandible bent upwards, so as to leave a space between it and the maxilla 6. XENOPIROSTRIS, [p. 109.
  b'. Second primary very long, exceeding the secondaries in length; nostrils in a groove, the posterior part of which remains coriaceous and forms an operculum ..... 7. PTERERYTHRIUS, [p. 112.
  c'. Second primary decidedly shorter than the secondaries, which are nearly as long as the innermost primaries.
    c''. Tail square or slightly emarginated, the central tail-feathers being the shortest; tail much shorter than wing ..... 8. CALICALICUS *, [p. 119.
    d''. Tail rounded or graduated, the outer tail-feathers always being shorter than the rest.
      c'''. Always a great deal of chestnut colour in the plumage; wing-coverts always chestnut; wings very much rounded ..... 9. TELOPHONUS, p. 120.

* Here may be mentioned *Neolestes* (p. 170), which has been placed by Cabanis near *Calicalicus*; it does not appear to be a Bush-Shrike, but to be allied to the Bulbuls or *Pycnonotinæ*. Bill not laterally compressed, but considerably broader than high; genys decidedly curved downwards, and not upwards as in all the *Laniidæ*; nostrils with a very well developed coriaceous operculum; strong rictal bristles; tail rounded and slightly shorter than wings.

d'''. Wing-coverts never brown or chestnut.
a^4. Plumage black, white, or ochraceous; feathers of back white or grey, and extremely fluffy ..... 10. DRYOSCOPUS, [p. 130.
b^4. Red or green in the plumage.
a^5. Toes free at their base ..... 11. LANIARIUS, p. 150.
b^5. The first two phalanges of the fourth toe united with the third toe; nostrils with a very clearly developed operculum ..... 12. NICATOR, p. 165.
b. Tarsus posteriorly reticulated at the upper half; the remainder covered with many small scales; nostrils with a very well developed operculum ..... 13. NILAUS, p. 167.

4. VANGA.

	Type.
Vanga, *Vieill. Analyse*, p. 41 (1816)	V. curvirostris.
Spasornis, *v. d. Hoeven, Handb. Zool.* ii. p. 530 (1858)	V. curvirostris.
Lantzia, *Hartl. Vögel Madagascars*, p. 194 (1877)	V. rufa.

Bill strong, broad at base; culmen slightly curved but deflexed, strongly hooked, and notched, section triangular. Nostrils round, ossified, non-operculated, covered by strong nasal bristles, rictal bristles likewise strong. First primary well developed, second short; tip of wing formed by fourth and fifth primaries; secondaries short, only $\frac{4}{5}$ to $\frac{3}{4}$ of the whole wing. Tail square, shorter than wing. Tarsus very short, hardly longer than the middle toe, anteriorly covered with scales, which, especially in *V. rufa*, sometimes fuse into one scutum. Anterior claws short.

Range. Madagascar.

1. Vanga curvirostris.

Collurio madagascariensis, *Briss. Orn.* ii. p. 191, pl. 19. fig. 1.
Ecorcheur de Madagascar, *Daubent. Pl. Enl.* 228.
Hook-billed Shrike, *Lath. Gen. Syn.* i. pt. i. p. 171.
Lanius curvirostris, *Gm. Syst. Nat.* i. p. 299 (*ex Lath.*).
Vanga curvirostris, *Cuvier, Règne Anim.* p. 339 (1817); *Gray, Gen. B.* i. p. 299; *Hartl. Faun. Madag.* p. 51; *Roch & E. Newton, Ibis*, 1862, p. 274; *E. Newt. Ibis*, 1862, p. 348; *A. Newt. P. Z. S.* 1865, p. 835; *Grandid. Rev. et Mag. de Zool.* 1867, p. 387; *Schl. & Poll. Faune Madag., Ois.* p. 99 (1868); *Gray, Hand-l. B.* i. p. 396, no. 6005; *Sharpe, P. Z. S.* 1871, p. 318; *Milne-Edwards & Grandid. H. N. Madag., Ois.* pl. 106; *Hartl. Vög. Madag.* p. 188 (1877).
Vanga leucocephala, *Less. Traité d'Orn.* p. 346 (1831).

Adult. Back, scapulars, and upper tail-coverts black, with a somewhat glossy lustre; primary-coverts entirely black; the other wing-coverts black, externally broadly edged with white, forming a distinct transverse band on the wing when folded; quills black, the primaries narrowly, some of the secondaries more broadly edged with white; tail—the basal two thirds uniform grey, the terminal

part black, every feather with a white tip; front of the head and lores white, top and back of the head glossy black, separated from the black of the back by a very distinct white collar, which is united with the white sides of the neck; cheeks, chin, and the whole under surface of the body, including the under wing-coverts and the edge of the wing, pure white; under surface of quills blackish, inner web edged with white; bill black; feet leaden grey; iris brown. Total length 9·3 inches, culmen 1·07, wing 4·4, tail 4·5, tarsus 1·2.

Obs. Two other specimens, obtained by Crossley, are like the adult bird described above, but have the collar round the hind neck and the whole body below silvery grey; the under wing-coverts, axillaries, and inner margin of quills, however, pure white; the front of the head is grey. They are probably younger birds.

Hab. Madagascar.

a. [♂] ad. st.	Madagascar.	Sir A. Smith [C.].
b. [♂] ad. sk.	Mohambo, Madagascar.	Mr. Gerrard [C.].
c, d. Ad. sk.	Saralalan (*Crossley*).	R. B. Sharpe, Esq.
e. Ad. sk.	Madagascar.	R. B. Sharpe, Esq.
f. ♀ ad. sk.	Analatsoi.	Rev. W. Deans Cowan [C.].

2. Vanga rufa.

Lanius madagascariensis rufus, *Briss. Orn.* p. 178, pl. 18. fig. 4.
Pie-grièche rousse de Madagascar, *Daubent. Pl. Enl.* 298. fig. 2.
Rufous Shrike, *Lath. Gen. Syn.* i. pt. i. p. 180.
Lanius rufus, *Gm. S. N.* i. p. 303 (1788).
Schetba rufa, *Less. Traité d'Orn.* p. 374.
Artamia rufa, *Lafresn.* [ubi?]; *Bp. C. R.* xxxviii. p. 533; *Hartl. Faun. Madag.* p. 48; *A. Newt. P. Z. S.* 1865, p. 855; *Verr. in Vinson, Voy. Madag., Ann. B*, p. 2 (1865).
Calicalicus rufus, *Grandid. Rev. et Mag. Zool.* 1867, p. 387.
Artamus rufus, *Gray, Hand-l. B.* i. p. 290, no. 4288.
Pachycephala rufa, *Schleg. & Pollen, Faun. Madag.* pp. 86, 158, pl. 26. figs. 1, 2.
Vanga rufa, *Sharpe, P. Z. S.* 1871, p. 319.
Lantzia rufa, *Hartl. Vög. Madag.* p. 194; *Milne-Edwards & Grandid. Hist. Madag., Ois.* pls. 160, 161.

Adult male. Back, rump, upper tail-coverts, the whole tail, and the wing-coverts reddish chestnut-brown; greater wing-coverts and quills brown, the outer web of the same colour as the back; head and neck all round, chin, and chest glossy black; remainder of the body below pure white; axillaries white; edge of wing whitish, spotted with chestnut-brown and grey; under surface of quills dull brown, internally rufous; "bill lead-colour, lighter on the tip; feet fuscous" (*Hartlaub*). Culmen 0·7 inch, wing 3·8, tail 2·7–3·3, tarsus 0·75–1.

Adult female. Above reddish brown; tail light reddish chestnut, outer web edged with pale brown; wing-coverts and quills light umber-brown, some of the secondaries strongly washed with reddish brown; crown and sides of the head glossy black, separated from the

back by a grey collar; chin, cheeks, ear-coverts, abdomen, under tail- and wing-coverts pure white; fore neck and breast and flanks silvery grey; under surface of quills light umber, internally edged with white.

Hab. Madagascar.

a. ♂ ad. sk.	Madagascar.	R. B. Sharpe, Esq.
b. ♀ ad. sk.	E. Madagascar (*Pollen*).	R. B. Sharpe, Esq.
c. ♂ juv. sk.	Forest of Ancaya, Madagascar.	Purchased.

5. ARTAMIA.

	Type.
Artamia, *Lafresn. Dict. Univ. d'Hist. Nat.* ii. (1832).	A. leucocephala.
Leptopteryx, *Wagler, Syst. Av.* (1827)	A. leucocephala.
Oriolia, *Geoffr. St.-Hil. Mém. Acad. des Sciences*, April 2, 1838	A. bernieri.
Cyanolanius, *Bp. Coll. Delattre*, p. 75 (1854).....	A. bicolor.
Cyanolestes, *nom. emend. pro* Cyanolanius, *Sundev. Av. Meth. Tent.* p. 21 (1872)	A. bicolor.

Head of *Artamia bicolor*.

Bill laterally compressed; culmen slightly curved, toothed, but slightly notched; nostrils round, completely ossified, quite exposed, without any nasal or rictal bristles. First primary longer than half the second; tip of wing formed by fourth, fifth, and sixth primaries; wings rather long; secondaries five sixths of the whole wing. Tail square, shorter than wing, each feather slightly pointed. Tarsus anteriorly covered with transverse scales. Underparts of body pure white, upper parts glossy green-black or cobalt-blue.

Range. Madagascar.

Key to the Species.

a. Breast without transverse bars.
  a'. Head white; back greenish black.... *leucocephala*, p. 107.
  b'. Head blue like the back ..... *bicolor*, p. 108.
  c'. Head greenish black like the back and rest of under surface ..... *bernieri*, p. 108.
b. Breast with transverse bars.
  d'. Underneath rufous, the transverse bars blackish and distinct..... *bernieri* juv., p. 109.
  e'. Underneath fulvescent with ashy cross markings; throat and chest ashy .. *leucocephala* juv., p. 107.

1. Artamia leucocephala.

Lanius madagascariensis major viridis, *Briss. Orn.* p. 193, pl. 19. fig. 2 (1760).
Grande pie-grièche verdâtre de Madagascar, *Daubenton, Pl. Enl.* 374.
White-headed Shrike, *Lath. Gen. Syn.* i. pt. i. p. 180.
Lanius leucocephalus, *Gm. S. N.* i. p. 307 (1789).
Leptopteryx leucocephalus, *Wagl. Syst. Av.* p. 169 (1827).
Artamia leucocephala, *Lafresn. Dict. Univ.* ii. p. 166; *Bp. C. A.* i. p. 344; *Hartl. Faun. Madag.* p. 47; *Sclat. P. Z. S.* 1863, p. 162; *E. Newt. Ibis*, 1863, p. 348; *A. Newt. P. Z. S.* 1865, p. 834; *Grandid. Rev. et Mag. Zool.* 1867, p. 355; *Schleg. & Pollen, Faun. Madag., Ois.* p. 83; *Sharpe, P. Z. S.* 1871, p. 318, 1875, p. 77; *Hartl. Vög. Madag.* p. 151; *Milne-Edw. & Grandid. Hist. Madag., Ois.* pls. 154, 155.

Adult-male. General colour above, wing-coverts, scapulars, upper tail-coverts, and the whole tail deep black, all the feathers externally with a strong glossy green lustre; the head all round, all the under surface of body, axillaries, and the rump pure white; under wing-coverts and edge of wing like the back; under surface of quills deep black; thighs white; bill bluish silvery grey; feet blue-grey; iris light chestnut-brown. Total length 7·5 inches, culmen 0·96, wing 4·7, tail 3·25, tarsus 0·98.

Adult female. Like the male, but the whole head and hind neck, the throat, fore neck and breast, flanks and rump silvery grey; middle of breast, abdomen, and axillaries white.

Immature. General colour above olivaceous grey, more or less greenish glossy; wing-coverts and quills brownish black, externally very narrowly edged with reddish brown; tail and upper tail-coverts of the same colour as the back; head ashy grey, with a very faint darker spot immediately in front of the eye; sides of the head and ear-coverts pale ashy grey; throat and chest dull grey; flanks, breast, abdomen, and under tail-coverts light buff; every feather of the under surface of the body marked with two very faint cross bars of brownish grey; edge of wing and quills below brownish black; axillaries whitish grey.

Young birds, especially females, are more crossbarred, and the fulvous or brownish colour is more prominent on the upper and under parts of the body, thus approaching in general appearance to the specimen figured and described by Schlegel and Pollen as *A. bernieri*.

Obs. Two specimens, collected by Van Dam, are intermediate in colouring between the adult female and the adult male, having the silvery-grey head and hind neck of the former and the white rump and under surface of the body of the latter. Both these specimens have a large dark grey spot in front of the eye, of which spot no trace can be seen in the adult male. In the adult female this spot is just indicated by a somewhat duller tinge of the grey of the head.

Hab. Madagascar.

a, b. ♂ ♀ ad. sk.	N.E. Madagascar (*Van Dam*).	R. B. Sharpe, Esq.
c. ♀ ad. sk.	N.E. Madagascar (*Van Dam*).	R. B. Sharpe, Esq.
d. ♂ ad. sk.	N.E. Madagascar.	Hr. Van Dam [C.].
e, f. Juv. sk.	Madagascar.	Mr. Crossley [C.].
g. Ad. sk.	Madagascar.	Mr. Crossley [C.].
h. ♂ ad. sk.	Madagascar.	Purchased.
i. ♂ juv. sk.	Analatsoi, Nov. 1880.	Rev. W. Deans Cowan [C.].
k. ♂ ad. sk.	Ankafana forest.	Rev. W. Deans Cowan [C.].

2. Artamia bicolor.

Lanius madagascariensis cæruleus, *Briss. Ornith.* ii. p. 197, pl. 16. fig. 3; *id.* 8vo edit., i. p. 212.
Loxia madagascarina, *Linn. S. N.* ed. 12, i. p. 306, *nec* Loxia bicolor, *ibidem*, p. 307.
Lanius bicolor, *Linn. Mantiss.* 1771.
Pie-grièche bleue de Madagascar, *Buff. Pl. Enl.* i. pl. 298. fig. 1.
Pie-grièche bleue, *Levaill. Ois. d'Afr.* pl. 73.
Laniarius bicolor, *Gray, Gen. B.* i. p. 299.
Dryoscopus bicolor, *Bp. C. A.* i. p. 361; *id. Encycl.* p. 730.
Cyanolanius bicolor, *Bp. Collect. Del.* p. 75 (1854); *D'Orbigny, Dict. Univ. d'Hist. Nat.* fig.; *Hartl. Faun. Madag.* p. 49; *id. Vög. Madag.* p. 157; *Milne-Edw. & Grandid. Hist. Madag., Ois.* pls. 156, 157.
Artamus bicolor, *Gray, Hand-l. B.* i. p. 290, no. 4289.
Artamia bicolor, *Schleg. & Poll. Faun. Madag.* p. 85, pl. 24; *Grandid. Rev. et Mag. Zool.* 1867, p. 386.
Cyanolestes bicolor, *Sundev. Av. Meth. Tent.* p. 21 (1872).

Adult male. Head, hind neck, scapulars, and the whole back and upper tail-coverts of a beautiful cobalt-blue colour, deepening into ultramarine on the head; wing-coverts and quills black, externally broadly margined with ultramarine, excepting the first two primaries; the central pair of tail-feathers blue, but with the shafts and tips broadly black; the other tail-feathers are black, only the outer web blue, the outer pair almost entirely black; lores, a small ring round the eyes, and the chin black; all the remainder of the under surface of the body pure white; axillaries and under wing-coverts white; edge of wing blue; quills below entirely deep black; "bill blue-grey with a black tip; feet black; iris bluish white." Total length 6·5 inches, culmen 0·65, wing 3·5, tail 2·9, tarsus 0·7.

Adult female. Less bright and of a duller, more greenish tint; the black of the wings and tail-feathers more brownish; the tail-feathers internally narrowly margined with white; chin almost entirely white; body below creamy white.

Hab. Madagascar.

a, b. ♂ ♀ ad. sk.	N.E. Madagascar, Nov. 1865.	MM. Pollen and Van Dam [C.].
c. ♂ ad. sk.	Noce Vola (*Crossley*).	F. D. Godman and O. Salvin, Esqrs. [P.].

3. Artamia bernieri.

Oriolia bernieri, *Geoffroy St.-Hil. Mém. Acad. Sci.* Avril 2, 1838; *id. Revue de Zool.* 1838, p. 50; *Guérin, Mag. de Zool.* 1839, *Ois.* pl. 4;

Hartl. Faun. Madag. p. 43; *Grandid. Rev. et Mag. de Zool.* 1867, p. 386, 1868, p. 48; *Gray, Hand-l. B.* i. p. 290, no. 4291; *Milne-Edw. & Grandid. Hist. Madag., Ois.* pl. 162.

Artamia bernieri, *Schleg. & Pollen, Faun. Madag.* p. 86, pl. 25; *Hartl. Vög. Madag.* p. 153.

The *adult* of this bird is in the Leiden Museum; and the specimen, as figured in Grandidier's work, is entirely greenish black above and below.

The *young* bird in the Paris Museum is described by Dr. Hartlaub as follows:—"Rufous, banded across with black on upper parts; quills uniform rufous; under wing- and under tail-coverts banded with fulvous and black; bill and feet pale lead-colour; culmen 0·73, wing 4·85, tail 2·6, tarsus 0·92." (*Hartlaub.*)

Hab. Madagascar.

6. XENOPIROSTRIS.

	Type.
Xenopirostris, *Bp. C. A.* i. p. 366 (1850) (*ex Lafresn.*)	X. xenopirostris.
Clytorhynchus, *Elliot, P. Z. S.* 1870, p. 242	X. pachycephaloides.

Heads of *X. polleni* and *X. pachycephaloides.*

Bill strong, laterally much compressed, very peculiarly shaped; gonys and whole mandibula strongly curved upwards, so as to leave a narrow space between it and the maxilla, not hooked, but with a notch; nostrils oval, ossified, quite exposed; nasal and rictal bristles present but not strong. First primary well developed; tip of wing formed by fourth to sixth primaries; secondaries comparatively long. Tail nearly square, each feather pointed, shorter than wing. Tarsus covered with transverse scales. Claws very sharp and well-developed.

Range. Three species in Madagascar, a fourth in New Caledonia*.

Key to the Species.

a. With black on the throat.
  a'. Throat entirely black ..... *polleni*, p. 110.
  b'. Chin only black ..... *xenopirostris*, p. 110.
b. With no black on the throat.
  c'. Underneath white ..... *damii*, p. 110.
  d'. Underneath brown like the upper surface. *pachycephaloides*, p. 111.

* I am unable to find any external characters by which to separate the New-Caledonian form *Clytorhynchus* from this genus.

1. Xenopirostris xenopirostris.

Vanga xenopirostris, *Lafresn. Rev. et Mag. Zool.* 1850, p. 107, pl. i.; *Schleg. & Pollen, Faun. Madag.* pp. 158, 173; *Gray, Hand-l. B.* i. p. 396, no. 6006.

Xenopirostris lafresnayi, *Bp. C. A.* i. p. 366 (1850); *id. C. R.* xxxviii. 1854, p. 533; *Hartl. Faun. Madag.* p. 52; *Grandid. Rev. et Mag. Zool.* 1867, p. 387; *Hartl. Vög. Madag.* p. 191; *Milne-Edw. & Grandid. H. N. Madag., Ois.* pl. 168.

Adult male. Head and hind neck deep black, with a bluish lustre; general colour above, including the whole tail, scapulars, and the outer edge of the secondary quills, uniform grey; wing-coverts, edge of wing, and primary quills jet-black; chin and cheeks black; all the remainder of the under surface of the body pure white; the black of the head separated from the grey of the back by a white collar; bill near the base bluish, towards the tip pale horn-colour; feet lead-colour. Total length 9·25 inches, culmen 0·9, wing 5·9, tail 3·55, tarsus 0·93. (*Lafresnaye, op. cit.*)

Hab. Madagascar.

2. Xenopirostris polleni.

Vanga polleni, *Schleg. & Poll. Faun. Madag.* p. 174 (1868); *Gray, Hand-l. B.* i. p. 396, no. 6008; *Sharpe, P. Z. S.* 1872, p. 867.

Xenopirostris polleni, *Hartl. Vög. Madag.* p. 193; *Milne-Edw. & Grandid. H. N. Madag., Ois.* pl. 169.

Adult male. Head all round, chin, and the whole throat deep black with a bluish lustre; on the sides of the neck and on the hind neck the black separated from the grey of the upper surface of the body by a very narrow white collar; all the upper surface, including the scapulars, the whole tail, and the outer web of the secondary quills, is uniform grey; primaries and inner web of the secondaries and the wing-coverts jet-black; breast, abdomen, under tail-coverts, and axillaries pure white; flanks and thighs silvery grey; under wing-coverts and edge of wing black; quills below uniform blackish; "bill black" (*Schlegel*). Total length 8·7 inches, culmen 0·95, wing 4·7, tail 3·7, tarsus 0·95.

Adult female. Like the male, but having the body below ochraceous instead of white; the black of the throat does not extend down so far as in the male. (*Schlegel, op. cit.*)

The young bird has all the quills externally bordered with grey; the young female has the lores almost naked. (*Schlegel.*)

Hab. Madagascar.

a. ♂ ad. sk. S.E. Madagascar. Mr. A. Crossley [C.].

3. Xenopirostris damii.

Vanga damii, *Schleg. Contrib. Nederl. Tijdschr.* vii. p. 82; *id. & Poll. Faun. Madag.* pp. 100, 158, 174, pl. 30.

Vanga albifrons, *Schleg. Contr. Ned. Tijdschr.* p. 82 (female).

Xenopirostris damii, *Hartl. Vög. Madag.* p. 192; *Grandid. Rev. et Mag. Zool.* 1867, p. 387; *Milne-Edw. & Grandid. H. N. Madag., Ois.* pl. 170.

Adult male (type of species). General colour above dark slaty grey, with a wash of glossy green on the back; on the rump a few silky white feathers; tail-feathers dark slaty grey; wings black, the least wing-coverts black, with a narrow edging of glossy green; greater coverts and quills grey like the back, with black bases and inner webs; head and hind neck glossy black, with a dark steel-green gloss; cheeks, ear-coverts, and entire sides of face like the crown; entire under surface of body white, as also the sides of the neck, the white extending backwards and almost forming a half collar; under wing-coverts and axillaries white, the coverts near the edge of the wing greenish black; quills black below; "bill black; feet lead-colour; iris brown" (*Schlegel*). Total length 7·4 inches, culmen 1, wing 4·35, tail 3, tarsus 0·95. (*Mus. Lugd.*)

Young male. Differs from the old bird in being entirely grey above, the head alone glossy black; a frontal band, lores, feathers in front of the eye, cheeks, sides of neck, and entire under surface of body white, with an ochraceous tinge on the breast, belly, and under tail-coverts; feathers round the eye and upper part of ear-coverts black; rump-feathers and upper tail-coverts also slightly washed with ochraceous; wing 4·5 inches, tarsus 10.

Hab. Madagascar.

4. Xenopirostris pachycephaloides.

Clytorhynchus pachycephaloides, *D. G. Elliot, P. Z. S.* 1870, p. 242, pl. 19; *Layard, Ibis*, 1879, p. 110; *Tristram, Ibis*, 1879, p. 183; *E. L. Layard, Ibis*, 1880, p. 291.

Adult male. General colour above, head, and scapulars dark rufous-brown; wing-coverts and quills brownish black, with the outer web margined with lighter reddish brown; primaries a little more blackish, and the outer edge less margined; upper tail-coverts reddish brown; the four central tail-feathers entirely blackish brown, the outer ones just tipped with white, the other four pairs more and more tipped white, so that the terminal third of the outer pair has both the outer and inner web entirely white; head rufous-brown, a little brighter nearer the bill and on the ear-coverts; the whole under surface of the body lighter rufous-brown, which colour becomes more reddish nearer to the flanks, abdomen, and under tail-coverts; under wing-coverts light greyish brown; under surface of wings and tail dark silvery grey. "Bill strong, upper mandible slightly hooked, lower with a decided upward curve, lead-colour at base; the cutting-edges of both mandibles and point horn-colour; feet lead-colour, claws horn-colour" (*Elliot*). Bill of male bluish white; feet silvery grey, soles yellow; bill of female fawn-coloured" (*Layard*).

The sexes are alike in plumage

Male. Total length 7–8 inches, culmen 0·9, wing 3·6, tail 3·4, tarsus 0·8.

Mr. Layard's "two specimens differ somewhat from the type described by Mr. Elliot; both are larger, and then, again, only two, instead of four, central tail-feathers are immaculate, the others being all more or less tipped with white, which in the female is tinted with isabelline colour." But this whitish terminal tip on the outer central pair of tail-feathers would have been worn off in a short time, as is, in fact, the case in the specimens in the British Museum.

Hab. New Caledonia and New Hebrides.

a. ♂ ad. sk.	Dombea, June 20, 1868.	E. L. Layard, Esq. [C.].
b. ♀ ad. sk.	New Caledonia.	E. L. Layard, Esq. [C.].

7. PTERERYTHRIUS.

Type.

Pteruthius, *Swains. Faun. Bor.-Amer., Birds*, p. 491 (1831) ..... P. erythropterus.
Allotrius, *Temm. Pl. Col.* iii. pl. 589. fig. 1 (1838) . P. flaviscapis.
Ptererythius, *Strickl.* (1841).
Pterythrius, *Cab.* (1847).

Bill short and straight; culmen with a prominent ridge, curved downwards at the last third, hooked and notched; base of bill somewhat broadened and flattened out, the transverse section through maxilla being therefore triangular. Nostrils wide, oval, pervious, in front of a coriaceous groove, non-operculated, partly covered by the long nasal bristles; rictal bristles weak. First primary shorter than half the second; tip of wing formed by fourth, fifth, and sixth primaries; outer secondaries equalling the second primary in length. Tail graduated or square, equal to or much shorter than the length of the wing. The scales covering the tarsus anteriorly frequently fuse together so as to form one long scutum. The sexes differ in plumage.

Range. The hilly and mountainous districts of the Indian Region.

Key to the Species.

A. Length of wing about 3·5 inches. (PTERERYTHRIUS.)
  a. Back grey.
    a'. Innermost secondaries rich chestnut .... *erythropterus*, p. 113.
    b'. Innermost secondaries dull golden ..... *æralatus*, p. 114. / *cameranoi*, p. 115.
  b. Back chestnut; secondaries black ..... *rufiventer*, p. 115.
  c. Back black ..... *flaviscapis*, p. 116.
B. Length of wing under 2·5 inches. (ALLOTRIUS.)
  a. Abdomen bright yellow.
    a'. Dark brown frontal band; occiput olive.
      a''. Centre of breast yellow ..... *cinnabarbus*, p. 116.
      b''. Centre of breast red-brown ..... *intermedius*, p. 117.
    b'. Forehead yellowish; occiput grey ..... *melanotis*, p. 117.
  b. Underparts dingy white; crown grey ..... *xanthochloris*, p. 118.

1. Ptererythrius erythropterus.

Lanius erythropterus, *Vig. P.Z.S.* 1831, p. 22; *Gould, Century Him. B.* pl. 11.

Pteruthius erythropterus, *Swains. Class. B.* i. p. 249 (1837); *Blyth, J. A. S. Beng.* xi. pp. 106, 183; *id, Cat. B. Mus. As. Soc.* p. 99; *Gray, Gen. B.* i. p. 270; *id. Cat. Mamm. &c. Nepal pres. Hodgs.* p. 95; *Bp. C. A.* i. p. 362; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 172; *Gould, B. Asia*, pt. viii.; *Jerd. B. Ind.* ii. p. 245; *Hume, Str. F.* 1873, p. 356, 1879, p. 104.

Adult male. General colour above plumbeous grey, but the upper tail-coverts edged with black; wing-coverts and quills black, with white tips on the inner web, the three innermost secondaries rich chestnut-brown; tail black; head black, with a long white superciliary stripe; cheeks and all the underparts of the body white; flanks washed with vinous colour; under tail- and under wing-coverts white, with a grey patch near the edge of the wing; under surface of the quills blackish, with a great deal of white for more than the basal half of the inner web; bill black; feet "pale fleshy;" iris "dark brown." Total length 6·6 inches, culmen 0·7, wing 3·1–3·4, tail 2·2–2·5, tarsus 1–1·1.

Adult female. General colour above, scapulars, and upper tail-coverts light olive-brown; lesser wing-coverts black, edged with grey, the median and greater ones olive-green; the primary wing-coverts black; quills black, with white tips to the inner web; secondaries conspicuously margined with olive-green; the first two or three of the primaries without white tips; the three innermost quills entirely chestnut-brown as in the male; outer web of the outer pair of the tail-feathers olive-green, with a large greenish-yellow tip, inner web black; central feathers olive-green, with a black tip; head plumbeous grey, with a darker superciliary stripe; under surface white, inclining on the abdomen and flanks to fulvous, like the thighs and under tail-coverts; under wing-coverts and axillaries white, with the larger coverts dusky blackish like the under surface of the quills, which are white along the edge of the inner web. Total length 6·3 inches, culmen 0·6, wing 3·2, tail 2·45, tarsus 1·03.

Hab. Himalayas to Assam.

a. ♀ ad. sk.	Assam (*McClelland*).	India Museum.
b. ♂ ad. sk.	Bootan (*Pemberton*).	India Museum.
c, d. ♂ ♀ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
e, f. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq.
g, h. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq.
i. [♀] juv. sk.	Nepal.	B. H. Hodgson, Esq.
k. ♀ ad. st.	Nepal.	B. H. Hodgson, Esq.
l. ♀ ad. sk.	Darjiling.	H. Seebohm, Esq. [P.].
m. ♂ ad. sk.	Kumaon (*Strachey*).	India Museum.
n. ♀ juv. sk.	Mussoorie.	E. W. Oates, Esq. [C.].
o–q. ♂ ad. sk.	Simla.	Capt. Stackhouse Pinwill [P.].
r, s. [♀] ad. sk.	Simla.	Capt. Stackhouse Pinwill [P.].
t. ♂ ad. sk.	Murree.	Col. Way [P.].
u. ♂ ad. sk.	Kashmere (*Dr. Bellew*).	India Museum.

Male. Total length 7–8 inches, culmen 0·9, wing 3·6, tail 3·4, tarsus 0·8.

Mr. Layard's "two specimens differ somewhat from the type described by Mr. Elliot; both are larger, and then, again, only two, instead of four, central tail-feathers are immaculate, the others being all more or less tipped with white, which in the female is tinted with isabelline colour." But this whitish terminal tip on the outer central pair of tail-feathers would have been worn off in a short time, as is, in fact, the case in the specimens in the British Museum.

Hab. New Caledonia and New Hebrides.

a. ♂ ad. sk.	Dombea, June 20, 1868.	E. L. Layard, Esq. [C.].
b. ♀ ad. sk.	New Caledonia.	E. L. Layard, Esq. [C.].

7. PTERERYTHRIUS.

Type.

Pteruthius, *Swains. Faun. Bor.-Amer., Birds*, p. 491 (1831) ..... P. erythropterus.
Allotrius, *Temm. Pl. Col.* iii. pl. 589. fig. 1 (1838) . P. flaviscapis.
Ptererythius, *Strickl.* (1841).
Pterythrius, *Cab.* (1847).

Bill short and straight; culmen with a prominent ridge, curved downwards at the last third, hooked and notched; base of bill somewhat broadened and flattened out, the transverse section through maxilla being therefore triangular. Nostrils wide, oval, pervious, in front of a coriaceous groove, non-operculated, partly covered by the long nasal bristles; rictal bristles weak. First primary shorter than half the second; tip of wing formed by fourth, fifth, and sixth primaries; outer secondaries equalling the second primary in length. Tail graduated or square, equal to or much shorter than the length of the wing. The scales covering the tarsus anteriorly frequently fuse together so as to form one long scutum. The sexes differ in plumage.

Range. The hilly and mountainous districts of the Indian Region.

Key to the Species.

A. Length of wing about 3·5 inches. (PTERERYTHRIUS.)
  a. Back grey.
    a'. Innermost secondaries rich chestnut .... *erythropterus*, p. 113.
    b'. Innermost secondaries dull golden ..... *æralatus*, p. 114. / *cameranoi*, p. 115.
  b. Back chestnut; secondaries black ..... *rufiventer*, p. 115.
  c. Back black ..... *flaviscapis*, p. 116.
B. Length of wing under 2·5 inches. (ALLOTRIUS.)
  a. Abdomen bright yellow.
    a'. Dark brown frontal band; occiput olive.
      a''. Centre of breast yellow ..... *cinnabarbus*, p. 116.
      b''. Centre of breast red-brown ..... *intermedius*, p. 117.
    b'. Forehead yellowish; occiput grey ..... *melanotis*, p. 117.
  b. Underparts dingy white; crown grey ..... *xanthochloris*, p. 118.

1. Ptererythrius erythropterus.

Lanius erythropterus, *Vig. P.Z.S.* 1831, p. 22; *Gould, Century Him. B.* pl. 11.

Pteruthius erythropterus, *Swains. Class. B.* i. p. 249 (1837); *Blyth, J. A. S. Beng.* xi. pp. 106, 183; *id. Cat. B. Mus. As. Soc.* p. 99; *Gray, Gen. B.* i. p. 270; *id. Cat. Mamm. &c. Nepal pres. Hodgs.* p. 95; *Bp. C. A.* i. p. 362; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 172; *Gould, B. Asia*, pt. viii.; *Jerd. B. Ind.* ii. p. 245; *Hume, Str. F.* 1873, p. 356, 1879, p. 104.

Adult male. General colour above plumbeous grey, but the upper tail-coverts edged with black; wing-coverts and quills black, with white tips on the inner web, the three innermost secondaries rich chestnut-brown; tail black; head black, with a long white superciliary stripe; cheeks and all the underparts of the body white; flanks washed with vinous colour; under tail- and under wing-coverts white, with a grey patch near the edge of the wing; under surface of the quills blackish, with a great deal of white for more than the basal half of the inner web; bill black; feet "pale fleshy;" iris "dark brown." Total length 6·6 inches, culmen 0·7, wing 3·1–3·4, tail 2·2–2·5, tarsus 1–1·1.

Adult female. General colour above, scapulars, and upper tail-coverts light olive-brown; lesser wing-coverts black, edged with grey, the median and greater ones olive-green; the primary wing-coverts black; quills black, with white tips to the inner web; secondaries conspicuously margined with olive-green; the first two or three of the primaries without white tips; the three innermost quills entirely chestnut-brown as in the male; outer web of the outer pair of the tail-feathers olive-green, with a large greenish-yellow tip, inner web black; central feathers olive-green, with a black tip; head plumbeous grey, with a darker superciliary stripe; under surface white, inclining on the abdomen and flanks to fulvous, like the thighs and under tail-coverts; under wing-coverts and axillaries white, with the larger coverts dusky blackish like the under surface of the quills, which are white along the edge of the inner web. Total length 6·3 inches, culmen 0·6, wing 3·2, tail 2·45, tarsus 1·03.

Hab. Himalayas to Assam.

a. ♀ ad. sk.	Assam (*McClelland*).	India Museum.
b. ♂ ad. sk.	Bootan (*Pemberton*).	India Museum.
c, d. ♂ ♀ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum.
e, f. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq.
g, h. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq.
i. [♀] juv. sk.	Nepal.	B. H. Hodgson, Esq.
k. ♀ ad. st.	Nepal.	B. H. Hodgson, Esq.
l. ♀ ad. sk.	Darjiling.	H. Seebohm, Esq. [P.].
m. ♂ ad. sk.	Kumaon (*Strachey*).	India Museum.
n. ♀ juv. sk.	Mussoorie.	E. W. Oates, Esq. [C.].
o–q. ♂ ad. sk.	Simla.	Capt. Stackhouse Pinwill [P.].
r, s. [♀] ad. sk.	Simla.	Capt. Stackhouse Pinwill [P.].
t. ♂ ad. sk.	Murree.	Col. Way [P.].
u. ♂ ad. sk.	Kashmere (*Dr. Bellew*).	India Museum.

v. ♀ ad. st.	Himalayas.	Major-Gen. Hardwicke.
w. ♂ ad. sk.	Himalayas.	J. Gould, Esq. (Type of species.)

2. Ptererythrius æralatus.

Pteruthius æralatus, *Tickell, Journ. As. Soc. Beng.* 1855, xxiv. p. 267; *Blyth, Ibis*, 1867, p. 32; *Gray, Hand-l. B.* i. p. 314, no. 4688; *Blyth & Walden, Birds of Burmah*, p. 109; *Gould, B. Asia*, fol., pt. xxviii.; *Anderson, Zool. Exp. Yun-nan, Aves*, p. 628, pl. 47; *Hume, Str. F.* ii. p. 479, v. p. 114, vi. p. 368, 1879, p. 104.

Adult male. Very like the adult male of *P. erythropterus*, but differs from it in having the outer web of the three innermost secondaries not entirely chestnut-brown, but dull golden yellow and with narrow black tips as in *P. flaviscapis*; under surface, except the abdomen and flanks, light ashy grey; lower mandible and basal edges of upper mandible along commissure pale blue, rest of bill black; feet fleshy white; claws pale brown to black; "irides varying considerably, slaty grey, pale greenish blue, and deep brown" (*Hume*). Total length 6·3 inches, culmen 0·7, wing 3·4, tail 2·4, tarsus 1·05.

Of the *female* Mr. Hume gives the following description from a specimen procured in the forests of Mooleyit:—"The stripe over and behind the eye is less marked, and greyish white; the lores are very pale grey; the forehead and crown are pure clear grey, shaded on the occiput with olivaceous; the entire back, scapulars, and lesser wing-coverts pale greenish grey, faintly fulvous on the rump, and generally purer grey on the longest upper tail-coverts. The females vary a good deal in the shade of the upper surface, which is greyer in some, greener in others; the wings are black; the primaries and most of the secondaries narrowly tipped with white; all but the first three primaries margined with golden olive, the third to the seventh, however, being margined with white below the emarginations; primary and greater coverts blackish brown; both webs of tertiaries and a portion of the outer webs of secondaries and their greater coverts greenish golden olive; the tertiaries usually with a more or less distinct chestnut spot at their tips; tail-feathers black, tipped with dull yellow, the central ones very narrowly (in some obsoletely), the lateral ones more and more broadly; almost the whole of both webs of the central tail-feathers, except just inside the yellow tippings, and the greater portion of the outer webs of the lateral tail-feathers and sometimes of both webs of the pair next the central feathers, suffused with the same greenish golden olive as the wings. The lower parts are greyish white on chin, throat, and fore neck, and very pale fulvescent white on breast, abdomen, vent, and lower tail-coverts, generally more or less shaded browner, or even slightly olivaceous on the sides and flanks. The colour of the lower surface varies a good deal in different specimens: in some it is browner and more fulvescent than I have described, and the brownish fulvescent shade extends over the fore neck right up to the throat." "Bill above black, below lavender; legs dull white; claws dark brown; iris deep lavender" (*Wardlaw Ramsay*).

Hab. Burmah.

a. ♂ ad. sk. Ponsee, Kakhyen hills, 3300 feet, March 1868. Dr. J. Anderson [C.].

Obs. Since writing the above account of the female, Capt. Wardlaw Ramsay has kindly lent me two females obtained by himself in the Karen hills; I find that these agree with Mr. Hume's description.

Subsp. *a*. Ptererythrius cameranoi.

Pteruthius cameranoi, *Salvad. Ann. Mus. Civic. Genov.* xiv. (1879), p. 233; *Wardlaw Ramsay, P. Z. S.* 1880, p. 16.

Adult male. Differing rom *P. æralatus* by the absence of the vinous tinge on the flanks; it therefore partly resembles *P. flaviscapis*, but has a grey back.

Female (according to Salvadori) above olive-grey; underparts ochraceous white, paler on the throat; wings black, with olive-yellow margins; tail olive-yellow, blackish towards the tip; the three outer pairs tipped with yellowish white. Length of wing 3 inches, tail 1·8, tarsus 0·92.

Hab. Mount Singalan, Sumatra.

3. Ptererythrius rufiventer.

Pteruthius rufiventer, *Blyth, J. A. S. Beng.* xi. p. 183, xii. p. 954; *id. Cat. B. Mus. As. Soc.* p. 28; *Gray, Gen. B.* i. p. 270, pl. 67 *Gould, B. Asia*, pt. ix.; *Bp. C. A.* i. p. 362; *Horsfield & Moore, Cat. B. Mus. E.I. Co.* i. p. 173; *Jerd. B. Ind.* ii. p. 245; *Gray, Hand-l. B.* i. p. 314, no. 4683; *Hume, Str. F.* 1879, p. 104.

Adult male. General colour above, scapulars, and upper tail-coverts chestnut-brown; wing-coverts, quills, and tail-feathers shining black, the primaries with a very narrow whitish margin on the terminal half of the outer web; the secondaries and tail-feathers with chestnut-brown tips; the whole head, cheeks, and hind neck entirely black; chin, throat, and fore neck pale grey; sides of the breast light yellowish brown; centre of breast, abdomen, and under tail-coverts vinous brown, flanks a little darker; under wing-coverts and axillaries white, but the outer under wing-coverts dusky grey; under surface of quills dusky grey with a large whitish margin on the inner edge of the web; bill black; feet flesh-coloured in the skin. Total length 7·7 inches, culmen 0·8, wing 3·5, tail 3·6, tarsus 1·2.

The *female* has the mantle and back, including the wing-coverts, dark olive-green; primary-coverts black; quills blackish, externally margined with olive-yellow; the innermost secondaries tipped with chestnut-brown; upper tail-coverts and rump also chestnut-brown; head greenish black, except the forehead, which is grey and mottled with black; sides of head, cheeks, chin, throat, fore neck, and part of the breast grey; lower part of breast and rest of under surface, including the under tail-coverts, thighs, and axillaries, vinous brown; sides of upper breast in the adult female as in the male, tinged with light yellowish brown. Total length 7·5 inches, culmen 0·8, wing 3·5, tail 3·5, tarsus 1·2.

The British Museum collection does not possess young birds of this species, except one which I suppose to be a young male in its second or third year; it is like the adult male, but still with remains of the olive-green colour on its back, and some of the upper wing-coverts are tipped with olive-yellow, forming a band.

Hab. Eastern Himalayas.

a. ♂ ad. sk.	Darjiling.	India Museum.
b, *c*. [♂ ♀] ad. sk.	Nepal.	B. H. Hodgson [P.].
d, *e*. [♂ ♀] ad. sk.	Nepal.	B. H. Hodgson [P.].
f. [♂] jun. sk.	Nepal.	B. H. Hodgson [P.].
g. [♀] ad. sk.	Nepal.	India Museum.
h. ♀ ad. sk.	Sikkim, Dec. 1878.	Eugene W. Oates, Esq.

4. Ptererythrius flaviscapis.

Pteruthius flaviscapis, *Temm. Pl. Col.* iii. pl. 589. fig. 1; *Gray, Gen. B.* i. p. 270; *Bp. C. A.* i. p. 362; *Gray, Hand-l. B.* i. p. 314, no. 4684.

Adult male. Very similar to the adult male of *P. æralatus*, but differing from it by its smaller size as well as by the following characters:—The back is jet-black instead of grey, flanks entirely white; secondaries without white terminal spots; feet fleshy white; bill bluish black.

Adult female. Above olive-green; wings without the golden yellow colour of the three innermost secondaries; head ashy brown, with a large isabelline superciliary stripe; neck ashy grey; underparts white, but breast and flanks isabelline.

Young or immature male. General colour above dark olive-grey; lesser and primary-coverts black, the rest brown; wings blackish brown, narrowly edged with white; the three innermost secondaries golden yellow, and slightly tinged with brown on the inner web; tail black, with small yellowish terminal spots; head, cheeks, and ear-coverts ashy grey; a long superciliary stripe and the underparts of the body are white. Total length about 5 inches, culmen 0·6, wing 2·8, tail 2·1, tarsus 0·95.

Hab. Java.

a. [♂] imm. st.	Java.	Purchased.
b. [♂] imm. st.	Java.	

5. Ptererythrius ænobarbus.

Allotrius ænobarbus, *Temm. Pl. Col.* iii. pl. 589. fig. 2 (♂); *Gray, Gen. B.* i. p. 270; *Bp. C. A.* i. p. 362; *Hume, Str. F.* vii. p. 456.
Pteruthius ænobarbus, *Gray, Hand-l. B.* i. p. 314, no. 4685.

Adult male. General colour above, including the head, hind neck, scapulars, and upper tail-coverts, yellowish green; wing-coverts black, the median and greater ones with white terminal spots forming two parallel bands; quills blackish, the outer web of the primaries with a narrow white margin; the secondaries with more yellowish-green colour on the outer web and with a small white terminal spot; central tail-feathers uniform yellowish green,

the others green, blackish towards the ends and tipped with white, which increases in extent towards the outermost, the white being confined to the inner web; forehead near the bill reddish brown; eyebrows white, lores black, ear-coverts greenish-yellow, and a rather large superciliary stripe grey; chin and throat reddish brown, the line of demarcation between this colour and the yellow of the neck sharply defined; cheeks and the whole under surface of the body, including the under tail-coverts, bright yellow; flanks tinged with greenish; inner edge of quills, the under wing-coverts, and the edge of the wing white; bill blackish, feet yellowish grey. Total length 4 inches; culmen 0·45, wing 2·3, tail 1·9, tarsus 0·73.

The sexes seem to be alike in plumage.

Hab. Java.

a. ♂ ad. sk.	W. Java.	A. R. Wallace, Esq. [C.].
b. ♂ ad. st.	Java.	Purchased.

6. Ptererythrius intermedius.

Allotrius intermedius, *Hume, Str. F.* v. pp. 112 & 115; vi. p. 370; 1879, p. 104.

Like *A. melanotis*, Blyth, but has a larger bill and a deep-chestnut frontal band, and wants the broad slaty nuchal half-collar and the black band behind the ear-coverts. Like *A. ænobarbus*, Temm., but has a smaller bill, a much deeper chestnut frontal band, the chestnut of the throat descending to the abdomen, and the grey superciliary stripe prolonged as a wide band over the ear-coverts and completely round their ends. (*Hume.*)

"♂. Total length 4·7 inches, bill from gape 0·55, wing 2·45, tail 1·0, tarsus 0·75. Lower mandible and edge of upper mandible pale blue; rest of upper mandible black; irides brown; feet and claws fleshy." (*W. Davison.*)

Hab. Tenasserim.

7. Ptererythrius melanotis.

Allotrius melanotis, *Hodgs. J. A. S. Beng.* xvi. p. 448 (1847); *Gray, Gen. B.* iii. *App.* p. 13; *Gould, B. Asia*, pt. viii.; *Bp. C. A.* i. p. 362; *Gray, Hand-l. B.* i. p. 314, no. 4686; *Hume, Str. F.* 1879, p. 104.

Pteruthius ænobarbus, *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 172 (*nec Temm.*).

Allotrius ænobarbus, *Jerd. B. Ind.* ii. p. 246 (♂) (*nec Temm.*).

Adult male. Closely resembling *P. ænobarbus*, but differing from this species as follows:—(1) forehead olive-yellow, without a reddish brown band; (2) occiput and hind neck light grey; (3) ear-coverts yellow, bordered posteriorly by a black line; (4) outer pair of tail-feathers entirely white; (5) the reddish brown colour on the throat not sharply defined, but passing gradually into the yellow of the breast; (6) the least wing-coverts and quills edged with pale grey. Culmen 0·44 inch, wing 2·3–2·4, tail 1·60–1·80, tarsus 0·75.

Adult female. Like the male, but the greater and median wing-

coverts tipped with reddish isabelline instead of with white; chin and upper throat washed with reddish brown; rest of fore neck yellow. Wing 2·3–2·4 inches, tail 1·40–1·60.

Young birds resemble the female, but have no trace of the grey colour on the occiput. Underparts white, tinged with yellow; throat pale cream-colour.

Hab. Eastern Himalayas.

a, b. ♂ ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
c, d. ♂ ad. sk.	Nepal (*Hodgson*).	India Museum. (Types of species.)
e, f. ♀ ad. sk.	Nepal (*Hodgson*).	India Museum.
g, h, i. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
k. ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
l. Juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
m. ♂ ad. sk.	Darjiling.	H. Seebohm, Esq. [P.].
n. ♂ ad. sk.	Sikkim, Nov. 1876.	E. W. Oates, Esq.
o. [♀] ad. sk.	Sikkim, April 1875.	E. W. Oates, Esq.
p. [♀] ad. sk.	Bootan (*Pemberton*).	India Museum.

8. Pterorythrius xanthochloris.

Pteruthius xanthochloris, *Hodgs. J. A. S. Beng.* xvi. p. 448 (1847); *Gray, Gen. B.* iii. *App.* p. 13; *id. Cat. Mamm. &c. Nepal pres. Hodgs.* p. 95, *App.* p. 155; *Gould, B. Asia*, pt. viii.; *Gray, Hand-l. B.* i. p. 314, no. 4687.

Allotrius xanthochloris, *Bp. C. A.* i. p. 362; *Hume, Str. F.* vii. p. 456, 1879, p. 104.

Allotrius ænobarbus, *Jerd. B. Ind.* ii. p. 246 (♀) (*nec Temm.*).

? Allotrius xanthochloris, var. pallida, *David, N. Arch. Mus.* vii. *Bull.* p. 14.

? Allotrius sophiæ, *Verr. N. Arch. Mus.* viii. p. 64.

? Allotrius pallidus, *David & Oust. Ois. Chine*, p. 215.

Adult. General colour above dusky olive-green; wings with their coverts and the tail blackish, externally washed with the colour of the back; tail and some of the secondaries with paler tips; crown of head slaty grey; ear-coverts pale greyish olive; throat and upper breast dingy white tinged with isabelline; rest of underparts dingy white and strongly washed with pale greenish yellow; inner edge of quills, edge of wing, and under wing-coverts whitish yellow. Total length about 4 inches, culmen 0·45, wing 2·35–2·50, tail 1·95–2·05, tarsus 0·75–0·81.

Young birds have the upper parts uniform pale olive-grey; wings and tail brown; underparts dingy yellowish white. The *female* seems to be intermediate in colour between the young and the adult male.

Hab. Himalayas.

a. [♂] ad. st.	Nepal.	B. H. Hodgson, Esq. [P.]. (Type of species.)
b, c. [♂] ad. sk.	Nepal (*Hodgson*).	India Museum.
d. [♂] ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
e. [♀] ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
f. Juv. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
g. Ad. sk.	Sikkim.	Henry Seebohm, Esq. [P.].

8. CALICALICUS.

Type.
Calicalicus, *Bp. C. R.* xxxviii. p. 535 (1854) .... C. madagascariensis.
Hylophorba, *Sclater, P. Z. S.* 1865, p. 326 ..... C. madagascariensis.

Head of *Calicalicus madagascariensis* ♂.

Bill like that of a typical *Lanius*; nostrils oval, in front of a coriaceous groove, partly covered by bristles. First primary somewhat longer than half the length of the next one; tip of wing formed by fourth, fifth, and sixth primaries. Tail square, shorter than wings, the latter just covering the upper tail-coverts. Tarsus anteriorly covered with transverse scales. The two first proximal phalanges of the third and fourth toes joined together; inner toe much shorter than the fourth. Feathers of back and rump very woolly. The sexes are different in plumage.

Range. Madagascar.

1. Calicalicus madagascariensis.

Lanius madagascariensis minor, *Briss. Orn.* ii. p. 164, pl. 16.
Lanius madagascariensis, *Linn. S. N.* 1766, i. p. 137; *Schleg. & Pollen, Faune Madag.* p. 99, pl. 27, ♂ & ♀ (1868).
Pie grièche calicalic, *Buff. Pl. Enl.* pl. 299.
Schetba madagascariensis, *Less. Traité d'Orn.* p. 374 (1831).
Dryoscopus madagascariensis, *Bp. C. A.* i. p. 361 (1850).
Calicalicus madagascariensis, *Bp. C. R.* xxxviii. p. 535 (1854); *Hartl. Vög. Madag.* p. 50; *Grandid. Rev. et Mag. Zool.* 1867, p. 386; *Milne-Edw. & Grandid. Hist. Madag., Ois.* pls. 164, 165.
Hylophorba ruticilla, *Scl. P. Z. S.* 1865, p. 326, pl. 13 (♀).
Pachycephala madagascariensis, *Gray, Hand-l. B.* i. p. 389, no. 5910 (1869).

Adult male. Top of the head and back ashy grey; scapulars, median and lesser wing-coverts, rump and upper tail-coverts chestnut-red; primary- and greater wing-coverts and the quills blackish brown, edged with grey; tail—the terminal three quarters of the central pair, the terminal half of the outer web of the outermost pair, and the tips of the other three pairs brownish grey, the remainder of the tail chestnut-red; forehead, lores, and a narrow superciliary stripe deep black, separated from the grey of the head by a very narrow white band; cheeks and lower part of the ear-coverts white; chin, throat, and fore neck jet-black; remainder of the under surface of the body white, washed on the sides of the breast and especially on the flanks with light chestnut-red; edge of wing chestnut-red; under wing-coverts and axillaries white; under surface of quills blackish grey, internally edged with creamy white; feathers of the

thighs light chestnut-red, edged and tipped with white; bill black, feet dark ashy in the skin.

Adult female. Above like the adult male, but the head and hind neck lighter; tail like that of the male, but having the central pair almost entirely chestnut-red, only just tipped with grey; under-surface creamy white, more reddish on the breast and flanks, wanting the black of the male entirely; under wing-coverts and thighs light rufous; "bill black, nearer the base whitish; feet obscure ashy" (*Sclater*).

Total length 5 inches, culmen 0·55, wing 2·75, tail 2·2, tarsus 0·8.

Hab. Madagascar.

a. ♂ ad. sk.	Noce Vola, Nov. 13, 1869 (*A. Crossley*).	R. B. Sharpe, Esq. [P.].
b. Ad. sk.	Saralalan, N. Madagascar, Nov. 18, 1869 (*A. Crossley*).	R. B. Sharpe, Esq. [P.].
c. ♀ ad. sk.	Saralalan (*Crossley*).	R. B. Sharpe, Esq. [P.].
d. Ad. sk.	Saralalan, Nov. 18, 1869 (*Crossley*).	F. D. Godman and O. Salvin, Esqrs. [P.].
e. ♀ ad. sk.	Madagascar.	Purchased.
f. ♂ imm. sk.	Madagascar.	
g, h. ♀ ad. sk.	Ankafana forest, March 9, 1881.	Rev. W. Deans Cowan [C.].
i. ♀ ad. sk.	Analatsoi, Nov. 18, 1880.	Rev. W. Deans Cowan [C.].

9. TELOPHONUS.

Type.

Pomatorhynchus, *Boie*, *Isis*, 1826, p. 973 (*nec Horsfield*!) ..... T. erythropterus.
Telophonus, *Swains. Class. B.* ii. p. 219 (1837) .. T. erythropterus.
Telephonus (pt.), *Bp. C. A.* p. 361 (1850) ..... T. senegalus.
Harpolestes, *Cab. Mus. Hein.* i. p. 70 (1850) .... T. erythropterus.

Bill strongly bent, hooked and notched; nostrils oval, non-operculated, in front of a coriaceous groove, quite exposed, but the groove covered with short feathers; no nasal, but a few strong rictal bristles present. First primary well developed; whole wing short and much rounded, the tip being formed by the fourth, fifth, and sixth primaries (in *T. senegalus* 3, 4, 5). Tail equal to or somewhat longer than wings, much graduated. Tarsi in front covered with transverse scales. Colour of bill always jet-black. Principal colours black, whitish, and chestnut-brown, the latter always being the colour of the wing-coverts. Most of the species have a longitudinal black streak through the eye. Red, green, blue, and yellow colours are not found in the plumage. No external difference between the two sexes.

Range. Africa.

Key to the Species.

a. Crown of head black.
  a' Central pair of tail-feathers black; underparts ochraceous
    a''. Black patch on each shoulder ..... *minutus*, p. 128.

b''. Mantle and scapulars uniformly chestnut-colour, with no patch ..... *anchietæ*, p. 129.
b'. Central pair of tail-feathers ashy grey, with numerous dark cross bands.
c''. Both the inner and outer webs of the quills almost entirely chestnut-red; underparts creamy white ..... *remigialis*, p. 128.
d''. The greater part of the inner web of the quills dark brown; the reddish colour confined to the inner edge.
a'''. Underparts washed with grey; under tail-coverts white or ochraceous. } *senegalus*, p. 124. } *cucullatus*, p. 126.
b'''. Under tail-coverts ashy grey with whitish tips ..... *blanfordi*, p. 127.
b. Crown of head brown.
c'. All the underparts, including the under wing-coverts and the edge of the wings, dark ashy grey; length of wing about 3·25 inches; bill very slender and much curved ..... *erythropterus*, p. 121.
d'. Under wing-coverts and edge of wing ochraceous or white; length of wing not exceeding 3 inches.
e''. All the underparts ochraceous buff .... *trivirgatus*, p. 122.
f''. Throat, abdomen, and edge of wing almost pure white; under tail-coverts creamy ..... } *trivirgatus* (Eastern race), p. 123.
g''. Sides of breast and flanks ashy grey; under tail-coverts grey and white .... *ussheri*, p. 124.

1. Telophonus erythropterus.

Le Tchagra, *Levaill. Ois. d'Afr.* ii. p. 81, pl. 70. figs. 1 & 2 (1799).
Lanius erythropterus, *Shaw, Gen. Zool.* vii. p. 301 (*ex Levaill.*) (1809); *Rüppell, Neue Wirbelth.* p. 32.
Thamnophilus tchagra, *Vieill. N. Dict.* iii. p. 317 (*ex Levaill.*).
Lanius senegalus, *Lath. Gen. Hist. B.* ii. p. 23.
Potamorhynchus tchagra, *Boie, Isis*, 1826, p. 973.
? Lanius coronatus, *Bonn. et Vieill. Enc. Méth.* p. 732 (1823).
Tchagra senegalensis, *Less. Traité*, p. 373 (1831).
Telophonus longirostris, *Swains. Class. B.* ii. p. 219; *id. Anim. in Menagr.* p. 283.
Telophorus erythropterus, *Gray, Gen. B.* i. p. 292 (1846).
Telephonus longirostris, *Bp. C. A.* i. p. 361; *Licht. Nomencl.* p. ii; *Finsch & Hartl. Vög. Ostafr.* p. 340; *Heugl. Orn. N.O.-Afr.* p. 472.
Telephonus erythropterus, *Bp. C. A.* i. p. 361; *Hartl. Orn. Westafr.* p. 106; *Monteiro, Ibis*, 1862, p. 335; *Finsch & Hartl. Vög. Ostafr.* p. 336; *Reichenow, Corr. Afr. Gesellsch. Berlin*, 1874, p. 178; *Bocage, Jorn. Lisb.* 1867, p. 137, & 1870, p. 343; *id. Ornith. d'Angola*, p. 223.
Harpolestes longirostris, *Cab. Mus. Hein.* i. p. 70.
Telophorus longirostris, *Gray, Hand-l. B.* i. p. 399, no. 6057.
Telephonus tschagra, *Sharpe, Cat. Afr. B.* p. 51.

Pomatorhynchus erythropterus, *Gurney in Anderss. B. Damara Land*, p. 149.
Laniarius erythropterus, *Sharpe, ed. Layard B. S. Afr.* p. 397.

Adult. General colour above, including the scapulars, brown with a slight olive tinge, passing into ashy grey on the rump and on the upper tail-coverts; least wing-coverts brown, edged with grey; rest of wing-coverts, and a broad edge of the outer web of most of the primary quills chestnut-brown; rest of outer web, especially the basal part, and the whole of the inner web uniform brown; central pair of tail-feathers ashy brown, with numerous but faintly marked dark cross bars; all the other feathers of the tail black, and largely tipped with white; crown of head rufescent brown; a broad fulvous white streak extends from the nostrils over the eye onto the occiput, and is separated from the pale ashy-brown ear-coverts by a black streak, which begins at the hinder corner of the eye; loral region black; all the underparts are ashy grey, darker on the breast, flanks, under tail- and under wing-coverts, lighter on the middle of the abdomen, and gradually passing into dingy white on the throat, chin, and cheeks; edge of wing grey, mottled with whitish; under surface of quills uniform sepia-brown, without any light or reddish edging to the inner web; colour of the bill and of the feet dark horny brown or black; "eyes black" (*Atmore*). Total length 8 inches, culmen 1·05, wing 3·25, tail 3·75, tarsus 1·1.

Young. Very similar to the old bird, but generally paler: the wing-coverts more buffy red instead of the deep chestnut colour of the adult birds; the broad superciliary streak washed with rufous; underparts, especially the under tail-coverts, washed with fulvous grey.

Hab. Cape Colony.

a, *b*. Ad. sk.	South Africa.	Sir A. Smith [P.].
c. Juv. sk.	South Africa.	Sir A. Smith [P.].
d. Ad. sk.	Cape of Good Hope.	F. Campbell, Esq. [P.].
e. Ad. sk.	Grahamstown (*T. C. Atmore*).	R. B. Sharpe, Esq.

2. Telophonus trivirgatus.

Malaconotus australis, *Smith, Rep. Expl. Exped.* p. 44 (1836).
Telophorus trivirgatus, *Smith, Zool. S. Afr., Aves*, pl. xciv. (1849); *Gray, Gen. B.* i. p. 292; *id. Hand-l. B.* i. p. 399, no. 6053.
Telephonus trivirgatus, *Bp. C. A.* i. p. 361; *Hartl. Orn. W.-Afr.* p. 106; *Bianc. Spec. Zool. Mosamb.* p. 400; *Hartl. P. Z. S.* 1865, pp. 88 & 93; *Heugl. Orn. N.O.-Afr.* i. p. 471; *Finsch & Hartl. Vög. Ostafr.* p. 338; *Reichenow, J. f. O.* 1875, p. 27, & 1877, p. 23; *Bocage, Orn. d'Angola*, p. 224.
Telephonus frenatus, *Licht. Nomencl.* p. 12 (1854).
Telophonus trivirgatus, *Layard, B. S. Afr.* p. 160.
Pomatorhynchus trivirgatus, *Gurn. in Anderss. B. Damara Land*, p. 151.
Laniarius trivirgatus, *Sharpe, ed. Layard B. S. Afr.* p. 396 (1881).

Adult. Upper parts, including occiput and crown of the head, ashy brown, passing into grey on the lower back and rump; upper tail-coverts dark grey with very narrow whitish tips; central pair of tail-feathers very dark ashy brown, distinctly marked with cross bars; the creamy superciliary streak bordered on its upper and lower margin with black; all the underparts of the body, including the edge of the wing, the under wing- and under tail-coverts, and the thighs, light ochraceous buff, passing into dull white on the throat; all the other parts are exactly as in *T. senegalus*; "eyes bluish hazel" (*Atmore*). Total length about 7 inches, culmen 0·75–0·8, wing 2·8–3·05, tail about 3·7, tarsus 1·02.

Hab. Southern Africa with the exception of the Cape.

Obs. In a female specimen in Capt. Shelley's collection the two black stripes almost meet across the occiput, some of the feathers being mottled with blackish.

a, b. Ad. sk.	South Africa.	Sir A. Smith [C.]. (Types of species.)
c. ♂ ad. sk.	Griqualand (*T. C. Atmore*), May 5, 1871.	R. B. Sharpe Esq. [C.].
d, e. Ad. sk.	Crocodile river (*F. Oates*), July.	W. E. & C. G. Oates, Esqrs. [P.].
f. Ad. sk.	Shoshong, Mitle river, Aug. 10.	W. E. & C. G. Oates, Esqrs. [P.].
g. Ad. sk.	Makalaka Country.	Dr. Bradshaw [C.].
h, i. ♂ ad. sk.	Otjimbinque, May 1866 (*Andersson*).	R. B. Sharpe, Esq.
k. ♀ ad. sk.	Onani's river, April 11, 1865 (*Andersson*).	R. B. Sharpe, Esq.
l. Ad. sk.	Benguela.	J. J. Monteiro, Esq. [C.].

Obs. Two birds collected by Sir John Kirk at Tete, and a third collected by him opposite Zanzibar, in Capt. Shelley's collection, differ very remarkably from all the other species of *Telophonus*; and any one could distinguish them at once from *T. trivirgatus*, to which species they seem nearest allied. These three specimens have all the lower parts whitish instead of ochraceous; the throat and the greater part of the breast, the abdomen, and edge of wing almost pure white; sides of breast and flanks washed with creamy grey; thighs, vent, and under tail-coverts pale creamy; crown of head dark ochraceous brown, much mottled with black, therefore very much resembling *T. ussheri*. The general colour of the upper parts cannot be of much importance, as in *T. trivirgatus* it is subject to great variation. The three specimens, however, have the back, mantle, and hind neck more ochraceous and less ashy than *T. trivirgatus*. Thus we cannot but feel surprise that Finsch and Hartlaub (*l. c.*) expressly state that the specimens from the Zambesi in the British Museum entirely agree with specimens of *T. trivirgatus* from Damaraland The measurements do not show any reliable difference. Total length about 7 inches, culmen 0·75, wing 0·7–

2·9, tail 2·8–3·5, tarsus 1. These birds seem to represent an eastern or paler race of *T. trivirgatus*.

a, *b*. Ad. sk. Tete, Zambesi (*Sir J. Kirk*). Livingstone Expedition.

Subsp. *a*. Telophonus ussheri. (Plate II. fig. 1.)

Laniarius ussheri, *Sharpe, ed. Layard's B. S. Afr.* p. 397 (1882).

Adult. Very similar to *T. trivirgatus*, but differing from the latter as follows:—All the underparts, except the throat and the middle of the abdomen (which are whitish), are ashy grey, especially dark on the sides of the breast and the flanks; the under tail-coverts are whitish, with dusky bases; edge of wing white; under wing-coverts—primaries brownish grey, secondaries white with a slight reddish tinge; bill entirely black in the adult bird, in the young and immature bird brown or horn-colour, with the under mandible very pale at base. Total length about 7 inches, culmen 0·8, wing 2·8, tail 3· 35, tarsus 1.

Obs. In both the specimens of this species in the British-Museum collection the two black stripes bordering the creamy white superciliary stripe almost meet across the occiput. In the adult specimen the crown of the head is very much mottled with black, whilst the immature bird (with the pale bill), has the whole crown uniformly ashy brown with an ochraceous tinge like the mantle*.

Hab. Gold Coast. Is a Western race of *T. trivirgatus*, linking together the latter and *T. senegalus*.

a. Ad. sk.	River Volta, Aug. 1870 (*Ussher*).	R. B. Sharpe, Esq.	(Type of species.)
b. Imm. sk.	Fantee (*A. Swanzy*).	R. B. Sharpe, Esq.	

3. Telophonus senegalus.

Pie-grièche grise du Sénégal, *Briss. Orn.* ii. p. 167, pl. xvii. fig. 1.
Pie-grièche rousse à tête noire du Sénégal, *Daubent. Pl. Enl.* pl. 479. fig. 1.
Lanius senegalus, *Linn. S. N.* i. p. 137 (1766); *Gm. S. N.* i. p. 304.
Senegal Shrike, *Lath. Gen. Syn.* i. p. 162.
Telophorus senegalus, *Gray, Gen. B.* i. p. 262; *id. Hand-l. B.* i. p. 399, no. 6056 & 6052, pt.

---

* It may be concluded from the above description that *T. ussheri* differs from *T. senegalus* only in its brown crown, a specific difference which is open to doubt if we take the black mottled crown of the specimen described above as a sign of immaturity. But even if compared with immature specimens of *T. senegalus*, which have the crown of the head brown or mottled with black, the two species (*T. senegalus* and *T. ussheri*) differ from each other as follows:—*T. senegalus* is larger in size (*cf.* wings and tail); the under tail-coverts and the vent are pale ochraceous with no trace of grey; the primary under wing-coverts are pale reddish, not brown; the white tips to the tail-feathers are much larger than those of *T. ussheri*. These differences are observable even in the two specimens from the River Volta, Aug. 1870, where both species occur.

Telephonus senegalus, *Bp. C. A.* i. p. 361; *Licht. Nomencl.* p. 11; *Hartl. Orn. W.-Afr.* p. 105.
Pomatorhynchus erythropterus, *Cab. Mus. Hein.* i. p. 69.
Pomatorhynchus orientalis, *Cab. in V. d. Decken's Reis.* iii. p. 27.
Telephonus erythropterus (*non Shaw*), *Heugl. Syst. Uebers.* p. 33; *Hartl. Orn. W.-Afr.* p. 106; *Gurney, Ibis*, 1860, p. 211, 1865, p. 273; *Monteiro, Ibis*, 1862, p. 335; *Kirk, Ibis*, 1864, p. 319; *Finsch & Hartl. Vög. Ostafr.* p. 326; *Finsch, Tr. Z. S.* vii. p. 254; *Sharpe, Cat. Afr. B.* p. 51; *Reichenow, J. f. O.* 1875, p. 27, 1877, p. 23; *Fischer, J. f. O.* 1879, p. 347.
Telophonus erythropterus, *Layard, B. South Afr.* p. 160.
Laniarius senegalus, *Sharpe, ed. Layard B. S. Afr.* p. 397 (1882).

Adult. Hind neck and mantle ochraceous brown, passing into ashy brown with an olive tinge; scapulars brownish black, with a broad rufous margin to the outer and inner webs; all the wing-coverts almost entirely chestnut-red, except the basal part of the feathers which is blackish; the greater part of the outer web of the primary and a broad edge to the secondary quills chestnut-colour, rest of the quills black-brown; the innermost secondary quills margined with rufous on both the inner and outer webs; central pair of tail-feathers ashy brown, with numerous dark but faintly marked cross waves; the other feathers are black, and broadly tipped with white, which colour extends up the outer web of the outermost pair; a broad and very pronounced streak extends from the nostrils backwards over the eye and the ear-coverts, almost meeting at the hinder margin of the black occiput with its fellow from the other side; this streak is white from the nostrils to the eye, the rest is ochraceous; the black postocular streak, bordering the ear-coverts, is very distinctly marked; lores black; ear-coverts and sides of the neck ochraceous brown, a little paler than the neck; chin, cheeks, and middle part of throat white; under tail-coverts cream-colour; breast, flanks, and abdomen ashy grey as in *T. erythropterus*; under wing-coverts and a broad margin to the inner webs of the primary and secondary quills pale rufous; edge of wing pure white; thighs cream-colour or pale ochraceous, sometimes washed with grey; "feet pale slaty, claws rather darker; bill black, base of upper and a good deal of under mandible light slaty" (*Oates*). Total length about 8·5 inches, culmen 0·85–1, wing 3·20–3·6, tail 3·75–4·5, tarsus 1·1–1·2.

In order to show that these great differences in size are merely local variations, I give the length of the wings of all the adult specimens of *T. senegalus* at present in the National collection.

		Length of wing. inches.		
a.	Imm. sk.	3·3	W. Africa.	Capt. Sabine, R.N. [P.].
b.	Ad. sk.	3·15	W. Africa	Capt. Sabine, R.N. [P.].
c.	Ad. sk.	3·25	Gambia.	R. B. Sharpe, Esq.
d.	Ad. sk.	3·2	Beulah Road, Gold Coast, Nov. 25, 1871 (*Blissett*).	R. B. Sharpe, Esq.
e.	Ad. sk.	3·2	Accra (*Smith*).	R. B. Sharpe, Esq.

		Length of wing. inches.		
f.	Ad. sk.	3·15	River Volta (*Ussher*), Aug. 1870.	R. B. Sharpe, Esq.
g.	Ad. sk.	3·4	Cambambe, Angola.	J. J. Monteiro, Esq. [C.].
h.	Ad. sk.	3·3	Kabinda, Congo, August.	Commander Sperling [P.].
i.	♀ ad. sk.	3·5	Cunene River, June 25, 1867 (*Anderson*).	R. B. Sharpe, Esq.
k.	Ad. sk.	3·6	Elephant Vley, Sept. 20, 1859 (*Anderson*).	R. B. Sharpe, Esq.
l.	Ad. sk.	3·4	Kingwilliamstown.	Lieut. Anstey [P.].
m.	Ad. sk.	3·55	Kingwilliamstown.	Capt. H. Trevelyan [P.].
n.	Ad sk.	3·4	Kingwilliamstown.	Capt. H. Trevelyan [P.].
o.	♀ ad. sk.	3·6	British Caffraria, Sept. 17, 1876.	Capt. H. Trevelyan [P.].
p.	♀ ad. sk.	3·5	Elands Post, May 27, 1870 (*T. Atmore*).	R. B. Sharpe, Esq.
q.	Ad. sk.	3·5	Elands Post, June 1870 (*T. Atmore*).	R. B. Sharpe, Esq.
r.	Ad. sk.	3·45	Natal.	T. Ayres, Esq. [C.].
s.	♀ ad. sk.	3·45	Natal (*Ayres*).	R. B. Sharpe, Esq.
t.	Ad. sk.	3·25	2nd Makalaka Kraal, September (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
u.	♀ ad. sk.	3·4	Pantamatanka, Jan. 18 (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
v.	Imm. sk.	3·3	Shupanga, Zambesi, April 1862 (*Sir J. Kirk*).	Livingstone Expedition.
w.	Ad. sk.	3·3	Makalaka Country.	Dr. F. Bradshaw [C.].
x.	Ad. sk.	3	Makalaka Country.	Dr. F. Bradshaw [C.].
y.	Imm. sk.	3·45	Makalaka Country.	Dr. F. Bradshaw [C.].
z.	♀ ad. sk.	3·15	Mozambique.	Purchased.
a'	Ad. sk.	3·25	Mombasa (*Wakefield*).	R. B. Sharpe, Esq. [P.].
b'	Ad. sk.	3·2	Mombasa (*Wakefield*).	R. B. Sharpe, Esq. [P.].
c'.	Ad. sk.		Mombasa, June.	J. M. Hildebrandt [C.].
d'.	Ad. sk.		Mombasa.	Rev. T. Fowell Buxton [P.].
e'.	♂ ad. sk.	3·2	Kitui, Ukamba, April 1877.	J. M. Hildebrandt [C.].

4. Telophonus cucullatus.

Lanius cucullatus, *Temm. Man. d'Orn.* iv. p. 600 (1840) (*ex Andalusia*; *Boissoneau*).

Lanius tchagra, *Schleg. Rev. Crit.* p. xxi (1844); *Dubois, Ois. Eur.* xviii. pl. 37; *Bree, B. Europe*, i. p. 171.

Telophorus cucullatus, *Gray, Gen. B.* i. p. 202 (1846); *id. Hand-l. B.* i. p. 398, no. 6051 (1869).

Telephonus cucullatus, *Bp. C. A.* i. p. 361; *Tristr. Ibis*, 1860, p. 150.

Telephonus erythropterus (*non Shaw*), *Brehm, Naumannia*, 1855, p. 275; *Dress. B. Eur.* iii. p. 423, pl. 154.

Teleophonus tchagra, *Lilford, Ibis*, 1866, p. 380 (*nec V.*).
Telephonus tschagra, (*non V.*) *Degl. & Gerbe, Orn. Eur.* i. p. 230; *Bp. Cat. Ois. Eur. Parzud.* p. 8 (1856); *Loche, Cat. Mamm. Ois. Alg.* p. 86, sp. 172 (1858); *id. Expl. Scient. Algér., Ois.* ii. p. 44.
Laniarius cucullatus, *Sharpe, ed. Layard B. S. Afr.* p. 397 (1882).

In Algeria and Morocco *T. senegalus* is represented by a brighter-coloured race, which differs from the former in the following points:—Underparts dark ashy grey, whitish on the middle of the abdomen and the upper throat; ear-coverts pale ashy brown, not ochraceous, distinctly paler than the mantle and hind neck, which parts in this northern race are of a dark ashy-brown colour; thighs ochraceous, sometimes mottled with grey.

Four specimens in the British Museum show the following measurements:—Total length 8–9 inches, culmen 0·9, wings 3·55, tail 4·7, tarsus 1·2.

Hab. Algeria and Morocco.

a.	♀ ad. st.	Tangiers.	Purchased.
b.	Ad. sk.	Tangiers.	Colonel Irby [P.].
c.	Ad. sk.	Algeria.	R. B. Sharpe, Esq.
d.	♂ ad. st.	Algeria (*H. B. Tristram*), May 5, 1856.	F. D. Godman and O. Salvin, Esqrs. [P.].

5. **Telophonus blanfordi.** (Plate II. fig. 2.)

Laniarius erythropterus, *Blanf. Geol. & Zool. Abyss.* p. 343 (*nec Shaw*).
Lanius senegalus, var., *Hempr. & Ehrenb. Symb. Phys.* fol. E.
Telephonus erythropterus, pt., *Heugl. Orn. N.O.-Afr.* i. p. 468.
Laniarius blanfordi, *Sharpe, ed. Layard B. South Afr.* p. 397 (1882).

Adult. The Tchagra Shrike which inhabits Abyssinia and the adjacent southern countries differs from the common African Tchagra, *T. senegalus*, in the following points:—1, smaller size; 2, under tail-coverts ashy grey with large whitish tips; 3, ear-coverts generally whitish cream-colour, paler than in *T. senegalus*.

Young. A very young bird, collected by Mr. W. T. Blanford in the Anseba valley in the month of July, has the crown of the head dark brown instead of black, the hind neck and mantle more ochraceous instead of brown, and the underparts more fulvous and dingy-coloured instead of grey. Bill and feet pale horny brown.

Measurements:—Total length about 7·5–8 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
a. Anseba valley (type) ..	0·73	3·0	3·9	1·1
b. Senafé	0·8	3·1	4·0	1·1
c. Bogos	0·8	3·0	3·8	1·1
d. Bejook	0·82	3·0	3·4	1·12

Hab. Abyssinia.

a.	♂ ad. sk.	Anseba valley.	W. T. Blanford, Esq. [C.]. (Type of species.)
b.	♀ ad. sk.	Senafé, Feb. 25, 1868.	W. T. Blanford, Esq. [C.].

c. Ad. sk.	Bogos Land (*Esler*).	R. B. Sharpe, Esq.
d. ♀ juv. sk.	Bejook, Anseba valley.	W. T. Blanford, Esq. [C.].
e. ♂ ad. sk.	Bejook, July 16, 1868 (*Jesse*).	R. B. Sharpe, Esq.

6. Telophonus remigialis.

Lanius erythropterus, *Rüpp. Neue Wirbelth.* p. 32 (pt.).
Telephonus senegalus, *Strickl. P. Z. S.* 1850, p. 216 (*nec L.*).
Telephonus remigialis, *Hartl. & Finsch, Vög. Ostafr.* p. 340 (note); *Heugl. Orn. N.O. Afr.* i. p. 471.
Telophorus remigialis, *Gray, Hand-l. B.* i. p. 399, no. 6055.
Laniarius remigialis, *Sharpe, ed. Layard B. S. Afr.* p. 397 (1882).

Adult. Hind neck and mantle sandy brown, passing into ashy brown on the lower back, rump, and the upper tail-coverts; upper tail-coverts narrowly margined with whitish; scapulars almost entirely rufous, only the inner web with a dark-brown patch; all the wing-coverts rufous or reddish chestnut-colour, which colour likewise occupies more than the basal half of the primary quills (both the inner and outer webs) and all but the terminal quarter of the secondaries; tail like that of *T. senegalus*, but the cross waves very indistinct and in some birds almost invisible; underparts, including the under tail-coverts and thighs, uniform white, slightly washed with cream-colour on the chest; ear-coverts cream-colour; edge of wing and the smaller under wing-coverts white, the remainder pale rufous, like the greater part of the under surface of the quills. Head like that of *T. senegalus*. Total length about 9 inches, culmen 0·85–0·9, wing 3·4–3·6, tail 4·6–4·75, tarsus 1·15.

Hab. North-eastern Africa.

a. Ad. st.	White Nile.	F. Galton, Esq. [P.].
b. Ad. sk.	White Nile.	F. Galton, Esq. [P.].
c. Ad. sk.	Sennaar (*Hedenborg*).	R. B. Sharpe, Esq.
d. Ad. sk.	Kordofan (*Mus. Holm.*).	R. B. Sharpe, Esq.
e, *f*. ♂ ♀ ad. sk.	Abyssinia (*Verreaux*).	R. B. Sharpe, Esq.

7. Telophonus minutus.

Telephonus minutus, *Hartl. P. Z. S.* 1858, p. 292; *Reichenow, Corr. Afr. Gesellsch. Berlin*, 1874, p. 179; *Finsch & Hartl. Vög. Ostafr.* p. 340 (note); *Reichenow, J. f. O.* 1877, p. 23; *Bocage, Orn. d'Angola*, p. 225, pl. iv.
Telophorus minutus, *Gray, Hand-l. B.* i. p. 399, no. 6053.
Laniarius minutus, *Sharpe, ed. Layard B. S. Afr.* p. 397 (1882).

Adult (type of species). Nearly allied to *T. trivirgatus*, but smaller, and chiefly distinguished from the latter species in the following points:—1. The whole crown of the head is jet-black, with a pure white and very distinctly marked superciliary streak, which in front occupies the whole loral region. 2. Some of the scapulars and of the adjacent feathers of the mantle are either entirely black or have the whole outer web black, thus forming on the mantle two large irregular patches of this colour. 3. The central pair of the tail-feathers are

black like the others (not ashy brown or grey), showing, however, obsolete remains of the numerous dark cross bands; all the tail-feathers are tipped, and the outermost pair also bordered, with fulvous. 4. Back, rest of mantle, and hind neck ochraceous. 5. The bill is very stout and extremely high on the culmen, which is strongly curved; and besides this the upper mandible is furnished with a very strong notch and hook. Bill black; feet brown. Total length about 7 inches, culmen 0·85, wing 2·8–3, tail 3·2–3·4, tarsus 1·05–1·1.

Obs. Two specimens (*a* and *b*) have no trace of a white supercilium, and the loral region is entirely black; two others agree with the type specimen described above. In all other respects the birds agree perfectly with each other, and are sharply distinguished from *T. anchietæ*. Besides these I have had the opportunity of examining the specimens in Capt. Shelley's collection; and I find that some of his specimens collected in the same locality have a white supercilium, whilst others show no trace of it. In *T. anchietæ* we have precisely the same. I therefore conclude that the presence or absence of a white supercilium in the genus *Telophonus* is not a *specific* character. It cannot be due to age, because we find specimens with pale bills and with black bills both possessing and wanting the white supercilium.

The presence of a light superciliary streak may be said to be characteristic of the genus *Telophonus*. We should therefore expect that the female (and of course the young birds) would be less specialized and would preserve the common generic character. The bird without the supercilium is no doubt the most specialized one, and is therefore probably the male; but I have seen no sexed specimens.

Hab. West Africa, from the Gold Coast to the Congo.

a. [♀] ad. sk.	W. Africa.	L. Fraser, Esq. [C.]. (Type of species.)
b. [♂] ad. sk.	Ashantee.	J. Gould, Esq.
c. [♂] ad. sk.	Accra (*Hayes*).	R. B. Sharpe, Esq.
d. [♂] ad. sk.	Fantee (*Ussher*).	R. B. Sharpe, Esq.
e. [♀] ad. sk.	Fantee.	R. B. Sharpe, Esq.

8. Telophonus anchietæ.

Telephonus anchietæ, *Bocage, Jorn. Lisb.* 1870, p. 344; *Shelley, P. Z. S.* 1881, p. 579.
Telephonus minutus, *Bocage, Orn. d'Angola*, p. 225, pl. iv.
Laniarius anchietæ, *Sharpe, ed. Layard B. S. Afr.* p. 397 (1882).

Adult. Very similiar to *T. minutus*, but a trifle smaller, and especially distinguished from the latter species by the entire absence of any black or even dark brown colouring on the scapulars and the mantle, the whole mantle being of a uniform chestnut-red colour, not ochraceous as in *T. minutus*. Culmen 0·75 inch, wing 3, tail 3·2, tarsus 0·65.

Obs. The above description is taken from specimens in the collection of Capt. Shelley, some of which have a very distinct white superciliary streak, whilst in the others the loral and

superciliary region is entirely black; thus one of the points marked by du Bocage as differences between *T. minutus* and *T. anchietæ* is of no importance. The absence of black on the mantle, however, separates *T. anchietæ* sufficiently; and this separation is again supported by the geographical distribution of the two species.

Hab. Anchieta's Bush-Shrike was first discovered in Angola (Pungo-Andongo), but has since been found on the east coast of Africa, opposite Zanzibar. Thus this species probably ranges from Angola right across the continent to the Zanzibar coast.

10. DRYOSCOPUS*.

	Type.
Dryoscopus, *Boie, Isis*, 1826, p. 973	D. cubla.
Hapalolophus, *G. R. Gray, in Charlesworth's Mag. Nat. Hist.* new ser. i. p. 489 (1837)	D. cubla.
Chaunonotus, *id. op. cit.* p. 487	D. sabinei.
Rhynchastatus, *Bp. C. R.* xxxviii. p. 535 (1854)..	D. leucorhynchus.

Bill of *Dryoscopus cubla*.

Bill considerably bent, hooked and notched; the proportion of height to breadth varying much even in one and the same species, *e.g.* in *D. cubla*, leading thus to the broad-billed *D. sabinei*, for which the generic term *Chaunonotus* was invented. Nostrils oval, in front of a coriaceous groove, which is overgrown with little feathers; nostrils themselves exposed; bristles weakly developed. First primary between half and three quarters of the length of the next primary. Wings rounded, fourth and seventh primaries forming the tip. Tail rounded, equal to or slightly shorter than wings. Tarsus covered

* Among the doubtful species belonging to this obscure and difficult genus may be mentioned the following:—

DRYOSCOPUS SOMALICUS.

Lanius somalicus, *Hartl. Ibis*, 1859, p. 342; *Finsch & Hartl. Vög. Ostafr.* p. 333 (1870); *Heuglin, Faun. roth. Meer.* no. 125.
Dryoscopus somalicus, *Heugl. Orn. N.O.-Afr.* pp. 460, cxvii.

"Above fine black, excepting the middle of the back being transversely variegated with grey and whitish; below white, without any rose-tint; tail much like that of *L. minor*. *Hab.* Somali Land."

If correctly described, this *Dryoscopus* would be distinct from the rest; but as we are informed that the only two birds obtained were "lost during a fight," the species must have been described from memory.

with transverse scales. Feathers of the back and rump extremely fluffy, and, like the underparts of the body, generally white; rest of the plumage black, sometimes with an additional ochraceous tinge. Neither red, green, blue, or yellow in the plumage, which is alike in both sexes. The amount of white on the primary quills and the tips of the tail-feathers is very variable and of no safe specific value.

Range. About 22 species confined to Africa.

Key to the Species.

a. Under surface of body black or blackish like rest of the body.
  a'. Rump and lower back uniform dull black, without any white spots.
    a''. General colour dull black with a brown tinge ..... *leucorhynchus*, p. 132.
    b''. General colour slaty black with a bluish-grey tinge ..... *nigerrimus*, p. 133.
  b'. Rump and lower back slaty grey, mottled with large white subterminal spots.
    c''. Wing 3·5 inches ..... *funebris*, p. 133.
    d''. Wing 3 inches ..... *lugubris*, p. 133.
b. Under surface of body white, fawn-colour, or grey.
  c'. Head chestnut-colour like the throat and breast ..... *luehderi*, p. 134.
  d'. Head glossy black.
    e''. Tail grey like the mantle and back .... *angolensis*, p. 134.
    f''. Tail deep black.
      a'''. Lower back black, mottled with concealed subterminal spots of greyish white.
        a⁴. Some of the wing-coverts always broadly edged with white.
          a⁵. Secondary quills internally margined with white; abdomen and under tail-coverts fawn-buff; breast creamy white ..... *rufiventris*, p. 134. / *stictirus*, p. 136.
        b⁵. Quills internally without any lighter margin.
          a⁶. Body below pure white.
            a⁷. Quills entirely black ..... *bicolor*, p. 138.
            b⁷. Two or three secondaries externally broadly margined with white, forming a conspicuous bar ..... *major*, p. 136. / *guttatus*, p. 137.
          b⁶. Body below with a strong rosy tinge; quills entirely black .. *æthiopicus*, p. 139.
        b⁴. Wing-coverts and scapulars entirely black; quills without any white edges.
          c⁵. Body below rosy isabelline: larger *turatii*, p. 140.
          d⁵. Body below isabelline: smaller .. *sublacteus*, p. 140.

b'''. Lower back pure white or pale grey.
c^4. All the upper wing-coverts, scapulars, and quills entirely black; body below pure white.
e^5. Under wing-coverts white.
Culmen at base ridged and slightly compressed ..... *affinis*, p. 141. / *hamatus*, p. 142.
Culmen at base broad and much rounded ..... *sabinei*, p. 143.
f^5. Under wing-coverts black ..... *atrialatus*, p. 143.
d^4. Only the head, neck, mantle, and tail glossy black; scapulars, most of the wing-coverts and quills externally edged with white.
g^5. Whole under surface of body, lower back, and rump pure white *salimæ*, p. 144.
h^5. Body below greyish white.
e^6. Lower back and rump grey: larger. Female quite different from male; below reddish ochraceous ..... *gambensis*, p. 146. / *thamnophilus*, p. 147.
d^6. Lower back and rump almost white: smaller. Female similar to the male ..... *cubla* *, p. 148.

1. Dryoscopus leucorhynchus.

Telephonus leucorhynchus, *Hartl. Rev. Zool.* 1848, p. 108; *Bp. Consp.* i. p. 361; *Verr. Rev. et Mag.* 1855, p. 470.
Laniarius leucorhynchus, *Hartl. Beitr. Orn. Westafr.* p. 51, Taf. 6; *V. Müller, J. f. O.* 1855, p. 453; *Gray, Hand-l. B.* i. p. 397, no. 6036; *Reichen. J. f. O.* 1874, p. 28, 1875, p. 28.
Laniarius carbonarius, *Cass. Pr. Phil. Acad.* 1851, p. 347; *Finsch & Hartl. Vög. Ostafr.* p. 352, note.
Rhynchastatus leucorhynchus, *Bp. C. R.* xxxviii. p. 535.
Rhynchastatus carbonarius, *Bp. C. R.* xxxviii. p. 535.
Dryoscopus carbonarius, *Heine, J. f. O.* 1860, p. 135; *Hartl. op. cit.* 1861, p. 172.
Dryoscopus leucorhynchus, *Hartl. Orn. W.-Afr.* p. 112; *Heine, J. f. O.* 1860, p. 135; *Hartl. P. Z. S.* 1871, p. 211; *Sharpe, Ibis*, 1870, p. 55; *id. Cat. Afr. B.* p. 47; *Reichen. J. f. O.* 1877, p. 24.

Adult male. Entirely black above and below. Total length 8 inches, culmen 0·95, wing 3·65, tail 3·5, tarsus 1·25.

Adult female. Similar to the male, but rather shaded with chocolate, especially on the wings and the throat. Total length 7·5 inches, culmen 0·95, wing 3·4, tail 3·5, tarsus 1·25.

Obs. Dr. Reichenow (*l. c.*) states that the young birds of both sexes have the bill black, the colour of the bill becoming white, with a faint reddish shine, in the third year of age in the males as well as in the females. The colour of the bill is not dependent on the season. Iris reddish brown in both sexes; dark brown in young birds. Feet bluish grey.

According to this, three specimens in the British-Museum col-

* Here may be mentioned *D. tricolor*, p. 150, the type of which is a female!

lection would be immature males, although they are jet-black and fully grown, like a specimen in the Berlin Museum collected and marked by Dr. Reichenow as a young male.

Hab. West Africa, from the Gold Coast to the Gaboon.

a, *b*. [♂] ad. st.	Gaboon.	Purchased.
c. [♂] juv. sk.	Fantee.	R. B. Sharpe, Esq.
d. [♂] juv. sk.	Camaroons Mountains, Jan. 1, 1871 (*Crossley*).	R. B. Sharpe, Esq.
e. [♂] juv. sk.	Camaroons Mountains, March 8, 1871 (*Crossley*).	R. B. Sharpe, Esq.
♀ ad. sk.	Gaboon (*Walker*).	R. B. Sharpe, Esq.

2. Dryoscopus nigerrimus.

Dryoscopus nigerrimus, *Reichen. J. f. O.* 1879, p. 392; *Fischer & Reichen. ibid.* 1879, p. 346.

Very similar to *D. funebris*, but with the rump and lower back entirely black, without any white subterminal spots on the feathers. Total length 8 inches, wing 3·3, tail 3·5.

Hab. Kipini, East Africa.

3. Dryoscopus funebris.

Dryoscopus funebris, *Hartl. P. Z. S.* 1863, p. 105; *Scl. ibid.* 1864, p. 109; *Heugl. Orn. N.O.-Afr.* pp. 46, cxvii.
Laniarius funebris, *Finsch & Hartl. Vög. Ostafr.* p. 352, Taf. iv. fig. 2.
Laniarius atrocæruleus, *Rüpp. in Mus. Brit.*

General colour slaty black; wings, wing-coverts, and tail glossy black, with a greenish lustre; the long fluffy feathers of the rump slaty grey, mottled with large white subterminal spots; feet and bill black. Total length about 8 inches, culmen 0·9, wing 3·4, tail 3·5, tarsus 1·25.

Hab. Interior of East Africa (*Speke*); Abyssinia (*Rüppell*).

a. Ad. sk.	Abyssinia.	Dr. Rüppell [C.]. (Named *Laniarius atrocæruleus*.

4. Dryoscopus lugubris.

Rhynchastatus lugubris, *Cab. in Von der Decken's Reis.* iii. p. 26, t. vii.
Laniarius lugubris, *Finsch & Hartl. Vög. Ostafr.* p. 356.
Dryoscopus lugubris, *Fischer & Reichen. J. f. O.* 1878, p. 259, 1879, p. 346.

The four specimens of this species in the Berlin Museum are exactly like *D. funebris* in colour, but differ from the latter by being of a considerably smaller size. Total length about 6·7 inches, culmen 0·8, wing 3, tail 2·7, tarsus 1·6.

Hab. East Africa (*V. d. Decken*).

5. Dryoscopus luehderi.

Laniarius luehderi, *Reichen. J. f. O.* 1874, p. 101; *id. J. f. O.* 1875, p. 28.
Dryoscopus coronatus, *Sharpe, P. Z. S.* 1874, p. 205, pl. xxxiii. fig. 2.

Adult male. Above black, with a glossy greenish lustre; scapulars and quills entirely black, except two or three of the inner secondaries, which are externally edged with white; the greater wing-coverts broadly tipped with white, forming a wing-band, which is continued down the wing; upper tail-coverts and tail entirely black; head and nape chestnut; forehead and a narrow superciliary line fulvous; lores, sides of face, and ear-coverts glossy black; cheeks and entire throat and breast clear chestnut-fawn colour; abdomen, thighs, sides of body, and under wing-coverts and tail-coverts pure white; bill and feet black; "iris dark reddish brown" (*Reichenow*). Total length 7·2 inches, culmen 0·9, wing 3·65, tail 3·6, tarsus 1·3.

Hab. Camaroons and Gaboon.

a. ♂ ad. sk.	River Danger, Gaboon.	H. T. Ansell, Esq. [P.]. (Type of *D. coronatus.*)

6. Dryoscopus angolensis.

Dryoscopus angolensis, *Hartl. P. Z. S.* 1860, p. 111; *id. J. f. O.* 1861, p. 172.
Laniarius angolensis, *Gray, Hand-l. B.* i. p. 397, no. 6027; *Finsch & Hartl. Vög. Ostafr.* p. 342.

Adult [?] (type of species). General colour slaty grey, rather lighter than the rump; upper tail-coverts slaty grey; tail-feathers brown, the centre feathers grey, with numerous very faint dusky cross bars; wing-coverts rather browner than the back, but shaded with the same slaty grey; quills dark brown, edged with lighter brown, some of them with grey; entire crown, nape, hind neck, and sides of the latter blue-black; throat, cheeks, and ear-coverts white, the upper edge of the latter blue-black; rest of under surface of body pale ashy, inclining more to pale blue-grey on the flanks, the thighs and under tail-coverts whiter; under wing-coverts whitish ash-colour, as also the inner lining of the quills; bill black; "feet light reddish; iris dark blue, the pupil dark blue or black" (*Monteiro*). Total length 7 inches, culmen 0·8, wing 3·2, tail 2·9, tarsus 0·92.

Hab. Interior of Angola.

a. Ad. sk.	Bembe, Angola, May 5, 1858.	J. J. Monteiro, Esq. [C.]. (Type of species.)

7. Dryoscopus rufiventris.

Le Boubou, *Levaill. Ois. d'Afr.* pl. 68 (*nec* Boulboul, *Lath.*).
Malaconotus rufiventris, *Swains. Class. B.* ii. p. 220 (*ex Levaill.*).
Laniarius boulboul, *Gray, Gen. B.* i. p. 299; *id. Hand-l. B.* i. p. 398, no. 6040; *Ayres, Ibis*, 1864, p. 351; *Gurney, Ibis*, 1868, p. 159; *Ayres, Ibis*, 1876, p. 430, & 1879, p. 400.
Laniarius ferrugineus, *Sundev. Krit. Framst., Levaill.* p. 31 (1857); *Layard B. S. Afr.* n. 325 (*see also Gurney, Ibis*, 1868, p. 160, note); *Sharpe, ed. Layard B. S. Afr.* p. 393.

Malaconotus boulboul, *Cab. Mus. Hein.* i. p. 69 (pt.).
Dryoscopus boulboul, *Bp. Consp.* i. p. 361; *Sharpe, Cat. Afr. B.* p. 48; *Shelley, Ibis*, 1875, p. 77; *Barratt, op. cit.* 1876, p. 204.
Malaconotus ferrugineus, *Grill, Zool. Anteck.* p. 32.
Laniarius rufiventris, *Finsch & Hartl. Vög. Ostafr.* p. 344.
Dryoscopus rufiventris, *Heugl. Orn. N.O.-Afr.* pp. 344, cxvii.

Adult male. General colour above black, with a very slight greenish gloss; the lores, feathers round the eye, and ear-coverts black, uniform with the crown; wing-coverts black, the median series and some of the greater inner coverts externally broadly edged or tipped with white, forming a bar across the wing, two of the secondary quills having likewise white edges, forming a longitudinal bar down the wing; remainder of quills black; lower back fluffy, mottled with subterminal oval spots of whitish; the rump-feathers tipped with light orange-buff; upper tail-coverts and tail black; cheeks and under surface of body creamy white with a pinkish tinge, deepening into fawn-buff on the abdomen, flanks, thighs, and under tail-coverts; under wing-coverts and axillaries light fawn-buff, edge of wing and the smaller coverts near the edge of the wing black; "bill dull black; legs grey; iris dark brown" (*Shelley*). Total length about 8 to 9 inches, culmen 0·95, wing 3·8 to 4, tail 3·8 to 4·1, tarsus 1·45.

Adult female. Dark ashy brown where the male is black; under surface of body deep fawn-colour, paler on the throat. Total length 7·7 inches, culmen 0·95, wing 3·70, tail 3·7, tarsus 1·35.

Young. Dark ashy brown, like the old female, but mottled with cross bars of blackish and sandy buff; wing-coverts mottled like the back; quills externally brownish, the secondaries edged with buffy white; tail-feathers brown, tipped with sandy buff, the feathers subterminally mottled with narrow dark brown zigzag markings; ear-coverts blackish, streaked longitudinally with sandy buff; under surface of body orange-buff; the throat whitish, barred across with dusky greyish brown, as also on the breast and flanks; under wing-coverts orange-buff, the quills ashy below, fulvous along the edge of the inner webs; "bill horn-colour, fading into white at base of lower mandible" (*Shelley*).

Hab. South Africa, ranging through Natal into the Transvaal.

a. ♂ ad. st.	South Africa.	South-African Museum.
b. ♀ ad. st.	South Africa.	Major-Gen. Hardwicke [P.].
c. ♀ ad. st.	South Africa.	Dr. Kness [P.].
d. Pull. st.	South Africa.	Rev. H. T. Phillips [P.].
e. ♂ ad. sk.	South Africa (*Layard*).	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Cape of Good Hope (*J. Macgillivray*).	Voy. of H.M.S. 'Rattlesnake.'
g. ♀ ad.; *h*. Juv. sk.	Knysna, Dec. 1865 (*Andersson*).	R. B. Sharpe, Esq.
i. Juv. sk.	S.E. Africa.	John Rocke, Esq. [P.]
k. Juv. sk.	Eland's Post (*T. C. Atmore*).	R. B. Sharpe, Esq.
l. ♂ ad. sk.	Kingwilliamstown.	Capt. H. Trevelyan [P.].

m. ♂ juv. sk.	Chalumna river, British Caffraria, June 11, 1877.	Capt. H. Trevelyan [P.].
n. ♂ ad. sk.	Natal.	Dr. Gueinzius [C.].
o. Ad. sk.	Crocodile River, July (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].

8. Dryoscopus sticturus.

Laniarius, n. sp., *Kirk*, *Ibis*, 1864, p. 318.
Laniarius sticturus, *Hartl. & Finsch*, *Vög. Ostafr.* p. 342, Taf. v. fig. 1; *Gray*, *Hand-l. B.* i. p. 398, no. 6042; *Gurney in Anderss. B. Dam. Ld.* p. 146; *Bocage*, *Jorn. Lisb.* 1875, p. 104, 1877, p. 67; *Sharpe*, *ed. Layard B. S. Afr.* p. 391.
Dryoscopus sticturus, *Sharpe & Bouvier*, *Bull. Soc. Zool. France*, 1876, p. 46.
? Dryoscopus neglectus, *Bocage*, *Orn. Angola*, p. 230 (1877); *Sharpe*, *l. c.* p. 391.

Very similar to *D. rufiventris* in general distribution of colours; but the following differences suffice to separate this form:—All the upper parts glossy are black, most of the feathers of the lower back and rump with conspicuous white subterminal spots; rump scarcely tipped or washed with fawn-colour; lower parts paler than in *D. rufiventris*, of a creamy buff colour, paler and more pinkish on the cheeks and throat; abdomen, thighs, and under tail-coverts rather more richly coloured, like the under wing-coverts; some feathers near the edge of the wing forming a black spot like the edge itself.

A young male, almost adult, moulting, has all the brownish-black feathers of the upper parts narrowly edged with buff; chest and throat white, variegated with very irregular faint grey bars.

	Culmen. in.	Wing in.	Tail. in.	Tarsus. in.
♂	0·9	3·7	4·0	1·25
♂	1·0	3·55	3·8	1·35
♀	0·9	3·50	3·6	1·30

Hab. Replaces the foregoing in the Eastern Transvaal up to the Zambesi and on the west from Damara Land to the Congo.

a. ♂ ad. sk.	Lydenburg, Oct. 6, 1874.	F. A. Barratt, Esq. [P.].
b. [♀] ad. sk.	Lydenburg.	F. A. Barratt, Esq. [P.].
c. ♂ ad.; *d*, *e.* ♂ imm. sk.	Tete, Zambesi (*Sir J. Kirk*).	Livingstone Exped. [C.].
f. Ad. sk.	Shupanga, Zambesi, Dec. 1862 (*Sir J. Kirk*).	Livingstone Exped. [C.].
g. Ad. sk.	Makalaka country.	Dr. Bradshaw [C.].
h. ♂ imm. sk.	Landana, Congo.	M. L. Petit [C.].

9. Dryoscopus major.

Laniarius major, *Hartl. Beitr. Orn. W.-Afr.* p. 51; pl. 5 (1848), *Gray*, *Hand-l. B.* i. p. 398, no. 6041; *Finsch & Hartl. Vög. Ostafr.* p. 344, note; *Reichen. J. f. O.* 1874, p. 26, 1875, p. 24, 1877, p. 24; *Bocage*, *op. cit.* 1876, p. 715; *Sharpe*, *ed. Layard B. S. Afr.* p. 391.
Telephonus major, *Hartl. Rev. Zool.* 1848, p. 108; *Bp. Consp.* i. p. 361.

Dryoscopus major, *Hartl. Orn. W.-Afr.* p. 111; *id. J. f. O.* 1861, p. 172; *Heine, op. cit.* 1860, p. 134; *Sharpe, Ibis*, 1869, p. 190; *Shelley, op. cit.* 1872, p. 288; *Ussher, op. cit.* 1874, p. 63; *Boc. Orn. d'Ang.* p. 228 (1877).
Dryoscopus mossambicus, *Reichen. J. f. O.* 1880, p. 141.

Adult. General colour above glossy blue-black, the scapulars and feathers of the lower back and rump mottled with large ovate spots of white; basal half of all the feathers grey; least wing-coverts like the back, the median series pure white, with blackish-brown bases, as also the innermost of the greater series; all the rest of the wing-coverts and primary-coverts entirely black; quills black, with two of the inner secondaries externally edged with white, forming a narrow white line down the wing; upper tail-coverts and tail entirely black; lores, sides of face, and ear-coverts black; cheeks and under surface of body pure white, with a faint pinkish blush on the breast and flanks; under tail-coverts always white; under wing-coverts white, the small ones and the edge of wing black; quills ashy black below; "bill and feet black; iris dark" (*Reichenow*). Total length 8·5 inches, culmen 0·95, wing 4·15, tail 4, tarsus 1·4.

Obs. Specimens not fully adult have the sides of breast, flanks, and thighs more creamy white; quills blackish brown; scapulars and wing-coverts narrowly tipped with whitish. One specimen from the Gaboon has *one* of the outer tail-feathers, a specimen from Fantee the two outer pairs of the tail-feathers, conspicuously tipped with white. The amount of white on the outer web of the secondaries is subject to much variation in *D. major* and in the allied species.

Hab. West Africa, from the Gold Coast to the Congo, and extending across the continent to East Africa.

a. Ad. sk.	West Africa.	F. D. Godman and O. Salvin, Esqrs. [P.].
b. Ad. sk.	Ashantee.	J. Gould, Esq.
c. Ad. sk.	Fantee (*Ussher*).	R. B. Sharpe, Esq.
d, e. Ad. sk.	Fantee (*Aubinn*).	R. B. Sharpe, Esq.
f. Ad. sk.	Accra (*Smith*).	R. B. Sharpe, Esq.
g. Ad. sk.	Abeokuta.	F. Nicholson, Esq. [P.].
h. Ad. sk.	Gaboon.	M. Marche [C.]
i, k. Ad. sk.	Landana, Congo.	Dr. Lucan [C.].
l, m. Ad. sk.	Quilombo, Angola, June 1878 (*A. Heath*).	R. B. Sharpe, Esq. [P.].

Subspecies *a*. Dryoscopus guttatus.

Dryoscopus guttatus, *Hartl. P. Z. S.* 1865, p. 86; *Bocage, Jorn. Lisb.* 1867, pp. 138, 333, 1868, p. 43; *Sharpe, ed. Layard B. S. Afr.* p. 392.
Laniarius guttatus, *Finsch & Hartl. Vög. Ostafr.* p. 345, note; *Gray, Hand-l. B.* i. p. 397, no. 6030.
Dryoscopus major (pt.), *Sharpe, Cat. Afr. B.* p. 47; *Bocage, Jorn. Lisb.* 1875, p. 104, 1877, p. 67; *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 46; *Bocage, Orn. Angola*, p. 228.
Laniarius major, *Gurney, in Anderss. B. Dam. Ld.* p. 145.
Dryoscopus, sp., *Bocage, Jorn. Lisb.* 1875, p. 104.
? Dryoscopus neglectus, *Boc. Orn. d'Ang.* p. 230 (1877).

Adult. This form seems to represent *D. major* in the south-western parts of Africa. All the specimens from Benguela and Angola are very similar to *D. major*, but differ from this species in the following points:—(1) The fluffy feathers of the rump have very large pure white tips, which together form a conspicuous white patch on the sides of the rump; the fluffy feathers of the lower back have subterminal white spots, but rather broad black tips, as in *D. major*. (2) In almost all the southern specimens there are *three* of the secondaries externally edged with white, though the specimen described by Hartlaub as the type has only two secondaries edged with white; whole under surface of body pure white.

Obs. The typical specimen is not fully grown, as is shown by the state of the quills.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
Capangombe	8·8	1·0	3·8	4·1	1·45
Lake N'gami	8·3	0·87	4·0	4·2	1·46
Benguela	8·6	0·9	3·7	3·8	1·4
Cunene	8·3	0·9	4·1	4·2	1·35

Hab. S.W. Africa: Congo and Angola as far as Damara Land, and eastwards to Lake N'gami.

Obs. One fully-grown male specimen from the Cunene river and another from Lake N'gami have the two feathers of the outermost pair of the tail-feathers just tipped with white. Of two others, however, collected by Dr. Bradshaw near the Zambesi, one has the outer pair of tail-feathers slightly, the other one conspicuously edged with white on the outer webs.

a. Ad. sk.	Benguela.	J. J. Monteiro, Esq. [C.]. (Type of species.)
b. ♂ ad. sk.	Capangombe (*Anchieta*).	R. B. Sharpe, Esq.
c. ♂ ad. sk.	Benguela (*Anchieta*).	R. B. Sharpe, Esq.
d. ♂ ad. sk.	Cunene river, June 26, 1867 (*Andersson*).	R. B. Sharpe, Esq.
e, f, g. Ad. sk.	Lake N'gami (*Chapman*).	R. B. Sharpe, Esq.
h, i. Ad. sk.	Makalaka country.	Dr. F. Bradshaw [C.].

10. Dryoscopus bicolor.

Dryoscopus bicolor, *Hartl. Orn. Westafr.* p. 112 (*ex Verr. MS.*); *id. J. f. O.* 1860, p. 102.
Dryoscopus major, *Cass. Pr. Philad. Acad.* 1859, p. 54 (*nec Hartl.*); *Hartl. J. f. O.* 1861, p. 172.
Dryoscopus picatus, *Hartl. P. Z. S.* 1867, p. 826; *Finsch & Hartl. Vög. Ostafr.* p. 355, note.
Laniarius bicolor, *Gray, Hand-l. B.* i. p. 397, no. 6026; *Finsch & Hartl. t. c.* p. 344, note; *Reichenow, J. f. O.* 1877, p. 24.
Laniarius picatus, *Gray, t. c.* no. 6032.

Adult. Above glossy blue-black, the scapulars uniform black; the feathers of the rump mottled with concealed subterminal

spots of white; upper tail-coverts, tail, greater wing-coverts, and quills entirely black; median coverts pure white, as also the outer web of the inner greater coverts; lores, sides of face, and ear-coverts black; cheeks and entire under surface of body pure white; under wing-coverts and axillaries white, those near the edge of the wing and the outermost of the lower coverts black; quills ashy black below; bill and feet black.

Total length.	Culmen.	Wing.	Tail.	Tarsus.
in.	in.	in.	in.	in.
7·5	1·0	3·7	3·6	1·3
8·0	1·05	3·9	3·6	1·45

Hab. Gaboon.

Obs. As in the case of the allied species of *Dryoscopus*, such as *D. major* and *D. guttatus*, there is some slight variation; one specimen from Gaboon has a whitish tip to the outer tail-feather, and this is accompanied by a single white-edged secondary: these peculiarities are either signs of immaturity or remains of winter plumage.

a. Ad. sk.	Gaboon (*Du Chaillu*).	R. B. Sharpe, Esq.
b. Ad. sk.	Gaboon (*Walker*).	R. B. Sharpe, Esq.

11. Dryoscopus æthiopicus.

Merle noir et blanc d'Abyssinie, *Buff. Hist. Nat. Ois.* iii. p. 406.
Ethiopian Thrush, *Lath. Gen. Syn.* ii. p. 78; *id. Ind. Orn.* p. 537.
Turdus æthiopicus, *Gm. Syst. Nat.* i. p. 824.
Lanius æthiopicus, pt., *Bonn. et Vieill. Enc. Méth.* p. 731; *Rüpp. Abyss. Wirbelth.* p. 32.
Telephorus æthiopicus, *Rüpp. Neue Wirbelth.* p. 32; *id. Syst. Uebers.* no. 222, p. 50, Taf. 23; *Heugl. Syst. Uebers.* p. 34; *Brehm, Reis. nach Habesch*, pp. 215, 312.
Lanius boulboul, *Des Murs, in Lefebvr. Voy. Abyss., Zool.* p. 100 (*nec Latham*); *Heugl. Faun. roth. Meer.* no. 134.
Dryoscopus æthiopicus, *Bp. Consp.* i. p. 361; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 173; *Finsch, Tr. Z. S.* vii. p. 255; *Kirk, Ibis*, 1864, p. 319; *Blanf. Geol. and Zool. Abyss.* p. 340; *Sharpe, Cat. Afr. B.* p. 48; *Heugl. Orn. N.O.-Afr.* pp. 458, cxvii; *id. J. f. O.* 1864, p. 254.
Malaconotus æthiopicus, *Cab. Mus. Hein.* Th. i. p. 69; *Bp. C. R.* xxxviii. p. 534.
Dryoscopus cubla, *Antin. Cat. descr. Ucc.* p. 55 (*nec* $^{S}_{ha_{w}}$); *Salvad. Rivist. Cat. Antin.* p. 737.
Laniarius æthiopicus, *Gray, Hand-l. B.* i. p. 397, no. 6022; *Finsch & Hartl. Vög. Ostafr.* p. 343; *Salvad. & Antin. Ann. Mus. Civic. Genov.* iv. p. 445.

Adult. Above glossy blue-black, scapulars and the rump-feathers mottled with large but concealed spots of white; upper tail-coverts and tail entirely black; least wing-coverts like the back, the median series white; primary and greater coverts black, the innermost of the latter pure white, with a certain concealed amount of black on the inner web; quills entirely black; cheeks and under surface of

body white, with a distinct pinkish tinge on the breast and flanks; under wing-coverts white, those near the edge of the wing black, like the edge itself; "bill black; feet dusky lead-colour; iris chestnut" (*Heuglin*).

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
	9·2	0·95	4·0	4·0	1·35
♂	8·7	0·85	4·0	4·0	1·35
♀	8·2	0·90	3·8	4·0	1·35

Obs. The female specimen from the Anseba has a few pure white feathers on the forehead near the bill and the nostrils; the outer web of one of the secondaries on the right wing is moreover very faintly edged with white. The fine fully grown specimen from Bogos has also one of the secondaries of the right wing edged with white on the middle third of the outer web.

Hab. N.E. Africa.

a.	Ad. sk.	Bogos Land (*Esler*).	R. B. Sharpe, Esq.
b.	♀ ad. sk.	Anseba valley, July 30, 1868.	W. T. Blanford, Esq. [C.].
c.	♂ ad. sk.	Senafe, Tigré, May 27, 1868.	W. T. Blanford, Esq. [C.].
d.	Ad. sk.	Abyssinia.	Purchased.
e.	Ad. sk.	Abyssinia.	Sir W. C. Harris [C.].

12. Dryoscopus turatii.

Dryoscopus turatii, *Verr. Rev. et Mag. de Zool.* 1858, p. 304, pl. 7; *Hartl. J. f. O.* 1861, p. 172.

Laniarius turatii, *Gray, Hand-l. B.* i. p. 397, no. 6029; *Finsch & Hartl. Vög. Ostafr.* p. 348.

Adult. General colour above, including the scapulars, hind neck and head, and the whole back, black; wings, wing-coverts, and tail entirely black; the long fluffy feathers of the rump with white oval subterminal spots; chin, cheeks, throat, and breast whitish isabelline, with a slight rosy tinge; abdomen, flanks, thighs, and under tail-coverts pure white; "bill black; feet lead-colour, claws dark olive" (*Verreaux*). Total length 8·5 inches, culmen 0·95, wing 4·1, tail 4·1, tarsus 1·5.

Hab. Senegambia.

13. Dryoscopus sublacteus.

Dryoscopus sublacteus, *Cass. Pr. Philad. Acad.* 1851, p. 246 (*nec Verr.*); *Bp. C. R.* xxxviii. p. 535; *Hartl. Orn. W.-Afr.* p. 111 (pt., *teste Hartl.*); *id. P. Z. S.* 1867, p. 825; *Fischer, J. f. O.* 1877, p. 207; *id. & Reichenow, op. cit.* 1878, p. 259, 1879, p. 346.

Malaconotus sublacteus, *Cab. in Von der Decken's Reise*, iii. p. 28, Taf. iv.

Laniarius sublacteus, *Finsch & Hartl. Vög. Ostafr.* p. 347; *Gray, Hand-l. B.* i. p. 397, no. 6021.

Adult male. Above, including the head, wings, and tail glossy

black; the long fluffy feathers of the rump with white subterminal concealed spots; no trace of white on the wing-coverts or scapulars; the whole under surface of the body slightly isabelline; under wing-coverts white, slightly tinged with isabelline; near the edge of the wing black, forming a patch; quills below dusky black; "bill black; feet lead-colour."

Adult female. Similar to the male, but having the rump ashy grey.

Young. Above dusky black; quills externally with narrow brown margins; feathers of the lower back and rump with concealed white spots; the hindermost feathers of the rump rusty colour; the upper tail-coverts and wing-coverts narrowly edged with the same colour, forming a kind of transverse band; outermost tail-feathers tipped with pale rusty; chin, throat, and middle of abdomen white; breast, flanks, vent, thighs, and under tail-coverts somewhat rufescent. (*Finsch & Hartl.*)

The description and measurements are taken from specimens in the collection of Capt. Shelley.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
Juv.	7·5	1·0	3·34	3·6	1·2
♂	7·6	0·95	3·5	3·7	1·25

Hab. East Africa

14. Dryoscopus affinis.

Hapalophus affinis, *Gray in Charlesworth's Mag.* i. p. 489.
Laniarius affinis, *Gray, Gen. B.* i. p. 299 (1846); *id. Hand-l. B.* i. p. 397, no. 6019; *Finsch & Hartl. Vög. Ostafr.* p. 348; *Reichenow, J. f. O.* 1875, p. 28.
Dryoscopus affinis, *Bp. C. A.* i. p. 36; *Cass. Pr. Philad. Ac.* 1851, p. 246; *Bp. C. R.* xxxviii. 1854, p. 534; *Hartl. P. Z. S.* 1867, p. 825; *Cab. in v. d. Decken's Reisen*, iii. p. 25; *Hartl. Vög. Madag.* p. 196.
Dryoscopus orientalis, *Cab. Mus. Hein.* i. p. 68 (1850) (*teste Cab.*).
Dryoscopus sublacteus (*nec Cass.*), *Verr. Rev. et Mag. Zool.* 1855, p. 420; *Hartl. Orn. W.-Afr.* p. 111 (*teste Finsch & Hartl.*).
Dryoscopus affinis (*non Gray*), *Hartl. Orn. W.-Afr.* p. 111; *Cass. Proc. Philad. Acad.* 1859, p. 53; *Hartl. J. f. O.* 1861, p. 173.
Dryoscopus bojeri, *v. Pelz., Hartl. Faun. Madag.* p. 50.
Dryoscopus verreauxii, *Cab. in v. d. Decken's Reis.* iii. p. 26.
Laniarius boyeri, *Gray, Hand-l. B.* i. p. 397, no. 6032.

Eastern Race.—Adult male (type of *D. affinis*). Above glossy blue-black; scapulars also black, but some of them with concealed sub-basal white patches on the inner web; wings entirely black; upper tail-coverts and tail black, the latter with narrow white edges; lower back and rump pure white and extraordinarily fluffy; lores, feathers round the eye, and upper edge of ear-coverts black; cheeks and all the underparts of the body, including edge of wing and basal half of the inner web of the quills pure white; near the edge of the wing a small patch of blackish under-coverts; feathers of thighs

white in front, those on hinder aspect frequently with blackish bases; bill and feet black.

Female. Like the male, but with white lores and with the lower back faintly tinged with silvery grey.

Hab. Eastern Africa.

Western Race.—Specimens from the Gaboon and Congo district want the white subbasal markings on the scapulars; "feet leaden grey, iris red" (*Reichenow*).

Measurements:—Total length about 6 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Zanzibar	0·85	3·15	2·8	0·9
♂. Zanzibar	0·85	3·15	2·7	0·9
♀. Zanzibar	0·8	3·1	2·7	0·9
♂. Gaboon	0·8	3·15	2·8	0·9
♂. Gaboon	0·75	3·0	2·7	0·9
♀. Gaboon	0·70	2·95	2·6	0·9

A. *Eastern Race.*

a. [♂] ad. sk.	Zanzibar.	Baron Laugier. (Type of species.)
b. ♂ ad. sk.	Zanzibar.	R. B. Sharpe, Esq.
c. [♀] imm. sk.	Zanzibar.	Sir J. Kirk [C.].

B. *Western Race.*

a. [♀] ad. sk.	River Danger, Gaboon.	H. T. Ansell, Esq. [P.].
b. [♂] ad. sk.	Gaboon.	MM. Marche et De Compiègne [C.].
c. [♂] ad. sk.	Gaboon.	
d. [♂] ad. sk.	Congo.	Dr. Lucan [C.].
e. [♂] ad. st.	West Africa.	Purchased.

15. Dryoscopus hamatus.

Dryoscopus hamatus, *Hartl. P. Z. S.* 1863, p. 106; *Sel. P. Z. S.* 1864, p. 109; *Heugl. Orn. N.O.-Afr.* pp. 460, cxvii.

Laniarius hamatus, *Gray, Hand-l. B.* i. p. 397, no. 6028; *Finsch & Hartl. Vög. Ostafr.* p. 350.

This bird, of which only one specimen is known (collected by Capt. Speck at Uniamesi), is very similar to *D. affinis*, but differs from it in two points:—The white colour is restricted to the rump, and does not extend over the lower back; the wing-coverts and most of the quills are edged with white. "Above black, with a certain steel gloss; feathers of the rump long and silky white; all the underparts are pure white; upper wing-coverts and quills, the first and second excepted, are edged with white; bill slender, gradually compressed, notched and toothed; bill and feet black. Bill 0·8, wing 3, tail 2·5, tarsus 0·9 inch." (*Hartlaub.*)

Hab. Uniamesi.

16. Dryoscopus sabinei.

Thamnophilus sabinei, *J. E. Gray, Zool. Misc.* i. p. 6.
Chaunonotus sabinei, *J. E. Gray, Mag. Nat. Hist.* new series, i. p. 487; *Jard. Illustr. Orn.* iv. pl. 27; *Hartl. Orn. Westafr.* pp. 113, 273; *Gray, Hand-l. B.* i. p. 396, no. 6004; *Sharpe, Ibis*, 1869, p. 190; *id. Cat. Afr. B.* p. 48.
Hapalolophus melanoleucus, *Verr. Rev. et Mag. de Zool.* 1851, p. 312; *Strickl. Contr. Orn.* 1851, p. 132.

Adult male. Head, neck, mantle, and upper tail-coverts glossy black, all the feathers with grey bases; wings and tail entirely black; lower back and rump pure white, the feathers of the former long and fluffy; lores, feathers round the eye, and ear-coverts black like the head; cheeks and entire under surface of body pure white, including the under wing-coverts; quills blackish below, the inner web broadly edged with white; "bill bluish black; feet lead-colour; iris vermillion" (*Hartl.*). Total length 7 inches, culmen 0·95, wing 3·35, tail 2·8, tarsus 0·9.

Adult female. General colour above, including the tail and the upper tail-coverts, ochraceous brown; the scapulars and least wing-coverts uniform with the back; greater series paler; quills dark brown, externally reddish ochre; crown of head and nape light grey, the ear-coverts also with white shaft-streaks; round the eye a ring of buffy-white feathers; those in front of the eye dusky grey; cheeks and whole under surface of body, under wing-coverts, axillaries, edge of wing, and inner web of quills deep rufous ochre, duller on the flanks. Total length 6·5 inches, culmen 0·9, wing 3·05, tail 2·7, tarsus 0·9.

Obs. In the Museum collection there is an immature bird which is otherwise like the adult male, but has some of the white feathers of the back strongly washed with ochraceous, and the wing-coverts and secondary quills mixed with light-brown feathers.

Hab. West Africa.

a. ♂ ad. sk.	Sierra Leone.	Capt. Sabine [P.]. (Type of species.)
b. ♂ imm. sk.	Sierra Leone.	Capt. Sabine [P.].
c, d, e. ♂ ♀ ad. sk.	Fantee.	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Enimill, Wassau, March 1872 (*Blissett*).	R. B. Sharpe, Esq.
g. ♀ ad. sk.	Accra (*Haynes*).	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Gaboon (*Walker*).	R. B. Sharpe, Esq.
i. ♀ ad. sk.	Congo.	Dr. Lucan.
k. ♂ ad. sk.	Gaboon.	
l. ♂ ad. st.	West Africa.	Purchased.

17. Dryoscopus atrialatus.

Dryoscopus atrialatus, *Cass. Pr. Philad. Acad.* 1851, p. 246; *Bp. C. R.* xxxviii. p. 535; *Hartl. Orn. W.-Afr.* p. 111, note.
Laniarius atrialatus, *Gray, Hand-l. B.* i. p. 397, no. 6024; *Finsch & Hartl. Vög. Ostafr.* p. 350.

Generally similar to *D. affinis*, but is larger, being about the size

of *D. gambensis*, and has the under wing-coverts black; entire upper surface, except the rump, deep black; underparts and rump white; wings clear black, with no white edgings or tips to either quills or coverts; tail black, shafts of feathers white at base beneath; bill black; tarsi brown; inferior wing-coverts black (white in *D. affinis*). Total length 7¼ inches, wing 4, tail 3½. (*Cassin, l. c.*)

Hab. Eastern Africa?

18. Dryoscopus salimæ.

Dryoscopus affinis, *Hartl. P. Z. S.* 1867, p. 825 (*teste Finsch & Hartl.*).

Laniarius orientalis (*nec Swains. nec Gray*), *Finsch & Hartl. Vög. Ost-afr.* p. 351 (1870) tab. v. fig. 2.

Dryoscopus orientalis, *Cab. in v. d. Decken's Reis.* iii. p. 25 (1869) (Dryoscopus leucopsis, *Cab. MS.*).

Laniarius salimæ, *Finsch & Hartl. Vög. Ostafr.* p. 349, tab. v. fig. 3 (is probably the male of *D. leucopsis*, Cab.); *Gray, Hand-l. B.* i. p. 397, no. 6033.

Dryoscopus salimæ, *Fischer & Reichenow, J. f. O.* 1878, p. 258; *Fischer, l. c.* p. 274.

Dryoscopus leucopsis, *Fischer, J. f. O.* 1878, p. 274*.

Adult male. General colour above glossy blue-black, the scapulars pure white, the longer ones black on the inner web, forming a large shoulder-patch; least wing-coverts black, the median and greater series edged with white; quills black, very narrowly edged with white, so that the primaries on their terminal half look almost entirely black; lower back and rump pure white, without any terminal greyish tinge; upper tail-coverts black; tail-feathers black, with very narrow whitish tips, the outer web of the outer pair very narrowly edged with this colour; lores, feathers round the eye, and upper edge of the ear-coverts blue-black; rest of the ear-coverts, cheeks, sides of neck, and entire under surface pure white, including the under wing-coverts and the edge of wing and the inner edge of the quills, which are dusky black below; near the edge of the wing below a small patch of blackish feathers; "bill black, feet blackish" (*Finsch & Hartl.*).

Adult female. Differs from the male in having the lores white, leaving a black spot in front of the eye, and having the lower back grey, with white terminal tips to some of the feathers, forming a band across the rump; shoulder-patch less distinct, the scapulars being dull white, all of them black on the inner web; under surface pure white.

---

* The following references I am unable to make out:—

Malaconotus orientalis, *Swains. Class. B.* ii. p. 220 (1837).

And consequently also

Laniarius orientalis, *G. R. Gray, Gen. B.* i. p. 292.
Dryoscopus orientalis, *Bp. C. A.* p. 361; *id. C. R.* xxxviii. p. 534.

Measurements :—Total length 6 to 7 inches.

	Culmen. in.	Wing in.	Tail. in.	Tarsus. in.
♂. Mombas	0·8	3·1	2·6	0·95
♀. Mombas	0·75	3·05	2·7	0·95
♂. Lamo	0·85	3·05	2·90	0·90
♀. Lamo	0·80	3·05	2·90	0·90

Obs. From specimens now in the Berlin Museum I have made the following notes:—The type specimen of *D. leucopsis*, Cab., was obtained by Baron v. d. Decken near Zanzibar. It has the wing-coverts totally black, the primary and secondary quills faintly edged with whitish; the lower back, rump, ear-coverts, cheeks, orbital, præocular region, nostrils, and all the underparts are pure white; a small grey spot in front of the eye.

A nestling, obtained by Dr. Fischer near Malindi, June 9th, is pure white below, and all the quills of the wings have broad whitish margins; supraorbital, loral, and auricular regions white.

Another bird, marked by Dr. Fischer "fem. juv.," has the loral region white, but with a faint greyish præocular spot.

An adult male (Witu: Fischer) has the loral region quite black.

The following notes are taken from birds in Capt. Shelley's collection:—

Male, moulting (from Mombas, July 4, 1877: Dr. Fischer). Wings and their coverts entirely black, except the bases of the inner webs, all the older quills being visibly abraded and showing no white margins whatever; scapulars white at base and outer web, forming a conspicuous white shoulder-patch; iris red; bill and claws black; feet leaden grey. Length of culmen 0·8 inch, wing 3, tail 2·8, tarsus 0·92.

Adult male (Lamo: J. Kirk). Like the specimen from Mombas, but the outer webs of the primaries are just visibly edged with white, so that the wing, when closed, shows a whitish hue. If we compare this bird with the old bird in moult, mentioned above, it seems that the absence or presence of these narrow white margins in the male is only a question of age of the feathers.

Female (Lamo). Has the lower back, rump, and flanks washed with grey; white lores, with a black præocular spot; most of the wing-coverts and quills are narrowly, the secondary quills and median coverts somewhat more broadly, margined with pure white.

In all these three specimens the under wing-coverts are pure white, with the exception of those near the edge of the wing, which are blackish and form a small patch.

Hab. East Africa.

a, b. ♂ ♀ ad. sk.	Mombas (*Wakefield*).	R. B. Sharpe, Esq. [P.].
c. Ad. sk.	Dar-es-Salaam, near Zanzibar.	Messrs. Moir [C.].

19. Dryoscopus gambensis*.

Lanius gambensis, *Licht. Verz. Doubl.* p. 48.
Malaconotus mollissimus, *Swains. B. W. Afr.* i. p. 240, pl. 23 (1837).
Hapalophus gambensis, *Gray in Charlesworth's Mag. Nat. Hist.* new series, i. p. 490; *Sundev. Œfvers. K. Vet.-Akad. Förh. Stockh.* 1849, p. 158.
Laniarius gambensis, *Gray, Gen. B.* i. p. 299; *id. Hand-l. B.* i. p. 397, no. 6020; *Reichnw. J. f. O.* 1877, p. 24.
Dryoscopus gambensis, *Bp. C. A.* i. p. 360; *Hartl. Orn. W.-Afr.* p. 110; *id. J. f. O.* 1861, p. 172; *Hartmann, op. cit.* 1864, p. 149; *Sharpe, Ibis*, 1870, p. 55; *Heugl. Orn. N.O.-Afr.* i. p. 456, iv. p. cxvii; *Sharpe, Cat. Afr. B.* p. 48.
Dryoscopus cubla, *Heugl. Syst. Uebers.* p. 34; *Rüpp. Syst. Uebers.* p. 62; *Brehm, Reise nach Habesch*, p. 314.
Malaconotus malzacii, *Heugl. Syst. Uebers.* p. 34 (*teste Heuglin*).

Adult male. Mantle and upper part of back, hind neck, and head above blue-black; the lower back and rump grey, with white bases to the feathers; upper tail-coverts and tail black; scapulars greyish white, with dusky blackish inner webs; least wing-coverts blackish brown, edged with grey; median and greater series black, with broad greyish-white edgings; primary-coverts and quills blackish brown, narrowly bordered with white, broader on the secondaries; lores, feathers round the eye, and ear-coverts black; cheeks and under surface of body white, slightly shaded with grey on the flanks; thighs white; under wing-coverts, edge of wing, and inner margin of the quills below white; smaller under wing-coverts ashy brown, like the quills underneath; "bill black or lead-blue, with a horny black tip; feet lead-colour; iris vermilion" (*Heuglin*). Total length 6·7 to 7 inches, culmen 0·8, wing 3·6, tail 3·3, tarsus 0·95.

Adult female. Different from the male. Above ashy brown, the head, nape, and sides of face grey, with white shaft-streaks to the ear-coverts; lores dull white; wing-coverts edged with whitish or sandy buff; quills brown, edged with sandy colour, deeper on the secondaries; tail brown, with narrow lighter-brown edges; cheeks and under surface of body reddish ochraceous, rather lighter on the abdomen and under tail-coverts; under wing-coverts reddish ochre, as also the broad edge to the inner webs of the quills. Wing 3·5 inches, tail 2·9, tarsus 0·95.

---

* Dryoscopus cinerascens.

Dryoscopus cinerascens, *Hartl. J. f. O.* 1880, p. 212.

Adult male. General colour above fuscous grey, somewhat darker on the head, which is marked with a few indistinct dark streaks; lower back paler and more grey; tail and primary quills uniform brown, the inner margin of the latter whitish; wing-coverts fuscous, the lesser and greater ones margined with white externally; throat, abdomen, and under tail-coverts pure white; breast, middle of abdomen, and under wing-coverts whitish, washed with fulvous; feet and bill leaden blue, the tip and the edges of the latter whitish; iris orange. Wing 3·5 inches, tail 3, tarsus 0·85. Only one specimen known (*Mus. Brem.*).

Hab. Lado, Sudan.

Obs. This specimen, although described as an adult male, is very probably either the female or the immature male of *D. gambensis*.

Young male. Intermediate between the adult male and female. Head and mantle and hind neck dark brown; quills brown; the white edges of the quills and the wing-coverts strongly suffused with ochraceous yellow; tail brownish black; body below white, washed with pale ochraceous; lores whitish.

Young female. More like the adult female, but generally paler and more indistinctly coloured. Back paler grey, and brownish; tail brown; under surface of body strongly washed with ochraceous.

Hab. West Africa and North-east Africa.

a. ♀ ad. st.	West Africa.	
b,c,d. ♂ ♀ ad. sk.	River Gambia.	R. B. Sharpe, Esq.
e. ♂ ad. sk.	Sierra Leone (*Fraser*).	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Fantee.	R. B. Sharpe, Esq.
g. ♂ ad. sk.	Ashantee.	J. Gould, Esq.
h. ♀ ad. sk.	River Volta, Aug. 1870 (*Ussher*).	R. B. Sharpe, Esq.
i. ♂ ad. sk.	Abeokuta.	F. Nicholson, Esq.
k. ♂ ad. sk.	River Niger (*Baikie*).	R. B. Sharpe, Esq.
l, m. ♂ ♀ ad. sk.	Landana, Congo.	Dr. Lucan [C.].
n. ♂ imm. sk.	Quilombo, Angola (*A. Heath*).	R. B. Sharpe, Esq. [P.].
o. ♂ ad.; *p.* ♂ juv. sk.	Bejook, Bogos, July 16, 1868 (*Jesse*).	R. B. Sharpe, Esq.
q, r. ♂ juv. sk.	Bogos Land (*Esler*).	R. B. Sharpe, Esq.
s. ♂ ad. sk.	Anseba valley, July 1868.	W. T. Blanford, Esq. [C.].
t. Juv. sk.	Anseba valley, July 1868.	W. T. Blanford, Esq. [C.].
u. ♂ ad. sk.	Maragaz, July 27, 1868 (*W. Jesse*).	F. D. Godman and O. Salvin, Esqrs. [P.].

20. Dryoscopus thamnophilus.

Dryoscopus thamnophilus, *Cab. in v. d. Decken's Reis.* iii. p. 26, t. viii. (1869); *Finsch & Hartl. Vög. Ostafr.* p. 358 (1870).
Laniarius thamnophilus, *Gray, Hand-l. B.* i. p. 397, no. 6035.

Very similar to, and perhaps identical with, *D. gambensis*. General colour grey, palest on the rump, abdomen, and under tail-coverts; centre of crown blackish; wings and wing-coverts black, tipped or edged with white, especially the greater coverts; centre of back slightly mottled with dingy white and blackish; tail-feathers black, the three outer pairs with narrow white tips. Length of culmen 0·8 inch, wing 2·9, tail 2·4, tarsus 0·9.

Prof. Cabanis thinks that this specimen is an immature male; and he suggested to me Madagascar as its possible home. Finsch and Hartlaub are wrong in declaring this bird to be an American *Thamnophilus*. The bill, it is true, is slightly more compressed than in the most typical forms of *Dryoscopus*; but the bill in this genus is subject to considerable variation in shape and size, as may be proved by the examination of a series of *D. cubla* alone. Moreover the bird in question has a well-developed first primary, as in the other species of *Dryoscopus*, and its tarsus is covered behind with one long scutum, whilst in *Thamnophilus* the tarsus is covered in front and behind with transverse scales. I fail to understand

how, with this important character, Finsch and Hartlaub could say that, after closer examination, all the generic characters are decidedly more in favour of *Thamnophilus* than of any other group of the genus *Laniarius* (*Dryoscopus*).

21. Dryoscopus cubla.

A. *Larger Race.*

Le Cubla, *Levaill. Ois. d'Afr.* ii. pl. 72; *Suad. Krit. Framst., Levaill.* p. 32.

Lanius cubla, *Shaw, Gen. Zool.* vii. p. 328; *Licht. Verz. Doubl.* p. 48.

Dryoscopus cubla, *Boie, Isis*, 1826, p. 973; *Bp. Consp.* i. p. 360; *id. C. R.* xxxviii. p. 534; *Cab. Mus. Hein.* i. p. 68; *Strickl. Edinb. New Phil. Journ.* ii. p. 243; *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 173; *Grill, Zool. Anteckn.* p. 10; *Gurney, Ibis*, 1862, p. 31; *id. in Anderss. B. Dam. Ld.* p. 146; *Sharpe, Cat. Afr. B.* p. 48; *Buckley, Ibis*, 1874, p. 376; *Shelley, op. cit.* 1875, p. 76; *Reichnw. J. f. O.* 1877, p. 24; *Ayres, Ibis*, 1879, p. 400.

Malaconotus similis, *Swains.* (*nec Smith*), *Two Cent. and a Quarter*, p. 342 (1838, ♀ *of* D. cubla, *Boie*).

Hapalolophus cubla, *Gray in Charlesw. Mag.* i. p. 489 (1837).

Laniarius cubla, *Gray, Gen. B.* i. p. 299; *Layard, B. S. Afr.* p. 163; *Sperling, Ibis*, 1868, p. 290; *Finsch & Hartl. Vög. Ostafr.* p. 345; *Gray, Hand-l. B.* i. p. 397, no. 6018; *Sharpe, ed. Layard B. S. Afr.* p. 392.

Dryoscopus orientalis, *Hartl. J. f. O.* 1860, p. 180.

Thamnophilus leucopygus, *Lawr. Ann. Lyc. N.Y.* viii. p. 401, *teste Salvin, Ibis*, 1874, p. 316.

B. *Smaller Race.*

Dryoscopus cubla (*non Shaw*), *Bocage, Jorn. Lisb.* 1868, p. 44, 1874, p. 38, 1876, pp. 151 & 253, 1877, p. 67; *Gurney, in Anderss. B. Dam. Ld.* p. 146; *Sharpe, P. Z. S.* 1873, p. 714; *Bocage, Orn. d'Angola*, p. 227.

Laniarius cubla, *Finsch & Hartl. Vög. Ostafr.* p. 345; *Bocage, Jorn. Lisb.* 1874, p. 56.

Dryoscopus sp., *Bocage, Jorn. Lisb.* 1872, p. 67, & 1873, p. 197.

A. *Larger Race.*

Adult male. Head, hind neck, mantle, and upper part of the back blue-black; the rump and lower back extremely fluffy, pure white except the tips of the feathers, which generally show a slight tinge of grey; upper tail-coverts and tail black, the outer tail-feathers with slight whitish tips; scapulars black, the whole outer webs white; least wing-coverts and primary-coverts black, the median series tipped and the greater series edged and tipped with white; quills black, narrowly edged with white; lores, feathers round the eye, and upper edge of ear-coverts black; cheeks, rest of ear-coverts, and the entire under surface of body greyish white, the grey shade always strongly marked; thighs grey, with dusky bases to the feathers; flanks silvery grey; edge of wing and under wing-coverts pure white, with a small patch of black feathers; quills ashy below, with white

edgings to the inner web; "bill black; feet lead-colour; iris fuscous" (*Finsch & Hartl.*).

Adult female. Similar to the male, but not so glossy black, the lower back grey instead of pure white, and distinguished at once by its white lores; the shoulder-patch of white not so distinct, the inner webs of the feathers having more black on them; under surface of body ashy white, tinged with ochraceous.

Young. Like the adult female, but browner; the rump and under surface of the body washed with ashy fulvous.

Measurements:—

	Total length. in.	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂	6·5	0·72	3·2	3·0	0·92
♂	6·3	0·75	3·25	3·0	0·95
♂	6·5	0·75	3·3	2·95	0·9
♂	6·4	0·77	3·2	2·95	0·9
♀	6·5	0·8	3·15	3·1	0·94
♀	6·4	0·78	3·1	3·05	0·95
♀	6·4	0·8	3·15	3·0	0·90

Hab. South Africa.

B. *Smaller Race.*

In the more northern parts of South Africa *D. cubla* seems to be represented by a smaller and whiter race.

Adult male. Very similar to *D. cubla*; but besides its smaller size, as shown by the following measurements, it differs from *D. cubla* in the following points:—The primary quills are very distinctly, the secondaries and greater wing-coverts rather broadly, edged with pure white; entire under surface of body almost pure white, very slightly tinged with grey on the flanks and sides of breast; under wing-coverts, axillaries, and edge of wing pure white, without the small patch of black near the edge of the wing.

Measurements:—

	Total length. in.	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Damara Land ..	6·1	0·7	3·2	2·7	0·85
♂. Tete	6·0	0·8	3·05	2·45	0·95
♂. Tete	6·0	0·8	3·05	2·75	0·92
♂. Tete	6·0	0·75	3·05	2·7	0·85
♂. Mosambique ..	6·0	0·7	3·0	2·65	0·85

Hab. South-western Africa, ranging across into the Zambesi and Mosambique.

Obs. The specimen from Damara Land has the long wing and the more greyish tinge of *D. cubla*, but all the other marks characteristic of the species described above.

A. *Larger Race.*

a. [♀] ad. sk.	S. Africa (*Layard*).	R. B. Sharpe, Esq.
b. ♀ ad. sk.	Knysna, Jan. 16, 1866 (*Andersson*).	R. B. Sharpe, Esq.

c. [♀] ad. sk.	Port Elizabeth.	R. B. Sharpe, Esq.
d. ♂ ad. sk.	Eland's Post (*T. C. Atmore*).	R. B. Sharpe, Esq.
e. [♂] ad. sk.	Port Natal.	R. B. Sharpe, Esq.
f, g. [♂] ad. sk.	Crocodile River (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].

B. *Smaller Race.*

a. ♂ ad. sk.	Elephant Vley, Damara Ld., Sept. 16, 1859 (*C. J. Andersson*).	R. B. Sharpe, Esq.
b, c, d. [♂] ad. sk.	Tete, Zambesi (*Sir J. Kirk*).	Livingstone Expedition [C.].
e. ♂ ad. sk.	Mosambique.	Purchased.
f. ♂ ad. sk.	Makalaka country.	Dr. R. F. Bradshaw [C.].

22. Dryoscopus tricolor.

Laniarius (Dryoscopus) tricolor, *Cab. & Reichen. J. f. O.* 1877, p. 103; *Reichen. op. cit.* 1877, p. 24.

Adult female (Chinchoxo; Falkenstein: type of species). Entire head and hind neck glossy blackish, extending onto the mantle and scapulars, which are dusky grey; least wing-coverts dusky grey; median and greater coverts ashy brown, edged with blackish, some of those near the centre of the series externally margined with whitish; quills dusky brown, with narrow margins of hoary grey, not very pronounced; entire back below the mantle, and rump, pure white; upper tail-coverts ashy grey, tipped with white; tail-feathers blackish, tipped with a narrow line of white on some of the outer ones; nasal plumes, lores, feathers round the eye, and sides of face white, the ear-coverts tipped with black like the adjoining sides of the neck; rest of under surface of the body white, including the thighs, under wing-coverts, and inner edges to the quills, which are otherwise ashy brown below; "iris clear red" (*Falkenstein*). Total length 6·5 inches, culmen 0·7, wing 3·05, tail 2·7, tarsus 0·9. (*Mus. Berol.*)

Hab. Congo district, Western Africa.

11. LANIARIUS.

	Type.
Laniarius, *Vieill. Analyse*, p. 41, no. 128 (1816)	L. barbarus.
Pelicinius, *Boie, Isis*, 1826, p. 973	L. bachakiri.
Malaconotus, *Swains. Zool. Journ.* iii. p. 163 (1827)..	L. poliocephalus.
Telophorus, *Swains. Faun. Bor.-Am.* p. 481 (1831)..	L. bachakiri.
Meristes, *Reichb.* (*nec Bp.*), *Av. Syst. Nat.* pl. lxx. (1850)	L. olivaceus.
Archolestes, *Cab. Mus. Hein.* i. p. 71 (1850)	L. olivaceus.
Chlorophoneus, *Cab. op. cit.*	L. rubiginosus.
Rhodophoneus, *Heugl. MS.*	L. cruentus.

Bill generally very stout, strongly hooked and notched; nostrils

non-operculated, oval, in front of a more or less coriaceous groove, exposed; rictal bristles present, but hardly any nasal bristles. First primary two thirds of the next one in length; wings much rounded, the tip being formed by the fourth to sixth, or even fifth to seventh primaries. Tail equal to or slightly longer than wing, graduated. Tarsus covered with transverse scales anteriorly. Colour of bill jet-black. The sexes are coloured alike. Always either red or green in the plumage, the principal colours being green, red, and yellow, whilst blue is excluded. Length of wing from 3·4 to 4·5 inches.

Range. Confined to Africa.

Key to the Species.

a. Lower back pink, rest of back light brownish .. *cruentus*, p. 152.
b. Tail, back, and wings black.
  a'. Wings with a longitudinal white bar; head black.
    a''. Body below crimson ..... *atrococcineus*, p. 152.
    b''. Body below orange-red ..... *atrocroceus*, p. 153.
  b'. Wings entirely black; under tail-coverts buff.
    c''. Head yellow ..... *barbarus*, p. 153.
    d''. Head black ..... *erythrogaster*, p. 154.
c. Lower back and outer webs of quills green.
  c'. Tail and secondaries with large yellow tips.
    e''. Wing exceeding 4 inches in length; size large.
      a'''. Underparts orange; tail with a black subterminal band.
        a^4. Upper back green ..... *hypopyrrhus*, p. 155.
        b^4. Upper back grey ..... *poliochlamys*, p. 155.
      b'''. Underparts yellow; tail without a black subterminal band ..... *poliocephalus*, p. 156. / *monteiri*, p. 157.
    f''. Wing less than 4 inches in length; size small.
      c'''. Breast and throat black ..... *melanothorax*, p. 157.
      d'''. Breast and throat washed with crimson. *multicolor*, p. 158.
      e'''. All the underparts lemon-yellow, a faint orange band across the chest ..... *sulfureipectus*, p. 159.
  d'. Central pair of tail-feathers black; quills without yellow tips; wing about 3 inches in length; small birds.
    g''. Abdomen white; head grey..... *rubiginosus*, p. 160.
    h''. Abdomen yellow; head green ..... *olivaceus*, p. 161.
  e'. With a sharply defined black crescent on the chest.
    i''. Head grey; throat and breast yellow .... *bakbakiri*, p. 162.
    k''. Head green; throat crimson.
      f'''. Breast, abdomen, and vent yellow .... *quadricolor*, p. 164.
      g'''. Vent and middle of abdomen and of breast chestnut-red, rest of breast green. *viridis*, p. 165.

1. Laniarius cruentus.

Lanius cruentus, *Hempr. & Ehrenb. Symb. Phys.* fol. C. tab. iii.
Laniarius cruentatus, *Rüpp. Neue Wirbelth.* p. 32; *Gray, Gen B.* i. p. 298; *Bp. C. A.* i. p. 359; *Heugl. Syst. Uebers.* p. 34; *Blyth, Rep. Coll. Somali Co.* 6; *Scl. Ibis*, 1860, p. 247; *Brehm, Reis. Habesch*, pp. 215, 317; *Heugl. J. f. O.* 1867, p. 293.
Malaconotus roseus, *Jard. et Selby, Ill. Orn.* iv. pl. xxx.
Telephonus cruentus, *Licht. Nomencl.* p. 11.
Telephonus pictus, *Licht. t. c.* p. 11.
Telephonus cruentatus, *Bp. C. R.* xxxviii. p. 534.
Laniarius cruentus, *Gray, Hand-l. B.* i. p. 396, no 6010; *Finsch et Hartl. Vög. Ostafr.* p. 354; *Finsch, Tr. Z. S.* vii. p. 256; *Blanf. Geol. & Zool. Abyss.* p. 342.
Dryoscopus cruentatus, *Heugl. Orn. N.O.-Afr.* i. p. 462.
Dryoscopus cruentus, *Heugl. l. c.* iv. p. cxvi.
Rhodophoneus cruentus, *Antinori et Salvad. Viagg. Bogos*, p. 85.

Adult male. General colour light ashy brown, slightly washed with rose-colour on the head; lower back bright pink; wing-coverts and quills light ashy brown, edged with grey; two central tail-feathers like the back and the upper tail-coverts, rest of the tail-feathers black with large white terminal spots; lores white; round the eye aring of whitish plumes; cheeks whitish; throat and fore neck bright pink colour; rest of under surface bright fawn-colour, the centre of the breast and abdomen white; under wing-coverts fawn-colour like the sides of the body; quills underneath light brown, internally edged with fulvous; edge of wing white; "bill blackish; feet light lead; iris greyish violet." Total length 9 inches, culmen 0·85, wing 3·6, tail 4·8, tarsus 1·25.

Adult female. Similar to the male, but distinguished by its black gorget, a line of black feathers running down the cheeks on each side, and united to a large patch on the lower throat, below which is a patch of rose-colour. Total length 8·5 inches, wing 3·6, tail 4·5, tarsus 1·25.

Hab. North-eastern Africa.

a, b. ♂ ♀ ad. st.	Abyssinia.	Dr. Rüppell [C.].
c. ♀ ad. sk.	Koomaylee, Feb. 2, 1868.	W. T. Blanford, Esq. [C.].
d. ♂ ad. sk.	Amba, Sambar, Aug. 18, 1868.	W. T. Blanford, Esq. [C.].

2. Laniarius atrococcineus.

Lanius atrococcineus, *Burchell, Zool. Journ.* i. p. 461, pl. 28.
Malaconotus atrococcineus, *Swains. Zool. Illustr.* 2nd series, pl. 76; *Cab. Mus. Hein.* Th. i. p. 69.
Laniarius atrococcineus, *Gray, Gen. B.* i. p. 298; *Bp. Consp.* i. p. 359; *Layard, B. S. Afr.* p. 163; *Finsch & Hartl. Vög. Ostafr.* p. 353; *Gray, Hand-l. B.* i. p. 369, no. 6011; *Gurney, in Anders. B. Dam. Ld.* p. 144; *Buckley, Ibis*, 1874, p. 376; *Barratt, op. cit.* 1876, p. 204; *Bocage, Orn. d'Angola*, p. 226; *Sharpe, ed. Layard B. S. Afr.* p. 389.

Adult male. General colour above glossy blue-black, the rump

with concealed subterminal spots of greyish white; sides of face and sides of neck blue-black like the head; wings black, the median and some of the greater coverts white, the innermost greater coverts and three of the secondaries white on their outer webs, forming a conspicuous longitudinal bar down the wing; tail entirely black; entire under surface of body brilliant scarlet, the thighs and under wing-coverts black; "bill and legs black; iris dark hazel" (*T. E. Buckley*). Total length 8·2 inches, culmen 0·8, wing 4·05, tail 4, tarsus 1·3.

Adult female. Similar to the male but not so richly coloured. Total length 8 inches, wing 3·7, tail 3·7, tarsus 1·3.

Young. Mottled with bars of ashy grey and blackish below, many of the feathers of the back edged with sandy buff.

Hab. South Africa.

a. Ad. st.	South Africa.	Earl of Derby [P.].
b, c, d. Ad. sk.	South Africa.	South-African Museum.
e. Juv. sk.	South Africa.	South-African Museum.
f. Ad. sk.	Kuruman (*Layard*).	R. B. Sharpe, Esq.
g. Ad. sk.	Natal.	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Eland's river, Transvaal.	W. E. & C. G. Oates, Esqrs. [P.].
i. ♂ ad. sk.	Crocodile river, Transvaal.	W. E. & C. G. Oates, Esqrs. [P.].
k, l. ♂ ad. sk.	Tati (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
m. ♂ ad. st.	Tati (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
n. Ad. sk.	Shoshong, Makalapsi river.	W. E. & C. G. Oates, Esqrs. [P.].
o. ♀ ad. sk.	Otjimbinque, Damara Land, May 30, 1866 (*C. J. Andersson*).	R. B. Sharpe, Esq.
p. ♀ ad. sk.	Otjimbinque, Jan. 12, 1867 (*C. J. A.*).	R. B. Sharpe, Esq.
q. Juv. sk.	Otjimbinque, April 5, 1864 (*C. J. A.*).	R. B. Sharpe, Esq.

3. Laniarius atrocroceus.

Laniarius atrocroceus, *Trimen, P. Z. S.* 1880, p. 623, pl. lix.
Laniarius atricroceus, *Sharpe, ed. Layard B. S. Afr.* p. 390.

All the underparts of the body rich orange-yellow, in every other respect exactly like *L. atrococcineus*: "bill and feet black; iris lavender" (*B. F. Bradshaw*). Length of culmen 0·8, wing 3·5, tail 3·9, tarsus 1·25 inch.

One single specimen was obtained on the Upper Limpopo river (*Mus. Cap.*).

4. Laniarius barbarus.

La Pie-grièche rouge du Sénégal, *Briss. Orn.* ii. p. 185, pl. 17. fig. 2.
Lanius barbarus, *Linn. S. N.* i. p. 137.
Pie-grièche du Sénégal, *Buff. Pl. Enl.* no. 56.

Le Gonolek, *Levaill. Ois. d'Afr.* ii. p. 78, pl. 69; *Sundev. Krit. Framst., Levaill.* p. 31.
Laniarius barbarus, *Vieill. Nouv. Dict. d'Hist. Nat.* xv. p. 298; *Gray, Gen. B.* i. p. 298; *Bp. Consp.* i. p. 359; *Hartl. Orn. W.-Afr.* p. 107; *id. J. f. O.* 1861, p. 171; *Gray, Hand-l. B.* i. p. 396, no. 6009; *Sharpe, Ibis*, 1869, p. 190; *id. Cat. Afr. B.* p. 48; *Shelley & Buckley, Ibis*, 1872, p. 288; *Ussher, Ibis*, 1874, p. 64.
Tchagra barbarus, *Less. Traité*, p. 373.
Malaconotus barbarus, *Swains. Zool. Illustr.* 2nd series, ii. pl. 71; *id. B. W. Afr.* i. p. 243, pl. 29; *Gordon, Contr. Orn.* 1850, p. 8; *Cab. Mus. Hein.* i. p. 69.

Adult. General colour above glossy black, the feathers greyish at base; lower back and rump mottled with white subterminal spots on the feathers; wings and tail black; crown of head and nape dull yellow, brighter above the eye; lores, feathers round the eye, ear-coverts, and sides of neck glossy black; cheeks and entire under surface of body scarlet; thighs and under tail-coverts pale fawn-brown; under wing-coverts black, as also the under surface of the wings; bill black. Total length 8·8 inches, culmen 0·9, wing 4·25, tail 4·4, tarsus 1·3.

Young. Coloured like the adult but duller, the feathers of the back and the wing-coverts edged with pale ochraceous brown; under surface light ochraceous brown, mottled with dusky cross bars; many of the scarlet feathers tipped with whitish.

Hab. West Africa.

a. Ad. sk.	Senegal.	R. B. Sharpe, Esq.
b. Pull. sk.	River Gambia.	R. B. Sharpe, Esq.
c. Ad. sk.	Fantee.	R. B. Sharpe, Esq.
d. Ad. sk.	Ashantee.	J. Gould, Esq.
e. Juv. sk.	Denkera (*Ussher*).	R. B. Sharpe, Esq.
f. Ad. sk.	River Volta, Aug. 1870 (*Ussher*).	R. B. Sharpe, Esq.

5. Laniarius erythrogaster.

Lanius erythrogaster, *Cretzschm. in Rüpp. Atl.* pl. 29 (1826).
Laniarius erythrogaster, *Rüpp. Syst. Uebers.* p. 228; *DesMurs, in Lefebv. Voy. Abyss., Ois.* p. 98; *Vierth. Naum.* 1852, i. p. 33; *Brehm, J. f. O.* 1856, p. 481; *Heugl. Syst. Uebers.* p. 34; *id. J. f. O.* 1862, p. 294, 1863, p. 270; *Antin. Cat. descr. Uec.* p. 53; *Gurney, Ibis*, 1868, p. 160; *Gray, Hand-l. B.* i. p. 396, no. 6012; *Finsch & Hartl. Vög. Ostafr.* p. 354.
Malaconotus wernei, *Cab. Mus. Hein.* i. p. 69, note; *Werne, Reise in Takah*, p. 265.
Malaconotus erythrogastra, *Licht. Nomencl.* p. 12; *Brehm, Habesch*, p. 312, note; *id. Thierl.* ii. p. 704.
Laniarius chrysogaster, *Bp. C. A.* i. p. 300.
Dryoscopus erythrogaster, *Heugl. Orn. N.O.-Afr.* pp. 463, cxvii.

Adult. General colour above glossy black, all the feathers of the rump greyish white with black edges; the scapulars also with concealed whitish bases; wings and tail black; cheeks and breast brilliant scarlet; the lower abdomen, thighs, and under tail-coverts

ochraceous buff; under wing-coverts black; "bill black, feet lead-colour; iris pale yellow" (*Heuglin*). Total length 8·3 inches, culmen 0·9, wing 4·1, tail 4·1, tarsus 1·35.

Hab. North-eastern Africa.

a. Ad. sk.	White Nile.	Sir Samuel Baker [P.].
b. Ad. sk.	White Nile (*Mus. Holm.*).	R. B. Sharpe, Esq.
c. ♂ ad. sk.	Abyssinia.	R. B. Sharpe, Esq.

6. Laniarius hypopyrrhus.

Vanga cruenta, *Less. in Bélanger Voy. Inde*, p. 256; *id. Cent. Zool.* pl. 65 (*nec Hempr. & Ehrenb.*).

Laniarius cruentus, *Bp. Consp.* i. p. 360; *Hartl. Orn. W.-Afr.* p. 109; *Cass. Pr. Philad. Acad.* 1869, p. 53; *Hartl. J. f. O.* 1861, p. 172.

Harcolestes hypopyrrhus, *J. et E. Verreaux, Rev. et Mag. de Zool.* 1855, p. 419 (*nec Hartl.*).

Laniarius hypopyrrhus, *Sharpe, P. Z. S.* 1871, p. 611 (*nec Hartl.*).

Adult. Head and neck blue-grey, as also the sides of the face; lores, eyebrows, and a ring round the eye white; back rich olive-green, the wing-coverts green like the back; bastard-wing and primary coverts blackish on their inner webs; quills black, externally olive-green, the secondaries with conspicuous yellow tips and having a subterminal bar of black; all the tail-feathers olive-green, tipped with yellow, with a rather broad subterminal bar of black right across the tail; under surface of body gamboge-yellow, strongly washed with bright scarlet on the throat and breast; lower abdomen, thighs, under tail-coverts, and edge of wing gamboge-yellow; flanks olive-green, slightly streaked with scarlet; under wing-coverts sulphur-yellow, like the edge of the inner web of the quills, which are dusky brown below; "bill black; iris grey" (*Crossley*). Total length 9 to 10 inches.

Culmen.	Wing.	Tail.	Tarsus.
in.	in.	in.	in.
1·2	4·2	4·4	1·3
1·1	4·25	4·3	1·25
1·2	4·4	4·4	1·4

Hab. Gaboon and Camaroons.

a. Ad. st.	Gaboon.	M. J. Verreaux.
b. Ad. sk.	Gaboon.	R. B. Sharpe, Esq.
c. Ad. sk.	Camaroon mountains (*A. Crossley*).	R. B. Sharpe, Esq.
d. Ad. sk.	W. Africa.	Eyton Collection.

7. Laniarius poliochlamys. (Plate III.)

Laniarius hypopyrrhus, *Sharpe, Cat. Afr. B.* p. 49 (*nec Verr.*); *id. Ibis*, 1872, p. 71; *Ussher, op. cit.* 1874, p. 64.

Adult. Very similar to *L. hypopyrrhus*, but distinguished by the blue-grey colour of the head and neck extending over the whole

mantle, this part being green in the last-mentioned bird. Besides this the primary wing-coverts of *L. poliochlamys* are almost entirely black like the bastard quill; the subterminal black bars on the secondary quills are very strongly developed; the tail is more greenish olive than olive-green; bill black. Total length 9 to 10 inches.

Culmen.	Wing.	Tail.	Tarsus.
in.	in.	in.	in.
1·2	4·5	4·5	1·35
1·15	4·1	4·4	1·3

Hab. Gold Coast.

a, *b*. Ad. sk.	Fantee (*Aubinn*).	R. B. Sharpe, Esq.
c. Ad. sk.	Fantee (*Ussher*).	R. B. Sharpe, Esq.

8. Laniarius poliocephalus.

La Pie-grièche Blanchot, *Levaill. Ois. d'Afr.* iii. p. 122, pl. 285; *Sundev. Krit. Framst., Levaill.* p. 55.
Lanius olivaceus, *Vieill. N. Dict. d'Hist. Nat.* xxvi. p. 135 (*nec Shaw*); *id. Gal. Ois.* pl. 139.
Lanius poliocephalus, *Licht. Verz. Doubl.* p. 45.
Malaconotus blanchoti, *Steph. Gen. Zool.* xiii. p. 161.
Vanga ictera, *Cuvier, Règne Animal*, 1829, p. 352 (*ex Levaill.*); *Less. Traité d'Orn.* p. 346.
Malaconotus olivaceus, *Swains. B. W. Afr.* i. p. 237, pl. 22; *Rüpp. Syst. Uebers.* p. 62.
Malaconotus hypopyrrhus, *Hartl. Verz. Brem. Samml.* p. 61.
Laniarius icterus, *Gray, Gen. B.* i. p. 299; *Bp. Consp.* i. p. 360; *Hartl. Orn. W.-Afr.* p. 110; *id. J. f. O.* 1861, p. 172; *Layard, B. S. Afr.* p. 164; *Sharpe, P. Z. S.* 1870, p. 148, pl. 13. fig. 2; *Shelley, Ibis*, 1877, p. 76.
Laniarius hypopyrrhus, *Gray, Gen. B.* i. p. 299; *Bp. Consp.* i. p. 360.
Archolestes icterus, *Cab. Mus. Hein.* Th. i. p. 71.
Archolestes hypopyrrhus, *Cab. t. c.* p. 71; *id. in von der Decken's Reisen*, iii. p. 27.
Malaconotus poliocephalus, *Licht. Nomenel.* p. 12.
Malaconotus icterus, *Heugl. Syst. Uebers.* p. 34.
Archolestes approximans, *Cab. in von der Decken's Reisen*, iii. p. 27.
Laniarius olivaceus, *Sharpe, Cat. Afr. B.* p. 49.
Meristes olivaceus, *Finsch & Hartl. Vög. Ostafr.* p. 361; *Heugl. Orn. N.O.-Afr.* pp. 466, cxviii; *Bocage, Orn. d'Angola*, p. 235.
Laniarius poliocephalus, *Sharpe, ed. Layard B. S. Afr.* p. 387.

Adult. General colour above pale yellowish green; wing-coverts, the whole tail, and the outer webs of the secondary quills of the same colour as the back, and every feather tipped with pale yellow; inner web of quills brownish; outer web of the primaries broadly edged with yellow; upper tail-coverts greenish, with yellowish tips; head, neck, and ear-coverts bluish grey; a large loral spot and a very narrow ring round the eye white; the whole under surface sulphur-yellow, more or less strongly washed with orange on the chest and upper breast; axillaries, under wing-coverts, edge of wing, and a broad margin on the inner web of the quills pale sulphur-yellow; thighs greenish yellow or yellow; bill black; feet ashy

iris yellowish orange (*Heuglin*), bright yellow (*Kirk*). Total length 9·8 inches, culmen 1·15, wing 4·8, tail 4·6, tarsus 1·5.

Obs. According to von Heuglin specimens from North-eastern Africa never have the breast washed with orange; the only specimen from Abyssinia in the British-Museum collection, labelled a female, agrees with the above remark, whilst the specimens from Natal and South-eastern Africa have the chest deeply coloured with orange; specimens from Western Africa are intermediate.

Hab. N.E. Africa; Western Africa, from Senegambia to the Niger; S.E. Africa, Natal to the Zambesi.

a, *b*. Ad. st.	S.E. Africa.	G. Campbell, Esq. [P.].
c. Ad. sk.	Natal.	R. B. Sharpe, Esq.
d. Ad. sk.	Zambesi (*Sir J. Kirk*).	Livingstone Expedition [C.].
e. Ad. sk.	Makalaka country.	Dr. R. F. Bradshaw [C.].
f. Ad. sk.	Mombasa.	Rev. E. A. Buxton [P.].
g. ♀ ad. sk.	Abyssinia, June 2.	R. B. Sharpe, Esq.
h. Ad. sk.	River Niger (*Baikie*).	R. B. Sharpe, Esq.
i. Ad. sk.	Casamanze.	R. B. Sharpe, Esq.
k. Ad. sk.	River Gambia.	R. B. Sharpe, Esq.
l. Ad. sk.	W. Africa.	Purchased.

Subsp. *a*. **Laniarius monteiri.**

Laniarius monteiri, *Sharpe*, *P. Z. S.* 1871, p. 145, pl. xiii. fig. 1; *Heugl. Orn. N.O.-Afr.* ii. p. cxviii, note.
Meristes monteiri, *Bocage*, *Orn. d'Angola*, p. 235, note.

Adult female (type of species). Entire head and neck bluish grey; back and scapulars rich olive-green, the feathers of the upper tail-coverts margined with yellow; wing-coverts whitish yellow at the tips; quills black, margined externally with rich olive-green, some of the primaries being edged with whitish yellow, the innermost secondaries broadly tipped with a bar of the latter colour; tail olive-green, tipped with yellow; lores, feathers round the eye, a broad superciliary stripe, a spot behind the ear-coverts and on the sides of the neck pure white; entire under surface rich lemon-yellow; "bill black; feet leaden blue; iris white." Total length 9 inches, culmen 1·25, wing 4·2, tail 4·2, tarsus 1·25.

Obs. This race may be distinguished from *L. poliocephalus* by the very broad superciliary stripe and the white spot behind the ear-coverts and on the sides of the neck. The very strongly bent and hooked and therefore apparently fully-grown bill speaks against this specimen being a young one, as was supposed by von Heuglin.

a. ♀ ad. sk.	Loando, Rio Dande, April 28, 1869 (*Sala*).	J. J. Monteiro, Esq. (Type of species.)

9. **Laniarius melanothorax.** (Plate IV.)

Laniarius nigrithorax, *Sharpe*, *Ibis*, 1871, p. 417; *id. op. cit.* 1872, p. 71.
Laniarius melanothorax, *Sharpe*, *Ibis*, 1881, p. 605 (nomen emend.).

Adult (type of species). Head, neck, and mantle and upper part of back grey, lighter on the fore part of the crown adjoining the black forehead; scapulars, lower back, rump, and upper tail-coverts olive-green, the latter with brighter yellow tips; wing-coverts green like the back, with yellow tips to the greater series; quills black on the inner web, olive-green externally, very plainly tipped with yellow; tail-feathers olive-green, with broad tips of deep orange, the inner webs of some of the feathers shaded with black; forehead, sides of face, eyebrow, entire throat and chest glossy black; remainder of under surface bright orange-red, the sides of the body yellowish green; under wing-coverts and inner lining of the quills bright yellow; bill black. Total length 7·6 inches, culmen 0·75, wing 3·9, tail 3·8, tarsus 1.

Hab. Gold Coast.

a. Ad. sk.	Accra (*Capt. Haynes*).	R. B. Sharpe, Esq.	(Type of species.)

10. Laniarius multicolor.

Varied Shrike, *Lath. Gen. Hist. B.* ii. p. 53.
Laniarius multicolor, *Gray, Gen. B.* i. p. 299, pl. 72; *Bp. Consp.* i. p. 360; *Cass. Pr. Philad. Acad.* 1855, p. 439; *Hartl. Orn. W.-Afr.* p. 108; *id. J. f. O.* 1861, p. 172; *Sharpe, Cat. Afr. B.* p. 48; *Ussher, Ibis*, 1874, p. 64.

Adult male (type of species). Head, neck, and mantle light blue-grey; a frontal line, lores, feathers above and below the eye, and the ear-coverts black; between this black and the grey is a stripe of white along the forehead and over the eye; back, rump, and upper tail-coverts olive-green, as also the wing-coverts; quills blackish, externally olive-green, edged with yellow along the inner webs; all the quills tipped with pale yellow on the outer web, the secondaries more broadly; the innermost of the latter are green, tipped with yellow; tail olive-green, broadly tipped with orange-yellow, with a subterminal shade of blackish brown; cheeks, throat, and fore neck scarlet; the rest of the under surface of the body bright yellow, washed with scarlet on the breast and with orange on the under tail-coverts; flanks somewhat washed with greenish; thighs and under wing-coverts yellow; quills blackish below, internally edged with yellow; bill black; feet fleshy brown in the skin. Total length 7·6 inches, culmen 0·75, wing 3·1, tail 3·6, tarsus 1.

Very old males have the tail tipped with orange-red, and the crown of the head is greyish white, becoming almost pure white near the black of the forehead.

Adult female (?). Differs from the male in having the throat and chest vermilion instead of scarlet, but chiefly in having the lores and sides of face grey like the mantle, without any black facial mark or appearance of an eyebrow.

Obs. Two other specimens, probably very old birds (one from the Camaroon mountains, the other one from Yancoomassie), are like

the adult male, but have the tail-feathers largely tipped with pure yellow, and the whole body below is brilliant orange; forehead, lores, and ear-coverts deep black.

Hab. West Africa.

a. [♂] ad. sk.	West Africa.	(Type of species.)
b. [♂] ad. sk.	Fantee.	R. B. Sharpe, Esq.
c. [♂] juv. sk.	Yancoomassie, Dec. 1871 (*W. F. Blissett*).	R. B. Sharpe, Esq.
d. [♀] ad. sk.	Denkera, Dec. 1871 (*W. F. Blissett*).	R. B. Sharpe, Esq.
e,f. [♂] ad. sk.	Accra (*Capt. Haynes*).	R. B. Sharpe, Esq.
g. [♂] ad. sk.	Camaroon mountains (*Crossley*).	R. B. Sharpe, Esq.

11. Laniarius sulfureipectus.

Yellow-browed Shrike, *Lath. Gen. Hist. B.* ii. p. 66.
Tchagra sulfureopectus, *Less. Traité*, p. 373.
Malaconotus similis, *Smith, Rep. Exped. Centr. Afr., App.* p. 44 (*nec Swains.*); *id. Illustr. Zool. S. Afr., Birds*, pl. 46; *Heugl. Syst. Uebers.* p. 34.
Malaconotus superciliosus, *Swains. B. W. Afr.* p. 239.
Malaconotus chrysogaster, *Swains. B. W. Afr.* p. 244, pl. 25; *Rüpp. Syst. Uebers.* p. 55, pl. 24; *Bp. C. R.* xxxviii. p. 534; *Heugl. J. f. O.* 1864, p. 254.
Malaconotus aurantiopectus, *Less. Rev. Zool.* 1839, p. 101.
Malaconotus affinis, *Less. Echo du Monde Sav.* 1844, p. 1164.
Laniarius similis, *Gray, Gen. B.* i. p. 298; *Bp. Consp.* i. p. 359; *Antin. Cat. descr. Ucc.* p. 54; *Layard, B. S. Afr.* p. 163; *Shelley, Ibis*, 1875, p. 77.
Laniarius superciliosus, *Gray, Gen. B.* i. p. 298; *Bp. Consp.* i. p. 360; *Hartl. Orn. W.-Afr.* p. 108.
Chlorophoneus similis, *Cab. Mus. Hein.* Th. i. p. 71; *Gurney in Anderss. B. Dam. Ld.* p. 148.
Malaconotus sulphureopectus, *Jard. Edinb. New Philos. Journ.* iii. p. 242 (1856).
Chlorophoneus sulfureipectus, *Bp. C. R.* xxxviii. p. 534; *Bocage, Orn. Angola*, p. 234.
Laniarius chrysogaster, *Hartl. Orn. W.-Afr.* p. 107; *Sharpe, Ibis*, 1869, p. 190.
Laniarius modestus, *Bocage, Jorn. Lisb.* i. p. 151; *id. J. f. O.* 1876, p. 415; *Gray, Hand-l. B.* i. p. 396, no. 6013.
Dryoscopus sulfureipectus, *Heugl. Orn. N.O.-Afr.* i. pp. 464, cxviii.
Telophorus similis, *Gray, Hand-l. B.* i. p. 398, no. 6047.
Telophorus superciliosus, *Gray, Hand-l. B.* i. p. 398, no. 6050.
Laniarius sulfureipectus, *Sharpe, Ibis*, 1869, p. 190; *Finsch & Hartl. Vög. Ostafr.* p. 356; *Shelley & Buckley, Ibis*, 1872, p. 288; *Ussher, Ibis*, 1874, p. 64; *Buckley, t. c.* p. 376; *Sharpe & Bouvier, Bull. Soc. Zool. France*, i. p. 46; *Reichen. J. f. O.* 1877, p. 24; *Sharpe, ed. Layard B. S. Afr.* p. 384.

Adult male. Crown of the head, hind neck, sides of neck, and mantle blue-grey; back, scapulars, and outer web of the wing-coverts, and quills yellowish green; the wing-coverts and the quills tipped with pale yellow, the inner webs of the latter greyish brown; upper tail-

coverts and tail like the back, but more inclining to greenish orange; every tail-feather broadly tipped with pale orange, which colour extends on the edge of the inner web almost to the base of the tail; forehead and the superciliary region bright yellow; lores, region behind the eye, and ear-coverts black; chin, cheeks, and the entire under surface of the body bright yellow, the chest washed with orange; under wing-coverts, axillaries, and inner edge of quills sulphur-yellow; under surface of quills dark brownish; thighs yellow; bill and feet black. Total length 7 inches, culmen 0·6, wing 3·45, tail 3·5, tarsus 0·95.

Adult female. Like the male; but the lores and ear-coverts are grey instead of black, and the yellow of the head extends only over the adjacent part of the forehead.

Young. Similar to the adult male, but without yellow on the forehead or eyebrow; underneath very pale yellow, the breast marked with dusky cross bars; wing-coverts tipped with light yellow, the quills broadly edged and tipped with this colour; ear-coverts grey, with narrow whitish shaft-streaks.

Hab. Whole of the Ethiopian region.

a, *b*. ♀ ad. sk.	Africa.	F. D. Godman and O. Salvin, Esqrs. [P.].
c. ♂ ad. sk.	West Africa.	Purchased.
d. ♀ ad. sk.	Senegal.	
e. ♀ ad. sk.	River Gambia.	R. B. Sharpe, Esq.
f. ♀ ad. sk.	River Gambia.	Purchased.
g. ♂ ad. sk.	Fantee.	F. D. Godman and O. Salvin, Esqrs. [P.].
h. ♀ ad. sk.	Fantee (*Ussher*).	R. B. Sharpe, Esq.
i. ♂ ad. sk.	Accra (*Haynes*).	R. B. Sharpe, Esq.
k. ♂ ad. sk.	Accra (*Smith*).	R. B. Sharpe, Esq.
l. ♀ ad. sk.	Cunene river (*C. J. Andersson*).	R. B. Sharpe, Esq.
m, *n*. ♀ ad. sk.	Tete, Zambesi (*Sir J. Kirk*).	Livingstone Expedition [C.].
o. ♂ ad. sk.	Motloutsi (*F. Oates*), Oct. 15, 1873.	W. E. & C. G. Oates, Esqrs. [P.].
p. ♀ juv. sk.	South Africa.	South-African Museum. (Type of *M. similis*.)

12. Laniarius rubiginosus.

L'Oliva, *Levaill. Ois. d'Afr.* ii. pl. 75. fig. 2 (nec pl. 75. fig. 1); *Sundev. Krit. Framst., Levaill.* p. 32.
Malaconotus rubiginosus, *Sundev. Œfvers. K. Vet.-Akad. Förh. Stockh.* 1850, p. 106; *Bp. C. R.* xxxviii. p. 534; *Grill, Zool. Anteckn.* p. 10.
Laniarius rubiginosus, *Bp. Consp.* i. p. 359; *Layard, B. S. Afr.* p. 164; *Sharpe, Cat. Afr. B.* p. 49; *Ayres, Ibis*, 1876, p. 430; *Sharpe, ed. Layard B. S. Afr.* p. 383.
Chlorophoneus rubiginosus, *Cab. Mus. Hein.* Th. i. p. 70.
Telephorus rubiginosus, *Gray, Hand-l. B.* i. p. 398, no. 6046.

Adult male. General colour above, including the upper tail-coverts and the outer webs of the quills and wing-coverts olive-green;

remainder of quills blackish; inner web of the secondaries and the wing-coverts dusky; tail-feathers black, with yellowish tips to the two outer pairs; the tips of the others simply paling from black into more or less greenish grey; the outer web of all the feathers strongly washed with olive-green; head above and hind neck bluish grey; lores and a stripe behind the eyes, above and just below the ear-coverts, white; spot in front of the eye and the ear-coverts, and extending somewhat down on to the sides of the neck, black; cheeks, chin, and upper throat isabelline; lower part of throat and chest pale fawn-colour; remainder of the breast, the abdomen, and under tail-coverts dull white; flanks and thighs greyish washed with olive, showing very faint cross bars of darker olive; edge of wing, axillaries, and under wing-coverts, and broad inner edge of quills bright yellow; quills below blackish brown: bill black; "feet slate-colour; iris light brown." Total length 6·5 inches, culmen 0·55, wing 3·4, tail 3·55, tarsus 1.

Adult female. Like the male in coloration, but having the ear-coverts blackish grey, and the tail uniformly olive, washed with brownish and green.

Young. The cross bars are very numerous and more distinct than in the female, and extend all over the under surface of the body. A young bird, from Panmure, has the whole body above, including the head and neck, olive; ear-coverts brownish grey; wings and tail much as in the old female, the greater and primary-coverts with distinct pale edges. In front of the eye a dusky white spot; under surface of body dull whitish, washed with yellow; throat, breast, and sides of the body with dusky cross bars. "Bill pale ash-colour, dusky at tip; feet as in adult; iris dark hazel" (*T. Ayres*).

Hab. South Africa.

a, b. ♂ ad. st.	South Africa.	Purchased.
c. ♀ imm. sk.	South Africa (*Layard*).	R. B. Sharpe, Esq.
d. ♂ juv. sk.	Knysna, Feb. 21, 1866 (*Andersson*).	R. B. Sharpe, Esq.
e. ♀ ad. sk.	Knysna, Feb. 21, 1866 (*Andersson*).	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Grahamstown (*T. C. Atmore*).	R. B. Sharpe, Esq.
g. ♂ ad. sk.	Kingwilliamstown, June 4, 1877.	Capt. H. Trevelyan [P.].
h. ♀ juv. sk.	Panmure, July 9, 1877.	Capt. H. Trevelyan [P.].
i. ♀ ad. sk.	Macamac, Dec. 9, 1874.	F. A. Barratt, Esq. [C.].
k. ♂ ad. sk.	South Africa.	R. B. Sharpe, Esq. [P.].

13. Laniarius olivaceus.

L'Oliva, *Levaill. Ois. d'Afr.* ii. p. 105, pl. 75. fig. 1, pl. 76. fig. 1 (nec plate 75. fig. 2); *Sundev. Krit. Framst.*, *Levaill.* p. 32.
Lanius olivaceus, *Shaw, Gen. Zool.* vii. p. 350; *Less. Traité*, p. 373.
Laniarius olivaceus, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 299; *Gray*,

Gen. B. i. p. 298; *Bp. Consp.* i. p. 359; *Shelley, Ibis*, 1875, p. 77 *Sharpe, ed. Layard B. S. Afr.* p. 382.
Chlorophoneus olivaceus, *Cab. Mus. Hein.* Th. i. p. 71.
Malaconotus olivaceus, *Bp. C. R.* xxxviii. p. 534.
Malaconotus oleaginus, *Licht. Nomencl. Av.* p. 12.
Telephorus olivaceus, *Gray, Hand-l. B.* i. p. 398, no. 6049.

Adult male. General colour above, including the crown of the head and the upper tail-coverts, uniform olive-green; wing-coverts and quills blackish brown internally, olive-green externally; tips of the secondary quills with very narrow pale margins; the four central pairs of the tail-feathers black, with very faint and narrow yellowish tips; the two outer pairs have the basal half of the outer web and the basal two thirds of the inner web black, and the remainder yellow or yellowish; lores yellow; region all round the eye and the ear-coverts black; chin, cheeks, throat, and chest dull yellow, passing into lemon-yellow on the middle of the breast, on the abdomen, and the under tail-coverts; flanks and thighs olive-yellow; under wing-coverts and a broad edge on the inner web of the quills sulphur-yellow; axillaries and edge of wing richer yellow; quills dark brown below; bill black; feet brownish in the skin. Total length 6·5 inches, culmen 0·5, wing 3·2, tail 3·4, tarsus 1·05.

Adult female. Like the male, but less brightly coloured; ear-coverts brownish olive; tail uniform olive, only the outer pairs narrowly edged with yellow on the inner web; the flanks and sides of the breast are olive-yellow, and show numerous but extremely faint cross bars of a somewhat darker or more olive hue; bill brownish.

Hab. South Africa.

a, b. ♂ ♀ ad. sk.	Port Natal, June (*Wahlberg*).	R. B. Sharpe, Esq.
c. ♂ ad. sk.	South Africa.	Purchased.
d. ♀ ad. st.	South Africa.	Purchased.

14. Laniarius bakbakiri.

Turdus zeylonus, *Linné, S. N.* no. 28 (1760).
? Merle à collier du Cap de Bonne Espérance, *d'Aub. Pl. Enl.* 272.
Turdus gutturalis, *P. L. S. Müller, Naturayst.*, Anhang, p. 144.
Le Bacbakiri, *Levaill. Ois. d'Afr.* ii. tab. 67; *Sundev. Krit. Framst.*, *Levaill.* p. 31.
Lanius backbakiri, *Shaw, Gen. Zool.* vii. p. 319.
Laniarius bacbakiri, *Vieill. N. Dict.* xiii. p. 298 (1817); *Bp. C. A.* i. p. 360; *Monteiro, P. Z. S.* 1865, p. 93; *Bocage, Jorn. Lisb.* xiii. p. 67.
Tchagra bacbakiri, *Less. Traité*, p. 373 (1831).
Telophorus collaris, *Swains. Faun. Bor.-Amer., Birds*, p. 481 (1831).
Lanius ornatus, *Licht. Verz. Doubl.* no. 486.
Telophorus zeylonus, *Gray, Gen. B.* i. p. 292.
Telephonus bacbakiri, *Cab. Mus. Hein.* pt. i. p. 70 (1850).
Pelicinius zeylonus, *Bp. C. R.* xxxix. p. 534 (1854).

Malaconotus ornatus, *Licht. Nomencl.* p. 12 (1854).
Malaconotus bakbakiri, *Grill, Zool. Anteckn.* p. 10 (1857).
Telephorus gutturalis, *Gray, Hand-l. B.* i. p. 389, no. 6043; *Gurney, in Anderss. B. Dam. Ld.* p. 147.
Laniarius gutturalis, *Sharpe, Cat. Afr. B.* p. 49 (*nec Daud.*); *Shelley, Ibis*, 1875, p. 77; *Sharpe, ed. Layard B. S. A.* p. 385.
Chlorophoneus bacbakiri, *Bocage, Orn. Angola*, p. 232.

Adult male. General colour above, including scapulars, wing- and upper tail-coverts, green, with a slight tinge of yellowish olive; quills brownish black, externally broadly edged with green, the innermost secondaries almost entirely of the same colour as the back; the central pair of tail-feathers uniform dull olive-green, the rest deep black with very large yellow tips; crown of the head and nape, sides of neck, and ear-coverts grey; a bright yellow stripe extending from the nostrils over the eye; lores black; throat, chin, and cheeks bright yellow, separated from the sides of the neck by a narrow black band on each side, which unites on the chest with a deep-black semicircular broad crescent; breast, middle of abdomen, under tail-coverts, and edge of wing yellow; sides of the body, flanks, under wing-coverts, and axillaries pale olive-grey; thighs olive; quills below greyish; bill black; feet bluish black in the skin; "iris dark grey" (*Oates*). Total length 8·7 inches, culmen 0·95, wing 3·9, tail 4·2, tarsus 1·42.

The sexes are alike in plumage.

Obs. In the single specimen from Benguela the grey colour extends slightly further over the mantle and scapulars; the flanks and under wing-coverts are clear slaty grey, the thigh-feathers being bright yellow. The Damara specimens, however, do not differ from those from the Cape; and it is scarcely probable that a distinct species exists in Benguela.

Hab. Southern Africa.

a. Ad. st.	South Africa.	
b. Ad. sk.	South Africa (*Layard*).	R. B. Sharpe, Esq.
c. Ad. sk.	South Africa.	F. D. Godman and O. Salvin, Esqrs. [P.].
d, *e*. ♂ ad. sk.	Mossel Bay, April 11, 1873 (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
f. Ad. sk.	Cape colony.	J. B. Jukes, Esq. [P.].
g. ♀ ad. sk.	Eland's Post, June 1870 (*T. C. Atmore*).	R. B. Sharpe, Esq.
h. Ad. sk.	Natal.	R. B. Sharpe, Esq.
i. Juv. sk.	Hykomkap, Swakop river, Nov. 25, 1863 (*Andersson*).	R. B. Sharpe, Esq.
k. Imm. sk.	Hykomkap, April 16, 1865 (*Andersson*).	R. B. Sharpe, Esq
l. Ad. sk.	Walvisch Bay, Damara Land (*Andersson*).	R. B. Sharpe, Esq.
m. Ad. sk.	Cirio Bay, 13° S. L.	J. J. Monteiro, Esq. [C.].

15. Laniarius quadricolor.

Laniarius gutturalis, *Hartl. Faun. Westafr. Küstenl.* 1850, pp. 27 46 (*nec Daud., nec Müll.*); *id. Orn. W.-Afr.* p. 108, note.
Telephonus gutturalis, *Cab. Mus. Hein.* i. p. 70 (*nec Daud.*).
Laniarius quadricolor, *Cass. Pr. Philad. Acad.* 1851, p. 245; *Sundev. Krit. Framst., Levaill.* p. 56; *Gurney, Ibis*, 1860, p. 210; *Layard, B. S. Afr.* p. 165; *Finsch & Hartl. Vög. Ostafr.* p. 355; *Sharpe, Cat. Afr. B.* p. 49; *Shelley, Ibis*, 1875, p. 77; *Sharpe, ed. Layard's B. S. Afr.* p. 381, pl. 11.
Malaconotus viridis, *Licht. Nomencl. Av.* p. 12.
Pelicinius quadricolor, *Bp. C. R.* xxxviii. p. 534.
Laniarius gutturalis, var., *Bianc. Spec. Zool. Mosamb.* fasc. xviii. p. 321.

Adult male. Crown of the head, hind neck, the whole back and the upper tail-coverts, the outer webs of the wing-coverts, and the quills uniform green; inner web of quills blackish; tail deep black above and below, but the basal half of the central pair strongly washed with green; forehead orange-yellow; lores and a stripe below the eye and on the lower margin of the green ear-coverts deep black; this stripe on the sides of the neck passes into a broad and very distinct black crescent on the chest; chin, cheeks, and the whole throat scarlet; remainder of the under surface of the body gamboge-yellow, the upper part of the breast and the under tail-coverts washed with orange-red; sides of breast, flanks, and thighs pale green; under wing-coverts greenish; quills below greyish; "bill black; legs and claws horny brown" (*Finsch & Hartl.*). Total length 7·5 inches, culmen 0·75, wing 3·2, tail 3·5, tarsus 1·1.

Adult female. All the underparts are green; the tail uniform olive-green; the head wanting the black loral and lateral stripes, the black crescent being likewise absent; throat vermilion; remainder of the underparts of the body olive-yellow; under tail-coverts dull yellow; sides of breast and flanks green; the black collar on the chest of the male is represented merely by a few blackish tips on some of the feathers (not a sign of moulting); "bill and feet brown; lower mandible paler."

Young. The young male is like the adult female; but the central pair of the tail-feathers and the outer webs of the other pairs are more or less green; black crescent absent; throat yellow, with scarlet tips to the feathers, rest of the body below green, more yellow in the middle line. The *young female* resembles the young male, but has the whole tail olive-green.

Hab. South-eastern Africa.

a, b. ♂ ♀ ad. st.	Natal.	Purchased.
c. [♀] juv. sk.	Natal.	Sir Andrew Smith [P.].
d. [♂] juv. sk.	Natal.	Purchased.
e. [♀] juv. sk.	Natal.	R. B. Sharpe, Esq.
f. ♂ ad. sk.	Natal.	R. B. Sharpe, Esq.
g. ♂ ad. sk.	Transvaal (*Ayres*).	R. B. Sharpe, Esq.
h. ♂ ad. sk.	Island of Mombasa.	J. Hildebrandt [C.].

16. Laniarius viridis.

La Pie-grièche Perrin, *Levaill. Ois. d'Afr.* vi. p. 124, pl. 286; *Sundev. Krit. Framst., Levaill.* p. 56.
Lanius gutturalis, *Daud. Ann. Mus.* iii. p. 144, pl. 15 (*nec Müller*); *Shaw & Nodder, Nat. Misc.* xvi. pl. 637.
Laniarius viridis, *Vieill. N. Dict. d'Hist. Nat.* xiii. p. 300; *id. Gal. Ois.* i. pl. 143.
Tchagra gutturalis, *Less. Traité*, p. 373.
Laniarius gutturalis, *Gray, Gen. B.* i. p. 298; *Hartl. Orn. W.-Afr.* p. 108; *Sharpe & Bouv. Bull. Soc. Zool. France*, i. p. 46; *Reichnw. J. f. O.* 1877, p. 24.
Pelicinius gutturalis, *Bp. C. R.* xxxviii. p. 534.
Malaconotus gutturalis, *Sundev. Krit. Framst., Levail.* p. 56.
Telephorus viridis, *Gray, Hand-l. B.* i. p. 398, no. 6044.
Chlorophoneus gutturalis, *Bocage, Orn. d'Angola*, p. 233.

Adult male. General colour above and wings uniform green; tail entirely deep black; forehead and superciliary region orange; lores and stripe along the sides of the neck black, passing gradually into a very distinct black crescent; chin, cheeks, and throat deep crimson-colour; on the upper part of the breast the black crescent is followed by another narrower crimson crescent; sides of breast, flanks, and thighs rich green; middle line of the breast and the whole abdomen chestnut-brown, basal half of the feathers yellowish; under tail-coverts maroon-colour; "bill black." Total length 7·8 inches, culmen 0·8, wing 3·25, tail 3·4, tarsus 1·12.

Hab. South-western Africa.

a. ♂ ad. sk. Landana, Congo. Dr. Lucan and M. Petit [C.].

12. NICATOR.

Type.
Nicator, *Finsch & Hartl. Vög. Ostafr.* p. 359 (1870) ..... N. chloris.

Head of *Nicator gularis.*

Bill like that of *Laniarius*, but much more slender. Nostrils in a coriaceous groove, semilunar, with a very clearly developed operculum, partly exposed; nasal and rictal bristles present. First primary about two thirds of the next one, which is very short; tip of wing formed by fifth, sixth (seventh) primaries; outer secondaries rather long. Tail rounded and slightly longer than wing. Tarsus covered with many transverse scales; the two proximal phalanges of the fourth toe united with the third toe. Plumage greenish and yellow, with light yellow spots to the tips of all the wing-coverts and secondaries. Length of wing about 4 inches.

Range. Africa

1. Nicator chloris*.

Tchagra chloris, *Less. Traité d'Orn.* p. 373 (1831).
Lanius chloris, *Valenc. Dict. Sc. N.* xl. p. 226; *Less. Compl. Buff.* vii. p. 432; *Pucher. Arch. Mus.* vii. p. 325.
Laniarius peli, *Bp. Consp.* i. p. 360; *Hartl. Orn. W.-Afr.* pp. 109, 273; *id. J. f. O.* 1855, p. 358, 1861, p. 172.
Trichophorus chloris, *Hartl. J. f. O.* 1854, p. 25.
Ixonotus chloris, *Bp. C. R.* xxxviii. p. 533 (1854).
Laniarius lepidus, *Cass. Pr. Philad. Acad.* 1855, p. 327.
Nicator chloris, *Finsch & Hartl. Vög. Ostafr.* p. 360 (1870); *Sharpe, Cat. Afr. B.* p. 49; *id. P. Z. S.* 1871, p. 611; *Ussher, Ibis*, 1874, p. 64; *Reichnw. J. f. O.* 1877, p. 24; *Boc. Orn. d'Ang.* pp. 236, 550.
Laniarius chloris, *Gray, Hand-l. B.* i. p. 396, no. 6014; *Sharpe, Ibis*, 1870, p. 55; *Cass. Pr. Philad. Acad.* 1859, p. 53; *Hartl. J. f. O.* 1861, p. 172.

Adult. General colour above and head olive-green, more inclining to yellow on the rump and upper tail-coverts; wings brown, all the feathers edged with olive and yellow, all the wing-coverts and most of the quills with a whitish-yellow spot at the tip; tail yellowish green, tipped with brighter yellow; sides of face olive-yellow, brighter than the head; round the eye a ring of bright yellow plumes; lores dingy grey; in front of the eye a whitish spot; cheeks and entire under surface of body pale ashy grey, lighter on the throat, and inclining to white on the centre of the abdomen; flanks olive-yellow; thighs and under wing- and under tail-coverts bright yellow; quills below brown, yellow along the inner web; "bill black; feet lead-colour" (*Hartl.*). Total length 8·5 inches, culmen 0·85, wing 3·95, tail 4, tarsus 1·15.

The sexes are alike in plumage.

Hab. West Africa, from the Gold Coast to Gaboon.

a, b. Ad. sk.	Ashantee.	J. Gould, Esq.
c, d. Ad. sk.	Fantee.	R. B. Sharpe, Esq.
e. Ad. sk.	Camaroons mountains, Feb. 9, 1871 (*A. Crossley*).	R. B. Sharpe, Esq.
f. Ad. sk.	Gaboon (*DuChaillu*).	R. B. Sharpe, Esq.
g. Ad. sk.	Gaboon (*Walker*).	R. B. Sharpe, Esq.
h. ♂ ad. sk.	River Moonda (*DuChaillu*).	R. B. Sharpe, Esq.
i. Ad. sk.	Gaboon.	Purchased.

2. Nicator vireo.

Nicator vireo, *Cabanis, J. f. O.* 1876, p. 333, Taf. ii.; *Reichenow, J. f. O.* 1877, p. 24; *Sharpe & Bowier, Bull. Soc. Zool. France*, 1877, p. 308; *Bocage, Orn. Angola*, p. 236, note, & p. 550.

* Bonaparte never called *N. chloris* by the generic name of *Meristes*. The first who did this was Gray, in his Hand-l. B. i. p. 396, no. 1489, although he quotes it "*Meristes*, Bp. 1854."

Adult. Very similar to *N. chloris*, but differing from it in the following points. *N. vireo* is much smaller in size, has the forehead, cheeks, and ear-coverts ashy grey; a bright yellow loral and superciliary stripe and a big patch of yellow on the throat; "bill light horn-colour, culmen darker; feet bluish grey; iris clear brown" (*Falkenstein*). Total length 7 inches, culmen 0·7, wing 3·05, tail 3·4, tarsus 0·97.

Hab. Congo district.

a. Ad. sk. Chissambo, Congo. Dr. Lucan [C.].

3. Nicator gularis.

Laniarius, n. sp., *Gray, Hand-l. B.* i. p. 396, no. 6015.
Nicator gularis, *Finsch & Hartl., Vög. Ostafr.* p. 360 (1870).

Adult. Of the same size and of almost the same colour as *N. chloris*; but with the forehead olivaceous brown, the hind neck and top of the head olive-green, with a slight orange tinge; cheeks, ear-coverts, and the whole throat pale ochraceous or buff; the yellow ring round the eye and also the white spot in front of the eye wanting; "bill and feet greyish horny brown" (*Finsch & Hartl.*). Total length 8·5 inches, culmen 0·9, wing 4·2, tail 4·3, tarsus 1·15.

Young. Without the yellow tips on the tail-feathers and quills, while the tips of the wing-coverts are white instead of yellow.

Hab. Zambesi district, Eastern Africa.

a. Ad. sk. Tete, Zambesi (*Sir J. Kirk*). Livingstone Expedition. (Type of species.)

b. Ad. sk. Shupanga, Zambesi (*Sir J. Kirk*). Livingstone Expedition.

13. NILAUS.

Type.
Nilaus, *Swains. Zool. Journ.* iii. p. 162 (1827) ..... N. capensis.

Head of *Nilaus capensis*.

Culmen strongly curved downwards, ending in a strong tooth and a notch. Nostrils oval, operculated, partly hidden by the few bristles; hardly any rictal bristles. First primary long and narrow; tip of wing formed by third, fourth, and fifth primaries; secondaries four fifths of length of whole wing. Tail square, shorter than wing. Tarsus anteriorly as well as laterally covered with transverse scales; the scales on the distal two thirds of the inner side have a

tendency to fuse with one another. Back spotted. The young birds have dark cross markings on their light underparts, like a typical Shrike. Length of wing about 3·3 inches.

Range. Africa.

Key to the Species.

a. Sides of body rufous.
  a'. Rufous sides uniform; lores, eyebrow, and patch on mantle white ..... *capensis*, p. 168.
  b'. Sides of body white, with rufous patches; lores, eyebrow, and patch on mantle rufescent ..... *afer*, p. 169.
b. No rufous on sides of body ..... *affinis*, p. 170.

1. Nilaus capensis. (Plate V. fig. 1.)

Le Brubru, *Levaill. Ois. d'Afr.* ii. pl. 71; *Sundev. Krit. Framst., Levaill.* p. 31 (1857).
Lanius brubru, *Lath. Ind. Orn., Suppl.* ii. p. 78 (1801, *ex Levaill.*); *Vieill. N. Dict.* xxvi. p. 138; *Licht. Verz. Doubl.* p. 48.
Lanius capensis, *Shaw, Gen. Zool.* p. 327 (1811).
Nilaus capensis, *Swains. Zool. Journ.* p. 48 (1827); *id. Class. B.* ii. p. 219 (1837); *Gray, Gen. B.* i. p. 291; *Bp. Consp.* i. p. 362; *Gurney, Ibis*, 1862, p. 31, 1868, p. 159; *Layard, B. S. Afr.* p. 159.
Lanius frontalis, *Forster, Descr. Animalium*, p. 41.
Nilaus brubru, *Finsch & Hartl. Vög. Ostafr.* p. 333; *Gurney in Anderss. B. Dam. Ld.* p. 139; *Sharpe, Cat. Afr. B.* p. 48; *Buckley, Ibis*, 1874, p. 376; *Bocage, Orn. d'Angola*, p. 220; *Sharpe, ed. Layard B. S. Afr.* p. 397.

Adult male. Crown of head and nape glossy black; lores and feathers in front of the eye white; below the fore part of the eye a black spot; round the eye a ring of whitish feathers; sides of face and ear-coverts white, the sides of the neck glossy black, separated from the crown of the head by a broad white line running from the lores over the eye as far as the sides of the nape; ear-coverts separated from the eyebrow by a streak of glossy black, which skirts their upper margin from the eye to the sides of the neck; centre of the back and mantle white or creamy; lateral feathers externally black; the scapulars entirely glossy black; lower back and rump mottled with black and white, the feathers being mostly of the latter colour, with dusky blackish bases and edged with black; upper tail-coverts black, some of them with a large oval white subterminal spot; least and outer wing-coverts glossy black, the median series creamy, forming a bar across the wing, continued down it by means of the creamy outer web of the inner greater coverts and three of the secondaries; primary-coverts black; primaries blackish brown, externally edged with whitish; secondaries black, edged and tinged with whitish; tail black, all but the central feathers tipped with white, the three outermost marked with white on the outer web, increasing in extent on the outermost feather, where it occupies nearly the entire outer web and also appears on the inner web; under surface of body white with the ex-

ception of the sides, which are chestnut fawn-colour; thighs white, with blackish bases to the feathers, more conspicuous on the hinder aspect; under wing- and tail-coverts white, as also the inner edges of the quills, which are otherwise dusky brown below; "bill black, under mandible leaden grey at base; feet blackish" (*Finsch & Hartl.*). Total length 5·6 inches, culmen 0·65, wing 3·4, tail 2·4, tarsus 0·92.

Adult female. Brown where the male is black, and consequently of a more dingy appearance. Total length 5·6 inches, culmen 0·65, wing 3·3, tail 2·25, tarsus 0·9.

One immature bird in the collection is like the old female, but has the cheeks, throat, and chest streaked with black, most of the feathers being edged with black.

Hab. South Africa.

a. Imm. st.	South Africa.	S.-African Museum.
b. Imm. sk.	South Africa.	S.-African Museum.
c. Ad. sk.	Natal.	R. B. Sharpe, Esq.
d. ♀ imm. sk.	Transvaal (*T. Ayres*).	R. B. Sharpe, Esq.
e. ♂ ad. sk.	Swakop river, Damara Land, June 23, 1863 (*C. J. Andersson*).	R. B. Sharpe, Esq.
f. ♀ ad. sk.	Otjimbinque, June 8, 1866 (*C. J. A.*).	R. B. Sharpe, Esq.

2. **Nilaus afer.** (Plate V. fig. 2.)

Lanius afer, *Lath. Ind. Orn., Suppl.* ii. p. xix (1801); *Vieill. N. Dict. H. N.* xxvi. p. 138.

Nilaus capensis, *Hempr. & Ehrenb. Symb. Phys. Av.* i. fol. e; *Rüpp. Syst. Uebers.* p. 62 (*nec Shaw*); *Lefeb. Abyss., Ois.* p. 169; *Heugl. Faun. Roth. Meer.* No. 122; *id. J. f. O.* 1864, p. 254; *Antin. Cat. descrr. Ucc.* p. 55.

Nilaus brubru, *Heugl. Orn. N.O.-Afr.* i. p. 467; *Finsch & Hartl. Vög. Ostafr.* p. 333 (pt.); *Salvad. & Antin. Viagg. Bogos*, p. 86.

Adult male. This northern form differs from the species described above in the following points, in addition to its smaller size:—The eyebrows, back, markings on the wing and wing-coverts are fawn-buff, not white as in the South-African bird; the mantle is more thickly mottled with broad black edgings to the feathers; the upper and hinder parts of the ear-coverts are black; the markings on the sides of the body dark chestnut-red, and not so continuous as in *N. capensis*, but distributed in deep vinous-chestnut streaks along the sides of the body; "bill bluish-black; feet lead-colour; iris chestnut" (*Heuglin*). Total length 5·4 inches, culmen 0·65, wing 3, tail 2·2, tarsus 0·8.

Adult female. Similar in markings to the male, but browner. Total length 5·4 inches, culmen 0·65, wing 3·05, tail 1·9, tarsus 0·8.

Young. Differs from the adult by its thickly mottled plumage, all the brown portions of the bird being tipped with white, while the white feathers have a distinct subterminal brown line; the under surface of the body is white, with a few red streaks on the flanks;

the throat and sides of the body rather broadly barred with dark brown.

Hab. Northern Africa, from Senegambia to Abyssinia.

a. Juv. st.	River Gambia.	African Museum.
b, *c*. Ad.	Eylet, Bogos (*Esler*).	R. B. Sharpe, Esq.
d. ♂ ad. sk.	Bogos-land (*Esler*).	R. B. Sharpe, Esq.
e. ♀ juv. sk.	Ailat, March 30, 1868.	W. T. Blanford, Esq. [C.].
f. ♀ ad. sk.	Rairo, Hababb, Aug. 13, 1868.	W. T. Blanford, Esq. [C.].
g. ♂ ad. sk.	Waliko, Anseba valley, July 21, 1868.	W. T. Blanford, Esq. [C.].

3. Nilaus affinis.

Nilaus brubru (?), *Boc. Jorn. Lisb.* no. xxii. pp. 154, 196.
Nilaus affinis, *id. op. cit.* no. xxiii. pp. 204, 213, 271, xxviii. p. 239 (1880); *id. Orn. d'Ang., Append.* p. 549 (1881).

Adult male. General coloration of plumage black and white. All the underparts, a narrow frontal band, and narrow superciliary stripe are pure white; a black spot just in front of the eye; rest of upper parts black, mottled with white; crown and occiput jet-black; wings black; secondaries and their coverts broadly edged with white; tail black, with small white tips; outer web of the three or four outer tail-feathers with large white patches on their middle third. Total length 5·8 inches, culmen 0·65, wing 3·4, tail 2·2, tarsus 0·85.

Hab. Angola.

a. ♂ ad. sk.	Caconda (*Anchieta*).	Lisbon Museum [P.].

NEOLESTES.

Type.
Neolestes, *Cabanis, J. f. O.* 1875, p. 237 ..... N. torquatus.

Head of *Neolestes torquatus*.

Culmen and genys curved downwards; no tooth, but a slight notch near the tip of the maxilla. Nostrils semilunar, with a well-developed coriaceous operculum, quite exposed; rictal bristles. First primary more than half of the next one in length; tip of wing formed by fourth, fifth, and sixth primaries; secondaries comparatively long. Tail equal to wing in length, slightly rounded. Tarsus in front covered with transverse scales. Feathers of back and rump fairly woolly. Length of wing about 2·7 inches.

West Africa.

1. Neolestes torquatus.

Neolestes torquatus, *Cab. J. f. O.* 1875, p. 237, pl. i. fig. 1; *Sharpe & Bouvier, Bull. Soc. Zool. France*, 1876, p. 308; *Reichnw. J. f. O.* 1877, p. 24; *Bocage, Orn. Angola*, p. 236.

Adult. General colour above olive-green, the wing-coverts like the back, the edge of the wing bright yellow; quills dusky brown, externally margined with olive-yellow; tail-feathers brown, washed with dull olive; head and hind neck ashy grey, washed with yellow; lores and a streak running down the sides of the head blue-black; sides of face and under surface dull white, washed with yellow; across the breast a broad band of blue-black colour running along the sides of the neck; sides of the body washed with ashy grey; under tail-coverts dusky fawn-brown; thighs olive-brown; quills dusky below, edged with pale fawn-colour along the inner web; under wing-coverts fawn-colour, washed with yellow; "bill and feet dark" (*Cabanis*). Total length 5·5 inches, culmen 0·57, wing 2·7, tail 2·4, tarsus 0·8.

Hab. Congo district in Western Africa.

a. Ad. sk. Landana Congo. Dr. Lucan [C.].

Subfamily III. PACHYCEPHALINÆ.

Bill rather strong, culmen slightly curved, notched. Nostrils in a groove, the greater part of which remains unossified, forming an imperfect operculum, and beset with small feathers, which, like the nasal bristles, partly cover the nostrils. First primary large, *i. e.* equals two thirds of the second in length. Tip of wing chiefly formed by primaries 4, 5(, 6)*. Tail generally shorter than the wings (generally equals two thirds of wing), round, square, or emarginated, never graduated. Sexes generally different in colour. Neither red or blue, but frequently yellow in the plumage. The young birds are very plainly coloured.

Austro-Malayan and Polynesian subregions.

Key to the Genera.

a. With a crest of feathers.
  a'. Secondaries gradually getting shorter, equal in length to the last primaries; underparts yellow ..... 14. FALCUNCULUS, [p. 172.
  b'. The first two secondaries are as long as the second primary, while the last four primaries are very short, like the rest of the secondaries ..... 15. OREOICA, p. 174.
b. Without a crest of feathers.
  c'. Bill at nostrils broader than high. [p. 175.
    a''. Tail longer than two thirds of wing .. 16. EOPSALTRIA,
    b''. Tail shorter than two thirds of wing .. 18. PACHYCARE, [p. 226.
  d'. Bill at nostrils equal in height and breadth 17. PACHYCEPHALA, [p. 182.

14. FALCUNCULUS.

Type.

Falcunculus, *Vieillot in Analyse etc.* p. 40 (1816) ..... F. frontatus.

Bill strongly curved and toothed, laterally much compressed. Nostrils basal, in a half-ossified groove, roundish, hidden by small feathers; rictal or nasal bristles hardly developed. First primary more than half the length of the next one; tip of wing formed by third, fourth, and fifth primaries; wings a little shorter than the tail, which is nearly square; secondaries very short, being only three fourths of the length of the wing. Tarsi anteriorly furnished with transverse scales, with a tendency to fuse; hallux with its claw strong. Sexes alike in plumage, which contains much yellow colour. Crown with a well developed crest.

Range. Australia.

* In *Pachycare flavogrisea* the 3rd, 4th, and 5th primaries are the longest; the tail is only about one half to two thirds the length of the wing.

1. Falcunculus frontatus.

Frontal Shrike, *Lath. Gen. Syn. Suppl.* p. 75, pl. 122.
Lanius frontatus, *Lath. Ind. Orn., Suppl.* p. xviii.; *Temm. Pl. Col.* 77; *Shaw, Gen. Zool.* vii. p. 312.
Falcunculus frontatus, *Vieill. Analyse*, p. 40; *id. Gal. des Ois.* i. pl. 138; *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 212; *Swains. Class. B.* ii. p. 226; *Lewin, B. N. S. Wales*, pl. 26 (1838); *Steph. in Shaw's Gen. Zool.* xiii. p. 149, pl. 50; *Gould, B. Austr.* folio, pl. 79; *Gray, Gen. B.* i. pl. 71, p. 293; *Bp. Consp.* i. p. 365; *Gould, Handb. B. Austr.* i. p. 228; *Gray, Hand-l. B.* i. p. 387, no. 5857; *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 181.
Falcunculus flavigulus, *Gould, P. Z. S.* 1837, p. 144.
Falcunculus gouldi, *Cab. Mus. Hein.* i. p. 66; *Bp. Consp.* i. p. 365.

Adult male. General colour above greenish yellow, more or less tinged with grey; wing-coverts and quills dark grey, the outer web rather broadly margined with white, so that the wing when folded looks rather whitish; upper tail-coverts yellow, tinged with greenish; tail-feathers grey, with large white tips, the white increasing towards the outer pairs; forehead, sides of the head above the eyes, and occiput white; the feathers of the crown of the head deep black, forming an erectile crest; a broad black stripe runs from the outer edge of the eye over the ear, and ends a little further down towards the wing; the deep-black throat and fore neck are divided from the black stripe just mentioned by a broad white stripe coming down from the mandibula, the lines of demarcation being very strongly marked; the whole under surface of the body bright yellow, the breast shining yellow; axillaries light grey; under wing-coverts white like the margin of the inner web of the quills, the under surface of which is grey; bill black; feet bluish black.

♂. Total length 7 inches, culmen 0·75, wing 3·7, tail 3·4, tarsus 0·85.

♀. Total length 6·3 inches, culmen 0·7, wing 3·4, tail 3, tarsus 0·75.

The *female* differs from the adult male simply in having the general colour above a little darker, more olive-coloured; the throat and fore neck are grey washed with yellow.

The *young* bird is more like the female; but the yellow colour is not so brilliant.

Hab. South Australia, extending to New South Wales and along the east coast to the Wide-Bay district.

a.	♂ ad. st.	S. Australia.	Purchased.
b.	[♀] ad. sk.	S. Australia.	W. Cunningham, Esq. [P.].
c.	[♀] ad. sk.	S. Australia.	Purchased.
d, *e.*	♂ ♀ ad. sk.	S. Australia.	Sir G. Grey [P.].
f, *g.*	[♂ ♀] ad. sk.	S. Australia.	Gould Collection.
h.	♂ ad. sk.	Brisbane, Queensland (*J. T. Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].

2. Falcunculus leucogaster.

Falcunculus leucogaster, *Gould, P. Z. S.* 1837, p. 144; *id. B. Austr.* fol. ii. pl. 80; *Gray, Gen. B.* i. p. 293; *Bp. C. A.* i. p. 365; *Gould Handb. B. Austr.* i. p. 229; *Gray, Hand-l. B.* i. p. 387, no. 5858.

Adult male and *female*. Very like those of *T. frontatus*, but differing in having the lower part of breast, the whole abdomen, and the flanks entirely white instead of yellow; the outer webs of the tail-feathers except those of the outer pair are greenish yellow like the outer web of the quills, these parts in *T. frontatus* being uniform grey.

♂. Total length 6·8 inches, culmen 0·75, wing 3·65, tail 3·4, tarsus 0·85.

♀. Total length 6·4 inches, culmen 0·7, wing 3·3, tail 3·2, tarsus 0·8.

Hab. Western Australia.

a. ♂ ad. sk.	W. Australia, June 1839.	J. Gould, Esq.
b. ♀ ad. sk.	W. Australia, May 1835.	J. Gould, Esq.
c. Skeleton.		Eyton Collection.

15. OREOICA.

Type.

Oreoica, *Gould, Proc. Zool. Soc.* 1837, p. 151 ..... O. cristata.

Culmen very convex, but without a tooth and with hardly a notch, subconical. Nostrils oval, in front of a semiossified groove, half exposed, with a few nasal and rictal bristles. First and second primaries long, the former more than two thirds of the second. Tip of wing formed by third, fourth, and fifth primaries; the last three primaries very short, and considerably surpassed in length by some of the secondaries, the longest of which equals the long second primary. Tail shorter than wing, square. Tarsus anteriorly covered with transverse scales; anterior claws very short. Crown with a crest of feathers. Sexes slightly differing in plumage, which is principally dull-coloured.

Range. Australia.

1. Oreoica cristata.

Turdus cristatus, *Lewin, Birds of N. Holl.* pl. 9 (fem.).
Falcunculus gutturalis, *Vig. & Horsf. in Linn. Trans.* xv. p. 212.
Oreoïca gutturalis, *Gould, in Proc. Zool. Soc.* 1837, p. 151; *Sturt, Exp. Cent. Austr., Append.* p. 23 (1849).
Oreica cristata, *G. R. Gray, Ann. & Mag. Nat. Hist.* xi. p. 190, note.
Oreoïca cristata, *Gould, B. Austr.* fol. pl. 81; *Bp. C. A.* i. p. 365; *Gould, Handb. B. Austr.* i. p. 231; *Gray, Hand-l. B.* i. p. 387, no. 5856; *Diggles, Orn. Austr.* pl. 35.

Adult male. General colour above reddish brown; wing-coverts, upper tail-coverts, and quills, including the hind neck and the scapulars, of the same reddish-brown colour, but the outer web edged with a sort of whitish brown; tail-feathers equally dusky reddish brown, the under surface shining yellowish green; head light grey, but the forehead and lores white and the long feathers in

the middle of the head deep brownish black, forming a considerable erectile crest; eyebrows, ear-coverts, and sides of neck light grey a little tinged with brown; a black loral stripe extending over the cheeks and uniting with the black of the lower throat; chin and upper part of throat white, enclosed by the above-mentioned black stripes; lower part of throat, fore neck, and upper part of the breast deep brownish black; lower part of the breast and abdomen white; sides of breast light reddish brown; flanks and under tail- and under wing-coverts isabelline; thighs and axillaries darker; under surface of quills light greyish brown; bill black.

The *adult female* differs from the male in being everywhere a little lighter-coloured, and in having the lower throat and upper breast reddish brown instead of black and white; the bill light horny brown; feet light fleshy brown; iris "brown."

Two young males in the British-Museum collection are like the female, but show the white commencing on the upper part of the throat.

♂. Total length 8·4 inches, culmen 0·8, wing 4·1, tail 3·5, tarsus 1·1.

♀. Total length 8·3 inches, culmen 0·7, wing 4·1, tail 3·5, tarsus 1·1.

Hab. Southern and Western Australia.

a. ♂ ad. sk.	Australia.	Linnean Society. (Type of *Falcunculus gutturalis*.)
b. ♂ ad. sk.	Australia.	Sir T. Mitchell [P.].
c, d. ♂ ad. sk.	S. Australia.	Sir G. Grey [P.].
e. ♂ juv. sk.	S. Australia.	Sir G. Grey [P.].
f. [♂] juv. sk.	Port Lincoln.	J. Gould, Esq. [C.].
g. [♂] juv. sk.	S. Australia.	Capt. Sturt [P.].
h. ♂ ad. sk.	Australia.	J. Gould, Esq.
i. [♂] juv. st.	Australia.	
k. ♂ ad. st.	W. Australia, March 1839.	J. Gould, Esq. [C.].
l. ♀ ad. st.	Perth, Swan river, W. Australia.	J. Gould, Esq. [C.].
m. ♀ ad. st.	W. Australia.	Purchased.
n. ♀ ad. sk.	W. Australia (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
o. Skeleton.		Purchased.

16. EOPSALTRIA.*

	Type.
Eopsaltria, *Swainson, Faun. Bor.-Americ.* p. 492 (1831). .	E. australis.

Bill across the nostrils broader than high, flattened, straight, of the length of the rest of the head, ending with a small tooth; maxilla and mandibula slightly notched. Nostrils in a coriaceous groove,

* The following species are doubtfully referred to the genus *Eopsaltria*:—

(1) Eopsaltria (?) brunnea, *Ramsay, Proc. Linn. Soc. N. S. W.* vol. i. p. 391, 1877. (Obtained near Port Moresby.)

"All the upper surface rich brown with an olive tinge, a little darker on the head; inner webs of wings and tail dark slaty brown, base of the quills whitish,

operculated, partly covered by feathers; nasal and rictal bristles fairly developed. First primary half the length of the second; wings long and pointed, the third to the sixth primaries being subequal in length, while the rest, like the secondaries, are very short. Tail square, shorter than the wing; each feather pointed. Tarsus in front covered with transverse scales which have a tendency to fuse.

The genus *Eopsaltria* is intermediate between the *Pachycephalinæ* and the *Muscicapinæ*.

Range. Australia and Polynesian subregion.

Key to the Species.

a. Abdomen bright yellow.
  a'. Only the upper throat whitish ..... *australis*, p. 176.
  b'. Forehead and upper chest grey.
    a''. Back grey ..... *georgiana*, p. 178.
    b''. Back olive-brown ..... *flavigastra*, p. 179.
b. Abdomen dingy yellowish white.
  c'. Crown of head reddish brown ..... *cucullata*, p. 179.
  d'. Crown olive-grey ..... *caledonica*, p. 180.
c. Underparts white, rest of plumage black. [p. 180.
  e'. Basal half of tail-feathers white ..... *pulverulenta*,
  f'. Tips of tail-feathers white ..... *gularis*, p. 181.

1. Eopsaltria australis.

Motacilla australis, *White's Journ.* pl. at p. 239.
Southern Flycatcher, *Lath. Gen. Supp.* vol. ii. p. 219.
Muscicapa australis, *Lath. Ind. Orn., Suppl.* p. l.
Todus flavigaster, *Lath. Ind. Orn.* vol. i. p. 168.
Sylvia flavigastra, *Lath. Ind. Orn., Supp.* p. liv.
Yellow-breasted Thrush, *Lewin, Birds of N. Holl.* pl. 23.
Pachycephala australis, *Vig. & Horsf. Linn. Trans.* vol. xv. p. 242.
Muscipeta australis, *Less. Traité d'Orn.* p. 385.
Eopsaltria flavicollis, *Swains. Class. B.* vol. ii. p. 250.
Eopsaltria australis, *Gray, List of Gen. Birds*, 2nd edit. p. 45; *id. Gen. B.* i. p. 272; *id. Hand-l. B.* i. p. 389, no. 5913; *Bp. C. A.* i. p. 327; *Gould, Handb. B. Austr.* p. 293; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. 1878, pp. 183, 206.

---

under surface white; lores dark brown, a faint light-brown line over the eye; throat tinged with ashy grey, becoming browner on the chest, which is crossed with a brownish band; sides of chest and flanks brown; abdomen, under tail- and wing-coverts silky white; tail above brown, tinged with olive-brown like the wings, the shafts black, on the under surface of a clearer ashy brown, the shafts of the feathers being white.

"This species in general appearance resembles *Pachycephala simplex* of Gould, but has no stripes on the breast or on the under surface; the bill is also longer."

"Total length 5·5 inches, wing 3·3, tail 2·5, tarsi (shot away), bill 0·55." (*Ramsay.*)

See also with regard to this very doubtful bird, "*Pachycephala dubia*," p. 2[illegible].

(2) Lanius gambieranus, *Less. Echo de M. S.* 1844, p. 232; *id. Suppl. Œuvr. de Buff.* 1837, p. 329 (*teste Finsch and Hartlaub*).
Eopsaltria gambierana, *Hartl. Wiegm. Archiv f. Naturg.* 1852, p. 133; *Gray, Cat. B. Trop. Isl. Pacif. Ocean*, p. 21; *Gray, Hand-l. B.* i. p. 390, no. 5920.

Eopsaltria parvula, *Gould, P. Z. S.* 1837, p. 144 (*female*).
Eopsaltria chrysorrhous, *Gould, Ann. & Mag. Nat. Hist.* (4) iv. p. 109*; *G. R. Gray, Hand-l. Birds*, p. 390, no. 3923; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. pp. 184, 206.
Eopsaltria magnirostris, *Ramsay*; *Gould in Ann. & Mag. Nat. Hist.* (4) iv. p. 109†; *Gray, Hand-l. B.* p. 390, no. 5921; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. pp. 183, 206.
Eopsaltria inornata‡, *Ramsay, P. Z. S.* 1874, p. 604; *id. Tr. Linn. Soc. N. S. W.* ii. p. 183 (1878).

Adult male. General colour above and scapulars olive-grey, except the hind neck, which is simply grey; wing-coverts blackish grey, edge of the wing whitish; quills blackish grey-brown, with the outer web lighter, the secondaries margined with greenish yellow; upper tail-coverts bright yellow; tail-feathers uniform dark greyish brown, their outer web slightly margined with olive-colour; except the two central pairs, the feathers have narrow white tips to the end of the inner web; head, hind neck, ear-coverts, and cheeks grey; the whole under surface of the body, excepting the chin and the uppermost part of throat, which are greyish white, is bright yellow; thighs and sides of breast slightly washed with light grey; edge of wing whitish; under wing-coverts whitish, intermingled with grey; under surface of quills grey, with a little white on the margin of the inner web; bill black; feet brown; iris "brown."

Young male. Like the adult male, but has the back and wings more brownish and wants the olive tinge on the back and outer web of the quills. In the collection of the British Museum are two nestlings. They have the whole head and neck, back, scapulars, and under surface of the body uniform reddish brown; wings blackish brown, with the outer web lighter-margined; wing-coverts blackish brown, with large reddish-brown margins; bill and feet pale yellow-brown in the skin. Culmen 0·38 inch, tarsus 0·75.

Total length about 6 inches.

Adult ♂. Culmen 0·7, wing 3·7, tail 2·9, tarsus 1·0.
Adult ♂. „ 0·7, „ 3·5, „ 2·9, „ 0·9.

Adult female (according to Gould's description of his *E. parvula*). General colour above, head, ear-coverts, and hind neck ashy grey; upper tail-coverts olive-yellow; throat and fore neck grey; breast and under surface of the body yellow.

Hab. From Queensland to New South Wales and Victoria.

a. ♂ ad. sk.	Australia, July 3, 1846.	Sir T. L. Mitchell [P.].
b. ♂ ad. sk.	Australia.	Sir D. Cooper [P.].

---

* "This bird is rather larger than *E. australis*, and is similar in colour, except that the rump as well as the breast is of a beautiful jonquil-yellow."
"*Hab.* Eastern parts of N. S. Wales and southern portion of Queensland." (*Gould*, loc. cit.)

† "Like *E. chrysorrhous* (Gould) in colour, but having a conspicuously larger bill and shorter wings." (*Gould*, loc. cit.)

‡ The description is taken from an apparently young bird obtained at Rockingham Bay.

c. Juv. sk. (moulting)	Australia.	Purchased.
d-f. Ad. sk.	New South Wales.	Gould Collection [C.].
g. ♂ ad. sk.	Richmond river, Oct. 23, 1878.	A. Goodwin [C.].
h, i. Nestlings.	Richmond river, Oct. 23, 1878.	A. Goodwin [C.].
k. ♀ ad. sk.	Rockingham Bay (*E. P. Ramsay*).	J. Gould, Esq. (Sub nom. *E. magnirostris*, Ramsay.)
l. ♂ ad. sk.	Port Bowen.	Museum Godeffroy.
m. ♂ juv. sk.	Lake Elphinstone.	Museum Godeffroy.
n, o. ♂ ♀ ad. sk.	Moreton Bay.	J. Gould, Esq. [C.]. (Types of *E. chrysorrhous.*)
p. ♂ ad. sk.	Moreton Bay, Feb. 28, 1850 (*F. Strange*).	J. Gould, Esq.
q. ♂ ad. sk.	Burnett river, Queensland, Aug. 1870.	Museum Godeffroy.
r. ♂ ad. sk.	Queensland (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
s. ♂ juv. sk.	Mackenzie river, lat. 23° 30′ S., Nov. 16, 1856.	Dr. J. R. Elsey [P.].

2. Eopsaltria georgiana.

Gobe-mouche géorgien, *Quoy et Gaim. Voy. de l'Astrol., Atlas*, pl. 3. f. 4.
Muscicapa georgiana, *Quoy et Gaim. Voy. de l'Astrol., Ois.* p. 175.
Eopsaltria griseogularis, *Gould, P. Z. S.* 1837, p. 144; *Gould, B. Austr.* fol. iii. pl. 12; *Gray, Gen. B.* p. 272; *Bp. C. A.* i. p. 328; *Gould, Handb. B. Austr.* p. 294.
Eopsaltria georgiana, *Gray, Hand-l. B.* i. p. 390, no. 5919.

Adult male. General colour above ashy grey; upper tail-coverts and lower back more olive-yellow; quills dusky brown, margined with grey on the outer web; tail-feathers like the quills, but the three or four outer pairs with white terminal spots; terminal third of the inner web margined with whitish; the two central pairs uniform dusky brown, but the outer web margined with olivaceous; head light ashy brown, with paler edges to the feathers of the forehead; ear-coverts, cheeks, and eyebrows paler; chin, throat, fore neck, and upper part of breast white, more ashy towards the sides; rest of breast, abdomen, and under tail-coverts bright yellow; thighs brownish grey; under wing-coverts and edge of wing greyish white; under surface of quills pale greyish brown, the inner web rather broadly margined with white; bill black; feet brownish.

The sexes are precisely alike in outward appearance.

♂. Total length 6 inches, culmen 0·7, wing 3·5, tail 2·5, tarsus 0·9.

Hab. Western Australia.

a. ♂ ad. st.	Swan river.	Purchased.
b. ♂ ad. sk.	King George's Sound.	Sir G. Grey [P.].
c. ♂ imm. sk.	West Australia.	Gould Collection.
d. ♂ ad. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

3. Eopsaltria flavigaster.

Eopsaltria flavigastra, *J. Verr. et O. des Murs, Rev. et Mag. de Zool.* 1860, p. 392; *Gray, Hand-l. B.* i. p. 390, no. 5918; *Tristram, Ibis*, 1879, p. 183.

Adult. General colour above olive-brown; upper tail-coverts and lower back more olive-yellow; quills dark dusky brown, edged with olive; tail-feathers like the wings, their terminal margin a little lighter, outer web of the outer pair whitish, like the margin of the whole inner web of all the tail-feathers; head light ashy brown, with paler edges to the feathers of the forehead; ear-coverts, cheeks, and eyebrows a little lighter; chin, throat, and fore neck white, more ashy on the sides; breast, abdomen, thighs, and under tail-coverts bright yellow, like the under wing-coverts and the edge of the wing; under surface of quills pale greyish brown, the inner web rather broadly margined with white; "upper mandible horn-colour, the lower one orange; feet and claws orange-brown; iris black-brown" (*Layard*).

No difference exists between male and female in plumage.

♀. Total length 5·3 inches, culmen 0·55, wing 2·7, tail 2·2, tarsus 0·8.

Hab. New Caledonia.

a. ♀ ad. sk.	New Caledonia.	Purchased.
b. ♀ ad. sk.	Noumea, Nov. 27, 1876.	E. L. Layard, Esq. [C.].
c. ♂ ad. sk.	Isle of Pines, Oct. 3, 1853 (*G. Macgillivray*).	Gould Collection.

4. Eopsaltria cucullata.

Eopsaltria cucullata, *Gray, Cat. B. Trop. Isl. Pacif. Ocean*, p. 21; *id. Hand-l. B.* i. p. 390, no. 5917; *id. in Brenchley's Cruise of the Curaçoa*, p. 378, pl. xiii. fig. 2; *Layard, Ibis*, 1878, pp. 273, 280.

Adult female. General colour above, scapulars, upper tail- and wing-coverts brownish olive; wings uniform dark brown, but the outer web margined with light reddish brown, so that the whole wing when folded shows a reddish-brown colour; tail-feathers uniform brownish olive; head and ear-coverts rufous-brown; feathers on the hind neck a little lighter and somewhat more olive, forming an indistinct and scarcely visible band; chin and throat white, every feather narrowly margined with rufous-brown; breast, abdomen, flanks, and thighs yellowish white; the upper part of the breast, having the feathers narrowly margined with rufous-brown, has a rather darker colour; under wing-coverts white, edge of wing yellowish; under surface of quills light greyish brown, the inner web margined with isabelline; bill black; feet "pale plumbeous."

♀. Total length 5·5 inches, culmen 0·7, wing 3·3, tail 2·6, tarsus 1.

Hab. New Hebrides.

a. ♀ ad. sk.	Aneiteum, Oct. 26, 1858.	J. Macgillivray, Esq. [C.]. (Type of species.)

5. Eopsaltria caledonica.

Olive Flycatcher, *Lath. Gen. Syn.* ii. p. 342.
Muscicapa caledonica, *Gmel. S. N.* i. p. 944.
Muscicapa olivacea, *G. Forst. Descr. Anim.* p. 271.
Eopsaltria variegata, *Gray, P. Z. S.* 1859, p. 162.
Eopsaltria? caledonica, *id. tom. cit.* p. 162.
Eopsaltria? caledonica, *Verr. et O. des Murs, Rev. et Mag. de Zool.* 1860, p. 392.
Eopsaltria caledonica, *Gray, Hand-l. B.* i. p. 390, no. 5916; *Layard, Ibis*, 1878, p. 255; *Tristram, op. cit.* 1879, p. 183.

Adult male. General colour above, scapulars, and upper tail-coverts olive-brown; wing-coverts and quills dusky, margined with rufous-olive; the innermost secondaries with almost the whole outer web rufous-olive; tail-feathers uniform rufous-olive; crown and sides of the head ashy; chin, cheeks, throat, and fore neck white, each feather just margined with blackish brown; breast and sides of abdomen pale brownish grey; abdomen and thighs yellowish white; under tail-coverts yellow; edge of the wing yellowish white; under wing-coverts greyish brown, with the basal half whitish, and the inner web of the secondaries broadly margined with rufous-white; bill "black-brown;" feet brown in the skin.

*Adult female**. Similar to the male, but has the head and hind neck olivaceous brown like the back. The outer web of the secondaries, the whole greater wing-coverts, and the terminal half of the three or four innermost secondaries are rufous, so that the greater part of the wing when folded shows this colour; chin and throat pale yellow, the feathers slightly margined with blackish brown; breast and sides of abdomen rufous-grey, middle of abdomen rufous-white; under tail-coverts yellow.

♂. Total length 5·7 inches, culmen 0·75, wing 3·3, tail 2·8, tarsus 1.
♀. „ 5·6 „ „ 0·7 „ 3·2 „ 2·7 „ 1.

Hab. New Caledonia.

a, b. ♂ ♀ ad. sk.	Nu, Port de France, May 8, 1858.	J. Macgillivray, Esq. [C.].	(Types of *E. variegata.*)

6. Eopsaltria pulverulenta.

Myiolestes pulverulentus, *Bp.* (*ex Müll. Mus. Lugd.*) *C. A.* i. p. 358.
Eopsaltria leucura, *Gould, Ann. & Mag. Nat. Hist.* (4) iv. p. 108; *id. B. Austr. Suppl.* fol. v.; *Gray, Hand-l. B.* i. p. 390, no. 5922; *Ramsay, Proc. Linn. Soc. N. S. W.* i. (1877) pp. 52, 380; *id. op. cit.* ii. (1878) p. 184.
? Colluricincla pulverulentus (*Müll.*), *Gray, Hand-l. B.* i. p. 386, no. 5844.
Eopsaltria pulverulenta, *Salvad. Ann. Mus. Civic. Genov.* xii. (1878) p. 333.
Pœcilodryas pulverulenta, *Salvad. Orn. Papuas. e Molucche*, ii. p. 88.

* According to Gray, the specimen described above is an adult female; but Canon Tristram, in 'Ibis,' 1879, p. 183, says "The adult of both sexes seem exactly alike, and have the throat white with the faintest tinge of yellow."

Very similar to *E. gularis*, but distinguished from that and every other known species by the white at the basal portion of the lateral tail-feathers.

This is a very aberrant species of *Eopsaltria*, and should probably be referred to the genus *Pœcilodryas*, as has been done by Salvadori *l. c.* It is, according to the latter author, *P. cinerea* of Sharpe (Cat. B. iv. p. 243).

Adult male. General colour above dark leaden grey; wing-coverts and quills of the wing uniform blackish brown, which colour becomes a little lighter on the outer web and the terminal half of the quills; upper tail-coverts black; central pair of the tail-feathers entirely blackish brown like the terminal half of the other pairs, the basal half of which is quite white; bill black; feet black-brown.

The sexes are alike in plumage.

♂. Total length 6·1 inches, culmen 0·7, wing 3·2, tail 2·8, tarsus 0·9.

Hab. Cape York, New Guinea, and the Aru Islands.

a. ♂ ad. sk.	Somerset, Cape York.	J. Gould, Esq.
b–g. Ad. sk.	Cape York (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].

7. Eopsaltria gularis.

Gobe-mouche à gorge blanche, *Quoy et Gaim. Voy. Astrol., Atlas*, pl. iv. fig. 1.

Muscicapa gularis, *Quoy et Gaim. Voy. Astrol., Oiseaux*, p. 176.

Eopsaltria leucogastra, *Gould, P. Z. S.* 1846, p. 19; *id. B. Austr.* fol. iii. pl. 13; *id. Handb. B. Austr.* i. p. 226; *Bp. C. A.* i. p. 328.

Eopsaltria gularis, *Gray, Hand-l. B.* i. p. 389, no. 5914; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. (1878) p. 183.

Adult male. General colour above, head, hind neck, scapulars, and upper tail-coverts uniform dark slaty grey; wing-coverts and quills brownish black, terminal half of the quills somewhat lighter and the terminal end of the secondaries narrowly margined with whitish; tail-feathers like the quills, the central pair entirely uniform, the other pairs with larger white tips to the end of the inner web; lores and a small spot immediately in front of the eyes black; ear-coverts grey; chin, throat, and the whole under surface of the body white, the breast just slightly tinged with grey; edge of the wing white, under wing-coverts blackish grey; under surface of quills blackish, with the basal part white, forming a patch; bill and feet black (*Gould*); iris "dark brown."

The sexes are alike in plumage.

♂. Total length 5·5 inches, culmen 0·72, wing 3·2, tail 2·7, tarsus 0·95.

♀. Total length 5·5 inches, culmen 0·62, wing 3·1, tail 2·7, tarsus 0·95.

Hab. Western Australia.

a. ♂ ad. sk.	W. Australia, near the Vasse, Nov. 25, 1842.	J. Gould, Esq. [C.].
b. ♀ ad. sk.	W. Australia, near the Murray, Nov. 4, 1842.	J. Gould, Esq. [C.].
c. ♂ ad. sk.	W. Australia, Nov. 30, 1842.	Gould Collection.
d. Ad. sk.	W. Australia.	Gould Collection.

17. PACHYCEPHALA.

	Type.
Pachycephala, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 238 (1826)	P. gutturalis.
Hylocharis, "*Boie*," *Müll. Tijdschr. Nat. Ges.* 1835, p. 331	P. philomela.
Hyloterpe, *Cab. Ornith. Not. in Arch. f. Naturgesch.* p. 321 (1847) (*nomen emendat. pro* Hylocharis)	P. philomela.
Muscitrea, *Blyth, Journ. As. Soc. Beng.* xvi. p. 121 (1847)	P. grisola.
Pucherania, *Bp. C. R.* xxxviii. p. 536 (1854)	P. spinicauda.
Pachycephalopsis, *Salvad. Ann. Mus. Civic. Genova*, xv. p. 48 (1879)	P. hattamensis.

Bill rather strong, culmen slightly curved, toothed and notched. Nostrils situated in a groove, the greater part of which remains unossified and forms an imperfect operculum; the groove is beset with small feathers, which, like the rictal bristles, partly cover the nostrils. First primary long, equalling two thirds of the next one, which again is short; tip of wing formed by 4th and 5th (to 6th) primaries; secondaries short. Tail always shorter than wing (generally equal to two thirds of its length), rounded or square, never graduated; the tail-feathers rather pointed. Tarsus covered with transverse scales anteriorly, except in *P. hattamensis* and *P. poliosoma*. Sexes generally differing in plumage, the principal colours of which, in the male, are earthen brown, yellow, olive-green, and black; red and blue are not found to occur. Head without a crest. The

---

1. Quite uncertain is

PACHYCEPHALA SPINICAUDA.

The type of this "species" is a young bird, and came somewhere from Papuasia (New Guinea or Warrior Island?). The feathers of the tail show no peculiar stiffness.

The literature contains the following references:—

Pie-grièche à queue épineuse, *Hombr. et Jacq. Voy. Pôle Sud, Atlas*, pl. 6. fig. 2 (1834) (type examined by Salvadori).
Pachycephala, sp., *Gray, Gen. B.* i. p. 271 (1845).
Pteruthius spinicaudus, *Jacq. et Puch. Voy. Pôle Sud, Zool.* i. p. 58; *Hartl. J. f. O.* 1854, p. 162; *Bp. C. R.* xxxviii. p. 536; *Meyer, Sitz. k. Akad. Wissensch. Wien*, lxix. p. 391 (1874); *Oustal. Bull. Soc. Phil. Paris*, 1877.
Pucherania spinicauda, *Bp. C. R.* xxxviii. p. 536; *Gray, Hand-l.* i. p. 389, no. 5909.
Ptererythius spinicauda, *Sel. Pr. Linn. Soc.* ii. p. 161 (1858).
Pachycephala spinicauda, *Gray, P. Z. S.* 1858, p. 192; *id. Cat. B. New Guinea*, p. 31; *id. P. Z. S.* 1861, p. 435; *Rosenb. J. f. O.* 1864, p. 120; *Finsch, Neu-Guinea*, p. 175; *Salvad. Ann. Mus. Civic. Genov.* xii. p. 331 (1878), xv. p. 48 (1879); *id. Orn. Pap. e Molucche*, ii. p. 235 (1881).

2. The following bird is not a species of *Pachycephala*, but nearest allied to *Pœcilodryas bimaculata* (see Cat. B. vol. iv. p. 244):—

PŒCILODRYAS CYANA.

Myiolestes? cyanus, *Salvad. Ann. Mus. Civic. Genov.* vi. (1874) p. 84.
Pachycephala cyana, *Salvad. Ann. Mus. Civic. Genov.* vii. (1875) p. 934; *id. op. cit.* x. (1877) p. 143.

young of many species have faint cross-markings on the underparts of the body. About 50 species.

Range. Indian and Australian regions (except New Zealand).

Key to the Species.

I. Under surface rich yellow.
  I^a. Pectoral collar jet-black; above olive-yellow.
    a. Throat white.
      a'. Head black.
        a''. Tail black.
          a'''. Chin black ..... *mentalis*, p. 189.
          b'''. Chin white.
            a^4. The black pectoral collar and a yellow band round the hind neck very distinct.
              a^5. Breast orange-yellow ..... *schlegeli*, p. 195.
              b^5. Breast gamboge-yellow ..... *fulvotincta*, [p. 196.
                a^6. Total length 6–7 inches; female below isabelline-yellow. *melanura*, p. 185.
                b^6. Total length 6 inches; female below cinnamon-colour .... *vitiensis*, p. 190.
            b^4. Pectoral collar very narrow; no yellow band round the hind neck. *soror*, p. 196.
        b''. Only the terminal part of the tail black.
          c'''. Basal part of tail grey, washed with olive ..... *gutturalis*, p. 192.
          d'''. Basal part of tail simply grey..... *occidentalis*, p. 193.
        c''. Tail entirely grey ..... *glaucura*, p. 194.
        d''. Tail olive, but inner web dark brown; total length 6 inches ..... *chlorura*, p. 194.

Pœcilodryas cyana, *Salvad. op. cit.* xiv. p. 502 (1879); *id. Orn. Papuas. e Molucche*, ii. p. 89.

Head of *Pœcilodryas cyana*.

Scales in front of the tarsus fused into one scutum. Foot and bill differing from those of *Pachycephala*.

Adult male. General colour above, including the upper tail-coverts, dark bluish slate-colour; head darker, inclining to black on the forehead. Sides of the head and the whole under surface of the body uniform bluish slate-colour, a little paler than the back; wing-coverts and quills black externally, very narrowly tinged with slaty bluish; tail entirely black; "iris, bill, and feet black" (*D'Albertis*). Total length 5·3 inches, culmen 0·6, wing 3·05, tail 2·55, tarsus 1.

Hab. North-western New Guinea.

♂ ad. sk. Karons, April 1877. M. L. Laglaize [C.].

e''. Tail entirely olive.
e'''. Total length 6 inches; length of bill 0·7–0·9 inch.
c⁴. Female above earthy brown..... *collaris*, p. 197.
d⁴. Female above olive-brown ..... *calliope*, p. 198.
f'''. Total length 7 inches; length of bill 0·9–0·93 inch ..... *littayei*, p. 198.
b'. Head grey; tail olive ..... *morariensis*, [p. 199.
b. Throat yellow; head, collar, and tail black.
c'. Pectoral collar very broad ..... *astrolabi*, p. 200.
d'. Pectoral collar narrow ..... *torquata*, p. 201.
e'. Pectoral collar represented only by a few feathers on each side of the neck ..... *graeffei*, p. 202.
c. Throat deep black ..... *jacquinoti*, p. 203.
I^b. No pectoral collar; above and head dusky olivish brown; throat greyish; forehead and lores white or yellow ..... *icteroides*, p. 204.

II. No trace of yellow in the plumage; black pectoral collar; general colour above ashy grey; head ashy grey or brown.
a. Throat white.
a'. Under surface creamy, pale isabelline; collar broad ..... *falcata*, p. 205.
b'. Under surface white, tinged with cream-colour; collar narrow ..... *pallida*, p. 206.
c'. Under surface orange-brown.
a''. Collar narrow, joining the black ear-coverts; lores grey ..... *xantherythræa*, [p. 207.
b''. Collar broad; lores and ear-coverts black..... *rufiventris*, [p. 208.
b. Throat rusty red.
d'. Head ashy grey; the whole throat rusty red; under surface sandy buff; chest washed with brownish grey.
c''. Lores and cheeks rusty brown; under wing-coverts greyish buff in male, dull white in female ..... *rufogularis*, [p. 209.
d''. Lores black; under wing-coverts sandy buff in both sexes ..... *gilberti*, p. 210.
e'. Head brown; upper throat pale rufous, lower throat and fore neck whitish .... *leucostigma*, [p. 223.

III. No black pectoral collar; mostly plain colours; neither black nor much bright yellow in the plumage.
a. Throat with a yellow patch; occiput deep chestnut-red..... *rufinucha*, p. 211.
b. Throat whitish, freckled with brown.
a'. Total length about 7·5 inches: body below dull fawn; upper surface and tail olive-brown ..... *olivacea*, p. 212.
b'. Total length about 6·5 inches: body below dull yellow; under tail-coverts yellow.. *xanthoprocta*, [p. 211.
c. Throat white.
c'. Head ashy grey.
a''. Wings with a white speculum ..... *albispecularis*, [p. 212.

b''. Wings without a speculum.
a'''. Upper surface and tail olive-brown.
a^4. The whole under surface pale fawn.
a^5. Under tail-coverts bright yellow. *orpheus*, p. 213.
b^5. Under tail-coverts white ..... *phæonotus*, [p. 214.
b^4. Under surface pale whitish yellow; breast dull ..... *griseiceps*, p. 215.
c^4. Under surface bright rufous ..... *hyperythra*,
b'''. Above ashy grey, below white; wings and tail fuscous ..... [p. 213. *cinerascens*,
c'''. Above ashy grey, slightly tinged with olive; below pale fawn; wings and tail blackish grey .... [p. 216. *griseonota*, p. 217.
d'''. Above olive-green; under surface dull yellow; tail reddish brown; lores white ..... *hattamensis*,
e'''. Above dark grey, below pale slaty grey ..... [p. 225. *poliosoma*, p. 226.
d'. Head brown; chest shaded with umber or brownish.
c''. Head faintly tinged with grey or brown.
f'''. Underparts white ..... *grisola*, p. 220. *brunneicauda*; [p. 220. *simplex*, p. 219. *dubia*, p. 219.
g'''. Underparts tinged with yellow .... *rufipennis*, p. 218.
d''. Head olive-brown; breast and abdomen sulphur-yellow.
h'''. Upper parts olive-brown..... [p. 221. *sulfuriventer*,
i'''. Upper parts olive-green ..... *philippinensis*, [p. 221.

IV. Plumage black, white, and grey; back dusky black.
a'. Breast and abdomen only white ..... *monacha*, p. 222.
b'. Throat, breast, and abdomen white..... *leucogaster*, [p. 222.

V. Head and breast black; hind neck with a black collar bordered with a chestnut band; upper parts ashy; throat, abdomen, and flanks white .. *lanioïdes*, p. 224.

VI. Plumage slaty blue and black only ..... *cyanea*, p. 224.

1. Pachycephala melanura.

Saxicola merula*, *Less. Voy. Coq., Zool.* i. p. 662 (1828) (*type examined by Salvadori*); *id. Compl. de Buff. Ois.* p. 513 (1838); *Gray, Cat. Trop. Isl. Pacif. Oc.* p. 14 (1859).
Lanius moluccanus, *Less. Tr. d'Orn.* p. 373 (1831) (*descript. nullâ*); *Pucher. Arch. Mus.* vii. p. 368 (1854); *Hartl. J. f. O.* 1854, p. 426.
Pachycephala melanura, *Gould, P. Z. S.* 1842, p. 134, 1860, p. 353; *id. B. Austral.* fol. ii. pl. 66; *id. Handb. B. Austr.* i. p. 211; *Gray, Gen. B.* i. p. 271; *Bp. C. A.* i. p. 328 (pt.); *Cab. Mus. Hein.* i.

* Is the female of *P. macrorhynchus*, Strickl.

p. 66; *Reichenb. Vög. Neuholl.* pp. 229 & 284; *Hartl. Rev. et Mag. Zool.* 1851, p. 182; *Macgilliveray, Narr. Voy. Rattlesnake*, ii. p. 356 (1852); *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 233 (1863); *id. J. f. O.* 1864, p. 120; *Finsch, Neu-Guin.* p. 175 (1865); *Gray, Hand-l. B.* i. p. 387, no. 5871; *Diggles, Orn. Austr.* text to pl. 33; *Layard, Ibis*, 1880, p. 296; *Ramsay, Pr. Linn. Soc. N. S. W.* i. pp. 48 & 380, ii. p. 181, iv. p. 99; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 28; *id. Orn. Pap. e Molucche*, ii. p. 220 (1881).

Pachycephala macrorhyncha, *Strickl. Contr. Orn.* 1849, p. 91, pl. 30; *Lafr. Rev. et Mag. Zool.* 1851, p. 71; *Bp. C. R.* xxxviii. p. 537 (1854); *Wallace, P. Z. S.* 1863, p. 30; *Gray, Hand-l. B.* i. p. 388, no. 5898; *Rosenb. Malay. Arch.* p. 322 (1879); *Ramsay, Pr. Linn. Soc. N. S. W.* i. p. 77; *Salv. Ann. Mus. Civ. Gen.* xii. p. 330 (1878), xv. p. 45; *id. Orn. Pap. e Molucche*, ii. p. 218 (1881).

Pachycephala albicollis, *Lafr. (nec Vieill.) Rev. et Mag. Zool.* 1851, p. 73.

Pachycephala xanthocnemis *, *Gray, P. Z. S.* 1860, p. 353; *id. Hand-l. B.* i. p. 389, no. 5899; *Finsch, Neu-Guin.* p. 175; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 377, xii. p. 330.

Pachycephala clio, *Wall. P. Z. S.* 1862, pp. 335 & 341, 1863, p. 30; *Finsch, Neu-Guin.* p. 175; *Gray, Hand-l. B.* i. p. 388, no. 5881; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 377, xii. p. 330.

Oreicola merula, *Gray, Hand-l. B.* i. p. 227, no. 3272.

Pachycephala merula, *Salv. Ann. Mus. Civ. Gen.* xii. p. 330 (1878).

Pachycephala citreogaster †, *Ramsay, Pr. Linn. Soc. N. S. W.* i. p. 66 (1876); *Salv. Ann. Mus. Civ. Gen.* xv. p. 48.

Pachycephala robusta, *Masters, Pr. Linn. Soc. N. S. W.* i. p. 49 *Ramsay, op. cit.* ii. p. 181.

Pachycephala obiensis, *Salv. Ann. Mus. Civ. Gen.* xii. p. 330 (1878), xv. p. 45; *id. Orn. Pap. e Molucche*, ii. p. 219.

Pachycephala sp. inc., *Forbes, P. Z. S.* 1878 p. 122 (*young*).

Adult male. General colour above and scapulars olive-green; wing-coverts and quills of the wing black, the primaries narrowly, the secondaries broadly margined with olive-green; tail deep black; upper tail-coverts either black (*P. clio*, Wallace) or olive (*P. melanura*, Gould), or (and this is the case with most specimens) black with more or less olive; crown and sides of the head deep shining black; of the same colour is a band commencing from behind the eye and running over the ear-coverts, along the sides of the neck, and crossing the upper part of the breast, forming a crescent, the line of demarcation of which is strongly marked. A rich yellow-coloured nuchal collar on the sides of the neck passes over uninterruptedly into the deep rich gamboge-yellow of the breast, abdomen, the flanks, thighs, and under tail-coverts; edge of wing and under wing-coverts yellow and white; under surface of quills blackish grey, with the basal part and the margin of the inner web whitish; bill black, feet brownish; iris brown.

The *young male* resembles the adult male; but the head is not

* Is the female of *P. macrorhyncha*.

† The typical description is taken from a female specimen, preserved in spirit of wine, and collected in New Britain.

quite so black, as the occiput and the band round the fore neck are intermingled with a few ashy-coloured feathers; primary quills more brownish black; some of the upper tail-coverts are uniform olive-brown, the inner web of the outer pairs is blackish with narrow light tips.

In another young male the general colour above is more brownish; only a few feathers on the forehead, on the sides of the head, and on the fore neck are black, the other parts which are black in the adult males being ashy brown; upper part of breast yellowish brown; upper tail-coverts olivaceous; throat and chin white, but every feather slightly tipped with pale brown.

Another *young male*, from Bouru, is still in the plumage of the female.

Adult female. General colour above, scapulars, and under tail-coverts olivaceous brown; wings blackish brown, the secondaries very broadly margined with rufous-brown, which colour is deeper in younger specimens; tail-feathers rufous-brown, tinged with an olivaceous wash; head dark olivaceous brown, in older specimens more ashy; ear-coverts pale rufous-brown; the yellow nuchal collar of the male is represented in the female by an indistinct band, somewhat lighter than the general colour above; chin, throat, and fore neck pale rufous-white, which colour becomes a little darker on the upper part of the breast; breast, flanks, and abdomen more yellow, almost isabelline; under tail-coverts and thighs yellowish; under wing-coverts white, slightly tinged with rufous, like the margin of the inner web of the secondaries; under surface of quills silvery grey.

Total length between 6 and 7 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Obi	0·88	3·8	3·0	0·92
♂. Amboyna	0·81	3·75	2·8	0·9
♂. Celebes	0·8	3·70	2·9	0·95
♂. Sula	0·71	3·50	2·85	0·87
♂. Arden Island, Torres Strait	0·75	3·50	2·60	0·90
♂. Cape York	0·66	3·60	2·90	0·89
♂. Bouru	0·70	3·72	2·90	0·94
♀	0·65–0·80	3·40–3·50	2·80–3·00	0·90–0·92

Observations.—1. Wallace (Proc. Zool. Soc. 1863, p. 30) says that "the Bouru specimens have a more yellow tinge on the back, and the black pectoral band is generally broader than in those from Aru."

2. Salvadori distinguishes between *P. macrorhyncha*, in which the black crescent across the chest is separated from the black of the head by the yellow band around the hind neck, and *P. melanura*, in which the black of the head is continuous with the crescent on the sides of the neck. This, however, is variable; in the British Museum only three specimens have the black on the sides of the

neck disconnected by yellow—one adult male from Celebes, a second from Amboyna, and a third from Obi. In all the other birds from Sula, Bouru, and Ceram, where *P. macrorhyncha* and not *P. melanura* is said to occur, the black is continuous, although sometimes limited to only a few black feathers on the sides of the neck.

3. The colour of the upper tail-coverts is of no specific importance as Wallace thought when he named his birds from the Sula and Bouru Islands *P. clio*, because in the collection of the British Museum there are now several specimens from these islands which have the upper tail-coverts black and broadly margined with olive, or even the whole terminal half of the feathers olive. The same remark applies to specimens from other islands; for instance, in the very specimen which has the crescent separated from the black of the head by yellow, the upper tail-coverts are more olive-yellow than black. As all the birds with "olive upper tail-coverts" have every tail-feather more or less narrowly tipped with yellowish brown (the same colour as the whole tail in young birds), we might suppose that the appearance of olive on the upper tail-coverts is a case of a retention of the young plumage.

4. The bill varies considerably in length and strength.

Hab. From the Moluccas to New Guinea and the Louisiade archipelago, New Britain, and adjacent islands, as well as Northern Australia.

a. ♂ juv. sk.	Somerset, Cape York.	Gould Collection.
b. Ad. sk.	Cape York (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
c. ♂ juv. sk.	Booby Island, Torres Straits (*J. Murray*).	Voy. of H.M.S. 'Challenger.'
d. ♂ ad. sk.	Booby Island, August 1881 (*Dr. Coppinger*).	Voy. of H.M.S. 'Alert.'
e. ♂ ad. sk.	West Island, September 1881 (*Dr. Coppinger*).	Voy. of H.M.S. 'Alert.'
f. ♂ ad. sk.	Cairncross Island.	Capt. Stanley [P.].
g. ♂ ad. sk.	Arden Island.	Capt. Stanley [P.].
h, i. ♂ ad. sk.	Testę Island, Louisiade archipelago.	Sir J. Ingham [P.].
k, l. ♂ ad. sk.	Palakūru Island, New Britain.	Rev. G. Brown [C.].
m, n. ♂ ad. sk.	Palakūru Island.	Rev. G. Brown [C.].
o. ♀ juv. sk.	Palakūru Island.	Rev. G. Brown [C.].
p. ♂ ad. sk.	Saibai, S.E. Guinea.	Rev. J. Macfarlane [C.].
q, r. ♂ ♀ ad. sk.	Amboina.	A. R. Wallace, Esq. [C.].
s. ♂ juv. sk.	North Ceram.	A. R. Wallace, Esq. [C.].
t, u. ♂ ad. sk.	Bouru.	A. R. Wallace, Esq. [C.].
v, w, x. ♀ ad. sk.	Bouru.	A. R. Wallace, Esq. [C.].
y. ♀ juv. sk.	Bouru.	A. R. Wallace, Esq. [C.].
z. ♂ ad. sk.	Obi, August 9, 1862.	Leiden Museum [P.].

a', *b'*. ♂; *c'*. ♀ juv. sk.	Sula Islands.	A. R. Wallace, Esq. [C.].
d'. ♂ juv. sk.	Sula Islands.	A. R. Wallace, Esq. [C.].
e'. ♀ ad. sk.	Sula Islands.	A. R. Wallace, Esq. [C.].
f', *g'*. ♂ ad. sk.	Sula Islands.	A. R. Wallace, Esq. [C.]. (Types of *P. clio*.)
h'. ♂ ad. sk.	Sula Islands (*A. R. Wallace*).	Gould Collection.
i'. ♂ ad. sk.	Sula Bessie (*Bernstein*).	Leiden Museum [P.].
k'. ♂ ad. sk.	Celebes.	Gould Collection.

2. Pachycephala mentalis.

Pachycephala melanura (*non Gould*), *Bp. C. A.* i. p. 328 (1850); *Gray, P. Z. S.* 1860, p. 353; *Schlegel, Ned. T. D.* iv. p. 44 (1871); *Rosenberg, Reist. naar Geelvinkb.* p. 7 (1875); *id. Mal. Arch.* p. 406 (1879).

Pachycephala albicollis, *Bp. Consp.* i. p. 328 (*ex Temm. MS. Mus. Lugd., descr. nullâ*); *Finsch, Neu-Guinea*, p. 175 (1865).

Turdus armillaris, *Bp. l. c.* (*ex Temm. MS., descr. nullâ*).

Lanius cucullatus, *Bp. l. c.* (*ex Licht. MS., descr. nullâ*).

Pachycephala macrorhyncha, *Hartl.* (*non Jard.*) *Rev. et Mag. Zool.* 1851, p. 181.

Pachycephala mentalis, *Wall. P. Z. S.* 1863, p. 30; *Finsch, Neu-Guinea*, p. 145 (1865); *Gray, Hand-l. B.* i. p. 389, no. 5902; *Salvad. P. Z. S.* 1878, p. 78; *id. Ann. Mus. Civic. Genev.* vii. p. 774; *id. Orn. Pap. e Molucche*, ii. p. 216 (1881).

Pachycephala nigrimentum, *Gray, Hand-l. B.* i. p. 388, no. 5880 (*descr. nullâ*).

Adult male. General colour above olive-yellow; wings with their coverts black, externally edged with olive; upper tail-coverts black, faintly edged with yellow; tail-feathers entirely black to the tip; head jet-black; chin and angle of mouth black, likewise a narrow pectoral band, which is entirely disconnected from the black of the head; across the hind neck a gamboge-yellow band, which, on the sides of the neck, passes into the gamboge-yellow of the breast; flanks and thighs yellow, but slightly shaded with greenish; throat pure white; under wing-coverts yellowish white; edge of wing yellow.

Female. Above brownish olive; tail slightly browner; head ashy to brown; fore neck, lores, and ear-coverts a little lighter; chin, throat, and fore neck with a greyish appearance, since every feather is white and has several dark cross-markings; rest of underparts dull yellow, the yellow being clearest on the abdomen and on the under tail-coverts; axillaries greyish, edged with yellow; edge of wing mottled yellow and brownish.

In another female (from Ternate) the tail-feathers are more brownish, and the feathers of the wings are broadly edged with reddish brown.

Young males resemble the adult female, but have the throat and fore neck more inclining to white, and the yellow of the rest of the

underparts is clearer and more pronounced; the black crescent of the chest is indicated by a few blackish feathers, whilst the yellow nuchal collar is still undeveloped.

Total length about 7·5 inches.

Largest ♂. Culmen 0·75 inch, wing 3·8, tail 3·0, tarsus 0·95.
♀. „ 0·7 „ 3·5 „ 2·8 „ 0·90.

Obs. The above description shows that the male of *P. mentalis* differs but slightly from the male of *P. melanura*, namely by its black chin and angle of mouth, again by the yellow nuchal collar separating the black of the head from the black pectoral crescent, which crescent itself is much narrower than that of *P. melanura*. The *female*, however, is totally different in colour from that of the last-named species.

Hab. Ternate, Gilolo, Batchian, Morty Island, and Timor.

a, b. ♂ ♀ ad. st.	Ternate (?)	Purchased.
c. ♂ ad. sk.	Ternate (*J. Murray*).	Voy. of H.M.S. 'Challenger.'
d. ♀ ad. sk.	Ternate, Oct. 1876.	M. Léon Laglaize [C.].
e, f. ♂; *g.* ♀ ad. sk.	Ternate.	A. R. Wallace, Esq. [C.].
h. ♀ ad. sk.	Ternate (*Wallace*).	Gould Collection.
i. ♂ ad. sk.	Gilolo (*Wallace*).	Gould Collection.
k, l. ♂ ad. sk.	Batchian.	A. R. Wallace, Esq. [C.]. (Types of species.)
m. ♀ ad. sk.	Batchian.	A. R. Wallace, Esq. [C.].
n. ♀ ad. sk.	Morty Island.	A. R. Wallace, Esq. [C.]. (Type of species.)
o. ♂ juv. sk.	Timor.	Purchased.

3. Pachycephala vitiensis.

Pachycephala vitiensis, *Gray, B. Trop. Isl. Pac. Oc.* p. 20.
Pachycephala ? optata, *Hartl. Ibis*, 1866, p. 172 (♀).
Pachycephala vitiensis, *Finsch & Hartl. Faun. Centr. Polyn.* 1867, p. 73 (nec ♀, nec tab.); *Gray, Hand-l. B.* p. 388, no. 5885; *Layard, Ibis*, 1876, pp. 146, 392; *id. op. cit.* 1879, p. 147.

Adult male. Resembles *P. melanura*, Gould, but has the general colour above dark olive, and the greyish-olive tips of the tail-feathers are rather broad, forming a band.

The difference of this species from *P. melanura* is shown by the *adult female*. General colour above, scapulars, upper tail- and wing-coverts dark olivaceous brown; quills black, the primaries on the outer web margined with greyish, the outer web of the inner secondaries more reddish brown. Tail blackish, outer web margined with olive; head and hind neck slaty or plumbeous grey; ear-coverts reddish brown; chin, throat, and the whole of the under surface of the body uniform cinnamon-brown; under tail-coverts and edge of wing a little paler; under surface of quills pale grey, with the basal part and the margin of the inner web pale whitish cinnamon. "Bill black; feet horny grey, claws black-brown" (*Hartlaub*).

Obs. The bird described by Finsch and Hartlaub, and figured

pl. viii. fig. 3, op. cit., as has been already supposed by Dr. Finsch, is the female of *P. torquata*.

♂. Total length 6 inches, culmen 0·65, wing 3·5, tail 2·5, tarsus 1.

♀. Total length 6 inches, culmen 0·7, wing 3·4, tail 2·5, tarsus 1.

Hab. Fiji Islands.

a. ♂ ad. sk.	Ngau (*Dr. Rayner*).	H.M.S. 'Herald.' (Type of species.)
b. ♀ ad. sk.	Ngau (*Dr. Rayner*), Oct. 1858.	H.M.S. 'Herald.'
c. ♂ ad. sk.	Kandavu, June 19, 1876.	Mus. Godeffroy.
d. ♀ juv. sk.	Kandavu, Sept. 1876.	Mus. Godeffroy.
e, *f*. ♀ ad. and juv.	Kandavu.	Voy. of H.M.S. 'Challenger.'

Obs. Specimens *c* to *f* are intentionally placed here, and not under the following subspecies, as I cannot find any difference from the birds from Ngau, whilst Mr. Ramsay's description of his *P. kandavensis* does not apply to them.

Subsp. α. Pachycephala kandavensis.

Pachycephala kandavensis, *E. P. Ramsay, Proc. Linn. Soc. N. S. W.* ii. 1877, p. 65.

Adult male. The whole of the head, ear-coverts, and a narrow crescentic band, widest on the sides and extending across the chest from the lower ear-coverts, jet-black; a narrow collar round the back, widest on the sides of the neck, and a patch joining it to the chest, bright yellow; the throat, inside the black pectoral band, pure white; the breast and remainder of the under surface bright gamboge-yellow, of a slightly deeper and duller tint on the abdomen and under tail-coverts; under surface of the wings dark brown, the margins of the inner webs of the quills towards the base buffy white; the under wing-coverts white, tinged with yellow; interscapular region, back, and remainder of the upper surface yellowish olive; wings blackish brown, the coverts and scapulars broadly, and the quills narrowly, margined with yellowish olive; tail dark brown above, paler below, the two centre feathers and outer webs of the remainder tinged with olive-yellow; bill black; feet greyish brown; iris reddish brown. Total length (exclusive of bill) 5·5 inches, wing 3·5, tarsus 1, tail 2·6; bill from forehead 0·7, from nostril 0·4, from gape 0·8.

The male of this species may be recognized by the *narrow line* of black across the *lower part* of the chest, and by its being of a nearly even width throughout, or, if any thing, wider on the sides than in the centre of the chest, and by the large extent of white on the throat.

Female (not quite adult). Above olive-brown, slightly tinged with olive-yellow; wings and tail blackish brown; the upper wing-coverts and inner secondaries broadly margined and tipped with rich cinnamon or rufous-brown, the remainder of the quills narrowly margined on the outer webs with the same colour; a few feathers of the upper tail-coverts cinnamon-brown; the head dark brown,

washed with cinnamon; sides of the head, an ill-defined line over the eye, the ear-coverts and sides of the neck, the throat, and all the under surface cinnamon-brown, a little paler on the throat; under surface of the wings brown, the inner webs of the feathers towards the base whitish; under wing-coverts whitish; margins of the quills below tinged with cinnamon; tail below dark brown, the tips of the feathers tinged with cinnamon; bill dark brown, paler at the base of the lower mandible; legs and feet light brown; iris reddish brown. Total length 5·5 inches, wing 3·2, tail 2·6, tarsus 1; bill from forehead 0·65, from nostril 0·4, from gape 0·8.

Hab. Kandavu.

4. Pachycephala gutturalis.

Guttural Thrush, *Lath. Gen. Syn. Suppl.* ii. p. 182.
Black-breasted Flycatcher, *Lath. t. c.* p. 222.
Musicapa pectoralis, *Lath. Ind. Orn. Suppl.* ii. p. xli, no. 6.
Turdus gutturalis, *Lath. t. c.* p. li.
Black-crowned Thrush, *Lewin, B. New Holland*, pl. 10.
La cravatte blanche, *Levaill. Ois. d'Afr.* iii. pl. 115; *Sundev. Krit. Framst., Levaill.* p. 37.
Motacilla dubia, *Shaw, Nat. Misc.* xxii. pl. 949 (*ex Levaill.*).
Pachycephala fusca, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 240; *Gray, Gen. B.* i. p. 271.
Pachycephala gutturalis, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 239; *Gould, B. Austr.* fol. ii. pl. 64; *Gray, Gen. B.* i. p. 271; *Cab. Mus. Hein.* i. p. 65; *Reichenb. Vög. Neuholl.* pp. 228, 284; *Gould, Handb. B. Austr.* i. p. 207; *Diggles, Orn. Austr.* text & pl. 33; *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 49; *id. op. cit.* ii. pp. 181, 212.
Pachycephala fuliginosa, *Vig. & Horsf. t. c.* p. 241.
Turdus lunularis, *Steph. Gen. Zool.* xiii. p. 200 (*ex Levaill.*).
Pachycephala meruloides, *Blyth, Cat. B. Mus. As. Soc.* p. 176.
Pachycephala pectoralis, *Bp. C. A.* i. p. 328.

Adult male. Like *P. melanura*, but has the basal two thirds of the tail grey instead of black, and the apical third blackish brown, tipped with grey; a small black spot at the angle of the chin; "iris dark brown; bill black; feet blackish grey" (*Gould*).

Adult female (type of *P. fusca*, Vigors). General colour above, head, neck, upper tail-coverts, and tail olive-brown; wing-coverts and secondaries blackish brown, broadly edged with reddish brown; primaries edged with grey; chin and throat pale brown, freckled with white; underparts fulvous, tinged with light greyish brown; under wing-coverts and axillaries dull whitish; under surface of quills grey, with the base and inner edge brownish.

The type of *P. fuliginosa*, Vig., suits the description of the female given by Gould:—"The whole of the upper surface and tail greyish brown; primaries and secondaries brown, margined with grey; throat pale brown, freckled with white; remainder of the under surface pale brown, passing into deep buff on the abdomen."

Young male. Very much like the female of *P. mentalis*, but has the breast, abdomen, and flanks pale fulvous; under tail-coverts yellow. Total length about 6·2 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂	0·6	3·75	3·3	0·9
Juv. ♂	0·62	3·75	3·0	0·8
Type of *P. fuliginosa* (♀) ..	0·58	3·5	3·5	0·88
Type of *P. fusca* (♀)	0·58	3·5	3·1	0·88

Hab. New South Wales, Victoria, and South Australia, extending along the east coast as far as Rockingham Bay; Lord Howe's Island; Tasmania.

a. ♀ sk.	Australia.	Linnean Society [P.]. (Type of *P. fusca*, Vig.)
b. ♀ sk.	Australia.	Linnean Society [P.]. (Type of *P. fuliginosa*, Vig.)
c. ♂ juv. sk.	Australia.	Purchased.
d. Juv. sk.	Australia.	Gould Collection.
e. Juv. sk.	Port Bowen.	Mus. Godeffroy.
f, g. ♂ ad. et ♀ ad. sk.	Richmond River.	A. P. Goodwin [C.].
h. ♂ ad. sk.	South Australia.	Sir G. Grey [P.].
i. ♂ ad. st.	South Australia.	Sir G. Grey [P.].
k. ♀ ad. sk.	South Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
l. ♂ ad. sk.	New South Wales.	Gould Collection.
m. [♂] imm. sk.	West Australia.	J. Gould, Esq.
n. [♀] ad. sk.	West Australia.	Capt. Sturt [P.].
o. ♀ ad. sk.	Swan River.	Purchased.
p, q. ♂ ad. sk.	Tasmania.	F. D. Godman and O. Salvin, Esqrs. [P.].
r, s. ♂ ♀ ad. sk.	Lord Howe's Island.	J. Gould, Esq.
t. ♀ skeleton.	West Australia.	

Obs. The amount of grey on the tail varies much, and is sometimes replaced by olive-yellow. This is especially the case in examples from Lord Howe's Island and Tasmania. I have copied Ramsay's description of *P. occidentalis*, although the specimens from Western Australia in the Museum do not agree with his diagnosis.

5. Pachycephala occidentalis.

Pachycephala occidentalis, *Ramsay, Pr. Linn. Soc. N. S. W.* ii. 1878, pp. 181 & 212.

Pachycephala gutturalis, *Gould, B. Austr.* fol. vol. ii. p. 64; *id. Handb. B. Austr.* i. p. 207.

"*Adult male.* Like *P. gutturalis*, Lath., but distinct in having the tail grey without any wash of olive on the margins of the basal portion of the feathers, the blackish subterminal band in width less than one third of the total length; the yellow neck-band very indistinct or broken on the back of the neck, the olive of the upper surface of a more greenish tint, and the yellow of the under surface slightly paler.

"*Adult female.* Like that sex of *P. gutturalis*, Lath., but having the lower part of the chest, flanks, the abdomen, and under tail-coverts rufous-buff; under wing-coverts light rufous-buff.

"Sexes alike in size. Total length 6·4 inches, wing 3·55, tail 3·1, tarse 0·9, bill from forehead 0·6.

"In *P. gutturalis*, Lath., of N. S. Wales, the male has the basal half of the tail grey and always of the same tint as the back, and the subterminal blackish band extends towards the base for at least one half of the total length: the yellow neck-band is well defined on the back of the neck. In the females the lower part of the chest is ashy grey, becoming white on the abdomen and under tail- and wing-coverts. These differences will at once serve to distinguish the two species." (*Ramsay.*)

Hab. Western Australia.

6. Pachycephala glaucura.

Pachycephala glaucura, *Gould, P. Z. S.* 1845, p. 19; *id. B. Austr.* fol. ii. pl. 65; *Gray, Gen. B.* i. p. 271; *Bp. Consp.* i. p. 328; *Reichenb. Vög. Neuholl.* pp. 103, 284; *Gould, Handb. B. Austr.* i. p. 209; *Diggles, Orn. Austr.* text to pl. 33; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 181; *Masters, op. cit.* i. p. 49.

Adult male. Like the male of *P. gutturalis*, but differing from it in having the under tail-coverts white, or very slightly washed with yellow, and in having the whole tail entirely grey; "bill black; feet dark brown; iris reddish brown" (*Gould*). Total length 7 inches, bill 0·6, wing 4, tail 3·6, tarsus 1 (*Gould*).

Hab. Tasmania, and the islands in Bass Straits; and opposite coast of Australia.

a. [♂] ad. sk. South Australia. J. Gould, Esq. [C.].

7. Pachycephala chlorura.

Pachycephala chlorura, *Gray, Cat. B. Trop. Isl. Pacif. Ocean*, p. 20; *id. Hand-l. B.* i. p. 388, no. 5884; *id. in Brenchley's Cruise of the 'Curaçoa,' App. Birds*, pl. xi. p. 374; *Layard, Ibis*, 1878, p. 272.

Adult male (type of species). Very similar to the adult male of *P. vitiensis* or *P. gutturalis*, but having a light brown tail strongly washed with yellowish green; the inner web of the feathers is rather dark brown, more greyish towards the tip. The tail of another adult male (somewhat younger) is entirely yellowish green, without any blackish brown colour on the inner web, thus resembling *P. littayei*, from which it differs by its much smaller size. General colour above olive-green, separated from the black head by a yellow collar; wings and their coverts black, externally edged with olive; tail-feathers olive-yellow with a brown tinge, inner web blackish brown, lighter towards the tip; chin, cheeks, and throat pure white, separated from the deep yellow of the rest of the under surface by a narrow black crescent, which is connected with the black of the head; under wing-coverts white, with a tinge of yellow; under surface of quills greyish, inner web edged with reddish brown, especially in younger birds; "iris dark brown" (*Brenchley*); "bill black, feet ashy" (*Layard*).

Female. Crown and sides of head reddish brown, a good deal of which colour is also seen on the outer webs of the secondaries and their coverts; rest of quills brown, with light reddish inner

edges; mantle, back, and tail brownish olive; chin and throat white, slightly freckled with brownish; breast and flanks dingy yellow, palest on the abdomen; under tail-coverts yellow.

Total length about 6 inches.

♂. Culmen 0·7–0·75, wing 3·45, tail 2·65, tarsus 1·0.
♀. „ 0·75, „ 3·2–3·3, „ 2·45, „ 1·0.

Hab. New Hebrides.

a. ♂ ad. sk.	Erromango.	J. Macgillivray, Esq. [C.]. (Type of species.)
b. ♂ ad. sk.	Aneiteum.	J. Macgillivray, Esq. [C.].
c, d. ♂ ♀ ad. sk.	Aneiteum.	J. Brenchley, Esq. [P.].
e, f. ♂ ad. et juv. sk.	Aneiteum, Nov. 28, 1853 (*J. Macgillivray*).	Gould Collection.

8. Pachycephala schlegeli.

Pachycephala schlegelii, *Rosenb. in Schleg. Nederl. Tijdsch. Dierk.* iv. p. 43 (1871); *Sclat. P. Z. S.* 1873, p. 697; *Rosenberg, Reist. naar Geelvinkbai*, pp. 102, 142, pl. xvi. (1875); *id. Malay. Archip.* pp. 555, 588; *Salvad. Ann. Mus. Civ. Gen.* x. (1877) p. 141; *id. Orn. Papuas. e Molucche*, ii. p. 223.

Pachycephala affinis, *Meyer, Sitzber. k. Ak. Wiss. Wien*, lxix. p. 392 (1874) (♀); *Gould, B. New Guin.* fol. ix. (1879).

Adult male. General colour above, including the upper tail-coverts, olive-green; wing-coverts and quills entirely deep black, outer web of the primaries very narrowly edged with light grey; tail entirely black; head and a broad band covering the whole fore neck and chest deep black, connected with the black ear-coverts and sides of head, and separating the white chin and throat from the bright yellow nuchal collar of the hind neck; breast, flanks, abdomen, and under tail-coverts yellow, the whole breast strongly tinged with orange-brown; under wing-coverts white, edge of wing black, spotted with yellowish white; under surface of quills black, the inner web broadly margined with whitish; "bill black; iris dark greyish brown; feet bluish grey" (*Rosenberg*); bill black; feet "ashy;" iris "chestnut" (*D'Albertis*).

Adult female. Like the adult female of *P. soror*.

♂. Total length 5·3 inches, culmen 0·70, wing 3·2, tail 2·6, tarsus 0·9.

♀. Total length 5·4 inches, culmen 0·68, wing 3·1, tail 2·6, tarsus 0·88.

Prof. Schlegel, *op. cit.* says:—"*P. schlegeli* has the bill short, like *P. gutturalis*; the tail, on the other hand, is black, as in *P. melanurus*; but it is distinguished from all its allies by its small size, by its pectoral band of black three times as large as usual, its black wings, and finally by the yellow of the breast and abdomen passing into brownish orange."

Hab. New Guinea.

a, b. ♂ ♀ ad. sk.	Karons, Arfak mountains, April 1877.	M. Léon Laglaize [C.].

9. Pachycephala fulvotincta.

Pachycephala fulvotincta, *Wall. in P. Z. S.* 1863, pp. 486, 492; *Gray, Hand-l. B.* i. p. 388, no. 5883.

Both male and female of this species are similar to *P. melanura*; but, besides its much smaller size, the male differs from that of *P. melanura* by having the breast rich fulvous yellow.

Adult male. General colour above, with the lesser wing-coverts, olive-yellow; the greater and median coverts blackish, edged with olive-yellow; quills black, edged with greyish olive; upper tail-coverts deep black, some of the feathers slightly tipped with yellow; tail black, with narrow olive tips; crown and sides of head and a band passing round the fore neck deep black; chin and throat white; hind neck yellow, which colour on the sides of the neck is in connexion with the rich golden yellow of the rest of the underparts of the body; breast strongly washed with orange-brown; under wing-coverts white; edge of wing interspersed with yellow; under surface of quills greyish, with whitish edges; iris dark; bill and feet black (*Wallace*).

Adult female. Above dusky olive; primaries with greyish, the secondaries with broader reddish-brown edges; upper tail-coverts and tail uniform olive-yellow; head ashy, slightly tinged with olive; sides of head, cheeks, and upper breast reddish brown; chin and throat whitish; rest of underparts white, with a rufescent tinge; thighs and under tail-coverts pale yellow; under wing-coverts white; edge of wing yellowish; "bill black; feet dusky" (*Wallace*).

Obs. The orange colour on the chest is not equally well developed in every male specimen, and is probably a sign of age.

Total length about 6 inches.

♂. Culmen 0·65, wing 3·1, tail 2·45, tarsus 0·82.
♀. „ 0·6, „ 3·0, „ 2·45, „ 0·82.

Hab. Flores.

a, b. ♂ ♀ ad. sk.	Flores.	A. R. Wallace, Esq. [C.]. (Types of species.)
c, d. ♂; *e, f.* ♀ ad. sk.	Flores.	A. R. Wallace, Esq. [C.].
g. ♂ ad. sk.	Flores.	A. R. Wallace, Esq. [C.].
h. [♀] ad. sk.	Flores (*Wallace*).	Gould Collection.

10. Pachycephala soror.

Pachycephala soror, *Scl. P. Z. S.* 1873, p. 692; *Salvad. Ann. Mus. Civic. Genov.* x. p. 141 (1877), xv. p. 45 (1879); *id. Orn. Pap. e Molucche*, ii. p. 222 (1881).
Pachycephala (♀, sp. ign.), *Scl. P. Z. S.* 1873, p. 697, no. 16.

Adult male. Somewhat similar to *P. melanura*, but distinguished by the more blackish-brown-coloured tail and by the absence of a yellow band across the hind neck; the tail-feathers are blackish brown, the outer webs strongly washed and tipped with olive-

green; head, lores, and ear-coverts jet-black, this colour extending further back on the nape than in *P. melanura*; the yellow collar of the latter species being indicated only by a narrow olive band; chin and throat white; a black crescent across the fore neck extending up to the ear-coverts; rest of underparts gamboge-yellow; bill and feet black.

Adult female. Very differently coloured from the females of all the other species of *Pachycephala* except those of *P. schlegeli*. General colour above, including the tail, olive-brown; wings blackish brown, edged with olive; head ashy brown with an olive tinge; chin, throat, and cheeks white; fore neck and upper chest yellow, but washed with dull olive-brown; rest of underparts gamboge-yellow; thighs brownish; under surface of wings dusky grey; inner webs edged with white; under wing-coverts white; edge of wing yellow mottled with brown.

Total length about 6 inches.

♂. Culmen 0·65, wing 2·70, tail 3·6, tarsus 0·9.
♀. „ 0·60, „ 2·75, „ 3·35, „ 0·9.

Obs. There are two specimens in the British Museum which have the head deep rusty brown; wing-coverts and secondaries edged with reddish brown; the yellow on the underparts less pronounced. They seem to be immature males.

Hab. New Guinea.

a–f. ♂ ♀ ad. sk.	Arfak mountains, February.	M. Laglaize [C.].
g. Juv. sk.	Arfak mountains, February.	M. Laglaize [C.].
h, i. ♂ ♀ ad. sk.	Astrolabe mountains, S.E. New Guinea.	Mr. A. Goldie [C.].

11. Pachycephala innominata.

Pachycephala sp., *Ramsay, Pr. Linn. Soc. N. S. W.* iii. p. 282 (1879), iv. p. 99 (1879); *Salvad. Ann. Mus. Civ. Gen.* xv. p. 45 (1879).

Pachycephala innominata, *Salvad. Orn. Pap. e Molucche*, ii. p. 222 (1881).

Male. Very similar to that of *P. collaris* and *P. melanura*, but with the tail ashy grey; forehead and ear-coverts jet-black; crown black, inclining to slaty colour on the occiput; the black crescent on the hind neck is interrupted by yellow. Bill strong; pectoral crescent strong. (*Ramsay.*)

Hab. Teste Island, Papuasia.

12. Pachycephala collaris.

Pachycephala collaris, *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 74 (1878); *ibid.* iii. p. 281 (1879), iv. p. 99 (1879); *Salvad. Ibis*, 1879, p. 324; *id. Ann. Mus. Civ. Gen.* xv. p. 45 (1879); *id. Orn. Pap. e Molucch.* ii. p. 221 (1881).

Adult male. Closely allied to *P. chlorura*, and differs only from the

male of this species by the colour of its tail, which is "without any trace of black, and quite uniform in colour, even to the very tips; the bill is comparatively larger and stronger than in any other species." (*E. P. Ramsay.*)

Adult female. "Crown, sides of the head, neck, and all the upper surface dull earthy-brown; wing blackish brown, margined with lighter brown; tail dull earthy-brown above, lighter below; ear-coverts rich earthy-brown, which colour, becoming lighter, extends to the sides of the chest and forms an indistinct band across it; throat to the chest white; breast and abdomen deep yellow; under tail-coverts pale yellow; under wing-coverts white, washed with yellow; bill black; feet lead-grey." (*Ramsay.*)

	Total length.	Bill.	Wing.	Tail.
	in.	in.	in.	in.
♂	6	0·9	3·5	2·6
♀	6	0·9	3·7	2·7

Hab. Louisiade Islands and New Ireland.

13. Pachycephala calliope.

Pachycephala calliope, *Bp. C. A.* i. p. 328 (*ex Müll., Mus. Lugd.*); *Wallace, P. Z. S.* 1863, p. 486; *Gray, Hand-l. B.* i. p. 388, no. 5882.

Adult male. Very similar to *P. melanura* (var. *P. macrorhyncha*, Strickl.), but differing from it in having the whole tail entirely greenish olive.

Adult female. Very similar to *P. melanura*, but generally a little paler, and having the under wing-coverts white.

Young birds are like the adult female; but the ear-coverts and the under tail-coverts are very tawny or rufous-brown in colour; thighs and flanks pale yellow; throat almost white, only a very little tipped with dark brown; bill brown.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
♂	7·0	0·8	3·5	2·9	0·92
♀	6·9	0·78	3·4	2·8	1·0
♀	6·8	0·76	3·3	2·8	0·98

Hab. Timor.

a–d. ♂ ♀ ad. sk.	E. Timor.	A. R. Wallace, Esq.	[C.].
e, f. ♂ ♀ juv. sk.	E. Timor.	A. R. Wallace, Esq.	[C.].

14. Pachycephala littayei.

Pachycephala littayei, *Layard, Ibis*, 1878, p. 255; *Tristram, Ibis*, 1879, p. 190, pl. vi. (♂ ♀); *id. Ibis*, 1880, p. 228.

Adult male. Like the adult male of *P. calliope*, but larger and much stouter than any other species known at present of the white-throated and yellow-bellied *Pachycephalæ*. "Bill black; legs purple-brown; iris dark crimson."

Adult female. Canon Tristram says "the female is little less brilliant in colour than her mate." The differences from the male are the total absence of the black crescent on the fore neck, which in the females is dusky yellow; the head is slaty brown instead of black; the ear-coverts darker brown. The yellow collar on the hind neck is merely indicated by a faint olive-yellow band; outer web of secondaries broadly edged with olive-brown. Some of the white feathers of the throat are slightly tipped with brownish, giving the throat a faintly freckled appearance.

The *young* bird is darker olive-brown, and has the head more ashy-coloured.

Total length over 7 inches.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
♂	0·9	3·9	3·2	1·05
♀	0·93	3·8	3·1	1·05

Hab. Loyalty Islands.

a, b. ♂ ♀ ad. sk.	Lifu, Aug. 1878.	E. L. Layard, Esq. [C.]. (Types of species.)
c. Juv. sk.	Loyalty Islands.	Rev. J. R. Whitmee [C.].

15. Pachycephala morariensis.

Pachycephala morariensis, *Verr. & Des M. Rev. et Mag. de Zool.* 1860, p. 11; *G. R. Gray, Hand-l. B.* i. p. 389, no. 5906; *Layard, Ibis*, 1877, pp. 357, 362; *Tristram, op. cit.* 1879, p. 183; *Gray in Brenchley, Cruise of the 'Curaçoa,'* 1873, p. 376, pl. 12.

Adult male. Above greenish olive, rather yellow on the upper tail-coverts and the tail-feathers; wing-coverts olive-green; primary-coverts dark brown, with a slight tinge of green on their outer webs; quills dark brown, edged with olive-green; head ashy grey, ear-coverts blackish grey; chin, cheeks, and throat pure white; across the fore neck a very narrow black crescent, which is not connected with the grey behind the ear-coverts; rest of the under surface of the body bright yellow, tinged with orange; thighs and under tail-coverts yellow; under wing-coverts and axillaries yellowish white; edge of wing yellow; quills below silvery grey or darker, the inner web edged with white like the basal portion of the quills; "bill black; legs pale brown; eyes brown" (*Brenchley*). Total length 6 inches, culmen 0·65, wing 3·4, tail 2·85, tarsus 0·95.

Hab. New Caledonia.

a. ♂ ad. sk.	Port de France, New Caledonia, Oct. 1865.	J. Brenchley, Esq. [P.].
b. ♀ ad. sk.	Isle of Pines, Oct. 3, 1853 (*J. Macgillivray.*)	Gould Collection.

16. Pachycephala astrolabi.

Pie-grièche loriot, *Hombr. et Jacq. Voy. Pôle Sud, Atlas, Ois.* pl. 5. fig. 3 (1843).
Pachycephala, sp. 15, *Gray, Gen. B.* i. p. 271 (1845).
Pachycephala astrolabi, *Bp. Consp.* i. p. 329, note; *id. C. R.* xxxviii. p. 537 (1854); *Salvad. Ann. Mus. Civ. Gen.* xv. p. 44 (1879); *id. Orn. Pap. e Molucch.* ii. p. 215 (1881).
Pachycephala orioloides, *Jacq. et Pucher. Voy. Pôle Sud, Zool.* i. p. 57 (1853).; *Bp. C. R.* xxxviii. p. 537; *Hartl. J. f. O.* 1854, p. 162; *Gray, Cat. B. Trop. Isl. Pacific Oc.* p. 20 (1859); *Scl. P. Z. S.* 1869, pp. 118, 124; *Gray, Hand-l. B.* i. p. 388, no. 5886; *Ramsay, Pr. Linn. Soc. N. S. W.* iv. p. 70 (1880); *Salvad. Ibis*, 1880, p. 126.
Pseudorectes cinnamomeum, *Ramsay, Nature*, 1879, p. 125 (*female, teste Salvad.*).
Pachycephalus christophori, *Tristram, Ibis*, 1879, p. 441.
Pachycephala chrystophori, *Salvad. Ibis*, 1880, p. 131; *id. Orn. Pap. e Molucch.* ii. p. 216 (1881).

Adult male. General colour above yellowish olive-green; head jet-black, separated from the back by a collar of rich yellow; lores, feathers round the eye, and ear-coverts black; chin black; cheeks and throat bright yellow; rest of the under surface of the body bright orange-yellow, with a very broad black gorget occupying the lower throat and fore neck, and joined on each side to the black ear-coverts; wing-coverts and quills blackish or black; the lesser and median coverts and the secondary quills broadly, the primary and greater coverts very narrowly margined with yellowish olive; upper tail-coverts and tail-feathers black, the latter with very narrow tips of yellowish; thighs and under tail-coverts bright yellow, the former with black bases near the tibial joint; flanks slightly washed with green; under wing-coverts bright yellow, the greater series white, very faintly washed with yellow; quills blackish below, edged with white along the inner web.

Young male. Similar to the adult, but duller olive-green, the head only rather darker than the back; all the wing-coverts and the outer webs of the secondary quills broadly margined with olive-green, and uniform with the back; upper tail-coverts olive-green, slightly more yellow; tail blackish, strongly washed with olive, especially on the margins and at the tips; the black spot on the chin absent; the black collar round the fore neck not so broad and not so deep black as in the adult male.

Young male (one of the types of *P. christophori* of Tristram). Like the young male described above, but yet having the ear-coverts olive-brown, and with only a few faint traces of the black collar.

Female. According to Tristram, like the male, but wants the black collar.

Obs. The diagnosis given by Tristram for his *P. christophori* (♂) agrees with an immature male of *P. astrolabi*, Bp.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
♂ ad.	7·7	0·9	4·2	3·0	1·0
♂ juv.	6·8	0·8	3·35	2·6	1·0
♂ juv. (type of *P. christophori*, Tristr.).	6·0	0·75	3·4	2·5	1·0

Hab. Solomon Islands.

a.	♂ ad. sk.	Solomon Islands.	Purchased.
b.	♂ juv. sk.	Recherche Bay, San Christoval, Sept. 1865.	Julius Brenchley, Esq. [P.].
c.	♂ juv. sk.	Solomon Islands.	Lieut. Richards [C.]. (Type of *P. christophori*, Tristr.)
d.	♂ juv. sk.	San Christoval, Solomon Islands, May 21, 1879.	Lieut. Richards [C.].

17. Pachycephala torquata.

Pachycephala torquata, *E. L. Layard in P. Z. S.* 1875, p. 150; *id. in Ibis*, 1876, pp. 146, 154, 392; *Ramsay in Proc. Linn. Soc. N. S. W.* i. (1877), p. 77; *Rowley, Orn. Misc.* ii. (1877), p. 395, pl. lxxiv. (♂ ♀); *Layard, P. Z. S.* 1879, p. 147.

Pachycephala vitiensis (pt.), *Finsch & Hartl. Faun. Centr.-Polyn.* p. 74, tab. viii. f. 3 (♀ *tantum*).

? Pachycephala intermedia*, *Layard, Ibis*, 1876, p. 154; *id. P. Z. S.* 1879, p. 147.

Adult male (type of species). General colour above dull yellowish olive; wing-coverts black, with olive-coloured edges; quills black, margined with brown; upper tail-coverts brownish olive; crown, sides of the head, and ear-coverts deep shining black; cheeks, chin, throat, and the whole under surface of the body brilliant orange-yellow, with a narrow black collar across the chest connected with the black ear-coverts; tail entirely black, with the tip a little paler; under wing-coverts white, edged with bright yellow; edge of wing bright yellow; quills below blackish brown, internally edged with pale rufous; "bill black; feet horny brown; iris brown" (*E. L. Layard*).

Adult female (type of species). General colour above, including the head and upper tail-coverts, dull chocolate-brown tinged with olive; wing-coverts dark brown, externally washed with rufous; quills also dark brown, the primaries narrowly edged with pale rufous, the secondaries broadly edged with rufous-brown; tail blackish brown, the tips of the feathers a little lighter; lores dusky greyish; ear-coverts dull rufous-brown; cheeks and throat uniform pale rufous-buff, with dusky centres and edges; chin whitish; rest of the under surface of the body fawn-colour, deepening on the breast into pale reddish brown, paling into buff on the abdomen and flanks;

* *P. intermedia*, Layard, described from Viti Levu, with "a perfect though narrow black ring round the neck," is very probably the same as *P. torquata*, Layard.

thighs slightly tinged with yellow; under wing-coverts pale fawn-buff, with dusky bases to the feathers; quills dark brown below, internally edged with whitish; "legs slate; iris dark orange" (*E. L. Layard*).

Young female. Has the upper surface, head, and tail more brown, the outer web of the quills more chestnut-brown, and the under surface of the body pale buff, freckled with dusky-brown towards the abdomen, and the flanks more uniformly buff-coloured.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
Ad. ♂	6·7	0·7	3·85	3·85	1·05
Ad. ♀	6·9	0·7	3·5	3·9	1·1
Juv. ♀	6·5	0·7	3·45	3·8	1·01

Hab. Island of Taviuni, Fiji group.

a. ♂ ad. sk.	Ngila, Taviuni, Fiji, Aug. 2, 1875.	E. L. Layard, Esq. [C.].	
b. ♀ ad. sk.	Taviuni, April 16, 1875.	E. L. Layard, Esq. [C.].	
c. ♀ juv. sk.	Somo-Somo, Oct. 16, 1875.	Dr. Kleinschmidt [C.].	
d–f. ♂ ad. sk.	Taviuni (*Liardet*).	F. D. Godman and O. Salvin, Esqrs. [P.].	
g. h. ♀ ad. sk.	Taviuni (*Liardet*).	(Types of species.)	

18. Pachycephala graeffei.

Pachycephala graeffei, *Hartl. Ibis*, 1866, p. 172; *Finsch & Hartl. Faun. Centr.-Polyn.* 1867, t. viii. f. 2; *Gray, Hand-l. B.* i. p. 389, no. 5905; *Layard, Ibis*, 1876, pp. 146, 391, 392; *id. op. cit.* 1879, p. 146; *Ramsay, Proc. Linn. Soc. N. S. W.* i. pp. 72, 77.
Pachycephala neglecta, *Layard, P. Z. S.* 1879, p. 147; *Reichn. & Schalow, J. f. O.* 1879, p. 323.

Adult male. General colour above dark olive-green, slightly more yellow on the upper tail-coverts; wing-coverts black, washed externally with yellowish green; quills black, externally edged with greenish olive, more particularly on the secondaries; tail black, tipped with ashy brown; crown, sides of head, and nape shining black, in old specimens with a faintly defined yellowish crescent-line on the hind neck; lores bright yellow; the whole under surface of the body rich yellow; on the sides of the fore neck and chest a few entirely black feathers (in some specimens the black confined to the outer web) forming a patch (this patch being very well developed in one specimen, which has the region near the lores and the lores themselves almost entirely black, only a very few feathers being tipped with yellow); thighs yellow, with blackish bases; under wing-coverts white, slightly margined with yellow, especially on the edge of the wing; quills ashy brown below, with white edges along the inner web; "bill black; feet livid brown; iris red-brown" (*E. L. Layard*).

Young male (in moult). General colour above olive-brown; head and neck spotted with single black feathers; primary and lesser

wing-coverts black, the others like the secondary quills, dark brown, broadly margined on the outer web with reddish brown; primary quills black, narrowly edged with greyish; some of the new secondaries have already the outer web edged with olive-green; tail dark brown, tinged externally with olive-brown, with the tips somewhat lighter; under wing-coverts and axillaries white, edged with bright yellow; edge of wing yellow; under surface of the body very similar to that of the female described below, but more rufous on the chest and upper breast; the throat intermingled with single yellow feathers.

Adult female. General colour above, including the head and the upper tail-coverts, uniform chocolate-brown; wing-coverts and quills dusky brown, the primaries narrowly, the secondaries very broadly edged with rufous, so that the wing when closed seems almost entirely rufous; tail dark chocolate-brown; under surface of body dull white, thickly mottled with reddish or dusky bars on the throat, and streaked with dusky on the breast; the sides of the body reddish; lower abdomen purer white; thighs dusky brown; under tail-coverts yellowish, with longitudinal dusky brown centres; under wing-coverts and axillaries pale ashy rufous; quills below greyish brown, lighter and rufescent on the inner web.

	Total length. in.	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂	6·6	0·75	3·7	2·9	1·05
Ad. ♂	6·5	0·7	3·65	2·7	1·05
Juv. ♂	6·3	0·7	3·55	2·6	1·05
Ad. ♀	6·5	0·7	3·6	2·9	1·05

Hab. Fiji Islands.

a, b. ♂ ♀ ad. sk.	Viti Lævu (*Kleinschmidt*).	Mus. Godeffroy.
c. ♂ ad. sk.	Viti Levu, Aug. 1875 (*Kleinschmidt*).	Mus. Godeffroy.
d. ♂ juv. sk.	Kandavu, Aug. 31, 1874.	E. L. Layard, Esq. [C.].
e. ♂ ad. sk.	Ovalau, March 20, 1875.	E. L. Layard, Esq. [C.].
f. ♂ ad. sk.	Savu Savu Bay, Fiji, Jan. 19, 1877.	Dr. Smith [C.].
g. ♀ ad. sk.	Fiji, April 7.	Dr. Smith [C.].

19. Pachycephala jacquinoti.

Pie-grièche à masque noir, *Hombr. et Jacq. Voy. Pôle Sud, Atlas*, pl. 5. f. 2.

Pachycephala jacquinoti, *Bp. Consp. Av.* i. p. 329.

Eopsaltria melanops, *Jacq. et Pucher. Voy. Pôle Sud, Oiseaux*, p. 56 (1853).

Pachycephala melanops, *Gray, Hand-l. B.* i. p. 389, no. 5907.

Very similar to *P. astrolabi*, Bp., but differing from that species in having the whole throat and fore neck deep shining black. Total length 6·5 inches, bill 0·7, tail about 2·75, tarsus 1.

Hab. Vavao, Tonga Islands (*Jacq. et Pucher.*).

throat buffy white, passing into light buff or fawn-colour on the chest, flanks, abdomen, and under tail-coverts; the feathers of the throat and chest with a narrow dark line down the centre; wings and tail as in the male. Total length 5·5 inches, bill 0·3, wing 3·5, tail 2·75, tarsus 0·75." (*Gould.*)

Young male. Similar in colour to the female, but with the throat whiter, and the markings on the chest much more distinct and extending over the abdomen also. In very young individuals a rich colour or tawny tint pervades the greater part of the upper surface. (*Gould.*)

Obs. The longitudinal brown streaks on the shafts of the feathers are much narrower in one of the females of the British-Museum collection than in *P. rufiventris*.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
Adult ♂	6·0	0·64	3·6	2·7	0·9
Adult ♂	6·0	0·6	3·51	2·7	0·9
Adult ♀	5·6	0·6	3·45	2·6	0·73

Hab. Northern Australia.

a. ♂ ad. st.	Port Essington.	Capt. W. Chambers, R.N. [P.].
b. ♂ ad. sk.	Port Essington.	Capt. W. Chambers, R.N. [P.].
c. ♀ ad. sk.	Port Essington.	J. B. Jukes, Esq. [P.].
d,e. ♂ ♀ ad. sk.	Port Essington.	F. D. Godman and O. Salvin, Esqrs. [P.].
f. ♂ ad. sk.	N.W. Australia, May 1856.	G. R. Elsey, Esq. [P.].

22. Pachycephala pallida.

Pachycephala pallida, *Ramsay, Proc. Linn. Soc. N. S. W.* ii. 1878, pp. 181, 224.

Adult male. "All the upper surface dull slate-grey, lighter on the upper tail-coverts and base of the outer webs of the tail-feathers; the wings and tail-feathers blackish brown, margined with ashy white, a little broader on the secondaries and upper wing-coverts, the feathers of the crown of the head and forehead with a narrow line of blackish brown down the centre; throat to the chest white; lower portion of the ear-coverts, a line down the side of the neck, joining a narrow band of the same colour across the chest, black; remainder of the under surface white, faintly tinged with light cream-colour.

"The *female* has the same upper plumage as the male, with a faint tinge of olive; under surface white, washed with a light creamy tint on the breast and sides; all the throat, sides of the face from the angle of the mouth, the chest, breast, and flanks strongly striated down the centre of the feathers with blackish brown; under tail-coverts white, with a narrow line of brown down the centre of each feather.

"Both sexes are of the same dimensions. Total length 5·5 inches, wing 3·5, tail 2·8, tarsus 0·8, bill from forehead 0·5, from nostrils 0·35, from gape 0·7.

"This species is undoubtedly closely allied to *P. falcata* of Gould; it is, however, slightly smaller, and wants the rufous under surface of that species, and may at once be distinguished from it by having *the pectoral band extending upwards to the base of and joining to the ear-coverts*, which Mr. Gould distinctly states is not the case in his *P falcata*."

Besides the differences pointed out by Ramsay, *P. pallida* has the lower portion of the ear-coverts black, these parts being in *P. falcata* brownish grey.

Hab. "Gulf of Carpentaria and southward to Georgetown" (*Ramsay, op. cit.*).

23. Pachycephala xantherythræa.

Muscicapa xanthetræa, *Forst. Descr. Anim.* p. 268 (1844).
Pachycephala xanthetræa, *Gray, P. Z. S.* 1859, p. 162; *id. B. Trop. Isl. Pacific Ocean*, p. 21; *id. Hand-l. B.* i. p. 388, no. 5889; *Layard, Ibis*, 1877, pp. 357, 362.
Pachycephala assimilis, *Verr. et Des Murs, Rev. et Mag. Zool.* 1860, p. 394; *Gray, Hand-l. B.* i. p. 388, no. 5890.

Adult male. Besides its smaller size, this species differs from the male of *P. falcata* only by the colour of the plumage of the chest and fore neck; it has on the fore neck a rather narrow crescent of black: which runs across the lower throat and joins the *black* ear-coverts; below this black collar is a second but indistinct band of pale grey, and the flanks are also slightly washed with grey; upper border of the eyes and lores bluish grey, like the top of the head; "eyes reddish brown" (*Brenchley*).

Adult female. I cannot find any difference in plumage between the females of *P. xantherythræa* and *P. falcata*. "Maxilla horn-colour; mandible orange; feet silver-grey; iris dark fawn" (*Layard*).

♂. Total length 5·5 inches, culmen 0·60, wing 3·3, tail 2·6, tarsus 0·85.

♀. Total length 5·7 inches, culmen 0·60, wing 3·25, tail 2·55, tarsus 0·85.

Hab. New Caledonia.

a. ♂ ad. sk.	Nu, Port de France, New Caledonia, April 20, 1858.	J. Macgillivray, Esq. [C.].
b. ♀ ad. sk.	Nu, June 28, 1858.	J. Macgillivray, Esq. [C.].
c. ♂ ad. sk.	New Caledonia.	Purchased.
d. ♂ ad. sk.	Port de France, Oct. 1865.	Julius Brenchley, Esq. [P.].
e. ♀ ad. sk.	Noumea, Feb. 20, 1877.	E. L. Layard, Esq. [C.].
f. ♀ ad. sk.	Noumea, March 10, 1877.	E. L. Layard, Esq. [C.].

24. Pachycephala rufiventris.

Rufous-vented Warbler, *Lath. Gen. Syn. Suppl.* ii. p. 248 (*female*).
Sylvia rufiventris, *Lath. Ind. Orn. Suppl.* ii. p. liv.
Rufous-vented Honey-eater, *Lath. Gen. Hist.* vol. iv. p. 183.
Orange-breasted Thrush, *Lewin, B. New Holland*, pl. 8.
Pachycephala pectoralis, *Vig. & Horsf. Tr. Linn. Soc.* xv. p. 239 (*nec Lath.*); *Gould, B. Austr.* fol. ii. pl. 67; *Reichenb. Vög. Neuholl.* pp. 158, 284; *Diggles, Orn. Austr.* text & pl. 33.
Pachycephala striata, *Vig. & Horsf. t. c.* p. 240.
Lanius macularius, *Quoy et Gaim. Voy. de l'Astrol., Zool.* i. p. 257, pl. 31. f. 1 (*young*); *Diggles, Orn. Austr.* pl. 33. figs. 3, 4.
Pachycephala rufiventris, *Gray, Ann. N. H.* xi. p. 193; *id. Gen. B.* i. p. 271; *Bp. C. A.* i. p. 328; *Cab. Mus. Hein.* i. p. 60; *Gould, Handb. B. Austr.* i. p. 212; *Gray, Hand-l. B.* i. p. 388, no. 5872; *Ramsay, Pr. Linn. Soc. N. S. W.* i. 1877, p. 380; *id. ibid.* ii. p. 181.

Adult male. General colour above, including the hind neck, scapulars, and upper tail-coverts, uniform grey; head also grey, but every feather with a dark centre; wing-coverts and quills blackish brown, the primaries narrowly, the secondaries broadly margined with light grey on the outer web; tail blackish brown, edged and tipped with grey; lores, eyebrows, and ear-coverts black; chin, cheeks, and throat pure white, enclosed by a black crescent on the fore neck and upper chest, which collar is connected with the black of the ear-coverts; breast, abdomen, flanks, and under tail-coverts orange-brown, strongly washed with pale grey near the black collar; under wing-coverts, axillaries, and edge of wing pale orange-brown; under surface of quills blackish, with whitish margins on the inner web; "bill black; feet olive-black; iris reddish hazel" (*Gould*).

Young male. Similar to the adult male, but having the upper surface more ashy grey, the throat not yet pure white, the collar only represented by a faint dusky tinge on the feathers of the fore neck, the centres of the feathers of the under surface being pale orange-brown, and with dark-brown central streaks.

Adult female (type of *P. striata*, Vig. & Horsf.). Upper parts like those of the male, but very slightly tinged with ashy brown; wings and tail as in the male; lores and ocular region and ear-coverts ashy brown; chin, throat, and cheeks white, with dark brown shaft-streaks; underparts pale isabelline, with conspicuous dark brown shaft-streaks on the breast, less distinctly streaked on the abdomen, flanks, and under tail-coverts.

There is a specimen in the British-Museum collection (procured by Capt. Sturt in South Australia) which is very pale or creamy buff below, without any streaks on the abdomen and under tail-coverts. Another specimen has the underparts more tinged with yellow instead with rufous. "Bill flesh-brown; corner of the mouth yellow; feet lead-colour; iris blackish brown" (*Gould*).

	Total length. in.	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Adult ♂	6·8	0·62	3·75	3·0	0·83
Adult ♂	6·7	0·6	3·9	3·1	0·9
♀ (type)	6·3	0·61	3·6	3·1	0·85
Adult ♀ (pale spec.)	6·0	0·5	3·6	2·9	0·81

Hab. Australia.

a. ♀ ad. sk.	Australia.	Linnean Society [P.]. (Type of *P. striata*, Vig. & Horsf.)
b, c. ♂ ♀ ad. sk.	Australia.	J. B. Jukes, Esq. [P.].
d. ♀ juv. ? sk.	Australia.	J. B. Jukes, Esq. [P.].
e. ♂ ad. sk.	Australia.	Sir T. Mitchell [P.].
f, g. ♂ ♀ ad. sk.	South Australia.	Sir G. Grey [P.].
h, i. ♂ ♀ ad. sk.	South Australia.	Capt. Sturt [P.].
k. [♂] ad. sk.	South Australia.	Gould Collection.
l. ♀ ad. sk.	New South Wales.	Gould Collection.
m. ♂ ad.; *n.* ♂ juv. sk.	Port Lincoln.	Gould Collection.
o. ♂ ad. sk.	Richmond river.	Mr. A. P. Goodwin [C.].
p, q. ♂; *r.* ♀ ad. sk.	Brisbane, Queensland (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
s, t. ♂ ♀ ad. sk.	Lake Elphinstone.	Mus. Godeffroy.
u. ♀ ad. sk.	Port Molle, Queensland, May 3, 1881 (*Dr. Coppinger*).	Voy. of H.M.S. 'Alert.
v. ♂ ad. sk.	Port Darwin, Oct. 1881 (*Dr. Coppinger*).	Voy. of H.M.S. 'Alert.'

25. Pachycephala rufogularis.

Pachycephala inornata, *Gould, P. Z. S.* 1844, p. 164 (*young*).
Pachycephala rufogularis, *Gould, P. Z. S.* 1844, p. 164; *id. B. Austr.* fol. ii. pl. 70; *id. Handb. B. Austr.* p. 215; *Bp. C. A.* i. p. 328; *Gray, Hand-l. B.* i. p. 388, no. 5893; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 181.

Adult male. Very similar to *P. gilberti*, but differing in the following points:—General colour above deep brownish grey; lores and cheeks rusty brown like the chin and throat; the whole under surface, except an irregular band of greyish on the chest, reddish sandy brown; under wing-coverts pale greyish buff; "bill black; feet blackish brown; iris reddish brown." (*Gould.*)

Adult female. Differing from the male in having the throat and under surface greyish white, the chest being crossed by an obscure mark of greyish brown, and with a line down the centre of each feather; under wing-coverts dull white. Total length 7 inches, culmen 0·75, wing 4·25, tail 3·5, tarsus 1. (*Gould.*)

Hab. South Australia and Tasmania.

Obs. The specimens in the collection of the British Museum are not in good condition; and I cannot state with certainty to what

species (either *P. rufogularis* or *P. gilberti*) they belong, or if they are young males or females of *P. rufogularis*.

a. ♀ ad. sk.	South Australia.	Sir G. Grey [P.].
b. ♀ juv. sk.	South Australia.	Purchased.
c. ♂ juv. sk.	New South Wales.	J. Gould, Esq. [C.].
d. ♀ ad. sk.	W. Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. Ad. sk.	Tasmania.	Ronald Gunn, Esq. [P.].

26. Pachycephala gilberti.

Pachycephala gilberti, *Gould, P. Z. S.* 1844, p. 107; *id. B. Austr.* fol. 1848, ii. pl. 71; *id. Handb. B. Austr.* p. 216; *Gray, Hand-l. B.* i. p. 388, no. 5874; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 181.
Pachycephala inornata, *Bp. C. A.* i. p. 328.

Adult male. General colour above, scapulars, and upper tail-coverts dark greyish brown washed with olive; wing-coverts, quills, and tail-feathers uniform dusky brown, the secondaries and the coverts externally edged with pale olive; head and ear-coverts dusky grey, some of the feathers slightly tipped with blackish; lores black; cheeks and throat rusty red, fulvescent on the chin; centre of the breast, the whole abdomen, and the under tail-coverts sandy buff; chest, sides of the breast, and flanks washed with brownish grey; under wing-coverts, axillaries, and edge of wing rusty red; thighs dusky grey; under surface of quills dusky grey, internally edged with whitish; "bill and feet black; iris light brown" (*Gould*). Total length 7 inches, culmen 0·65, wing 4·1, tail 3·5, tarsus 1.

Adult female. Upper surface like the male, but wanting the black lores and the rusty red on the throat, the throat and fore neck being grey, gradually passing into the buff of the rest of the under surface; under tail-coverts, edge of the wing, and axillaries pale buff.

Hab. Western and Southern Australia.

a. ♂ ad. sk.	South Australia.	Sir G. Grey [P.].
b. ♀ ad. or ♂ juv.	South Australia.	Gould Collection.
c. ♀ ad. sk.	Port Lincoln.	J. Gould, Esq. [C.].
d. [♂] ad. sk.	River Darling (*Dr. Pechey*).	J. Gould, Esq. [C.].
e. ♂ ad. sk.	Brisbane (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].
f, g. ♂ ad. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
h, i. Imm. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
k, l. ♂ imm. sk.	King George's Sound.	Gould Collection.

27. Pachycephala xanthoprocta.

Pachycephala xanthoprocta, *Gould, Syn. B. Austr.* 1837, fig. 2 (*juv.*); *id. P. Z. S.* 1837, p. 149; *Bp. C. A.* i. p. 329; *Gray, Ibis*, 1862, p. 226; *id. Hand-l. B.* i. p. 388, no. 5894.

The two specimens of this bird in the British Museum are labelled male and female.

They seem to be very similar to the female of *P. mentalis*; but their bills have quite a different shape, and they differ, besides, from the female of that species in the following points:—The general colour above is less yellowish and more olivaceous, and the whole under surface is pale fuscous, only the under tail-coverts yellow, but nowhere so glossy as in *P. mentalis*; under wing-coverts and axillaries white, washed with fulvous; edge of wing more yellowish; "eyes reddish brown; bill black, on the base brown; feet fuscous" (*Gould*).

Thus, as far as the colour of the plumage is concerned, these birds might be young females of *P. mentalis*; but, besides the shape of their bill, their wings and tails are somewhat longer.

♂. Total length 6·8 inches, culmen 0·73, wing 3·7, tail 3·2, tarsus 1·2.

♀. Total length 6·7 inches, culmen 0·75, wing 3·7, tail 3·2, tarsus 1·2.

Hab. Norfolk Island.

a, *b*. ♂ ♀ ad. sk. Norfolk Island, June 1865. J. Brenchley, Esq. [P.].

28. Pachycephala rufinucha.

Pachycephala rufinucha, *Sel. P. Z. S.* 1873, p. 692; *Salvad. Ann. Mus. Civic. Genov.* x. p. 141 (1877), xv. p. 46 (1879).

Pachycephala (?) rufinucha, *Salvad. Orn. Pap. e Molucche*, ii. p. 225 (1881).

Adult male. General colour above, including the scapulars, outer edge of the quills and wing-coverts, and the upper tail-coverts dull yellowish olive, deepening into brown on the tail-feathers; quills blackish brown; front half and sides of the crown ashy grey, occiput maroon-red, separated from the olivaceous colour of the back by a narrow grey band; cheeks grey; chin dull white; throat yellow; breast and abdomen white, changing into fuscous olive on the sides of the body and the flanks; thighs fuscous; "bill and feet black; iris chestnut-brown" (*d'Albertis*).

Another specimen, labelled a male, has the head spotted with olive-brown feathers, and the maroon-red on the occiput is not yet so well developed as in the other male. Some of the wing-coverts are externally edged with deep rufous; centre of breast white, but most of the feathers more or less strongly washed or edged with fulvous, olive-brown, or rufous.

♂. Total length 6·2 inches, culmen 0·8, wing 3·25, tail 2·9, tarsus 1·2.

Obs. Neither of the specimens in the collection of the British Museum is, I think, a fully adult bird.

Hab. Arfak mountains, N.W. New Guinea.

a.	♂ ad ? sk.	Arfak mountains, Jan. 30, 1876.	M. L. Laglaize [C.].
b.	♂ juv. ? sk.	Arfak mountains, Feb. 16, 1876.	M. L. Laglaize [C.].

29. Pachycephala olivacea.

Pachycephala olivacea, *Vig. & Horsf. Linn. Tr.* xv. p. 241; *Gould, Syn. B. Austr.* pt. viii.; *id. B. Austr.* fol. ii. pl. 73, ♂ ♀; *id. Handb. B. Austr.* p. 218; *Bp. C. A.* i. p. 329; *Gray, Hand-l. B.* i. p. 389, no. 5908; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 181.
Timixos meruloides, *Blyth, J. A. S. B.* xi. 1842, p. 195.

Adult male. Back, scapulars, and tail uniform brownish olive, a little lighter and yellowish on the upper tail-coverts; wing-coverts and quills blackish brown, the secondaries externally broadly edged with chestnut-olive; head greyish brown; ear-coverts blackish brown; chin and throat greyish white, each feather tipped with brown; under surface of the body fulvous-brown, deepening on the breast, becoming paler on the under tail-coverts; thighs fulvous-brown; under wing-coverts and axillaries pale fulvous.

The *female* is like the male, but has the head olive-brown instead of greyish brown; the general colour above chestnut-olive. According to Gould the young resembles the female, and assumes the adult colouring at an early age.

♂. Total length 8 inches, culmen 0·7, wing 3·8, tail 4, tarsus 1·35.

♀. Total length 7·5 inches, culmen 0·7, wing 3·7, tail 3·8, tarsus 1·2.

Hab. Tasmania and South Australia.

a.	♂ ad. sk.	Tasmania.	Linnean Society [P.]. (Type of species.)
b.	♂ ad. st.	Tasmania.	Purchased.
c.	♀ ad sk.	Tasmania.	Ronald Gunn, Esq. [P.].
d.	Ad. sk.	Tasmania.	Eyton Collection.
e.	Ad. sk.	Tasmania.	Gould Collection.
f, *g*.	Ad. sk.	Tasmania.	F. D. Godman and O. Salvin, Esqrs. [P.].
h.	Ad. sk.	Upper Yarra.	Gould Collection.
i.	♂ ad. sk.	South Australia.	J. Gould, Esq.
k.	Skeleton.		Purchased.

30. Pachycephala albispecularis.

Pachycephala albispecularis, *Salvad. Ann. Mus. Civic. Genov.* vii. (1875), p. 931.
Pachycephalopsis (?) albospecularis, *Salvad. op. cit.* xv. p. 48 (1879); *id. Orn. Pap. e Molucche*, ii. p. 237 (1881).

Adult male. General colour above olivaceous grey; neck ashy grey, a little deepening on the top of the head, the lores, and the ear-coverts; lesser wing-coverts ashy grey, the greater and primary ones fuscous black, the others fuscous olivaceous; wings fuscous, externally edged with olivaceous brown, except the first three and the last three feathers of the wing, which become blackish near the base of the outer web, and have a white patch on each web; the last three secondaries uniform olivaceous brown; tail-feathers fuscous, externally washed with brown; under wing-coverts fuscous, edged with white; chin grey; throat, cheeks, and abdomen white; on the breast a pale ashy crescent; flanks and under tail-coverts rufescent; bill fuscous, pale at the tip; feet pale in the skin. Total length 7·6 inches, culmen 0·63, wing 3·65, tail 2·45, tarsus 1·32.

Hab. Arfak mountains. (One male, collected by Mr. Bruijn, in Mus. Civic. Genova.)

31. Pachycephala hyperythra.

Pachycephala hyperythra, *Salvad. Ann. Mus. Civic. Genov.* vii. p. 932 (1875), x. p. 142 (1877), xv. p. 47; *id. Orn. Pap. e Molucche*, ii. p. 232 (1881).

Male. Back, wings, and tail warm olivaceous brown, the outer aspect of the quills and tail-feathers more yellowish olive; crown of head and lores dark slaty-grey, the feathers below the eye blackish; ear-coverts dusky brown; cheeks and throat white; rest of under surface bright rufous; under wing-coverts rufescent; wings below dusky, internally margined with ashy fulvous; "bill black; feet fleshy colour; iris chestnut" (*d'Alb.*).

Female. Similar to the male, but a little smaller in size, and with the forehead and the lores somewhat rufescent. (*Salvadori.*)

♂. Total length 6·1 inches, culmen 0·6, wing 3·5, tail 2·45, tarsus 0·8.

♀. Total length 5·9 inches, culmen 0·6, wing 3·35, tail 2·3, tarsus 0·8.

The young birds differ from the adult by the chestnut-red colour of the external margin of the wings and the wing-coverts. They are therefore similar to the young bird of *P. griseiceps*, Gray. (*Salvadori.*)

Hab. New Guinea.

a, b. Ad. sk.	Astrolabe mountains.	Mr. A. Goldie [C.].

32. Pachycephala orpheus.

Hylocharis orpheus, *Verreaux MS. (teste Jardine).*
Pachycephala orpheus, *Jard. Contr. Orn.* 1849, p. 129, pl. 30 (*female*); *Gray, Hand-l. B.* i. p. 389, no. 5912; *Finsch, Neu-Guinea*, p. 175 (1865).
Hyloterpe orpheus, *Bp. C. A.* i. p. 329 (1850).

Adult. General colour above greenish brown, passing into dull yellow on the rump and the upper tail-coverts; wing-coverts and quills umber-brown, externally edged with pale olive-brown; tail

umber strongly washed with yellow, somewhat darker than the upper tail-coverts; head dull ashy grey; lores, forehead, and superciliary stripe whitish grey; ear-coverts reddish brown; chin and throat white; breast pale fawn-buff, paler on the abdomen and flanks; under tail-coverts bright yellow; thighs pale brownish, terminal half yellow; under wing-coverts and axillaries whitish, tinged with pale fawn-colour; under surface of quills dusky brown, edged with whitish on the inner web; bill dark umber-brown; feet grey or lead-colour. Total length 5·5 inches, culmen 0·6, wing 2·85, tail 2·4, tarsus 0·8.

Hab. Timor.

Obs. Two specimens from Eastern Timor differ from the specimens described above by having the head of the same colour as the back, and the bill horny brown: they may be young birds.

a, *b*, ♂; *c*. ♀ ad. sk.	Eastern Timor.	A. R. Wallace, Esq. [C.].
d, *e*, *f*. Juv. ? sk.	Eastern Timor.	A. R. Wallace, Esq. [C.].
g. Ad. sk.	Timor, May 28.	J. Gould, Esq. [C.].
h. Ad. sk.	E. Timor (*A. R. Wallace*).	Gould Collection.

33. Pachycephala phæonotus.

Myiolestes phaionotus, *Müll. Mus. Lugd. (type examined by Salvadori)*; *Bp. Consp.* i. p. 358; *Salvad. P. Z. S.* 1878, p. 84; *id. Ann. Mus. Civ.* ix. p. 65 (1876); *id. Orn. Papuasia e Molucche*, ii. p. 230 (1881).

Pachycephala brunnea, *Wall. P. Z. S.* 1865, p. 478; *Gray, Hand-l. B.* i. p. 389, no. 5903; *Salvad. Ann. Mus. Civ. Gen.* ix. p. 65 (1876).

Pachycephala senex, *von Pelzeln, Verh. k. zool.-bot. Ges. Wien*, xxii. p. 429 (1872); *Meyer, Sitz. k. Akad. Wiss. Wien*, lxix. p. 393 (1874); *Sclater, Ibis*, 1874, p. 417.

Pachycephala phæonota, *Salvad. in Voy. 'Challenger,' Aves*, pl. xviii. fig. 1; *id. Ann. Mus. Civ. Gen.* xv. p. 47 (1879); *id. Orn. Pap. e Molucche*, ii. p. 230 (1881).

Adult. Male and female are alike in plumage. General colour above, scapulars, the outer web of the secondary quills, and the tail-feathers uniform earthy brown; wing-coverts and quills dark brown, externally edged with the colour of the back; head ashy grey; lores blackish; ear-coverts brown; chin, cheeks, and throat white; rest of underparts dirty brownish white, more washed with pale brown on the breast and flanks; middle of abdomen and under tail-coverts almost white; under wing-coverts, axillaries, and edge of wing white; under surface of quills dusky, internally edged with white; "bill black; feet pale brown" (*Wallace*).

Young female. Like the adults, but with the head olivaceous brown (*Meyer*).

Total length 6·3 inches, culmen 0·72, wing 3·4, tail 2·7, tarsus 0·87.

Hab. Banda, Ceram-laut, Mysol, Salwatty, Waigiou, Mafor, Ternate, Dammar, Mareh, Motir, Tifore (*Salvadori*).

a. ♂ ad. sk.	Salwatty.	A. R. Wallace, Esq. [C.]. (Type of *P. brunnea*.)
b. ♀ ad. sk.	Banda.	A. R. Wallace, Esq. [C.].
c, *d*. ♂ ♀ ad. sk.	Banda.	Voyage of H.M.S. 'Challenger.'

34. Pachycephala griseiceps.

Pachycephala virescens, *Müll. in Mus. Lugd.* (*type examined by Salvadori*); *Scl. Pr. Linn. Soc.* ii. 1858, p. 161 (*ex Müll. MS. in Mus. Lugd., sed descr. nullâ*); *Gray, P. Z. S.* 1858, p. 192, 1861, p. 435; *id. Cat. B. New Guinea*, p. 31; *Rosenb. Nat. Tijdsch. Ned. Ind.* xxv. p. 223 (1863); *id. J. f. O.* 1864, p. 120; *Finsch, Neu-Guinea*, p. 175 (1865); *Gray, Hand-l. B.* i. p. 388, no. 5897; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 330 (1878); *Rosenb. Malay. Archip.* p. 555 (1879).

Pachycephala griseiceps, *Gray, P. Z. S.* 1858, p. 178; *id. Cat. B. New Guinea*, p. 30; *id. P. Z. S.* 1861, p. 435; *Rosenb. Nat. Tijdsch. Ned. Ind.* 1863, p. 223; *id. J. f. O.* 1864, p. 120; *Finsch, Neu-Guinea*, p. 174; *Gray, Hand-l. B.* i. p. 388, no. 5876; *Pelz. Verh. zool.-bot. Gesell. Wien*, 1872, p. 429, pt.; *Meyer, Sitz. k. Akad. Wien*, 1874, lxix. p. 394; *Sclat. Ibis*, 1874, p. 417; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 399, ix. p. 29; *Salvad. & D'Alb. op. cit.* xiv. (1879) p. 71; *Salvad. Orn. Pap. e Molucche*, ii. p. 225 (1881).

Hyloterpe griseiceps, *Walden, Tr. Zool. Soc.* ix. p. 179 (1875).

Pachycephala squalida, *Oustalet, Bull. Soc. Philom. de Paris*, Dec. 1877; *Salvad. Ibis*, 1879, p. 106 (*young*).

Race of Jobi Island.

Pachycephala griseiceps, pt., *Meyer, Sitz. k. Akad. Wiss. Wien*, lxix. p. 394 (1874); *Scl. Ibis*, 1874, p. 417.

Pachycephala griseiceps, var. jobiensis, *Meyer, l. c.*

Pachycephala jobiensis, *Salvad. Ann. Mus. Civ. Gen.* xv. p. 46 (1879); *id. Orn. Pap. e Molucche*, ii. p. 227 (1881).

Race (?) of Miosnom Island.

Pachycephala miosnomensis, *Salvad. Ann. Mus. Civ. Gen.* xv. p. 46 (1879); *id. Orn. Pap. e Molucche*, ii. p. 227 (1881).

Adult male. General colour above, including the hind neck and scapulars, uniform olive-brown, on the upper tail-coverts inclining to somewhat lighter brown; wing-coverts, quills, and tail-feathers fuscous brown, externally washed with olive-yellowish; head brownish grey; a line from the nostrils extending over each eye dull white; ear-coverts reddish brown; chin, cheeks, and throat dull white, slightly tinged with light brown, which colour becomes more prevalent on the chest; breast, abdomen, flanks, and under tail-coverts whitish yellow, becoming browner towards the flanks; a line of demarcation between the colour of the chest and breast not well defined; under wing-coverts white, like the inner margin of the quills, which are dusky brown below.

In younger males the white feathers of the throat have pale-brown central streaks, and the terminal parts of the feathers are

more tinged with brown, although very slightly; "bill black; feet dusky olive; iris dark" (*Wallace*).

Obs. In the collection of the British Museum is a specimen, collected by Wallace and marked a female, which has the outer webs of the secondary quills strongly edged with rufous-brown, and the bill in the skin rather pale brown. It is apparently a young bird.

	Total length. in.	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ (type)	6·0	0·62	3·2	2·5	7·5
♀	5·9	0·6	3·1	2·5	7·3

Hab. Aru Islands, Waigiou, Mysol, Salwatti, New Guinea.

a. ♂ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.]. (Type of species.)
b, *c*. ♂ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].
d. ♀ ad. sk.	Aru Islands (*Wallace*).	Gould Collection.
e. Juv. sk.; *f*. Ad. sk.	Aru Islands.	F. D. Godman and O. Salvin, Esqrs. [P.].
g, *h*. ♂ ♀ ad. sk.	New Guinea.	A. R. Wallace, Esq. [C.].
i. ♂ juv. sk.	Amberbaki, May 1877.	M. Laglaize [C.].
k. Ad. sk.	Arfak mountains.	M. Laglaize [C.].
l. Ad. sk.	Port Moresby.	K. Broadbent, Esq. [C.].
m. Ad. sk.	Aleya, South-east Papua, April 1876.	Dr. James [C.].
n. Ad. sk.	Salwatti.	A. R. Wallace, Esq. [C.].
o. Ad. sk.	Lobo Bay, New Guinea.	Gould Collection.
p. ♀ ad. sk.	Waigiou.	A. R. Wallace, Esq. [C.].
q. Ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].
r, *s*. ♀ ad. sk.	Mysol.	A. R. Wallace, Esq. [C.].

Obs. (1) In the island of Jobi *P. griseiceps* is represented by a slightly differently coloured race, *P. jobiensis*. The breast is only slightly tinged with brownish, whilst the yellow colour of the underparts is more pronounced on the abdomen and on the under tail-coverts, and extends up to the lower breast. This race is slightly smaller than *P. griseiceps*.

Ad. sk.	Ansoes, island of Jobi, Feb. 3, 1876.	M. Laglaize [C.].

(2) Specimens from the island of Miosnom, according to Salvadori, are slightly larger in their dimensions than *P. jobiensis*.

35. Pachycephala cinerascens.

Pachycephala lineolata, *Salvad.* (*nec Wall.*), *Ann. Mus. Civ. Gen.* vii. p. 989 (1875), xv. p. 47.
Pachycephala cinerascens, *Salvad. op. cit.* xii. p. 332 (1878), xv. p. 47; *id. Orn. Pap. e Molucche*, ii. p. 230 (1881).

Male. Above ashy; wings and tail fuscous; sides of the head ashy; under surface of the body white; upper breast and flanks washed with grey; bill black; feet lead-colour.

Female. Above dull grey, somewhat olive; secondary quills near the end margined with white; body below rufescent; feathers of fore neck and chest with dusky shaft-streaks; bill dusky; feet lead-colour.

Total length 5·7 inches, culmen 0·2, wing 3·15, tail 2·18, tarsus 0·75.

Hab. Islands of Ternate, Tidore, and Morotai.

36. Pachycephala griseonota.

Pachycephala griseonota, *Gray, P. Z. S.* 1861, p. 429; *Finsch, Neu-Guinea*, p. 175 (1865); *Gray, Hand-l. B.* i. p. 388, no. 5877; *von Pelzeln, Verh. k. zool.-bot. Ges. Wien*, 1872, p. 429; *Meyer, Sitz. k. Ak. Wien*, lxix. p. 393 (1874); *Salvad. Ann. Mus. Civ. Gen.* xii. p. 331 (1878), xv. p. 46; *id. Orn. Pap. e Molucche*, ii. p. 229 (1881); *Rosenb. Malay. Archip.* p. 395 (1879).

Pachycephala rufescens, *Wall. P. Z. S.* 1862, p. 341, 1863, p. 30; *Finsch, Neu-Guinea*, p. 175; *Gray, Hand-l. B.* i. p. 389, no. 5900; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 331 (1878).

Pachycephala lineolata, *Wall. P. Z. S.* 1862, pp. 335, 341, 1863, p. 30; *Finsch, Neu-Guinea*, p. 175; *Gray, Hand-l. B.* i. p. 389, no. 5901; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 332 (1878).

Adult male (*P. rufescens*, Wall., from Bouru). General colour above dull brownish ashy; crown and sides of head uniform ashy grey, with darker central streaks; wing-coverts and quills dusky; the secondaries broadly, the primaries narrowly margined with light brownish grey; upper tail-coverts like the back; tail-feathers uniform dusky, with ashy tips; chin and throat dull white, slightly shaded on the fore neck with pale ashy, passing into light reddish buff on the underparts, without any longitudinal streaks; under wing-coverts and axillaries creamy buff or a little more like the chest; thighs grey; "bill and feet black; iris dark" (*Wallace*).

Adult male (type of *P. rufescens*, Wall., from the Sula Islands). General colour above exactly like that of the male above described, only the outer margin of the secondary quills and the inner margin of the tail-feathers a little browner and less dusky than in the male. The whole under surface of the body and the thighs are nearly uniform cream-colour, dull white on the chin and throat. It is very likely not quite adult.

♂. Total length 6·1 inches, culmen 0·58, wing 3·2, tail 2·43, tarsus 0·85.

♀. Total length 6 inches, culmen 0·56, wing 3·1, tail 2·43, tarsus 0·80.

Adult female (type of *P. lineolata*, Wall.). Above uniform ash-coloured, or, as Wallace says, more or less tinged with olive-green, which colour becomes more distinct on the upper tail-coverts and the outer web of the tail-feathers, which are brownish; wings dusky brown, externally rather narrowly margined with olivaceous; lores and ear-coverts light ashy; chin almost white; throat pale cream-colour or, as Wallace says, pale ochraceous yellow, deepening on the chest and breast and middle of abdomen more into light

creamy buff; flanks, under tail-coverts, and thighs paler, like the under wing-coverts and the axillaries; the feathers on the throat and breast with dusky shaft-streaks; "bill and feet blackish; iris dark" (*Wallace*).

The specimen from the Sula Islands is a little smaller, and the general colour above is more grey, and the olivaceous tinge extends only over the head and the upper tail-coverts; the under surface of the body is pale, and the feathers of the chin and throat are more streaked.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
♀	6·0	0·6	3·1	2·5	0·87
♀	5·6	0·6	2·9	2·3	0·75

The specimen described by Gray as *P. griseonota* is in the Museum. From an examination of this type it is evident that it is an immature, but not particularly young male.

Hab. Bouru, Mysol, and the Sula Islands.

a. ♂ ad. sk.	Bouru.	A. R. Wallace, Esq. [C.].
b. ♀ ad. sk.	Bouru.	A. R. Wallace, Esq. [C.]. (Type of *P. lineolata*.)
c. ♂ juv. (?) sk.	Bouru, Oct. 18, 1870.	Baron von Rosenberg [C.].
d. ♂ ad. sk.	Sula Islands.	A. R. Wallace, Esq. [C.]. (Type of *P. rufescens*.)
e. ♀ juv. ? sk.	Sula Islands.	A. R. Wallace, Esq. [C.].
f. ♂ juv. ? sk.	Mysol.	A. R. Wallace, Esq. [C.]. (Type of *P. griseonota*.)

37. Pachycephala rufipennis.

Pachycephala rufipennis, *Gray*, *P. Z. S.* 1858, p. 178; *id. Cat. B. New Guinea*, p. 31; *id. P. Z. S.* 1861, p. 435; *Finsch, Neu-Guinea*, p. 174 (1865); *Gray, Hand-l. B.* i. p. 388, no. 5878; *Rosenb. Malay. Arch.* p. 336 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 653 (1879), xv. p. 46 (1879); *id. Orn. Pap. e Molucche*, ii. p. 228 (1881).

? Myolestes, sp., *Rosenb. Reis. naar Zuidoostereil.* p. 80 (1867) (*teste Salvad.*).

Adult female. Somewhat similar to the female of *P. melanura*. General colour above, including the scapulars, greater wing-coverts, and the tail-feathers uniform olive-brown; wing-coverts and quills dark brown, edged with the same colour as the back; crown of head dark brown; lores and superciliary region brownish white; ear-coverts reddish brown; chin, cheeks, and throat white, with faint pale longitudinal stripes; remainder of the under surface yellowish white, strongly tinged on the chest with pale brown; under wing-coverts, axillaries, and edge of wing white; under surface of quills dusky silvery grey, internally edged with white; bill black in the skin; feet brownish. Total length 6·5 inches, culmen 0·7, wing 3·3, tail 2·7, tarsus 0·84.

Obs. The type of this species described by Gray is in the collection of the British Museum, and has the secondaries externally broadly edged with reddish. It is undoubtedly a young bird.

Hab. Ké Islands.

a. ♀ juv. sk.	Ké Islands.	A. R. Wallace, Esq. [C.].	(Type of species.)
b. ♀ ad. sk.	Ké Islands.	A. R. Wallace, Esq. [C.].	

38. Pachycephala dubia.

Eopsaltria brunnea, *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 391 (1876).

Pachycephala brunnea, *Ramsay* (*nec Wall.*), *op. cit.* iii. p. 382 (1879), iv. p. 99 (1879); *Salvad. Ibis*, 1879, p. 324.

Pachycephala dubia, *Ramsay, op. cit.* iv. p. 99 (note) (1879); *Salvad. Ann. Mus. Civ. Gen.* xv. p. 46 (1879); *id. Orn. Pap. e Molucche*, ii. p. 228 (1881).

"This species in general appearance resembles *Pachycephala simplex* of Gould, but has no stripes on the breast or on the under surface; the bill is also longer. Total length 5½ inches, wing 3·3, tail 2·5, bill 0·55." (*Ramsay, l. c.*)

Hab. Port Moresby, S.E. New Guinea.

Obs. This bird is, perhaps, nothing but the adult of *P. simplex*. See also p. 175 (footnote).

a, b. Ad. sk.	Astrolabe mountains, S.E. New Guinea.	Mr. A. Goldie [C.].
c. Ad. sk.	Astrolabe mountains, S.E. New Guinea.	Mr. A. Goldie [C.].

39. Pachycephala simplex.

Pachycephala simplex, *Gould, P. Z. S.* 1842, p. 135; *id. B. Austr.* fol. ii. p. 72; *Bp. C. A.* i. p. 328; *Gould, Handb. B. Austr.* i. p. 217; *Gray, Hand-l. B.* i. p. 388, no. 5875; *Ramsay, Proc. Linn. Soc. N. S. W.* i. p. 391; *id. op. cit.* ii. p. 181; *Masters, op. cit.* ii. p. 271.

Adult male and female. All the upper surface, including the head, wing-coverts, tail, and the outer margin of the quills, uniform fuscous brown; quills plain brown; lores and ear-coverts somewhat paler; chin, checks, and the rest of the under surface white, only tinged on the breast with pale fuscous, with a very faint stripe of brown down the centre of each feather; thighs fuscous; under wing-coverts, axillaries, and edge of wing white. The only specimen in the British-Museum collection has the lower breast, the abdomen, the flanks, and under tail-coverts entirely white. Total length 5 inches, culmen 0·6, wing 2·9, tail 2·35, tarsus 0·83.

Hab. North Australia.

a. Ad. sk.	Port Essington.	Capt. Chambers [P.].

40. Pachycephala grisola.

Muscicapa philomela, *Temm. Mus. Berol.*
Tephrodornis superciliaris (*Swains.*), var., *Blyth, J. A. S. Beng.* xi. p. 799 (1842).
Tephrodornis grisola, *Blyth, J. A. S. Beng.* xii. p. 180 (1843); *id. op. cit.* xiv. p. 573; *id. Cat. B. Mus. As. Soc.* no. 886 (1849); *Jerdon, B. Ind.* i. p. 411 (1862); *Blyth, Ibis*, 1866, p. 367.
Muscitrea cinerea, *Blyth, Journ. A. S. B.* 1847, p. 121.
Hyloterpe philomela, *Cab. Arch. f. Naturg.* 1847, ii. p. 322 (*ex Boie, MS.*); *Bp. C. A.* i. p. 329; *Cab. Mus. Hein.* i. p. 64.
Pachycephala grisola, *Sclat. P. Z. S.* 1863, p. 217.
Hylocharis philomela, *Gray, Hand-l. B.* i. p. 389, no. 5911.
Hyloterpe grisola, *Walden, Ibis*, 1874, p. 141.
Muscitrea grisola, *Hume, Str. F.* 1877, p. 102.

Adult. General colour above more or less rufous umber-brown; wing-coverts and quills greyish umber; the primaries narrowly, the secondaries very broadly edged with rufous umber; tail umber; head dull ashy brown; forehead and lores light grey; throat and cheeks white, faintly mottled with brownish; chest whitish, slightly washed with umber; remainder of the under surface white; feathers of the thighs brown, terminal half white; under wing- and tail-coverts, axillaries, and edge of wing white; under surface of quills dusky brown below, edged with white on the inner web; "bill black; feet dark slaty; iris brown" (*Wardlaw Ramsay*). Total length 6·2 inches, culmen 0·63, wing 3·2, tail 2·7, tarsus 0·77.

The sexes seem to be exactly alike in plumage.

Obs. Two specimens in the collection of the British Museum have the whole outer web of the wing-coverts and of the secondary quills rufous; the bill horny brown. They are apparently young birds, and are labelled females.

Hab. Java, Sumatra, N.W. Borneo.

a. ♀ ad. sk.	Pegu, July 10, 1877.	Eugene W. Oates, Esq. [C.].
b. ♀ imm. sk.	Tenasserim.	Eugene W. Oates, Esq. [C.].
c. ♀ ad. sk.	Malacca.	A. R. Wallace, Esq. [C.].
d. ♂ ad. sk.	Eastern Java.	A. R. Wallace, Esq. [C.].
e. Ad. sk.	Java.	Purchased.
f. Ad. sk.	N.W. Borneo.	Hugh Low, Esq. [C.].
g, h. Ad. sk.	Lumbidan, N.W. Borneo.	Governor Ussher [C.].
i. ♀ ad. sk.	Sarawak.	A. R. Wallace, Esq. [C.].
k, l. ♂ ♀ ad. sk.	Lombock (*A. R. Wallace*).	Gould Collection.
m, n. [♀] juv.; *o.* ♂ ad. sk.	Lombock.	A. R. Wallace, Esq. [C.].

41. Pachycephala brunneicauda.

? Hylocharis luscinia, *S. Müll. Tijdsch. Nat. Gesch. en Phys.* ii. p. 331 (1835) (Sumatra) (*descr. nullâ*).
Hyloterpe brunneicauda, *Salvad. Ann. Mus. Civic. Genov.* xiv. (1879) p. 210.

Above olivaceous brown; head ashy; tail brown; under surface

of the body white; fore neck and breast greyish; wings dusky, margined with the colour of the back; bill dusky; feet grey. Total length 5·2 inches, culmen 0·5, wing 2·85, tail 2·4, tarsus 0·85.

Hab. Ajer Mantcior, Sumatra (one male, collected by Beccari, Aug. 6th).

Obs. Similar to *H. grisola* (Temm.) from Java, but differing from it in being smaller and in having the tail more reddish. (*Salvadori.*)

42. Pachycephala philippinensis.

Hyloterpe philippinensis, *Walden, Ann. & Mag. N. H.* 1872, vol. x. p. 252; *id. Tr. Z. S.* 1877, viii. p. 179, pl. xxxi. fig. 2, ix. p. 250; *id. P. Z. S.* 1879, p. 109; *Wardlaw Ramsay, in Tweeddale's Ornith. Works, Append.* pp. 656, 666; *Gould, B. Asia*, part 33.

Adult male (Luzon, Jan. 1872). Head above greyish brown, with a slight olive tinge; the rest of the upper parts olive-green; ear-coverts and cheeks and the region round the eye slightly reddish brown; chin and throat dingy white; "an indistinct obscure zone crossing the breast and bordering the upper breast-plumage, consisting of feathers which are dark ashy at their base, then pure white, tipped with dirty yellow; the remainder of the under plumage, with the flanks and under tail-coverts, sulphur-yellow, each feather, however, being iron-grey at the base and then white" (*Walden, l. c.*); edge of wing yellow; under wing-coverts and axillaries white, washed with yellow; inner web of quills edged with yellowish white. Two specimens, male and female, from Dinagat, June, 1877: "iris dark brown; bill black; legs bluish grey." Total length 6 inches, culmen 0·65, wing 3·25, tail 2·8, tarsus 0·75.

Hab. Islands of Luzon and Dinagat, Philippine archipelago.

The description is taken from the type specimens in Capt. Wardlaw Ramsay's collection.

43. Pachycephala sulfuriventer.

Hyloterpe sulfuriventer, *Walden, Ann. & Mag. N. H.* 1872, ser. 4, ix. p. 399; *id. Tr. Z. S.* 1874, vol. viii. p. 117; *Wardlaw Ramsay, in Tweeddale's Orn. Works, Append.* p. 666.

Adult. All the upper parts olive-brown, darker on the head, but more ferruginous on the tail and lower back; quills dark brown, their outer edges and the greater part of the wing-coverts being of the same colour as the back; chin and throat dingy white, shading off on the upper part of the breast into pale brown, which again gradually changes into sulphur-yellow towards the centre of the breast; lower abdomen, under tail-coverts, and thighs bright sulphur-yellow; edge of wing yellowish; under wing-coverts and axillaries white with a yellow tinge; bill and legs black in the skin. Total length 6 inches, culmen 0·6, wing 3·25, tail 2·5, tarsus 0·75.

Hab. This well-marked species seems to be restricted to Celebes.

Obs. The description is taken from the type specimens in Capt. Wardlaw Ramsay's collection. The tail in both of the typical specimens is 2·5 inches in length, and not 3 inches as is stated in the original description of these birds.

44. Pachycephala monacha.

Pachycephala monacha, *Gray, P. Z. S.* 1858, p. 179; *id. Cat. B. New Guinea*, p. 31; *id. P. Z. S.* 1861, p. 435; *Rosenb. Nat. Tijdsch.* xxv. p. 235; *id. Malay. Arch.* p. 366 (1879); *id. J. f. O.* 1864, p. 120; *Finsch, Neu-Guinea*, p. 175; *Gray, Hand-l. B.* i. p. 388, no. 5879; *Salvad. Ann. Mus. Civ. Genov.* xii. p. 332 (1878), xv. p. 47.

Pachycephala lugubris, *Scl. Proc. Linn. Soc.* ii. 1858, p. 161, spec. 72 (*ex Müller MS. in Mus. Lugd., descr. nullâ*) (*type examined by Salvadori*); *Gray, P. Z. S.* 1858, p. 192; *id. Cat. B. New Guinea*, p. 31; *id. P. Z. S.* 1861, p. 438; *Rosenb. Nat. Tijdsch. Ned. Ind.* xxv. p. 233 (1863); *id. J. f. O.* 1864, p. 120; *id. Malay. Arch.* p. 555 (1879); *Finsch, Neu-Guinea*, p. 175; *Gray, Hand-l. B.* i. p. 388, no. 5895; *Salvad. Ann. Mus. Civ. Gen.* xii. (1878) p. 332; *id. Orn. Pap. e Molucche*, ii. p. 233 (1881).

Adult male (type of species). General colour above sooty black; rump and upper tail-coverts grey; head all round, throat, and chest deep sooty (not shining) black; remainder of the under surface pure white, the sides faintly washed with grey; thighs dusky, edged with white; wing-coverts, wings, and tail blackish brown; the secondaries narrowly edged with lighter blackish brown; the tail-feathers with narrow greyish tips; quills below dusky, internally edged with white; under wing-coverts, axillaries, and edge of the wing white. Total length 6·5 inches, culmen 0·6, wing 3·4, tail 2·6, tarsus 0·8.

Female. Upper parts dull grey; underparts white; sides of head, fore neck, and breast grey, the latter with delicate brown streaks.

Hab. Aru Islands.

a. ♂ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.]. (Type of species.)
b. ♂ ad. sk.	Aru Islands.	A. R. Wallace, Esq. [C.].

45. Pachycephala leucogaster.

Pachycephala leucogastra, *Salvad. et d'Alb. Ann. Mus. Civ. Gen.* vii. p. 822 (1875), xv. p. 47 (1879); *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 34 (1878); *Sharpe, Proc. Linn. Soc., Zool.* xiv. p. 631 (1879); *Salvad. Orn. Pap. e Molucche*, ii. p. 232 (1881).

Pachycephala fuliginata, *Ramsay, Proc. Linn. Soc. N. S. W.* iii. p. 174 (1878), iv. p. 99 (1879); *Salvad. Ibis*, 1879, p. 324.

Adult male. Above, including scapulars and upper tail-coverts, bluish ashy grey; feathers of the back with faint brownish vermiculations; wing-coverts black, very narrowly edged with grey; quills blackish or dusky brown, the primaries narrowly, the secon-

daries broadly edged with grey; tail blackish brown, the central pair slightly tipped with grey; crown and sides of the head, and a crescent on the chest deep black, separating the white chin and throat from the entirely pure white remainder of the under surface, including the under wing-coverts, the axillaries, and the edge of the wing; under surface of quills blackish, internally margined with white; thighs grey, edged with white. Total length 5·5 inches, culmen 0·6, wing 3·4, tail 2·6, tarsus 0·77. "Bill, feet, and iris black" (*Salv. & d'Alb.*).

Adult female. As *P. fuliginata* of Ramsay is apparently the same as *P. leucogaster*, Salvad., I give the following description of the female of *P. fuliginata* (Ramsay). "All the upper surface greyish ashy brown, with faintly darker striæ down the centre of the feathers on the head, interscapular region, and upper tail-coverts; wing and tail dark brown, lighter below; the primaries very narrowly, and the secondaries and coverts margined with ashy; throat white, with short brown shaft-lines; the chest shaded with light ashy brown, forming an indistinct cross band, and, like the throat, the feathers are centred with brown shaft-lines; breast creamy white; abdomen, flanks, and under tail-coverts white; under wing-coverts and axillaries creamy white; inner margin of the primaries and secondaries whitish. Total length 5·2 inches, bill 0·6, wing 3·15, tail 2·4, tarsus 0·7."

Hab. S.E. New Guinea.

a. ♂ ad. sk. Port Moresby. K. Broadbent, Esq. [C.].

46. Pachycephala leucostigma.

Pachycephala leucostigma, *Salvad. Ann. Mus. Civic. Genov.* vii. p. 933 (1875), xv. p. 47; *id. Orn. Pap. e Molucche*, ii. p. 234 (1881).

Adult male (type of species) (Atam, July 2, 1875; Beccari). General colour above olive-brown, the mantle and hind neck varied with longitudinal ovate streaks of white along the shaft of the feathers; the head rather darker brown, and the streaks indistinct on the crown, but plainer on the forehead; wing-coverts olive-brown, the least series tipped with pale ochre; median, greater, and primary-coverts brown, externally edged with reddish ochre; quills brown, edged with ochraceous brown, inclining to fulvous on the outer webs of the primaries; tail-feathers brown, margined with olive-brown and narrowly edged with dull whitish at the tips; over the eye a narrow rufous line; feathers in front of the eye whitish; sides of face and ear-coverts rufous; the throat rather paler rufous; rest of underparts mottled; the lower throat and fore neck dull white, with olive-brown edgings to the feathers; remainder of under surface pale fulvous-brown, white on the abdomen, the feathers barred across with dusky olive-brown; under wing- and tail-coverts dull rufous; quills brown below, fulvous along the inner web; "bill black; feet ashy grey; iris dull yellow" (*Beccari*).

Total length 5·8 inches, culmen 0·55, wing 3·5, tail 2·6, tarsus 0·75. (*Mus. Civic. Genova.*)

Adult female (Atam, June 26, 1875; Beccari). Like the male. Total length 5·8 inches, culmen 0·55, wing 3·4, tail 2·4, tarsus 0·75. (*Mus. Civic. Genova.*)

Hab. Arfak mountains, North-western New Guinea.

47. Pachycephala lanioïdes.

Pachycephala lanioïdes, *Gould, P. Z. S.* 1839, p. 142; *id. B. Austr.* fol. ii. pl. 69; *id. Handb. B. Austr.* i. p. 215; *Bp. Consp.* i. p. 328; *Gray, Hand-l. B.* i. p. 388, no. 5892; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 181.

"*Pach.* vertice, plumis auricularibus et pectore nigris; dorso posteriore fascia castanea ornato; gutture, abdomine medio, crissoque albis; dorso, lateribus, humeris, necnon primariis secundariis tectricibusque externe cinereis; cauda, rostro, pedibusque nigris" (*Gould*). Long. tot. 7·5 poll., rostri 1, alæ 3·75, caudæ 3·25, tarsi 1.

Hab. North-west coast of Australia.

48. Pachycephala cyanea *.

Muscitrea cyanea, *Hume, Str. F.* 1877, p. 101 (June); *id. Str. F.* 1878, vi. p. 207.

Niltava leucura, *Tweed. Ann. & Mag. Nat. Hist.* 1877, p. 95 (Aug.).

Trichastoma leucoproctum, *Tweedd. P. Z. S.* 1877, p. 366 (read in April, *female*); *Hume, Str. F.* vii. 1878, p. 318.

Mr. Hume gives the following description of this interesting bird:—"*Adult male.* Lores and a narrow band on the forehead black; rest of forehead and a broad band from forehead over the eyes cobalt-blue; crown and occiput in one specimen the same, but rather duller, in the other very much duller, being much intermingled with the colour of the back; the entire mantle deep indigo-blue, a little brighter and inclining to cobalt on the shoulder of the wing: on the rump the greyish-white bases of the feathers show through a little; but I doubt if this would be the case in life. The quills, greater coverts, and four central tail-feathers deep hair-brown; all the feathers edged externally with the colour of the back; four outer pairs of tail-feathers similar, but with more or less of the inner webs pure white, the outermost of all with only a marginal band; the next two pairs with nearly the whole inner webs white, and the fourth with the central portion of the feather

* Mr. Hume says that *P. grisola*, Blyth, is structurally closer to *P. cyanea* than it is to *P. orpheus*, Verr., or *P. philippensis*, Wald. I therefore let *P. cyanea* follow here amongst the other *Pachycephalæ*; and as *P. cyana* of Salvadori has been referred to *Pœcilodryas*, the objection to having a *Pachycephala cyana* and a *P. cyanea* is removed.

white, the white at the base on both webs, but not extending to either margin, and on the outer web only occupying the basal half, while on the inner it reaches to within one fifth from the tip; chin, throat, cheeks, ear-coverts, sides of neck, breast, and sides of the same colour as the back, but duller and a trifle more slaty; greater portion of abdomen and flanks white, shaded, streaked, and overlaid with dusky slate-colour or slaty blue; vent and lower tail-coverts pure white; tibial plumes slaty; edge of wing blue; axillaries and wing-lining silky grey; bill black, whitish at the gape; the legs, feet, and claws pale fleshy brown; irides deep brown. Total length 7·45–7·8 inches, tail 2·7–2·9, wing 3·6–3·72, tarsus 0·9, bill from gape 1·0–1·02."

Female. Above olivaceous ruddy brown, more rusty at the tip of the upper tail-coverts, greyish on head, a tinge of pale rufous on a narrow frontal band, passing to the pale lores; tail very similar to that of the male; shoulder of wing rusty olive, the primaries dull rusty brown; blotch of white on the upper breast, which is dull pale olive-brown, fading into the pure white of the under tail-coverts; feet grey, iris dark brown. Wing 3·5 inches, tail 3, tarsus 0·9. (*Tweeddale.*)

Hab. Tenasserim (Mooleyit) and Siam.

β. Subgeneric group PACHYCEPHALOPSIS.

	Type.
Pachycephalopsis, *Salvad. Ann. Mus. Civ. Gen.* xv. p. 48 (1879)	P. hattamensis.

Tarsus anteriorly covered with one long scutum. Tarsus and toes comparatively longer than in the true *Pachycephalæ*.

49. Pachycephala hattamensis.

Pachycephala hattamensis, *Meyer, Sitz. Akad. Wissensch. Wien*, lxix. p. 391 (1874); *Oustalet, Bull. Soc. Philom.* 1877; *Salvad. Ann. Mus. Civic. Genov.* x. p. 142 (1877).

Pachycephalopsis hattamensis, *Salvad. Ann. Mus. Civic. Genov.* xv. p. 48 (1879); *id. Orn. Pap. e Molucche*, ii. p. 236 (1881); *Gould, B. New Guinea*, pt. xiii.

Male. Forehead, head, nape, cheeks, and ear-coverts grey; lores white; back and rump olivaceous green; chin and upper throat white; rest of throat, breast, and abdomen dull yellow, somewhat darker on the throat and breast; quills brownish, with the margins of the outer web reddish brown; wing-coverts grey, edged with olive-colour; under surface of quills brownish grey; under wing-coverts light grey; tail and upper tail-coverts reddish brown; under tail-coverts light brown; the tips of the tail-feathers having the shaft pointed and without web [which seems to me the sign of a young bird]; bill and feet black; iris chestnut-brown (*d'Albertis*). Total length 6·9 inches, culmen 0·54, wing 4·1, tail 2·45.

Young birds like the adult, but with a few greenish-yellow feathers in the plumage.

Hab. N.W. New Guinea.

a. ♂ ad. sk.	Mount Arfak, May 13, 1875 (*Beccari*).	Mus. Civico, Genova.
b. ♀ ad. sk.	Mount Arfak, April 30, 1875 (*Bruijn*).	Mus. Civico, Genova.

50. **Pachycephala poliosoma.** (Plate IX.)

Pachycephalopsis poliosoma, *Sharpe, Journ. Linn. Soc., Zool.* xvi. (1882) p. 381; *Gould, B. New Guin.* pt. xiii.

Adult. General colour of upper parts dark, that of underparts pale slaty grey; head tinged with brownish; wings, tail, and ear-coverts uniform blackish brown; chin, cheeks, and upper throat white, lower throat washed with rufous; under surface of quills, and under wing-coverts brownish grey.

Younger birds have the head, fore neck, wings, tail, and under tail-coverts strongly washed with brown.

Total length about 6 inches.

♂. Culmen 0·76 inch, wing 4·1, tail 2·7, tarsus 1·1.
Type, ♂. ,, 0·77 ,, 4·35, ,, 2·85, ,, 1·12.

Hab. S.E. New Guinea.

a, *b*. Ad. sk.	Astrolabe mountains.	Mr. A. Goldie [C.]. (Types of species.)
c. Imm. sk.	Astrolabe mountains.	Mr. A. Goldie [C.].

18. PACHYCARE.

Type.
Pachycare, *Gould, B. New Guinea*, pt. iii., 1876 .... P. flavogrisea.

Head of *Pachycare flavogrisea*.

Culmen straight and ridged; nostrils in a groove, covered by a coriaceous operculum, half exposed; rictal and nasal bristles present, but feebly developed. Tip of wing formed by primaries 3–6. The scales in front of the tarsus fuse early into one scutum. Tail very short, less than two thirds of the wing. The pattern of the plumage, especially the black superciliary streak and the white tips on the secondaries, would alone suffice to remove this species from *Pachycephala*.

Range. New Guinea.

1. Pachycare flavogrisea.

Pachycephala flavogrisea, *Meyer, Sitzb. k. Ak. Wiss. Wien*, lxix. p. 495 (1874); *Sclat. Ibis*, 1874, p. 418; *Salvad. Ann. Mus. Civ. Genov.* vii. p. 774 (1875).

Pachycare flavogrisea, *Gould, B. New Guin.* pt. iii. pl. x. (1876); *Oustal. Bull. Soc. Philom. Paris*, 1877; *Salvad. Ann. Mus. Civ. Genov.* xv. p. 48 (1879); *id. Orn. Pap. e Molucche*, ii. p. 238 (1881).

Adult male. General colour above blue-grey; bastard-wing feathers black, with pure white tips; wing-coverts black; quills dusky brown, almost black, the outer web of the primaries narrowly, that of the secondaries broadly edged with blue-grey; the three innermost secondaries with white tips; upper tail-coverts blue-grey; the basal half of the tail-feathers and the central pair bluish grey, the terminal half dusky brown with light tips; head above blue-grey; forehead, lores, feathers round the eyes, and ear-coverts like the whole under surface of the body, deep shining yellow, the yellow on the forehead and the sides of the head and neck being separated from the blue-grey of the head by a broad dark stripe; under wing-coverts and axillaries white slightly tinged with yellow; edge of wing black; "bill black; feet brownish, claws paler" (*Meyer*). Total length 4·5 inches, culmen 0·68, wing 2·6, tail 1·65, tarsus 0·85.

Obs. Another specimen in the collection has the ear-coverts *dusky*, tinged with yellow. A third specimen wants the black stripe round the forehead and above the eyes, only a few feathers being tipped with black; but behind the ear-coverts and on the sides of the occiput the black feathers are well developed; the ear-coverts are *yellow*, but tinged with dusky. I suppose that this is a young bird, whilst the other specimen is the female.

Hab. New Guinea.

a. ♂ ad. sk.	Arfak mountains, Jan. 31, 1876.	M. L. Laglaize [C.].
b. Juv. sk.	Moré, Dec. 14, 1875.	M. L. Laglaize [C.]
c. Ad. sk.	New Guinea.	Dr. A. B. Meyer [C.].
d. Ad. sk.	New Guinea.	Gould Collection.
e. Ad. sk.	Astrolabe mountains, S.E. New Guinea.	Mr. A. Goldie [C.].

Subfamily IV. LANIINÆ.

Plumage lax and never gorgeous, without either red, green, or blue. Bill strong and stout, laterally slightly compressed; culmen bent and ending in a hook, and with a conspicuous, always well developed tooth. Nostrils half covered with feathers and bristles; rictal bristles present; the nostrils non-operculated, in front of a slight groove, which, as a rule, is completely ossified. Tail graduated or square. First primary always present, but variable in length; tip of wing chiefly formed by third, fourth (fifth) primaries; secondaries about four fifths or less of length of whole wing. No crest.

Young birds with cross markings to the feathers. Sexes, with few exceptions, alike in plumage.

Palæarctic, Nearctic, Indian, and African regions.

Key to the Genera.

a. Feathers of crown and neck lanceolated; tail more than double the length of the wings ..... 19. UROLESTES, p. 228.

b. Feathers of crown and neck of ordinary shape; tail equal to wings, or somewhat longer (not exceeding wings by half of their length).

a'. Plumage never spotted in the adult.. { 21. CORVINELLA, p. 231 / 22. LANIUS, p. 232 *.

b'. Plumage spotted ..... 20. LANIELLUS, p. 230.

19. UROLESTES.

Type.

Basanistes, *Licht. Verz. Säug. u. Vög. Kaffernland*, p. 12 (1842), *nec Burm.* 1836..... U. melanoleucus.

Urolestes, *Cab. Mus. Hein.* i. p. 75 (1850) ..... U. melanoleucus.

Bill like that of *Lanius*. Nostrils round, ossified, covered by bristles; rictal bristles very well developed. First primary more than half the second; tip of wing formed by third, fourth (fifth) primaries; secondaries short, only little more than three fourths of length of whole wing. Tail much graduated, the central pair of feathers excessively long and more than double the length of the wing. Tarsus anteriorly covered with transverse scales. All the feathers of the head and neck lanceolate in shape.

Sexes alike in plumage, which is only black and white.

The feathers of the sides of the breast, covering the flanks, are very long and fluffy (being apparently ornamental).

Closely allied to the *Fiscus*-group of *Lanius*.

Range. Africa.

---

* *Corvinella* is perhaps only subgenerically distinct from *Lanius*, approaching *Urolestes* in some respects.

1. Urolestes melanoleucus.

Lanius melanoleucus, *Jard. & Selby, Ill. Orn.* iii. pl. 115 (1835); *Lafresnaye, Mag. de Zool.* 1836, pl. 61.
Lanius melanurus, *Licht. Verz. Vög. Kaffernl.* p. 12.
Basanistes cissoides, *Licht. t. c.* p. 12.
Lanius cissoides, *Gray, Gen. B.* i. p. 291 *(nec Vieill.)*; *Layard, B. S. Afr.* p. 158.
Corvinella cissoides, *Bp. C. A.* i. p. 365.
Urolestes melanoleucus, *Cab. Mus. Hein.* p. 75; *Finsch & Hartl. Vög. Ostafr.* p. 335; *Gurney in Anderss. B. Damar. Ld.* p. 138; *Ayres, Ibis*, 1869, p. 293; *Heugl. Orn. N.O.-Afr.* pp. 490, cxxii; *Bocage, Orn. Angola*, p. 219; *Sharpe, ed. Layard B. S. Afr.* p. 380.
Basanistes cissoides, *Hartl. P. Z. S.* 1863, p. 105.
Urolestes cissoides, *Bocage, Jorn. Lisb.* 1868, pp. 48, 345; *Gurney, Ibis*, 1869, p. 293; *Buckley, Ibis*, 1874, p. 377.

Adult male. The lower back and rump (except the upper tail-coverts, the scapulars, the tips of all the quills, and the middle fifth of the primaries) pure white; throat and fore neck blackish brown; all the remainder of the body glossy black; "iris hazel; bill, feet, and claws black" (*Oates*). Total length 19 inches, culmen 0·7, wing 5·5, tail 13, tarsus 1·37.

Adult female. Like the male, but distinguished by the pure white colour of the long flank-plumes, some of the longest of which are white internally and black on the outer web. Total length 17·5 inches, culmen 0·7, wing 5·3, tail 12·6, tarsus 1·3.

Young. Blackish brown, with edgings of clearer brown to most of the feathers, especially on the wing-coverts; scapulars white, washed with brown at the tips; quills blackish, their tips and basal half white; lower back and rump greyish white; tail black; sides of face and under surface of body brown, with narrow fulvous edges to the feathers; on the flanks a brownish-white patch.

Hab. Southern and Eastern Africa.

Obs. A case of partial albinism is represented by a female specimen collected by Mr. Oates near the Crocodile river. It has all those parts which are black in the typical specimens rusty brown, each feather with lighter edges; "iris ochraceous hazel" (*Oates*).

Another variety is like the typical form, but has the first primary of one side pure white instead of black.

a. Pull. st.	South Africa.	Sir A. Smith [C.].
b. Ad. st.	South Africa.	Sir A. Smith [C.].
c. Juv. sk.	Damara Land.	C. J. Andersson, Esq. [C.].
d. Ad. sk.	Natal.	R. B. Sharpe, Esq
e. ♂ ad. sk.	Transvaal.	A. Foresman, Esq. [P.].
f. ♂ sk.; *g*. Var.	Crocodile river, Transvaal, July 1874 (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
h. ♀ ad. sk.	Tati, March 25, 1874 (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
i. [♂] ad. sk.	Tati (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.]

k. [♀] ad. sk.	Makalaka kraal, Zambesi (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
l. Ad. sk.	Lake Ngami (*Chapman*).	R. B. Sharpe, Esq.
m. ♀ Juv. sk.	Lat. 18° S., Feb. 24, 1859 (*C. J. Andersson*).	R. B. Sharpe, Esq.
n. ♀ ad. sk.	Ondonga, Oct. 20, 1865 (*C. J. A.*).	R. B. Sharpe, Esq.

20. LANIELLUS.

Type.

Laniellus, *Swains. Faun. Bor.-Amer.* p. 481 (1831) ..... L. leucogrammicus.
Crocias, *Temm. Pl. Col.* ii., and text to pl. 592 (1836) ..... L. leucogrammicus.

Culmen ridged at base. Nostrils basal, oval, placed in a large groove, which is half filled by a coriaceous membrane, exposed, not covered by nasal plumes; nasal bristles entirely absent. First primary longer than half the second; wings short, their tip being formed by the fourth to sixth primaries. Tarsus scutellated in front. Tail graduated. Principal colour brown; upper parts spotted with light spots.

Range. Java.

1. Laniellus leucogrammicus.

Lanius leucogrammicus, *Reinwardt (teste Swains.)*.
Laniellus leucogrammicus, *Swains. Faun. Bor.-Amer.* p. 481, *Append.* (1831).
Lanius albinotatus, *Less. (teste Gray)*.
Crocias guttatus, *Temm. Pl. Col.* ii. pl. 592 (1836).
Telophonus leucogrammicus, *Swains. Class. B.* ii. pp. 12, 219 (1837); *Bp. C. A.* i. p. 361.
Telophorus leucogrammicus, *Gray, Gen. B.* i. p. 292.
Lanius leucogrammicus, *Gray, Hand-l. B.* i. p. 391, no. 5948.

**Adult.* Head, region round the eye, and ear-coverts dark ashy grey, which colour gradually passes into brownish towards the hind neck; the hind neck, mantle, back, upper tail-coverts, and the scapulars dark chestnut-brown, each feather with a subterminal oval spot, which gives the upper parts a very spotted appearance; wing-coverts and secondary quills brownish grey, with whitish margins on the outer web; primary quills blackish, most of them with white subterminal edges; tail grey, with an olive-brown tinge, all the feathers with small white tips, and very faintly cross-banded; chin, cheeks, and throat white; rest of the underparts of the body cream-colour, with irregular brown spots on the sides of the breast and flanks; thighs greyish brown; edge of wing dark grey; axillaries whitish; quills below dark grey, with white margins on the inner web; bill and feet horn-colour. Total length about 8·5 inches, culmen 0·7, wing 3·4, tail 4, tarsus 1·2.

Hab. Java.

a. ♂ ad. sk.	W. Java.	A. R. Wallace, Esq. [C.].
b. Ad. st.	Java.	E. Wilson, Esq. [P.].
c. Ad. st.	Java.	Leiden Museum [E.].

21. CORVINELLA.

Type.
Corvinella, *Lesson, Traité d'Ornith.* p. 372 (1831) ..... C. corvina.

1. Corvinella corvina.

La grande Pie-grièche, *Lev. Ois. d'Afr.* pl. 78; *Sundev. Krit. Framst., Levaill.* p. 32.
Lanius corvinus, *Shaw, Gen. Zool.* vii. p. 357.
Lanius cissoides, *Vieill. Enc. Méth.* ii. p. 734.
Lanius mellivorus, *Licht. Verz. Doubl.* p. 49.
Corvinella corvina, *Lesson, Traité d'Orn.* p. 372; *Cab. Mus. Hein.* i. p. 75; *Bp. C. A.* i. p. 365; *Hartl. Orn. W.-Afr.* p. 104; *Sharpe, Cat. Afr. B.* p. 51; *id. Ibis*, 1872, p. 71; *Ussher, Ibis*, 1874, p. 65; *Antinori, Cat.* p. 57; *Salvad. Riv. Cat. Antin.* p. 738; *Heugl. Peterm. Geogr. Mittheil.* 1869, p. 414.
Lanius flavirostris, *Swains. Class. B.* ii. p. 219; *id. B. West-Afr.* i. p. 233.
Corvinella affinis, *Heugl. Syst. Uebers.* p. 34; *id. Orn. N.O.-Afr.* pp. 488, cxxii; *id. J. f. O.* 1863, p. 271, 1864, p. 254.
Corvinella corvina nubiæ, *Hartl. Orn. W.-Afr.* p. 104, note; *Filippi, Rev. & Mag. Zool.* 1863, p. 290.
Collurio corvinus, *Gray, Hand-l. B.* i. p. 392, no. 5963.

Adult. General colour above fulvescent grey, with rather broad dark brown shaft-streaks to the feathers; scapulars whitish grey; rump paler, and the shaft-streaks less visible; top of the head, hind neck, and upper tail-coverts fulvous, every feather with a very distinct dark-brown shaft-streak; lores and ear-coverts dark brown; wing-coverts and quills brown, with lighter margins, the middle third of the primaries pale chestnut-buff; the central pair of tail-feathers brown, the others paling into sandy buff, the outer ones marked with a darker line running round the feather near the margin of the inner and the outer web; chin, throat, and breast dull white, slightly tinged with pale reddish brown, the feathers with brown shaft-streaks; remainder of under surface, and sides of the body and the thighs dull white, the shaft-streaks very faint; under wing-coverts and axillaries and edge of wing like the breast; under surface of quills brownish for the terminal half, the remainder light rufous; bill yellow; feet fuscous brown. Total length 11·5 inches, culmen 0·65, wing 4·5, tail 6·8, tarsus 1·2.

Young. Darker and more ashy brown on the upper surface of the body; scapulars marked with a narrow dark brown line near the margin of the inner and the outer web; under surface of the body dull reddish white, every feather marked with a narrow shaft-streak and several subterminal cross bars; sides of the breast with a large patch of light rufous.

Obs. Two other specimens, also from the river Gambia, have the same colouring as the young bird described above; but the basal half

of the feathers on the sides of the breast is dark cinnamon, forming a half-concealed patch.

Two others, from the same place, are of a much smaller size, and differ considerably from the other specimens. The scapular feathers are almost white, with a brown central patch and a subterminal transverse bar; the head whitish; the feathers with no longitudinal shaft-streaks, but every one with a dark-brown centre and whitish edgings; a very distinct whitish superciliary stripe continues backwards, and separates the head from the neck. One of these specimens has the underparts almost uniform dull white, the breast and sides of the body only variegated with very faint transverse bars; the reddish colour on the bases of the lateral feathers is just visible. These two specimens seem to me birds in their first plumage. Total length 9·5 inches, culmen 6, wing 4·3, tail 5·4, tarsus 1·2.

Hab. Western and North-eastern Africa.

a. Very old sk.	Sudan (*Knoblecker*).	R. B. Sharpe, Esq.
b. Ad. sk.	Fantee (*Ussher*).	R. B. Sharpe, Esq.
c, *d*, *e*. Imm. sk.	River Gambia.	R. B. Sharpe, Esq.
f. Young sk.	River Gambia, April 23, 1865.	R. B. Sharpe, Esq.
g. Young sk.	Sierra Leone (*Fraser*).	R. B. Sharpe, Esq.

22. LANIUS.

	Type.
Collyrio, *Moehring, Av. Gen.* p. 28 (1752)	L. excubitor.
Lanius, *Linné, Syst. Nat.* i. p. 134 (1766)	L. excubitor.
Enneoctonus, *Boie, Isis*, 1826, p. 973	L. collurio.
Collurio, *Brisson, Ois.* ii. p. 151 (1760)	L. excubitor.
Phoneus, *Kaup, Entwickl. europ. Thierwelt*, p. 33 (1829)	L. rufus.
Phoneus, *Bonap. C. R.* xxxviii. p. 386 (1854)	L. bucephalus.
Fiscus, *Bonap. C. R.* xxxviii. p. 386 (1854)	L. collaris.
Leucometopon, *Bonap. C. R.* xxxviii. p. 386 (1854)	L. nubicus.
Otomela, *Bonap. C. R.* xxxviii. p. 386 (1854)	L. cristatus.
Cephalophoneus, *Fitzinger, Sitz. K. Akad. Wien*, xlvi. p. 205 (1864)	L. bucephalus.

Range. Palæarctic, Indian and African Regions in the Old World. Nearctic Region, extending into the northern parts of the Neotropical Region.

Key to the Species.

I. *Plumage black, white, and grey.*
  A. First primary extremely short, less than one third of the second. Tail square, and shorter than wing ..... *minor*, p. 235.
  B. First primary short, more than one third of the second. Tail quadrate.
    a. Lesser wing-coverts entirely grey.
      a'. Some of the secondaries white at the base of both webs, the feathers being more white than black.
        a''. Tail (5·5 inches) much longer than wing (4·7 inches) ..... *sphenocercus*, p. 242.

b''. Tail not exceeding 4·7, wing not exceeding 4·9 inches in length.
a'''. Upper tail-coverts and basal quarter of tail-feathers white; large white alar speculum.
*a*⁴. Inner web of some of the secondaries entirely white; wing 4·7–4·8, tail 4·5–4·7 inches ..... *leucopterus*, p. 242.
*b*⁴. Inner web of secondaries never entirely white; wing 4·6, tail 4·7 inches ..... *homeyeri*, p. 242.
b'''. Upper tail-coverts grey; basal part of tail blackish
*c*⁴. One large alar speculum; flanks white ..... *elegans*, p. 251.
*d*⁴. Alar speculum broken up into two alar bars in the folded wing; flanks tinged with grey *excubitor*, p. 237.
b'. Base of both webs of all the secondaries blackish.
c''. Plumage white; very small alar speculum ..... *major*, p. 239.
d''. Rump grey.
c'''. Underparts of body white strongly washed with vinous ..... *meridionalis*, p. 246.
d'''. Underparts strongly washed with grey.
*e*⁴. Bill slender; wing not exceeding 3·8 inches in length. (North America.) ..... *ludovicianus*, p. 245. / *excubitoroides*, p. 246.
*f*⁴. Bill stout; wing more than 4 inches in length.
*a*⁵. Length of bill about 0·75 inch. (Algeria.) ..... *algeriensis*, p. 244.
*b*⁵. Length of bill about 0·85 inch and strongly hooked. (Socotra.) ..... *uncinatus*, p. 245.
c'. Some of the secondaries black at the base of the outer web, whilst the inner web is white throughout or broadly margined with white.
e''. Underparts vermiculated.
e'''. Rump and upper tail-coverts white or creamy white ..... *borealis*, p. 240.
f'''. Upper and under tail-coverts creamy buff; rump buff ..... *mollis*, p. 241.
f''. Underparts not vermiculated.
g'''. Rump and upper tail-coverts white *dealbatus*, p. 250.
h'''. Rump and upper tail-coverts isabelline white; upper parts very pale grey, washed with isabelline ..... *grimmi*, p. 250.
i'''. Rump and upper tail-coverts grey.
*g*⁴. Four or six of the central tail-feathers entirely black.
*c*⁵. Length of wing 4·2 inches .. *robustus*, p. 243.
*d*⁵. Length of wing 4·8 inches .. *seebohmi*, p. 243.

h^4. Not more than two of the tail-feathers entirely black ..... *fallax*, p. 247. *assimilis*, p. 249. *hemileucurus*, p. 249.

b. All the wing-coverts jet-black, but the lesser coverts tipped with grey; crown of head grey, with a black frontal band; underparts entirely white ..... *lahtora*, p. 252.

c. Lesser wing-coverts black like the median and greater series.

d'. Whole crown and mantle light grey .. *excubitorius*, p. 253.

e'. Whole crown and hind neck black. *souzæ*, p. 254.

g''. Scapulars like the mantle, black .. *caudatus*, p. 254.

h''. Scapulars pure white.

k'''. Mantle and centre of back grey; secondaries with large white tips *antinorii*, p. 255.

l''. Mantle and centre of back black; no white tips to the quills.

i^4. All the underparts grey; rump grey ..... *collaris*, p. 255.

k^4. All the underparts white.

e^5. White frontal and superciliary band ..... *subcoronatus*, p. 260.

f^5. No white frontal or superciliary band.

a^6. Rump white ..... *smithii*, p. 258.

b^6. Rump grey..... *humeralis*, p. 257.

II. *Plumage brownish red, grey, white, and black.*

a. Throat, head, and mantle smoky grey.... *fuscatus*, p. 263.

b. Throat white.

a'. Central pair of tail-feathers black; scapulars red, like the lower back. *schach*, p. 261.

a''. Crown and mantle light grey ..... *erythronotus*, p. 263. *caniceps*, p. 265. *bentet*, p. 266. *cephalomelas*, p. 269.

b''. Whole crown and hind neck black.. *nigriceps*, p. 268.

b'. Central pair of tail-feathers brown; whole crown, mantle, and scapulars ashy grey ..... *tephronotus*, p. 260.

c. Lower back, like the whole of the back and mantle, ashy grey; no black or white frontal band; tail short, slightly graduated, without white tips, uniform blackish grey; whole crown and nape rich reddish brown; a white speculum ..... *buccephalus*, p. 270.

III. *Plainly coloured birds; general colour reddish brown, without any black beyond the blackish brown ear-coverts; whole tail moderately graduated, reddish brown, not tipped with white.*

a. Narrow white frontal and superciliary band; flanks rich reddish fawn: throat and fore neck pure white.

a'. Whole crown, mantle, and back deep brownish red ..... *superciliosus*, p. 273. *cristatus*, p. 271.

b'. Crown light grey, shading off into a delicate earthy brown on the hind neck and mantle ..... *lucionensis*, p. 274.

b. No frontal band; flanks pale; all the underparts slightly tinged or washed with fawn, cream-colour, &c.

c'. Whole tail rich brownish red; a rather large alar speculum formed by the white bases of the primaries ..... *speculigerus*, p. 279.

d'. Tail dull brownish red; little or no white at base of primaries; no pure white colour in the whole plumage.

a''. Underparts pinkish creamy; ear-coverts black ..... *isabellinus*, p. 277.

b''. Underparts not pinkish; ear-coverts brown ..... *phœnicuroides*, p. 278.

IV. *Richly coloured birds; principal colours black, white, and rich brown.*

a. Tail much graduated, with large white tips.

a'. Large white shoulder-patch; forehead black; mantle chestnut.

a''. Crown and hind neck blackish grey . *collyrioides*, p. 289.

b''. Crown and hind neck light grey.... *vittatus*, p. 280.

b'. Shoulder white; mantle deep black; forehead white ..... *nubicus*, p. 282.

b. Tail nearly square, with narrow white tips.

c'. Scapulars white, forming a large white patch; centre of crown and hind neck chestnut; forehead black.

c''. Basal half of primaries white ..... *auriculatus*, p. 283.

d''. No white on primaries..... *badius*, p. 285.

d'. Scapulars uniform with the back; crown and hind neck grey.

e''. Mantle chestnut-brown, without any cross bars to the feathers ..... *collurio*, p. 286.

f''. Mantle reddish brown, each feather cross-barred ..... *tigrinus*, p. 289.

1. Lanius minor.

Pie-grièche d'Italie, *Daub. Pl. Enl.* 32 (1770).

Lanius minor, *Gm. S. N.* i. p. 308 (1788, *ex Daub.*); *Temm. Man. d'Orn.* p. 60; *Werner, Atlas, Insectivores*, pl. 4; *Bechst. Nat. Deutschl.* ii. p. 1319; *id. Ornith. Taschenb.* i. p. 101; *Meyer & Wolf, Taschenb. Vög. Deutschl.* i. p. 88; *Meyer, Vög. Liev- u. Esthlandes*, p. 41; *Koch, Syst. bgier. Zool.* i. p. 102; *Naum. Vög. Deutschl.* ii. p. 15, Taf. 50 (1822); *Gould, B. Eur.* iv. pl. 68; *Roux, Orn. Prov.* pl. 154; *Gould, B. Gt. Brit.* pt. xiii.; *Frisch, Vög. Europ.* pl. 21. fig. 28; *Bouteille, Orn. du Dauphiné*, pl. 18. f. 3; *Rüpp. Neue Wirbelth.* p. 33; *Bp. C. A.* i. p. 363 (1850); *Heugl. Orn. N.O.-Afr.* i. p. 476; *Gurney in Anderss. B. Damara Ld.* p. 134; *Finsch & Hartl. Vög. Ostafr.* p. 330; *Bree, B. Eur.* i. p. 165; *Blanf. East. Pers.* p. 137; *Shelley, B. Egypt*, p. 115 (1872); *Dresser, B. Eur.* iii. pl. 149 (1873); *Antinori & Salvad. Viagg. Bogos*, p. 78; *Berlepsch, J. f. O.* 1876, p. 380; *Schalow, ibid.* p. 131; *Severtz. J. f. O.* 1873, p. 344; *Bocage, Jorn. Lisb.* 1876, pp. 152, 253; *id. Orn. Angola*, p. 214.

Lanius italicus, *Lath. Ind. Orn.* i. p. 71 (1790).
Lanius vigil, *Pall. Zoogr. Rosso-As.* i. p. 403 (1811).
Lanius flavescens, *Ehrenb. Symb. Phys., Aves*, i. fol. e.
Lanius longipennis, *Blyth, J. A. S. B.* xv. p. 300 (1846).
Enneoctonus minor, *Blyth, Cat. B. Mus. As. Soc.* p. 193 (1849); *Cab. Mus. Hein.* i. p. 73 (1850); *Gray, Hand-l. B.* i. p. 393, no. 5966.
Enneoctonus italicus, *Bp. Rev. et Mag. de Zool.* 1853, p. 438.
Lanius roseus, *Bailly, Orn. de la Savoie*, ii. p. 26 (1853).
Lanius pinetorum,
Lanius nigrifrons,
Lanius eximius,
Lanius græcus,
} *Brehm, Naumannia*, 1855, p. 275.

Adult male. Above light bluish grey, generally a little paler on the crown of the head, and less clear grey on the mantle; forehead, feathers round the eye, and ear-coverts black; wing-coverts dull black, shading into grey on the lesser wing-coverts; basal half of the primary quills pure white, forming a very conspicuous speculum; terminal half of primaries and the whole secondaries brownish black the latter with narrow whitish tips; quills below greyish; axillaries and most of the under wing-coverts white, the remainder blackish grey, forming a large patch; four centre tail-feathers black-brown, with scarcely any white tips, the outermost two pairs entirely white, the next ones for the most part white, the base of all the feathers white except the central ones, which have their bases blackish grey; cheeks, chin, throat, and under tail-coverts pure white; rest of the belly rosy pink, especially during the breeding-season; lower flanks washed with grey; iris dark brown; bill and feet black. Total length 8·2 inches, culmen 0·65, wing 4·6, tail 3·7, tarsus 0·95.

Adult female. Can always be distinguished from the old male by the smaller amount of black on the fore part of the head; the forehead is slightly varied by a few blackish feathers, which are preceded by a narrow whitish frontal band.

Young. Ashy grey, waved with narrow transverse bars of brown; the scapulars lighter and with creamy-white tips; wings blackish brown, the coverts tipped with white, as also the quills; the secondary alar speculum caused by the white bases to these quills; tail-feathers blackish, the central pair narrowly tipped with white, these white ends increasing in extent towards the outermost pair, which is pure white; no black forehead; feathers in front of the eye dusky black; ear-coverts black; cheeks and entire under surface of body creamy white.

Obs. The difference between old and young birds is seen at a glance by the absence of the black frontal band in the latter. The young birds appear to lose their mottled plumage before reaching South Africa, and seem to put on the black frontlet of the adult dress in the following spring. The Museum possesses a young female killed in Damara Land on the 10th of February 1864, which is just assuming the pink breast, and has the forehead mixed with black feathers.

Hab. Central and Southern Europe, extending eastwards into Siberia; migrating in winter to South Africa.

a. Juv. sk.	Europe.	J. H. Gurney, Esq., Jun. [P.].
b. Ad. sk.	Milan.	Gould Collection.
c. ♂ ad. st.	Piedmont.	M. Baillon [P.].
d. ♂ ad. sk.	Ortakeuy, Turkey (*Robson*), May 6, 1867.	J. Gould, Esq. [C.].
e. ♂ ad. sk.	Ortakeuy, Turkey (*Robson*), April 29, 1867.	J. Gould, Esq. [C.].
f. ♀ imm. sk.	Constantinople, Feb. 28, 1878.	Mr. J. Pearce [C.].
g. ♀ ad. sk.	Sweet Waters, Constantinople, Sept. (*W. Pearce*).	R. B. Sharpe, Esq. [P.].
h. ♂ imm. sk.	Constantinople, Aug. 18, 1877.	Mr. J. Pearce [C.].
i. ♀ ad. sk.	Chick Salem, May 3, 1877.	R. B. Sharpe, Esq. [P.].
k. ♂, *l*. ♀ ad. sk.	Kart Hana, May 6, 1877.	R. B. Sharpe, Esq. [P.].
m. ♂ ad. sk.	Kara Hissar, May 2, 1876 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
n. ♂ ad. sk.	Asia Minor, May 22, 1865 (*T. Robson*).	F. D. Godman and O. Salvin, Esqrs. [P.].
o. Ad. sk.	Erzeroum (*Dickson & Ross*).	Zoological Society.
p, *q*. Ad. sk.	Persia.	C. Darwin, Esq. [P.].
r, ♂ ad.; *s*. ♀ juv. sk.	Shiraz, June.	Sir O. St. John [C.].
t. Ad. sk.	Siberia.	Purchased.
u, *v*. Ad. sk.	Russia.	Moscow Museum [E.].
w. ♂ ad. sk.	Kandahar, April 14, 1881.	Lieut.-Col. Swinhoe [P.].
x. Imm. sk.	Egypt.	Dr. J. Christie [P.].
y. Ad. sk.	Sennaar.	Purchased.
z. Imm. sk.	Elephant Vley (*Andersson*).	R. B. Sharpe, Esq.
a'. Ad. sk.	Otjimbinque, Feb. 10, 1864 (*Andersson*).	R. B. Sharpe, Esq.
b'. Ad. sk.	Otjimbinque, April 1, 1864 (*Andersson*).	R. B. Sharpe, Esq.
c'. ♂ ad. sk.	Ondonga, Nov. 28, 1866 (*Andersson*).	R. B. Sharpe, Esq.
d', *e'*. ♂ ad. sk.	Tati, Matabele Land (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
f'. ♀ ad. sk.	Conde, Congo.	Dr. Lucan [C.].
g'. Moulting, sk.	South Africa.	S.-African Museum.
h'. Ad. sk.	South Africa.	S.-African Museum.
i'. Sternum, ad.	Shiraz.	India Museum.
k'. Ad. (in spirit).	Italy.	R. B. Sharpe, Esq. [P.].

2. Lanius excubitor.

Lanius cinereus, *Brisson, Orn.* p. 141, pl. ii. (1760); *Leach, Cat. Mamm. and Birds in Brit. Mus.* p. 19 (1816).

Pie-grièche grise, *Daub. Pl. Enl.* pl. 445; *id. Ois.* i. p. 296, pl. 20 *id. éd. aux Deuxponts*, ii. pl. 5. fig. 1.

Great Cinereous Shrike, *Lath. Syn.* i. p. 160.

Lanius excubitor, *Linn. Syst. Nat.* i. p. 135 (1766); *Retzius, Faun. Suec.* p. 87; *Nilsson, Orn. Suec.* i. p. 74; *Temm. Man. d'Orn.* p. 59; *Bechst. Vög. Deutschl.* ii. p. 1306; *id. Ornithol. Taschenb.* i. p. 100; *Meyer & Wolf, Taschenb.* i. p. 87; *Meyer, Vög. Liev- u. Esthlandes*, p. 41; *Koch, Syst. baier. Zool.* i. p. 102 (1816); *Frisch,*

Vög. Eur. Taf. 59 & 60; *Naumann, Nat. Vög. Deutsch.* ii. p. 7, pl. 49 (1822); *Gould, B. Eur.* pl. 66; *Bp. C. A.* i. p. 363; *id. Rev. et Mag. de Zool.* 1853, p. 292; *Cab. Mus. Hein.* i. p. 73; *Rüpp. Neue Wirbelth.* p. 33; *id. Syst. Uebers.* no. 219; *Heugl. Syst. Uebers.* no. 312; *Von d. Mühle, Griechenl.* no. 171; *Linderm. Vög. Griechenl.* p. 112; *Malherbe, Faun. Sicil.* p. 48; *Savi, Orn. Toscan.* i. p. 94; *Cara, Orn. Sardegna,* sp. 47; *Salvad. J. f. O.* 1865, p. 132; *Tristram, Ibis,* 1867, p. 364; *Degl. & Gerbe, Orn. Europ.* i. p. 221 (1867); *Wright, Ibis,* 1864, p. 59; *Heugl. Orn. N.O.-Afr.* i. p. 478; *Cab. J. f. O.* 1873, p. 75; *Sharpe & Dresser, P. Z. S.* 1870, p. 390; *Dresser, B. Eur.* iii. pl. 145, p. 375 (1873); *Schalow, J. f. O.* 1876, p. 132; *Seebohm, Ibis,* 1878, p. 333; *Shelley, B. Egypt,* p. 114 (1872); *v. Droste, Vogelw. Borkum,* p. 89; *Döderlein, Avifaun. Sicil.* pp. 67, 327; *Bogdanow, Russian Shrikes &c.* p. 130.

Lanius rapax, *Brehm, J. f. O.* 1854, p. 147; *id. Naumannia,* 1855 p. 275.

Collyrio excubitor, *Gray, Hand-l. B.* i. p. 390, no. 5927.

Adult male. General colour above light bluish grey, passing into pale whitish grey on the rump and upper tail-coverts; forehead and a line extending over the eye white; ear-coverts and a spot in front of the eye black; greater part of scapulars pure white, rest silvery grey; quills black, the secondaries tipped with white (this colour, extending over part of the outer web of both the secondaries and primaries, produces two conspicuous white alar bars on the wing when the latter is folded up); primaries externally narrowly edged with white; wing-coverts black, except the lesser ones, which are entirely grey; basal part of tail-feathers and greater part of the outer pair white—this colour decreasing in extent towards the central pair, which is merely tipped with white; underparts of body pure white except the flanks, which are slightly tinged with silvery grey; under wing-coverts white, with a small grey patch near the edge of the wing; maxilla horny black, mandible paler; feet black.

Female. Very similar to the male, but showing faint greyish vermiculations on the neck and breast.

Immature birds are like the female, but have the black wing-coverts bordered with brownish grey, and the underparts of the body dull white; upper tail-coverts grey.

Young birds in their first plumage are grey above, slightly tinged with tawny brown, secondaries with large white tips; underparts dull white, with faint dark vermiculations extending over the whole belly; bill and feet pale horn-brown.

Total length about 9 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Immat. ♂ (Russia)....	0·76	4·5	4·7	1·0
Ad. ♂ (Archangel) ..	0·80	4·50	4·60	1·12
Ad. ♀ (Asia Minor)...	0·75	4·50	4·65	1·15

Obs. The amount of black on the outer pair of the tail-feathers varies to a considerable extent. In some specimens the whole feather is pure white, only a small part of the shaft being brown;

in others the whole shaft is white, the black being reduced to a large patch on the basal third of the inner web; in others, again, the whole shaft and greater part of the inner web are black.

Hab. Europe, ranging into Asia.

a. Imm. st.	England.	
b. Ad. st.	Wiltshire.	Col. Montagu [P.].
c. Ad. st.	Europe.	Purchased.
d. ♂ imm. sk.	Sweden.	A. W. Malm, Esq. [P.].
e, f. Ad. sk.	Geneva.	J. Gould, Esq. [C.].
g. ♂ ad. sk.	Wermland, Sweden, April 12, 1873.	
h. Ad.; *i.* Juv. sk.	Valkenswaard, Holland (*J. Baker*).	F. D. Godman and O. Salvin, Esqrs. [P.].
k. ♂ ad. sk.	Transsylvania, May 26, 1874.	Harvie Brown, Esq. [P.].
l. Imm. st.	Heligoland.	Henry Seebohm, Esq. [P.].
m. Juv. sk.	Quickiok, July 31, 1862.	J. Gould, Esq. [C.].
n, o. Imm. st.	Archangel.	R. B. Sharpe, Esq. [P.].
p. ♂ ad. sk. (moulting).	Parawalsky, Sept. 6, 1876.	Dr. Finsch [C.].
q. Skeleton.	South Germany.	Dr. Günther [C.].
r, s. Sterna.	South Germany.	Dr. Günther [C.].
t. Skull.	South Germany.	Dr. Günther [C.].

3. Lanius major.

Lanius major, *Pallas, Zoogr. Rosso-As.* i. p. 402 (1831); *Seebohm, Ibis*, 1868, p. 333; *Cabanis, J. f. O.* 1873, p. 75; *Schalow, op. cit.* 1875, pp. 232 & 346, 1876, pp. 132 & 232; *id. Bericht über die* xxi. *Versamml. deutsch. ornith. Gesellsch.* 1875, pp. 13, 14; *Tschusi Schmidhofen, J. f. O.* 1878, p. 96; *Stejneger, Orn. Centralbl.* 1878, p. 108.

Lanius excubitor, *Meves, Œfvers. K. Vet.-Ak. Förh.* 1871, p. 762; *von Nordmann, Demid. Voy.* ii. p. 113; *von Middend. Sibir. Reis.* ii. p. 188.

Lanius borealis sibiricus, *Bogdanow, Russian Shrikes &c.* p. 102 (1881).

Lanius borealis europæus, *id. op. cit.* p. 103.

Lanius lathora (*Sykes*), *David & Oustalet, Ois. Chine*, p. 93 (1877).

Differs from *L. excubitor* in having the lower rump and upper tail-coverts white, and in having the white at the base of the secondaries almost obsolete, producing therefore only one alar speculum (viz. on the primaries).

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂ (Wermland)....	0·80	4·40	4·55	1·08
Ad. ♂ (Archangel) ..	0·80	4·40	4·60	1·08
Ad. ♂ (Pendik)	0·80	4·45	4·90	1·10

Hab. Breeds in Scandinavia, North Russia, and throughout Siberia, occasionally wandering into Western Europe and Asia Minor, where

its range meets with that of *L. excubitor*; they occasionally interbreed, producing intermediate forms.

a. ♀ ad. sk.	Plumstead, England, Oct 5, 1878.	Mr. H. Whitely [P.].
b. ♀ ad. sk.	Wermland, Nov. 1872.	Purchased.
c. ♀ ad. sk.	Quickiok, May 11, 1862.	J. Gould, Esq. [C.].
d, *e*. Ad. st.	Archangel.	R. B. Sharpe, Esq. [P.].
f. ♂ ad. sk.	Pendik, Asia Minor, Oct. 19, 1871 (*T. Robson*).	R. B. Sharpe, Esq. [P.].
g. ♀ ad. sk.	Pendik, Nov. 1871 (*T. Robson*).	R. B. Sharpe, Esq. [P.].
h. ♀ ad. sk.	Lake Baikal, Oct. 1869.	Dr. Dybowsky [C.].

4. Lanius borealis.

Lanius excubitor, *Forster, Phil. Trans.* 1772, p. 382 (*nec Linn.*); *Wilson, Am. Orn.* pl. 5. fig. 1 (1808).

Lanius borealis, *Vieill. Ois. Am.* p. 90, pl. 1 (1807); *Aud. B. Am.* iv. p. 130, pl. 236 (1842); *Neuwied, J. f. O.* 1850, p. 190; *Jones, Nat. Bermuda*, p. 51 (1857); *Dresser & Sharpe, P. Z. S.* 1870, p. 500; *Brewer, Bull. Nutt. Orn. Club*, 1879, p. 120.

Lanius septentrionalis, *Bp.* (*nec Gmel.*), *C. A.* i. p. 363; *Cassin, Pr. A. N. Sc. Philad.* 1857, p. 213; *Cooper, Orn. Calif.* i. p. 137 (1870).

Collyrio borealis, *Baird, B. N. Am.* p. 324 (1858); *Dall & Bannister, Alaska*, p. 280; *Samuels, B. N. Engl.* p. 268; *Gray, Hand-l. B.* i. p. 391, no. 3534.

Collurio borealis, *Baird, Brew., & Ridgw. N. A. B.* i. p. 415 (1845).

Lanius borealis americanus, *Boydanow, Russian Shrikes &c.* p. 102 (1881).

Adult male (summer plumage). General colour above, including the crown of the head, pale slaty grey, changing into pure white on the rump and upper tail-coverts, the lower back being silvery grey; a narrow and indistinctly marked line of white extending from the forehead backwards over the eye; in front of the latter a blackish-grey spot; ear-coverts black; quills blackish brown, with the basal part of the inner web white; basal half of outer web of the primaries pure white, producing a conspicuous alar bar; secondaries narrowly tipped with white; greater and primary-coverts black, the latter externally washed with brown; lesser coverts rusty grey; scapulars pale grey, tipped with white; tail-feathers black, whitish at their base; the whole outer web and the terminal third of the inner web of the outer pair of feathers pure white, this colour decreasing towards the central pair; underparts of body dull white, with narrow transverse vermiculations on the fore-neck and breast; throat, sides of neck, abdomen, and under tail-coverts white; flanks and thighs often pure white; under wing-coverts and edge of wing white, with a brownish patch; bill dark horn-brown, paler at base; feet black.

Female. Resembling the male; but the general colour of the upper parts is grey with a strong tawny-brown tinge; ear-coverts black-

brown; the vermiculations on the underparts extending over the sides of the neck.

Winter plumage of the adult birds.—Lores and præocular region whitish instead of black; the vermiculations or bars on the underparts darker and more numerous, and extending further down the belly; upper parts, especially in immature birds, strongly washed with tawny brown.

Young birds resemble the female; but the vermiculations extend over the whole of the underparts of the body, as well as over the rump and upper tail-coverts; wing-coverts edged with brownish fawn-colour; mantle, hind neck, and crown of head entirely tawny brown.

Total length about 9 inches.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Ad. ♂	0·75	4·35	4·4	1·05
Ad. ♀	0·75	4·55	4·5	1·10
Ad. ♀	0·80	4·35	4·45	1·10
Ad. ♂	0·80	4·55	4·60	1·02

Hab. North America.

a. Ad. st.	North America.	
b. Ad. sk.	British N. America.	Hudson's Bay Co. [P.].
c, d. Ad. sk.	Arctic America.	Dr. Rae [C.].
e. Ad. sk.	Canada.	Gould Collection.
f. Ad. sk.	Niagara.	Gould Collection.
g. Ad. sk.	49th parallel, April 20, 1874 (*G. Dawson*).	N.A. Boundary Commission.
h. Ad. sk.	49th parallel, April 24.	N.A. Boundary Commission.
i. Ad. sk.	49th parallel.	N.A. Boundary Commission.
k, Juv. sk.	Michigan.	Prof. J. B. Steere [P.].
l, m. ♂ ad.; *n.* ♀ ad. sk.	West side of Rocky mountains.	J. K. Lord, Esq. [P.].
o. Imm. sk.	Columbia river.	Gould Collection.
p, q. Ad. sk.	British Columbia.	J. K. Lord, Esq. [C.].
r. ♀ ad. sk.	Fort Simpson.	B. R. Ross, Esq. [P.].
s. Ad. sk.	Fort Good Hope.	B. R. Ross, Esq. [P.].
t. Ad. sk.	Texas.	Purchased.
u. [Ad.] sk.	California.	Lord Walsingham [P.]

5. Lanius mollis.

Lanius mollis, *Eversmann, Bull. Soc. Nat. Moscou,* xxvi. p. 498 (1853); *Bogdanow, Russian Shrikes &c.* p. 97; *Seebohm, Ibis,* 1882, p. 374, pl. 11.

Differs from the tawny specimens of *L. borealis* in having the upper and under tail-coverts sandy buff instead of creamy greyish-white or white; the rump fulvous. Bogdanow describes the male, female, and young at length. The following measurements are taken from a specimen in Mr. Seebohm's collection, obtained by Severtzow in Turkestan:—Culmen 0·8 inch, wing 4·65, tail 4·5, tarsus 1·15.

Hab. Dzungaria and Turkestan.

6. Lanius homeyeri.

Lanius homeyeri, *Cab. J. f. Orn.* 1873, p. 75; *Scully, Str. F.* 1876, p. 136; *Bogdanow, Russian Shrikes &c.* p. 142.
Lanius leucopterus × excubitor, *Seebohm, Ibis*, 1882, p. 421.

Adult male. In general coloration very similar to *L. excubitor*, but differing from the latter species in the following points:—The white of the secondary quills extends, both on the inner and on the outer web, over more than the basal half, the blackish-brown colour being thus reduced to the terminal two fifths of the quills; upper tail-coverts and the basal third or fourth of *all* the tail-feathers pure white; the two outer pairs and the basal fourth of the rest of the tail-feathers generally pure white, the others largely tipped with this colour; bill and feet horny blue-black, the former with lighter margins. Total length 9·5 inches, culmen 0·85, wing 4·6, tail 4·65, tarsus 1·15.

Hab. Extends from Western Siberia to the Volga and eastwards throughout Turkestan, where it meets and interbreeds with *L. leucopterus*.

a, b. Ad. sk.	Lepsa river, Siberia, July 1841.	Purchased.
c. ♂ ad. sk.	Belo Kamene, Irtisch, April 28, 1876.	Dr. Brehm [C.].
d. Ad. sk.	? England (*F. Bond*).	Gould Collection.

7. Lanius leucopterus.

Lanius leucopterus, *Severtz. Turk. Jevotn.* p. 67 (1873); *Seebohm, Ibis*, 1882, p. 421.
Lanius przewalskii, *Bogdanow, Russian Shrikes &c.* p. 147 (1881).

In general coloration resembling *L. excubitor*, but slightly paler. Forehead and a broad superciliary stripe white; lower rump, upper tail-coverts, and basal third of tail-feathers pure white; the three outer pairs of tail-feathers almost completely pure white; the wings are white at the base of the primaries and secondaries for two thirds of their length, so that the two alar bars become confluent; on the inner web of the secondaries the white is still more developed than on the outer web; on some of the feathers the inner web is pure white, which is never the case in *L. homeyeri*; all the underparts are pure white, without any trace of vermiculations.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂.....	0·95	4·7	4·5	1·2
♂.....	0·85	4·85	4·65	1·15

Hab. Turkestan and Southern Central Siberia.

8. Lanius sphenocercus.

Lanius major, *Swinh. P. Z. S.* 1871, p. 375.
Lanius sphenocercus, *Cab. J. f. O.* 1873, p. 76; *Tacz. Bull. Soc. Zool. France*, 1876, p. 165; *Schalow, J. f. O.* 1876, p. 215; *David & Oust. Ois. Chine*, p. 92, pl. 76 (1877).

Adult male. Very similar to *L. homeyeri* in colour, but differing

from this species, besides its longer tail, in the following points:—The blackish-brown colour of the primary quills is confined to their terminal third, the basal two thirds, including the shafts, being pure white; on some of the secondaries the black colour is reduced to a large subterminal patch, the greater part of the outer web and the whole inner web of some being white; the scapulars also show more white in this species than in *L. homeyeri*; upper tail-coverts distinctly light grey like the mantle and back. The white colour on the tail is reduced to the two middle pairs of tail-feathers, these being simply tipped with white, but black at base, whilst in *L. homeyeri* the basal third of the whole tail is pure white; the three outer pairs of tail-feathers are entirely, the fourth pair a little less, pure white. Bill black, except at the base of the under mandible, which is brownish red; feet and claws ashy black; iris black. Total length 11 inches, culmen 0·8, wing 4·75, tail 5·6, tarsus 1·3.

Hab. Southern China.

a. ♂ ad. sk. Tanyan, Chinkeang, Jan. 28, 1876. Shanghai Museum [P.].

9. Lanius seebohmi.

The whole of the upper parts, including the scapulars and lesser wing-coverts and upper tail-coverts, uniform pale slaty grey; a narrow frontal band, lores, and ear-coverts black; wing-coverts and quills black, with the basal half of the primaries and the tips of the secondaries white; the six central tail-feathers entirely black, the three outer pairs tipped with white, which, even on the outermost pair, does not exceed three quarters of an inch; outer web of outside feather narrowly margined with white; all the underparts of the body dingy white; under wing-coverts grey; inner margin of remiges whitish; bill and feet black. Culmen 0·85 inch, wing 4·8, tail 4·7, tarsus 1·15.

Hab. The type of this species (an adult female) was obtained by Dr. Maack in the valley of the Amoor, and was received in exchange from the St.-Petersburg Museum by Mr. Swinhoe, and is now in Mr. Seebohm's collection.

10. Lanius robustus.

Collurio ludovicianus, var. robustus, *Baird, Brew., & Ridgw. N. A. B.* i. p. 420 (1874).

This species resembles *L. ludovicianus* in its general coloration, but differs from it in having no trace of an eye-stripe, and in having the white on the inner web of the secondaries very largely developed, whilst that of the tail is scarcely developed at all; all the tail-feathers are black to the base, and the four central feathers entirely black. "Culmen 1 inch, wing 4·2, tail 4·4, tarsus 1·2" (*Baird*).

Hab. California.

This species differs from *L. seebohmi* principally by its smaller size, and by the much larger amount of white on the inner web of the secondaries. It is only known from a single example in the collection of the Philadelphia Academy, "labelled as having been collected in California by Dr. Gambel."

11. Lanius algeriensis.

Lanius algeriensis, *Less. Rev. Zool.* 1839, p. 134; *Bp. C. A.* i. p. 363 (1850); *Bp. in Cat. Parzud.* 1856, p. 19; *Loche, Cat. Mamm. et Ois. Algér.* p. 86; *id. Expl. Sci. Algér., Ois.* ii. p. 47; *Heugl. Orn. N.O.-Afr.* i. p. 479, note; *Dresser, B. Eur.* iii. pl. 148, p. 391 (1873).

Lanius meridionalis, *Malh. Cat. Rais. Ois. de l'Algér.* p. 9 (1846, *nec Temm.*).

Enneoctonus algeriensis, *Strickl. Ann. & Mag. N. H.* 1852, p. 345; *Bp. Rev. Zool.* 1853, p. 293.

Collyrio algeriensis, *Gray, Hand-l. B.* i. p. 390, no. 5930.

Adult male. General colour above, including the lower back and upper tail-coverts, dark slaty grey; crown of the head, and occiput in old males, still darker, the line of demarcation being rather well marked; scapulars paler grey, and with large white tips, especially to the outer web; lesser wing-coverts grey; all the rest of the wing-coverts and the bastard wing deep black; basal half of both the inner and outer web of the primary quills pure white, forming a very distinct speculum, the terminal half black with very narrow white tips; secondaries entirely black, except the tips and the margin of the inner web, which are white; tail black, blackish grey at the base, never white; the two central pairs of tail-feathers almost entirely black, just tipped with white, this colour predominating towards the external feathers so much that the terminal half of the outer pair is more white than brownish black; a narrow line over the forehead, loral region, and the ear-coverts jet-black; chin and throat white; rest of under surface and flanks grey, paler along the middle line of the body and on the under tail-coverts; edge of wing white; under wing-coverts dull white, but like the axillaries mottled with greyish; bill and feet black.

The sexes are exactly alike in plumage.

This bird is closely allied to *L. meridionalis* from Spain; but can be easily distinguished from the latter species, as it has neither the white superciliary stripe nor the strong pink tinge on the under surface of the body.

♂. Total length 9·3 inches, culmen 0·75, wing 4·25, tail 4·75, tarsus 1·25.

♀. Total length 9 inches, culmen 0·8, wing 4, tail 4·25, tarsus 1·2.

Hab. From Morocco to Tunis.

a, b. Ad. sk.	Tangiers.	Colonel Irby [P.].
c. Ad. sk.	Tangiers.	M. Favier [C.].
d. Ad. sk.	Tunis.	L. Fraser, Esq. [C.].

12. Lanius uncinatus.

Lanius uncinatus, *Sclater & Hartlaub, P. Z. S.* 1881, p. 168.

Adult. Birds from the island of Socotra are intermediate between *L. algeriensis* and *L. fallax*. The general colour above is a little darker than in *L. fallax*, and paler than in *L. algeriensis*; underparts just as grey as in *L. algeriensis*; but the Socotra specimens more resemble *L. fallax* in having a faint indication of the white superciliary stripe, and in having the narrow black frontal band still more developed. The most remarkable point in which these birds differ from their allies is the great development of the bill, which is both longer and stouter, and unusually hooked. Bill and feet black.

Total length about 9 inches.

Culmen.	Wing.	Tail.	Tarsus.
in.	in.	in.	in.
0·76	3·75	4·0	1·1
0·8	3·7	4·0	1·15
0·9	3·9	4·2	1·18
1·0	3·9	4·3	1·18

Hab. Socotra.

a, b. ♂ ad. sk.	Socotra, Feb. 1880.	Prof. I. Bayley Balfour [C.]. (Types of the species.)
c, d. ♂ ♀ ad. sk.	Socotra, March 1880.	Prof. I. Bayley Balfour [C.].

13. Lanius ludovicianus.

Lanius ludovicianus, *Linn. S. N.* p. 134 (1766, *ex Brisson*, ii. p. 162, pl. xv. fig. 2); *Wilson, Am. Orn.* pl. 22. fig. 1; *Audub. Orn. Biog.* i. 1831, p. 300, pl. 37; *id. Birds Am.* iv. pl. 237; *Cassin, Pr. A. N. Sc. Philad.* 1857, p. 213; *Bp. C. A.* i. p. 363; *Prinz Max. J. f. O.* 1858, p. 191; *Dresser & Sharpe, P. Z. S.* 1870, p. 595; *Bagg, Bull. Nutt. Orn. Club*, 1879, p. 237; *Purdie, l. c.* p. 186; *id. Forest & Stream*, 1879, p. 265.

Lanius ardosiaceus, *Vieill. Ois. Am.* pl. 51 (1807).

Lanius carolinensis, *Wils. Am. Orn.* iii. pl. xxii. f. 5 (1811).

Lanius excubitoroides, *Swains. Faun. B.-Am.* ii. p. 115 (1831); *Cassin, Pr. A. N. Sc. Phil.* 1857, p. 213; *Sclater, P. Z. S.* 1864, p. 173.

? Lanius mexicanus, *Brehm, J. f. O.* 1854, p. 145; *Sclat. Cat. Am. B.* p. 46 (1861).

Lanius elegans (*non Swainson*!), *Cassin, Pr. A. N. Sc. Philad.* 1857, p. 213; *Baird, B. N. Am.* p. 327 (1858).

Collyrio ludovicianus, *Baird, B. N. Am.* 1858, p. 325; *Gray, Hand-l. B.* i. p. 391, no. 5935.

Collyrio excubitoroides, *Baird, B. N. Am.* p. 327, pl. 75. fig. 2 (1858); *Gray, Hand-l. B.* i. p. 391, no. 5940.

Collurio excubitoroides, *Cooper, Orn. Cal.* i. p. 138 (1870).

Collurio ludovicianus, *Baird, Brew., & Ridgw. N. A. B.* i. p. 418 (1874).

Collurio ludovicianus, var. excubitoroides, *Baird, Brew., & Ridgw. B. N. Am.* i. p. 421 (1874).

This American species differs from *L. uncinatus* merely by its

smaller dimensions. Its bill is more slender and shorter than that of any other of the *L. algeriensis* group.

Adult. The general coloration of the upper parts seems to vary a little, as there are specimens, from the same locality, which are either darker blue-grey or paler than *L. uncinatus*. A narrow black frontal band and a faintly indicated white superciliary stripe are always present; base of central tail-feathers blackish grey. The breast is frequently washed with pinkish grey; this colour, however, does not seem to be characteristic either of the breeding- or the winter plumage.

Young birds are paler grey above, and have the wing-coverts edged with whitish; underparts dull greyish white, slightly tinged with cream-colour and marked with numerous faint darker cross bars on the breast.

Total length 8–8·5 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
North America.....	0·75	3·8	3·9	1·1
	0·70	3·8	3·95	1·07
	0·70	3·8	4·0	1·1
♂. 46th parallel	0·65	3·75	3.8	1·0
♂. 49th parallel	0·67	3·8	3·8	1·0
♂. Mexico	0·67	3·8	3·7	0·98

Hab. From Canada to Mexico and Louisiana.

Obs. Examples from Canada are paler grey on the upper parts and purer white on the lower parts, and have the white on the wing, the superciliary stripe, and especially on the rump and upper tail-coverts more developed (*L. excubitoroides*). They are very distinct from the extreme southern form, which is confined to the southern States and Mexico (*L. ludovicianus*); but in the intervening localities intermediate forms occur.

a. Ad. sk.	N. America.	Purchased.
b. Juv. sk.	Louisiana.	Purchased.
c. Ad. sk.	49th parallel, N. A.	N.A. Boundary Commission [P.].
d. Ad. sk.	49th parallel, N. A., May 23, 1874.	N.A. Boundary Commission [P.].
e. ♂ ad. sk.	49th parallel, N. A.	N.A. Boundary Commission [P.].
f, *g*. Ad. sk.	California.	Purchased.
h. Ad. sk.	California.	Purchased.
i. Ad. sk.	Jalapa, Mexico.	M. de Oca [C.].
k. [♂] ad. sk.	Mexico.	Purchased.
l. Juv. sk.	Mexico.	Purchased.

4·75,

1·2.

14. Lanius meridionalis.

Lanius meridionalis, *Temm. Man. d'Orn.* i. p. 143 (1820); *id. Pl. Col.* pl. 143; *Susemihl, Vög. Eur.* ii. pl. 15; *Keyserling & Blas. Wirbelth. Eur.* no. 251; *Gould, B. Eur.* ii. pl. 67; *Bree, B. Eur.* i. p. 159; *Cab. Mus. Hein.* i. p. 74; *Cara, Ornith. Sardin.* p. 48; *Roux, Orn. Provenç.* pl. 153; *Lindermayer, Vög. Griechenl.* p. 113; *Bp. C. A.* i. p. 363; *Bouteille, Ornith. du Dauphiné*, pl. 18. fig. 2;

Fritsch, Vög. Eur. pl. 21. f. 13; *Heugl. Orn. N.O.-Afr.* i. p. 480 (1871); *id. Peterm. Geogr. Mittheil.* 1869, p. 407; *Dresser & Sharpe, P. Z. S.* 1870, p. 594; *Dresser, B. Eur.* iii. pl. 147 (1873); *Lilford, Ibis*, 1860, p. 135; *Saunders, Ibis*, 1871, p. 206.
Collyrio meridionalis, *Werner, Atlas, Insectivores*, pl. 3 (1827); *Gray, Hand-l. B.* i. p. 390, no. 5928.

Adult. Above dark plumbeous; a narrow line of white feathers runs along the base of the forehead, and extends backwards over the eyes as an indistinct superciliary streak; loral region and ear-coverts black, "the latter having the shafts rather distinct, which gives them a somewhat hoary appearance;" cheeks, chin, upper throat, vent, under wing- and under tail-coverts white; all the rest of the underparts rosy colour, except the flanks, which are grey; on all the other parts this species is coloured exactly like *L. algeriensis*. Total length 9 inches, culmen 0·75, wing 4·2, tail 4·8, tarsus 1·2.

The sexes are alike in colour, except that in the female the white edgings of the scapulars are perhaps not quite so broad as in the male.

Hab. Confined to the south of France, to Spain and Portugal.

a.	Ad. sk.	Spain.	Capt. Cook [C.].
b.	Ad. sk.	Spain.	R. B. Sharpe, Esq. [P.].
c.	Ad. sk.	Malaga.	Gould Collection.

15. Lanius fallax. (Plate VIII.)

Lanius pallidirostris, *Cass. Pr. Ac. Sc. Phil.* 1851, p. 244 (pt.); *Sharpe, Cat. Afr. B.* p. 51; *Heuglin, Orn. N.O.-Afr.* p. 482; *Sharpe & Dresser, P. Z. S.* 1870, p. 598; *Severtzow, J. f. O.* 1873, p. 345; *Salvad. Ibis*, 1879, p. 104.
Lanius aucheri, *Bp. Rev. et Mag. Zool.* 1853, p. 294.
Lanius pallidus, *de Filippi, Rev. et Mag. Zool.* 1853, p. 433; *Brehm, J. f. O.* 1854, p. 146; *Antinori, Cat.* p. 56; *Salvad. Rivist. Cat. Antin.* p. 738.
Collyrio pallidirostris, *Gray, Hand-l. B.* i. p. 391, no. 5931.
Collyrio pallidus, *Gray, Hand-l. B.* i. p. 391, no. 5937.
? Lanius dealbatus, *Finsch & Hartl. Vög. Ostafr., Nachtrag*, p. 866 (*teste Heuglin*).
Lanius lahtora, *Sykes, apud Heuglin, Orn. N.O.-Afr.* i. p. 483.
Lanius fallax, *Finsch, Trans. Z. S.* vii. 1872, p. 249, pl. xxv.

The birds which, according to Hartlaub and Finsch's description, are to be referred to *L. fallax* might be looked upon as a paler and more eastern race of *L. algeriensis*. After a careful examination of a great number of these birds, I have come to the conclusion that *fallax* differs from *L. algeriensis* as follows:—

1st. The general colour of the head, neck, and mantle and back is pale grey. 2nd. The white tips to the secondary quills are a little larger; and as this white colour narrowly borders the terminal half of the outer web, and as the basal half of the inner web is rather broadly edged with white, the whole secondaries have a whiter appearance than those of *L. algeriensis*. 3rd. The underparts are generally much whiter, the greyish tinge which is so well developed

in *L. algeriensis* being confined to the upper breast and the flanks in some examples (as *e. g.* in Jesse's specimen), whilst in others the underparts are almost white. 4th. There is a superciliary stripe, which, although narrow, is never wanting. Bill and feet horny colour.

The *young birds* are much paler than the adult, and tinged above with pale tawny colour; underparts dull white; loral and frontal region dull white instead of blackish; ear-coverts, quills, and tail-feathers brown instead of black; all the wing-coverts are brown and broadly edged with dull white; bill and feet pale horny yellow. These are the birds which have been called *L. pallidirostris* by some authors.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Adult ♂. Rairo	0·75	4·25	4·1	1·2
Adult ♀. Nubia	0·70	4·15	4·15	1·2
Adult ♀. Abyssinia	0·90	4·1	4·1	1·15
Adult ♂. Palestine	0·80	4·15	4·25	1·15

Obs. In the British-Museum collection are two specimens from Palestine, one from Mesopotamia, and a fourth from Abyssinia which have a well developed black frontal band; and the three males show a rather conspicuous grey tinge on the upper breast and on the flanks. The bills and feet are black; and the general colour above is a shade darker than in the other specimens of *L. fallax*. Consequently these four specimens are intermediate between *L. fallax* and *L. uncinatus* from Socotra, from which, however, they further differ by their more slender bill (except the male specimen from Gennesareth, which has a bill just as much developed as in most of the Socotra birds), and much more white on the inner web of the secondaries.

Hab. From Abyssinia and Nubia to Afghanistan and the Punjaub, Palestine birds being intermediate between *L. fallax* and *L. uncinatus*.

a. Ad. sk.	Nile (*J. Hawkshaw*).	J. Gould, Esq.
b. ♀ ad. sk.	Rairo, Bogos Land, Aug. 14, 1868 (*W. Jesse*).	R. B. Sharpe, Esq.
c. ♀ ad. sk.	Nubia.	Purchased.
d. ♀ juv. sk.	Nubia.	R. B. Sharpe, Esq.
e. ♂ ad. sk.	Ain, Habab, Abyssinia, Aug. 16, 1868.	W. T. Blanford, Esq. [C.].
f. ♀ ad. sk.	Jericho.	Canon H. B. Tristram [C.].

The following specimens are intermediate between *L. fallax* a· *L. uncinatus*.

a. Ad. sk.	Mesopotamia.	Euphrates Expedition.
b. ♀ juv. sk.; *c.* ♂ ad. sk.	Mesopotamia (*Jones*).	India Museum.
d. ♂ ad. sk.	Jericho.	Canon H. B. Tristram [C.].
e. ♂ ad. sk.	Gennesareth, April 1, 1864 (*Tristram*).	F. D. Godman and O. Salvin, Esqrs. [P.].
f. ♀ ad. sk.	Annesley Bay, Feb. 1, 1868.	W. T. Blanford, Esq. [C.].
g. ♂ ad. sk.	Baluchistan, Dec. 1871.	W. T. Blanford, Esq. [C.].

16. Lanius assimilis.

Lanius assimilis, *Brehm, J. f. O.* 1854, p. 146; *Bogdanow, Russian Shrikes*, p. 160.
Lanius pallidirostris *auctorum* pt.

Tail a little shorter than wing, this being due to the central tail-feathers not projecting so far out as in *L. hemileucurus*; outer web of secondaries black at base; inner web white throughout or broadly bordered with white; upper parts, including the rump, pale grey; scapulars broadly edged with white, or white throughout their terminal half; basal half or two thirds of most of the primaries pure white on the outer and inner web, thus producing a large speculum; secondaries broadly edged with white round their tips; lesser wing-coverts and ulnar bend grey like the back; all the other wing-coverts black; the central pair of tail-feathers entirely black, the next pair narrowly tipped with white, the two outer pairs entirely white but for the shafts, which are black; a broad black band extends from the nostrils, through the eye, including the ear-coverts; sometimes joining its fellow of the other side at the base of the culmen, producing thus a very narrow black frontal band; supercilium white; all the underparts are generally pure white, frequently with a slight rosy tinge on the breast; under wing-coverts near the base of the primaries not pure white, but pale silky grey. Wing 4–4·2 inches, tail 3·1–4·1.

Hab. Sennaar and the White Nile, ranging through Turkestan to the Amoor.

a. Ad. sk.	Punjaub.	General Hearsey [P.].
b. [♂] ad. sk.	Deccan, July 31 (*Burgess*).	Gould Collection.
c. Ad. sk.	Scinde (*Dr. Gould*).	India Museum.
d. Ad. sk.	Kurrachee, Scinde (*Dr. Gould*).	India Museum.
e. Imm. sk.	Ghiznee (*Dr. Gould*).	India Museum.
f. Imm. sk.	East Africa.	Purchased.

17. Lanius hemileucurus.

Lanius hemileucurus, *Finsch & Hartl. Vög. Ostafr.* p. 329 (1870).
Lanius dealbatus, *de Filippi, apud Tristram, Ibis*, 1859, p. 433; *apud Loche, Cat. Mamm. Ois. Alg.* p. 87; *id. Expl. Sci. Algér., Ois.* ii. p. 49; *apud Gurney, Ibis*, 1871, p. 76.

Western race.—In Algiers, Tunis, Fezzan, and Kordofan *L. assimilis* is represented by a slightly different race. The tail is always longer than the wing, which, again, is nearly the same length as that of *L. assimilis*; inner web of most of the secondaries almost entirely white, the blackish colour being restricted to a broad subterminal patch. This race consequently closely resembles *L. elegans*, but differs from the latter in having no white on the basal half of the outer web of the secondaries. Every intermediate stage in coloration occurs between *L. hemileucurus* and *L. fallax*; and we may look

upon *L. hemileucurus* as a western, more intensely coloured and whiter race of *L. assimilis*.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Tunis	0·8	4·1	4·4	1·0
♂. Tunis	0·85	4·2	4·6	1·2
Mourzouk	0·86	4·2	4·55	1·15
♂. Kordofan	0·88	4·45	4·5	1·2

a.	Ad. sk.	Tunis.	L. Fraser, Esq. [C.].
b.	♂ ad. sk.	Tunis, March 2, 1857 (*Salvin*).	F. D. Godman and O. Salvin, Esqrs. [P.].
c.	Ad. sk.	Mourzouk, April (*Gagliuffi*).	Gould Collection.
d.	Imm. sk.	Nile Cataracts, Feb. 1865 (*J. Hawkshaw*).	Gould Collection.
e.	♂ ad. sk.	Kordofan.	T. C. Eyton, Esq.
f.	Ad. st.	"East Africa."	Purchased.

18. Lanius grimmi.

Lanius grimmi, *Bogdanow, Russian Shrikes*, p. 151, pl. 4.

Desert form. Upper part very pale grey, suffused with isabelline; lores white, without a præocular dark spot; lower rump and upper tail-coverts isabelline white; scapulars white; under tail-coverts entirely white; rest of underparts white with a rosy tinge.

Adult ♀. Culmen 0·9 inch, wing 4·2, tail 4·2, tarsus 1·12.

Hab. Turkestan, ranging into Baluchistan.

a.	? ♀ juv. sk.	Baluchistan (Bahu Kelat), Feb. 3, 1872.	W. T. Blanford, Esq. [C.].

19. Lanius dealbatus. (Plate VI.)

Lanius leucopygus, *Hempr. & Ehrenb. Symb. Phys., Av.* i. (1828), (*sine diagnos.*); *Bogdanow, Russian Shrikes*, p. 169.
Lanius pallens, *Cassin, Pr. Ac. N. Sc. Phil.* 1851, p. 245.
Lanius orbitalis, *Licht. Nomencl.* p. 12; *Hempr. & Ehrenb. Symb. Phys.* (1828, *sine diagnos.*); *Heuglin, Orn. N.O.-Afr.* i. p. 484.
Lanius dealbatus, *de Filippi, Rev. et Mag. Zool.* 1853, p. 289; *Bp. ibid.* p. 294; *id. op. cit.* 1857, p. 61; *Loche, Cat. Mamm. Ois. Alg.* p. 87; *Jerdon, op. cit.* 1872, p. 114; *Taylor, op. cit.* 1878, p. 370.
Lanius leuconotus, *Brehm, J. f. O.* 1854, p. 147.
Collyrio pallens, *Gray, Hand-l. B.* i. p. 391, no. 5932.

A narrow frontal band and a broad stripe through the eye, including the ear-coverts, are black; superciliary region pale grey like the crown, hind neck, mantle, back, and lesser wing-coverts; scapulars and basal half of both webs of the primaries pure white; greater part of the inner web of secondaries and a broad border round the tips pure white; lower back and upper tail-coverts, all the underparts without any exception, and the two outer pairs of tail-feathers pure snowy white; the central pair of tail-feathers entirely black; the next pair slightly tipped with white. Culmen 0·73 inch, wing 3·95, tail 4·5, tarsus 1·1.

An immature bird in the collection has the underparts, rump, and upper tail-coverts already pure white; but the white on the secondaries is a little less developed, and the black colour far less intense than in the adult; greater wing-coverts tipped with pale brown; bill and feet yellowish horn-colour in the skin.

Obs. This species is easily distinguished from *L. hemileucurus* by its white rump.

Hab. From Egypt, Nubia, and Sennaar to the White Nile.

a. Ad. sk.	N. Africa.	Purchased.
b. Ad. sk.	Sennaar.	R. B. Sharpe, Esq.

20. Lanius elegans. (Plate VII.)

Lanius elegans, *Swains. Faun. Bor.-Am.* ii. p. 122 (1831).
Collyrio elegans, *Gray, Hand-l. B.* i. p. 391, no. 5936.
Lanius lahtora, pt., *Sykes, apud Sharpe & Dresser, P. Z. S.* 1870, pp. 595, 598.

Adult (type of species). Above very pale grey, paler on the rump and on the upper tail-coverts; loral space and the feathers just above the nostrils black, this colour extending round the eye and over the ear-coverts, but not over the sides of the neck; chin, throat, thighs, and the whole rest of the underparts pure white; axillaries, all the under wing-coverts, and edge of wing pure white; the two outer pairs of tail-feathers pure white, of the third pair the whole outer web and the tip white, the two central pairs black at base and just tipped with white, whilst all the other tail-feathers are white at the base; scapulars white, but with a greyish shade towards the base and on the inner web; lesser wing-coverts grey; all the other wing-coverts brownish or dull black, with very small paler tips; primary quills pure white at the two basal thirds (the white extending over both webs and shafts), terminal third brownish black, with very narrow whitish tips; the innermost primaries are almost entirely white, the blackish colour being reduced to a subterminal patch; the secondaries have the whole of the inner web pure white; outer web entirely white at the basal third or half, the rest largely bordered and tipped with white, the white decreasing in extent toward the inner secondaries, so that the innermost quills are almost wholly blackish brown and only just tipped with white; bill and feet dark horn-colour. Culmen 0·7 inch, wing 4–5, tail 4·4, tarsus 1·2.

Hab. Algeria and Tunis. The type specimen was presented to the British Museum by the Hudson-Bay Company, and was alleged to have come from the fur-countries. Two examples (adult and young) are in the collection of Canon Tristram, and an adult also from Algeria in the collection of H. E. Dresser.

Obs. This species is intermediate in coloration between *L. sphenocercus* and *L. fallax*, but differs from each of these forms in well-marked subspecific characters. Certainly it has nothing to do with the well defined Indian species (*L. lahtora*); and we cannot

understand how Messrs. Dresser and Sharpe came to the conclusion that "this bird seems to be nothing more or less than *L. lahtora*." *L. elegans* of the American authors appears to be *L. ludovicianus*, var. *robustus*, to judge from the diagnostic description of the latter species as given by Baird, Brewer, and Ridgway.

a. Ad. sk.		Hudson-Bay Company [P.]. (Type of species.)
b. Immat. sk.	Tunis.	L. Fraser, Esq.

21. Lanius lahtora.

Lanius excubitor, var. 3, *Lath. Gen. Hist.* ii. p. 7 (1822; *teste Sharpe & Dresser*).
Collurio lahtora, *Sykes, P. Z. S.* 1832, p. 86; *id. J. A. S. Beng.* iii. p. 423.
Collyrio lahtora, *Gray & Hardwicke, Ill. Ind. Zool.* ii. pl. 31 (1830–34); *Gray, Hand-l. B.* i. p. 391, no. 5933.
Lanius burra, *Gray & Hardw. op. cit.* pl. 32 (1832).
Lanius minor, *Rüpp. Neue Wirbelth.* p. 33 (1835, *nec Gmel.*).
Lanius lahtora, *Gray, Gen. B.* i. p. 290 (1846); *Blyth, J. A. S. Beng.* xv. p. 300, et xvi. p. 473; *id. Cat. B. M. As. Soc.* p. 151 (1849); *Jerdon, Madr. Journ.* x. p. 235; *Bp. C. A.* i. p. 364; *Horsf. & Moore, Cat. B. M. E. I. Co.* i. p. 163 (1854); *Blyth, Ibis*, 1866, p. 267; *Heuglin, J. f. O.* 1867, p. 285; *Finsch & Hartl. Vög. Ostafr.* p. 327; *Beavan, Ibis*, 1870, p. 310; *Swinh. P. Z. S.* 1871, p. 375; *Dresser & Sharpe, P. Z. S.* 1870, p. 595; *Dresser, B. Eur.* iii. pl. 146, p. 381; *David & Oustal. Ois. Chine*, p. 93 (1877).

Adult. Head, neck, and mantle pale grey, somewhat paler grey on the rump and the upper tail-coverts; scapulars grey at base, the larger ones almost pure white; all the wing-coverts jet-black, except the lesser wing-coverts, which are broadly edged with grey; primaries with the basal half of both the inner and outer web pure white, terminal half black; the two or three innermost secondary quills are jet-black, just tipped with white, all the others being white and black, terminal third of outer web broadly margined with white, and with large white tips, whilst the inner web is almost entirely white, the black being reduced to a narrow part near the shaft; the two central pairs of tail-feathers entirely jet-black, the tips only showing narrow white markings; the two outer pairs of tail-feathers are generally quite white, but have the shaft still black; rest of tail-feathers white at base, and externally broadly margined and largely tipped with white; a very distinct and well-developed deep-black frontal line extends over the loral space, passing round the eye over the ear-coverts, and backwards onto the sides of the neck; above the black superciliary stripe a narrow indistinct line of white; all the underparts, including the under wing-coverts, edge of wing, and thighs are pure white; bill black; feet dark horn-colour.

Obs. The above description is taken from fully grown birds from Kamptee. They do not differ from the type of this species, which is also in the British Museum, except that the type has the bill and

feet horn-colour. The lower back, rump, and upper tail-coverts are grey, and not white as stated by Messrs. Dresser and Sharpe.

Total length 9·5 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Deccan (type)	0·83	4·2	4·4	1·12
Kamptee	0·81	4·0	4·25	1·2
Kamptee.....	0·85	4·2	4·6	1·2

Hab. This species seems to be confined to India and Afghanistan, and does not extend northwards beyond the great mountain-ranges.

a. Ad. sk. .	Deccan.	India Museum (*Sykes*). (Type of species.)
b, c. Ad. sk.	Madras.	T. C. Jerdon, Esq. [P.].
d, e, f. Ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
g, h. Ad. sk.	Deccan (*Burgess*).	Gould Collection.
i, k. Ad. sk.	Saugor (*Hooper*).	India Museum.
l, m. Ad. sk.	Kandeish.	India Museum.
n. ♀ ad. sk.	Sambhur, June 1870 (*R. M. Adam*).	E. W. Oates, Esq.
o. Ad. sk.	Umballah.	Major C. H. T. Marshall [P.].
p. Ad. sk.	N.W. Prov. of India.	F. D. Godman and O. Salvin, Esqrs. [P.].
q, r. Ad. sk.	N.W. Himalaya.	Capt. Stackhouse Pinwill [P.].
s. ♂ ad. sk.	Kattiawar, Sept. 2, 1871.	Major Hayes Lloyd [P.].
t. ♂ ad. sk.	Sindh.	J. Gould, Esq. [C.].
u. Ad. sk.	Shikarpore (*Griffith*).	India Museum.

22. Lanius excubitorius.

Lanius excubitorius, *Des Murs in Lefebvre, Voy. Abyss.* pp. 90 & 170, pl. 8; *Heugl. Orn. N.O.-Afr.* i. p. 478; *Dresser & Sharpe, P. Z. S.* 1870, p. 599; *Heugl. Peterm. Geogr. Mitth.* 1869, p. 407; *Sharpe, Cat. Afr. B.* p. 50.

Collyrio excubitorius, *Gray, Hand-l. B.* i. p. 390, no. 5929.

Lanius princeps, *Cab. Mus. Hein.* i. p. 73 (note).

Lanius kiek, *Vierthal. in Naumannia*, 1852, p. 57, 1857, p. 103, c. tab.

Lanius macrocercus, *de Filippi, Rev. et Mag. Zool.* 1853, p. 290; *Heugl. Syst. Uebers.* no. 314; *id. J. f. O.* 1863, pp. 163 & 270, 1864, p. 254; *Antinori, Cat.* p. 56.

Adult. Above very pale grey, which colour passes into white on the lower back, rump, and upper tail-coverts; most of the upper tail-coverts are slightly tipped with blackish brown, not only in young birds but also in fully grown specimens in full plumage; scapulars, all the upper and under wing-coverts, the axillaries, and secondary quills are entirely brownish black; all the primary quills, including the bastard wing, are pure white at the basal half of both outer and inner web, the terminal half blackish brown; this white colour produces a conspicuous patch on the wing when closed; the basal third of the central pair of tail-feathers and basal half of all the other tail-feathers pure white, all the remainder of the feathers

uniform black, some of the outer pairs just tipped with white; across the forehead a very broad brownish-black band, which includes the loral space, and extends backwards around the eye over the ear-coverts and even to the shoulders; behind the eye and above the ear-coverts an indistinctly defined but conspicuous white patch; all the underparts, except the under wing-coverts, are pure white; bill and feet black. The sexes are alike in colour.

♂. Total length 10·5 inches, culmen 0·75, wing 4·5, tail 5·4, tarsus 1·15.

♀. Total length 9·7 inches, culmen 0·75, wing 4·25, tail 5·15, tarsus 1·12.

Hab. North-eastern Africa.

a, *b*. Ad. st.	N.E. Africa.	Purchased.
c. Ad. sk.	White Nile.	R. B. Sharpe, Esq.
d. Ad. sk.	Soudan (*Knoblecker*).	R. B. Sharpe, Esq.

23. Lanius souzæ.

Fiscus souzæ, *Bocage, Jorn. Lisb.* xxiii. 1878, p. 213, xxiv. p. 270, xxviii. p. 239; *Schalow, J. f. O.* 1879, p. 212, 1880, p. 220; *Bocage, Ornith. d'Angola*, p. 549.

The type specimen was a young male. Upper parts grey, wing-coverts edged with rufous; no alar speculum; quills fuscous, internally edged with rufous; some of the tail-feathers tipped and edged with white, the outer pair white for the greater part of their length; under wing-coverts white; rest of underparts greyish white; forehead and superciliary region white; scapulars partly white; bill and feet blackish; iris fuscous. Culmen 0·55 inch, wing 3·35, tail 3·56, tarsus 0·85.

Hab. Angola.

a. Sk. (juv.?).	Caconda, Benguela (*Anchieta*).	Lisbon Museum [P.].

24. Lanius caudatus.

Lanius caudatus, *Cab. in V. d. Decken's Reis. Ostafr.* iii. pl. v.; *Gray, Hand-l. B.* i. p. 351, no. 5946; *Cab. J. f. O.* 1869, pl. iii.

Adult male. Head, hind neck, all the wing-coverts and secondary quills uniform dull brownish black, shading into greyish brown on the mantle and scapulars; lower back, rump, and upper tail-coverts white; basal quarter of all the tail-feathers white, all the rest black, except a very narrow white tip to some of the feathers; basal two thirds of primary quills pure white both on the inner and outer web, rest brownish black, the first and second quills having the whole outer web black; edge of wing and all the underparts of the body white; axillaries and greater under wing-coverts blackish; bill and feet black; iris brown (*Hildebrandt*). Total length 10·5 inches, culmen 0·85, wing 4·3, tail 5·8, tarsus 1·15.

The *young* bird is dark dusky brown above, with fuscous and dark

cross bars, especially on the shoulder and on the upper wing-coverts; rump and upper tail-coverts fuscous, with narrow blackish cross markings; quills narrowly bordered with brown; underparts white, with faint dark cross markings on the sides of the breast and flanks; bill brownish black; base of under mandible paler.

Hab. East Africa.

a. ♂ ad. sk.	Kitui, in Ukambani (March 1877).	J. M. Hildebrandt [C.].
b. Ad. sk.	Zanzibar.	Purchased.
c. Imm. sk.	Mombasa.	Rev. E. A. Buxton [P.].

25. Lanius antinorii.

Lanius antinorii, *Salvad. Ann. Mus. Civ. Genov.* xii. (1878) p. 316; *id. Ibis*, 1879, p. 104.

Adult (type of species). The whole of the upper parts and the sides of the head, nape, and hind neck jet-black; mantle and upper back pale grey; lower back, rump, and upper tail-coverts, scapulars, large tips of the secondary quills, basal two thirds of both webs of the primaries, edge of wing, under wing-coverts, and all the underparts pure snowy white; upper wing-coverts and quills jet-black where they are not white; central pair and the two next pairs of tail-feathers jet-black, but tipped with white; the two outermost pairs almost entirely pure white, the black being restricted to the shafts; basal and terminal quarters of third pair white, rest black; "bill black; feet dark horny colour; iris dark" (*Antinori*). Total length about 8·5 inches, culmen 0·71, wing 4·1, tail 4, tarsus 1·05. (*Mus. Torin.*)

Hab. Danakil.

26. Lanius collaris.

A. *South-western Race.*

Lanius collaris, *Linn. S. N.* i. p. 135; *Temm. Pl. Enl.* p. 477; *Bp. C. A.* i. p. 363; *Shelley, Ibis*, 1875, p. 76; *Barratt, Ibis*, 1876, p. 205; *Grill, Zool. Anteckn.* p. 10.

Le Fiscal, *Levaill. Ois. d'Afr.* ii. pls. 61, 62 (1799).

Collyrio collaris, *Gray, Hand-l. B.* i. p. 391, no. 5942.

? Collyrio smithii, *Boc. Jorn. Lisb.* 1870, p. 343.

Fiscus collaris, *Gurney in Anderss. B. Damara Ld.* p. 136; *Bocage, Orn. Angola*, p. 215; *Ayres, Ibis*, 1876, p. 429.

B. *Eastern Race* (L. humeralis).

Lanius humeralis, *Stanley, Salt's Travels, Append.* p. 51 (1814); *Heuglin, Peterm. Geogr. Mittheil.* 1869, p. 413; *Heugl. Orn. N.O.-Afr.* i. p. 486 (1869); *Blanford, Abyss.* p. 338; *Sharpe, Cat. Afr. B.* p. 50; *Antinori & Salvad. Viagg. Bogos*, p. 80.

Lanius senegalensis, *Rüppell, Neue Wirbelth.* p. 33; *Lefebvre, Abyss., Ois.* p. 97; *Ferret et Galin, Voy. Abyss., Ois.* p. 200; *Rüpp. Syst. Uebers.* no. 230; *Heugl. System. Uebers.* no. 325.

Lanius fiscus, *Cab. Mus. Hein.* i. p. 77 (1850); *Finsch, Tr. Z. S.* vii. p. 253.
Lanius arnaudi, *Des Murs.*
Fiscus arnaudi, *Bp. Rev. et Mag. Zool.* 1853, p. 434; *Heugl. Fauna roth. Meer.* no. 128.
Collyrio fiscus, *Gray, Hand-l. B.* i. p. 391, no. 5945.

A. *South-western Race.*

Adult male. Head, hind neck, and mantle dull brownish black; lower back, rump, and upper tail-coverts grey; tail-feathers black, with large white tips to the outer pair, the black being sometimes reduced to a comparatively small patch on the basal half of the inner web; greater part of scapulars pure white, except the base, which generally is pale grey; scapulars and some of the lesser wing-coverts black, externally bordered with whitish; wing-coverts and secondary quills uniform brownish black, the latter with very narrow white tips; the first and second quills entirely brownish black, the others with the basal half or third throughout pure white, the terminal half brownish black; edge of wing white; under wing-coverts blackish, margined and intermingled with white; axillaries greyish black on inner web, white on the outer web; chin, throat, lower abdomen, and under tail-coverts white; all the rest of under-parts greyish, as every feather has numerous very faint and narrow dark cross bars; feathers of the thighs blackish at base, with the rest white; bill and feet black; iris dark brown.

Adult female. Generally with a more greyish tinge above, and distinguished from the male by a more or less conspicuous chestnut-coloured patch on the flanks.

Young bird. Ashy brown, waved with dusky bars across the whole of the upper surface, the scapulars dull white, slightly washed with rufous externally, the cross bars wider apart; wing-coverts dark brown, with subterminal rufous bars; quills dark brown, the primary-coverts and primaries tipped with rufous, the secondaries broadly edged, the innermost mottled with that colour; alar speculum at base of primaries not so large as in the adult; tail dull brown, washed with rufous on the edge of the feathers, the tips of which are paler, with a subterminal narrow band of dusky blackish; the outer tail-feathers buffy white externally and at the tip, subterminally mottled with brown; lores slightly whitish; cheeks and throat dull white, thickly barred across with dusky brown, the white spaces being wider on the abdomen and on the under tail-coverts.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
♂	8	0·75	4·1	4·8	1·1
♂	8	0·75	3·8	4·2	1·1
♀	8	0·8	3·9	4·4	1·0

Hab. South Africa, from the Cape to the Congo.

Obs. One female, apparently fully adult, shot at Bull's Post in Great Namaqua Land, May 13, 1862, has the rump grey;

the underparts, except the abdomen and under tail-coverts, greyish, which colour is produced by the minute transverse vermiculations. The chestnut-coloured spot on the flanks as in *L. collaris*, but the loral feathers and some feathers above the eye are whitish. Culmen 0·8 inch, wing 3·8, tail 4·35, tarsus 1·05.

Two white feathers just in the middle of the forehead support the opinion that this specimen is a hybrid between *L. collaris* and the true Namaqua bird.

B. *Eastern Race* (L. humeralis).

Adult male. Distribution of colour very similar to that in *L. collaris*. The birds from Eastern Africa, from Abyssinia to Natal, are generally darker above than *L. collaris*, old males showing a slight glossy shine on the head, neck, tail, and wing-coverts; greater part of scapulars pure white, forming a very conspicuous large shoulder-patch; rump and upper tail-coverts grey; all the underparts pure white, with the exception of the axillaries and most of the under wing-coverts, which are blackish, or only bordered with white on the outer web; iris dark brown; bill and feet black.

	Total length. in.	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ ad. Natal	8·4	0·75	3·65	4·5	1·08
♂ ad. Sennaar	8·4	0·7	3·65	4·9	0·95
♂ ad. Durban (moulting)	8·4	0·63	3·60	4·9	1·05

Adult female. Like the male in colour and size, but, as in the female of *L. collaris*, showing a chestnut spot on the sides above the thighs.

The *young* bird in first plumage is very similar to the young of *L. collaris* of the same age; but the underparts, especially the abdomen and lower breast, are whiter and less cross-barred.

Obs. One adult male from Natal and one female from Maritzburg appear to be almost pure white underneath; but on very careful examination they show on the breast very faint and narrow greyish cross markings, which give a very slight greyish tinge to the white breast. Another male from Durban, however, has the underparts pure white.

Hab. Eastern Africa, from Abyssinia to Natal.

The birds described as *L. humeralis* and *L. collaris* are to be looked upon as only *one* species, represented in the eastern part of Africa, from Abyssinia to Natal, by a slightly smaller and more brightly coloured form, and in the western region, from the Congo river to the Cape, by a more greyish and rather larger race. In Natal both these forms run into each other as regards colour and in size.

a. L. collaris.

a. Ad. sk.	South Africa.	J. Gould, Esq. [C.].
b. [♀] ad. sk.	South Africa.	J. Gould, Esq. [C.].

c, *d*. Nestling.	South Africa.	Dr. Lee [P.].
e. Nestling.	South Africa.	Rev. H. T. Phillip [P.].
f, *g*, *h*. ♀ ad. sk.	South Africa (*Layard*).	R. B. Sharpe, Esq.
i. Imm. sk. (moulting).	South Africa (*Layard*).	R. B. Sharpe, Esq.
k, *l*. Imm. sk. (moulting).	British Kaffraria.	Capt. Trevelyan [C.].
m. Juv. sk.	Kingwilliam's Town.	Capt. Trevelyan [C.].
n, *o*, *p*. Ad. sk.	Gold-fields, S. Africa.	Purchased.
q. [♂] ad. sk.	Knysna, Dec. 12, 1865 (*Andersson*).	R. B. Sharpe, Esq.
r, *s*. ♂ ♀ ad. sk.	Cape Town, July 1, 1865 (*Andersson*).	R. B. Sharpe, Esq.
t. Juv. sk.	Cape Town, Nov. 8, 1865 (*Andersson*).	R. B. Sharpe, Esq.
u, *v*. [♂] ad. sk.	Cape.	Capt. Kellett [C.].
w. ♀ ad. sk.	Mossel Bay, April 11, 1873 (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
x. ♀ ad. sk.	Bull's Post, Great Namaqua Land, May 13, 1862 (*Andersson*).	R. B. Sharpe, Esq.

β. L. humeralis.

a. [♂] ad. st.	Abyssinia.	Purchased.
b, *c*. [♂ ♀] st.	S. Africa.	Purchased.
d. ♂ ad. sk.	Natal.	T. Ayres, Esq. [C.].
e. [♂] ad. sk.	Natal (*Ayres*).	F. D. Godman and O. Salvin, Esqrs. [P.].
f. ♂ ad. sk. (moulting).	Durban (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
g. ♀ ad. sk.	Maritzburg, May 21, 1873 (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
h. ♂ ad. sk.	Kitui (E. Africa), April 1877.	J. Hildebrandt [C.].
i. ♂ ad. sk.	Kitui, April 1877.	J. Hildebrandt [C.].
k. ♂ Imm. sk.	Bejook, Bogos, July 13, 1868 (*W. Jesse*).	F. D. Godman and O. Salvin, Esqrs. [P.].
l. ♂ ad. sk.	Efat (*Sir W. C. Harris*).	India Museum.
m. ♂ ad. sk.	Geddem, Dec. 1841 (*Sir W. C. Harris*).	India Museum.
n. ♂ ad. sk.	Senafé, 7500 feet, Feb. 26, 1868.	W. T. Blanford, Esq. [C.].
o. ♀ ad. sk.	Adigrat, 8000 feet, April 3, 1868.	W. T. Blanford, Esq. [C.].
p. Juv. sk.	Abyssinia.	Purchased.

Subsp. α. Lanius smithii.

Collurio smithii, *Fraser*, *P. Z. S.* 1843, p. 16; *Verreaux*, *Rev. et Mag. Zool.* 1851, p. 312; *Hartl. Orn. W.-Afr.* pp. 103 & 273; *Monteiro*, *Ibis*, 1862, p. 337.

Lanius smithii, *Gray*, *Gen. B.* i. p. 291 (1846); *Bp. C. A.* i. p. 364; *id. Rev. et Mag. Zool.* 1853, p. 434; *Heugl. Orn. N.O.-Afr.* i.

p. 487 (1869–71); *Sharpe & Bouvier, Bull. Soc. Zool. Fr.* i. p. 308; *Sharpe, Ibis*, 1870, p. 19; *id. Cat. Afr. B.* p. 50; *id. P. Z. S.* 1873, p. 717; *Reichenow, Corr. Afrik. Gesellsch.* 1874, p. 179.

Collyrio smithii, Gray, Hand-l. B. i. p. 391, no. 5944 (1869); *Bocage, Jorn. Lisb.* 1870, p. 343.

Fiscus smithii, *Brehm, Habesch*, p. 310; *Bocage, Orn. Angola*, p. 216.

Adult male. Distribution of colours exactly the same as in *L. humeralis*, from which *L. smithii*, besides its smaller size, differs merely in two points: first, the head, hind neck, and mantle are constantly glossy black; secondly, most of the upper tail-coverts have their terminal halves white, forming a white patch across the rump.

Adult female. Like the male but less glossy, some of the feathers of the flanks and sides of breast washed with chestnut-colour.

Young birds like those of *L. humeralis*.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
♂. Congo....	about 8·5	0·7	3·6	4·6	1·0
♂. Congo....	„	0·7	3·5	4·45	0·9
♂. Fantee ..	„	0·7	3·5	4·6	1·0
♂. Accra	„	0·7	3·5	4·5	0·95
♂. Ashantee .	about 7·7	0·65	3·22	4·1	0·95
♂. Abeokuta .	„	0·61	3·3	4·1	0·92
♀. Congo .	„	0·67	3·2	4·1	0·87

Hab. Western Africa, from the Congo river to the Gold Coast.

As the Congo specimens form a perfect link in size between the eastern *L. humeralis* and the western *L. smithii*, the latter cannot be considered more than a still more brightly coloured representative of the *L. collaris* group in Tropical Western Africa; in other words, *L. humeralis* gradually passes into a more intensely black and purer white-coloured and somewhat smaller form towards the western parts of Tropical Africa.

a. [♂] ad. sk.	West Africa.	L. Fraser, Esq. [C.]. (Type of species.)
b, c, d. [♂] ad. sk.	Fantee.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. [♂] ad. sk.	W. Africa.	Purchased.
f. Imm. moulting sk.	Ashantee.	J. Gould, Esq.
g, h. [♂] ad. sk.	Fantee.	R. B. Sharpe, Esq.
i. Juv. sk.	Fantee.	R. B. Sharpe, Esq.
k, l. Imm. moulting sk.	Fantee.	A. Swanzy, Esq. [P.].
m. [♂] ad. sk.	Accra (*Smith*).	R. B. Sharpe, Esq.
n. Imm. moulting sk.	Abeokuta.	F. Nicholson, Esq. [P.].
o. [♂] ad. sk.	Abeokuta.	F. Nicholson, Esq. [P.].
p, q. ♂ ad.; *r.* ♀ ad. sk.	Congo.	Commander R. M. Sperling [P.].
s. [♀] ad. sk.	Angola.	J. J. Monteiro, Esq. [C.].

27. Lanius subcoronatus.

Lanius subcoronatus, *Smith, Ill. Zool. S. Afr., Aves*, pl. 68; *Bp.* i. p. 359; *Strickl. & Sclater, B. Damara Ld., Contr. Orn.* p. 154; *Andersson, P. Z. S.* 1874, p. 1; *Layard, B. S. Afr.* p. 157; *Sharpe, Cat. Afr. B.* p. 50; *id. ed. Layard B. South Afr.* p. 377.
Collyrio subcoronatus, *Gray, Hand-l. B.* i. p. 391, no 5943.
Fiscus subcoronatus, *Gurney in Andersson, B. Damara Ld.* p. 138; *Bocage, Jorn. Lisb.* 1872, p. 67; *id. Orn. Angola*, p. 217; *Chapman's Travels in S. Afr., App.* p. 393.
Fiscus capelli, *Bocage, Jorn. Lisb.* xxvi. p. 93 (1879); *id. Orn. d'Angola*, p. 549; *Reichen. & Schalow, J. f. O.* 1880, p. 97.

Adult male. Easily distinguished from *L. collaris* by a white frontal band and a large superciliary stripe. Rump and under surface of body pure white, as in *L. humeralis*, from which it differs by the colour of the upper parts, which are still more dull and more tinged with brownish grey than in *L. collaris*. Bill and feet horny black. Total length 8·5 inches, culmen 0·65, wing 3·65, tail 4·1, tarsus 1·05.

Adult female. Very large chestnut spot on the flanks; in younger specimens the breast slightly tinged or waved with ashy. Total length 8·5 inches, culmen 0·65, wing 3·8, tail 4·4, tarsus 1.

Young bird. More or less like those of the allied species, but always having the rump and terminal half of some of the upper tail-coverts and the frontal and superciliary region white.

Hab. South-western Africa, from Benguela to Namaqua Land.

a.	Ad. sk.	S.W. Africa.	Purchased.
b.	Ad. sk.	Damara Land.	C.J. Andersson, Esq. [C.].
c.	♀ imm. sk.	Swakop river, Jan. 30, 1864 (*Andersson*).	R. B. Sharpe, Esq.
d.	Imm. sk.	Swakop river, Nov. 25, 1863 (*Andersson*).	R. B. Sharpe, Esq.
e.	♂ imm. sk. (moulting).	Kamis river, Gt. Namaqua Land, May 22 1862 (*Andersson*).	R. B. Sharpe, Esq.
f.	♀ ad. sk.	Gt. Namaqua Land, June 18, 1862 (*Andersson*).	R. B. Sharpe, Esq.

28. Lanius tephronotus.

Collurio tephronotus, *Vigors, P. Z. S.* 1831, p. 43; *Bp. Rev. et Mag. Zool.* 1853, p. 435; *Hume, Nests and Eggs Ind. B.* p. 171 (1873).
Lanius nipalensis, *Hodgs. Ind. Review*, i. p. 445 (1837).
Collurio obscurior, *Hodgs. in Gray's Zool. Misc.* 1844, p. 84.
Lanius tephronotus, *Gray, Gen. B.* i. p. 290 (1846); *Blyth, J. A. S. Beng.* xv. p. 301; *id. Cat. B. Mus. As. Soc.* p. 151 (1849); *Bp. C. A.* i. p. 364; *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 166 (1854); *Jerd. B. Ind.* i. p. 403 (1862); *Godwin-Austen, J. A. S. Beng.* 1870, p. 99, and 1875, p. 473; *Swinh. P. Z. S.* 1871, p. 375; *Hume, Str. F.* 1874, p. 475; *David et Oustal. Ois. Chine*, p. 94; *Schalow, J. f. O.* 1878, p. 151; *Anderson, Zool. Exped. Yunnan, Aves*, p. 643 (1878).

Collyrio tephronotus, *Gray, Hand-l. B.* i. p. 392, no. 5954; *Hume, Nests & Eggs Ind. B.* i. p. 171.

Adult. Crown of head, hind neck, and scapulars dull grey; the lower back, rump, and upper tail-coverts dull orange-buff; wings blackish brown, with *no* visible alar speculum, as the wing-coverts completely hide the whitish basal fifth of the primaries; the least coverts broadly washed with grey like the back, the greater series and the quills narrowly margined with buffy white; the edge of the wing and the outer margin of the bastard quills white; tail-feathers dull brown, the central pair darker and obscurely tipped with fulvous, this colour increasing in extent on the outer feathers, which are also obscurely margined with fulvous on the outer web; a narrow frontal band, feathers round the eye, and the ear-coverts black; an indistinct superciliary stripe; cheeks, throat, and centre of the body below white; the sides of the body and under tail-coverts orange, inclining to buff on the latter; thighs ashy white; under wing-coverts creamy white, the lower ones inclining to ashy brown; inner surface of quills also ashy brown, inclining to white near the inner webs; bill and feet black; iris brown. Total length about 9 inches, culmen 0·75, wing 4·05, tail 4·8, tarsus 1·12.

The sexes are alike in plumage.

Young. Similar to the adult in coloration, but duller, and wanting the black frontal band; ear-coverts dark brown; under surface whitish, numerously barred with zigzag bars of ashy brown; and upper tail-coverts also barred with black-brown; some of the scapulars and most of the wing-coverts edged with reddish brown, with submarginal blackish longitudinal bars.

Hab. Himalayas, from Cashmere to Assam; and Upper Burmah.

a. [♂] ad. sk.	India.	Purchased.
b. ♀ juv. sk.	Valley of Astor, Cashmere, 10,000 feet.	B. H. Hodgson, Esq. [P.].
c–f. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
g, h. Imm. sk.	Nepal.	India Museum.
i, k. ♂ ad. & juv. sk.	Nepal (*Hodgson*).	
l. Juv. sk.	Sikkim, December 1874.	Major J. Biddulph [C.].
m. Imm. sk.	Sikkim, November 1874.	Major J. Biddulph [C.].
n. Ad. sk.	Bootan (*Pemberton*).	India Museum.
o. Ad. sk.	Assam (*McClelland*)	India Museum.
p, q, r. Ad. sk.	Upper Assam.	R. B. Sharpe, Esq. [P.].
s. ♂ ad. sk.	Sawaddy, Burmah, Jan. 28, 1875.	Dr. J. Anderson.
t. Skeleton of trunk.	Nepal.	B. H. Hodgson, Esq. [P.].

29. Lanius schach.

Lanius a-scack, *Osbeck, Ostind. Resa*, p. 227 (1757).
Lanius schach, *Linn. S. N.* i. p. 94 (1758); *Gm. S. N.* i. p. 303; *Vieill. Enc. Méth.* ii. p. 737; *Less. Traité d'Orn.* p. 372; *Blyth, J. A. S. Beng.* xv. p. 301; *id. Cat. B. Mus. As. Soc.* p. 151; *Bp.*

C. A. i. p. 364 (1850); *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 163 (1854); *Cassin, Narrat. of Exped. Amer. Squadr.* ii. p. 238 (1856); *Swinh. Ibis*, 1860, p. 43, and 1871, p. 59; *id. P. Z. S.* 1863, p. 286, and 1871, p. 375; *Severtz. Turk. Jevotn.* (1873); *Walden, Tr. Z. Soc.* 1875, p. 170; *Dresser, Ibis*, 1875, p. 184; *Dav. & Oust. Ois. Chine*, p. 95, pl. 75 (1877); *Schalow, J. f. O.* 1878, p. 139.

Chestnut-backed Shrike, *Lath. Gen. Syn.* i. p. 159 (1781).

Lanius castaneus, *Gm. S. N.* xiii. p. 297, no. 5 (1788); *Lath. Ind. Orn.* i. p. 67.

Lanius macrourus, *Cuv. Mus. Par.* (*teste Pucher. Arch. du Mus. d'Hist. nat.* vii. p. 325, 1854).

Lanius chinensis, *Gray, Zool. Misc.* p. 1 (1831).

Collyrio schach, *Bp. Rev. et Mag. Zool.* 1853, p. 434; *Gray, Hand-l. B.* i. p. 392, no. 5949 (1869); *id. Fasc. B. China*, p. 4.

Lanius longicaudatus, *Gould, P. Z. S.* 1859, p. 151.

Lanius schach, var. formosæ, *Swinh. Ibis*, 1863, p. 270; *id. P. Z. S.* 1863, p. 335.

Adult. The sexes are alike in plumage. Forehead, ocular region, and ear-coverts black; rest of head, and hind neck grey, clearer where it adjoins the back, but gradually becoming tinged with sandy colour as it approaches the back, which is deep orange ferruginous like the scapulars and upper tail-coverts; wing-coverts black, the lesser ones slightly shaded with greyish; edge of wing white; general colour of quills brownish black; the primaries externally narrowly edged with buffy white, five of them with white bases, which colour, extending over generally not more or even less than the basal third of the quills, is completely hidden by the wing-coverts, rarely producing a distinct alar speculum; the secondaries with broad rufous margins; tail black, tipped with rufous buff, the outer feathers greyer and more broadly tipped and margined all round with rufous buff; cheeks, throat, and breast white, shading off into creamy buff on the centre of the body, the sides of which are deep orange-ferruginous like the back; under tail-coverts a little paler; thighs buffy white; most of the under wing-coverts near the edge of the wing, as well as the edge of the inner webs, buffy white; some of the under wing-coverts form a blackish patch; bill and feet black.

	Total length.	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.	in.
♂. Hankow	10·6	0·85	4·3	5·7	1·25
♂. China	10·0	0·8	4·05	5·5	1·2
♂. Amoy	10·0	0·85	4·05	5·45	1·23

Immature birds resemble the adult, but want the black forehead; the whole head, hind neck, mantle, and breast are fawn-buff, each feather with a dark subterminal cross bar; ear-coverts and wing-coverts dark brown, the latter rather broadly tipped with reddish brown; bill and feet horny brown.

Hal. China and Formosa.

Obs. About the birds from the island of Formosa (*L. schach*, var.

formosæ, Swinhoe), *cf.* Swinhoe's excellent account of *L. schach* in 'Ibis,' 1863, pp. 270–272.

a. [♂] ad. st.	China.	General Hardwicke [P.].
b. Ad. sk.	N. China.	Mr. Fortune [C.].
c–e. Ad. sk.	China.	R. Swinhoe, Esq. [C.].
f. Ad. sk.	China.	G. T. Lay, Esq. [C.].
g, h. ♂ ♀ ad. sk.	Amoy, China, April 1862 (*Swinhoe*).	F. D. Godman and O. Salvin, Esqrs. [P.].
i. Ad. sk.	Amoy, December 1859 (*R. Swinhoe*).	Gould Collection.
k. Ad. sk.	China (*Swinhoe*).	F. D. Godman and O. Salvin, Esqrs. [P.].
l. [♂] ad. sk.	Hankow.	C. Maries, Esq. [C.].
m, n. Ad. sk.	China.	Gould Collection.
o. Ad. sk.	Fokien.	Gould Collection.
p. Ad. sk.	Shanghai (*J. R. Reeves*).	Gould Collection.
q. Ad. sk.	Formosa, Nov. 1865.	R. B. Sharpe, Esq. [P.].
r. Ad. sk.	Formosa (*Swinhoe*).	F. D. Godman and O. Salvin, Esqrs. [P.].

30. Lanius fuscatus.

Lanius fuscatus, *Less. Traité*, p. 373; *Bp. Rev. et Mag. Zool.* 1853, p. 434; *Pucher. Arch. Mus.* vii. p. 368; *Walden, Ibis*, 1868, p. 69, 1870, p. 241; *Swinh. P. Z. S.* 1870, p. 241, and 1871, p. 375; *Jerdon, Ibis*, 1872, p. 115; *Dav. et Oust. Ois. Chine*, p. 96; *Schalow, J. f. O.* 1878, p. 156.

Lanius lugubris, *Hartl. J. f. O.* 1855, p. 361 (*ex Temm. MS.*).

Lanius melanthes, *Swinh. Ibis*, 1867, p. 405; *Walden, Ibis*, 1868, p. 68.

Collyrio fuscatus, *Gray, Hand-l. B.* i. p. 392, no. 5961 (1869).

"Frontal band, over eye, whole face, and throat black; thighs, axillaries, wings, and tail black; remiges lighter and browner; bill and claws black; iris deep brown; rest of plumage deep dusky smoke-grey, tinged with buff on back, rump, and underparts; reddish chocolate on vent. Wing 4 inches, tail 5·3. In form very similar to *L. schach*." (*Swinhoe.*)

Hab. Amoy, South China.

The type specimens of *L. melanthes* are now in the collection of Mr. H. Seebohm.

31. Lanius erythronotus.

Collurio erythronotus, *Vigors, P. Z. S.* 1831, p. 42; *Gould, Cent. Him. B.* pl. 12. fig. 2; *Bp. Rev. et Mag. Zool.* 1853, p. 435; *Frankl. P. Z. S.* 1831, p. 117; *Hume, Str. F.* 1873, p. 174; *id. Nests and Eggs Ind. B.* p. 167.

Collurio jounotus, *Hodgs. in Gray's Zool. Misc.* p. 84 (1844).

Lanius erythronotus, *Gray, Gen. B.* i. p. 290 (1846); *Blyth, J. A. S. Beng.* xv. p. 302 (1846); *id. Cat. B. Mus. As. Soc.* p. 151 (1849); *Bp. C. A.* i. p. 364; *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 164 (1854); *Jerdon, B. Ind.* i. p. 402 (1862); *Henders. & Hume, Lahore to Yark.* pp. 166 & 182; *Beavan, Ibis*, 1870, p. 311; *Jerdon, Ibis*, 1872, p. 114; *Schalow, J. f. O.* 1878, p. 148.

Enneoctonus erythronotus, *Tytler, Ibis*, 1868, p. 200; *Holdsworth, P. Z. S.* 1872, p. 436.
Collyrio erythronotus, *Gray, Hand-l. B.* i. p. 392, no. 5950.
Collyrio caniceps, *Gray, Hand-l. B.* i. p. 392, no. 5961 (*nec Blyth*).

Adult. Crown of head, neck, and mantle grey; lower part of the mantle washed with sandy as it shades off into the back, which is, along with the rump and upper tail-coverts, light orange-rufous; scapulars rufous like the back but paler, many of them washed with grey near the base; wing-coverts black, the lesser series round the bend of the wing margined with ashy grey, the edge of the wing white; quills brownish black, the secondaries rather broadly margined with fulvous, the primaries more narrowly, the latter white at basal third of either web, forming a small alar speculum; tail black, all the feathers tipped with light rufous buff; this light terminal spot increasing in extent on the three outer feathers, which are likewise margined with fulvous, not only on the outer but also on the inner webs, forming a narrow border to these feathers, broader and more distinct on the outermost rectrix; across the forehead a well-defined black band, which colour extends over the lores, around the eye, and over the whole ear-coverts; the sharp narrow black superciliary streak bordered with white; cheeks and throat white; rest of underparts buffy white, sides of the body and under tail-coverts orange-rufous, paler on the latter and on the thighs; under wing-coverts and axillaries creamy white; some of the feathers near the bastard wing slightly washed with greyish; bill and feet black, base of under mandible pale horny.

Young. Head, neck, and mantle ashy brown; the back, scapulars, rump, and upper tail-coverts pale orange-rufous, all the feathers of the upper surface paler at tip, and barred with dusky brown; wings blackish, all the feathers edged with dull rufous, the primaries with pale fulvous; tail ashy brown, with wavy cross lines under certain lights, the two centre feathers blackish, the outer ones with a pale border of fulvous all round; forehead and lores fulvous, barred with dusky brown; over the eye a distinct buffy-white streak; ear-coverts dull brown; cheeks and throat pure white; rest of under surface pale fulvous, inclining to white on the centre of the abdomen; breast and flanks varied with zigzag cross lines of dusky brown.

The following are the measurements of a series of *L. erythronotus* now before me:—Culmen about 0·75 inch.

	Total length. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ ad. Kokand	8·5	3·75	4·7	1·05
♂ ad. Sind valley	8·8	3·7	4·7	1·05
Ad. Kamptee	9·8	3·6	4·8	1·1
Ad. Behar	9·0	3·55	4·5	1·1
Ad. Kamptee	9·8	3·55	4·6	1·1
Ad. Kamptee	8·0	3·4	4·5	1·1
Ad. Behar	8·5	3·4	4·4	1·1
Ad. Nepal	8·5	3·3	4·2	1·05

Hab. Indian Peninsula, extending through the N.W. Provinces and Sindh to Central Asia; replaced in Southern India by *L. caniceps*.

a. ♂ ad. sk.	Kokand.	Dr. Severtzow [C.].
b. ♂ ad. sk.	Afghanistan (*Griffith*).	India Museum.
c. Ad. sk.	Afghanistan (*Griffith*).	India Museum.
d. Ad. sk.	Kabul (*Griffith*).	India Museum.
e, f. ♂ ♀ ad. sk.	Kandahar, April 6, 1881.	Lieut.-Col. Swinhoe [P.].
g. ♀ ad. sk.	Quettah, May 5, 1881.	Lieut.-Col. Swinhoe [P.].
h, i. Ad. sk.	Peshawur.	Colonel Way [P.].
k, l. ♂ ♀ ad. sk.	Gilgit, June.	Major Biddulph [C.].
m. Ad. sk.	Kashmere, July 30, 1874.	Major Biddulph [C.].
n. Ad. sk.	Kashmere.	R. B. Sharpe, Esq. [P.].
o. Ad. sk.	Kashmere.	E. M. Langworthy, Esq. [P.].
p. ♀ ad. sk.	Srinaggar, May 1876.	Major Biddulph [C.].
q, r. ♂ ♀ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
s, t. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
u. Ad. sk.	N.W. India.	R. B. Sharpe, Esq. [P.].
v. Ad. sk.	Murree.	Major Biddulph [P.].
w. Juv. sk.	Kotegurh.	E. W. Oates, Esq.
x. Ad. sk.	Rajkote, Nov. 10, 1871.	Major Hayes Lloyd [P.].
y, z, a', b'. Ad. sk.	Kamptee, Central Provinces.	Dr. B. Hinde [P.].
c'. Juv. sk.	Deccan (*Sykes*).	India Museum.
d', e'. Ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
f'. Ad.; *g'.* Juv. sk.	Kumaon (*Strachey*).	India Museum.
h'. Ad. sk.	Darjeeling.	W. Fotheringham, Esq. [P.]
i'. Ad. sk.	Darjeeling.	C. B. Wharton, Esq. [P.].
k'. Ad. sk.	Assam.	Gould Collection.
l'. Ad. sk.	India.	
m'. Ad. st.	India.	

Subspecies *a*. **Lanius caniceps.**

Lanius caniceps, *Blyth, J. A. S. Beng.* xv. p. 302 (1846); *id. Cat. B. M. As. Soc.* p. 151 (1849); *Gray, Gen. B.* iii. *Append.* p. 14; *Bp. C. A.* i. p. 364; *Horsf. & Moore, Cat. B. M. E.I. Co.* p. 164 (1854); *Blanford, J. A. S. Beng.* 1871, p. 272; *Jerdon, Ibis*, 1872, p. 114; *Fairbank, Str. F.* 1877, p. 400; *Legge, B. Ceylon*, p. 383 (1879).

Lanius tephronotus (*Vig.*), *Kelaart, Prodrom. Cat.* p. 124 (1852, *teste Legge*).

Collyrio caniceps, *Bp. Rev. et Mag. Zool.* 1853, p. 435; *Hume, Nests and Eggs Ind. B.* i. p. 169 (1873).

Lanius erythronotus (*Vig.*), *Layard, Ann. & Mag. N. H.* 1854, xiii. p. 130 (pt.); *Jerdon, B. Ind.* i. p. 402 (1862); *Holdsworth, P. Z. S.* 1872, p. 436; *Legge, Str. F.* 1876, p. 243.

Lanius affinis, *Legge, Str. F.* 1876, p. 243.

If *Lanius caniceps* of Blyth is to be treated as a separate species, this name should be restricted to the birds from Southern India with grey scapulars. The whole colouring of the birds from this part of India is clearer, and the grey extends further down the back.

Adult. The grey colour above occupies the whole of the mantle, upper back, and the scapulars; the orange-rufous colour is restricted to the rump and upper tail-coverts, the change from this colour to the grey of the mantle taking place on the lower back; generally some of the larger scapulars are slightly washed with rufous. In all the other parts, especially in the colour of the head, *L. caniceps* most closely resembles *L. erythronotus*.

The following are the measurements of those specimens in the British Museum which I consider to be typical *L. caniceps* of Blyth; they do not differ from those of *L. erythronotus* in any part.

	Total length. in.	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
a, b. Ad. Malabar	9	abt. 0·75	3·65	4·75	1·18
c. Ad. N.W. Ceylon	8·5		3·4	4·2	1·07
d. ♂ ad. Godavery River..	8		3·4	4·2	1·01

Hab. Southern India and Ceylon, ranging into the Godavery valley in Central India.

a. Ad. st.	India.	Gen. Hardwicke [P.].
b. Ad. st.	India.	
c. Ad. sk.	Madras (*Jerdon*).	Gould Collection.
d. Ad. sk.	Madras (*Jerdon*).	India Museum.
e, f. Ad. sk.	Deccan (*Burgess*).	Gould Collection.
g. Juv. sk.	Deccan (*Sykes*).	India Museum.
h, i. Ad. sk.	Deccan (*Sykes*).	India Museum.
k. Ad. sk.	Malabar.	Purchased.
l. Ad. sk.	Malabar.	Purchased.
m. Ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
n. ♂ ad sk.	Godavery river, Dec. 16, 1870.	W. T. Blanford, Esq. [P.].
o. Ad. sk.	Deyra Doon.	Gould Collection.
p. ♀ ad. sk.	N.W. Ceylon, March 13, 1876.	Capt. W. V. Legge [C.].

32. Lanius bentet.

Lanius bentet, *Horsf. Tr. Linn. Soc.* xiii. p. 144 (1821); *Raffles, ibid.* p. 304; *Lath. Gen. Hist.* ii. p. 54; *Less. Cent. Zool.* pl. 72; *Salvad. Uccell. Borneo*, p. 158; *Schalow, J. f. O.* 1878, p. 141; *Nicholson, Ibis*, 1879, p. 170.

Lanius pyrrhonotus, *Vieill. Gal. Ois.* pl. 135. i. p. 219 (1825).

Lanius schach (pt.), *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 163 (1854).

Collyrio pyrrhonotus, *Bp. Rev. et Mag. Zool.* 1853, p. 435; *Gray, Hand-l. B.* i. p. 392, no. 5952.

Collyrio bentet, *Bp. t. c.* p. 435.

? Lanius suchii, *Bp.*

Adult. The birds belonging to *L. bentet* (Java, Lombock, and Timor) may briefly be described as a small form of *L. schach*, with the black frontal band extending to the level of the eyes and gradually passing into the grey of the crown of the head. The black superciliary streak is generally broader than in *L. schach*, and extends a little backwards over the ear-coverts to the sides of the neck. In all the other parts these insular birds resemble the large continental Chinese form in the minutest details.

The sexes are perfectly alike in plumage; and the young birds have the same colours and markings as those of the allied species.

Obs. Two specimens from Sumatra and one specimen from Java differ from all the others in having the scapulars of a very light buff-colour, and the terminal half shading off into creamy white. In the Java specimen mentioned above and in a second from Lombock the black colour occupies the greater part of the head, gradually passing into brownish black and then into ashy brown on the occiput and hind neck.

Measurements:—Total length 9–9·5 inches; culmen about 0·75 inch.

	Wing. in.	Tail. in.	Tarsus. in.
Ad. Java	3·4	4·4	1·1
♂ ad. Timor	3·6	5·2	1·18
♀ ad. Timor	3·45	5·0	1·1
♂ ad. Lombock	3·4	4·55	1·1
Ad. Lombock	3·45	4·8	1·08

Hab. Sunda Islands, from Sumatra to Timor.

a. Ad. sk.	[Java.]	J. Inskipp, Esq. [P.].
b, *c*. Ad. sk.	Java (*Horsfield*).	India Museum. (Types of species.)
d, *e*. Ad. st.	Java.	
f, *g*. Ad. sk.	Java.	F. D. Godman and O. Salvin, Esqrs. [P.].
h. Ad. sk.	W. Java (*E. C. Buxton*).	F. Nicholson, Esq. [P.].
i. Ad. sk.	W. Java.	A. R. Wallace, Esq. [C.].
k, *l*. Ad. sk.	Sumatra.	Mr. Carl Bock [P.].
m, *n*, *o*. ♂ ad. & juv.; *p*. ♀ ad. sk.	Lombock.	A. R. Wallace, Esq. [C].
q. Ad. sk.	Lombock.	A. R. Wallace, Esq. [C.].
r. Ad.; *s*. ♀ ad. sk.	Lombock (*Wallace*).	Gould Collection.
t, *u*, *v*. Ad.; *w*. Juv. sk.	E. Timor.	A. R. Wallace, Esq. [C.].
x, *y*. ♂ ad.; *z*. ♀ ad. sk.	E. Timor.	A. R. Wallace, Esq. [C.].
a'. Ad. in spirit.	Java.	R. B. Sharpe, Esq. [P.].

33. Lanius nigriceps.

Pie-grièche d'Antigue, *Sonner. Voy. Nouv. Guin.* p. 114, pl. 70 (1776).
Lanius antiguanus, *Gml. S. N.* i. p. 301, no. 29 (1788, *ex Sonnerat*).
Lanius nasutus, *Scop. Del. Fl. Faun. Insubr.* ii. p. 85, no. 13 (1786, *ex Sonn.*); *Walden, Tr. Z. S.* ix. p. 169.
Collurio nigriceps, *Frankl. P. Z. S.* 1831, p. 117; *Bp. Rev. et Mag. Zool.* 1853, p. 435; *Hume, Nests & Eggs Ind. B.* p. 172.
Lanius tricolor, *Hodgs. Ind. Rev.* i. p. 446 (1837); *id. in Gray's Zool. Misc.* p. 81.
Lanius nigriceps, *Jerd. Madr. Journ.* x. p. 236; *id. Ill. Ind. Orn.* pl. 17. fig. 1 (1830–34); *Gray, Gen. B.* i. p. 290, pl. 71; *Blyth, Cat. B. Mus. As. Soc.* p. 151; *Bp. C. A.* i. p. 364 (1850); *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 166 (1854); *Jerd. B. Ind.* i. p. 404 (1863); *Blyth, Ibis*, 1870, p. 164; *Jerd. Ibis*, 1872, p. 115; *Hume, Str. F.* 1874, p. 473; *David & Oust. Ois. Chine*, p. 95 (1877); *Schalow, J. f. O.* 1878, p. 153; *Anders. B. Yun-nan*, p. 644 (1878); *Scully, Str. F.* 1879, p. 264.
Collyrio pyrrhonotus, *Gray, Hand-l. B.* i. p. 392, no. 5952 (1869).
Collyrio nigriceps, *Gray, Hand-l. B.* i. p. 392, no. 5955.
Collyrio nasutus, *Gray, Hand-l. B.* i. p. 392, no. 5958.
Lanius pileatus, *Temm. (in Mus. Lugd.), fide Blyth, Ibis*, 1870, p. 164.

Adult. Entire crown, sides of head, and the hind neck black; mantle, scapulars, rest of back, and upper tail-coverts rufous-chestnut colour; (younger birds have the mantle less chestnut-coloured and more or less strongly washed with grey;) wing-coverts black, except some of the lesser series near the corner of the wing, which are externally bordered with pale buff; quills brownish black, the secondaries bordered with fawn-colour, basal third of primaries white; the tail is much the same in colour as that of *L. schach* or *L. bentet*, which species are the nearest allies to *L. nigriceps*; but the basal third of the tail-feathers in this species is generally paler, greyish brown, or even, especially on the outer tail-feathers, fawn-colour. All the other parts are like those of *L. bentet* in colour. Bill and feet black. Iris grey.

The measurements show great variation. Total length about 10 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Nepal	0·75	3·85	5·1	1·12
Nepal	0·75	3·65	4·85	1·10
Behar	0·8	3·55	4·7	1·13
Ponsee	0·72	3·70	4·6	1·10
♀. Bangkok	0·82	3·75	5·7	1·12
♂. Siam	0·82	3·75	6·0	1·12

Obs. The female specimen from Bangkok and the male from Siam (Gould Collection) are remarkable for the bright chestnut colour on the back and for the length of their tail. Whilst in the Bangkok specimen the whole tail is almost uniformly brownish black, except the fawn-coloured tips and outer margins to the outermost

pair of feathers, scarcely becoming lighter near the base, the tail in the Siam specimen is deep black, but a little more than the basal third of the tail-feathers (especially on the outer webs) is pale isabelline, the shafts of the quills at their basal third being pure white.

Hab. Eastern Himalayas; Burmese and Tenasserim hills to Siam.

a, b. Ad. sk.	Himalayas.	India Museum.
c, d. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
e–l. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
m, n. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
o. Ad. sk.	Nepal (*Eccles*).	Gould Collection.
p. Ad. sk.	Nepal.	Purchased.
q. ♀ ad. sk.	Kabulia, Nepal valley, June 23, 1878.	Dr. J. Scully [P.].
r, s. Ad. sk.	Darjiling.	W. Fotheringham, Esq. [P.].
t. Ad. sk.	Darjiling (*Eccles*).	F. D. Godman and O. Salvin, Esqrs. [P.].
u. Ad. sk.	Khasia hills (*Griffith*).	India Museum.
v, w. ♂ ♀ ad. sk.	Bhamau, Upper Burmah, Feb. 1868.	Dr. J. Anderson [C.].
x. ♂ ad. sk.	Ponsee, Kakhyen hills, March 16, 1868.	Dr. J. Anderson [C.].
y. ♂ ad. sk.	Pegu, Feb. 1881.	Eugene W. Oates, Esq. [P.].
z. ♀ ad. sk.	Bangkok, Siam, April 1873 (*Capt. Conrad*).	R. B. Sharpe, Esq. [P.].
a'. Ad. sk.	Siam (*Schomburgk*).	Gould Collection.
b'. Ad. st.	Cochin China.	

34. Lanius cephalomelas.

Lanius cephalomelas, *Bp. Rev. et Mag. Zool.* 1853, p. 436.
Lanius nigriceps (pt.), *Walden, Ibis*, 1868, p. 70; *Schalow, J. f. O.* 1878, p. 153, *et auctt. plurim.*
Collyrio cephalomelas, *Gray, Hand-l. B.* i. p. 392, no. 5959.

A specimen from Leyte (Philippine Islands) and a second from Sandakan (N. Borneo) are truly intermediate between *L. bentet* and *L. nigriceps*. Head, sides of head and neck, and the hind neck dull black as in *L. nigriceps*. Mantle, upper back, and scapulars grey as in *L. bentet*, but the line of demarcation between the black and grey strongly marked. All the other parts are coloured exactly as in *L. bentet*.

The two specimens from Lombock and Java, mentioned on page 267, form a link between *L. bentet* and *L. cephalomelas*, through the large extension of brownish black on their heads.

Total length about 9 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Sandakan	0·8	3·25	5·1	1·05
♀. Philippine Islands (Leyte)	0·75	3·26	5·1	1·08

Hab. Southern Philippines, Northern Borneo, and Java.

a. Ad. sk.	East Java.	A. R. Wallace, Esq. [C.].
b. [♂] ad. sk.	Sandakan.	Purchased.
c. ♀ ad. sk.	South Leyte (Sept. 1877).	Alfred Everett, Esq. [C.].

35. Lanius bucephalus.

Lanius bucephalus, *Temm. & Schleg. Faun. Jap.* pl. 14 (1850); *Swinh. Ibis*, 1860, pp. 60, 132; *Blakiston, Ibis*, 1862, p. 317; *Gray, Hand-l. B.* i. p. 394, no. 5981; *Swinh. P. Z. S.* 1871, p. 375, 1875, pp. 115, 450; *Dav. & Oustal. Ois. Chine*, p. 98 (1877).
Enneoctonus bucephalus, *Bp. C. A.* i. p. 363 (1850).
Phoneus bucephalus, *Tacz. Bull. Soc. Zool. France*, i. p. 167 (1876).

Adult male. Crown of head and nape deep reddish brown, which colour passes into dark grey on the mantle, scapulars, back, rump, and upper tail-coverts; tail slaty grey, the two central feathers darker, sometimes almost black; all the rest with small whitish or fulvous tips; least wing-coverts of the same colour as the back; the others and the secondary quills brownish black, externally margined with fulvous; primary quills blackish brown, with very narrow fulvous edges; basal half of the webs pure white, forming an alar speculum, which is not entirely hidden by the greater wing-coverts; loral region and ear-coverts black; a very distinct white superciliary streak extending from the nostrils onto the hinder margin of the ear-coverts; under wing-coverts and axillaries white, with a blackish patch near the edge of the wing, which is also white; chin, cheeks, throat, middle part of the breast and abdomen, and the under tail-coverts creamy white; all the rest of the underparts more or less rufous, or sometimes, like the flanks, deep reddish brown; breast and sides of neck always with dark-brown vermiculations, which, however, become very faint in old birds; thighs greyish; bill bluish black, paler at base; feet and claws black-brown; "iris brown" (*Capt. P. Conrad*). Total length 8 inches, culmen 0·75, wing 3·4, tail 3·65, tarsus 1.

Adult female. More reddish brown than the male, instead of grey; the whole upper surface strongly washed with reddish brown; upper tail-coverts with rufous edgings and tips of this colour; some of the innermost secondary quills and the greater wing-coverts broadly edged with rufous, and in some birds with a submarginal blackish line; primaries and tail brown; underparts dingy whitish and less rufous than the male, but with the numerous brown vermiculations extending over the whole undersurface of the body; ear-coverts dark reddish brown; the superciliary streak less distinct and more creamy colour; bill horny brown. Wing 3·3 inches, tail 3·6.

Young birds resemble very much the adult female, but are still browner above and have more numerous vermiculations below.

Hab. Japan and the opposite parts of China and Siberia; in winter visiting the southern parts of the Chinese Empire.

a. ♂ ad. st.	Japan.	Purchased.
b, c. Ad. st.	Japan.	Purchased.
d, e. Ad. sk.	Japan.	Purchased.
f, g. ♂ ♀ ad. sk.	Japan.	Gould Collection.
h. ♂ ad. sk.	Yokóhama, Feb. 15, 1870 (*Capt. Conrad*).	R. B. Sharpe, Esq. [P.].
i, k, l, m. [♂ ♀] sk.	Yokohama.	H. Pryer, Esq. [C.].
n. Ad. sk.	Yokohama.	H. Pryer, Esq. [C.].

36. Lanius cristatus.

Lanius cristatus, *Linn. Syst. Nat.* i. p. 134 (1766); *Jerd. B. Ind.* i. p. 406 (1862); *Walden, Ibis.* 1867, p. 212; *Gray, Hand-l. B.* i. p. 393, no. 5968; *Beavan, Ibis*, 1870, p. 312; *Swinh. P. Z. S.* 1871, p. 375; *Jerd. Ibis*, 1872, p. 115; *Holdsw. P. Z. S.* 1872, p. 436; *Ball, Str. F.* 1873, p. 65; *Hume, t. c.* p. 65; *id. & Henders. Lahore to Yark.* p. 182; *Hume, Nests & Eggs Ind. B.* p. 175; *id. Str. F.* 1874, p. 198, 1875, p. 91; *Blyth & Wald. B. Burm.* p. 121; *Walden, Tr. Z. S.* ix. p. 172; *Fairb. Str. F.* 1876, p. 256; *Armstrong, t. c.* p. 316; *Hume, Str. F.* 1877, p. 29; *Butler, Str. F.* 1877, p. 228; *David & Oustalet, Ois. Chine*, p. 99 (1877); *Anderson, Zool. Exped. Yunnan*, p. 645 (1878); *Legge, B. Ceylon*, p. 377.

Lanius phœnicurus, *Pallas, Zoogr. Rosso-As.* i. p. 405 (1810); *Sundev. Phys. Selsk. Tidskr.* 1837, p. 36, 1838, p. 64; *id. Zool. Anteckn. till Skand. Orn., in Vetensk. Akad. Förh. Stockh.* 1840; *Swinh. Ibis*, 1863, p. 286; *Walden, Ibis*, 1867, pl. 5. fig. 2, p. 216, 1871, p. 173; *Dresser, Ibis*, 1876, p. 186; *Dybowski, J. f. O.* 1872, p. 446; *Gray, Hand-l. B.* i. p. 393, no. 5969; *Taczan. J. f. O.* 1872, p. 445.

Enneoctonus lucionensis, *Gray, Gen. B.* i. p. 291 (1845); *Swinhoe, Ibis*, 1864, p. 420.

Enneoctonus cristatus, *Bp. C. A.* i. p. 362 (1850); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* i. p. 167 (1854).

Otomela cristatus, *Bp. Rev. et Mag. de Zool.* 1853, p. 437.

Otomela phœnicura (*Pall.*), *Bp. t. c.* p. 436.

Lanius superciliosus (*non Lath.*), *Layard, Ann. & Mag. Nat. Hist.* 1854, p. 130.

Lanius lucionensis, *Blyth, Ibis*, 1867, p. 304.

Otomela cristata, *Schalow, J. f. O*, 1875, p. 130.

Adult male. General colour above brownish rufous, more or less washed on the mantle with ashy or with a certain grey tinge; rump and upper tail-coverts always brighter rufous; tail-feathers uniform brownish rufous, with very faint pale tips and edgings to the outer pairs; wing-coverts and secondary quills brown, with rather broad margins; primaries brown, with neither edgings nor bases of whitish; a narrow indistinct whitish frontal band extends over the loral region and over the eye, forming a generally well-marked superciliary white spot; some of the loral feathers and the ear-coverts are brownish black; all the underparts whitish, more or less tinged with creamy colour or even with rufous buff on the

sides of the breast, flanks, and under tail-coverts; under wing-coverts, edge of wing, and thighs creamy white, the bases of the feathers dusky; "iris dark brown, sometimes hazel-brown" (*Legge*); "iris, feet, and claws bluish; bill black at tip, light horny brown at the base of the mandibles" (*E. Pierre*).

Adult female. Superciliary streak less distinct and more creamy; ear-coverts dark brown; underparts cream-colour, more rufous buff on the flanks; sides of breast and the flanks generally with faint brown zigzag vermiculations.

Immature birds are very much like the female in coloration; but the vermiculations are much more numerous and extend over most of the underparts, especially across the chest and the sides of the body; some of the scapulars, the feathers of the rump, and the upper tail-coverts are also marked with dark subterminal cross waves; wing-coverts and secondary quills with subterminal dark lines along the outer web, which again is broadly margined with fulvous or rufous.

In the *nestling* or first plumage the feathers of the head and upper surface are rufescent fulvous, each with a dark terminal edging and ray across the centre. (*Legge.*)

Total length about 7·5 inches, culmen about 0·7.

	Wing. in.	Tail. in.	Tarsus. in.
Adult ♂. Nepal	3·5	3·6	1·0
Adult ♂. Saigon	2·25	3·6	1·0
Adult ♂. Tenasserim	3·4	3·4	1·15
Adult ♀. Colombo	3·3	3·7	1·0

Obs. I may mention here that the amount of rufous colour on the upper parts in this species varies to a very great extent. Thus many specimens, young and old and of both sexes, have the crown of the head, the rump, and upper tail-coverts perceptibly more rufous than the back. All the upper parts frequently show a strong brown tint, whilst other specimens have the reddish or rufous colour confined to the upper tail-coverts, and the whole back, mantle, and head are earthy brown, and often with a grey hue.

After a careful examination of more than fifty specimens in the British Museum, and in the collections of Messrs. Seebohm, Dresser, and Scully, from all the parts of Asia where this species occurs, I am unable to connect the more reddish coloration either with the age of the bird, or with the season, or with its geographical distribution. I therefore agree with Dr. Anderson, who (*l. c.*) makes the following remarks:—"Among nineteen specimens of *L. cristatus* from the same locality (Yunnan) the rufous is not alike in two; and in one specimen the head and the back of the neck are marked off distinctly from the rufous-olive of the back."

Hab. The Brown Shrike has a very wide distribution, ranging from Lake Baikal to the Malayan peninsula, and from Yarkand to the east coast of China. From about September till March this species lives in India, Ceylon, the Andamans, and in the Indo-Chinese region, which countries it leaves for the north during the hot and

rainy season, breeding all over the Chinese Empire and in South-eastern Siberia. Many instances, however, are known of the birds staying in the more southern places throughout the year, *e. g.* in Thibet, Calcutta, Tenasserim, &c.

a. ♂ ad. sk.	Ceylon.	Hugh Cuming, Esq.
b. ♀ ad. sk.	Colombo.	Capt. V. Legge [P.].
c, d. Juv. sk.	Kandy.	Mr. A. Whyte [C.].
e. ♂ ad.; *f.* Juv. sk.	Nuwara Eliya.	Mr. E. Boate [C.].
g. ♀ ad. sk.	Madras.	Dr. Jerdon [P.].
h. Juv. sk.	Deccan (*Sykes*).	India Museum.
i. ♀ ad. sk.	Muddapoor, Dec. 1880 (*W. E. Brooks*).	E. W. Oates, Esq.
k. ♀ ad. sk.	Mussoorie.	Capt. Stackhouse Pinwill [P.].
l, m. Juv. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
n, o, p. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]
q. ♀ ad.; *r.* Juv. sk.	Nepal (*Hodgson*).	India Museum.
s. ♀ imm. sk.	Bootan (*Pemberton*).	India Museum.
t. [♂] ad. sk.	Burmah.	Capt. Stackhouse Pinwill [P.].
u, v. [♂] ad. sk.	Assam (*McClelland*).	India Museum.
w. Juv. sk.	Pegu.	W. T. Blanford, Esq. [P.].
x, y, z. ♂ ad.; *a'.* ♂ imm. sk.	Pegu, Jan. 1881.	E. W. Oates, Esq. [C.].
b', *c'.* ♂ imm. sk.	Pegu, Feb. 1881.	E. W. Oates, Esq. [C.].
d', *e'.* ♂ ♀ imm. sk.	Pegu, Sept. 1880.	E. W. Oates, Esq. [C.].
f', *g'.* ♂ ad. et juv. sk.	Pegu, Nov. 1880.	E. W. Oates, Esq. [C.].
h', *i'.* ♂ ♀ imm. sk.	Pegu, Dec. 1880.	E. W. Oates, Esq. [C.].
k'. [♂] ad. sk.	Tenasserim.	J. C. D. Packman, Esq. [P.].
l'. [♂] ad. sk.	Penang (*Cantor*).	India Museum.
m', *n'.* [♂] ad. sk.	Saigon, Cochin China.	M. E. Pierre [P.].
o', *p'.* [♀] ad. sk.	Saigon, Cochin China.	M. E. Pierre [P.].
q', *r'*, *s'.* [♂] ad. sk.	Kalgan, 2000 feet.	Gould Collection.

37. Lanius superciliosus.

Le Rousseau, *Levaill. Ois. d'Afr.* pl. 66. fig. 2 (1796–1808).

Lanius superciliosus, *Lath. Ind. Orn., Suppl.* 20, no. 14 (1801); *Walden, Ibis*, 1867, p. 218; *Gray, Hand-l. B.* i. p. 393, no. 5971; *Swinh. P. Z. S.* 1871, p. 375; *id. Ibis*, 1875, p. 450; *Vian, Rev. Zool.* 1872, p. 327; *Dav. & Oustal. Ois. Chine*, p. 100 (1877); *Legge, B. Ceylon*, p. 379, note (1879).

Enneoctonus superciliosus, *Gray, Gen. B.* i. p. 291 (1846); *Bp. C. A.* i. p. 363 (1850).

Otomela superciliosa, *Bp. Rev. Zool.* 1853, p. 437; *Schalow, J. f. O.* 1875, p. 140.

Lanius phœnicurus (*non Pall.*), *Schrenck, Reis. Amur.* i. p. 384 (1860), *teste Schalow et Dav. & Oustal.*; *Sundev. Phys. Sells. Tidssk.*

1837–38, p. 64; *id. Ann. Nat. Hist.* 1846, p. 169; *Blasius, Nachtr. Naum. Vög. Deutschl.* xiii. p. 39; *Walden, Ibis*, 1867, pl. 5. fig. 2.

Although *L. cristatus* ranges as far as to the eastern coast of China and over parts of the Indo-Chinese region, it seems in the East to be represented by the present much brighter and more rufous-coloured species.

In the *adult male* all the upper parts are deep cinnamon-brown; crown of head, nape, and upper tail-coverts generally still more intensely coloured; tail-feathers sometimes more brownish but still more rufous than in the specimens described as *L. cristatus*. A narrow frontal band extending over and beyond the eye is pure white; the white or whitish colour of the forehead in some very old birds extends as far back as the hinder extremity of the eyes; loral and orbital regions and the ear-coverts black; chin, cheeks, throat, under wing-coverts, and edge of wing white; all the rest of the underparts creamy buff. Male in winter with delicate vermiculations on the underparts.

The *female* is a trifle less brightly coloured, and generally shows a few delicate brown cross vermiculations on the sides of the breast and on the flanks. One of these specimens, from Malacca, is very pale below, or creamy, the rufous-buff being restricted to the sides of the body.

Three old birds from Malacca show the following measurements:—wing 3·5–3·6 inches, tail 3·5–3·7, tarsus 0·9–0·92.

Hab. The White-fronted Shrike inhabits Eastern Asia; it lives during the winter in the Malayan peninsula, island of Java, and the Philippines; in spring it migrates northward through China and breeds in Japan, Manchooria, and in the northern parts of Mongolia, southward of Lake Baikal.

There can be but little doubt that this eastern form in China is found together with the less brightly coloured *L. cristatus*, and that these two frequently interbreed; hence the many intermediate forms found in Northern China, for instance near Kalgan.

a, *b*. Ad. sk.	Malacca.	A. R. Wallace, Esq. [C.].
c. [♀] ad. sk.	Malacca (*Griffith*).	India Museum.
d, *e*. ♂ ad. sk.	Malacca.	Purchased.
f. Imm. sk.	Malacca.	Purchased.
g. Juv. sk.	Malacca.	W. Harvey, Esq. [P.].
h. Imm. sk.	Malacca.	Capt. Stackhouse Pinwill [P.].
i, *k*. Ad. sk.	Malacca (*Capt. Pinwill*).	Gould Collection.
l. Ad. sk.	Malacca.	F. D. Godman and O. Salvin, Esqrs. [P.].
m, *n*. [♀] ad sk.	Penang, April (*Cantor*).	India Museum.

38. Lanius lucionensis.

Lanius lucionensis, *Linn. S. N.* i. p. 135 (1766); *Swinh. Ibis*, 1860, p. 59, 1863, p. 272; *Blyth, Ibis*, 1867, p. 304, 1875, p. 116; *Walden, Ibis*, 1867, p. 215, 1873, p. 309; *Gray, Hand-l. B.* i. p. 393, no. 5970; *Jerdon, Ibis*, 1872, p. 115; *Swinh. P. Z. S.* 1863, pp. 286 &

335, 1871, p. 376; *Hume, Str. F.* 1873, p. 434, 1874, p. 190; *Walden, Tr. Z. S.* ix. 1875, p. 171, pl. 29. fig. 1; *id. P. Z. S.* 1877, pp. 692 & 758; *Sharpe, Ibis*, 1877, p. 19, 1876, p. 43; *Dav. & Oustal. Ois. Chine*, p. 99 (1877); *Legge, B. Ceylon*, p. 378 (1879); *Oates, B. Brit. Burm.* p. 251 (1883).

Lanius phœnicurus (*non Pall.*), *Meyen, Act. Acad. Cæs. Leopold.* xvi. p. 74 (1834) (*teste Schalow*); *id. Reise um d. Erde*, p. 198 (*ex Philippin. ins., teste Schalow*).

Otomela schwaneri, *Bp. Rev. Zool.* 1853, p. 437.

Enneoctonus schwaneri, *Bp. C. A.* i. p. 363.

Lanius jeracopsis, *De Fil. Mus. Mediol.* p. 31; *Bp. Rev. Zool.* 1853, p. 437, note; *Salvad. Atti Acc. Sc. Torino*, 1868, p. 272.

Lanius schwaneri, *Walden, Ibis*, 1867, p. 223; *Gray, Hand-l. B.* i. p. 393, no. 5974; *Swinh. P. Z. S.* 1871, p. 376.

Otomela lucionensis, *Schalow, J. f. O.* 1875, p. 137.

Adult male in breeding-plumage (Southern China). Back, scapulars, mantle, and sides of neck earthy brown slightly shaded with grey, which colour on the hind neck gets gradually lighter till, on the frontal half of the head, it is replaced by greyish white; it is still lighter near the base of the bill and the immediate superciliary region; loral space, a streak under and a narrow one over the eye, and the ear-coverts are brownish black; on the lower back and rump the earthy colour passes gradually into rusty brown; upper tail-coverts rufous-brown; tail uniformly light brown, with pale tips to the outer pairs; wing-coverts and secondaries brown, with fulvous edgings to their outer webs; primary quills uniform dark brown, with no trace of a white alar speculum, but at the extreme base and on the basal third of the inner web the quills are whitish; wings below silvery grey; chin, cheeks, and throat white; all the rest of the underparts, including the under tail-coverts and under wing-coverts, rufous buff, middle of abdomen generally a little paler; edge of wing white; bill blue-black; feet blackish.

The *adult female* differs from the male in having the ear-coverts and lores more brownish; the whitish grey of the forehead is less developed, and the underparts of the body are paler.

This is the colour of the birds found in China during the month of April till the beginning of August. All the other specimens from the northern coast of Borneo and from the Philippine Islands, where the bird is found from autumn till spring, have the general colour above much dingier, that is to say more tinged with greyish, the secondaries edged with faded whitish instead of fulvous, and the underparts, including the under wing-coverts, dull white, washed with buff on the flanks and sides of the breast, whilst the breast and abdomen show a faint creamy tinge. The *females*, when in winter dress, have nearly lost their greyish coloration of the head and have quite lost the dark loral spot, the underparts being still paler than in the male, but showing faint dark-brown cross-vermiculations on the sides of the neck, flanks, and upper tail-coverts. "Iris dark chocolate; bill dark purplish brown; feet bluish lead-colour."

Young. All the upper parts are brownish rufous, brighter on the upper tail-coverts; no grey on the head; loral region and a super-

ciliary streak dingy white or cream-colour; head, hind neck, mantle, and upper tail-coverts showing faint dark vermiculations; wing-coverts and secondary quills brown, broadly edged with rufous, each feather with a dark-brown submarginal line; ear-coverts and a small spot in front of the eye dark brown; chin, throat, middle of abdomen, and the under wing-coverts, axillaries, and edge of wing pale creamy white; all the rest of the underparts more strongly washed with creamy or even with rufous, and marked with numerous dark-brown cross-vermiculations; bill brown, lighter at base.

Obs. I cannot but perfectly agree with what Capt. Legge, in his 'Birds of Ceylon,' says about the vermiculations on the underparts, which are found on birds of different ages. He writes:—"In what is probably the plumage of the second year the upper surface is a ruddy brown with a tinge of grey in it, the rump and upper tail-coverts rufous with blackish-brown bars, and the quills and wing-coverts less conspicuously edged; the forehead is still concolorous with the head, and the crescentic margins of the lower parts less pronounced and faded from off the chest. Some examples (for instance one shot in May) have the forehead pale, the upper surface pervaded with greyish, and yet the under surface is well-marked with the brown bars, but the sides of the chest and flanks have a rufous-adult look about them."

"In some instances these under-surface markings do not vanish for several years; a specimen before me is fully adult on the upper surface, but has most of the lower surface and even the sides of the neck crossed with brown pencillings; and out of twenty-three, adult as regards the forehead and back, nearly half of them have some few bars on the flanks."

Hab. The Grey-headed Shrike ranges from Northern China to Borneo. It stays in China from April to August, and during this time breeds; for the winter it migrates southwards to the Philippines, the Moluccas, and Borneo. It is likewise found in the Andaman Islands, where it seems to be a permanent resident. Occasionally it may straggle as far as Ceylon, and may certainly be expected to occur in Siam and the Malayan peninsula.

The following specimens, except *f*, are without any vermiculations on the underparts:—

a–e. Ad. ♂ sk.	China.	Capt. Blakiston [C.].
f. Imm. ♂ sk.	China.	Capt. Blakiston [C.].
g, h. Ad. ♂ sk.	Amoy, May 1881 (*R. Swinhoe*).	F. D. Godman and O. Salvin, Esqrs. [P.].
i. Ad. ♂ sk.	Zebu, Nov. 20, 1873.	A. Everett, Esq. [C.].
k, l. Ad. ♂ sk	San Mateo, Luzon, Feb. 1877.	A. Everett, Esq. [C.].

All the following specimens from *m* to *y*, young and old, have more or less numerous brown cross-vermiculations on their underparts:—

m, n. Ad. st.	China.	J. R. Reeves, Esq. [P.].
o. ♂ imm. sk.	China.	Capt. Blakiston [C.].
p. Ad. sk.	Amoy.	R. Swinhoe, Esq. [C.].

q. Ad. sk.	Amoy, May 1861 (*R. Swinhoe*).	Gould Collection.
r. Ad. sk.	Fokien.	Gould Collection.
s, *t*. ♀ ad. sk.	Labuan.	Governor Ussher [C.].
u, *v*. Juv. sk.	Labuan.	Governor Ussher [C.].
w. Imm. sk.	Brunei, N.W. Borneo.	Governor Ussher [C.].
x. ♀ juv.; *y*. ♂ ad. sk.	N.W. Borneo.	Hugh Low, Esq. [C.].
z, *a'*. ♂ ♀ ad. sk.	Bintulu, W. Borneo.	Alfred Everett, Esq. [C.].
b'. Ad. st.	Mindanao, Philippines.	Baron Laugier.
c'. ♂ imm. sk.	Panaon.	Alfred Everett, Esq. [C.].
d'. ♂ imm. sk.	Zebu, January.	Voy. of H.M.S. 'Challenger.'
e'. ♂ imm. sk.	Andamans.	Purchased.

39. Lanius isabellinus.

Lanius isabellinus, *Ehrenb. Symb. Phys.* i. fol. e, note; *Strickl. P. Z. S.* 1850, p. 217; *Walden, Ibis*, 1867, pl. v. f. 1, p. 224; *Heugl. J. f. O.* 1861, p. 195; *Gray, Hand-l. B.* i. p. 392, no. 5977; *Heugl. Peterm. Geogr. Mitth.* 1869, p. 407; *id. Orn. N.O.-Afr.* i. p. 475 (1871), iv. p. cxiv; *Blanf. Geol. & Zool. Abyss.* p. 339; *Dresser, B. Eur.* iii. pl. 152; *Jerdon, Ibis*, 1872, p. 116; *Severtz. J. f. O.* 1873, pp. 348, 366; *Blanf. Ibis*, 1874, p. 81; *Schalow, J. f. O.* 1875, p. 145; *Dresser, Ibis*, 1876, p. 185; *Seebohm, Ibis*, 1877, p. 164; *Schalow, Ibis*, 1877, p. 398; *Legge, B. Ceylon*, p. 379, note (1879).

Lanius arenarius, *Blyth, J. A. S. Beng.* xv. p. 304 (1846); *Strickl. P. Z. S.* 1850, p. 217; *Bp. Rev. Zool.* 1853, p. 437; *Jerdon, B. Ind.* i. p. 407 (1862); *Walden, Ibis*, 1867, p. 223, 1869, p. 213; *Gray, Hand-l. B.* i. p. 393, no. 5973; *Jerdon, Ibis*, 1872, p. 115; *Severtz. J. f. O.* 1873, p. 348; *Seebohm, Ibis*, 1877, p. 164; *Henders. & Hume, Lahore to Yark.* p. 183, pl. iii.; *Hume, Str. F.* i. p. 174; *Scully, Str. F.* 1876, p. 137.

Lanius ruficaudus, *Brehm, J. f. O.* 1857, p. 79.

Lanius, sp.?, *Vierth. Naumannia*, 1852, p. 31 (*teste Schalow*).

Lanius isabellinus, pt., *Blanford, East. Pers.* ii. p. 139.

Otomela arenaria, *Schalow, J. f. O.* 1875, p. 143.

Adult male. All the upper parts except the uropygium are uniform pale brownish grey; quills and wing-coverts light brown; the latter and the secondary quills with the usual paler (here fulvous) margins; some of the primaries have their basal end white (this colour, as it sometimes extends further than the wing-coverts go, often forms a very visible alar speculum, whilst on the other hand it is often almost wanting); rump and upper tail-coverts rufous, the tail-feathers themselves generally somewhat darker and often barred with very faint darker waves; frontal, loral, and superciliary regions creamy, but never white; ear-coverts and a very small spot just in front of the eye brownish black; throat, under wing-coverts, and under tail-coverts very pale creamy; all the rest of the underparts more or less strongly washed with cream-colour (combined with a slight rosy tinge), especially on the flanks and across the breast; feet black-brown; bill horny brown, paler at the base.

Adult female. Ear-coverts brown; loral and superciliary streak sometimes almost invisible.

Obs. Old birds seem to get a more greyish tinge on the upper parts.

Total length about 7 inches; culmen about 0·68.

	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♀. Abyssinia	3·9	3·8	1·0
Ad. ♂. Besh Tereh	3·55	3·5	1·0
Adult. Kattiawar	3·4	2·8	0·95
Adult. N.W. India	3·5	3·55	0·95

Young birds in their first plumage have all the upper parts barred with numerous dark-brown cross-vermiculations; the general colour of the upper parts being a dingy yellowish brown. Underparts yellowish dingy white, with very few cross-vermiculations.

Hab. The Pale-brown Shrike breeds in Turkestan and winters in Scinde, the Punjab, Persia, Arabia, and Abyssinia.

a. Ad. sk.	N.W. India.	R. B. Sharpe, Esq. [P.].
b, c, d. Ad. sk.	N.W. deserts of India.	Gould Collection.
e. Ad. sk.	Peshawur.	Colonel Way [P.].
f. ♂ ad. sk.	Besh Tereh.	Major J. Biddulph [C.].
g. Ad. sk.	Kutch (*Griffith*).	India Museum.
h. Ad. sk.	Kattiawar.	Major Hayes Lloyd [P.].
i. [♀] sk.	Behar.	B. H. Hodgson, Esq. [C.].
k. ♀ ad. sk.	Kandahar, April 14, 1881.	Lieut.-Col. Swinhoe [P.].
l. ♂ ad. sk.	Kandahar, Jan. 18, 1881.	Lieut.-Col. Swinhoe [P.].
m. Ad. sk.	Afghanistan (*Griffith*).	India Museum.
n. ♀ sk.	S.W. Afghanistan, 5000 ft. (*Griffith*).	India Museum.
o. ♂ juv. sk.	Shiraz.	Sir Oliver St. John [C.].
p. ♀ ad.; *q.* Ad. sk.	Zoulla, Annesley Bay, Abyssinia, Jan. 1868.	W. T. Blanford, Esq. [C.].

Subspecies *a.* **Lanius phœnicuroides.**

Lanius phœnicuroides, *Severtz. J. f. O.* 1873, p. 347.
Lanius isabellinus (*non Ehrenb.*), *Walden, Ibis*, 1867, p. 224, pl. 5. f. 1 (*teste Schalow*).
Lanius phœnicurus (*non Pall.*), *Gaetke, Naumannia*, 1858, p. 425 (*ex Heligoland*); *J. Vian, Rev. Zool.* 1872, p. 330.
Otomela phœnicuroides, *Schalow, J. f. O.* 1875, p. 148; *id. J. f. O.* 1876, p. 145.

Although I have examined several specimens which it seems impossible to refer either to *L. isabellinus* or *L. phœnicuroides*, as intermediate forms occur, we must, after the examination of about 30 specimens, allow *L. phœnicuroides*, Severtz., to stand as a brighter-coloured race of *L. isabellinus*. In addition to the structural differences, it may be distinguished from the latter by the following points:—

1. General colour above dingy reddish brown, always with a strong grey hue, darker than *L. isabellinus* but not nearly so rufous as *L. cristatus*. In old males, especially when in breeding-plumage, the grey tinge is more strongly developed.
2. Crown of head contrasting with the back, being always reddish

brown, "almost as rufous as the tail, which with the rump is dark reddish brown, with a chestnut tinge in fresh plumage" (*Severtzow*).

3. Primary quills much darker than in *L. isabellinus*; in old specimens in breeding-plumage blackish brown; 3rd to 8th with white basal parts, forming a speculum which is just hidden by the wing-coverts. This amount of white is subject to great variation both in *L. isabellinus* (= *arenarius*) and *L. phœnicuroides*.

4. Old males have the underparts almost white, only the flanks and sides of breast washed with rusty colour, and the underparts never show the strong creamy tinge of *L. isabellinus*.

5. White superciliary stripe well developed; ear-coverts deep black; the whole loral region blackish, instead of the small spot seen just in front of the eye in *L. isabellinus*.

Adult *females* are paler, more isabelline grey, and have the underparts more dingy; sides of neck, the flanks, and the whole breast slightly tinged with isabelline and with frequent dark but faint cross-vermiculations; ear-coverts dark brown; superciliary streak creamy and less distinct.

Another difference is given by the coloration of the *young* bird.

The *young* of *L. phœnicuroides* in their first plumage have very numerous dark cross-vermiculations on the under and upper parts of the body; they remain longest on the head, the uropygium, the wing-coverts, and of course on the flanks and on the breast; general colour above brown, mingled with reddish brown, much darker than the young of *L. isabellinus*.

Total length about 7 inches.

	Wing. in.	Tail. in.	Tarsus. in.	Culmen. in.
Ad. ♂. Abyssinia ..	3·62	3·4	0·96	0·66
Ad. ♂. Persia	3·4	3·15	0·91	0·7
Ad. ♀. Persia	3·5	3·3	0·92	0·65

Hab. This Shrike breeds in Turkestan and migrates in autumn to Baloochistan, Persia, Arabia, and even Abyssinia. Its geographical distribution is consequently almost the same as that of *L. isabellinus*.

a. ♂ ad. sk.	Annesley Bay, Abyssinia, Feb. 1868.	W. T. Blanford, Esq. [C.].
b. Ad. sk.	Bagdad.	Kenneth Loftus, Esq. [P.].
c. ♂ ad. sk.	E. of Shiraz, May 30, 1872.	W. T. Blanford, Esq. [C.].
d. ♀ ad. sk.	Kazerum, W. of Shiraz, May 1869.	Sir Oliver St. John [C.].
e. ♀ imm. sk.	Shiraz.	Sir Oliver St. John [C.].
f. ♀ ad. sk.	Kattiawar.	Major Hayes Lloyd [P.].
g. Ad. sk.	Umballah.	Major C. H. T. Marshall [P.].
h. Ad. sk.	Hissar, Oct. 8, 1878.	Major C. H. T. Marshall [P.].

40. Lanius speculigerus.

Lanius speculigerus, *Taczan. J. f. O.* 1874, p. 322.
Otomela speculigera, *Schalow, J. f. O.* 1875, p. 150.

Adult male. Crown of head, neck, scapulars, and the whole back uniform fulvous grey, very much as in *L. isabellinus*; tail and uro-

pygium like those of the latter species; primaries as dark as in *L. phœnicuroides*; four of the quills have the whole basal half white, thus forming a very visible speculum; loral region and ear-coverts black, as in *L. phœnicuroides*; superciliary streak indistinct, creamy; all the underparts uniform isabelline with a well-marked rosy tinge; flanks washed with rusty colour; "iris dark brown" (*Finsch*).

Female. More creamy below, and with a few faint cross-vermiculations.

Total length about 7 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. ♂. Turkestan.....	0·68	3·55	3·33	0·95
Ad. ♂. Dauria	0·7	3·7	3·3	0·95
Ad. ♀. Mteza's country	0·7	3·6	3·2	0·93

Hab. The specimens which agree with the description of *L. speculigerus* as given by Taczanowsky, are found in Dauria, Turkestan, Afghanistan, and in Abyssinia.

a. ♂ ad. sk.	Dauria, May 27, 1873 (*Dybowski*).	Warsaw Museum [E.].
b. ♂ ad. sk.	Turkestan, Bagty, May 20, 1876.	Dr. Finsch [C.].
c. ♂ ad. sk.	Kandahar, April 1, 1881.	Lieut.-Col. Swinhoe [P.].
d. ♀ ad. sk.	Kandahar, Dec. 12, 1881.	Lieut.-Col. Swinhoe [P.].
e. ♀ ad. sk.	Kokeran, Feb. 28, 1881.	Lieut.-Col. Swinhoe [P.].
f. ♀ ad. sk.	Mteza's country, Central Africa.	Signor Piaggia [C.].

41. Lanius vittatus.

Grey-backed Shrike, *Lath. Gen. Hist.* ii. p. 13 (1821).

Lanius vittatus, *Valenciennes, Dict. Sc. Nat.* xl. p. 227 (1826); *Walden, Ibis*, 1867, p. 220; *Beavan, Ibis*, 1870, p. 311; *Blanf. J. A. S. B.* 1871, p. 272; *Jerdon, Ibis*, 1872, p. 115; *Lloyd, Ibis*, 1873, p. 408; *Ball, Str. F.* 1874, p. 398; *Hume, Nests & Eggs Ind. B.* p. 173; *Schalow, J. f. O.* 1878, p. 145.

Collurio hardwickii, *Vigors, P. Z. S.* 1831, p. 42; *Gould, Cent. Him. B.* pl. 12. fig. 1; *Frankl. P. Z. S.* 1831, p. 117; *id. J. A. S. B.* i. p. 265; *Sykes, P. Z. S.* 1832, p. 86.

Lanius margaritaceus, *Lesson* (*teste Giebel, Thes. Orn.*).

Lanius hardwickii, *Gray, Gen. B.* i. p. 290 (1846); *Blyth, J. A. S. B.* xv. p. 304; *id. Cat. B. Mus. As. Soc.* p. 152 (1849); *Jerd. Madr. Journ.* x. p. 235; *Gray, Cat. B. Nepal pres. Hodgs.* p. 100; *Bp. C. A.* i. p. 364; *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 165 (1854); *Jerd. B. Ind.* i. p. 495 (1862); *id. Ibis*, 1872, p. 115.

Collyrio vittatus, *Bp. Rev. et Mag. Zool.* 1853, p. 436; *Gray, Hand-l. B.* i. p. 392, no. 5956; *Hume, Str. F.* 1873, p. 174.

Otomela hardwickii, *Bp. Rev. et Mag. Zool.* 1853, p. 437.

Enneoctonus hardwickii, *Tytler, Ibis*, 1868, p. 200.

Adult male. Crown of head greyish white, shading off into pure grey on the hind neck, which again becomes tinged with reddish as it approaches the mantle, the latter as well as the scapulars being maroon; lower back, rump, and upper tail-coverts grey, inclining to white; wings black, the least coverts broadly margined with

greyish; the basal half of the primary quills is pure white, forming a distinct alar speculum; the secondaries narrowly tipped with whitish; tail black, tipped with white, all but the four central feathers white at the base, the black portion of the feathers decreasing in extent towards the outermost rectrix, which is almost entirely white; a very broad frontal band and the sides of the face, including the feathers round the eye and ear-coverts, black; cheeks and throat buffy white; rest of the under surface orange-buff, paler in the centre of the body, and inclining to chestnut on the flanks; under tail-coverts white; under wing-coverts white, with dusky black bases, the lower ones near the edge of the wing black; quills below blackish at the terminal third, rest white; bill and feet black; iris hazel-brown. Total length 7 inches, culmen 0·6, wing 3·45, tail 3·7, tarsus 0·85.

Female (Kattiawar). Head ashy grey, shading off into dull rufous on the back and scapulars; upper tail-coverts ashy grey; tail dull brown, the feathers edged and tipped with rufous buff, the tips broader on the outer feathers, the outermost pair entirely pale rufous buff; quills blackish, rather broadly edged with sandy rufous, nearly obsolete on the primaries, which have the same white speculum as the male; *no* black frontal band; forehead whitish, the lores tipped with dusky brown; ear-coverts dull brown; cheeks and under surface of body creamy white, washed with rufous on the flanks. Total length 7 inches, culmen 0·55, wing 3·4, tail 3·55, tarsus 0·85.

Young male. Similar to the old female in not having the frontal band, but otherwise more richly coloured, the back inclining to maroon; tail-feathers fulvescent, as in the adult female; breast-feathers with remains of dusky edgings.

Obs. Two fully adult males, collected in Baluchistan and at Kattiawar, differ from the males described above by their almost entirely white under surface, the orange-buff being restricted to a few feathers on the flanks.

Hab. Indian Peninsula, extending westwards into Afghanistan and Baluchistan.

a. [♂] ad. st.	India.	W. Sotheby, Esq. [P.].
b. [♂] ad. st.	India.	Purchased.
c. [♂] ad. sk.	Madras (*Jerdon*).	Gould Collection.
d, *e*. [♂] ad. sk.	North Deccan (*Burgess*).	Gould Collection.
f. Juv. sk.	Seetapore.	Gould Collection.
g. [♂] ad. sk.	Deccan (*Sykes*).	India Museum.
h. Ad. sk.	Kandeish.	India Museum.
i, *k*. ♂ ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
l. ♂ ad. sk.	Kattiawar, Sept. 15, 1871.	Major Hayes Lloyd [P.].
m. ♀ ad. sk.	Rajkote, Nov. 11, 1871.	Major Hayes Lloyd [P.].
n, *o*. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
p. Juv. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
q, *r*. [♂] ad. et juv. sk.	Behar.	B. H. Hodgson, Esq. [P.].
s. [♂] ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
t. Ad. sk.	Kumaon (*Strachey*).	India Museum.

u. ♀ ad. sk.	Baluchistan, April 10,1872.	W. T. Blanford, Esq. [C.].
v. ♂ ad. sk.	Baluchistan, March 27, 1872.	W. T. Blanford, Esq. [C.].
w. ♂ ad. sk.	Chaman, April 28, 1881.	Lieut.-Col. Swinhoe [P.].
x, *y*. ♀ ad. sk.	Kandahar, April 1, 1881.	Lieut.-Col. Swinhoe [P.].
z. ♀ pull. sk.	Kandahar, April 6, 1881.	Lieut.-Col. Swinhoe [P.].
a'. Skeleton of trunk.	India.	B. H. Hodgson, Esq. [P.].

42. Lanius nubicus.

Lanius nubicus, *Licht. Verz. Doubl.* p. 47 (1823); *Temm. Pl. Col.* pl. 216 (1824); *Hartl. Rev. Zool.* 1843, p. 159; *Degl. Orn. Eur.* i. p. 390 (1849); *Bp. C. A.* i. p. 363 (1850); *id. Rev. et Mag. Zool.* 1853, p. 438; *Cab. Mus. Hein.* i. p. 73; *Degl. et Gerbe, Orn. Eur.* i. p. 227 (1867); *Krüper, J. f. O.* 1869, p. 30; *Sharpe, Cat. Afr. B.* p. 50; *Blanford, Geol. & Zool. Abyss.* p. 340; *Loche, Cat. Alg.* p. 54; *Saunders, Ibis*, 1871, p. 207; *Dress. B. Eur.* iii. pl. 417 (1873).

Lanius personatus, *Temm. Pl. Col.* pl. 256. f. 2 (1824); *Hempr. & Ehrenb. Symb. Phys., Aves*; *Susemihl, Vög. Eur.* ii. pl. 17; *Hartl. Orn. Westafr.* no. 317; *Rüpp. Syst. Uebers.* no. 218; *Schleg. Rev. Crit. Ois. Eur.* p. xxi (1844); *Bree, Birds of Europe*, i. p. 168, c. tab.; *Brehm, J. f. O.* 1854, p. 75, and 1856, p. 333; *Tristram, Ibis*, 1867, p. 365; *Heugl. Orn. N.O.-Afr.* i. p. 485.

Lanius leucometopon, *Von der Mühle, Orn. Griech.* p. 78 (1844).

Enneoctonus nubicus, *Cab. Mus. Hein.* i. p. 73 (1850).

Leucometopon nubicus, *Bp. Rev. et Mag. Zool.* 1853, pp. 293 & 438; *Loche, Cat. Mamm. et Ois. Algér., Supplem.* p. 159 (1858); *id. Expl. Sci. Algér., Ois.* i. p. 51.

Lanius leucopterus *et* albicollis, *Pr. Württemb. Icon. ined.* pl. 36.

Collyrio nubicus, *Gray, Hand-l. B.* i. p. 391, no. 5947 (1869).

Adult male. Crown of head, hind neck, mantle, the whole back, and upper tail-coverts glossy blue-black; scapulars pure white; least wing-coverts brownish black, broadly edged with grey; rest of the wing-coverts and the quills black, with narrow white edges to the outer web and with white tips to the secondaries; basal half of primaries pure white, forming a large alar speculum; the four central feathers of the tail entirely black, the outermost pair quite white, the next pair more white than black; the lateral upper tail-coverts have the outer web and the tip broadly edged with white; a broad frontal band, extending to the level of the eyes, and a conspicuous superciliary stripe are pure white; spot in front of the eyes blackish; ear-coverts black; chin, cheeks, throat, thighs, and under tail-coverts white; rest of body cream-colour, with the sides of the breast and the flanks rusty red; under wing-coverts and axillaries white; a blackish spot near the edge of the wing; bill and feet blackish; iris fuscous. Total length 7 inches, culmen 0·6, wing 3·5, tail 3·7, tarsus 0·9.

Adult female. Similar to the adult male in coloration; but the hind neck and mantle are dull ashy brown, the lower back and rump more greyish.

The *young birds*, especially the nestlings, are very much like those of *L. rufus*, but generally with less rufous on the wing-coverts and quills.

Hab. The Masked Shrike breeds in South-eastern Europe and in Asia Minor; it winters in North-eastern Africa and Senegambia.

a. ♂ ad. sk.	Smyrna, May 23, 1863 (*Krüper*).	R. B. Sharpe, Esq.
b. Juv.; *c.* Pull. sk.	Smyrna, July, 1871 (*Krüper*).	R. B. Sharpe, Esq.
d. ♂ ad. sk.	Mt. Tabor.	Canon Tristram [C.].
e. ♀ pull. sk.	Mt. Tabor (*E. Bartlett*).	Gould Collection.
f. ♀ ad. sk.	Mt. Hermon.	Canon Tristram [C.].
g. [♂] ad. sk.	Mt. Carmel, March 26, 1864 (*Tristram*).	F. D. Godman and O. Salvin, Esqrs. [P.].
h. [♀] ad. sk.	Banias, May 5, 1864 (*Tristram*).	F. D. Godman and O. Salvin, Esqrs. [P.].
i, *k.* Juv. sk.	Egypt.	Dr. T. Christie [C.].
l. Ad. sk.	Siout, March 5, 1875.	J. H. Gurney, Esq. [P.].
m. ♂ ad. sk.	Egypt, March 11, 1870.	Capt. Shelley [P.].
n. [♀] ad. sk.	Ain, Habab, Aug. 16, 1868.	W. T. Blanford, Esq. [C.].
o. Ad. sk.	Bejook (*Esler*).	R. B. Sharpe, Esq.
p. ♂ ad. sk.	Koomaylee, Abyssinia, Feb. 23, 1868.	W. T. Blanford, Esq. [C.].
q. Ad. sk.	Senegal.	Purchased.

43. Lanius auriculatus.

Pie-grièche rousse du Sénégal, *Daubent. Pl. Enl.* pl. 477. fig. 2; *Levaill. Ois. d'Afr.* ii. pl. 63.

Lanius rufus, *Briss. Ornith.* ii. p. 147 (1760); *Retzius, Faun. Suec.* p. 89; *Gmel. Syst. N.* i. p. 302; *Bechst. Orn. Taschenb.* p. 101; *Meyer & Wolf, Taschenb. Vög. Deutschl.* p. 89; *Koch, Syst. baier. Zool.* i. p. 103; *Frisch, Vög.* pl. 61. fig. 1; *Naumann, Vög. Deutschl.* ii. p. 22, pl. 51 (1822); *Rüppell, Neue Wirbelth.* p. 31; *Gould, B. Eur.* pl. 70; *Swains. Orn. West Afr.* p. 231; *Bp. C. A.* i. p. 362; *Hartl. Orn. Westafr.* p. 102; *Hartl. J. f. O.* 1861, p. 171; *Krüper, J. f. O.* 1869, p. 30; *Lindermayer, Vög. Griechenland*, p. 114; *Cara, Orn. Sard.* p. 50; *Malherbe, Faun. Sicil.* p. 50; *Wright, Malta*, p. 19; *Blanf. Geol. & Zool. Abyss.* p. 340; *Layard, B. South Afr.* no. 311; *Degl. & Gerbe, Orn. Eur.* p. 225; *Heugl. Orn. N.O.-Afr.* i. p. 473.

Lanius senator, *Linn. S.N.* ed. x.; *Gray, Hand-l. B.* i. p. 393, no. 5978.

Lanius pomeranus, *Sparrm. Mus. Carls.* pl. i. (1786); *Saunders, Ibis*, 1883, p. 83.

Lanius auriculatus, *Müll. Natursyst. Suppl.* p. 71 (1776); *Saunders, Ibis*, 1871, p. 207; *Gurney, Ibis*, 1871, p. 77; *Heugl. in Peterm. Geogr. Mittheil.* 1869, p. 407; *Antin. & Salvad. Viagg. Bogos*, p. 70; *Sharpe, Cat. Afr. B.* p. 56; *Blanf. East. Pers.* ii. p. 138; *Dress. B. Eur.* iii. pl. 151; *Newton, ed. Yarrell Brit. B.* i. p. 215; *id. Ibis*, Jan. 1883, *Addendum*.

? Lanius castaneus, *Gm. S. N.* i. p. 297 (1788).

Lanius collurio, var. γ. rufus, *Gm. S. N.* i. p. 300.

Lanius collurio senegalensis, *Gm. S. N.* i. p. 300.

Lanius rutilus, *Lath. Ind. Orn.* i. p. 70 (1790).

Lanius ruficeps, *Bechst. Naturg. Vög. Deutschl.* ii. p. 1327 (1805); *Brehm, Naumannia*, 1855, p. 275.

Lanius ruficollis, *Shaw, Gen. Zool.* vii. p. 316 (1809).

Lanius superciliosus, *Licht. Verz. Doubl.* p. 47 (1823).

Phoneus rufus, *Kaup, Natürl. Syst.* p. 33 (1829).

Lanius melanotis, *Brehm, Vög. Deutschl.* p. 238 (1831).
Enneoctonus rufus, *Bp. List Birds Europ. & N. Amer.* p. 26 (1838); *id. C. A.* i. p. 362 (1850); *Loche, Cat. Mamm. Ois. Algér.* p. 87; *Taczan. J. f. O.* 1870, p. 48.
Lanius rutilans, *Temm. Man. d'Orn.* iii. p. 601 (1840); *Bp. C. A.* i. p. 362; *Hartl. Orn. W.-Afr.* p. 103; *Gray, Hand-l. B.* i. p. 393, no. 5979.
Enneoctonus rutilans, *Cab. Mus. Hein.* Th. i. p. 73 (1850).
Enneoctonus pomeranus, *Cab. Mus. Hein.* Th. i. p. 73 (1850).
Enneoctonus niloticus, *Bp. Rev. et Mag. Zool.* 1853, p. 439.
Enneoctonus frenatus, *Licht. Berlin Mus.*
? Lanius paradoxus *et* cognatus, *Brehm, Naumannia*, 1855, p. 275.
Enneoctonus pectoralis, *v. Müller, J. f. O.* 1855, p. 450; *Heugl. Orn. N.O.-Afr.* i. p. 474.
Enneoctonus jardinei, *v. Müller, J. f. O.* 1855, p. 450; *Heugl. Orn. N.O.-Afr.* i. p. 474.
Lanius niloticus, *Gray, Hand-l. B.* i. p. 393, no. 5980.

Adult male. Crown of head, hind neck, and a small part of the mantle chestnut-brown; rest of mantle, the wing-coverts, and all the quills blackish brown; some of the secondaries with narrow whitish tips, and with paler margins to the outer web; the basal half of both webs of the primaries pure white, forming a conspicuous speculum on the expanded wing; scapulars white; some of the least wing-coverts broadly margined with whitish; lower back grey; rump and upper tail-coverts and basal half of all the tail-feathers pure white; rest of the tail blackish brown with white tips, which become larger on the outer feathers; a very broad frontal band, the region around the eye, the ear-coverts, and part of the sides of the neck are deep black; loral region and often a spot on the upper and hinder angle of the eye white; all the underparts of the body and the thighs creamy white; some of the under wing-coverts blackish. Total length about 7 inches, culmen 0·7, wing 3·7–4·1, tail 3·1–3·5, tarsus 0·95–1.

The *immature male* is less intensely coloured than the adult; the chestnut colour extends further down on the mantle; the middle of the back and the wings are more ashy brown; all the wing-coverts and especially the secondaries are broadly bordered with cream-colour; forehead mottled with whitish and brown; ear-coverts brown; bill and feet light horny brown.

Adult female. Similar to the male in colour; mantle, back, and wings ashy brown; the quills always edged with cream-colour; upper tail-coverts and rump dull creamy white; crown and hind neck lighter and more reddish than in the male; front of head and ear-coverts dark brown with whitish tips; loral region and a narrow band across the base of the bill cream-colour; bill and feet horny brown.

Young. Scapulars and rump decidedly cream-colour; head, sides of neck, and breast with numerous dark-brown vermiculations.

Nestling. General colour above, including head and scapulars, pale ochraceous, the wing-feathers with a well-marked blackish-brown subterminal cross bar; wing-coverts and quills brown, externally broadly edged with rufous-brown, tipped with pale fulvous; tail brownish

black, the middle feathers tipped with rufous, the others with fulvous white; underparts pale fulvous, and, except on the chin and the under tail-coverts, thickly barred with brown vermiculations.

Hab. The Woodchat Shrike inhabits the whole of Southern and Central Europe, occurring as an occasional visitor in the British Islands; to the east it ranges as far as Persia. It arrives in Europe in April, and stays till August or September, then migrating to Africa for its winter-quarters, extending from the river Gambia to Arabia. This bird moults in autumn, when it acquires the cream-coloured margins of the quills, which, however, at the time it comes to Europe are rather abraded; consequently they have no real breeding-plumage.

a. [♂] ad. st.	Europe.	R. B. Sharpe, Esq. [P.].
b. [♀] ad. sk.	Europe.	F. D. Godman and O. Salvin, Esqrs. [P.].
c, *d*. [♂ ♀] ad. st.	France.	M. Baillon [P.].
e, *f*. ♂ ♀ ad. sk.; *g*. Pull. sk.	Valkenswaard, Holland.	F. D. Godman and O. Salvin, Esqrs. [P.].
h. ♀ ad. sk.	Germany.	Gould Collection.
i. Pull. sk.	Westphalia, June 1876.	Purchased.
k. ♂ ad. sk.	Haskeui, Turkey, April 5, 1877.	R. B. Sharpe, Esq. [P.].
l. [♂] ad. sk.	Smyrna.	Gould Collection.
m. ♀ ad. sk.	Mount Carmel.	Canon Tristram [C.].
n. ♂ ad. sk.	Safed.	Canon Tristram [C.].
o. ♂ ad. sk.	Persia.	C. Darwin, Esq. [P.].
p. Pull. sk.	Persia.	C. Darwin, Esq. [P.].
q. Ad. sk.	Mohammerah.	K. Loftus, Esq. [P.].
r. ♀ juv. sk.	Shiraz, July 1870.	Sir Oliver St. John [C.].
s. ♂ ad.; *t*. Juv. sk.	E. of Shiraz, June 1872.	W. T. Blanford, Esq. [C.].
u. ♂ ad. sk.	Tangiers (*Favier*).	Gould Collection.
v, *w*. ♂ ad. sk.	Prov. Constantine, Algeria (*O. S.*).	F. D. Godman and O. Salvin, Esqrs. [P.].
x, *y*. ♂ ♀ ad. sk.	Tunis.	L. Fraser, Esq. [C.].
z. ♀ ad. sk.	Tripoli.	Zoological Society.
a'. Juv. sk.	Bogos Land.	Mr. Esler [C.].
b'. [♂] ad. sk. [moulting].	Abyssinia.	R. B. Sharpe, Esq.
c'. ♀ ad. sk.	Halai, Abyssinia, Feb. 29, 1868.	W. T. Blanford, Esq. [C.].
d'. [♂] ad. sk.	[West Africa.]	Sir A. Smith [C.].
e'. Pull. sk.	North Africa.	Purchased.
f', *g'*. Moulting, sk.	Gambia.	Purchased.
h'. Juv. sk.	Gambia.	R. B. Sharpe, Esq.
i', *k'*. [♂] ad. sk.	Gambia.	R. B. Sharpe, Esq.
l'. [♀] juv. sk.	Gambia.	R. B. Sharpe, Esq.
m'. Skull.	S. Germany.	Dr. Günther [C.].

44. Lanius badius.

Lanius badius, *Hartl. J. f. O.* 1854, p. 100; *Shelley, Ibis*, 1875, p. 381.
Lanius rufus, pt., *Hartl. Orn. Westafr.* p. 103.
Lanius auriculatus (*non Müller*), *Shelley & Buckley, Ibis*, 1872, p. 292.

"This is undoubtedly a distinct species, easily distinguished from

L. auriculatus, Müll., by the absence of white on the primaries. Dr. Hartlaub's original description is very clear. The measurements of two specimens, collected by myself between Accra and Aguapim, give the following result:—

	Culmen.	Wing.	Tarsus.
	in.	in.	in.
a. Adult	·65	4·2	·95
b. Juv.	·60	3·9	1·0 "

(*G. E. Shelley.*)

Hab. Gold Coast.

45. Lanius collurio.

Collurio, *Brisson, Ois.* ii. p. 151 (1760).

Lanius collurio, *Linn. Syst. Nat.* i. p. 136 (1766); *Retzius, Faun. Suec.* p. 88; *Gmel. S. N.* p. 300; *Lath. Ind. Orn.* p. 69; *Meyer & Wolf, Taschenb. Vög. Deutschl.* p. 90; *Bechstein, Taschenb.* p. 102; *Meyer, Vög. Esthland u. Livl.* p. 42; *Koch, Syst. baier. Zool.* i. p. 104; *Frisch, Vög.* pl. 61. fig. 2; *Temm. Man. d'Orn.* i. p. 147; *Levaill. Ois. d'Afr.* ii. pl. 64; *Naumann, Naturg. Vög. Deutschl.* ii. p. 30, pl. 52; *Vieill. Enc. Méth.* p. 725; *id. Faun. Franç.* p. 153, pl. 66. f. 1–3; *Savi, Orn. Tosc.* i. p. 98; *Nilsson, Orn. Suec.* p. 72; *Pallas, Zoogr. Rosso-As.* i. p. 404; *Yarrell, Brit. B.* i. p. 154; *Keys. & Blas. Wirbelth. Eur.* p. 195; *Schleg. Rev. Critique*, p. xxi; *id. Vog. van Nederl. Ind.* p. 232; *Gould, B. Eur.* pl. 69; *Lindermayer, Vög. Griechenl.* p. 114; *Malh. Faun. Sicil.* p. 57; *Von Wright, Finlands Foglar*, p. 72; *Naum. Vög. Deutschl.* ii. p. 30, pl. 52; *Wright, Ibis*, 1864, p. 291; *Filippi, Viagg. in Pers.* p. 324; *Radde, J. f. O.* 1854, p. 75; *Gurney, Ibis*, 1865, p. 268; *Layard, B. S. Afr.* p. 158; *Degl. et Gerbe, Orn. Europ.* i. p. 228; *Finsch & Hartl. Vög. O.-Afr.* p. 331; *von Nordm. in Démid. Voy.* ii. p. 114; *Heuglin, Petermann's Geogr. Mittheil.* 1869, p. 407; *Blanford, East. Persia*, ii. p. 137; *Finsch, Tr. Z. S.* vii. p. 251; *Heugl. Orn. N.O.-Afr.* i. p. 474; *Meves, Œfvers.* p. 762; *Collett, Norg. Fugle*, p. 13; *Blanf. Geol. & Zool. Abyssin.* p. 340; *Shelley, B. Egypt*, p. 117; *Severtz. J. f. O.* 1873, p. 435; *Bocage, Jorn. Lisb.* 1876, p. 254; *Antin. & Salvad. Viagg. Bogos*, p. 79; *Dress. B. Eur.* iii. pl. 150, p. 399.

Red-backed Shrike, *Lath. Gen. Syst.* i. p. 167.

Lanius spinitorques, *Bechst. Naturg. Vög. Deutschl.* ii. p. 1335 (1805); *Heuglin, Ibis*, 1859, p. 342.

Enneoctonus collurio, *Boie, Isis*, 1826, p. 973; *Cab. Mus. Hein.* i. p. 72; *Bp. C. A.* i. p. 362; *Rüpp. Syst. Uebers.* p. 62; *Gray, Hand-l. B.* i. p. 393, no. 5965; *Bocage, Jorn. Lisb.* 1868, p. 43, 1870, p. 344, 1874, p. 37, 1876, p. 152.

La pie-grièche écorcheur, *Daubent. Pl. Enl.* pl. 31. fig. 2; *Levaill. Ois. d'Afr.* ii. p. 64.

Lanius dumetorum, *Brehm, Vög. Deutschl.* p. 234 (1831).

? Lanius cognatus, *Brehm, Naumannia*, 1855, p. 275.

? Lanius paradoxus, *Brehm, Naumannia*, 1855, p. 275.

Lanius anderssoni, *Strickl. & Scl. Contr. Orn.* 1852, p. 145; *Gray, Hand-l. B.* i. p. 393, no. 5974.

Lanius æruginosus, *Klein* (*teste Heuglin*).

Adult male. Crown of head, hind neck, and part of the upper back,

lower back, rump, and upper tail-coverts bluish grey; mantle and scapulars chestnut-brown; the secondary quills and all the wing-coverts brown, with large chestnut-brown margins; primaries brown, with very faint lighter margins; central pair of tail-feathers black, the others pure white at the basal half and tipped with white, which colour on the outermost pair occupies the whole outer web; a narrow frontal band, narrow region round the eye, and the ear-coverts black; an indistinctly defined whitish super-ciliary stripe; chin, cheeks, throat, and under tail-coverts pure white; rest of under surface uniform vinous; most of the under wing-coverts and edge of wing white; quills below blackish grey, passing into whitish on the inner margin; thighs whitish, mottled with blackish grey; feet black; bill dark horn-colour or black, or "dark slate, violet at base;" iris brown.

As all the specimens from Africa have the greater part of the bill, especially the base and the under mandible, pale horny brown and only the tip of the bill darker, it seems that the colour of this organ changes with the season; and in this way the bill is uniformly dark at the breeding-season, whilst in winter it gets paler. Total length about 7 inches, culmen 0·72, wing 3·65, tail 3·3, tarsus 1.

Adult female. General colour above dull brownish grey, washed on the head and mantle with dull chestnut-brown; scapulars often with subterminal blackish cross bars like the upper tail-coverts; quills and upper wing-coverts brown, the latter and the secondaries broadly margined with fulvous or with reddish brown; frontal region, loral space, and region round the eye dull white; ear-coverts brown; behind the upper margin of the eye a well-marked white spot; throat, abdomen, and under tail-coverts dull white; rest of underparts dull white, with numerous broad dark-brown zigzag cross bars; bill and feet horny brown, the former paler at base. Measurements the same as those of the adult male.

Nestling. Rufous above, the head, neck, lower back and rump ashy grey, all the upper surface mottled with dusky and whitish bars; ear-coverts dark brown, with whity-brown shaft-streaks; throat white; remainder of under surface dull yellowish white, barred across with dusky brown on the breast and sides of the body.

Full-grown young bird. Plumage as in the foregoing, the quills broadly edged with rufous; tail as in the adult, the white edgings to the outer feathers very broad and distinct; bill and feet pale horny brown.

In the course of the second or third year the immature birds show every intermediate gradation between the plumages described above.

Hab. Breeds in Europe and Asia Minor, wintering in Africa.

a, b, c. Pull. st.	Cambridgeshire.	Mr. Baker [C.].
d, e. ♂ [♀] ad. st.	Cambridgeshire.	Mr. Baker [C.].
f. Pull. sk.	Cambridgeshire.	Mr. Baker [C.].
g, h. ♂ ♀ ad. st.	Berkshire.	Mr. W. Briggs [P.].
i, k. ♂ ♀ ad. sk.	Berkshire.	Gould Collection.

l. Pull. sk.	Hampstead, Middlesex.	F. D. Godman and O. Salvin, Esqrs. [P.].
m, n. ♂ ♀ ad. sk.	Hampstead, Middlesex.	F. D. Godman and O. Salvin, Esqrs. [P.].
o. ♀ ad. sk.	Pagham, Sussex, Mar. 9, 1874.	R. B. Sharpe, Esq. [P.].
p. ♀ ad. sk.	Avington, Hants, May 17, 1876.	E. Shelley, Esq. [P.].
q. ♂ ad. st.	Wiltshire.	Col. Montagu [P.].
r, s. ♂ ♀ ad. sk.	Monmouthshire, July 10, 1873.	Rev. A. Morgan [P.].
t. [♀] ad. st.	Devonshire.	Col. Montagu [P.].
u, v. Pull. st.	France.	M. Baillon [P.].
w, x. ♂ ad., ♀ juv. sk.	Stockholm, July 20, 1873.	Mr. Meves [C.].
y. ♂ ad. st.	Russia, May 1841.	Purchased.
z, a'. ♂ ♀ ad. sk.	Belgium, July 10, 1871, and June 3, 1872.	Brussels Museum [P.].
b'. ♂ ad. sk.	Bogat, Transylvania, May 20, 1874.	Capt. Feilden and J. A. Harvie Brown, Esq. [P.].
c'. ♀ ad. sk.	Haskeui, Turkey, April 25, 1877 (*W. Pearce*).	R. B. Sharpe, Esq. [P.].
d'. ♀ ad. sk.	Chik es Salem, May 9 (*W. Pearce*).	R. B. Sharpe, Esq. [P.].
e'. ♂ ad. sk.	Smyrna.	C. W. L. Merlin, Esq. [P.].
f'. Imm. sk.	Erzeroum.	Gould Collection.
g', h'. ♂ ♀ ad. sk.	Hermon.	Canon Tristram, Esq. [C.].
i'. ♀ ad. sk.	Amba, Samhar, Aug. 22, 1868.	W. T. Blanford, Esq. [C.].
k'. [♂] ad. sk.	Mossambique.	Purchased.
l'. [♂] ad. sk.	Potchefstroom.	F. A. Barratt, Esq. [C.].
m'. ♀ juv. sk.	Potchefstroom.	J. H. Gurney, Esq. [P.].
n'. [♀] ad. sk.	Lydenburg, Dec. 1, 1874.	F. A. Barratt, Esq. [C.].
o', p'. [♂] ad. sk.	Tete, Zambesi.	Sir J. Kirk [C.].
q'. ♂ ad. sk.	Sibanane, Dec. 11, 1874 (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
r'. ♀ ad. sk.	Marico river, Nov. 18, 1873 (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
s', t'. ♂ ♀ ad. sk.	Tati, March 21, 1873 (*F. Oates*).	W. E. and C. G. Oates, Esqrs. [P.].
u'. [♂] ad. sk.	Natal.	R. B. Sharpe, Esq. [P.].
v'. [♂] ad. sk.	Colesberg (*A. F. Ortlepp*).	R. B. Sharpe, Esq. [P.].
w'. [♂] ad. sk.	Kingwilliamstown.	Capt. H. Trevelyan [P.].
x'. ♂ ad. sk.	British Kaffraria (*Atmore*).	R. B. Sharpe, Esq.
y'. ♂ ad. sk.	Ondonga (*Andersson*).	R. B. Sharpe, Esq.
z'. [♂] ad. sk.	Damaraland (*Andersson*).	R. B. Sharpe, Esq.
a. Juv. sk.	Elephant Vley (*Andersson*).	R. B. Sharpe, Esq.
β. Juv. sk.	—— ?	Eyton Collection.
γ. ♀ ad. sk.	South Africa.	Sir A. Smith [C.].
δ. Skeleton.	S. Germany.	Dr. Günther.
ε–θ. Skulls.	S. Germany	Dr. Günther.
ι, κ. Skeletons.	England.	Purchased.

46. Lanius collyrioides.

Lanius collurioides, *Less. in Bélanger's Voy., Zool.* p. 254; *Walden, Ibis*, 1867, p. 220; *Godwin-Austen, J. A. S. B.* 1874, p. 157; *Andersson, B. Yunnan*, p. 646 (1878); *Oates, B. Brit. Burm.* p. 250.
Lanius hypoleucus, *Blyth, J. A. S. B.* xvii. p. 249; *id. Cat. B. Mus. As. Soc.* p. 152; *Bp. C. A.* i. p. 364; *Jerdon, Ibis*, 1862, p. 19; *Blanford, Ibis*, 1870, p. 468; *Hume, Str. F.* 1874, p. 473, 1875, p. 90; *Schalow, J. f. O.* 1878, p. 143.
Collyrio hypoleucus, *Bp. Rev. et Mag. Zool.* 1853, p. 436; *Gray, Hand-l. B.* i. p. 392, no. 5957.
Collyrio collurioides, *Bp. l. c.* p. 436.

Similar to *L. collurio*, but more intensely coloured; crown of head and hind neck dark slaty grey, which colour becomes gradually darker towards the front of the head, the region round the eye, and the ear-coverts; none of these parts are so decidedly black as in *L. collurio*; mantle, scapulars, the whole back, and the upper tail-coverts deep chestnut-brown; quills and wing-coverts dark brown, the latter as well as the secondaries externally broadly margined with chestnut colour; basal half of the inner primaries pure white, which colour diminishes in extent on the outer primaries; the large alar speculum is therefore only seen in the expanded wing; the three middle pairs of the tail-feathers are uniform black, with very small creamy tips, the next pair with large white tips, and the outermost one is nearly all white, the blackish-brown colour being restricted to the immediate neighbourhood of the shaft; under wing-coverts dusky grey at base, white at tip; quills below with a large patch of white, rest dusky, inner margins creamy or fulvous; under surface of body creamy white; "bill black, the gape and greater portion of the lower mandible fleshy grey; feet plumbeous, claws horny; irides pale reddish brown; eyelids bluish grey" (*Oates*). Total length about 6·8 inches, culmen 0·7, wing 3·25–3·5, tail 3·5–4, tarsus 0·85–0·95.

Hab. Burmah and Pegu.

a, b. Ad. sk.	Burmah.	E. Blyth, Esq. [P.].
c. Ad. sk.	Ava.	W. T. Blanford, Esq. [P.].
d. Ad. sk.	Tavoy (*Briggs*).	Gould Collection.
e. Ad. sk.	Burmah.	Gould Collection.
f, g. ♂ ♀ ad. sk.	Pegu, Dec.	E. W. Oates, Esq. [C.].
h. ♀ ad. sk.	Pegu, Nov. 1880.	E. W. Oates, Esq. [C.].
i. ♂ ad. sk.	Pegu, March 1878.	E. W. Oates, Esq. [C.].
k. ♀ ad. sk.	Lower Pegu, Dec. 1878.	E. W. Oates, Esq. [C.].
l. Ad. in spirit.	Burmah.	R. B. Sharpe, Esq. [P.].

47. Lanius tigrinus.

Lanius tigrinus, *Drapiez, Dict. Class. Hist. Nat.* xiii. p. 523 (1828); *Blyth, Cat. B. Mus. As. Soc.* p. 152; *Jerdon, Ibis*, 1872, p. 116.
Lanius ferox, *Drapiez, Dict. Class. H. N.* xiii. p. 523 (1828).
Lanius magnirostris, *Less. Voy. Bélang., et Compl. Buff.* ii. p. 415 (1834); *Gray, Hand-l. B.* i. p. 393, no. 5972; *Walden, Ibis*,

1867, p. 220, pl. 6. figs. 1 & 2; *ibid.* 1869, p. 242; *Swinh. P. Z. S.* 1871, p. 375; *id. Ibis*, 1875, p. 115; *Dav. & Oustalet, Ois. Chine*, p. 97.

Lanius strigatus, *Eyton, P. Z. S.* 1839, p. 103.

Enneoctonus crassirostris (*Kuhl*), *Bp. C. A.* i. p. 362 (1850).

Otomela crassirostris, *Bp. Rev. Zool.* 1853, p. 437.

Enneoctonus tigrinus, *Horsf. & Moore, Cat. B. M. E.I. Co.* i. p. 168 (1854).

Lanius waldeni, *Swinh. P. Z. S.* 1870, p. 131.

Lanius incertus, *Swinh. P. Z. S.* 1871, p. 376; 1875, p. 115.

Otomela magnirostris, *Taczan. Bull. Soc. Zool. France*, 1876, i. p. 167; *id. J. f. O.* 1876, p. 197; *Schalow, ibid.* p. 217.

Adult male (summer plumage). Crown of head, hind neck, and upper part of the mantle clear bluish grey; mantle, scapulars, the whole back, and the upper tail-coverts reddish brown, each feather with several transverse black bars; lesser wing-coverts like the back, the rest and the secondary quills chestnut-brown with submarginal black lines; primary quills uniform brown, with no white at the base whatever; tail uniform chestnut-brown, with faint subterminal bars and whitish tips to the outer rectrices; a frontal band, the loral and ocular region, and the ear-coverts deep black; all the underparts white, washed with cream-colour, especially on the throat, breast, and edge of wings; some of the under wing-coverts with submarginal blackish-brown bars; "bill bluish black; feet pale leaden, with a fleshy tinge; iris blackish brown" (*Swinhoe*).

Winter plumage. The grey of the head and neck is washed with brownish; the frontal band and ear-coverts are brownish black, so that the head has lost its beautiful appearance; cheeks, sides of breast, and flanks with a few subterminal brown vermiculations; bill and feet horny brown. Total length 6·6 inches, culmen 0·75, wing 3·2, tail 3, tarsus 0·9.

Adult female. Very similar to the adult male in winter plumage, but generally with "a large creamy patch on the lores, and a white half-eyebrow in rear of the eye-line" (*Swinhoe*); bill bluish black. The measurements are the same as in the male.

Obs. Consul Swinhoe observes "that the sexes are alike, the males being more richly coloured." This, however, holds good only with old females in breeding-plumage, since in winter (as proved by all the specimens from Malacca and Borneo) the female closely resembles the young and immature birds, the black frontal band and the grey of the head and neck being replaced by the reddish-brown black-barred coloration of the back, while the region above the ear-coverts and above the eye is creamy instead of reddish brown.

Immature bird. General colour of the whole upper surface of the body reddish brown, which colour is more fulvous and greyish on the head and neck, passing into chestnut-brown on the rump and upper tail-coverts; each feather has several very distinct black or dark-brown cross bars, and is mottled with small creamy or almost white spots; again, the shaft of the feathers being white, the upper parts of the body, especially the mantle and neck, exhibit a

rather densely spotted aspect, thus differing from the adult female in summer plumage; no frontal band; the forehead, the region round the eye, and ear-coverts whitish mottled with brownish; throat, middle of abdomen, under tail- and under wing-coverts uniform cream-colour; all the rest of the underparts and sides of the neck densely marked with blackish-brown vermiculations; bill pale horny brown; feet more bluish.

Hab. From Eastern Siberia and China to Malacca and Sumatra.

a. Pull. sk.	Malacca.	Purchased.
b. ♂ ad. sk. (moulting).	Malacca.	Eyton Collection. (Type of *L. strigatus.*)
c. Pull. sk.	Malacca.	Eyton Collection.
d. ♀ ad. sk.	Malacca.	W. Harvey, Esq. [C.].
e. Juv. sk.	Malacca.	Purchased.
f. [♂] ad. sk. (moulting).	Malacca.	Purchased.
g. ♀ ad. sk.	Malacca.	A. R. Wallace, Esq. [C.].
h. Pull. sk.	Malacca.	Purchased.
i. ♂ ad. sk.	Malacca.	Purchased.
k. ♂ imm. sk.	Malacca (*Griffith*).	India Museum.
l. ♂ juv. sk. (moulting).	Malacca.	Capt. Stackhouse Pinwill [P.].
m. ♀ or juv. sk.	Malacca (*Wallace*).	Gould Collection.
n, o. [♂] ad. et juv. sk.	Penang (*Cantor*).	India Museum.
p, q, r. ♀ imm. sk.	Sumatra.	A. R. Wallace, Esq. [C.].
s, t. ♀ ad. sk.	Sarawak.	H. Everett, Esq. [C.].

Subfamily V. VIREONINÆ *.

23. VIREO.

	Type.
Vireo, *Vieillot, Ois. de l'Amér. Septentr.* i. p. 83 (1807)	V. noveboracensis.
Vireosylvia, *Bonap. Comp. List Birds Europe and N. Am.* (1838)	V. olivacea.
Phyllomanes, *Cab. Archiv f. Naturg.* 1847, p. 321	(No type.)
Lanivireo, *Baird, Rev. Am. Birds*, i. p. 326 (1864)	V. flavifrons.
Vireonella, *Baird, Rev. Am. Birds*, i. p. 326 (1864)	V. gundlachi.

Bill much more slender than in *Cyclorhis* or *Vireolanius*, abruptly curved at the end. Legs slender, lateral toes unequal. The shape of the wings various. The first plumage of the young resembling that of the adult, and being destitute of spots either above or below (*Salvin*). Length of wing about 2·5–3 inches. Pattern of plumage very plain, the only colours being olive, yellowish, white, and black, with their combinations.

Heads of *Vireo flavifrons* and *Vireo flavoviridis*.

Range. North America, extending through Central and Southern America to Brazil and Peru. Antilles.

Key to the Species.

A. Wings elongated, pointed, longer than tail; first primary extremely short, sometimes obsolete ..... (Subgeneric group VIREOSYLVIA.)
  a. Figure slender; bill rather slender, laterally compressed, straight; feet slender.
    a'. First primary obsolete.
      a''. Crown of head grey, bordered with a line of fuscous ..... *calidris*, p. 293. *olivaceus*, p. 294. *chivi*, p. 295. *flavoviridis*, p. 295.
      b''. Crown of head not margined with a differently coloured line ..... *magister*, p. 295. *philadelphicus*, p. 296.
    b'. First primary present ..... *gilvus*, p. 296. *josephæ*, p. 297.
  b. Figure robust; bill short and robust; feet rather robust ..... (Subgeneric group LANIVIREO.)
    c'. First primary obsolete; ocular region and throat yellow ..... *flavifrons*, p. 298.

* The characters on which the "genera" of this subfamily are based are too indefinite to be shortly expressed in a "Key," as has been attempted in the other subfamilies.

d'. First primary present; ocular region and throat white ..... { *solitarius*, p. 298. *cassini*, p. 299. *plumbeus*, p. 299. *vicinior*, p. 300.

B. Wings short, hardly longer or slightly shorter than tail; first primary large, about half the length of the second ..... (Subgeneric group VIREO.)

a. Wings rather pointed.

a'. Crown black ..... *atricapillus*, p. 300.

b'. Crown olive or grey; wings with two bars, produced by the light tips of the greater and median coverts.

a''. Middle line of underparts white; abdomen yellow ..... { *noveboracensis*, p. 300. *belli*, p. 301. *pusillus*, p. 302.

b''. Underparts almost uniformly coloured.

a'''. Bill stout ..... { *ochraceus*, p. 302. *pallens*, p. 302.

b'''. Bill slender ..... { *huttoni*, p. 303. *modestus*, p. 303. *carmioli*, p. 303.

b. Wings rounded, without pale bars; tail elongated; bill very stout and high; crown grey { *hypochryseus*, p. 304. *gundlachi*, p. 304. *latimeri*, p. 304.

1. Vireo calidris.

Motacilla calidris, *Linn. Syst. Nat.* i. p. 329 (1766).
Phyllomanes barbatulus, *Cab. J. f. O.* 1855, p. 467; *Gundlach, J. f. O.* 1861, p. 324.
Vireosylvia barbatula, *Baird, Rev. Am. B.* 1864, p. 331.
Vireo altiloquus, *Gambel, Pr. A. N. Sc. Philad.* 1848, p. 127; *Baird, Birds N. Am.* 1858, p. 354.
Vireosylvia altiloqua, *Cassin, Proc. A. N. Sc. Philad.* 1851, p. 152; *id. Illustr.* 1854, pp. 8, 221, pl. xxxvii.; *Bryant, Proc. Bost. Soc.* v. p. 113 (1859); *Newton, Ibis*, 1859, p. 145; *Sclat. & Salvin, P. Z. S.* 1864, p. 348.
Vireosylvia calidris, *Baird, Rev. Am. B.* p. 329 (1865); *Sclat. & Salvin, P. Z. S.* 1875, p. 234; *iid. Nomencl.* p. 11.
Vireosylvia calidris, var. barbatula, *Baird, Brew., & Ridgw. N. A. B.* i. p. 359 (1874).
Vireosylvia calidris, var. barbadensis, *Baird, Brew., & Ridgw. N. A. B.* i. p. 359 (1874).
Vireosylvia calidris, var. dominicana, *Lawr. Pr. U. S. Nat. Mus.* i. pp. 55, 486.
Vireo calidris, *Gray, Hand-l. B.* i. p. 381, no. 5761 (1869); *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 186 (1881).

Upper parts uniform olive; crown of head grey, narrowly bordered with fuscous; a dingy yellowish white streak extending from the nostrils over the eye, along the sides of the occiput; lores, a spot behind the eye, and a rictal stripe fuscous; underparts yellowish white, strongly washed with olive on the sides and flanks; axillaries and under tail-coverts whitish yellow; bill and feet horn-colour. Culmen 0·8 inch, wing 3·1–3·2, tail 2·25–2·35, tarsus 0·72.

Hab. Florida; Antilles; South America from Guiana to Venezuela, extending into Panama.

a. V. calidris.

a. Ad. sk.	San Domingo, May 1866 (*Younglove*).	Smithsonian Institution [P.].
b. Ad. sk.	San Domingo.	Mr. A. Sallé [C.].

β. V. barbatula.

c. ♂ ad. sk.	Central America.	J. Gould, Esq.
d. Ad. sk.	Guatemala.	Gould Collection.
e, f, g. Ad. sk.	Trinidad.	Zoological Society [P.].
h. Ad. sk.	Chamicuros, E. Peru (*Hauxwell*).	Gould Collection.
i. Ad. sk.	Guiana.	Mr. Brown [C.].

2. Vireo olivaceus.

Muscicapa olivacea, *Linn. Syst. Nat.* i. p. 327 (1766).
Lanius olivaceus, *Licht. Verz. Doubl.* p. 49 (1823).
Vireo olivaceus, *Vieill. Ois. de l'Am. Sept.* i. p. 83 (1807); *Wils. Am. Orn.* pl. 12; *Audub. Am. B.* pl. 150; *Gray, Hand-l. B.* i. p. 381, no. 5762; *Samuels, B. New England*, p. 270; *Baird, Birds N. Am.* p. 331 (1858); *Dresser, Ibis*, 1865, p. 48; *Coues, B. Color. Vall.* i. p. 495; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 188.
? Vireo virescens, *Vieill. Ois. Am. Sept.* i. p. 84, pl. 53 (1807); *Gray, Gen. B.* i. p. 267, pl. 65.
Vireosylvia olivacea, *Bp. C. A.* i. p. 329; *Reinhardt, Vidensk. Meddel.* 1853, p. 82; *id. Ibis*, 1861, p. 7; *Sclat. P. Z. S.* 1855, p. 151, 1859, pp. 137, 363; *Newton, Ibis*, 1859, p. 145; *Sclat. & Salv. Ibis*, 1859, p. 12; *iid. P. Z. S.* 1870, p. 836, 1879, p. 495; *Lawrence, Ibis*, 1864, p. 394 (*England*); *Baird, Rev. Am. B.* 1864, p. 333; *v. Frantzius, J. f. O.* 1869, p. 295; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 363; *Finsch, P. Z. S.* 1870, p. 565; *Sel & Salv. Nomencl.* p. 11.
Phyllomanes olivacea, *Cab. Mus. Hein.* i. p. 63 (1850); *id. J. f. O.* 1860, p. 404; *Gundlach, op. cit.* 1861, p. 324.
Vireo bogotensis, *Bryant, Proc. Bost. Soc. N. H.* vii. p. 227 (1860).
Vireosylvia bogotensis, *Lawrence, Ann. Lyc. N. Y.* viii. p. 6.

Upper parts olive; crown grey, narrowly bordered with fuscous brown or blackish brown; a whitish streak extending from the nostrils over the eye, along the sides of the occiput; præocular region or lores, and a few feathers behind the eye, dull grey; cheeks and ear-coverts whitish tinged with pale yellowish olive; under-parts white, tinged with pale yellow on the under tail-coverts, axillaries, and under wing-coverts; no rictal streak; bill and feet horn-colour. Culmen 0·54–0·64 inch, wing 3–3·4, tail 2–2·3, tarsus 0·7.

Hab. North America, throughout Central America to Panama; Cuba.

a. Ad. sk.	Bogota.	— Purdie, Esq. [C.].
b. Ad. sk.	Guatemala.	J. Gould, Esq.
c, d. ♂ ♀ ad. sk.	Michigan.	Prof. Steere.
e, f. ♂ ♀ ad. sk.	Fort Simpson.	J. K. Lord, Esq. [P.].
g. Ad. sk.	W. side Rocky Mountains.	J. K. Lord, Esq. [P.].
h. Ad. st.	North America.	Sir G. Back [P.].

3. Vireo flavoviridis.

Vireosylvia flavoviridis, *Cassin, Proc. A. N. Sc. Philad.* 1851, v. p. 152, vi. pl. 2; *Sclat. P. Z. S.* 1856, p. 298, 1859, p. 375; *id. Cat. Am. B.* p. 44 (1861); *Sclat. & Salvin, Ibis*, 1859, p. 12; *Baird, Rev. Am. B.* p. 336; *Lawr. Ann. Lyc. N. Y.* vii. p. 323; *Salvin, P. Z. S.* 1867, p. 137, 1870, p. 184; v. *Frantzius, J. f. O.* 1869, p. 509; *Baird, Brew., & Ridgw. N. A. B.* i. p. 366; *Sumichrast, Mem. Bost. Soc. N. H.* i. p. 547; *Taczanowski, P. Z. S.* 1874, p. 509; *Merrill, Proc. U.S. Nat. Mus.* i. p. 125; *Scl. & Salv. Nomencl.* p. 11.

Vireo flavoviridis, *Baird, Birds N. Am.* p. 332 (1858); *Coues, B. Colorado Vall.* i. p. 490; *Salvin & Godman, Biol. Centr.-Amer., Aves*, p. 189.

Phyllomanes flavoviridis, *Cab. J. f. O.* 1861, p. 93.

Vireosylvia agilis flavoviridis, *Ridgw. Bull. U.S. Nat. Mus.* i. p. 19.

Differing from *V. olivaceus* in having the sides of the breast and flanks strongly washed with bright olive-yellow, whilst the axillaries, the edge of the wing, the under wing-coverts, and under tail-coverts are sulphur-yellow; the inner margin of the remiges and of the tail-feathers is pale yellow instead of white. Culmen 0·55–0·65 inch, wing 2·9–3, tail 2·1, tarsus 0·7.

Hab. From Texas to Bolivia, Peru, and Upper Amazonia.

a. Ad. sk.	Guayango, Peru.	Mr. Holzmann [C.].
b. ♂ ad. sk.	Rio Napo, Ecuador.	Purchased.
c. ♂ ad. sk.	Veragua (*Arcé*).	O. Salvin, Esq.
d. Ad. sk.	Panama (*Hughes*).	O. Salvin, Esq.
e. Ad. st.	Bolivia.	Mr. Brydges [C.].

4. Vireo chivi.

Sylvia chivi, *Vieill. Nouv. Dict.* xi. p. 174 (1817).

Lanius agilis, *Lichtenst. Verz. Doubl.* p. 526 (1823).

Vireosylvia agilis, *Baird, Rev. Am. B.* p. 338; *Pelz. Orn. Bras.* p. 73 (1868).

Vireosylvia chivi, *Baird, Rev. Am. B.* p. 327 (1865).

Vireosylvia olivaceus, var. chivi, *Baird, Brew., & Ridgw. N. Am. B.* i. p. 359.

Vireosylvia flavoviridis, var. agilis, *Baird, Brew., & Ridgw. N. Am. B.* i. p. 359.

Intermediate in colour between *V. olivaceus* and *V. flavoviridis*. The outer primary is shorter than the fifth, whilst in *V. olivaceus* the outer primary is about equal to or a little shorter than the fourth. Inner webs of remiges with pale-yellow margins; axillaries, under wing- and under tail-coverts almost sulphur-yellow; rest of underparts as in *V. olivaceus*. Culmen 0·52 inch, wing 2·5–2·6, tail 1·6–1·7, tarsus 0·66.

Hab. Northern half of South America.

a. Ad. st.	Para.	R. Graham, Esq. [P.].
b. Ad. st.	Brazil.	Mr. Claussen [C.].

5. Vireo magister.

Vireosylvia magister, *Lawr. Ann. Lyc. N. Y.* x. p. 20 (*ex Baird MS.*); *Baird, Brew., & Ridgw. N. Am. B.* i. p. 359.

Vireo magister, *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 191.

Upper parts dusky olive, more greenish on the lower back; crown slightly tinged with grey, not bordered with fuscous, superciliary streak dingy white; underparts whitish, washed with pale olive on the sides and flanks; under tail-coverts and under wing-coverts whitish yellow; inner margin of quills white. Wing 3·05 inches, tail 2·25.

Hab. British Honduras.

"This species differs from *V. philadelphicus* in its larger size and in not having any ashy tinge on the crown. In some respects it resembles *V. calidris*, from which, however, it may be known by the absence of the rictal streak and the browner tint of the under surface." (*Salvin and Godman.*)

6. Vireo philadelphicus.

Vireosylvia philadelphica, *Cassin, Proc. A. N. Sc. Philad.* v. p. 153 (1857), vi. pl. 1. fig. 1; *Sclat. & Salvin, Ibis*, 1859, p. 12; *Lawr. Ann. Lyc. N. Y.* ix. p. 96; *Baird, Rev. Am. B.* p. 340; *von Frantzius, J. f. O.* 1869, p. 295; *Salv. P. Z. S.* 1870, p. 184; *Scl. & Salv. Nomencl.* p. 12; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 367.

Vireo philadelphicus, *Baird, Birds N. Am.* p. 335, pl. 78. fig. 3 (1858); *Coues, Birds Colorad. Vall.* i. p. 492; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 191.

Vireosylvia cobanensis, *Scl. P. Z. S.* 1860, p. 463; *id. Ann. & Mag. N. H.* 1861, p. 328.

Upper parts greyish olive, changing into leaden grey on the crown; a narrow frontal band, extending on each side over the eye and along the sides of the occiput, dingy white; a small spot in front and behind the eye grey; ear-coverts and cheeks brownish white; underparts yellow, inclining to white on the centre of the breast and abdomen; inner margin of remiges white; "bill horn-colour; feet leaden grey" (*Salvin*). Culmen 0·45–0·5 inch, wing 2·6–2·75, tail 1·9, tarsus 0·66–0·7.

Hab. Eastern North America and Central America.

a, b, c. Ad. sk.	Guatemala.	Gould Collection.
d, e. Ad. sk.	Vera Paz, Guatemala.	O. Salvin, Esq. [P.].
f. Ad. sk.	Carlton, N. Am.	R. B. Sharpe, Esq. [P.].

7. Vireo gilvus.

Muscicapa gilva, *Vieill. Ois. Am. Sept.* p. 65, pl. 34 (1807).

Muscicapa melodia, *Wils. Am. Orn.* v. p. 85, pl. 42. fig. 2 (1812).

Vireo gilvus, *Bp. Obs. Wils.* no. 123 (1825); *id. C. A.* i. p. 330; *Audub. Orn. Biog.* ii. pl. 118; *id. Birds Am.* iv. pl. 241; *Baird, Birds N. Am.* p. 335; *Sclat. P. Z. S.* 1858, p. 302; *Dresser, Ibis*, 1865, p. 480; *Samuels, Birds New Engl.* p. 273; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 192.

Vireo bartramii, *Swains. Faun. Bor.-Am.* ii. p. 235 (1831).

Vireosylvia gilva, *Cassin, Pr. A. N. Sc. Philad.* 1851, p. 153; *Sclat. P. Z. S.* 1856, p. 298, 1858, p. 302; *Baird, Rev. Am. B.* p. 342; *Sumichrast, Mem. Bost. Soc. N. H.* i. p. 548; *Baird, Brew., & Ridgw.* i. p. 368.

Vireo swainsoni, *Baird, B. N. Am.* 1858, p. 336; *Elliot, Illustr. Birds N. A.* i. pl. 7.

Vireosylvia swainsoni, *Baird, Rev. Am. B.* p. 343 (1858).

Vireosylvia gilva, var. swainsoni, *Cooper, Orn. Californ.* i. p. 116 (1870); *Baird, Brew., & Ridgw. N. Am. B.* i. p. 371; *Scl. & Salv. Nomencl.* p. 12; *Lawr. Bull. U.S. Nat. Mus.* i. p. 17.
Vireo gilvus swainsoni, *Coues, Birds Colorad. Vall.* p. 501.

Upper parts pale olive-grey; crown of head leaden grey, without any olive tinge; superciliary line and lores whitish, with no greyish spot in front of the eye; cheeks and ear-coverts brownish white; all the underparts dull white, slightly tinged with yellowish on the chest and under tail-coverts; flanks tinged with olive-yellow; edge of wing, under wing-coverts, and inner margin of quills white; bill horn-colour, with the mandible paler; feet lead-colour. Culmen 0·45–0·55 inch, wing 2·8, tail 2, tarsus 0·68.

Hab. Temperate North America and Mexico.

Obs. A specimen from the western side of the Rocky Mountains shows no difference in colour and size from the other specimens. The western specimens are supposed to be a little smaller and greyer above, the underparts being slightly whiter (var. *swainsoni*); but the supposed differences are not sufficient to distinguish between an Eastern and Western race of *V. gilvus*.

a. Ad. sk.	Fort Dufferin.	N. A. B. Commission.
b. ♀ ad. sk.	Fort Simpson.	B. R. Ross, Esq. [P.].
c. Ad. sk.	Colville, West of Rocky Mountains.	J. K. Lord, Esq. [P.].
d. Ad. sk.	Michigan.	Prof. Steere [P.].

8. Vireo josephæ.

Vireo josephæ, *Sclat. P. Z. S.* 1859, p. 137, pl. 154; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 194.
Vireosylvia josephæ, *Baird, Rev. Am. B.* p. 344 (1865); *Lawr. Ann. Lyc. N. Y.* ix. p. 96; *v. Frantzius, J. f. O.* 1869, p. 295; *Taczanowski, P. Z. S.* 1874, p. 509; *Scl. & Salv. Nomencl.* p. 12; *iid. P. Z. S.* 1879, p. 495; *Salv. Cat. Strickl. Coll.* p. 112.
Vireosylvia gilva, var. josephæ, *Baird, Brew., & Ridgw. N. Am. B.* i. p. 360.

Upper parts brownish olive, the brown colour becoming gradually more predominant on the hind neck, whilst the entire crown of the head is dark brown without any olive tinge; superciliary line, chin, and throat white; ear-coverts and part of the cheeks whitish brown; all the rest of the underparts, including the inner margin of the quills, uniform light sulphur-yellow; "bill horn-brown, paler towards the base of the mandible; iris dark hazel" (*Sclater*). Culmen 0·51 inch, wing 2·4 (2·6), tail 1·7 (2·05), tarsus 0·65.

The figures in brackets are the measurements of the male type specimen as given by Mr. Sclater. The *female*, according to Sclater, is paler on the underparts, more inclining to whitish. A specimen in the British-Museum collection, one of the typical ones, has the crown of the head only a little darker brown than the mantle; the wings and tail are externally washed with pale olive-grey instead of olive; all the underparts are white, only very slightly tinged with yellow. Wing 2·3. This is undoubtedly the female of *V. josephæ*, and at the same time is strikingly like *V. amauronotus*.

Hab. Costa Rica to Panama, and from Colombia to Peru.

a, *b*. [♂ ♀] ad. sk.	Pallatanga, Ecuador.	L. Fraser, Esq. [C.].
c. [♂] ad. sk.	Quito.	J. Gould, Esq. [C.].

9. Vireo amauronotus.

Vireo gilva, var. josephæ, *Ridgw. in Baird, Brew., & Ridgw. N. Amer. B.* i. p. 360, note.

Vireo amauronotus, *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 193.

"Similar to *V. gilvus*, but with the top of the head not grey, but almost of the same colour as the back; and also differing from *V. josephæ* by the head being of the same colour as the back, and by the abdomen being almost whitish." (*Salvin & Godman.*)

Hab. Orizaba, Mexico.

10. Vireo flavifrons.

Vireo flavifrons, *Vieill. Ois. Am. Sept.* i. p. 85, pl. 54 (1807); *Audub. Orn. Biogr.* ii. pl. 119; *id. Birds Am.* iv. pl. 238; *Bp. C. A.* i. p. 330; *Cassin, Proc. A. N. Sc. Philad.* 1851, p. 140; *Sclat. & Salvin, Ibis*, 1859, p. 12; *Cab. J. f. O.* 1855, p. 468, 1860, p. 405; *Sclat. P. Z. S.* 1857, p. 227, 1860, p. 251; *Lawr. Ann. Lyc. N. Y.* vii. p. 323; *Gundlach, J. f. O.* 1861, p. 324; *Gray, Hand-l. B.* i. p. 381, no. 5757; *Coues, Birds Colorad. Vall.* i. p. 493; *Gundl. Orn. Cub.* p. 56; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 194.

Muscicapa sylvicola, *Wilson, Am. Orn.* ii. p. 117, pl. 7. fig. 3 (1810).

Vireo (Lanivireo) flavifrons, *Baird, Birds N. Am.* 1858, p. 341.

Vireosylvia (Lanivireo) flavifrons, *Baird, Rev. Am. B.* p. 346 (1858).

Lanivireo flavifrons, *Lawr. Ann. Lyc. N. Y.* ix. p. 96; *v. Frantzius, J. f. O.* 1869, p. 295; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 379 (1874).

Vireosylvia flavifrons, *Salv. P. Z. S.* 1870, p. 184; *Scl. & Salv. Nomencl.* p. 12; *Salv. & Godm. Ibis*, 1880, p. 118.

Crown of head, hind neck, and mantle rich yellowish olive, passing into olive-grey on the shoulders, lower back, and upper tail-coverts; wings and tail brownish black, externally narrowly edged with whitish grey; the innermost secondaries, the median and greater wing-coverts broadly edged with white, so as to form two distinct alar bars on each side; superciliary line and region below the eye, chin, throat, fore neck, and upper breast rich shining yellow; rest of underparts, including the edge of the wing and the inner margin of the quills, pure white; bill and feet lead-colour. Culmen 0·55 inch, wing 2·9–3·1, tail 2, tarsus 0·7.

Hab. Eastern half of North America; Central America from Mexico to Panama and Colombia. Cuba.

a. Ad. sk.	Niagara Falls.	Gould Collection.
b. Ad. sk.	North America.	Zoological Society.
c. ♂ ad. sk.	Illinois, Aug. 1877.	H. K. Coale, Esq. [P.].
d, *e*, *f*. Ad. st.	North America.	
g. Ad. sk.	Guatemala.	Gould Collection.

11. Vireo solitarius.

Muscicapa solitaria, *Wils. Am. Orn.* ii. p. 143, pl. 17. fig. 6 (1810).

Vireo solitaria, *Audub. Am. Orn.* pl. 17; *Bp. C. A.* i. p. 330; *Cab.*

J. f. O. 1855, p. 468; *Sclat. P. Z. S.* 1856, p. 298, 1859, pp. 363, 375; *Sclat. & Salv. Ibis*, 1860, p. 31; *Gundlach, J. f. O.* 1861, p. 324; *Dresser, Ibis*, 1865, p. 481; *Gray, Hand-l. B.* i. p. 381, no. 5758; *Samuels, Birds New Engl.* p. 277; *Coues, Birds Colorad. Vall.* i. p. 505; *Lawr. Mem. Bost. Soc. N. H.* ii. p. 272; *Baird, Birds N. Am.* p. 329; *Salv. & Godm. Biol. Centr.-Amer., Aves*, i. p. 196.

Lanius solitarius, *Licht. Preis-Verz. mex. Vög.* p. 2 (1830); *Cab. J. f. O.* 1863, p. 58.

Vireosylvia (Lanivireo) solitaria, *Baird, Rev. Amer. B.* p. 347 (1864).

Vireosylvia solitaria, *Sumichrast, Mem. Bost. Soc. N. H.* i. p. 548; *Scl. & Salv. Nomencl.* p. 12.

Lanivireo solitaria, *Lawr. Bull. U.S. Nat. Mus.* no. iv. p. 18; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 373.

Vireosylvia propinqua, *Baird, Rev. Am. B.* p. 348 (1865).

Vireosylvia solitarius, var. propinquus, *Baird, Brew., & Ridgw.* i. p. 373.

Mantle, back, and upper tail-coverts rich olive; crown of head, nape, cheeks, and ear-coverts leaden-grey; wings and tail blackish-brown, narrowly edged with olive, or broadly edged with whitish, as is the case with the innermost secondaries and the outer pair of tail-feathers; greater and median series of wing-coverts tipped with yellowish white; feathers surrounding the eye and nasal region white; a spot in front of the eye blackish; chin, throat, middle of breast, and abdomen pure white, strongly washed with olive-yellow on the flanks; sides of breast washed with olive; under wing-coverts and inner margin of quills whitish; bill and feet lead-colour; the under tail-coverts white, with or without a yellowish tinge, in some specimens uniform pale yellow. Culmen 0·52 inch, wing 2·9–3, tail 2, tarsus 0·73.

Hab. North America from Canada to Texas; Central America from Mexico to Guatemala. Cuba.

a. Ad. sk.	Guatemala.	Purchased.
b. Ad. sk.	Guatemala.	Gould Collection.

Subsp. *a*. Vireo cassini.

Vireo cassini, *Xantus, Proc. Acad. N. Sc. Philad.* 1858, p. 117; *Baird, Birds N. Am.* p. 340, pl. 78. fig. 1; *id. Rev. Am. B.* i. p. 347; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 197.

Lanivireo solitarius, var. cassini, *Baird, Brew., & Ridgw. N. Amer. B.* i. p. 376 (1874).

Vireo solitarius cassini, *Coues, Birds Colorad. Vall.* i. p. 514.

Vireosylvia solitaria, *Salv. Cat. Strickl. Coll.* p. 112 (pt.) (*teste Salvin*).

Very similar to *V. solitarius*, but having the leaden-grey crown a little more tinged with olive than is usually the case with the typical species; breast slightly tinged with pale fawn-colour. Many intermediate forms occur.

Hab. North America, California, Nevada and Arizona to Northern Mexico.

Subsp. *β*. Vireo plumbeus.

Vireo plumbeus, *Coues, Pr. A. N. Sc. Philad.* 1866, p. 74; *id. Birds Colorad. Vall.* i. p. 515; *Cooper, Orn. Cal.* i. p. 119 (1870); *Elliot,*

Illustr. B. N. Am. i. pl. vii.; *Lawr. Mem. Bost. Soc. N. H.* ii. p. 272; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 198.
Vireosylvia (Lanivireo) plumbea, *Baird, Rev. Am. B.* p. 349 (1865).
Lanivireo plumbeus, *Ridgway, Rep. Exp. Expl. 40th parall.* p. 451 (1877).
Lanivireo solitarius, var. plumbeus, *Baird, Brew., & Ridgw. N. Am. B.* i. p. 377 (1874).
Vireosylvia plumbea, *Sel. & Salv. Nomencl.* p. 12.

Closely allied to *V. solitarius*, but having the upper parts tinged with leaden grey; underparts white, washed with leaden grey on the flanks. Wing 3·3 inches, tail 2·3, tarsus 0·72. (*Salvin.*)
Hab. Arizona to Northern Mexico.

12. Vireo vicinior.

Vireo vicinior, *Coues, Proc. A. N. Sc. Philad.* 1866; *Baird, Rev. Am. B.* p. 361; *Elliot, Illustr. Birds N. Am.* i. pl. vii.; *Cooper, Orn. Californ.* i. p. 125; *Gray, Hand-l. B.* i. p. 381, no. 5755; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 393.

Closely resembling *V. plumbeus*. "Above bluish ash, below ashy white, scarcely more ashy laterally; lores entirely ashy white; flanks and inside of wings showing a faint trace of yellow; an obsolete line from bill to eye white; no bands on the wing except a faint edging of whitish on the greater coverts; the quills edged internally with white; bill and legs plumbeous. Wing 2·50 inches, tail 2·60, tarsus 0·72." (*Baird.*)
Hab. Arizona.

13. Vireo atricapillus.

Vireo atricapillus, *Woodhouse, Proc. A. N. Sc. Philad.* 1852, p. 60; *Cassin, Illustr.* p. 153, pl. 24 (1854); *Baird, Birds N. Am.* p. 337; *id. Rev. Am. B.* p. 353; *Cooper, Orn. Californ.* i. p. 121 (1870); *Baird, Brew., & Ridgw. N. Am. B.* i. p. 383; *Lawr. Mem. Bost. Soc. N. H.* ii. p. 272; *Deane, Bull. Nutt. Orn. Club*, iv. p. 58; *Brewster, op. cit.* p. 99; *Coues, op. cit.* p. 193, pl. 1; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 199.

Crown and sides of head black; rest of upper parts olive-green; wings and tail blackish brown edged with olive; greater and median series of wing-coverts tipped with greenish white; præocular region whitish; underparts white, washed with olive on the flanks, and inclining to yellow on the under wing- and under tail-coverts; bill black; feet lead-colour. Wing 2·12 inches, tail 1·95; first primary long. Some specimens (probably females or immature) have the crown and sides of the head dark slaty grey and the underparts tinged with ochraceous. (*Baird, Brewer, & Ridgway.*)
Hab. South-western Texas to Mexico.

14. Vireo noveboracensis.

Muscicapa noveboracencis, *Gm. S. N.* i. p. 947 (1788); *Pennant, Arctic Zool.* ii. p. 389.
Vireo noveboracensis, *Bp. Obs. Wils.* 1825; *Audub. Orn. Biogr.* pl. 63; *id. Birds N. Am.* iv. pl. 240; *Bp. C. A.* i. p. 330; *Cab.*

J. f. O. 1855, p. 469; *Baird, B. N. Am.* 1858, p. 338; *id. Rev. Am. B.* p. 354; *Sclat. P. Z. S.* 1857, pp. 204, 228; *id. & Salvin, Ibis*, 1860, p. 274; *Jones, Nat. Bermudas*, p. 71 (1859); *Baird, U. S. Bound. Surv., Zool., Birds*, p. 12; *id. Rev. Am. B.* p. 354; *Gundlach, J. f. O.* 1861, p. 324; *Samuels, Birds N. Engl.* p. 275; *Dresser, Ibis*, 1865, p. 481; *Gray, Hand-l. B.* i. p. 380, no. 5750; *Scl. & Salv. Nomencl.* p. 12; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 385; *Lawr. Bull. U. S. Nat. Mus.* p. 17; *Gundlach, Ornith. Cub.* p. 56; *Coues, Birds Colorad. Vall.* i. p. 520; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 200.

Vireo musicus, *Vieill. Ois. Am. Sept.* p. 83, pl. 53 (1807).

Muscicapa cantatrix, *Wilson, Birds N. Am.* ii. p. 266, pl. 18 (1810).

Lanius noveboracensis, *Licht. Preis-Verz. mex. Vog.* p. 2 (1830); *Cab. J. f. O.* 1863, p. 58.

Lanivireo crassirostris, *Bryant, Proc. Bost. Soc. N. Hist.* vii. 1859.

Vireo crassirostris, *Baird, Rev. Am. B.* i. p. 368; *Scl. & Salv. Nomencl.* p. 12.

All the upper parts of the body, including the crown, uniform olive-green; remiges and rectrices brown, narrowly edged with pale olive; under surface of the quills silky grey; the remiges edged with white internally; wing-coverts brown, tipped with yellowish white, so as to form two bars on each wing; feathers surrounding the eye yellowish; underparts dull white, washed with fuscous on the breast, inclining to creamy yellow towards the flanks, abdomen, and under tail-coverts; edge of wing, under wing-coverts, and inner margin of remiges white; "bill and feet lead-colour; iris white" (*Salvin*). Wing 2·3 inches, tail 1·85, tarsus 0·75.

Hab. Eastern North America and Central America, from Mexico to Guatemala and Honduras. Bermuda; Cuba.

a. Ad. sk.	North America.	O. Salvin and F. D. Godman, Esqrs. [P.].
b, c. Ad. st.	North America.	
d. Ad. st.	North America.	Purchased.
e. Ad. sk.	Bahamas.	Dr. Henry Bryant [P.].
f. Skeleton.	[Jamaica.]	

15. Vireo belli.

Vireo belli, *Audub. B. Am.* p. 333, pl. 485 (1844); *Bp. C. A.* 1850, p. 330; *Cassin, Proc. A. N. Sc. Phil.* 1851, p. 150; *Baird, B. N. Am.* p. 337; *id. Rev. Am. B.* p. 385; *Sclat. Cat. Am. B.* p. 42; *Cooper, Orn. Californ.* i. p. 123; *Dresser, Ibis*, 1865, p. 481; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 389; *Coues, B. Colorado Vall.* i. p. 526; *Salv. & Godman, Biol. Centr.-Amer., Aves*, p. 200; *Salv. Cat. Strickl. Coll.* p. 113.

Closely resembling *V. noveboracensis* in general coloration and size, but the præocular and superciliary region whitish instead of yellowish; the upper parts dull olive-green, inclining to greyish on the nape and crown; quills narrowly edged with whitish olive; only the greater series of wing-coverts perceptibly tipped with whitish, the rest being only very faintly edged with pale olive; thus only one alar band is developed; underparts from chin to vent pure white, tinged with very pale yellow on the under wing-coverts and under tail-coverts, stronger yellow inclining to ochraceous on the

sides of the breast and the flanks; edge of wing and inner margin of remiges white; "bill and feet lead-colour" (*Salvin*). Culmen 0·5 inch, wing 2·2, tail 1·9, tarsus 0·7–0·8.

Hab. Mexico and southern half of North America.

a. Ad. sk.	Mexico.	Gould Collection.
b. Ad. sk.	Missouri.	Purchased.

16. Vireo pusillus.

Vireo pusillus, *Coues, Proc. A. N. Sc. Philad.* 1866, p. 75; *Baird, Rev. Am. B.* p. 360; *Elliot, Illustr. B. N. Am.* i. pl. vii.; *Cooper, Orn. Californ.* i. p. 124; *Gray, Hand-l. B.* i. p. 381, no. 5756; *Baird, Brew., & Ridgw. N. Am. B.* i. pp. 383, 391.

Closely allied to *V. belli* and *V. pallens*. "Above ashy grey, very slightly tinged with olive on rump; below dull white, ashy laterally, the flanks with the slightest possible tinge of yellow; eyelids and a short line from the nostrils to the eye whitish, no other stripe apparent; a dusky loral spot; primary-coverts indistinctly edged with whitish, producing an obscure band, second band hardly perceptible; quills and tail-feathers edged with pale greyish olive, the innermost secondaries with whitish. Wing 2·25 inches, tail 2·25, tarsus 0·73."

"*Hab.* Arizona, California." (*Baird.*)

17. Vireo ochraceus.

Vireo ochraceus, *Salv. P. Z. S.* 1863, p. 188; *Baird, Rev. Am. B.* i. p. 366; *Lawr. Mem. Bost. Soc. N. H.* ii. p. 272; *Sclat. & Salv. Nomencl.* p. 12; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 201, tab. 12. fig. 1.

Vireo semiflavus, *Salv. P. Z. S.* 1863, p. 188.

General colour above, including the tail and crown, uniform olive with a slight ochraceous tinge, this tinge being more developed in the immature bird and in the female; præocular region yellow; remiges narrowly edged with whitish; greater and median series of wing-coverts tipped with whitish, forming two alar bands; underparts ochraceous yellow, inclining to whitish on the throat; maxilla pale horn-colour; mandible white. Wing 2·2 inches, tail 1·8 tarsus 0·8. (*Salvin.*)

Hab. Central America from Mexico to Guatemala.

Subsp. *a*. Vireo pallens.

Vireo pallens, *Salv. P. Z. S.* 1863, p. 188; *id. Ibis*, 1866, p. 193; *Baird, Rev. Am. B.* i. p. 365; *Scl. & Salv. Nomencl.* p. 12; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 202, tab. 12. fig. 2.

Upper parts uniform grey, with only a slight tinge of olive; underparts dull white slightly tinged with yellowish; præocular region pale yellowish; greater and median series of wing-coverts with conspicuous whitish tips. Wing 2·3 inches, tail 1·9, tarsus 0·85. (*Salvin.*)

Hab. Central America, Nicaragua and Costa Rica.

18. Vireo huttoni.

Vireo huttoni, *Cassin, Proc. A. N. Sc. Phil.* 1851, p. 150, 1852, pl. i.; *Baird, Birds N. Am.* 1858, p. 339, pl. 78. fig. 2; *Sclat. P. Z. S.*, 1858, p. 302, 1862, p. 19; *id. Cat. Am. B.* p. 358; *Baird, Rev. Am. B.* p. 357; *Gray, Hand-l. B.* i. p. 380, n. 5751; *Cooper, Orn. Calif.* i. p. 121 (1870); *Baird, Brew., & Ridgw. N. Am. B.* i. p. 387; *Scl. & Salv. Nomencl.* p. 12; *Salv. Ibis*, 1874, p. 99; *Coues, Birds Colorad. Vall.* i. p. 525; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 203.

Upper parts dull olive with an earthy brownish tinge on the hind neck and crown; wings and tail blackish brown, externally edged with pale olive-yellow; the innermost secondaries are broadly edged, and the greater and median wing-coverts broadly tipped with yellowish white, thus forming two conspicuous alar bands; edge of wing, under wing-coverts, and inner margin of remiges white; sides of head and all the underparts of the body are pale ochraceous, rather dull on the chest and flanks, clearer, inclining to creamy yellow, on the abdomen and under tail-coverts; a few feathers behind the eye of the same colour; bill horn-colour; feet leaden. Culmen 0·5 inch, wing 2·5–2·6, tail 2, tarsus 0·75.

Hab. North America, California; Central America from Mexico to Guatemala.

a. ♂ ad. sk.	Mexico.	Gould Collection.
b. ♀ Ad. sk.	La Parada, Mexico.	M. Boucard [C.].

19. Vireo modestus.

Vireo noveboracensis, *Gosse (nec Gmel.), B. of Jamaica*, p. 192 (1847).
Vireo modestus, *Scl. P. Z. S.* 1860, p. 462, 1861, pl. xiv. fig. 1; *id. Cat. Am. B.* 1861, p. 43; *Baird, Rev. Am. B.* i. p. 362; *Gray, Hand-l. B.* i. p. 382, no. 5772; *Scl. & Salv. Nomencl.* p. 12.

Closely allied to *V. huttoni*, but differing from the latter by a slightly larger bill and by shorter wings; lower back and rump considerably brighter than the head and interscapular region; the first primary is barely half, or not half as long as the second, instead of more than half as in *V. huttoni*. (*Baird.*) Wing 2·3 inches, tail 2 (*Sclater*), 2·21 (*Baird*).

Hab. Jamaica.

a. Ad. sk.	Jamaica.	O. Salvin and F. D. Godman, Esqrs. [P.].

20. Vireo carmioli.

Vireo carmioli, *Baird, Rev. Am. B.* i. p. 356; *Lawr. Ann. Lyc. N. Y.* ix. p. 97; *v. Frantzius, J. f. O.* 1869, p. 295; *Baird, Brew., & Ridgw. N. Am. B.* i. p. 383; *Scl. & Salv. Nomencl.* p. 12; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 203, tab. 12. fig. 3.

Upper parts, including the crown and the outer edges of the remiges and rectrices, olive; præocular region and long superciliary stripe yellowish; the greater and median series of upper wing-coverts with large whitish yellow tips, forming two conspicuous alar bars;

innermost secondaries broadly edged with whitish; underparts yellow, passing into whitish on the throat; bill and feet lead-colour. (*Salvin.*) Culmen 0·5 inch, wing 2·25, tail 1·85, tarsus 0·75.

Hab. Central America, Costa Rica to Panama.

21. Vireo hypochryseus.

Vireo hypochryseus, *Scl. P. Z. S.* 1862, p. 369, pl. 46; *Baird, Rev. Am. B.* i. p. 370; *Grayson, Proc. Bost. Soc. N. H.* xiv. p. 281; *Lawr. Mem. Bost. Soc. N. H.* ii. p. 272; *id. Bull. U. S. Nat. Mus.* no. 4, p. 18; *Scl. & Salv. Nomencl.* p. 12; *Salv. & Godm. Biol. Centr.-Amer., Aves,* p. 204.

Crown, hind neck, and back yellowish olive, changing into paler olive on the lower back and upper tail-coverts; wings and tail brown; the primaries narrowly edged with yellowish olive; wing-coverts without any paler tips; a conspicuous yellow stripe extending from the nostrils over the eye along the sides of the occiput; ear-coverts dull yellow; all the underparts rich yellow, slightly washed with olive on the sides of the breast and flanks; "bill horn-colour; feet lead-colour." (*Salvin*). Culmen 0·6 inch, wing 2·5–2·25, tail 2·2–2·4, tarsus 0·8.

Hab. Mexico and Tres Marias Islands.

22. Vireo gundlachi.

Vireo gundlachi, *Lembeye, Aves de la Cuba,* p. 29, pl. v. fig. 1 (1850); *Cab. J. f. O.* 1855, p. 468; *Gray, Hand-l. B.* i. p. 382, no. 5771; *Scl. & Salv. Nomencl.* p. 12.

Vireonella gundlachi, *Baird, Rev. Am. B.* i. p. 369 (1864); *Baird, Brew., & Ridgw. N. Am. B.* i. p. 382.

Upper parts of an olivaceous plumbeous; the underparts, with the loral region and a circle around the eye (the latter brighter), dull yellow as in *V. philadelphicus*; sides tinged with olivaceous; two narrow very conspicuous pale bands on the wing; the tail and wing-feathers brown, edged with the colour of the back (without any whitish), the outer edge of the outer tail-feathers not paler than in the others; quills edged internally with white; bill pale horn-colour above, a little lighter beneath; legs plumbeous. Wing 2·10 inches, tail 2·20.

Hab. Cuba.

Obs. The wings of this species are extremely short and much rounded, the secondaries being very long and nearly all of the same length, as in *V. hypochryseus* and in *Neochloe*.

a. Ad. sk.	Cuba.	O. Salvin and F. D. Godman, Esqrs. [P.].

23. Vireo latimeri.

Vireo latimeri, *Baird, Rev. Am. B.* i. p. 364 (1864); *Gray, Hand-l. B.* i. p. 382, no. 5773; *Gundlach, Anal. de Hist. Natur.* vii. pp. 135, 343 (1878); *Scl. & Salv. Nomencl.* p. 12.

"Upper parts olivaceous, brightest and greenest on lower back

and rump, passing anteriorly into almost clear grey on the head; the interscapular region soiled with reddish olive; no light bands nor edgings of the wings, excepting the olive-green borders of the quills, becoming paler towards the edge of the wing; chin and throat, with a line from bill to eye, and eyelids white; sides of head grey; breast and remaining underparts yellow, palest ventrally, tinged with greenish on sides; inside of wings pale yellowish; inner edges of quills tinged with the same; bill light horn-colour, paler below; feet plumbeous; iris hazel. Wing 2·20 inches, tail 1·10. Wings short, though longer than tail, much rounded; tail nearly even." (*Baird.*)

Hab. Porto Rico.

a. Ad. sk. Porto Rico. Dr. Henry Bryant [P.].

24. NEOCHLOE.

Type.
Neochloe, *Sclat. Proc. Zool. Soc.* 1857, p. 213 ..... N. brevipennis.

Wings very rounded, the second primary being much shorter than the secondaries, and the third primary only about equal to them; the tail is about the same length as the wing, and also rounded. Bill slender.

The chief reason for separating *N. brevipennis* from the rest of the *Vireoninæ* is its peculiar pattern of coloration.

Range. Southern Mexico.

1. Neochloe brevipennis.

Neochloe brevipennis, *Scl. P. Z. S.* 1857, p. 213; *Baird, Rev. Am. B.* i. p. 372; *Sumichrast, Mem. Bost. Soc. N. H.* i. p. 547; *Scl. & Salv. Nomencl.* p. 12; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 205, tab. 13. fig. 2.

Entire crown and nape olive-yellow; wings and tail blackish brown, externally broadly edged and washed with olive-yellow; rest of upper parts, sides of head, neck all round, chest, flanks, and thighs dark bluish grey, tinged with olive on the lower back; chin, lower breast, abdomen and under tail-coverts, and inner margin of remiges white; edge of wing yellow; bill and feet blackish. Culmen 0·5 inch, wing 2·2, tail 2·1, tarsus 0·8.

Hab. Mexico.

a. [♂] ad. sk. Orizaba. Matteo Botteri [C.]. (Type of species.)

25. HYLOPHILUS.

Type.
Hylophilus, *Temm. Pl. Col.* 173. fig. 2 (1823) ..... H. pœcilotis. H. thoracicus.
Pachysylvia, *Bonap. Consp. Av.* i. p. 309 (1850) .... H. decurtatus.

Bill more conical than in *Vireo*, the culmen being but slightly curved towards the tip. The feet are stronger and longer in proportion than those of *Vireo*, and the hinder toe is longer. Wings short

and rounded. Tail narrow, and of about the same length as the wings. (*Salvin.*) Length of wing 2–2·5 inches.

Head of *Hylophilus luteifrons*.

Range. About 20 species, closely allied to each other in structure and coloration, inhabiting Central and South America.

Key to the Species.

a. Colour of crown grey, terminating abruptly; back olive.
  a'. Breast yellow.
    a''. Forehead olive ..... *thoracicus*, p. 307.
    b''. Forehead grey ..... *pectoralis*, p. 307.
  b'. Breast white ..... *decurtatus*, p. 307.
  c'. Breast rufescent ..... *muscicapinus*, p. 308.
b. Crown rich rufous, terminating abruptly; back olive.
  d'. Loral and ocular region whitish; breast dull olive-yellow ..... *pœcilotis*, p. 308.
  e'. Lores rufous like the crown; breast dull creamy ..... *amaurocephalus*, p. 308.
c. Crown rufous, grey, brown, or ochraceous, gradually passing into the colour of the back.
  f'. Crown and hind neck rich rufous.
    c''. Back olive ..... *semibrunneus*, p. 309.
    d''. Back olive-brown ..... *fuscicapillus*, p. 309.
  g'. Crown ashy grey; hind neck fuscous grey *flaviventris*, p. 309.
  h'. Crown brown.
    e''. Forehead orange; underparts yellowish *aurantiifrons*, p. 310.
    f''. Forehead uniform with crown; underparts dull white ..... *brunneiceps*, p. 310.
  i'. Crown rufous-ochraceous; mantle rufous-brown ..... *ochraceiceps*, p. 310.
d. Crown coloured uniformly with back; forehead rufous or yellow.
  k'. Forehead with a narrow red frontal band; underparts ochraceous ..... *rubrifrons*, p. 311.
  l'. Whole forehead rich rusty rufous; underparts dingy grey ..... *ferrugineifrons*, p. 311.
  m'. Forehead yellowish; crown fuscous olive; breast tinged with fuscous ..... *luteifrons*, p. 311.
  g''. Underparts olive-yellow ..... *olivaceus*, p. 313.
e. Whole of plumage olive.
  n'. Feet ashy grey; underparts whitish grey . *semicinereus*, p. 312.
  o'. Feet yellow.
    h''. Underparts pale ochraceous ..... *flavipes*, p. 312.
    i''. Underparts yellow ..... *viridiflavus*, p. 312.

1. Hylophilus thoracicus.

A. *H. thoracicus.*

Hylophilus thoracicus, *Temm. Pl. Col.* 173. fig. 1; *Bp. C. A.* i. p. 329 *Scl. Cat. Am. B.* p. 44; *Baird, Rev. Am. B.* p. 375; *Pelzeln, Ornith. Brasil.* p. 70; *Scl. & Salv. Nomencl. Av. Neotr.* p. 12; *Scl. Ibis*, 1881, p. 297.

B. *H. pectoralis.*

Hylophilus pectoralis, *Scl. P. Z. S.* 1866, p. 321; *Pelzeln, Ornith. Brasil.* p. 70; *Scl. & Salv. Nomencl.* p. 12; *Scl. Ibis*, 1881, p. 298.
Sylvia thoracica, *Prinz Max. Beitr.* iii. p. 717 (1831?).

A. *Northern Race* (H. thoracicus).

Centre of crown ashy grey, passing into olive on the forehead and the sides of the head; hind neck and nape olive-grey; rest of upper parts yellowish olive; wing-coverts uniform with back, without lighter tips; chin, cheeks and throat, abdomen, and under tail-coverts dull reddish; breast, under wing-coverts, and inner margin of remiges lemon-yellow; flanks washed with olive-grey; bill horn-colour; feet brown. Wing 2·3 inches, tail 1·8, tarsus 0·7.

Immature birds have the whole crown of the head washed with olive.

Hab. Northern half of South America.

a. ♂ ad. sk. Bartica grove, British Guiana, Oct. 2 (*H. Whitely*). O. Salvin and F. D. Godman, Esqrs. [P.].

B. *Southern Race* (H. pectoralis).

Birds from the interior of Southern Brazil have the whole crown of the head ashy grey, the flanks more uniform with the breast and not washed with olive. Wing 2·3 inches, tail 1·9, tarsus 0·7. (*Sclater.*)

These birds seem to form a brighter-coloured race of *H. thoracicus*, representing the latter in Brazil.

2. Hylophilus decurtatus.

Sylvicola decurtata, *Bp. P. Z. S.* 1837, p. 118.
Pachysylvia decurtata, *Bp. C. A.* i. p. 309.
Hylophilus decurtatus, *Baird, Rev. Am. B.* i. p. 380 (1864); *Salv. P. Z. S.* 1867, p. 137, 1870, p. 184; *id. Ibis*, 1869, p. 313, 1872, p. 314; *Scl. & Salv. P. Z. S.* 1870, p. 836; *Lawr. Bull. U.S. Nat. Mus.* No. 4, p. 18; *Scl. Ibis*, 1881, p. 208; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 206.
Hylophilus cinereiceps, *Scl. & Salv. P. Z. S.* 1860, p. 209, 1864, p. 384; *id. Ibis*, 1860, p. 397.
Hylophilus pusillus, *Lawr. Ann. Lyc. N. Y.* vii. p. 323, viii. p. 179, ix. p. 97; *Baird, Rev. Am. B.* i. p. 381.
Hylophilus plumbiceps, *Lawr. Ann. Lyc. N. Y.* vii. p. 323.
Helmintheros —— ? *Scl. P. Z. S.* 1856, p. 291.

Crown of head and nape pale leaden grey; all the rest of the upper parts rich olive-yellow; primaries blackish, narrowly edged with whitish grey; loral region and a few feathers around the eye, chin, cheeks, throat and centre of breast, and abdomen silky white; sides of breast, flanks, and under tail-coverts strongly washed with

olive-yellow; ear-coverts and part of cheeks brownish white; under wing-coverts yellowish; inner margin of remiges white. Culmen 0·5–0·55 inch, wing 1·95–2·15, tail 1·4–1·6, tarsus 1·6.

Hab. Central America.

a, b. [♂] ad. sk.	Guatemala.	Purchased.
c. Ad. sk.	Vera Paz, Guatemala.	O. Salvin, Esq. [C.].

3. Hylophilus muscicapinus.

Hylophilus muscicapinus, *Scl. & Salv. Nomencl.* p. 156 (1873); *Scl. Ibis*, 1881, p. 299, pl. x. fig. 1.

General colour above olive-green; crown grey; forehead, lores, and sides of head pale brown; tail and outer webs of remiges and upper wing-coverts olive; under wing-coverts, inner margin of remiges, lower abdomen, and under tail-coverts pale lemon-yellow; rest of underparts dull white, washed with pale rufous on the chest and sides of the fore neck; bill horn-colour. Culmen 0·62 inch, wing 2·4, tail 1·9, tarsus 0·68.

Hab. Guiana.

Obs. This species is remarkable for its long and rather strongly hooked bill. It differs from allied species through the pale rufous colour of the sides of the head.

a. Ad. sk.	Bartica grove, British Guiana (*H. Whitely*).	O. Salvin and F. D. Godman, Esqrs. [P.].

4. Hylophilus pœcilotis.

Hylophilus pœcilotis, *Temm. Pl. Col.* 173. fig. 2 (1823); *Bp. C. A.* i. p. 329; *Cab. Mus. Hein.* i. p. 64; *Scl. Cat. Am. B.* p. 44; *Baird, Rev. Am. B.* i. p. 375; *Pelzeln, Ornith. Brasil.* p. 70; *Scl. & Salv. Nomencl.* p. 14; *Scl. Ibis*, 1881, p. 300.

Sylvia pœcilotis, *Nordmann, Verz. d. Thiere in Erman's Reise*, p. 13, pl. ix. fig. 3 (1835).

Entire crown of head and nape rich rufous-brown; all the rest of the upper parts, including the entire tail and wing-coverts, and the outer webs of the remiges rich olive-green; loral and ocular region, cheeks, and upper throat whitish; ear-coverts blackish, with broad white central streaks and dull yellowish tips; under wing-coverts, axillaries, inner margin of remiges, thighs, and under tail-coverts lemon-yellow; rest of underparts dull yellow, washed with olive on the breast and flanks and inclining to pale ochraceous on the abdomen; "bill dark flesh-colour; mandible whitish; feet hazel" (*Sclater*). Culmen 0·5 inch, wing 2·2, tail 2·2, tarsus 0·7.

Hab. Southern Brazil.

a, b. Ad. sk.	Brazil.	J. Gould, Esq.

5. Hylophilus amaurocephalus.

Sylvia amaurocephala, *Nordmann, Verz. d. Thiere in Erman's Reise*, p. 14 (1835).

Sylvia pœcilotis, *Prinz Max. Beiträge*, iii. p. 715.

Hylophilus pœcilotis, *Burmeist. Syst. Uebers.* iii. p. 110 (?).

Hylophilus amaurocephalus, *Scl. Ibis*, 1881, p. 301.

Crown of head and nape rich rufous; rest of upper parts, wings, and tail olive-green as in *H. pœcilotis*, passing into grey on the hind neck and sides of the neck; sides of head and cheeks and throat greyish white; ear-coverts brownish; fore neck, chest, and breast dull cream-colour; abdomen white; flanks washed with pale olive-yellow; edge of wing, under wing-coverts, and inner margin of remiges lemon-yellow; "bill dark flesh-colour; feet lead-colour" (*Sclater*). Culmen 0·5 inch, wing 2, tail 2, tarsus 0·7.

Hab. Eastern Brazil.

a. Ad. sk. Brazil. Purchased.

6. Hylophilus semibrunneus.

Hylophilus semibrunneus, *Lafr. Rev. Zool.* 1845, p. 341; *Bp. C. A.* i. p. 329; *Scl. P. Z. S.* 1855, p. 144; *Baird, Rev. Am. B.* i. p. 374; *Scl. & Salv. Nomencl.* p. 14; *iid. P. Z. S.* 1879, p. 495; *Scl. Ibis*, 1881, p. 302.

"Hylophilus castaneiceps, *Verr.*" *MS., Gray, Hand-l. B.* i. p. 383?

Entire crown, hind neck, sides of neck, and part of the ear-coverts rich rufous, gradually changing into olive on the mantle; tail entirely olive; wings and their coverts blackish brown, externally broadly edged and washed with the olive of the back; under wing-coverts, edge of wing, and inner margin of remiges whitish yellow; loral and ocular region, cheeks, chin, and throat dull white; rest of underparts yellowish white, strongly washed with ochraceous across the chest, and with olive-yellow on the sides of the breast and flanks; under tail-coverts sulphur-yellow; "bill flesh-colour, whitish on the mandible; feet hazel" (*Sclater*). Culmen 0·6 inch, wing 2·5 (not 3·3), tail 2, tarsus 0·67.

Hab. Colombia.

a. Ad. sk. Colombia. Purchased.

7. Hylophilus flaviventris.

Hylophilus flaviventris, *Cab. J. f. O.* 1873, p. 64; *Taczan. P. Z. S.* 1874, p. 509; *Scl. Ibis*, 1881, p. 302.

General colour above olive-green, passing into fuscous grey on the hind neck; crown ashy grey; ocular region whitish; wings externally edged with olive, internally with white; underparts pale yellow; throat white with a grey tinge; under wing-coverts yellow; bill horn-colour; feet grey. Wing 2·4 inches, tail 1·9. (*Sclater.*)

Hab. Central Peru.

8. Hylophilus fuscicapillus.

Hylophilus fuscicapillus, *Scl. & Salv. P. Z. S.* 1880, p. 155; *Scl. Ibis*, 1881, p. 303, pl. x. fig. 2.

Most nearly allied to *H. semibrunneus*. Upper parts olive, strongly washed with pale reddish brown on the mantle, hind neck, crown, and sides of head; throat fuscous white; rest of underparts uniform

yellow with an olive tinge; inner margin of quills whitish yellow. Culmen 0·52 inch, wing 2·3, tail 1·7, tarsus 0·7.

Hab. Ecuador.

9. Hylophilus aurantiifrons.

Hylophilus aurantiifrons, *Lawr. Ann. Lyc. N. Y.* vii. p. 324 (1861); *Baird, Rev. Am. B.* i. p. 377; *Scl. Ibis*, 1881, p. 303; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 207.

Hylophilus insularis, *Scl. P. Z. S.* 1861, p. 128; *Baird, Rev. Am. B.* i. p. 379; *Léotaud, B. of Trinidad*, p. 186; *Scl. & Salv. Nomencl.* p. 12; *Scl. Ibis*, 1881, p. 295; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 207.

Hylophilus hypoxanthus, *Pelz. Orn. Bras.* p. 136; *Scl. & Salv. P. Z. S.* 1868, p. 629.

Hylophilus acuticauda, *Lawr. Pr. A. N. Sc. Philad.* 1865, p. 37; *Baird, Rev. Am. B.* i. p. 378.

Hylophilus acuticaudus, *Scl. & Salv. P. Z. S.* 1868, p. 170, 1869, p. 252; *iid. Nomencl.* p. 12; *Scl. Ibis*, 1881, p. 304.

General colour above olive, passing into brown on the nape and crown, which colour again changes into orange on the forehead; underparts pale yellowish, inclining to whitish on the throat and chin, slightly washed with fulvous on the chest; under wing-coverts, inner margin of remiges, and under tail-coverts yellow; bill hazel; feet fuscous. Culmen 0·6 inch, wing 2·1–2·25 (female 2), tail 1·55–1·7, tarsus 0·62–0·70.

Obs. The typical specimen of *H. insularis* (from Trinidad) has the first primary slightly longer and the bill a little stouter than the specimens from the continent, but Mr. Sclater himself is now inclined to consider these peculiarities merely individual.

Hab. Guiana to Panama.

10. Hylophilus brunneiceps.

Hylophilus brunneiceps, *Scl. P. Z. S.* 1866, p. 322; *Pelz. Orn. Bras.* p. 70; *Scl. & Salv. Nomencl.* p. 12; *Scl. Ibis*, 1881, p. 305, pl. xi. fig. 1.

Entire crown, nape, and sides of head light brown; rest of upper parts, including the whole tail and the outer webs of the remiges and upper wing-coverts, olive; inner webs of remiges dark brown, edged with yellow like the under wing-coverts; underparts dull white, washed with light brown on the throat, cheeks, and especially on the chest; bill and feet fuscous. Culmen 0·6 inch, wing 2·2, tail 1·6, tarsus 0·65.

Hab. Guiana.

11. Hylophilus ochraceiceps.

Hylophilus ochraceiceps, *Scl. P. Z. S.* 1859, p. 375; *Scl. & Salv. Ibis*, 1860, p. 397; *Baird, Rev. Am. B.* i. p. 376; *Lawr. Ann. Lyc. N. Y.* ix. p. 97; *Salv. P. Z. S.* 1870, p. 184; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 207; *Scl. Ibis*, 1881, p. 306.

All the upper parts are rich rufous-brown, strongly shaded with

olive on the hind neck and on the long fluffy feathers of the lower back; crown of head inclining to rufous ochraceous; tail uniform reddish brown; outer web of remiges pale reddish brown; inner web blackish brown, broadly edged with sulphur-yellow; under wing-coverts and edge of wing and axillaries sulphur-yellow; chin, cheeks, and throat dull whitish; ear-coverts brownish; chest and rest of underparts dull yellow tinged with olive; "bill horn-colour; feet hazel" (*Salvin*). Culmen 0·6 inch, wing 2·2–2·3, tail 1·8, tarsus 0·65.

Hab. Mexico to Panama.

a, b, c. Ad. sk.	Vera Paz, Guatemala.	O. Salvin, Esq. [P.].
d. ♂ ad. sk.	Mexico, Oct. 1859.	Mr. A. Sallé [C.].

12. Hylophilus rubrifrons.

Hylophilus rubrifrons, *Scl. & Salv. P. Z. S.* 1867, p. 569, pl. xxx. fig. 1; *iid. Nomencl.* p. 12; *Scl. Ibis*, 1881, p. 307.

General colour above greyish olive, inclining to green on the mantle; forehead with a narrow but very distinct frontal band of red; secondaries edged with yellowish rufous; tail uniform rufous; under wing-coverts and inner margin of remiges pale yellow; rest of underparts pale ochraceous, tinged with grey on the abdomen and with greenish on the flanks; maxilla hazel; mandible and feet paler. Culmen 0·58 inch, wing 2·13, tail 1·5, tarsus 0·6.

Hab. Lower Amazons.

13. Hylophilus ferrugineifrons.

Hylophilus ferrugineifrons, *Scl. P. Z. S.* 1862, p. 110; *Baird, Rev. Am. B.* i. p. 377; *Pelz. Orn. Bras.* p. 71; *Scl. & Salv. Nomencl.* p. 12; *Taczan. P. Z. S.* 1874, p. 509; *Scl. Ibis*, 1881, p. 307.

Male. Forehead rich rusty rufous, palest towards the nostrils, passing into rufous-olive on the crown; rest of upper parts olive; entire tail uniform rufous; wings blackish brown, the outer webs olive; inner margin of inner webs, and under wing-coverts sulphur-yellow; sides of head, cheeks, and throat dull whitish grey; rest of underparts dingy grey washed with olive-yellow; bill lead-colour, with pale edges; feet fuscous. Culmen 0·6 inch, wing 2·2–2·25, tail 1·6, tarsus 0·65.

Hab. Northern half of South America.

14. Hylophilus luteifrons.

Hylophilus luteifrons, *Scl. Ibis*, 1881, p. 308.

Adult (type of species). Most closely allied to *H. ferrugineifrons*. Crown almost of the same colour as the back, which is olive and strongly washed with fuscous, whilst the superciliary region and a narrow frontal band are yellowish; under wing-coverts and inner edge of remiges less bright than in the other species; wing-coverts, in some specimens, edged with rufous; chest slightly tinged with

fuscous, producing a very indistinct collar. Culmen 0·58 inch, wing 2·23, tail 1·6, tarsus 0·64. (*Mus. P. L. S.*)

The sexes are alike in plumage.

Hab. Guiana.

a, *b*. ♂ ad. sk. Roraima, British Guiana, July 14 & April 15, 1882. H. Whitely, Esq. [C.].

15. Hylophilus semicinereus.

Hylophilus semicinereus, *Scl. & Salv. P. Z. S.* 1867, p. 570, pl. xxx. fig. 2; *iid. Nomencl.* p. 12; *Layard, Ibis*, 1873, p. 377; *Scl. Ibis*, 1881, p. 308.

Upper parts pale yellowish olive; hind neck and occiput grey, but strongly washed with the colour of the back; edge of wing, under wing-coverts, and inner edge of remiges bright sulphur-yellow; rest of underparts, including the under tail-coverts, whitish grey; sides of upper breast washed with olive-yellow; ear-coverts and sides of head pale brownish grey. Culmen 0·5–0·55 inch, wing 2·1–2·2, tail 1·75, tarsus 0·70.

Hab. Lower Amazons; Para.

16. Hylophilus flavipes.

A. *Southern Race.*

Hylophilus flavipes, *Lafr. Rev. Zool.* 1845, p. 342; *Bp. C. A.* i. p. 329; *Scl. P. Z. S.* 1855, p. 144; *Baird, Rev. Am. B.* i. p. 375; *Scl. & Salv. Nomencl.* p. 12; *Scl. Ibis*, 1881, p. 309.

B. *Northern Race.*

Hylophilus viridiflavus, *Lawr. Ann. Lyc. N. Y.* vii. p. 324; *Scl. & Salv. P. Z. S.* 1864, p. 348; *Baird, Rev. Am. B.* i. p. 380; *Salv. P. Z. S.* 1867, p. 137, 1870, p. 184; *Scl. Ibis*, 1881, p. 309; *Salv. & Godm. Biol. Centr.-Amer., Aves*, p. 208, pl. xiii. fig. 1.

A. *Southern Race* (H. flavipes).

All the upper parts are olive-green, darkest on the crown and upper back; entire tail greyish olive; inner web of remiges blackish, broadly edged with the sulphur-yellow colour of the under wing-coverts and the edge of the wing; rest of underparts pale whitish ochraceous, dull whitish on the throat; bill pale horn-colour; feet yellow. Wing 2·2 inches, tail 2.

Hab. Colombia and Venezuela.

B. *Northern Race* (H. viridiflavus).

All the underparts, with the exception of the whitish throat, are pale sulphur-yellow, slightly tinged with olive on the flanks. The only difference between the two races is therefore the slight difference in the colour of the underparts. Intermediate specimens are known from Venezuela.

Hab. Veragua and Isthmus of Panama.

17. Hylophilus olivaceus.

Hylophilus olivaceus, *Tschudi, Arch. f. Naturgesch.* 1844, p. 284; *id. Faun. Peruan.* pp. 28, 195; *Scl. Ibis*, 1881, p. 310.

All the upper parts uniform olive, passing into olive-yellow on the forehead; wings and tail brown, externally strongly washed with olive; sides of head pale brownish yellow; chin whitish; all the rest of the underparts uniform yellow tinged with olive; under surface of rectrices yellowish, shafts white; inner margin of remiges and under wing-coverts and under tail-coverts bright yellow; "bill rosy; feet flesh-colour; iris fuscous" (*Tschudi*), "iris ochraceous" (*Stolzmann*). Culmen 0·6 inch, wing 2·4, tail 2, tarsus 0·75.

Hab. Eastern Peru.

The above description is taken from an adult male in Mr. Sclater's collection, obtained by Stolzmann at Huambo, February 1880.

The following specimens are undeterminable from the descriptions:—

(18) SYLVIA FLAVEOLA, *Prinz Max. Beiträge*, iii. p. 719.

Hylophilus flaveolus, *Burmeist. Syst. Uebers.* iii. p. 110; *Baird, Rev. Am. B.* i. p. 375; *Scl. Ibis*, 1881, p. 310 (note).

Upper parts pale greyish brown, reddish brown on the back; lower back ochraceous; wings and tail rusty brown; throat whitish; all the underparts ochraceous (reddish yellow), darker and more vividly coloured towards the under tail-coverts.

Hab. Bahia (*Prinz Max.*).

(19) HYLOPHILUS FRONTALIS, *Tschudi, Wiegm. Arch. f. Naturg.* 1844, p. 284; *id. Faun. Peruan.* pp. 28, 194, pl. xiii. fig. 4.

"*H.* supra virescens, fronte helvola; tectricibus alarum superioribus dorso concoloribus, inferioribus olivaceis; remigibus nigro-fuscis pogonio externo olivaceo, interno albicanti marginatis; rectricibus brunneis; subtus ex viridi flavescens, gula latiore; pectore crissoque subrufis; rostro fusco; pedibus cæruleis; iride brunnea. Long. tot. 6″ 3‴. *Hab.* East Peru." (*Tschudi.*)

26. LALETES.

Type.
Laletes, *Scl. Proc. Zool. Soc.* 1861, p. 72 ..... L. osburni.

The single species constituting this genus is intermediate between *Vireo* and *Vireolanius*, resembling the former in colour, the latter in structure. First primary present. Length of wing about 3 inches.

Range. Jamaica.

1. Laletes osburni.

Laletes osburni, *Scl. P. Z. S.* 1861, p. 72; *id. & Salv. Nomencl.* p. 12.

All the upper parts uniform dull greyish olive; wings and tail brown, narrowly edged with the colour of the back; sides of head

brownish grey, with whitish shafts to the feathers; underparts of the body dull yellow, palest on the fore neck and throat; under wing-coverts and inner margin of remiges yellowish white; bill blackish brown; feet light brown in the skin. Culmen 0·6 inch, wing 2·9, tail 2·3, tarsus 0·82.

Hab. Jamaica.

a. ♂ ad. sk. Jamaica, April 28, 1859. P. L. Sclater, Esq. [P.].

27. VIREOLANIUS.

Type.

Vireolanius, *Du Bus, Esquisses Ornith.* pl. 26 (1850); *Bonap. Consp. Av.* i. p. 330 ..... V. melitophrys.

Head of *Vireolanius melitophrys.*

The birds of this group are only subgenerically distinct from *Cyclorhis*. Culmen a little less curved and bill not so high. Tail slightly rounded, and a little shorter than wing. Principal colours green, yellow, blue, and white.

Range. South America.

Key to the Species.

a. Underparts white; chest and sides chestnut .... *melitophrys*, p. 314.
b. Underparts yellow and green.
  a'. Crown of head grey ..... *leucotis*, p. 315.
  b'. Crown of head blue.
    a''. With a yellow superciliary stripe ..... *eximius*, p. 316.
    b''. No stripe on sides of head ..... *pulchellus*, p. 315.

1. Vireolanius melitophrys.

Lanius chrysophrys, *Licht. Mus. Berol.* (*teste Scl.*).
Vireolanius melitophrys, *Bp. C. A.* i. p. 330 (*ex Du Bus, Esquisses Ornithol.* pl. 26); *Scl. P. Z. S.* 1857, p. 213, 1859, p. 363; *Scl. & Salv. Ibis*, 1860, p. 31; *Baird, Rev. Am. B.* p. 396; *Scl. Cat. Am. B.* p. 45; *Gray, Hand-l. B.* i. p. 382, no. 5780; *Scl. & Salv. Exotic Ornith.* pl. 7; *iid. Nomencl.* p. 13; *Salv. Ibis*, 1878, p. 443; *Salv. & Godm., Biol. Centr.-Amer., Aves*, p. 209 (1883).

Crown of head, nape, and hind neck light grey; a broad stripe from the nostrils over the eye and sides of the occiput orange-yellow; a stripe of black extending through the eye, and a second one along the sides of the throat; cheeks, throat, fore neck, breast, and abdomen pure white; across the chest a narrow band of maroon-red; sides of breast and flanks washed with the same colour; under wing-coverts and inner margin of remiges pale yellow; mantle, back, and outer webs of wings and tail uniform rich olive-green;

inner webs blackish, narrowly edged with white on the tips; bill blackish-brown; feet flesh-colour. Culmen 0·7–0·8 inch, wing 3–3·2, tail 2·7–2·8, tarsus 0·9–1·02.

Hab. Mexico and Guatemala.

a, b. Ad. sk.	Mexico.	Purchased.
c. Ad. st.	Mexico.	Purchased.
d. Ad. sk.	Coban, Guatemala.	O. Salvin, Esq. [C.].
e. Ad. sk.	Guatemala.	O. Salvin and F. D. Godman, Esqrs. [P.].

2. Vireolanius leucotis.

Malaconotus leucotis, *Swains. An. in Menag.* p. 341 (1838).

Vireolanius icterophrys, *Bp. C. R.* xxxviii. p. 380 (1854); *Baird, Rev. Am. B.* i. p. 399; *Scl. & Salv. Exot. Ornithol.* note to pl. 8; *Gray, Hand-l. B.* i. p. 382, no. 5783.

Vireolanius chlorogaster, *Bp. C. R.* xxxviii. p. 381; *Scl. Cat. Am. B.* p. 45; *Baird, Rev. Am. B.* i. p. 399; *Scl. & Salv. Exotic Ornith.* note to pl. 8; *iid. Nomencl.* p. 13; *Gray, Hand-l. B.* i. p. 382, no. 5781.

"Vireolanius dubusi, *Verr.*," *fide Gray, Hand-l. B.* i. p. 382.

Vireolanius leucotis, *Salv. Ibis*, 1878, p. 443, pl. xi.; *id. & Godman, Ibis*, 1882, p. 77.

Crown of head and nape bluish grey; stripe from nostrils, over the eye and along the occiput, and subocular patch orange-yellow; a streak through the eye and part of the ear-coverts and cheeks grey; rest of ear-coverts and of cheeks dull white; mantle and back rich green; throat and fore neck orange-yellow; rest of underparts yellow strongly washed with green; under wing-coverts and inner edge of remiges sulphur-yellow, with a blackish patch near the base of the first primary. Culmen 0·7–0·75 inch, wing 2·6, tail 2·7–2·9, tarsus 0·75–0·85.

Hab. Rio Negro to Ecuador and the Upper Huallaga.

Immature or *female birds* (*V. chlorogaster*) have the white colour beneath the ear-coverts hardly indicated, the grey feathers being simply a little paler; the subocular patch is likewise less bright than in the adult male.

a. Juv. st.	[Peru.]	Purchased. (Type of *V. icterophrys.*)
b. Ad. st.	[Cayenne.]	Purchased. (Type of *V. chlorogaster.*)

3. Vireolanius pulchellus.

Vireolanius pulchellus, *Scl. & Salv. Ibis*, 1859, p. 12; *Salv. Ibis*, 1861, p. 147; *Lawr. Ann. Lyc. N. Y.* vii. p. 468; *Scl. Cat. Am. B.* p. 45; *Baird, Rev. Am. B.* i. p. 397; *Scl. & Salv. Exotic Ornith.* pl. 8; *iid. Nomencl.* p. 13; *Salv. Ibis*, 1878, p. 443.

All the upper parts, including the whole tail, the wing-coverts, and the outer webs of the remiges, and the sides of the head and cheeks rich emerald-green; crown of head and nape tinged with light blue in position A, rich greenish blue in positions B and C; chin and throat, under wing-coverts, and inner margin of remiges

rich yellow; rest of underparts rich greenish yellow. Culmen 0·7 inch, wing 2·7–2·9, tail 1·9, tarsus 0·8.

Young birds have hardly any trace of blue on the crown.

Hab. Central America.

a. Ad. st.	Guatemala.	J. Gould, Esq. (Type of species.)
b, *c*. Ad. sk.	Choctum, Guatemala.	O. Salvin, Esq. [C.].
d. Ad. sk.	Vera Paz, Guatemala.	O. Salvin, Esq. [C.].

4. Vireolanius eximius.

Vireolanius icterophrys, *Scl.* (*nec Bp.*) *P. Z. S.* 1855, p. 151, pl. 103.
Vireolanius eximius, *Baird*, *Rev. Am. B.* i. p. 398 (1864); *Scl. & Salv. Exot. Ornith.* note to pl. 8; *iid. Nomencl.* p. 13; *Gray*, *Hand-l. B.* i. p. 382, no. 5784; *Salv. Ibis*, 1878, p. 443.

Like *V. pulchellus*; but a stripe from the nostrils, over the eye and along the sides of the occiput, and a small subocular patch are bright yellow. Culmen 0·8 inch, wing 2·8.

Hab. Colombia.

28. CYCLORHIS.

	Type.
Cyclorhis, *Swains. Zool. Journ.* iii. p. 162 (1828)	C. guianensis.
Laniagra, *D'Orbigny*, *Synops. Av.* p. 9 (1837)	C. guianensis.

Head of *Cyclorhis flavipectus*.

Bill shorter than rest of head, very strong, laterally compressed, high, notched; culmen curved. Nostrils nearly circular, in front of a semiossified hole, partly covered by a few bristles; gonys curved upwards; rictal bristles hardly developed. Tail shorter than wing, slightly emarginate. Wings rounded, tip formed by primaries 4–7; first primary present, about half the length of the second; secondaries about six sevenths of length of whole wing. Lateral toes nearly as long as middle toe; claws much curved and sharp. Plumage generally very bright, the principal colours being green, chestnut, and yellow. Length of wing about 3–3·5 inches.

Range. Central and South America.

Key to the Species.

a. Crown of head green.
  a'. Base of mandible black, rest of bill flesh-colour — *virenticeps*, p. 317.
  b'. Base of mandible flesh-colour, rest of bill black — *nigrirostris*, p. 317.
b. Crown of head pale brownish, or ferruginous; sides of head grey.
  c'. Entire bill flesh-colour; an ochraceous-brown superciliary stripe not extending backwards from the eye.

a''. Crown slightly washed with reddish brown *viridis*, p. 318.
b''. Crown strongly washed with reddish brown *ochrocephala*, p. 318.
d'. Base of mandible black; a strongly pronounced superciliary stripe extending along the sides of occiput.
c''. Crown strongly washed with ochraceous; breast and abdomen fulvous white ..... *albiventris*, p. 319.
d''. Crown grey slightly washed with ochraceous.
a'''. Fore neck and breast yellow; abdomen white..... *flavipectus*, p. 320.
b'''. Fore neck only yellow; bill very high .. *altirostris*, p. 319.
e''. Crown grey; abdomen and breast white .. *guianensis*, p. 319.
c. Crown rich chestnut-red; sides of head grey; all the underparts rich yellow ..... *flaviventris*, p. 320.
d. Crown of head rich chestnut-brown; sides of head yellow, base of mandible black; breast and abdomen white ..... *contrerasi*, p. 321.

1. Cyclorhis virenticeps.

Cyclorhis virenticeps, *Scl. P. Z. S.* 1860, p. 274; *id. Cat. Am. B.* p. 46; *Baird, Rev. Am. B.* i. p. 393; *Scl. & Salv. Nomencl.* p. 13.

A narrow frontal band, extending backwards on each side over the eye and along the sides of the occiput, deep chestnut-brown; crown and rest of upper parts rich yellowish green; ear-coverts, part of cheeks, fore neck, chest, and under surface of wings rich yellow; upper throat, breast, abdomen, under tail-coverts, and thighs white; flanks washed with greyish green; "iris hazel; feet flesh-colour; bill brown, base of mandible black" (*Sclater*).

Culmen 0·70 inch, wing 2·90, tail 2·4, tarsus 0·92.
♂. „ 0·70 „ „ 2·90, „ 2·4, „ 0·90.
Hab. Ecuador.

2. Cyclorhis nigrirostris.

Cyclorhis nigrirostris, *de Lafresn. Rev. Zool.* 1842, p. 133; *id. Mag. Zool.* 1843, pl. 33; *Bp. C. A.* i. p. 330; *Scl. P. Z. S.* 1855, p. 151; *id. ibid.* 1858, p. 448; *id. Cat. Am. B.* p. 46; *Baird, Rev. Am. B.* i. p. 394; *Scl. & Salv. Nomencl.* p. 13; *Gray, Hand-l. B.* i. p. 384, no. 5815.

Laniagra nigrirostris, *d'Orbigny, Voy. Am. Mérid.* p. 160.

Crown of head and rest of upper parts rich olive-green; a narrow frontal band and short superciliary streak chestnut-brown; a few feathers on the forehead, around the eye, and part of cheeks grey; underparts of body dingy fulvous white; fore neck and sides of breast washed with olive-yellow; under surface of wings bright yellow; feet flesh-colour; bill black, base of mandible flesh-colour.

Culmen.	Wing.	Tail.	Tarsus.
in.	in.	in.	in.
0·75	3·0	2·5	0·88
0·70	3·05	2·6	0·84
0·68	3·12	2·65	0·90

Hab. Colombia.

3. Cyclorhis viridis.

Habia verde, *Azara*, *Apunt.* i. p. 301.
Saltator viridis, *Vieill. N. D.* xiv. p. 108 (1817); *id. Encycl. Méth.* ii. p. 793.
? Laniagra guianensis, *d'Orbigny & Lafresn. Rev. Zool.* 1842, p. 133.
Cyclorhis viridis, *Scl. P. Z. S.* 1858, p. 448; *id. Cat. Am. B.* p. 46; *Baird, Rev. Am. B.* i. p. 392; *Scl. & Salv. Nomencl.* p. 13; *Durnford, Ibis*, 1878, p. 58.

Crown of head grey slightly washed with ferruginous; this colour passing into iron-grey on the hind neck, part of the sides of the neck, ear-coverts, and cheeks; chin whitish; feathers between nostrils and upper margin of eyes rich rusty red; this colour, however, does not extend beyond the eye as is the case in *C. altirostris*; rest of upper parts rich yellowish green; fore neck, chest, sides of body, and under surface of wings rich yellow; breast, abdomen, and under tail-coverts white washed with fulvous, or creamy; entire bill "light yellowish brown, under mandible lightest (without black basal spot); feet lavender, soles flesh-colour" (*Durnford*).

♂. Culmen 0·73 inch, wing 3·3, tail 3·15, tarsus 1·05.
♀. „ 0·70 „ „ 3·08, „ 2·90, „ 0·96.

Hab. Paraguay and Argentine Republic.

a, *b*.	Ad. sk.	Brazil.	J. Gould, Esq.
c, *d*.	Ad. sk.	Brazil.	Mr. Claussen [P.].

Subsp. *a*. Cyclorhis ochrocephala.

Cyclorhis guianensis, *Swains. Orn. Bras.* pl. 58 (*fide Baird*).
Cyclarhis ochrocephala, *Tschudi, Arch. f. Naturg.* 1845, p. 362.
Cyclorhis ochrocephala, *Pelzeln, Orn. Bras.* pp. 73, 138; *Scl. P. Z. S.* 1858, p. 448; *id. Cat. Am. B.* p. 45; *Baird, Rev. Am. B.* i. p. 391; *Gray, Hand-l. B.* i. p. 384, no. 5811; *Scl. & Salv. Nomencl.* p. 13; *Salv. Cat. Strickl. Coll.* p. 114.

The following references belong to specimens distinguished by the name of *C. wiedi*:—

Thamnophilus guianensis, *Prinz Max. Beitr.* iii. p. 1016.
Cyclorhis viridis, *Baird, Rev. Am. B.* i. p. 392 (1844) (partim.).
Cyclorhis wiedii, *v. Pelzeln, Orn. Brasil.* pp. 74, 137; *Gray, Hand-l. B.* i. p. 384, no. 5817; *Scl. & Salv. Nomencl.* p. 13.

Entire crown and nape ochraceous brown, the grey feathers of these parts being strongly washed with that colour, which again abruptly ends on the nape; præocular region, cheeks, ear-coverts, and part of the sides of the neck pale leaden grey; chin paler grey; feathers of nasal region reddish brown, this colour not extending beyond the upper corner of the eye; mantle, back, tail, and outer webs of remiges and upper wing-coverts olive-green; lower throat, fore neck, and sides of breast dingy greenish yellow; rest of underparts buffy white, palest on the centre of the abdomen; under wing-coverts and inner edge of remiges bright yellow; bill horn-colour; lower mandible paler, without trace of plumbeous black spot; feet dusky plumbeous, almost black. Culmen 0·70–0·75 inch, wing 2·95–3, tail 2·65–2·85, tarsus 0·9–1.

Hab. Southern Brazil.

4. Cyclorhis albiventris.

Cyclorhis albiventris, *Scl. & Salv. Nomencl.* p. 13 (1873).

Description of type. Crown of head, occiput, and nape grey, washed with ochraceous brown, this colour deepening into rusty red on the sides of the crown, thus forming a strongly pronounced superciliary streak; cheeks and ear-coverts and a narrow band across the hind neck pale grey; rest of upper parts rich yellowish green; upper throat, breast, abdomen, and under tail-coverts white (in two specimens from Bahia and Pernambuco washed with fulvous, in the third specimen, from S.E. Brazil, almost pure white); forehead, chest, and under surface of wings bright yellow; bill flesh-colour, base of mandible black.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Pernambuco	0·7	2·95	2·4	0·85
S.E. Brazil	0·68	2·8	2·3	0·80
Bahia (type)	0·66	2·78	2·3	0·88

Hab. Brazil.

a. Ad. sk.	Para.	R. Graham, Esq. [P.].
b, *c*. Ad. sk.	Amazons.	Purchased.

5. Cyclorhis altirostris.

Cyclorhis viridis, *Scl. Cat. Am. B.* p. 46, no. 280.
Cyclorhis altirostris, *Salv. Ibis*, 1880, p. 352.

Adult. This species somewhat resembles *C. albiventris*, but is much larger in size; the bill is considerably higher than in the other species (3·4 inches); maxilla reddish flesh-colour; mandible black at base. It is likewise closely allied to *C. viridis*. A sharply defined stripe of rusty red extending from nostrils over the eyes and along the sides of the occiput; crown iron-grey, very slightly tinted with reddish brown; rest of upper parts greyish green; sides of head grey; under wing-coverts and inner edges of remiges yellow; breast, abdomen, under tail-coverts, and upper throat white, slightly tinted with fulvous; fore neck, chest, and sides of body washed with pale greenish yellow. Culmen 0·76 inch, wing 3·02, tail 2·7, tarsus 0·96.

Hab. Bolivia and Argentine Republic.

6. Cyclorhis guianensis.

Tanagra guianensis, *Gm. S. N.* p. 893 (1788); *Lath. Ind. Orn.* p. 427.
Sourciroux, *Levaill. Ois. d'Afr.* pl. 76. fig. 2.
Lanius superciliosus, *Bonn. et Vieill. Encycl.* p. 737 (*nec Lath.*).
Lanius guianensis, *Licht. Doubl.* no. 527.
Falcunculus guianensis, *Swains. Nat. Hist. B.* ii. p. 14.
Cyclarhis poliocephala, *Tschudi, Arch. f. Naturg.* 1845, p. 362.
Cyclorhis poliocephala, *Bp. C. A.* i. p. 330 (1850).
Cyclorhis guianensis, *Cab. Mus. Hein.* i. p. 64; *Bp. C. A.* i. p. 330; *Burmeister, Syst. Uebers.* iii. p. 106 (1856); *Scl. P. Z. S.* 1858, p. 448; *id. Cat. Am. B.* p. 45; *Baird, Rev. Am. B.* i. p. 389; *Gray, Hand-l. B.* i. p. 383, no. 5808; *v. Pelzeln, Orn. Brasil.* pp. 74, 138; *Scl. & Salv. Nomencl.* p. 13.

Crown and nape, cheeks and ear-coverts leaden grey; frontal band and a long superciliary stripe orange-brown; all the rest of the upper parts uniform olive-green, this colour changing into yellowish olive on the sides of the chest and sides of the neck; chin pale grey; throat and sides of chest dingy yellow; breast and abdomen white, strongly washed with olive-grey on the sides and flanks; under wing-coverts and inner margin of remiges sulphur-yellow; lower mandible blackish at base, rest brownish horn-colour; feet "dusky plumbeous."

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Cayenne	0·68	2·62	2·15	0·72
Para	0·68	2·70	2·15	0·85

Hab. Guiana and North-eastern Brazil.

7. Cyclorhis flavipectus.

Cyclorhis flavipectus, *Scl. P. Z. S.* 1858, p. 448; *id. Cat. Am. B.* 1861, p. 45; *Taylor, Ibis*, 1864, p. 81; *Baird, Rev. Am. B.* i. p. 389; *Scl. & Salv. Nomencl.* p. 13; *Salv. Cat. Strickl. Coll.* p. 114.

Cyclorhis subflavescens, *Cab. J. f. O.* 1860, p. 405, 1861, p. 93; *Scl. Cat. Am. B.* 1862, p. 359; *Baird, Rev. Am. B.* i. p. 388.

Differs from *C. guianensis* in the following points:—Crown of head faintly washed with ochraceous brown; underparts much paler and brighter-coloured, the whole of the throat, fore neck, chest, and sides of the breast being rich lemon- or greenish yellow, whilst the breast and abdomen are white, and only slightly washed with yellow on the flanks; feet always flesh-colour. Intermediate forms occur in Guiana.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Trinidad, type	0·80	2·80	2·25	0·86
Santa Marta	0·70	2·85	2·10	0·88
Costa Rica	0·76	2·90	2·22	0·85
Costa Rica	0·72	2·95	2·20	0·82
Caracas	0·78	2·90	2·20	0·88

Hab. Costa Rica, Trinidad, and northern countries of South America.

a. Ad. sk.	Costa Rica.	Mr. Hoffman [C.].
b. Ad. sk.	Honduras.	Mr. Dyone [C.].
c. Ad. sk.	Guatemala.	Gould Collection.

8. Cyclorhis flaviventris.

Cycloris flaviventris, *Lafr. Rev. Zool.* 1842, p. 133; *Bp. C. A.* i. p. 330.

Cyclorhis flaviventris, *Tschudi, Arch. f. Naturg.* 1845, p. 363; *Cab. Mus. Hein.* i. p. 64; *Scl. P. Z. S.* 1856, p. 99, 1858, p. 448, 1859, p. 363, 1864, p. 173; *Scl. & Salv. Ibis*, 1859, p. 13; *Scl. Cat. Am. B.* 861, p. 45; *Baird, Rev. Am. B.* i. p. 386; *Scl. & Salv. Nomencl.* 1. 13; *Salv. Cat. Strickland Coll.* p. 114.

Crown and nape, ear-coverts, cheeks, and chin grey; a more or less broad stripe of maroon-red extending from the nostrils over the eyes and along the sides of the occiput; crown in old birds frequently tinged with the same colour; rest of upper parts olive-green; all the underparts uniform bright yellow, brightest on the under wing-coverts and on the inner edge of the remiges; base of mandible black; rest of bill, and feet, pale horn-colour; iris cherry-red. Culmen 0·7 inch, wing 3·2, tail 2·4, tarsus 0·95.

Hab. Southern Mexico and Guatemala.

9. Cyclorhis contrerasi.

Cyclorhis contrerasi, *Taczan. P. Z. S.* 1879, p. 224, pl. 21; *Reichen. & Schalow, J. f. O.* 1880, p. 97.

Entire crown of head deep rusty brown, a few feathers on the centre of the crown with greenish centres; rest of upper parts rich yellowish green, this colour changing into rich yellow on the sides of the neck, ear-coverts, fore neck, chest, and under surface of wing; chin, breast, abdomen, under tail-coverts, and thighs pure white; flanks slightly tinged with fulvous; bill and feet flesh-colour; base of mandible black.

♂ ad. (Callacater, March 30, 1873):—Culmen 0·65 inch, wing 3·1, tail 2·65, tarsus 0·96.

Hab. Peru.

Group III. CERTHIOMORPHÆ

(Cat. B. vol. iii. p. 3).

Family CERTHIIDÆ.

Bill either straight and subulate, or slender, long, and curved. Nostrils basal. Wings with 10 primaries; like the tail, very variable in shape and structure. Tail never emarginated. Tarsi comparatively short, anteriorly covered with transverse scales, which only in *Tichodroma* and *Climacteris* early fuse together; both sides of tarsus covered with one long scutum. Hallux with claw longer than middle toe, its first phalanx at least half the length of the tarsus; claws laterally compressed, strongly curved and sharp, that of the hallux by far the longest. Fourth toe coalesced at first phalanx with the middle toe. Tongue simple, pointed, neither cleft nor beset with bristles. Sexes generally alike in plumage, or differing only slightly. No crest. Principally insectivorous; breeding in holes.

Range. Cosmopolitan with the exception of South America and New Zealand.

Synopsis of the Subfamilies.

A. Bill curved downwards ..... *CERTHIINÆ*, p. 322.
B. Bill straight and subulated; tail soft, short, and rounded ..... *SITTINÆ*, p. 340.

Subfamily I. CERTHIINÆ.

Bill slender, generally longer than the rest of the head, curved downwards; culmen keeled, without a tooth or a notch at the tip. Nostrils basal, longitudinal, operculated, exposed. Nasal and rictal bristles absent. Wings and tail variable in size and structure; first primary always present, although sometimes spurious. Tarsus anteriorly covered with transverse scales in *Salpornis* and *Certhia*, with one scutum in *Tichodroma* and *Climacteris*. Hallux with its claw longer than the longest toe; claws, especially the hind claw, long, much curved, and very sharp. Tongue not cleft.

Sexes generally alike in plumage, which, with the exception of the grey-and-red *Tichodroma*, is very plain, brown and spotted; red (but for *Tichodroma*), green, blue, and yellow colours are absent.

The *Certhiinæ* are small, non-migratory, mostly insectivorous birds; they lay many eggs, generally in holes. They comprise four genera, with about 10 species, which are distributed all over the world with the exception of South America, New Zealand, and Madagascar.

Key to the Genera.

a. Tail graduated, its feathers stiff and pointed; plumage always spotted and brown ..... 1. CERTHIA, p. 323.
b. Tail rounded, short and soft.
a'. Bill much longer than head.
a''. Hind claw much shorter than hallux; plumage brown with white spots .... 2. SALPORNIS *, p. 329.
b''. Hind claw much longer than hallux; plumage blue-grey with red ..... 3. TICHODROMA, p. 331.
b'. Bill shorter than head; claws shorter than hallux ..... 4. CLIMACTERIS, p. 333.

1. CERTHIA.

Type.
Certhia, *Linné, Syst. Nat.* i. p. 184 (1766) ..... C. familiaris.

Heads of *Certhia familiaris* and *C. nipalensis*, to show lengths and shapes of bills.

Bill generally longer than rest of the head, curved downwards, neither toothed nor notched; culmen keeled. Nostrils basal, longitudinal, operculated, exposed, without any nasal or rictal bristles. First primary broad, almost half the length of the second; secondaries short; tip of wing formed by the 3rd to 6th primaries. Tail stiff, the feathers much pointed, generally longer than wing. Tarsus anteriorly covered with transverse scales. Hallux shorter than middle toe; claws very much curved, long and sharp; that of the hallux by far the longest. Sexes alike in plumage, the only colours of which are a rusty brown with light spots, and white.

Range. Asia, Europe, and North America.

Key to the Species.

a. Tail of the same length as the wing.
a'. Tail with numerous distinct bars; underparts pale creamy ..... *himalayana*, p. 327. / *tæniura*, p. 327.
b'. Tail without distinct bars; underparts silky white ..... *familiaris*, p. 323. / *mexicana*, p. 326.
b. Tail decidedly longer than the wing.
c'. Throat and breast dull buff; flanks much like the abdomen in colour ..... *discolor*, p. 328.
d'. Throat and breast pale creamy yellowish; flanks and under tail-coverts chestnut..... *nipalensis*, p. 329.

1. Certhia familiaris.

Certhia familiaris, *Linn. Syst. Nat.* i. p. 184 (1766); *Gmel. Syst. Nat.* i. p. 469 (1788); *Lath. Ind. Orn.* i. p. 280; *Beseke, Vogel Kurlands,*

* Hereto belongs *Hylypsornis*, which differs from *Salpornis* only by having a comparatively short second primary (=seventh primary).

p. 40; *Bechst. Naturg. Deutschl.* ii. p. 550; *Retzius, Fauna Suec.* p. 108; *Koch, Syst. baier. Zool.* p. 82; *Meyer & Wolf, Taschenb.* p. 130; *Werner, Atlas Anisod.* pl. 2; *Roux, Orn. Prov.* pl. 239; *Temm. Man. d'Orn.* i. p. 410; *Less. Traité d'Orn.* p. 311; *Gloger, Handb.* p. 381; *Temm. Man. d'Orn.* iii. p. 288; *Naum. Vög. Deutschl.* pl. 140. figs. 1–4; *Gould, B. Eur.* pl. 237; *Macgill. Brit. B.* i. p. 214; *Bp. Consp.* i. p. 224; *Kjærb. Orn. Dan.* pl. 10; *Radde, J. f. O.* 1854, p. 62; *Sundev. Svensk. Fogl.* pl. 9. fig. 2; *Nilss. Skand. Fauna*, i. p. 181; *Schleg. Vog. Nederl.* pl. 63; *Wright, Finlands Fogl.* p. 282; *Jaub. & Lapomm. Rich. Orn. midi France*, p. 297; *Schrenck, Amur. Reise*, p. 330; *Radde, Reise Ost-Sibir.* p. 217; *Gould, B. Great Brit.* pl. 64; *Harting, B. Middlesex*, p. 114; *Degl. & Gerbe, Orn. Eur.* i. p. 186; *Homeyer, J. f. O.* 1869, p. 172; *Bettoni, Ucc. Lombard.* pl. 88; *Sanders, Ibis*, 1871, p. 208; *Jerdon, Ibis*, 1872, p. 19; *Taczan. J. f. O.* 1872, p. 353; *Altum, Forstzoologie*, p. 276; *Newton, ed. Yarrell's Brit. B.* i. p. 468; *Swinhoe, Ibis*, 1874, p. 152; *Dresser, B. Eur.* p. 195, pl. 122.

Le Grimpereau, *Montbeill. Pl. Enl.* 681. fig. 1 (1783).

Certhia major *et* minor, *Frisch, Vög. Teutschl.* pl. 39 (1817).

Certhia scandulacea, *Pall. Zoogr. Rosso-Asiat.* i. p. 432 (1831).

Certhia macrodactyla, brachydactyla, septentrionalis, megarhynchus, *Brehm, Vög. Deutschl.* pp. 208–211 (1831).

Certhia nattereri, *Bp. Comp. List*, p. 11 (1838); *id. C. A.* i. p. 224.

Certhia costæ, *Bailly, Bull. Soc. Hist. Nat. Savoie*, 1852, January; *Sundev. J. f. O.* 1855, p. 60.

Certhia brachyrhynchus *et* paradoxa, *Brehm, Naumannia*, 1855, p. 274.

Certhia rufidorsalis, *Brehm, Naum.* 1855, p. 274.

Motacilla scolopacina, *Ström, Norske Vidensk. Selsk. nye Skrift.* ii. p. 367 (*teste Nilsson*); *Collett, Norg. Fugl.* p. 16 (1868).

Certhia hodgsoni, *Brooks, J. A. S. B.* 1872, p. 74; *id. Str. F.* iii. p. 233; *Hume, Str. F.* 1877, pp. 73, 78; *Biddulph, Str. F.* ix. (1881) p. 315.

Certhia britannica, *Ridgway*.

References to the American specimens.

Certhia fusca, *Barton, Fragm. Nat. Hist. Pennsylvania*, 1799, p. 11.

Certhia familiaris, *Vieill. Ois. d'Amér.* p. 70 (1807); *Wils. Am. Orn.* i. p. 122, pl. 8. fig. 1; *Audub. Orn. Biogr.* v. p. 158; *id. B. Amer.* pl. 115; *Coues, Key*, p. 84; *id. B. N.-West*, p. 26; *id. B. Colorado Vall.* p. 145.

Certhia americana, *Bp. Comp. List*, p. 11 (1838); *Reichenb. Handb., spec. Orn.* no. 265, pl. 615; *Baird, B. N. Am.* p. 372 (1858); *Pr. Max. J. f. Orn.* 1858, p. 105.

Certhia familiaris, var. americana, *Baird, Brew., & Ridgw. B. N. Amer.* i. p. 125 (1874).

Crown, sides of head, neck, mantle, centre of back, upper wing-coverts, and scapulars mottled with yellowish brown, dark brown, white, and grey, the white being restricted to the centre of the feathers; the lower back, rump, and upper tail-coverts much more uniform and rufous-brown; tail uniform brown, with rufous shafts; seen in a certain light, the tail shows innumerable indistinct bars; the first three primaries uniform brown without any light spots; the rest and the secondaries tipped with whitish, and showing a buffy white bar across the middle of either web; super-

ciliary region whitish; all the underparts, including the under wing-coverts, silky white, suffused with buff on the flanks and under tail-coverts; bill dark horn-brown, mandible pale; legs light brown, claws still paler; iris brown. Total length about 4·75 inches.

The sexes are alike in plumage.

Nestlings and *birds of the year* are much like the old birds; the flanks and sides tinged with pale creamy white; many of the feathers with faint darkish tips, which give these parts and the throat a somewhat barred appearance.

Measurements:—

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ ad. France	0·7	2·55	2·50	0·65
♂ ad. Surrey	0·65	2·50	2·20	0·60
♀ ad. Cookham	0·68	2·50	2·45	0·68
♂ ad. Hakodadi	0·66	2·40	2·40	0·60
♂ ad. Hakodadi	0·66	2·50	2·65	0·60
♂ ad. West-Rocky Mts.	0·60	2·48	2·30	0·56

This table shows that in the Common Creeper the tail is of nearly the same length as the wing, and may even be shorter than the latter. The central pair of feathers does not project far beyond the rest.

Hab. The Common Tree-Creeper has a very extensive range, as it inhabits nearly all the Palæarctic and Nearctic regions. It is found from Ireland and Spain to Norway, Palestine, Persia, Eastern Turkestan, and Western China, being likewise found throughout Russia and the greater part of Siberia. Still more to the eastwards it gradually loses much of the dark colours, so that the white becomes predominant and all the underparts, including the under tail-coverts, become pure white. We may therefore look upon the birds of Amoorland, Eastern Siberia, and Japan as a pale race. I have, however, seen specimens from Piedmont and South France (*C. costæ*) in Mr. Dresser's collection which are nearly as pale as the eastern birds.

The Tree-Creepers in Canada, and in the United States eastward of the Rocky Mountains, are like our European form. In the Pacific States and in Texas they gradually become darker and more richly coloured, thus leading to the Central-American form *C. mexicana*.

a. C. familiaris.

a–f. [♂ ♀] ad. st.	Cambridgeshire.	Mr. Baker [P.].
g–n. ♂ ♀ ad., and 5 nestlings, group st.	England.	Lord Walsingham [P.].
o, p. ♂ ♀ ad. sk.	Cookham, March.	R. B. Sharpe, Esq. [P.].
q, r. Ad. sk.	Avington, Nov. 25, 1872.	E. Shelley, Esq. [P.].
s. Ad. sk.	Hampstead.	Gould Collection.
t. Juv. sk.	Berkshire, June 20, 1866.	Gould Collection.
u, v. ♂ ad. sk.	Surrey, Jan. 1857.	F. D. Godman and O. Salvin, Esqrs. [P.].
w. ♂ ad. sk.	Middlesex, Mar. 20, 1856.	F. D. Godman and O. Salvin, Esqrs. [P.].
x. Ad. sk.	Norway, July 1866.	F. D. Godman and O. Salvin, Esqrs. [P.].
y. Pull. sk.	Belgium, June 25, 1872.	Brussels Museum [P.].
z. Ad. sk.	Belgium, Dec. 13, 1870.	Brussels Museum [P.].

a', *b'*. Ad. sk.	Montgeron, Feb. 18, 1875 (Seine-et-Oise).	R. B. Sharpe, Esq. [P.].
c'. ♂ ad. sk.	France, April 1852.	Gould Collection.
d'. Ad. sk.	Paris.	Gould Collection.
e'. ♀ ad. sk.	Luz, Hautes Pyrénées, May 22, 1872.	A. B. Brooke, Esq. [C.].
f'–*i'*. ♀ ad. sk.	Bordighiera, March 1872.	A. B. Brooke, Esq. [C.].
k'. Ad. sk.	Switzerland, Mar. 24, 1874.	M. Léon Olph-Galliard [P.].
l'. Ad. sk.	Savoy.	Purchased.
m'. ♀ ad. sk.	Belgrade, Turkey, Jan. 17, 1868 (*T. Robson*).	R. B. Sharpe, Esq. [P.].
n'. ♂ ad. sk.	Asia Minor.	T. Robson, Esq. [C.].
o'. ♀ ad. sk.	Alumdagh, Asia M., Dec. 27, 1865 (*J. Robson*).	F. D. Godman and O. Salvin, Esqrs. [P.].
p'. Ad. sk.	N.W. Himalayas.	Capt. Pinwill [P.].
q'. Ad. sk.	Hakodadi, Nov. 14, 1865 (*H. Whitely*).	Gould Collection.
r'. Ad. sk.	Hakodadi, Oct. 26, 1864.	H. Whitely [C.].
s'. Ad. in spirit.	Prussia.	Dr. H. Gadow [P.].
t'. Skeleton.	England.	

β. C. americana.

a. Ad. sk.	Cape May, New Jersey.	Gould Collection.
b, *c*. ♀ ad. sk.	West side of Rocky Mountains.	J. K. Lord, Esq. [P.].
d, *e*. Ad. sk.	Vancouver Island.	J. K. Lord, Esq. [C.].
f. Ad. sk.	British Columbia.	J. K. Lord, Esq. [C.].
g. ♂ ad. sk.	Chicago, April 7.	H. K. Coale, Esq. [P.].
h. Ad. sk.	Mexico.	Gould Collection.

Subsp. *a*. Certhia mexicana.

Certhia mexicana, *Gloger*, *Handb.* p. 381, note (1834, *ex Licht.*); *Reichenb. Handb. spec. Orn., Scans.* p. 266, pl. 612; *Sclater*, *P. Z. S.* 1856, p. 290; *id. ib.* 1859, pp. 362, 372; *Salvin*, *Ibis*, 1866, p. 190.
Certhia americana, *Baird*, *B. N. Amer.* p. 373, pl. 83. fig. 2.
Certhia mexicana, *Cooper*, *Orn. Calif.* p. 58 (1870).
Certhia familiaris, var. mexicana, *Baird*, *Brew.*, *& Ridgw. B. N. Am.* p. 128 (1874).

Adult (Mexico). Lower back, rump, and upper tail-coverts rich ferruginous rufous; the rest of the upper parts contains very little ferruginous but more blackish brown, so that the white longitudinal spots become more pronounced than in the European birds; the under tail-coverts are decidedly more ochraceous yellow. Culmen 0·68 inch, wing 2·60, tail 2·65, tarsus 0·60.

Hab. The Mexican Creeper inhabits the greater part of Central America, from the Isthmus, through Mexico and California, as far as Oregon; the latter habitat is proved by two very typically coloured specimens in the British Museum. The birds from Vancouver's Island are like those from Canada.

a. Ad. st.	Mexico.	Purchased.
b, *c*. Ad. sk.	Mexico.	J. Gould, Esq.
d. Ad.; *e*. ♀ ad. sk.	Upper Klamath lake, Oregon, Dec.	A. Forrer, Esq. [C.].

2. Certhia himalayana.

Certhia himalayana, *Vig. P. Z. S.* 1831, p. 174; *Gould, B. of Asia*, ii. pl. 17; *Jerdon, B. Ind.* i. p. 380; *id. Ibis*, 1872, p. 19; *Hume, Str. F.* 1877, p. 78; *Biddulph, Str. F.* ix. p. 315.
Certhia vittacauda, *James. Mem. Wern. N. H. S.* vii. p. 49.
Certhia asiatica, *Swains.* 2¼ *Cent.* p. 353.

North-western Race.

Certhia tæniura, *Severtzow, Turk. Jevotn.* p. 66 (1873); *Dresser, Ibis*, 1875, p. 176.

The tail is of about the same length as the wing; the central pair of tail-feathers are slightly elongated; all the tail-feathers are brown, with numerous and distinct dark brown bars; underparts whitish suffused with creamy yellowish, but not greyish as sometimes in *C. familiaris*. As a rule the first four primaries are without light spots. Culmen 0·65–0·90 inch, wing 2·70, tail 2·60–2·70, tarsus 0·60–0·70.

Hab. The Himalayan Creeper is a true inhabitant of the mountains; it is found in the Himalayas, from Cashmere to Assam, extending eastwards into the mountainous parts of South-western China.

Obs. This species is subject to considerable variation in size, especially of the bill and wing; the tail is often much worn and abraded.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Ad. Pushut (*Griffith*).	0·90	2·70	2·75	0·65
Ad. Cashmere	0·65	2·70	2·60	0·62
Ad. N.W. Himalaya (*Pinwill*).....	0·70	2·70	2·60	0·70

North-western Race (Certhia tæniura).

A larger race of *C. himalayana*, from which it differs by its larger dimensions, and by the paler, more greyish-buff-coloured upper parts, whilst all the underparts are white, with only a slight tint of cream-colour. Some specimens from Gilgit, in Major Biddulph's collection, are almost as large as those from Samarkand.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Samarkand ..	0·98	2·95	2·80	0·66
„ ..	0·87	2·75	2·70	0·62
„ ..	1·0	2·95	2·80	0·67

Hab. From Turkestan to Afghanistan, and extending all along the Himalayas to Assam.

a. Ad. st.	Himalayas.		
b. Ad. sk.	Pushut, Afghanistan (*Griffith*).	India Museum.	
c. Ad. sk.	Jellalabad (*Griffith*).	India Museum.	
d. ♀ ad. sk.	Gilgit, Feb. 3, 1879.	Dr. Scully [P.].	
e. ♀ [ad.] sk.	Gilgit, 5000 feet, Oct. 16, 1880.	Major Biddulph [C.].	

f. ♂ ad. sk.	Gilgit, 5000 feet, March 3, 1879.	Major Biddulph [C.].
g. ♀ ad. sk.	Gilgit, 5000 feet, Oct. 15, 1880.	Major Biddulph [C.].
h. ♂ ad. sk.	Chitral, 6000 feet, Nov. 10, 1878.	Major Biddulph [C.].
i, *k*. ♂ ♀ juv. sk.	Hunza, 5000 feet, Aug. 21, 1876.	Major Biddulph [C.].
l. Immat. sk.	Cashmere.	R. B. Sharpe, Esq. [P.].
m. Ad. sk.	Cashmere (*Dr. Bellew*).	India Museum.
n. Ad. in spirit.	Kashmere.	Schlagintweit [C.].
o. Ad. sk.	Peshawur.	Col. Way [P.].
p. Ad. sk.	Simla.	E. W. Oates, Esq.
q. ♀ ad. sk.	Simla, 8000 feet, Sept. 1875.	Major Biddulph [C.].
r. Immat. sk.	N.W. Himalaya.	Capt. Stackhouse Pinwill [P.].
s, *t*, *u*. ♂ ♀ ad. sk.	N.W. Himalaya.	Capt. Stackhouse Pinwill [P.].
v. ♀ ad. sk.	Dehra, Feb. 12, 1870 (*King*).	Dr. Scully [P.].
w. ♂ ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
x. Immat. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
y. Ad. sk.	Assam.	Gould Collection.
	a. *North-western Race* (C. tæniura).	
z, *a'*. Ad. sk.	Samarkand.	H. Seebohm, Esq. [P.].

3. Certhia discolor.

Certhia discolor, *Blyth*, *J. A. S. B.* 1845, p. 580, 1847, p. 864; *id. Ann. & Mag. N. H.* 1847, p. 317; *Jerdon*, *B. Ind.* i. p. 381.
Certhia nipalensis, *Hodgs.*, var. ?, *apud Gould*, *B. As.* ii. pl. 16 (lower figure), July 1850 (*teste Hume*).
Certhia nipalensis, *Hodgs.*, vera, *apud Brooks*, *J. A. S. B.* 1873, p. 255 (*teste Hume*).
Certhia stoliczkæ, *Brooks*, *J. A. S. B.* 1873, p. 256; *Hume*, *Str. F.* 1877, p. 78.

The tail of this species is decidedly longer than the wing because the tips of the central pair of tail-feathers (if not abraded) extend beyond the rest; general colour of the upper parts darker and browner than in *C. familiaris*; the rump, upper tail-coverts, and the tail are rufous ferruginous; the tail without bars; chin, throat, and breast dull buff; rest of underparts suffused with yellowish ochraceous; flanks scarcely darker; under tail-coverts rusty ochraceous; the first four primaries without spots. Wing about 2·65 inches, tail 3.

Young birds have the underparts washed with brownish and yellowish; the dull buff-colour being not yet developed, but with numerous faint darkish bars.

Obs. C. stoliczkæ is, I think, the young of *C. discolor*; its immaturity being indicated by the shortness and straightness of the bill and by the coloration of the underparts, which perfectly agrees with that of the young of *C. discolor*.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Darjiling	0·63	2·5	3·0	0·66
	0·66	2·65	3·05	0·7
	0·7	2·75	3·0	0·73
Darjiling (*Blyth*)	0·71	2·64	3·15	0·70
Sikhim (*Scully*)	0·66	2·65	3·0	0·65
Immature	0·60	2·60	3·0	0·75
Nagthull (*C. stoliczkæ*) (*Scully*)	0·48	2·41	..	0·63
Ladakh (*C. stoliczkæ*) (*Mus. Tristram*)	0·55	2·70	3·0	0·75

Hab. Himalayas from Bootan to Nepal, extending into Cashmere and Ladakh.

a. Ad. sk.	Darjiling.	India Museum.
b. Ad. sk.	Darjiling.	Gould Collection.
c, *d*. Ad. sk.	Nepal.	Gould Collection.
e–*g*. Ad. sk.	Sikkim.	B. H. Hodgson, Esq. [P.].
h–*l*. Ad. sk.	Sikhim (*Hodgson*).	India Museum.
m. Immat. sk.	Sikhim (*Hodgson*).	India Museum.
n. Ad. sk.	Bootan (*Pemberton*).	India Museum.

4. Certhia nipalensis.

Certhia nipalensis, *Hodgs. Icon. ined. in Brit. Mus., Passeres*, nos. 289, 598 (1825); *Blyth, J. A. S. B.* 1845, p. 581, 1847, p. 864; *id. Ann. & Mag. Nat. Hist.* 1847, p. 317; *Gould, B. Asia*, ii. pl. 16 (upper figure); *Jerdon, B. Ind.* i. p. 381; *Hume, Str. F.* 1877, pp. 74, 78.

Certhia mandellii, *Brooks, J. A. S. B.* 1873, p. 256.

Central pair of tail-feathers much elongated and longer than the wing; the whole tail without any bars; bill straighter and shorter than in *C. discolor*; four unspotted primaries; in the coloration of the underparts much resembling *C. discolor*, but the throat is white, the breast creamy or pale ochraceous, and the flanks and under tail-coverts are deep rufous ferruginous like the rump. Culmen 0·53–0·60 inch, wing 2·60–2·85, tail 2·9–3·1, tarsus 0·65–0·85.

Hab. Himalayas, from Nepal to Bootan and Assam.

a. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Type of species.)
b–*c*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
d, *e*. Ad. sk.	Nepal.	Gould Collection.
f. Ad. sk.	Nepal (*Hodgson*).	India Museum.
g. Ad. sk.	Darjiling.	Major C. H. T. Marshall [P.].
h. Juv. sk.	Sikhim.	E. W. Oates, Esq.
i. ♀ ad. sk.	Bootan (*Pemberton*).	India Museum.

2. SALPORNIS.

	Type.
Salpornis, *Gray, P. Z. S.* 1847, p. 7; *id. Gen. B.* i. p. 144	S. spilonotus.
Hylypsornis, *Boc. Jorn. Acad. Lisb.* 1878, p. 211	S. salvadorii.

Bill much longer than rest of the head, slender, considerably

curved downwards, laterally compressed; culmen sharp, pointed, without any tooth or notch. Nostrils longitudinal, in a coriaceous groove, with an indistinct operculum, quite exposed; without nasal or rictal bristles. Wings long and pointed, falling little short of the tail; first primary spurious, very small; second primary very long; tip of wing formed by third, fourth, and fifth primaries; secondaries very short, only two thirds of length of whole wing. Tail square or slightly rounded, soft and short. Tarsus thick, covered in front with transverse scales, short, being slightly longer than hallux without claw and equal to middle toe; second toe considerably shorter than fourth toe. Claws sharp and much curved; claw of hallux about 0·7 of the length of the tarsus. Sexes alike in plumage, which is brown and much spotted.

Range. Central India. Africa from Benguela to the Mashoona country.

1. Salpornis spilonotus.

Certhia spilonota, *Franklin, P. Z. S.* 1831, p. 121.
Salpornis spilonota, *Gray, P. Z. S.* 1847, p. 7; *id. Gen. B.* i. p. 144; *Reichenb. N. Syst.* pl. xxxviii.; *id. Handb. spec. Orn., Scans.* pl. 564; *Jerdon, B. Ind.* i. p. 382; *Gray, Hand-l. B.* i. p. 184, no. 2519; *Ball, Str. F.* 1874, p. 397, 1876, p. 232, 1878, p. 209; *Butler, Str. F.* 1875, p. 462, 1876, p. 37, 1877, p. 228.
Salpornis spilonotus, *Blyth, Cat. B. Mus. As. Soc.* p. 338; *id. Ibis*, 1865, p. 48.

All the upper parts dark brown, with numerous white spots; crown with central streaks; wings with about half a dozen white transverse spots on the webs; on the tail-feathers, except on the central pair, which is much paler and less marked, the white colour forms five to six very distinct bars; throat and sides of head pure white; all the rest of the underparts pale buffish or whitish, with numerous dark brown bars; maxilla dark brown; mandible and feet paler. Total length under 5 inches, culmen 1, wing 3·5, tail 2, tarsus 0·6.

The sexes are alike in size and plumage.

Hab. Central India.

a, *b*. Ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
c. Ad sk.	Oude.	Capt. Stackhouse Pinwill [P.].
d. Ad. sk.	South of Chanda.	Gould Collection.

2. Salpornis salvadorii.

Hylypsornis salvadorii, *Boc. Jorn. Acad. Lisb.* 1878, pp. 198, 211; *id. Orn. d'Ang.* p. 289, pl. x. fig. 2; *Shelley, Ibis.* 1882, p. 255.

Adult. Above varied with rufous, white, and black; throat dull whitish with small black spots; breast and abdomen more rufescent, with scaly black margins; upper tail-coverts, as well as the under tail-coverts, whitish banded with black; ear-coverts blackish; wing-coverts and quills black, marked on both margins with rufous-white spots; three outer primaries with a slight whitish edging on

the outer web; tail-feathers black, marked with three interrupted bands of white, and with a white apical spot; "bill dusky brown: tarsi and feet ashy brown" (*T. Ayres*). Total length 5 inches, bill 0·55, wing 2·85, tail 1·65, tarsus 0·6. (*Bocage, l. c.*)

Hab. Benguela, in South-western Africa, extending across to the Mashoona country in South-eastern Africa.

3. TICHODROMA.

Type.

Tichodroma, *Illiger, Prodrom. Syst.* p. 210 (1811) ..... T. muraria.
Petrodroma, *Vieill. Analyse*, p. 45 (1816, part.) ..... T. muraria.

Bill much longer than rest of head, very slender, and very little curved. Nostrils quite exposed, longitudinal, with a very distinct and large operculum; neither nasal nor rictal bristles. First primary well developed; wings long, tip being formed by 4th, 5th, (6th) primaries, falling little short of the tail; secondaries four fifths of whole wing in length. Tail square or slightly rounded, soft, short. Tarsus slender, anteriorly covered with one long scutum; hallux (without claw) shorter than middle toe and shorter than even the fourth toe; nail of hallux very long. Principal colours grey and red. Sexes differ slightly in plumage.

Range. The alpine districts of Europe and Asia.

1. Tichodroma muraria.

Certhia muralis, *Brisson*, iii. p. 607, pl. 30 (1760).
Certhia muraria, *Linn. Syst. Nat.* i. p. 184 (1766); *Bechst. Taschenb.* p. 78; *Meyer & Wolff, Taschenb.* p. 131.
Le Grimpereau de muraille, *Buff. Pl. Enl.* 372. figs. 1 & 2 (1770).
Promerops de muraille, *Levaill. Ois. Parad.* iii. pls. 20, 21 (1807).
Tichodroma muraria, *Illig. Prodrom.* p. 211 (1811); *Naum. Vög. Deutschl.* v. Taf. 141; *Lesson, Traité d'Orn.* p. 310, *Atlas*, pl. 77. fig. 2; *Roux, Orn. Prov.* pl. 238; *Gould, B. Eur.* iii. pl. 239; *v. d. Muehle, Griechenl.* no. 110; *Rüpp. Syst. Uebers.* no. 114; *Gray, Gen. B.* i. p. 144; *Blyth, Cat. B. Mus. A. S. B.* p. 189; *Bp. Consp.* i. p. 225; *Reichenb. Syst. Av.* Taf. 38; *id. Handb. spec. Orn., Scans.* p. 269; *Bailly, Orn. de Sav., Atlas*, iii. pl. 1. figs. 1–5; *Bree, B. Eur.* iii. pl. 158; *Degl. & Gerbe, Orn. Eur.* i. p. 190; *Jerd. B. Ind.* i. p. 383; *Gray, Hand-l. B.* i. p. 184, no. 2520; *Fritsch, Vög. Eur.* Taf. 22. fig. 21; *Dresser, B. Eur.* p. 207, pl. 123; *Shelley, B. Egypt*, p. 113; *Swinh. P. Z. S.* 1871, pp. 270, 356; *Altum, Forstzoologie*, p. 278; *Heugl. Orn. N.O.-Afr.* p. 236; *Perini, Ornitol. Veronese*, p. 418 (1874); *Dresser, Ibis*, 1876, p. 176; *David & Oust. Ois. de la Chine*, p. 88; *Scully, Str. F.* 1879, p. 262.
Tichodroma alpina, *Koch, Syst. baier. Zool.* p. 80 (1816).
Petrodroma muraria, *Vieill. Nouv. Dict.* xxvi. p. 106 (1818).
Tichodroma phœnicoptera, *Temm. Man. d'Orn.* i. p. 412 (1820), iii. p. 260, et iv. p. 647; *Reichenb. Handb. spec. Orn., Scans.* p. 270; *Severtzow, Turk. Jevotn.* p. 66.
Tichodroma europæa, *Steph. Gen. Zool.* xiv. p. 187 (1826).
Tichodroma brachyrhynchus *et* T. macrorhynchus, *Brehm, Vög. Deutschl.* p. 214.
Tichodroma subhemalayana, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844).

Tichodroma nepalensis, *Hodgs. Journ. A. S. B.* xiv. p. 581 (1845); *Bp. C. A.* i. p. 225 (1850).
Tichodroma hoffmeisteri, *Reichenb. Handb. spec. Orn., Scans.* p. 27 (1851).

Adult male (*in winter*). Hind neck, mantle, and back pale ashy grey; upper tail-coverts darker; entire crown of head grey, strongly washed with pale brown; the whole shoulder, edge of wing, and the basal half of the outer web of most of the quills are carmine-red; rest of quills black-brown with narrow greyish tips; the second to fifth primary each with two large conspicuous white patches on the inner web; tail brownish black; the outer pairs with large subterminal white patches; all the feathers with pale greyish tips; sides of head and ear-coverts brownish white; chin, throat, sides of neck, and upper part of breast white; rest of under surface dark ashy grey; under wing-coverts blackish, edged like the axillaries with carmine-colour; under tail-coverts tipped with white; "bill, feet, and claws black; iris brown" (*G. King*).

Summer plumage. Throat and fore neck blackish instead of white.

Adult female. The last primaries and the first secondary quills with a yellow patch on the middle of the inner web. These patches vary much in size; and I have found indications of them in specimens which were apparently adult males; in most females, however, and in the young bird they are generally very conspicuous.

Young birds are very much like the adult in plumage, but have the mantle and back paler and, like the breast, more or less washed with pale brownish.

The Wall-Creeper is much subject to variation in size. Total length about 6 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Kandahar	1·10	4·10	2·30	0·85
♂. Pushut	1·15	4·0	2·30	0·90
♂. Yarkand	1·35	4·15	2·40	0·90
♀. Basses Alpes	1·38	4·0	2·30	0·92
♀. Switzerland	1·20	3·75	2·15	0·91

Hab. The Wall-Creeper has a very extensive range, as it inhabits the Alpine regions of Central and South Europe, Asia, and North Africa, being found in the Alps, Carpathians, in Abyssinia, and in the Himalayas.

a, b. ♂ ♀ ad. st.	Tyrol.	His I. & R. Highness the Crown Prince of Austria [P.].
c. Ad. st.	Switzerland (summer).	
d. ♂ ad. st.	Switzerland (winter).	
e. ♂ ad. sk.	Switzerland (*Howard Saunders*).	Gould Collection.
f. ♀ ad. sk.	Basses Alps.	J. E. Harting, Esq. [P.].
g. Ad. st.	India.	J. R. Reeves, Esq. [P.].
h. ♂ ad. sk.	Yarkand.	R. B. Sharpe, Esq. [P.].

i. ♂ ad. sk.	Taschkend, Oct. 28 (*Severtzow*).	Gould Collection.
k. ♂ ad. sk.	Kandahar, Jan. 30, 1881.	Lieut.-Col. Swinhoe [P.].
l, m. ♂ ♀ ad. sk.	Kandahar, Dec. 1880.	Lieut.-Col. Swinhoe [P.].
n. ♂ ad. sk.	Afghanistan (*Griffith*).	Gould Collection.
o. ♂ ad. sk.	Pushut, Nov. 1839 (*Griffith*).	India Museum [P.].
p. ♂ ad. sk.	Gilgit, Oct. 22, 1879.	Dr. J. Scully [P.].
q. ♂ ad. sk.	Gilgit, 5000 feet, Feb. 24, 1878.	Major Biddulph [C.].
r. ♀ ad. sk.	Kangra.	Capt. Stackhouse Pinwill [P.].
s. ♀ ad. sk.	Kumaon (*Capt. Strachey*).	India Museum [P.].
t. ♂ ad. sk.	Banks of Ganges near Raiwalla (*G. King*).	Dr. J. Scully [P.].
u. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of *T. subhemalayana*.)
v. ♀ ad. sk.	North India.	India Museum [P.].
w. ♂ ad. sk. (moulting).	Persia (?).	

4. CLIMACTERIS.

	Type.
Climacteris, *Temm. Man. d'Orn.* p. lxxxv (1820)	C. scandens.
Rhabdornis, *Reichenb. Handb. spec. Ornith., Scans.* i. p. 16 (1851)	C. mystacalis.

Bill slightly longer than the rest of the head and slightly curved; culmen keeled. Nostrils longitudinal, basal, pervious, operculated, free; without nasal or rictal bristles. First primary about half the length of the second; tip of wing formed by the third and fourth primaries; secondaries short, about three fourths of whole wing in length. Tail square, soft, shorter than wing. Tarsus anteriorly covered with one long scutum; hallux (without claw) long, but shorter than middle toe; its nail very long. A slight difference of plumage in the sexes. General coloration brown and frequently spotted.

Range. Australia, New Guinea, and Philippine Islands.

Key to the Species.

a. A fawn-coloured band across the wing.
  a'. All the upper parts uniform brownish black.
    a''. Throat black, with white lanceolate stripes ..... *melanura*, p. 334.
    b''. Throat dull white, without stripes ..... *melanonota*, p. 334.
  b'. Above dusky greyish olivaceous; feathers of head rufous, with paler shafts and a blackish margin; under surface paler and more ashy, the belly spotted with ochraceous ..... *placens*, p. 335.
  c'. Mantle olive-brown or red-brown.
    c''. Central pair of tail-feathers, lower back, and upper tail-coverts olive-brown.
      a'''. Under surface rusty red, flanks without any stripes ..... *rufa*, p. 335.

b'''. Under surface pale buff or fawn, much striated ..... *leucophæa*, p. 336.
d''. Central pair of tail-feathers dark grey.
c'''. Lower back and upper tail-coverts dark grey.
a⁴. Orbital region brown; whole fore neck white ..... *scandens*, p. 337.
b⁴. Orbital region rich rusty red; dull buff crescent across upper chest ..... *erythrops*, p. 338.
d'''. Lower back and upper tail-coverts rich rusty red ..... *pyrrhonota*, p. 339.
b. No light band across the wing; crown and hind neck sooty black, with many white shaft-streaks *mystacalis*, p. 339.

1. Climacteris melanura.

Climacteris melanura, *Gould*, *P. Z. S.* 1842, p. 138, 1867, p. 976; *id. Handb. B. Austr.* i. p. 604; *id. B. Austr.* pl. 97; *Gray*, *Gen. B.* i. p. 145; *Bp. C. A.* i. p. 225; *Reichenb. Handb. spec. Orn., Scans.* no. 638, pl. 566; *E. P. Ramsay*, *Pr. Linn. Soc. N. S. W.* 1878, pp. 191, 274.

Adult male. Forehead, all the upper surface, the whole tail, and all the wing-coverts brownish black; quills dark brown; the middle third of all the primaries and most of the secondaries pale buff, forming a broad conspicuous band across the wing when expanded; chin and throat white, each feather broadly edged with black, giving the throat a striped appearance; under wing-coverts brown, edged with fawn and whitish; breast, abdomen, and thighs ferruginous brown, deepening into chocolate-brown towards the sides of the breast and flanks; some of the feathers of the breast with darker brown longitudinal central streaks; under tail-coverts brownish black, with buffish cross markings; "bill and feet blackish brown; iris red-brown or dark brown" (*Elsey*).

Total length 6–7 inches, culmen 0·7–0·8, wing 3·75–4, tail 2·8–3, tarsus 1.

Adult female. Throat white, most of the feathers edged with red-brown or chestnut-colour; under tail-coverts black with very small whitish tips.

Hab. North Australia.

a, b. ♂ ♀ ad. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.].
c, d. ♂ ad. sk.	N.W. Australia.	J. R. Elsey, Esq. [P.].
e, f. ♂ ♀ ad. sk.	North Australia (?)	F. D. Godman and O. Salvin, Esqrs. [P.]

2. Climacteris melanonota.

Climacteris melanota, *Gould*, *P. Z. S.* 1846, p. 106, 1867, p. 976; *Bp. C. A.* i. p. 225.
Climacteris melanonota, *Gray*, *Gen. B.* i. p. 145; *Gould*, *B. Austr.* pl. 96; *id. Handb. B. Austr.* i. p. 603 (1865).
Climacteris melanotus, *Reichenb. Handb. spec. Orn., Scans.* no. 639, pl. 566 (1851); *E. P. Ramsay*, *Proc. Linn. Soc. N. S. W.* 1878, p. 191.

Adult male. Most nearly allied to *C. melanura*, but destitute of the lanceolate marks on the throat. Superciliary line and throat

buffy white; at the base of the throat several irregular spots of black; under surface pale vinous brown; the feathers of the abdomen with two stripes of black running parallel and near the shaft, the space between dull white; under tail-coverts buffy white, crossed by broad bars of black; iris brown. Bill 0·75 inch, wing 3·5, tail 2·25. (*Gould.*)

Female. Differs from the male in having the markings of the abdomen larger and more conspicuous, and in having the spots at the base of the throat chestnut instead of black. (*Gould.*)

Hab. Gulf of Carpentaria, Port Darling, and Port Essington.

3. Climacteris placens.

Climacteris placens, *Sclater*, *P. Z. S.* 1873, p. 693; *Salvad. Ann. Mus. Civ. Genova*, vii. p. 935, x. p. 143; *Gould*, *B. New Guinea*, pt. 1; *Salvad. Ann. Mus. Civ. Genova*, xvi. p. 63; *id. Orn. Papuasia e delle Molucche*, ii. p. 241.

Adult male. Above dusky greyish olivaceous; feathers of the head rufous, with paler shafts, and sometimes with a terminal edging of black; under surface of body paler, more ashy, with the whole of the belly spotted with pale ochraceous, the spots margined with black; under tail-coverts banded with ochraceous and black; wings dusky, with a broad band across the base of the quills, and the under wing-coverts ochraceous-buff; tertiaries uniform with the back; tail dusky black, the base and the two centre tail-feathers uniform with the back; bill black; feet brownish olive; iris reddish vinaceous. Total length 6 inches, wing 3·2, tail 2·5, bill 0·5, tarsus 0·8. (*Salvadori.*)

Female. Similar to the male, but distinguished by a broad malar band of rufous.

Hab. Atam, North-west New Guinea.

4. Climacteris rufa.

Climacteris rufa, *Gould*, *P. Z. S.* 1840, p. 149; *id. B. Austr.* pl. 94; *Gray*, *Gen. B.* i. p. 145 (1847); *Bp. C. A.* i. p. 225; *Cab. Mus. Hein.* i. p. 94 (1850); *Reichenb. Handb. spec. Orn.*, *Scans*, no. 635, pl. 564 (1851); *Gould*, *Handb. B. Austr.* i. p. 600 (1865); *Ramsay*, *Proc. Linn. Soc. N. S. W.* 1878, p. 191.

Adult male. All the upper parts coloured as in *C. scandens*, but the feathers of the rump and upper tail-coverts rufous-brown; superciliary region, sides of head, ear-coverts, cheeks, chin and upper throat, edge of wing, under wing-coverts, and axillaries uniform rusty red; feathers of throat and centre of upper breast whitish at centre, with two longitudinal dark brown streaks to each feather; from the sides of the neck across the chest an indistinct crescent of greyish fawn-colour; centre of breast and abdomen rusty red, with pale central tips to the feathers; sides and flanks deep rusty; under tail-coverts like abdomen, but with a few narrow cross bars of dark brown, and with lighter tips; "iris dark reddish brown; bill and feet blackish brown" (*Gould*).

Adult female. Smaller in size; feathers on fore neck bordered with dark rusty red instead of blackish brown.

Immature. Feathers of flanks with pale tips; feathers of throat pale buff, with small blackish-brown tips.

♂ ad. Culmen 0·7 inch, wing 3·55, tail 2·7, tarsus 1·0.
♀ ad. „ 0·63 „ „ 3·40, „ 2·3, „ 0·9.

Hab. West Australia.

a.	♂ ad. sk.	West Australia, Aug. 11, 1842 (*J. Gould*).	Eyton Collection.
b.	♀ ad. sk.	West Australia (*J. Gould*).	Eyton Collection.
c, d.	♂ ♀ ad. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
e.	Imm. sk.	West Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
f.	♂ imm. sk.	King George's Sound.	M. Boucard [C.].

5. Climacteris leucophæa.

Certhia leucophæa, *Lath. Ind. Orn. Suppl.* p. xxxvi (1801).
Certhia leucoptera, *Lath. (teste Gray).*
Certhia picumnus, *Ill. Mus. Berl.*
New-Holland Nuthatch, *Lath. Gen. Hist.* iv. p. 78 (1822).
Climacteris picumnus, *Vig. & Horsf. Tr. Linn. Soc.* 1826, p. 295; *Temm. Pl. Col.* 281. fig. 1 (1838); *Gould, B. Austr.* pl. 98.
Glyciphila ocularis, *Gould, P. Z. S.* 1837, p. 154, 1867, p. 976.
The Common Creeper, *Lewin, Birds New Holl.* pl. 25.
Climacteris leucophæa, *Strickl. Ann. & Mag. Nat. Hist.* xi. p. 336 (1843); *Reichenb. Handb. spec. Orn., Scans.* no. 634, pl. 565; *Gray, Gen. B.* i. p. 145; *id. Hand-l. B.* i. p. 184, no. 2521; *Gould, Handb. B. Austr.* i. p. 605; *E. P. Ramsay, Proc. Linn. Soc. N. S. W.* 1878, p. 191.
Climacteris scandens, *Gould, B. Austr.* pl. 94 (*cf. Reichenb. l. c.*).

Adult male. All the upper parts rufous or earth-brown; hind neck and centre of head shading into dark brownish grey; quills brown with a central band of buff, which is succeeded by a dark brown broad subterminal one: tail brown, all the feathers except the central pair with a broad subterminal band of dark brown; lores blackish; sides of head, including a conspicuous superciliary stripe, fawn-colour; feathers of ear-coverts pale brown, broadly edged with brown; chin, cheeks, and upper throat pale buff; feathers on centre of throat whitish, with irregular subterminal cross markings of blackish brown; sides of neck and upper breast greyish buff; under tail-coverts and axillaries reddish buff, each feather with three or four irregular dark brown cross bars: under tail-coverts pale brown, edged with reddish buff; all the feathers of the breast, sides, flanks, and abdomen having a longitudinal central stripe of dull white, this stripe bordered on either side by a line of black-brown, the whole feather broadly edged with pale buff; "iris, bill, and feet blackish brown" (*Gould*). Length 6 inches, culmen 0·7, wing 3·5–3·7, tail 2·5–2·7, tarsus 0·9.

Adult female. Feathers of centre of throat white, with broad edges and tips of rufous or pale chestnut.

Hab. From Port Denison southwards along the east coast of Australia, and ranging through New South Wales to Victoria and South Australia.

a. Ad. sk.	S.E. Australia.	
b. ♀ ad. sk.	S.E. Australia.	Sir D. Cooper [P.].
c, d. ♂ ♀ ad. sk.	S.E. Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. ♂ ad. sk.	N. S. Wales.	Gould Collection.
f. ♂ ad. sk.	River Darling.	Gould Collection.
g. ♀ ad. sk.	S. Australia.	Gould Collection.
h. ♂ ad. sk.	S. Australia.	Sir G. Grey [P.].

6. Climacteris scandens.

Buff-winged Honey-eater, *Lath. Gen. Hist.* iv. p. 178 (1822).

? Petrodroma Bailloni, *Vieill. Nouv. Dict.* ed. 2, xxvi. p. 107 (1819); *id. Gal. Ois.* pl. 172; *Less. Traité d'Orn.* p. 310.

Climacteris scandens, *Temm. Pl. Col.* 281. fig. 2 (1838); *Kittlitz, Kupf. Vög.* pl. 6. fig. 1; *Reichenb. Handb. spec. Orn., Scans.* no. 637, pl. 565; *Gould, Handb. B. Austr.* i. p. 598; *id. B. Austr.* pl. 93; *id. P. Z. S.* 1867, p. 976; *Gray, Gen. B.* i. p. 145; *id. Hand-l. B.* i. p. 184, no. 2523; *id. Ibis*, 1862, p. 218; *v. Pelzeln, Sitz. Akad. Wiss. Wien*, xli. p. 320; *E. P. Ramsay, Proc. Linn. Soc. N. S. W.* 1878, p. 191.

Climacteris picumnus, *Gould, B. Austr.* pl. 98 (*cf. Reichenb. l. c.*).

A. *Southern Race.*

Adult male. Crown of head dark or blackish brown, most of the feathers with greyish edgings; hind neck, mantle, and most of the upper wing-coverts dark olive-brown; rump, upper tail-coverts, and tail-feathers dark blue-grey, the latter with a very broad band of blackish brown and with narrow whitish tips; quills brown, with a pale fawn-coloured band across the wing; sides of head and ear-coverts dark brown with whitish central streaks; chin, cheeks, fore neck, and centre of breast white, with a creamy buff tinge on the lower breast and centre of abdomen; each feather of the sides, flanks, and under tail-coverts white, with a subterminal or marginal line of dark brown; under wing-coverts and axillaries almost white; edge of wing mottled with brown; "bill black, the under mandible horn-colour at the base; feet blackish brown" (*Gould*). Total length about 6 inches, culmen 0·8, wing 3·4–3·7, tail 2·5, tarsus 0·9.

Female. Like the male in colour, but distinguished by a small orange-red spot just below the ear-coverts.

Hab. New South Wales to South Australia; Norfolk Island.

B. *North-eastern Race.*

In the British Museum there are two males and one female (obtained near Moreton Bay) which have a well pronounced pale grey collar across the fore neck; all the other parts are coloured as in *C. scandens*. They are slightly smaller in their dimensions. A third male, from the same country, is intermediate in size and colour between this smaller race and the typical *C. scandens*, the greyish crescent being only very faintly indicated.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂	..... 0·7	3·3	2·40	0·78
♂	..... 0·71	3·35	2·45	0·78
♀♀	..... 0·76	3·50	2·50	0·81
♀	..... 0·7	2·30	2·40	0·80

Hab. Queensland.

a. Southern Race.

a, b. ♂ ♀ ad. sk.	S.E. Australia.	
c. ♂ ad. sk.	S. Australia.	Sir G. Grey [P.].
d. ♀ ad. sk.	S. Australia.	Purchased.
e, f, g. ♂, *h.* ♀ ad. sk.	S.E. Australia.	Gould Collection.
i. ♂, *k, l.* ♀ ad. sk.	New South Wales.	Gould Collection.
m. ♂ ad. sk.	Nanama, Jan. 23, 1866 (*E. P. Ramsay*).	Gould Collection.
n. ♂ ad. sk.	Tasmania.	Ronald Gunn, Esq. [P.].

β. North-eastern Race.

a. ♂ ad. sk.	Moreton Bay	J. Gould, Esq. [C.].
b, c, d. ♂, *e.* ♀ ad. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].

7. Climacteris erythrops.

Climacteris erythrops, *Gould, P. Z. S.* 1840, p. 148, 1867, p. 976; *id. Handb. B. Austr.* i. p. 602 (1865); *id. B. Austr.* pl. 95; *Bp. C. A.* i. p. 225; *Reichenb. Handb. spec. Orn., Scans.* no. 636, pl. 665 (1851); *E. P. Ramsay, Proc. Linn. Soc. N. S. W.* 1878, p. 191; *Gray, Gen. B.* i. p. 145 (1847); *id. Hand-l. B.* i. p. 184, no. 2526.
Climacteris affinis, *Blyth, J. A. S. B.* 1863, p. 453.

Adult male. Orbital region and a broad superciliary stripe of a rich rusty-red colour; in the colour of all the upper parts of the body, including the tail, this bird perfectly resembles the male of *C. leucophæa*, whilst the under surface is coloured as in *C. scandens*; throat dull white; a broad crescent of dull buff across the upper chest, but without any dark markings to the feathers of centre of fore neck; breast, abdomen, and flanks much like those parts in *C. scandens*, but the two dark-brown longitudinal lines on each feather are broader, and the broad edges all round the feathers are dark greyish brown instead of pale buff. Iris brown; bill and feet black. Wing 3·5 inches, tail 2·6.

Female. Most of the feathers of the base of the fore neck and of the upper chest are broadly edged with rich rusty red; the buff cross band is absent.

Obs. Some feathers of the mantle in some specimens of either sex have narrow whitish shaft-lines.

Hab. From the Wide-Bay district to New South Wales, ranging into the Interior Province.

a, *b*. ♂ ♀ ad. st.	New South Wales.	Purchased.
c, *d*. ♂ ♀ ad. sk.	New South Wales.	F. D. Godman and O. Salvin, Esqrs. [P.].
e. ♂ ad. sk.	Liverpool Range.	Eyton Collection.
f, *g*. ♂ ♀ ad. sk.	Liverpool Range (N. S. W.), Oct. 1839 (*J. Gould*).	Eyton Collection.

8. Climacteris pyrrhonota.

Climacteris pyrrhonota, *Gould*, *P. Z. S.* 1867, p. 976; *Gray*, *Hand-l. B.* i. p. 184, no. 2522; *E. P. Ramsay*, *Proc. Linn. Soc. N. S. W.* ii. p. 161.

Adult female (type of species). Most nearly allied to *C. scandens*, from which this species differs by the rich rusty-red colour of the rump and the whole of the upper tail-coverts; many of the dark olive-brown feathers of the back, especially those of the scapulars, show more or less conspicuous white shaft-lines (in some specimens these shaft-lines are wanting). Wing 3·45 inches, tail 2·5.

The *male* wants the rusty patch to the cheeks.

Hab. New South Wales and Interior Province; Tasmania.

a. ♀ ad. sk.	Dobroyde, N. S. W. (*E. P. Ramsay*).	Gould Collection. (Type of species.)
b. ♀ ad. sk.	S.E. Australia.	Purchased.
c. ♂ ad. sk.	Nanama, Feb. 19, 1866 (*E. P. Ramsay*).	Gould Collection.
d. ♀ ad. sk.	Tasmania.	Ronald Gunn, Esq. [P.].

9. Climacteris mystacalis.

Meliphaga mystacalis, *Temm. Pl. Col.* pl. 335. fig. 2.
Climacteris striolata, *Kittlitz*, *Kupfer. Vög.* pl. 6. fig. 2 (1832).
Climacteris mystacalis, *Gray*, *Hand-l. B.* i. p. 184, no. 2528.
Rhabdornis mystacalis, *Reichenb. Handb. spec. Orn.*, *Scans.* no. 640, pl. 566 (1851); *Wald. Trans. Z. S.* ix. p. 201; *Tweedd. P. Z. S.* 1878, pp. 113, 951.

Adult male. Entire crown and sides of head, hind neck, and sides of neck sooty black, each feather with a conspicuous pure white triangular shaft-streak; ear-coverts without streaks; mantle, back, and quills uniform brown, with shaft-streaks on the mantle; tail-feathers and primary quills dark brown, the latter broadly edged with pale fawn on the inner web; chin, cheeks, throat, fore neck, centre of breast, and abdomen pure white; sides, flanks, thighs, and under tail-coverts white, each feather broadly edged with black-brown; under wing-coverts and axillaries creamy, mottled with black-brown; "bill black; iris crimson; legs yellowish brown or dark grey" (*Tweeddale*).

The *female* has the head and sides of the neck brown instead of sooty black.

Total length between 5 and 6 inches. The bills vary considerably in length, breadth at base, and in slenderness.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
♂ from Dinagat	0·75	3·0	1·65	0·75
♀ „ Manila	0·95	3·10	1·86	0·80
♀ „ „	0·88	3·20	1·80	0·80

Hab. Philippine Islands: Mindanao, Dinagat, and Luzon.

a. ♀ ad. st.	Philippine Islands.	Purchased.
b. ♂ ad. sk.	Philippine Islands.	Hugh Cuming, Esq. [C.].
c. ♀ ad. sk.	Manila.	Gould Collection.
d. ♂ ad. sk.	Dinagat, June 1877.	A. Everett, Esq. [C.].

Subfamily II. SITTINÆ.

Bill straight and subulate, never curved downwards, slightly longer than rest of the head, never toothed, but often slightly notched. Nostrils in a coriaceous groove, either without any operculum and then partly hidden by small bristles and feathers, or operculated and quite exposed. Wings long and pointed, double the length of the tail; first primary short; secondaries and wing-coverts short. Tail rounded or square, short. Tarsi short, anteriorly covered with transverse scales; hallux with claw longer than the middle toe and longer than the tarsus; claws long, curved and sharp. Sexes alike or slightly differing in plumage. Red, green, and bright yellow colours do not occur. They lay many eggs, and breed in holes. They feed principally on insects.

Range. All over the world, excepting the Neotropical and Ethiopian regions.

Key to the Genera.

Nostrils without any cutaneous operculum, but covered with feathers. Bill straight. *Hab.* Europe, America, Asia ..... 5. SITTA, p. 341.

Bill curved upwards; nostrils with a cutaneous valve. *Hab.* Australia ..... 6. SITTELLA, p. 360.

Nostrils non-operculated. Bill broader than high across the nostrils. Strong rictal bristles ..... 7. HYPOSITTA, p. 365.

5. SITTA.

Type.

Sitta, *Linné, Syst. Nat.* i. p. 177 (1766) ..... S. europæa.
Dendrophila, *Swains. Class. B.* ii. p. 318 (1837) ..... S. azurea.
Calisitta, *Reichenb. Handb., Scans.* p. 154 (1851) ..... C. formosa.

Bill a little longer than the head, straight, subulate, horizontally compressed towards the tip, which is neither notched nor toothed. Nostrils basal, in front of a coriaceous groove, but without any valve, partly hidden by bristles and feathers; no rictal bristles. Wings long and about double the length of the tail; first primary short; tip of wing formed by third, fourth, (fifth) primaries; secondaries short. Tail short and square. Tarsi short, covered anteriorly with transverse scales; hallux with claw longer than middle toe and longer than tarsus. Sexes alike in plumage, the principal colours of which are a light slaty blue and rusty red or brown.

Range. Europe, Asia, America.

Key to the Species.

A. Mantle and back bluish grey. (Subgeneric group SITTA.)
  a. Crown of head grey.
    a'. Entire under surface of body uniform cinnamon- or deep chestnut-brown.
      a''. Under tail-coverts blue-grey, edged with chestnut ..... *castaneoventris*, p. 351.
      b''. Under tail-coverts white, edged with chestnut.
        a^3. Black stripe from nostrils to eye *cinnamomeoventris*, p. 351.
        b^3. Black stripe from nostrils over eye onto upper back ..... *cashmirensis*, p. 352.
    b'. Under surface of body uniform rich ochraceous.
      c''. Central pair of tail-feathers white at basal half; under tail-coverts coloured like abdomen ..... *himalayensis*, p. 349.
      d''. Central pair of tail-feathers without any white basal patch; under tail-coverts white, edged chestnut } *cæsia*, p. 347. *neglecta*, p. 349.
    c'. The rich ochraceous colour confined to abdomen and flanks, throat and breast being white or whitish; no chestnut patch on the flanks.
      e''. Under tail-coverts without any white.
        c^3. Length of wing not exceeding 3 inches ..... *neumayeri*, p. 345.
        d^3. Length of wing from 3·3–3·7 inches ..... *syriaca*, p. 346.
      f''. Under tail-coverts white, edged with chestnut ..... *amurensis*, p. 345.
    d'. Breast and abdomen almost entirely white; a rich chestnut patch on the flanks; under tail-coverts chestnut for basal, white for terminal half.
      g''. Length of wing 4·5 inches ..... *magna*, p. 345.

h''. Length of wing 3–3·5 inches .... *europæa*, p. 342. *uralensis*, p. 342. *nagaensis*, p. 344.
b. Forehead black, rest of crown grey; broad chestnut crescent on fore neck.. *krueperi*, p. 350.
c. Crown of head and nape deep black; no patch on fore neck.
e'. Ear-coverts and breast white.
i''. Abdomen and flanks rich chestnut-red..... *leucopsis*, p. 352.
k''. Abdomen white ..... *carolinensis*, p. 353.
f'. Ear-coverts black; breast ochraceous.
l''. Sides of neck creamy white ..... *villosa*, p. 355.
m''. Sides of neck with a black patch. *canadensis*, p. 354.
d. Crown of head brown.
g'. Basal half of central tail-feathers white..... *pygmæa*, p. 355.
h'. No white at base of central tail-feather *pusilla*, p. 356.

B. Mantle and back blue. (Subgeneric group DENDROPHILA.)
a. Crown of head and abdomen black .... *azurea*, p. 357.
b. Crown of head black mottled with cobalt-blue; underparts rich ochraceous .... *formosa*, p. 357.
c. Crown of head blue; abdomen like breast.
i'. Mantle like back; no white loral band *frontalis*, p. 358.
k'. Mantle vinaceous like the breast; a small white loral band ..... *œnochlamys*, p. 359.

1. Sitta europæa.

A. *Western Race.*

Sitta europæa, *Linn. S. N.* i. p. 177 (1766); *Gmel. S. N.* i. p. 440 (1788); *Beseke, Vög. Kurlands*, p. 39; (pt.) *Lath. Ind. Orn.* i. p. 261; *Illiger, Prodrom.* p. 213 (1811); *Vieill. N. Dict.* xxxi. p. 329; *Gloger, Naturg. Vög. Europ.* p. 376; *Nilss. Skand. Fauna*, ii. p. 325; *Swains. Class. B.* i. p. 318; *Gray, Gen. B.* i. p. 147; *Bp. C. A.* i. p. 226 (1850); *Reichenb. Handb., Scans.* p. 151, pl. 511 B. figs. 4051–52; *Lilljeborg, Kgl. Vet.-Akad. Œfvers.* 1851, p. 275; *Sundev. Svensk. Fogl.* p. 94, tab. 9. fig. 1; *Collett, Œfvers. Christian. Orn. Faun.* p. 78; *Sclat. Ibis*, 1865, p. 309; *Degl. & Gerbe, Orn. Eur.* i. p. 180; *Sundev. Meth. Tent.* p. 47; *Dress. B. Eur.* iii. p. 169, pl. 118; *Sintenis, J. f. O.* 1877, p. 65; *Seebohm, Ibis*, 1878, p. 325; *Brandt, J. f. O.* 1880, p. 234.
? Sitta advena, *Brehm, Vög. Deutschl.* p. 207 (1831) (? = *S. uralensis*).
? Sitta septentrionalis, *Brehm, Vög. Deutschl.* p. 206 (1831) (? = *S. cæsia*).
Sitta sericea, *Temm. Man. d'Orn.* iv. p. 645 (1840); *Riva, L'Orn. Ticinese*, p. 311 (1865).
Sitta suecica, *Brehm, Naumannia*, 1855, p. 274.

B. *Eastern Race* (S. uralensis).

Sitta uralensis, *Licht. in Gloger, Handb. Vög. Deutschl.* pp. 377 & 388 (1834); *Gray, Gen. B.* i. p. 147; *Degland, Orn. Eur.* p. 602; *Lilljeborg, Kgl. Vet.-Akad. Œfversigt*, p. 275 (1851); *Lichtenst.*

Nomencl. p. 65; *Sundev. J. f. O.* 1854, p. 64; *Dubois, Ois. de l'Eur.* p. 107, pl. 107; *Rey, Synon. europ. Brutvögel*, p. 30; *Taczan. J. f. O.* 1872, p. 353.

Sitta asiatica, *Temm.*; *Gould, B. Eur.* iii. pl. 236 (1837) *Reichenb. Handb., Scans.* p. 150, pl. 511. fig. 3548 (1851).

Sitta sibirica, *Brehm, Naumannia*, 1855, p. 274.

Sitta roseilia, *Bp. C. A.* i. p. 227; *Blakiston, Ibis*, 1862, p. 322, and 1863, p. 99; *Swinh. Ibis*, 1863, p. 444.

Sitta europæa, *Whitely, Ibis*, 1867, p. 196.

Adult male. General colour above, including crown of the head, neck, mantle, back, scapulars, and the central pair of the tail-feathers, pale slaty blue; quills and wing-coverts brownish, the outer webs of the secondaries and wing-coverts strongly washed with a colour similar to that of the back; all the tail-feathers but the central ones are brownish black with large greyish tips, the two or three outer pairs with a large subterminal white patch; a very distinct stripe of black extends from the nostrils through the eye along the sides of the neck; chin, cheeks, coverts, and nearly all the remainder of the underparts are white; flanks rich chestnut-red; under tail-coverts white, broadly edged with chestnut-red; edge of wing, axillaries, and inner edge of quills white; under wing-coverts sooty black; thighs brownish grey with whitish tips; "bill blue-slate; iris dark brown; legs and claws brown-fleshy" (*Whitely*).

Adult female. Like the male, but flanks and abdomen creamy colour, with the chestnut spots perhaps less pronounced.

Young. Above dull bluish grey; abdomen, flanks, and under tail-coverts reddish buff, with no chestnut colour; longitudinal stripe on sides of head brownish.

Measurements. This species is much subject to individual variation in size, as will be seen from the following list:—

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
♂. Archangel	0·7	3·25	1·7	0·7
Ad. Archangel	0·7	3·0	1·65	0·7
♂. Sweden	0·85	3·35	1·9	0·85
♂. Norway	0·86	3·4	2·0	0·85
♂. Norway	0·80	3·4	1·8	0·8
♂. Sweden	0·85	3·52	1·95	0·85
♂. Hakodadi	0·66	3·2	1·8	0·75

Length of wing of specimens of *S. europæa*, var. *uralensis*, in Mr. Seebohm's collection:—

	in.		in.
♂. Krasnojarsk	3·10	♂. Yenesay, 66½° N. lat.....	3·20
♂. Baikal	3·20	♀. Yenesay	3·05
♂. Yenesay, 66½° N. lat.....	3·22	♀. Yenesay	3·10
♂. Yenesay, 66½° N. lat.....	3·15	♀. Yenesay	2·95

Obs. 1. The black ocular stripe is often bordered superiorly and towards the forehead by hoary grey or whitish feathers, which produces a more or less conspicuous whitish superciliary stripe: this is found in specimens from Scandinavia as well as in the most eastern ones.

Obs. 2. The European specimens, *i. e.* from Scandinavia and Northern Russia in Europe, have the underparts more or less slightly tinged with cream-colour, the chestnut on the flanks being very deep and rich; whilst eastwards, through Northern Siberia as far as the island of Yesso, the birds get purer white and the chestnut on the flanks less rich. This has been noticed before by several able naturalists, such as Pallas, Radde, and Schrenck, and has, later on, given origin to names like *S. septentrionalis*, *S. advena*, and especially *S. uralensis*.

Hab. The Northern Nuthatch inhabits the greater part of the northern Palæarctic region, extending from Scandinavia through Russia and Siberia to the northern island of Japan. In Europe its southern frontier seems to be the Baltic Sea, as it is not found in England, Western and Central Europe.

α. *S. europæa.*

a. Ad. sk.	Europe.	Purchased.
b. Ad. sk.	S. Norway, Aug. 1859.	F. D. Godman and O. Salvin, Esqrs. [P.].
c. ♂ ad, sk.	S. Norway, May 1866.	F. D. Godman and O. Salvin, Esqrs. [P.].
d. Ad. sk.	Sweden.	Gould Collection.
e. ♂ ad. sk.	Sweden.	Gould Collection.
f. Skeleton.	Germany.	Dr. Günther.

β. *S. uralensis.*

a. ♂ ad. sk.	Krasnojarsk, Nov. 3, 1878 (Siberia).	H. Seebohm, Esq. [P.].
b. ♂ ad. sk.	Yenesay, 66½° north lat., April 28, 1877.	H. Seebohm, Esq. [P.].
c Ad. sk.	Archangel.	Gould Collection.
d. Ad. sk.	Hakodadi, Oct. 20, 1865 (*Whitely*).	Gould Collection.
e. Imm. sk.	N. Russia.	Purchased.
f. Ad. sk.	Yokohama (*H. Pryer*).	R. B. Sharpe, Esq. [C.].

Subsp. α. **Sitta nagaensis.**

Sitta nagaensis, *Godw.-Aust. P. Z. S.* 1874, p. 44.

Breast dingy greyish white, entire flanks rich chestnut-red; under tail-coverts with a large white subterminal spot, edged and tipped with chestnut-red (not rusty chestnut with a white subterminal spot, as the original description has it). In every other respect this bird is exactly like *S. europæa*, var. *uralensis*.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
a. Ad. ♂	0·68	3·1	1·5	0·7 (*Brit. Mus.*).
b.	..	3·0	1·75	0·68 (*Godw.-Austen*).

Hab. Hills of N.E. Bengal.

a. ♂ ad. sk.	Munipur (*Godwin-Austen*).	Gould Collection.

2. Sitta amurensis.

Sitta amurensis, *Swinh. P. Z. S.* 1871, p. 350; *Taczan. J. f. O.* 1875, p. 244; *id. Bull. Soc. Zool. France*, i. p. 136 (1876); *Dav. & Oustal. Ois. Chine*, p. 90; *Bolau, J. f. O.* 1880, p. 115.

The Nuthatches from the Amoor country are intermediate in colour between the northern form (*S. europæa*) and the southern one (*S. cæsia*). The chin, sides of neck, throat, and breast are pure white; the axillaries, sides of breast, abdomen, and flanks are ochraceous buff, inclining to chestnut on the flanks; there is, however, no pronounced chestnut patch to the flanks; under tail-coverts and all the other parts as in *S. europæa*.

♀ (Ussuri). Culmen 0·75 inch, wing 3·15, tail 1·75, tarsus 0·75.

Hab. Siberia.

a. ♀ ad. sk.	Ussuri river, 48° N. lat., Nov. 12, 1873 (*Dybowski*).	R. B. Sharpe, Esq. [P.].
b. ♂ ad. sk. (moulting).	Narimskaja, Ob, 58° N. lat., Sept. 16, 1876.	Dr. Finsch [C.].

3. Sitta magna.

Sitta magna, *Wardlaw Ramsay, P. Z. S.* 1876, p. 677, pl. lxiii.; *id. Ibis*, 1877, p. 465; *Hume, Str. F.* 1877, p. 343; *id. & Davison, Str. F.* 1878, p. 201; *Hume, Str. E.* 1879, p. 90; *Oates, B. Brit. Burm.* p. 133.

General colour above blue-grey, paler on the nape and crown; very conspicuous black stripe from nostrils, over the eye, along the sides of the neck; underparts of body "smoky grey, nearly white about throat and neck; lower tail-coverts, vent, and thighs brilliant chestnut, each feather of the former broadly tipped with white" (*W. Ramsay*); all the other parts are coloured as in *S. europæa*. Culmen 1 inch, wing 4·5, tail 2·7, tarsus 0·95

Hab. Burmah.

4. Sitta neumayeri.

Sitta neumayeri, *Michah. Isis*, 1830, p. 814; *Powys, Ibis*, 1860, p. 232; *Krüper, J. f. O.* 1861, p. 129; *Degl. & Gerbe, Orn. Eur.* i. p. 183; *Dresser, B. Eur.* iii. p. 183, pl. 120; *Hume, Str. F.* 1878, p. 373; *Schalow, J. f. O.* 1880, p. 272; *Giglioli, Ibis*, 1881, p. 195.

Sitta rufescens, *Gould, B. Eur.* iii. pl. 235 (1832).

Sitta rupestris, *Cantr. in Temm. Man. d'Orn.* iii. p. 287 (1835).

Sitta saxatilis, *Schinz, Eur. Faun.* i. p. 266 (1840).

Sitta syriaca, *Ehrb., Temm. Man. d'Orn.* iii. p. 286 (1835); *Gray, Gen. B.* i. p. 147; *Degl. Orn. Eur.* i. p. 603; *Bp. C. A.* i. p. 227; *Cab. Mus. Hein.* i. p. 93; *Lindermayer, Vög. Griechenl.* (1860) p. 67; *Riva, Orn. Ticinese*, p. 311; *Gray, Hand-l. B.* i. p. 181, no. 2485; *Doderl. Aves Sicil.* p. 59; *Rey, Syn. europ. Brutvög.* p. 30.

Sitta rupicola, *Blanf. Ibis*, 1873, p. 87; ? *id. East. Pers.* ii. p. 225, pl. xv. fig. 2; *Dresser, B. Eur.* iii. p. 176, note.

Adult male. General colour above pale slaty blue or lead-colour;

the black stripe from the nasal and loral region passing through the eye and along the sides of the neck rather broad; quills light brown; their external web and the innermost secondaries and the wing-coverts more like the back; tail-feathers like back, outer pairs with slight fulvous terminal edgings; throat, sides of head and neck, and upper breast white; rest of underparts, including the thighs and the whole of the under tail-coverts, rusty ochraceous; under wing-coverts black. All the other parts are coloured as in *S. europæa*.

Female and *young*. Paler in general coloration; underparts less white, more tinged with pale cream-colour; rest of underparts creamy isabelline; "bill blackish, except below near the base, where it is pale grey, almost white; legs horny grey; soles pale and slightly yellowish" (*Blanford*).

♂. Taurus. Culmen 0·9 inch, wing 2·9, tail 1·75, tarsus 0·9.
♀. Taurus. „ 0·86, „ 3·0, „ 1·9, „ 0·9.

Hab. The whole of the Balkan peninsula, through Asia Minor (Cilician mountains), and through the northern half of Persia, where its range seems to end.

a.	♂ ad. sk.	Taurus, Jan. 15, 1876 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
b.	♀ ad. sk.	Tamaulan Dagh, Nov. 25, 1875 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
c.	♀ ad. sk.	Elburz Mountains, 6000 ft., Aug. 16, 1872.	W. T. Blanford, Esq. [C.]. (Type of *S. rupicola*.)
d.	Ad. sk.	S.E. Europe.	Gould Collection.

5. Sitta syriaca.

Sitta syriaca, *Ehrenb. in Temm. Man. d'Orn.* iii. p. 286 (1835); *Gray, Gen. B.* i. p. 147; *Reichenb. Handb., Scans.* p. 150, pl. 511. figs. 3549–50; *Licht. Nomencl.* p. 65; ? *v. Müller, J. f. O.* 1856, p. 221 (*South France*?); *Horsf. & Moore, Cat. B. Mus. E.I. Co.* p. 721; *Tristram, Ibis*, 1859, p. 28; *Sclat. Ibis*, 1865, p. 308; *Gray, Hand-l. B.* i. p. 181, no. 2485; *Severtz. J. f. O.* 1873, pp. 345, 387; *id. Turk. Jevotn.* p. 66.
Sitta syriaca, *Ehrb.* pt., *Bp. C. A.* i. p. 227 (1850).
Sitta neumayeri, *Dress. Ibis*, 1876, p. 176.
Sitta tephronota, *Sharpe, Ann. & Mag. Nat. Hist.* 1872, p. 450; *Dresser, B. Eur.* iii. p. 176, note.

General colour above paler than in *S. neumayeri*; throat and sides of neck white with a creamy tinge; the black stripe along the sides of the head and neck seems rather broader than in *S. neumayeri*; in the colour of all the other parts the Syrian Nuthatch agrees with the other form, from which it chiefly differs by its much larger size. Total length about 6 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. Syria	1·1	3·75	2·25	1·1
Bolan Pass	1·05	3·25	2·0	0·95
♂. Shiraz	1·55	3·45	2·1	1·15
♀. Candahar	1·0	3·35	2·05	0·95
♀. Kashgar	1·01	3·25	1·95	0·97
Central Asia	1·05	3·5	2·25	1·0

Hab. Palestine, Southern Persia, Afghanistan, and Southern Turkestan. It may be looked upon as a large form and south-eastern representative of *S. neumayeri*.

a.	♂ ad. sk.	Shiraz, 4750 ft., June 1869.	Sir O. St. John [C.].
b.	Ad. sk.	Shiraz, 6000 ft., June 2, 1872.	W. T. Blanford, Esq. [C.].
c.	[♂] ad. sk.	Persia.	
d.	Ad. sk.	Bolan Pass (*Griffith*).	India Museum.
e.	♂ ad. sk.	Kandahar, April 28, 1881.	Lieut.-Col. Swinhoe [P.].
f.	♂ ad. sk.	Kojuk.	Lieut.-Col. Swinhoe [P.].
g.	Ad. sk.	Kandahar (*Griffith*).	India Museum.
h.	Ad. sk.	Kashgar (*Bellew*).	India Museum [P.].
i.	♂ ad. sk.	Turkestan.	Gould Collection.
k.	♂ ad. sk.	Turkestan (*Dode*).	R. B. Sharpe, Esq.

6. Sitta cæsia.

La petite Sittelle (Sitta minor), *Briss. Aves*, iii. p. 592 (1760).
Le Torche-pot, *Montb. Pl. Enl.* vi. p. 311, pl. 38 (1783).
Sitta europæa, *Lath. Ind. Orn.* i. p. 261 (1790, *nec Linné*); *Lewin, B. Gt. Britain*, i. p. 46, pl. 52; *Bechstein, Taschenb. Vög. Deutschl.* p. 74; *Donovan, Nat. H. Brit. Birds*, pl. 81; *Temm. Man. d'Orn.* i. p. 407; *Brehm, Beiträge z. Vögelkunde*, iii. p. 214; *Roux, Ornith. Provenç.* p. 364; *Naum. Nat. Vög. Deutschl.* v. p. 356, pl. 139; *Lesson, Traité d'Orn.* p. 316, pl. 65 (partim); *Gloger, Naturgesch. Vög. Europ.* p. 376; *Eyton, Hist. Rarer Brit. B.* p. 26; *Macgillivr. Brit. B.* iii. p. 46; *Benoit, Orn. Sicil.* p. 30; *Degland, Orn. Eur.* i. p. 600; *Kjærbölling, Dan. Fugle*, p. 70; *Bailly, Orn. de la Savoie*, iii. p. 22; *Meyer, Brit. Birds*, iv. p. 14, pl. 138; *Jaub. & Lapomm. Rich. Orn.* p. 300; *Lindermayer, Vög. Griech.* p. 68; *Riva, Orn. Ticinese*, p. 310; *Harting, B. Middlesex*, p. 116; *Newman, Dict. Brit. B.* p. 209; *Cecil Smith, Birds Somerset.* p. 262 (1869); *Borggreve, Vogelf. N.-Deutschl.* p. 79; *Prev. et Lemaire, Ois. Eur.* p. 175, pl. 74; *Cordeaux, Birds Humber*, p. 70 (1872); *Fallon, Ois. Belg.* p. 115.
Sitta cæsia, *Meyer & Wolf, Taschenb. deutsch. Vögelk.* i. p. 128 (1810); *Meyer, Vög. Liv- und Esthlands*, p. 67; *Blyth, Cat. B. Mus. As. Soc.* p. 189; *Bp. C. A.* i. p. 227; *Cab. Mus. Hein.* i. p. 93; *Reichenb. Handb., Scans.* p. 149, pl. 510. figs. 3546–47; *Horsf. & Moore, Cat. B. M. E.I. Comp.* p. 720; *Schleg. Vog. Nederl.* p. 110, pl. 64 (1858), p. 95, pl. 12. fig. 10; *Degl. & Gerbe, Orn. Eur.* i. p. 182; *Saunders, Ibis*, 1871, p. 208; *Rey, Synon. europ. Brutvög.* p. 29; *Keulemans, Onze Vog.* pl.; *Dresser, B. Eur.* iii. p. 175, pl. 119; *Newton, ed. Yarrell Brit. B.* p. 473; *Rodd, B. Cornwall & Scilly Isles*, p. 44; *Liebe, J. f. O.* 1878, p. 23; *Schalow, J. f. O.* 1876, p. 128, 1880, p. 272.
Sitta pinetorum, *Brehm, Vög. Deutschl.* p. 205 (1831).
Sitta foliorum, *Brehm, Vög. Deutschl.* p. 206.
? Sitta septentrionalis, *Brehm, Vög. Deutschl.* p. 206.
Sitta affinis, *Blyth, J. As. Soc. Beng.* xv. p. 288 (1846).
Sitta krueperi, *Tristram, P. Z. S.* 1864, p. 433.
Sitta s. Pica cinerea, *Doderlein, Avif. Sicil.* p. 58 (1869).
Sitta sinensis, *Verr. Nouv. Arch. Mus., Bull.* vi. p. 34 (1871), vii. p. 28, & ix. pl. 4 (1873); *Swinh. P. Z. S.* 1871, p. 350; *Dav. & Oust. Ois. Chine*, p. 90.
Sitta chinensis, *Vieill. Nouv. Dict.* xxxi. p. 332 (1819).

Differs from *S. europæa* in having all the underparts creamy or ochraceous instead of white; only the chin, the upper throat, and the lower half of the ear-coverts white; flanks and under tail-coverts like these parts in *S. europæa*. Total length about 5 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂. England	0·81	3·3	1·75	0·8
♂. Asia Minor	0·74	3·2	1·74	0·8
♀. Germany	0·8	3·4	1·85	0·85

Obs. Specimens from Southern Europe and from Asia Minor have the underparts more richly coloured than the more northern ones.

Hab. Represents the northern species in Western, Central, and Southern Europe; it also extends its range into Asia Minor and Southern Siberia and China (*S. sinensis*). As it is also recorded from Algiers and from the Canary Islands, it may be said to inhabit the southern half of the Palæarctic region.

a. ♀ ad. sk.	Avington, Hants, Nov. 25, 1872.	Capt. Shelley [P.].
b, *c*. Ad. sk.	Avington, Hants, Nov. 25, 1872.	E. Shelley, Esq. [P.].
d. Ad. sk.	Avington, Nov. 11, 1873.	R. B. Sharpe, Esq. [P.].
e, *f*. ♂ ♀ ad. sk.	Cookham, Berks.	R. B. Sharpe, Esq. [P.].
g, *h*. ♂ ♀ ad. sk.	Surrey, Jan. 1857.	F. D. Godman and O. Salvin, Esqrs. [P.].
i, *k*. ♂ ♀ ad. sk.	Surrey, Jan. 1857.	F. D. Godman and O. Salvin, Esqrs. [P.].
l. ♀ ad. sk.	Middlesex, Sept. 30, 1856.	F. D. Godman and O. Salvin, Esqrs. [P.].
m. ♂ ad. sk.	Egham, Surrey, October.	Gould Collection.
n. Imm. sk.	Berkshire, June.	Gould Collection.
o. Ad. sk.	Berkshire, June.	J. Gould, Esq. [C.].
p. Juv. sk.	Cambridgeshire.	Mr. J. Baker [C.].
q, *r*. ♂ ♀ ad. st.	Cambridgeshire.	
s. Nestling st.	Cambridgeshire.	
t. ♂ ad. st.	France.	R. B. Sharpe, Esq. [P.].
u. ♀ ad. sk.	Saxony, Sept. 17, 1848.	Gould Collection.
v. ♀ ad. sk.	Belgium, April 12, 1844.	Brussels Museum [P.].
w. ♂ ad. sk.	Paris (*J. Gould*).	India Museum [P.].
x. ♂ ad. sk.	Bordeaux.	Gould Collection.
y. ♂ ad. sk.	Alum Dagh, Asia Minor, Dec. 27, 1868 (*Robson*).	F. D. Godman and O. Salvin, Esqrs. [P.].
z. ♂ ad. sk.	Buyukdere, Dec. 29 (*Robson*).	R. B. Sharpe, Esq. [P.].
a'. Ad. sk.	Belgrade, Feb. 5, 1873 (*Robson*).	R. B. Sharpe, Esq. [P.].
b'. ♀ ad. sk.	Taurus, Dec. 15, 1875 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
c'. ♂ ad. sk.	Taurus, April 5, 1876 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
d'. Skeleton.	England.	Zoological Society.
e'. Skeleton.	England.	
f'. Skull.	England.	
g'. Skull.	England.	J. Rae, Esq. [P.].
h'. Sternum.	England.	J. Rae, Esq. [P.].

7. Sitta himalayensis.

Sitta himalayensis, *Jard. et Selby, Ill. Orn.* iii. pl. 144 (1835); *Gray, Gen. B.* i. p. 148; *Gould, B. Asia*, part i.; *Bp. C. A.* i. p. 227; *Horsf. & Moore, Cat.* p. 720; *Jerdon, B. Ind.* i. p. 385; *Sclat. Ibis*, 1865, p. 309; *Jerdon, Ibis*, 1872, p. 20; *Hume, Str. F.* 1879, p. 262.

Sitta himalayana, *Blyth, J. A. S. B.* xix. p. 579; *id. Cat. B. Mus. As. Soc.* p. 190; *Adams, P. Z. S.* 1858, p. 494, 1859, p. 174.

Sitta nipalensis, *Hodgs. J. A. S. Beng.* v. p. 779 (1836); *id. in Gray's Zool. Misc.* 1844, p. 82; *Gray, Gen. B.* i. p. 148.

Sitta nepalensis, *Bp. C. A.* i. p. 227 (1850); *Licht. Nomencl.* p. 65 (1854).

Sitta himalaiensis, *Reichenb. Handb., Scans.* p. 151, pl. 512. figs. 3551, 3552 (1851).

This bird is closely allied to *S. cæsia*, from which species it chiefly differs by its much smaller size and by the colour of the tail and under tail-coverts. General colour above deep slaty blue; the greater part of the basal two thirds of the central pair of tail-feathers is pure white, the rest coloured like the back; all the outer feathers of the tail are black, the outer two pairs having large white subterminal patches. Old males have the sides of the breast, the flanks, abdomen, and the whole of the under tail-coverts rich rufous ochraceous, sometimes almost chestnut-red; ear-coverts and fore neck pale ochraceous. "Bill dusky bluish, changing to fleshy grey towards the base; iris dark brown, legs fleshy grey" (*Hodgson*). Culmen 0·65 inch, wing 2·7–2·9, tail 1·45–1·6, tarsus 0·7.

Female. Throat, fore neck, and upper part of breast rather whitish or pale cream-colour; the rufous on the sides less pronounced.

Hab. The higher regions of the greater part of the Himalayas.

a. ♂ ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
b, c, d. ♂ ♀ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.]. (Types of *S. nipalensis*.)
e, f, g, h, i. [♂ ♀] ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.].
k, l. ♂ ad. sk.	Darjiling (*Pearson*).	India Museum [P.].
m, n. ♂ ♀ ad. sk.	Kumaon (*Capt. Strachey*).	India Museum [P.].
o. Ad. sk.	Darjiling.	Gould Collection.
p. [♂] ad. sk.	Mussoorie, Aug. 12, 1868 (*Marshall*).	Gould Collection.
q, r. Ad. sk.	Bootan.	Pemberton, Esq. [P.].
s. [♂] ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].

8. Sitta neglecta.

Sitta neglecta, *Wald. Ann. & Mag. N. H.* (4) v. p. 218 (1870); *Hume, Str. F.* 1874, p. 473, 1875, p. 87; *Elwes, P. Z. S.* 1875, p. 661; *Blyth, B. Burm.* p. 112; *Hume & Davison, Str. F.* 1878, p. 201; *Hume, Str. F.* 1879, p. 90; *Bingham, Str. F.* 1880, p. 171; *Oates, B. Brit. Burm.* p. 131.

Intermediate between *S. cæsia* and *S. himalayensis*, having the richly ochraceous or ferruginous-coloured underparts of the latter (no chestnut patch to the flanks) and the tail with the under tail-coverts of *S. cæsia*. Lores, supercilium, cheeks, chin, and base of primaries white.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂ adult	0·73	3·1	1·6	0·71
♀ adult	0·73	2·95	1·55	0·70

Hab. Burmah, from the Karen hills to Tenasserim.

a. Ad. sk. Prome, August 26, 1873. E. W. Oates, Esq. [C.].

9. Sitta krueperi.

Sitta krueperi, *von Pelzeln, Sitz. kais. Ak. Wiss. Wien*, xlviii. Abth. i. p. 149 (1863); *id. J. f. O.* 1866, p. 49; *Sclat. Ibis*, 1865, p. 310, pl. vii.; *Tristram, Ibis*, 1866, p. 285; *Rey, Syn. europ. Brutvög.* 1872, p. 30; *Dresser, B. Eur.* iii. p. 189, pl. 121; *Krüper, J. f. O.* 1875, p. 273; *Danford, Ibis*, 1878, p. 10; *Schalow, J. f. O.* 1880, p. 272.

Adult male. General colour above rich slaty blue; forehead jet-black; a few feathers at the base of the bill and a conspicuous superciliary stripe white; a blackish stripe running from the nostrils through the eye; sides of head, chin, and throat white; on the fore neck and upper breast a large patch of chestnut-red; all the rest of the underparts pale slaty grey; thighs and under tail-coverts chestnut-colour, with large white tips; quills brown; central pair of tail-feathers like the back, rest black, with grey tips and white subterminal spots; bill dark horny colour, paler at base; legs slaty grey; iris brown. Total length about 4·5 inches, culmen 0·75, wing 2·9, tail 0·7, tarsus 0·65.

Adult female. Forehead blackish, the feathers tipped with greyish blue; the chestnut colour on the fore neck paler; all the rest of the underparts with a dull fulvous tinge, especially on the abdomen.

In the *young* bird the black stripe through the eye is greyish and scarcely visible.

Hab. Asia Minor and Syria.

a. ♂ ad. sk.	Tamaular Dagh, Asia Minor, Nov. 25, 1875 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
b. ♂ ad. sk.	Tamaular Dagh, Nov. 25, 1875 (*C. G. Danford*).	H. Seebohm, Esq. [P.].
c. ♀ ad. sk.	Taurus, Dec. 12, 1875 (*C. G. Danford*).	F. D. Godman and O. Salvin, Esqrs. [P.].
d. ♀ ad. sk.	Taurus, Jan. 6, 1876 (*C. G. Danford*).	H. Seebohm, Esq. [P.].
e. ♀ ad. sk.	Lycia, March 23, 1874.	H. J. Elwes, Esq. [P.].

10. Sitta castaneoventris.

Ferruginous-bellied Nuthatch, *Lath. Hist. B.* iv. p. 74.
Sitta castaneoventris, *Franklin, P. Z. S.* 1831, p. 121; *Jard. & Selby, Ill. Orn.* iii. pl. 145; *Blyth, Cat. B. Mus. As. Soc.* p. 190; *Gould, B. Asia*, i. pl. 9; *Horsf. & Moore, Cat.* p. 721; *Jerdon, B. Ind.* i. p. 386; *Beavan, Ibis*, 1869, p. 424; *Jerdon, Ibis*, 1872, p. 21; *Dresser, B. Eur.* iii. p. 176, note.
Sitta castaneiventris, *Bp. C. A.* i. p. 227; *Reichenb. Handb., Scans.* p. 151, pl. 512. figs. 3553–55; *Sclat. Ibis*, 1865, p. 310; *Hume, Str. F.* 1878, p. 209.
Sitta castanea, *Less. Traité d'Orn.* p. 316 (1831).
Sitta ferrugineoventris, *Gould, Athenæum*, 1849, p. 1183.

Adult male. General colour above slaty blue, lightest on the head; a narrow black stripe from the nostrils, through the eye, along the sides of the neck, leaving the loral region white like the cheeks, chin, and upper throat; ear-coverts and part of sides of neck jet-black; quills blackish, external web like the back, inner web edged with white; central pair of tail-feathers and outer web of the others like the back, the outermost pairs with a subterminal white patch on the inner web; under wing-coverts and edge of wing black, edged with bluish grey; near the base of the primaries a white patch; all the underparts but the upper throat deep chestnut-cinnamon; thighs and under tail-coverts bluish grey, broadly edged with chestnut; bill horny black, paler at base of mandible; legs lead-colour; iris brown. Total length about 5 inches, culmen 0·75, wing 2·85, tail 1·5, tarsus 0·7.

Females and *young birds* have the general colour above paler and duller, the white spots on the tail larger; all the underparts of the body isabelline brown, deeper on the flanks and the abdomen; the bluish grey of the tail-feathers is restricted to part of the inner web.

Hab. Afghanistan and the greater part of the Indian peninsula.

a, b. ♂ ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
c. ♂ ad. sk.	Seetapore.	Gould Collection.
d–f. ♂ ad. sk.	Lucknow, April 15, 1879.	Col. Way [P.].
g. ♂ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
h. ♀ ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
i. ♀ ad. sk.	Olipore, Afghanistan (*Griffith*).	India Museum [P.].
k. ♀ ad. sk.	Bharrowul, Afghanistan (*Griffith*).	India Museum [P.].

11. Sitta cinnamomeoventris.

Sitta cinnamoventris, *Blyth, J. A. S. Beng.* xi. p. 459; *id. Cat. B. Mus. As. Soc.* p. 189; *Horsf. & Moore, Cat.* p. 722.
Sitta castaneoventris, *Hodgs. in Gray's Zool. Misc.* p. 82 (1844, *nec Frankl.*).
Sitta cinnamoventris, *Gray, Gen. B.* i. p. 148 (1846).
Sitta cinnamomeoventris, *Cab. Mus. Hein.* i. p. 93 (1850); *Gould, B. Asia*, pl. 8; *Reichenb. Handb., Scans.* p. 152, figs. 3556–58; *Jerdon, B.*

Ind. i. p. 387; *Sclat. Ibis*, 1865, p. 310; *Beavan, Ibis*, 1869, p. 425; *Dresser, B. Eur.* iii. p. 176, note; *Hume, Str. F.* 1879, p. 263.
Sitta nipalensis, *Bp. C. A.* i. p. 227.
Sitta cinnamomeiventris, *Blyth, Ibis*, 1866, p. 366; *Jerd. Ibis*, 1872, p. 21.

The following references belong to specimens from Kashmere and Afghanistan. I am unable to separate them from *S. cinnamomeoventer* after an examination of a large series of the latter :—

Sitta cashmirensis, *Brooks, Pr. A. S. B.* 1871, p. 209; *id. Journ. A. S. B.* 1872, ii. p. 75; *W. Ramsay, Ibis*, 1880, p. 51.
Sitta cinnamomeiventris, *W. Ramsay, Ibis*, 1879, p. 447.

Adult male. The under tail-coverts are grey at their base, and are broadly edged with cinnamon-brown, each feather with a conspicuous white subterminal spot; tail-feathers deep black, tipped with grey and with conspicuous white subterminal patches, central pair like the back; cheeks, part of the loral region, and the chin white; entire throat cinnamon-brown; all the other parts are coloured like in *S. castaneoventer*. Culmen 0·8–0·9 inch, wing 1·3–3·3, tail 1·7–1·8, tarsus 1·72. Female slightly smaller in dimensions.

The *female* has all the underparts vinous brown or fawn-colour; sides of head and throat whitish.

Obs. Very old males have the outer web and extreme tip of the primary quills and tail-feathers slightly marked with whitish.

Hab. Himalayas and Burmese countries.

a. [♂] ad. sk.	N.W. India.	Capt. Boys [C.].
b, c. [♂ ♀] ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
d. Ad. sk.	N.W. Himalayas.	Purchased.
e, f. ♂ ♀ ad. st.	Nepal.	B. H. Hodgson, Esq. [P.].
g, h. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
i, k, l. ♂ ♀ ad. sk.	Nepal (*Hodgson*).	India Museum [P.].
m. ♂ ad. sk.	Darjeeling.	Gould Collection.
n, o. ♂ ♀ ad. sk.	Bootan (*Pemberton*).	India Museum [P.].
p. ♂ ad. sk.	Bhamo, Northern Burmah, November 1880.	E. W. Oates, Esq. [P.].
q. Ad. sk.	Tonghoo.	E. W. Oates, Esq. [P.].

12. Sitta leucopsis.

Sitta leucopsis, *Gould, P. Z. S.* 1849, p. 113; *id. B. Asia*, i. pl. 10; *Bp. C. A.* i. p. 227; *Reichenb. Handb.* p. 152, pl. 513. figs. 3559, 3560; *Horsf. & Moore, Cat.* p. 721; *Jerdon, B. Ind.* i. p. 385; *Sclat. Ibis*, 1869, p. 310; *Beavan, Ibis*, 1869, p. 424; *Jerdon, Ibis*, 1872, p. 20; *Elwes, P. Z. S.* 1875, p. 655; *Dresser, B. Eur.* iii. p. 176, note; *Scully, Ibis*, 1881, p. 655.
Sitta castanilia, *Bp. in litt.* (*teste Gray*).

General colour above dark slaty blue; crown of head and part of the sides of the neck glossy black; quills brown; central pair of

tail-feathers like the back; the others black with greyish tips and with white subterminal patches to the inner web; under wing-coverts sooty black; flanks, abdomen, and under tail-coverts rich chestnut-red; sides of head, orbital region, and the whole of the fore neck and breast white; bill dark horny, lighter at base of mandible; legs dark lead-colour. Culmen 0·8 inch, wing 3, tail 1·7, tarsus 0·75.

Hab. North-western Himalayas.

a. Ad. sk.	N.W. Himalayas.	India Museum [P.].
b. Ad. sk.	N.W. Himalayas.	Dr. Stoliczka [P.].
c. Ad. sk.	N.W. Himalayas (*Dr. Bellew*).	India Museum [P.].
d. Imm. sk.	Gilgit, 10,000 feet, August 10, 1879.	Major Biddulph [C.].
e. ♀ ad. sk.	Gilgit, 10,000 feet, August 10, 1879.	Major Biddulph [C.].
f. ♂ [ad.] sk.	Astor, October 2, 10,000 feet.	Major Biddulph [C.].

13. Sitta carolinensis.

Sitta europæa, var. γ, *Gmel. S. N.* i. p. 440 (1788).
Sitta canadensis, *Lath. Ind. Orn.* i. p. 262 (1790).
Sitta carolinensis, *Wils. Am. Orn.* tab. 2. fig. 3 (1808); *Nuttall, Man.* i. p. 581; *Licht. Verz. Doubl.* p. 17 (1823); *Swains. Faun. Bor.-Amer.* Intr. p. xxxvii; *Aud. Orn. Biogr.* ii. p. 299 (1834), v. p. 473, pl. 152; *id. B. Amer.* iv. p. 175, pl. 114; *Swains. Class. B.* p. 318; *Bp. C. A.* i. p. 227; *Cab. Mus. Hein.* i. p. 93; *Reichenb. Handb., Scans.* p. 153, pl. 513. nos. 3563, 3564 (1851); *Prinz Wied. J. f. O.* 1858, p. 106; *Hartl. P. Z. S.* 1858, p. 300; *Sclat. P. Z. S.* 1859, pp. 363 & 373; *Baird, B. N. Amer.* p. 374; *Sclat. Cat. Am. B.* p. 15; *Baird, Rev. Am. B.* p. 86; *Sclat. Ibis*, 1865, p. 310; *Baird, Ibis*, 1867, p. 270; *Coues, Key N. Am. B.* p. 83; *Baird, Brew., & Ridgw. N. Am. B.* p. 114; *Nehrling, J. f. O.* 1880, p. 114.
Sitta melanocephala, *Vieill. N. Dict.* xxxi. p. 336 (1819); *id. Gal. Ois.* tab. 171, p. 280 (1825).
Sitta aculeata, *Cass. Proc. Phil. Acad.* viii. p. 254 (1856); *Baird, B. N. Amer.* p. 375; *id. Review Amer. B.* p. 86; *id. J. f. O.* 1866, p. 257; *id. Ibis*, 1867, p. 270; *Brown, Ibis*, 1868, p. 421; *Cooper, Orn. Calif.* p. 54 (1870).
Sitta carolinensis, var. aculeata, *Cassin, Baird, Brew. & R. N. Am. B.* p. 117 (1874).
Sitta carolinensis aculeata, *Coues, B. Colorad. Vall.* p. 134 (1878).

Adult male. Crown of head, nape, and hind neck jet-black; loral and superciliary region, sides of head, chin, throat, and centre of breast pure white, washed with grey towards the sides of the breast and flanks; some of the feathers of the flanks broadly tipped with reddish brown; thighs chestnut; under tail-coverts white; greater part of inner web chestnut; under wing-coverts and edge of wing jet-black; a conspicuous white patch on basal part of inner web of primaries and primary under wing-coverts; upper wing-coverts and quills black, tipped and edged with bluish grey or white; outer web of secondaries much like the back; central pair of tail-feathers blue-grey like the back; all the other feathers black, with large white subterminal patches on either web.

Adult female. Crown like the back; lower breast and abdomen washed with pale buff; flanks greyish buff; greater coverts narrowly tipped with buff and whitish.

Measurements of five males:—Total length about 6 inches.

	Culmen.	Wing.	Tail.	Tarsus.
	in.	in.	in.	in.
Michigan	0·7	3·5	1·8	0·75
Michigan	0·8	3·55	1·9	0·75
Western Rocky Mountains	0·9	3·35	1·8	0·7
Western Rocky Mountains	0·9	3·55	2·0	0·7
Mexico	0·85	3·55	1·8	0·73

Obs. The difference between an eastern form (*S. carolinensis*) and a western variety (*S. aculeata*) is said to be that the western individuals have the bill slightly larger, and that they have the greater wing-coverts less black than the true *S. carolinensis*.

Hab. The White-bellied Nuthatch inhabits nearly the whole of the United States and part of British America, extending its range southwards into Mexico.

a, b. ♂ ♀ ad. st.	North America.	Purchased.
c. ♂ ad. st.	Ohio.	Dr. Kirtland [P.].
d, e. Ad. sk.	Michigan.	Prof. Steere [P.].
f. ♀ ad. sk.	Hyde Park, Illinois.	H. K. Coale, Esq. [P.].
g, h. ♂ ad. sk.	W. side Rocky Mountains.	J. K. Lord, Esq. [P.].
i–l. ♀ ad. sk.	W. side Rocky Mountains.	J. K. Lord, Esq. [P.].
m. Imm. sk.	California.	Lord Walsingham [P.].
n. [♀] sk.	California.	Lord Walsingham [P.].
o. Imm. sk.	Mexico.	Gould Collection.
p. Ad. sk.	Mexico.	Purchased.

14. Sitta canadensis.

Sitta canadensis, *Briss. Orn.* iii. p. 592, pl. 29. fig. 4 (1760); *Linn. S. N.* i. p. 177; *Lath. Ind. Orn.* i. p. 262; *Gm. S. N.* i. p. 441; *Nuttall, Man.* i. p. 583; *Audub. Orn. Biogr.* ii. p. 24; *id. ibid.* v. p. 474, pl. 180; *id. B. Amer.* iv. p. 179, pl. 248; *Swains. Class. B.* p. 318; *Bp. C. A.* i. p. 227; *Baird, B. N. Amer.* p. 376; *Sclat. Cat. Am. B.* p. 15; *Blakist. Ibis*, 1862, p. 5; *id. ibid.* 1863, p. 67; *Sclat. Ibis*, 1865, p. 311; *Brown, Ibis*, 1868, p. 421; *Baird, Review Amer. B.* p. 87 (1864); *Cooper, Orn. Calif.* p. 54; *Baird, Brew., & Ridgw. Amer. B.* p. 87; *Coues, Key N. Am. B.* p. 83; *id. Birds Colorad. Vall.* p. 136; *Nehrling, J. f. O.* 1880, p. 414.

La Sittelle du Canada, *Daubent. Pl. Enl.* vi. p. 311 (1783).

La Sittelle à tête noire, *Daubent. Pl. Enl.* vi. p. 313.

Sitta varia, *Wils. Am. Orn.* t. 2. fig. 4 (1808).

Sitta stulta, *Vieill. N. Dict.* xxxi. p. 332 (1819).

? Sitta melanocephala, *Less. Traité d'Orn.* p. 316 (1831).

Adult male. Crown of head, loral region, and a broad streak through the eye, ear-coverts, and part of the sides of the neck jet-black; the crown almost completely surrounded by a conspicuous white line, which nearly meets with its fellow on the nape; general

colour above rich slaty blue; quills brownish; central pair of tail-feathers like the back, the others black, with white subterminal patches; chin and cheeks white, passing on the throat into the burnt-sienna colour which occupies the whole of the rest of the underparts; under tail-coverts burnt-sienna with whitish tips; under wing-coverts blackish with whitish tips. Total length about 4 inches, culmen 0·6, wing 2·65, tail 1·5, tarsus 0·6.

Adult female. Crown coloured like the back, but of rather darker appearance, as the bases of the feathers are blackish; underparts paler than in the male.

Hab. Nearly the whole of North America.

a. ♂ ad. sk.	Repulse Bay.	Dr. Rae [P.].
b. ♀ ad. sk.	Muskoka, Canada.	R. B. Sharpe, Esq. [P.].
c. ♀ ad. sk.	49th parallel, Oct. 6, 1874 (*Dawson*).	N.A. Boundary Commission [P.].
d, e. ♂ ♀ ad. sk.	Chicago, Illinois.	H. K. Coale, Esq. [P.].
f. ♂ ad. sk.	Ohio.	Dr. Kirtland [P.].
g, h. ♂ ad. sk.	Sumass, British Columbia.	J. K. Lord, Esq. [P.].
i, k. ♂ ♀ ad. sk.	West side Rocky Mountains.	J. K. Lord, Esq. [P.].

Subspecies *a*. Sitta villosa.

Sitta villosa, *Verr. Nouv. Arch. Mus., Bull.* vol. i. p. 78, pl. 5. fig. 1 (1865); *id. P. Z. S.* 1870, pp. 436, 438; *Swinh. P. Z. S.* 1871, p. 350; *Dress. B. Eur.* iii. p. 177, note; *Dav. & Oustal. Ois. Chine*, p. 91, pl. 13.

Like *S. canadensis* in size and colour, but wanting the black patch on the sides of the neck, these parts being creamy whitish; underparts not so bright as in the American species, but more brownish cream-colour.

The *female* wants the black on the head, the crown being coloured like the back.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
♂	0·67	2·6	1·4	0·65
♀	0·65	2·5	1·4	0·65

Hab. Northern China. It is scarcely specifically distinct from the widely ranging North-American *S. canadensis*.

a, b. ♂ ♀ ad. sk.	Peking, Aug. 1868 (*R. Swinhoe*).	Gould Collection.

15. Sitta pygmæa.

Sitta pygmæa, *Vigors, Zool. Beechey's Voy.* p. 25, pl. 4 (1839); *Audub. Orn. Biogr.* v. p. 63, pl. 415; *id. B. Amer.* iv. p. 184, pl. 250; *Bp. C. A.* i. p. 227; *Sclat. P. Z. S.* 1859, p. 363; *Baird, B.*

N. Amer. p. 378; *Sclat. Cat. Amer. B.* p. 15; *Baird, Rev. Am. B.* p. 88; *Sclat. Ibis*, 1865, p. 311; *Brown, Ibis*, 1868, p. 421; *Cooper, Orn. Calif.* p. 55; *Baird, Brew., & Ridgw. N. Am. B.* p. 120; *Coues, Birds Colorad. Vall.* p. 139.

Adult male. Entire crown of head, nape, and hind neck greenish ashy brown, ear-coverts and lores darker; no white superciliary stripe; general colour above, including the upper wing-coverts, rich bluish grey; quills black, both the webs of the primaries white at their bases, externally narrowly edged with bluish grey; outer webs of secondaries like the back; terminal half of central pair of tail-feathers blue-grey; greater part of basal half pure white; the other pairs with large grey tips, larger white subterminal patches, and the rest black; edge of wing and inner edge of quills white; under wing-coverts whitish and blackish; all the underparts buff, inclining to white towards the cheeks and chin, strongly washed with bluish grey on the flanks. Total length below 4 inches, culmen 0·57–0·65; wing 2·5, tail 1·4, tarsus 0·57.

Adult female. Like the male in plumage.

Hab. Western and Middle Provinces of the United States, and Mexico.

a, b. ♂ ♀ ad. sk.	West side Rocky Mountains.	J. K. Lord, Esq. [P.].
c, d. ♂ ♀ ad. sk.	West side Rocky Mountains.	J. K. Lord, Esq. [P.].
e. ♂ ad. sk.	California.	Purchased.
f. Ad. sk.	California.	Lord Walsingham [P.].

16. Sitta pusilla.

Sitta carolinensis minor, *Briss. Orn.* iii. p. 598, pl. 5 (1760).
La petite Sittelle à tête brune, *Daubent. Pl. Enl.* v. p. 314 (1783).
Sitta pusilla, *Lath. Ind. Orn.* i. p. 263 (1790); *Wilson, Amer. Orn.* ii. p. 105, pl. 15; *Vieill. Nouv. Dict.* xxxi. p. 335; *Less. Traité d'Orn.* p. 316; *Swains. Class. B.* p. 318; *Nuttall, Man.* i. p. 584; *Audub. Orn. Biogr.* ii. p. 151, pl. 125; *id. B. Amer.* iv. p. 181, pl. 249; *Bp. C. A.* i. p. 227; *Reichenb. Handb., Scans.* p. 153, pl. 514. figs. 3567, 3568; *Baird, B. N. Amer.* p. 377; *Sclat. Cat. Am. B.* p. 15; *Baird, Rev. Amer. B.* p. 88; *Sclat. Ibis*, 1865, p. 311; *Coues, Key N. Am. B.* p. 83; *Baird, Brew., & Ridgw. N. Amer. B.* p. 122.

Adult. Crown, orbital region, and hind neck light brown; an indistinct white nuchal spot; mantle, scapulars, back, upper tail-coverts, and central pair of tail-feathers black, with grey tips and white subterminal patches to either web; quills and wing-coverts blackish brown; external web of secondaries and of most of the coverts washed with the colour of the back; under wing-coverts greyish; all the underparts, including the sides of the neck, cheeks, and under tail-coverts dull white, strongly washed with grey on the flanks; bill horny brown; legs paler. Total length under 4 inches, culmen 0·65, wing 2·5, tail 1·3, tarsus 0·6.

Sexes alike in plumage.
Hab. "South Atlantic and Gulf States." (*B. Br., & Ridgway.*)

a, *b*. Ad. sk.	North America.	Major-Gen. Hardwicke [P.].

17. Sitta azurea.

Sitta azurea, *Less. Traité d'Orn.* p. 316 (1831); *Gray, Hand-l. B.* i. p. 182, no. 2500 (1869).
Dendrophila flavipes, *Swains. An. in Menag.* pt. iii. p. 323 (1836); *Swains. Class. B.* p. 318; *Gray, Gen. B.* i. p. 148, pl. 45; *Reichenb. Handb., Scans.* p. 154, pl. 514. figs. 3569, 3570; *Bernstein, J. f. O.* 1861, p. 122.
Dendrophila gymnophrys, *Kuhl, MSS.*; *Reichenb. Handb., Scans.* p. 154.
Dendrophila gymnopsis, *Schleg. MSS.*

Adult male. Entire crown, hind neck, and sides of head and neck, edge of wing, under wing-coverts, abdomen, flanks, and thighs deep black, sometimes with a bluish purple tinge; mantle and back rich cyaneous with a slight shade of purple; upper and under tail-coverts whitish blue; most of the upper wing-coverts entirely deep black; quills deep black, with broad marginal and submarginal edgings to the outer webs of a pale blue colour; the greater coverts with large central patches of the same colour; tail-feathers black, with large subterminal patches of light blue, except the central pair, which are only tipped with black, the rest light blue; quills below with a white patch near the edge of the wing; chin, fore neck, and breast light cream-colour, the line of separation between this colour and the black of the abdomen strongly marked. Total length 5 inches, culmen 0·65, wing 3·1, tail 1·6, tarsus 0·65.

Females and *immature birds* show a more or less brown tinge to the black parts of the crown and the sides of the head; abdomen dull blackish; under tail-coverts with irregular edgings and tips of cream-colour.

Hab. Java and Timor.

a, *b*. Ad. sk.	Java.	Gould Collection.
c. ♂ ad. sk.	West Java.	A. R. Wallace, Esq. [C.].
c. Ad. sk.	Timor.	Leyden Museum [P.].

18. Sitta formosa.

Sitta formosa, *Blyth, J. A. S. B.* xii. p. 938 (1843); *id. Cat. B. Mus. As. Soc.* p. 189; *Jerdon, B. Ind.* i. p. 387; *Sclat. Ibis*, 1865, p. 308; *Jerdon, Ibis*, 1872, p. 21.
Callisitta formosa, *Sundev. Av. Meth. Tent.* p. 47 (1872); *Reichenb. Handb., Scans.* p. 154 (no fig.).

Adult male. General colour above black, splendidly variegated with different shades of blue; streaked with cobalt-blue on the head and with azure blue on the back, and with whitish mixed with lavender on the sides of the neck; lesser wing-coverts, scapulars, lower back, and upper tail-coverts greenish blue; rest of wing-

coverts and the quills black, the lower and the secondary quills margined and tipped with white or pale blue, primaries with narrow blue edgings; tail-feathers black, externally edged with blue, especially the central pair, the outer pairs with white; under wing-coverts, edge of wing, and quills below black, with a white patch near the edge; all the rest of the underparts fulvous ochraceous, darker on the flanks, passing into whitish on the throat and sides of head; bill dark horn-colour; "legs greenish horny, with yellow soles; iris dark brown" (*Jerdon*). Total length 6–7 inches, culmen 0·85, wing 3·95, tail 2·3, tarsus 0·85.

Hab. Only found in the higher mountainous regions of Sikhim.

a. Ad. sk.	Darjiling.	B. H. Hodgson, Esq. [P.].
b. ♂ ad. sk.	Sikhim, Nov. 1870.	H. Seebohm, Esq. [P.].

19. Sitta frontalis.

Orthorhynchus frontalis, *Swains. Zool. Ill.* 1st ser. pl. 2 (1820–21).
Motacilla frontalis, *Raffl. Tr. Linn. Soc.* xiii. p. 313 (1822).
Sitta velata, *Temm. Pl. Col.* 72 (1823); *Less. Traité d'Orn.* p. 316.
Sitta frontalis, *Horsf. Tr. L. S.* xiii. p. 162 (1821); *Vig. Mem. Raffl.* p. 670; *Tickell, J. A. S. Beng.* ii. p. 579; *McClell. P. Z. S.* 1839, p. 165; *Gray, Gen. B.* i. p. 148; *id. Cat. Hodgs. Coll. B. Mus.* p. 62; *Oates, B. Brit. Burm.* p. 134.
Sitta corallina, *Hodgs. J. A. S. B.* v. p. 779 (1836); *id. Gray's Zool. Misc.* p. 82; *Gray, Hand-l. B.* i. p. 182, no. 2499.
Dendrophila frontalis, *Swains. Class. B.* ii. p. 318 (1837); *Jerd. Madr. Journ.* xi. p. 218; *Blyth, J. As. Soc. Beng.* xvi. p. 580; *id. Cat. B. Mus. As. Soc.* p. 190; *Mason, Burmah*, p. 280; *Bp. C. A.* i. p. 220; *Cab. Mus. Hein.* i. p. 93; *Reichenb. Handb., Scans.* p. 154, pl. 514. figs. 3571–72; *Kelaart, Prodromus Cat.* p. 120; *Layard, Ann. & Mag. N. H.* xii. p. 176; *Horsf. & Moore, Cat. B. M. E.I. Co.* ii. p. 722; *Bernstein, J. f. O.* 1861, p. 122; *Jerdon, B. Ind.* i. p. 388; *v. Pelzeln, Novar. Reise, Vög.* pp. 59, 161; *Beavan, Ibis*, 1869, p. 425; *Jerdon, Ibis*, 1872, p. 21; *Holdsworth, P. Z. S.* 1872, p. 435; *Hume, Nests & Eggs*, i. p. 161; *Salvad. Ucc. Born.* p. 161; *Legge, Ibis*, 1874, p. 16; *Ball, Str. F.* 1874, p. 397; *Bourdillon, Str. F.* 1876, p. 393; *Fairbank, Str. F.* 1877, p. 399; *Hume & Davison, Str. F.* 1878, p. 201; *Legge, Birds of Ceylon*, p. 560; *Hume, Str. F.* 1879, p. 459.
Dendrophila corallina, *Reichenb. Handb., Scans.* p. 154 (1851); *Hume, Str. F.* 1874, p. 473, 1875, p. 89; *Sharpe, Str. F.* 1876, p. 436; *Anderson, Zool. Exped. Yunnan*, p. 633.

Adult male. Forehead, præocular and loral regions, and a broad streak over the ear-coverts velvet-black; all the rest of the upper parts of a beautiful blue colour with a purple shade; the purple more pronounced on the sides of the neck and on the ear-coverts; quills and primary-coverts deep black, broadly edged with blue; central pai of tail-feathers almost like the back; the other pairs black, with large bluish tips and with broad outer edges of the same colour; in old males some of the outer tail-feathers have white or whitish subterminal patches to the inner web; edge of wing and under wing-coverts deep black; inner edge of quills

white; chin and upper throat white; all the rest of the underparts, including the under tail-coverts, pale vinous brown; "bill bright cobalt-blue; legs sienna-yellow; orbital skin lemon-yellow; iris light straw-yellow" (*Jerdon*).

Female. As bright as the male in colour, but wanting the black streak above the ear-coverts. Total length about 4·5 inches, culmen 0·65, wing 3, tail 1·5, tarsus 0·67.

Hab. From the Himalayas to Ceylon, throughout the Burmese countries; Java, Borneo, and the Philippines.

a. ♂ ad. sk.	Mynall, Travancore, Oct. 1878.	F. W. Bourdillon, Esq. [C.].
b. [♀] ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].
c. [♀] ad. sk.	Nepal.	B. H. Hodgson, Esq. (Type of *S. corallina*.)
d, *e*. [♂] ad. sk.	Nepal (*Hodgson*).	India Museum [P.].
f. [♂] ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
g. [♂] ad. sk.	Assam (*McClelland*).	India Museum.
h. [♂] ad. sk.	Bassein, Pegu.	W. T. Blanford, Esq. [P.].
i. ♂ ad. sk.	West Pegu, 19° N. lat., April 1873.	E. W. Oates, Esq. [C.].
k. Ad. sk.	Pegu, May 6.	E. W. Oates, Esq. [C.].
l. ♀ ad. sk.	Right bank of Tapeng, Feb. 5, 1875.	Dr. Anderson [P.].
m. ♀ ad. sk.	Tenasserim, Dec. 20.	E. W. Oates, Esq. [C.].
n, *o*. [♀] ad. sk.	Java.	E. India Co. [P.]. (Types of *O. frontalis*.)
p. ♀ ad. sk.	Java.	Gould Collection.
q. ♂ ad. sk.	Java (*Diard*).	F. D. Godman and O. Salvin, Esqrs. [P.].
r, *s*. ♂ ♀ ad. sk.	West Java (*E. C. Buxton*).	F. Nicholson, Esq. [P.].
t. [♂] ad. sk.	Labuan.	Hugh Low, Esq. [C.].
u, *v*. ♂ ♀ ad. sk.	Sarawak.	A. R. Wallace, Esq. [C.].
w. [♂] ad. sk.	Borneo.	Rajah Brooke [P.].
x. [♂] ad. sk.	Philippines (*Cuming*).	Eyton Collection.
y. [♀] ad. sk.	Palawan.	Prof. J. B. Steere [C.].
z. Skeleton.	Java.	Purchased.

20. Sitta œnochlamys.

Dendrophila œnochlamys, *Sharpe*, *Trans. Linn. Soc.* 2nd ser. *Zool.* vol. i. p. 338, pl. liii. fig. 3 (1876).

Adult female. Similar to *S. frontalis*, but everywhere more brightly coloured; sides of neck and hinder neck with the interscapulary region of the same vinaceous shade as the breast, but particularly distinguished by a narrow white loral band and by a small white spot at the base of the lower mandible. Total length 5 inches, culmen 0·65, wing 3, tail 1·7, tarsus 0·7. (*Sharpe*.)

Hab. Island of Guimaras, Philippine archipelago.

6. SITTELLA.

Type.
Sittella, *Swains. Class. B.* ii. p. 317 (1837) ..... S. chrysoptera.
Neops, *Vieill. Nouv. Dict.* xxxi. p. 337 ..... S. chrysoptera.

Bill broad at base, laterally compressed in front of the nostrils; maxilla and mandibula curved upwards, the former with a distinct notch near the tip. Nostrils oval, operculated, exposed; hardly any bristles at all. Wings very long and pointed, covering the whole tail; first primary very short; tip of wing formed by 2nd, 3rd, and 4th primaries; secondaries comparatively very short. Tail slightly rounded, only half the length of wing. Tarsus with transverse scales; claw of hallux much longer than that of the other toes. Principal colour brown; basal half of most of the remiges generally rusty red.

Range. Australia and New Guinea.

Key to the Species.

a. Middle third of quills forming a large patch of rusty red.
  a'. Breast and abdomen streaked with brown.
    a''. Crown of head dark brown ..... *chrysoptera*, p. 360.
    b''. Head and neck all round white ..... *leucocephala*, p. 361.
  b'. Breast and abdomen without any streaks.
    c''. Crown of head black ..... *pileata*, p. 362.
    d''. Crown of head blackish brown; middle third of quills half white and half rusty ..... *tenuirostris*, p. 363.
b. Middle third of quills pure white.
  c'. Head above black.
    e''. Breast and abdomen much streaked ..... *striata*, p. 364.
    f''. Breast and abdomen without any streaks.. *leucoptera*, p. 363.
  d'. Head white all round ..... *albata*, p. 362.
c. Quills perfectly uniform ..... *papuensis*, p. 365.

1. Sittella chrysoptera.

Orange-winged Nuthatch, *Lath. Gen. Syn. Suppl.* ii. p. 146, pl. 127 (1801).
Sitta chrysoptera, *Lath. Ind. Orn. Suppl.* p. xxxii (1801); *Vig. & Horsf. Trans. Linn. Soc.* xv. p. 296.
Sitta ? chrysoptera, *Steph. in Shaw's Gen. Zool.* xiv. p. 189.
Neops chrysoptera, *Vieill. Nouv. Dict.* xxxi. p. 337 (1819).
Sittella chrysoptera, *Swains. Class. B.* ii. p. 317 (1837); *Gould, B. Austr.* iv. pl. 101; *id. Syn. B. Austr.* pt. iv.; *id. Introd. B. Austr.* p. 128; *id. Handb. B. Austr.* i. p. 609; *Bp. C. A.* i. p. 226; *Zuchold, J. f. O.* 1858, p. 29; *Müller, P. Z. S.* 1869, p. 279; *v. Pelzeln, Ibis*, 1873, p. 110; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 191.

Adult male. Crown of head, nape, and wing-coverts dark brown; mantle, back, and scapulars pale brownish grey, each feather with a broad central streak of dark brown colour; rump and upper tail-coverts white, the latter with small subterminal brown cross bars;

quills dark brown, with paler tips; the middle third of the webs rich rufous, forming a very conspicuous large patch on the opened wing; tail-feathers blackish brown, the outer pairs with white tips; sides of head and ear-coverts brown, with paler tips to the feathers; all the underparts dingy white, most of the feathers with narrow longitudinal central streaks of brown; flanks slightly washed with brownish; throat almost white; most of the under wing-coverts dull blackish brown; edge of wing and under wing-coverts white; under tail-coverts white, with subterminal brown arrow-shaped spots; thighs dark brown; "iris cream-colour; eyelashes light buff; feet yellow" (*Gould*).

The *female*, according to Gould, differs only in having the head of a darker tint of brown.

Total length about 4 inches.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Imm. bird.....	0·52	3·04	1·48	0·66
Adult	0·6	3·10	1·5	0·7
Adult	0·63	3·10	1·5	0·68

Hab. From Port Denison southwards along the east coast to New South Wales, Victoria, and South Australia.

a. Ad. st.	Australia.	R. Brown, Esq. [P.].
b, *c*. [♀ ♂] ad. sk.	S.E. Australia.	Gould Collection.
d. Ad. sk.	S.E. Australia.	Gould Collection.
e. Ad. sk.	N.E. Australia.	Sir T. Mitchell [P.].
f, *g*. [♂ ♀] imm. sk.	Queensland.	F. D. Godman and O. Salvin, Esqrs. [P.].

2. Sittella leucocephala.

Sittella leucocephala, *Gould*, *P. Z. S.* 1837, p. 152; *id. B. Austr.* iv. pl. 102; *id. Syn. B. Austr.* pt. iv.; *id. Intr. B. Austr.* p. 128; *id. Handb. B. Austr.* i. p. 610; *Bp. Consp.* i. p. 226; *Ramsay, Ibis*, 1865, p. 86; *id. P. Z. S.* 1875, p. 600; *id. Proc. Linn. Soc. N. S. W.* ii. p. 191.

Adult. Head and neck all round pure white; all the other parts coloured as in *S. chrysoptera*, except the under tail-coverts, which are brown and tipped with white; "base of the bill, nostrils, and eyelid orange-yellow; iris greenish yellow" (*Gould*).

Adult. Culmen 0·57 inch, wing 3·08, tail 1·50, tarsus 0·60.
" " 0·60 " " 3·13, " 1·52, " 0·62.

Obs. Immature birds have the white parts of the head less clear; the young bird very likely has the head and neck coloured brown as in *S. chrysoptera*.

Hab. New South Wales to North-eastern Australia.

a, *b*. Ad. sk.	Moreton Bay, N. Australia.	Gould Collection.
c. Ad. sk.	N. Australia.	Sir T. Mitchell [P.].
d, *e*. Ad. sk.	Queensland (*Cockerell*).	F. D. Godman and O. Salvin, Esqrs. [P.].

3. Sittella albata.

Sittella leucocephala, *Ramsay, P. Z. S.* 1875, p. 600 (*nec Gould*).
Sittella albata, *Ramsay, P. Z. S.* 1877, p. 351; *id. Proc. Linn. Soc. N. S. W.* ii. p. 192 (1878); *Gould, B. N. Guinea*, pt. xi. (1880).

Like *S. leucocephala*, but with a white band through the wing instead of a rusty-red one. Wing 3 inches, tail 1·5. Thus this bird is intermediate between *S. leucocephala* and *S. striata*.

Hab. Port Denison and Rockingham Bay.

4. Sittella pileata.

Sittella pileata, *Gould, P. Z. S.* 1837, p. 159 (♂); *id. B. Austr.* iv. pl. 104; *id. Syn. B. Austr.* pt. iv. (♂); *id. Intr. B. Austr.* p. 128; *id. Handb. B. Austr.* i. p. 612; *Bp. Consp.* i. p. 226 (1850); *Cab. Mus. Hein.* i. p. 93; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 192.
Sittella melanocephala, *Gould, P. Z. S.* 1837, p. 151 (♀).

Adult male. Crown of head deep black; a narrow band on the forehead, præocular and superciliary regions, and lores white; ear-coverts, part of occiput, the nape, hind neck, mantle, scapulars, and back uniform greyish brown; feathers of rump and lower back pure white; upper tail-coverts white, with several blackish-brown cross bars; tail-feathers black with white tips; upper wing-coverts and quills blackish brown, the middle third of the quills rich rusty colour, with the exception of the innermost secondaries; under wing-coverts black; edge of wing white; under tail-coverts white, with large subterminal blackish-brown cross bars; cheeks, sides of neck, throat, breast, and abdomen pure white; sides, flanks, thighs, and axillaries greyish brown; "bill yellow at base, black at tip; feet beautiful king's yellow; iris buffy hazel; eyelash buff" (*Gould*).

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Adult	0·61	3·42	1·65	0·73
Adult	0·7	3·52	1·70	0·70
Adult	0·62	3·40	1·65	0·70

Adult female. All the upper parts and the sides of the head, including the frontal, loral, and orbital regions, the ear-coverts, and the nape are black; rest like the male.

Immature birds have the mantle and back paler, each feather darker brown at the centre; head blackish brown.

Young birds have the crown of the head, the mantle, and back greyish brown, mottled with dark brown and white; wing-coverts and all the quills edged and tipped with rufous; the rusty-red patch on the quills is very well developed; tail-feathers broadly tipped with pale rufous white; all the underparts, except the under wing-coverts and the thighs, which are blackish, are pure white without any brown streaks.

Hab. West and South Australia.

a. ♂ ad. st.	South Australia.	Sir G. Grey [P.].
b. Ad. sk.	South Australia.	Capt. Sturt [P.].
c. ♂ ad. sk.	S.W. Australia.	J. Gould, Esq. [C.].
d, e. ♀ ad. sk.	S.W. Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].
f. ♂ ad. st.	Port Lincoln.	Purchased.
g, h. [♂ ♀] ad. st.	Swan River.	J. Gould, Esq. [C.].
i. Juv. sk.	Australia.	Purchased.

Subspecies *a.* **Sittella tenuirostris.**

Sittella tenuirostris, *Gould, Handb.* p. 610 (1865, *Note to* Sittella chrysoptera); *Gray, Hand-l. B.* i. p. 182, no. 2506; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 191.

The middle third of the quills is pale rusty-coloured, and shows a great amount of whitish or even clear white; all the other parts, including the bill, agree in colour with *S. pileata*.

The type specimen (locality uncertain) is an immature male, having the crown of the head dull blackish brown. The bill in this specimen is certainly very slender and rather long; but the length of the bill in the genus *Sittella* is subject to much variation, as may be seen from the measurements given with the different species.

Adult female (South Australia; Capt. Sturt). Sides and all the upper parts of the head and nape black.

Type. Culmen 0·65 inch, wing 3·01, tail 1·46, tarsus 0·65.
Adult. „ 0·52 „ „ 3·02, „ 1·5, „ 0·66.

Hab. This bird seems to be a smaller race of *S. pileata*, representing the latter in the interior of South Australia.

a. [♂] imm. sk.	S. Australia? (*Capt. Sturt*).	Gould Collection. (Type of species.)
b. [♀] ad. sk.	S. Australia (*Capt. Sturt*).	Gould Collection.

5. Sittella leucoptera.

Sittella leucoptera, *Gould, P. Z. S.* 1839, p. 144; *id. B. Austr.* iv. pl. 103; *id. Intr. B. Austr.* p. 128; *id. Handb. B. Austr.* i. p. 611; *Bp. C. A.* i. p. 226; *Zuchold, J. f. O.* 1858, p. 39.

Most nearly allied to, and intermediate between, *S. chrysoptera* and *S. pileata*.

Adult male. Top of head deep black; frontal and orbital region and lores white; secondary quills uniform blackish brown; the primaries have the middle third pure white instead of rusty colour; all the quills tipped with white; some of the wing-coverts with faint pale tips; all the rest of the upper parts as in *S. chrysoptera*; underparts white, without streaks, as in *S. pileata*; "bill straw-yellow, tipped with black; feet lemon-yellow; iris ochre-yellow; eyelash straw-yellow" (*Gould*).

Female has the whole head above and the ear-coverts blackish brown.

Culmen 0·6 inch, wing 3·10, tail 1·38, tarsus 0·68.
„ 0·62 „ „ 3·05, „ 1·42, „ 0·65.
Hab. North Australia.

a, b. [♂] ad. st.	Port Essington.	Capt. W. Chambers, R.N. [P.].
c. ♂ ad. sk.	North Australia.	J. R. Elsey, Esq. [C.].
d. ♂ imm. sk.	North Australia.	Gould Collection.
e. Juv. sk.	North Australia.	Gould Collection.
f, g. ♂ ♀ ad. sk.	North Australia.	F. D. Godman and O. Salvin, Esqrs. [P.].

6. Sittella striata.

Sittella striata, *Gould, Ann. & Mag. N. H.* ser. 4, iv. p. 110; *id. Suppl. B. Austr.* pl. 54; *Castelnau & Ramsay, Proc. Linn. Soc. N. S. W.* 1877, p. 382; *Ramsay, Proc. Linn. Soc. N. S. W.* ii. p. 192.
Sittella leucoptera (juv.), *Ramsay, P. Z. S.* 1868, p. 387.

Adult male (type of species). Head all round, sides of neck, throat, and upper breast sooty black; hind neck, mantle, scapulars, and back greyish brown, each feather with a very broad longitudinal central streak of blackish brown; wing-coverts and quills uniform blackish brown, with faintly paler edgings; middle third of primaries white; breast, flanks, and abdomen white, each feather with a very broad longitudinal dark-brown streak; all the other parts as in *S. leucoptera*.

Female. Only the top of the head black; sides of head, throat, and rest of underparts of body white, and streaked like the breast in the males. Some specimens have whitish feathers near the base of the upper bill.

Immature birds have the cap dark brown, the underparts of the body dull white and much streaked with dark brown.

	Culmen. in.	Wing. in.	Tail. in.	Tarsus. in.
Adult ♂ (type)	0·5	3·0	1·45	0·65
Adult ♀ (type)	0·6	3·03	1·35	0·61
Adult ♂	0·51	3·03	1·42	0·65
Adult ♀	0·55	3·12	1·55	0·64

Obs. In all the other allied species, the *female* develops a greater amount of black on the sides of the head than does the male; and it seems very probable that the same tendency would be followed by this species too, and that the black-throated individuals are the females. However, Mr. Gould has described such birds as the males; and as none of the specimens I have been able to examine are sexed, this question remains unsettled.

Hab. Gulf of Carpentaria; Cape York to Rockingham Bay.

a, b. ♂ ♀ ad. sk.	North Australia.	J. Gould, Esq.
c. Juv. st.	North Australia.	Sir T. Mitchell [P.].
d–f. ♂ ♀ ad. sk.	Somerset, Cape York (*Cockerell*).	J. Gould, Esq. [C.]. (Types of species.)
g–i. [♂] ad. sk.	Somerset, Cape York.	F. D. Godman and O. Salvin, Esqrs. [P.].

7. Sittella papuensis.

Sitta papuensis, *Schl. N. T. D.* 8vo, iv. p. 47 (1871); *Rosenb. Reist. n. Geelvinksb.* p. 139; *id. Malay. Arch.* pp. 553, 585 (1879).
Sittella papuensis, *Sharpe, Zool. Rec.* viii. p. 63 (1873); *Salvad. Ann. Mus. Civic. Genov.* xvi. p. 63; *id. Orn. Papuasia e delle Molucche*, ii. p. 242.

Above dusky brown, streaked with black and marked with some obsolete white spots; head and throat white; upper tail-coverts white, the rump streaked with black; breast and abdomen dusky, marked with obsolete white spots; middle of the abdomen streaked with dusky; under tail-coverts marked with triangular black spots, terminated with white; feathers of the neck, back, and scapulars blackish in the middle, the lateral margins dusky brown; rump and upper tail-coverts white, the former longitudinally streaked with black; wings dusky, paler below; anterior lesser wing-coverts of the greater series white; third, fourth, and fifth tail-feathers white on the middle portion of the inner web; tail black, the lateral feathers marked with an apical white spot; bill dusky, the tip black; feet yellow. Total length 4·75 inches, wing 3·2, tail 1·65, tarsus 0·65, bill 0·45. (*Salvadori, l. c.*)

Female. Above dusky, varied with blackish; head black; upper tail-coverts white; under surface white, streaked with black. (*Salvadori, l. c.*)

Hab. N.W. New Guinea.

7. HYPOSITTA.

	Type.
Hypherpes, *A. Newton, P. Z. S.* 1863, p. 85 (*nec Chaud.*)	H. corallirostris.
Hypositta, *A. Newton, P. Z. S.* 1881, p. 438.....	H. corallirostris.

Head, bill, and foot of *H. corallirostris.*

Bill shorter than rest of head, broader than high across the nostrils; culmen sharp and curved downwards, with a small tooth and a notch; mandibula curved upwards. Nostrils oval, half exposed; nasal and rictal bristles well developed. First primary equal to half second primary; tip of wing formed by 4th, 5th, and 6th primaries; secondaries five sixths of whole wing in length. Tail square, shorter than wing. Tarsus covered with one long scutum anteriorly; hallux and claw very long, surpassing the tarsus and the middle toe. Plumage greenish blue.

This peculiar bird seems to be somewhat intermediate between the *Sittinæ* and the *Muscicapinæ*.

Range. Madagascar.

1. Hypositta corallirostris.

Hypherpes corallirostris, *A. Newton, P. Z. S.* 1863, p. 85, pl. xiii.; *E. Newton, Ibis*, 1863, p. 342; *Sharpe, P. Z. S.* 1871, p. 318; *Hartlaub, Vög. Madagasc.* p. 105; *Schl. Notes from Leyden Mus.* i. p. 115 (1879); *Milne-Edwards & Grandid. Hist. Nat. Madag.* pl. cxxi.
Sitta corallirostris, *Schleg. & Pollen, Faun. Madag.* p. 158.
Hypositta corallirostris, *A. Newton, P. Z. S.* 1881, p. 438.

Head all round and all the underparts of the body, including the under tail-coverts, thighs, edge of wing, and under wing-coverts dull slaty brown with a tinge of olive-blue (if this combination of colours is allowed); lores and præocular region, as well as the chin, white or whitish; hind neck and rest of upper parts dull blue with a greenish tinge; quills and tail-feathers black, the outer webs of the same colour as the back, without any whitish tips; "the whole bill coral-red; legs leaden colour; iris dark red" (*Newton*). Total length under 5 inches, culmen 0·53, wing 2·9–3, tail 2·2, tarsus 0·8, first digit (without claw) 0·65.

Hab. Madagascar.

a. ♀ ad. sk.	Saralalan, Madagascar (*Crossley*).	R. B. Sharpe, Esq.
b, c. ♂ ♀ ad. sk.	Forest of Ancaya.	M. Robillard [C.].

ADDENDA.

The following species was omitted by accident from the body of the work :—

Page 27. Insert :—

19 *a*. **Parus rex.**

Parus (Machlolophus) rex, *David, Ann. Sci. Nat.* (5) xix. no. 9, p. 4 (1874).
Machlolophus rex, *David & Oustalet, Ois. Chine*, p. 286 (1877).

Crown of head and sides of the neck black with a bluish shade; forehead, lores, superciliary streak, cheeks, parotid region, and nape pure yellow; a narrow black stripe from the hinder edge of the eye to the nape; upper back black, spotted with bluish ashy, and with white in the vicinity of the nape; sides and lower back bluish ashy; upper tail-coverts ashy grey, fringed with black; throat and middle of the chest and of the abdomen deep black; the feathers of the flanks which are near this wide central band at first black, then becoming ashy; wing-coverts black, the lesser ones terminated with ashy grey, the median and greater ones almost pure white; quills black, all showing, with the exception of the remiges, a white spot at the ends; remiges white at the base on the outer webs, and edged with white and bluish for the rest of their extent; middle quills edged with bluish ashy; under tail-coverts whitish, shaded with ashy grey and blackish; the crest, always erect, is of pyramidal form, and the feathers of the hinder edge are yellow.

The *female* has a somewhat different dress from that of the male: the back is green, and not bluish grey; there are no white spots in the nuchal region; the fore neck and chest are yellowish green, with some traces of black on the throat only; the rest of the lower parts are of a greenish tinge, which becomes ashy in the middle of the belly; and the yellow of the sides of the head and of the nape is a little less pure than in the male. Iris brown; bill black; tarsus, feet, and claws bluish. Total length 0·153 mètre, tail 0·063, wing (closed) 0·084, tarsus 0·018, bill from front 0·009. (*David & Oustalet.*)

Hab. Mountains of Western Fokien, China.

Page 130. Genus **DRYOSCOPUS.**

Add :—

	Type.
Thamnocataphus, *Tickell, J. A. S. Beng.* xviii. p. 312 (1849)	D. rufiventris.

Page 134. **Dryoscopus rufiventris.**

Add the synonymy of *Thamnocataphus picatus*, Tickell, which has been shown by Mr. Sharpe to be the same as the present species (*cf.* Cat. B. vii. p. 324).

Page 184. Alter 'Key' as follows:—

In section III.,

for "*c*. Throat white," *read* Throat white or dull whitish ashy.

Page 185. After "*griseonota*, p. 217." insert:—

d'''. Above olive-green; lores whitish.
*d*⁴. Tail reddish brown; under tail-coverts light brown; chin and upper throat white; rest of throat, breast, and abdomen dull yellow ..... *hattamensis*, p. 225.
*e*⁴. Tail olive-brown like the back, but a little duller; under tail-coverts pale yellow; throat and breast whitish ashy ..... *fortis*, p. 369.

Page 185. In section IV. of the Key alter as follows:—

IV. Plumage black, white, and grey.
a'. Throat black; breast and abdomen white .... *monacha*, p. 222.
b'. Throat white, separated from the white breast and abdomen by a band of black ..... *arctitorquis*, p. 368.

Page 223. Insert:—

45 *a*. Pachycephala arctitorquis.

Pachycephala arctitorquis, *Sclater, P. Z. S.* 1883, p. 55, pl. 13.

Adult male. Crown of head, lores, and ear-coverts black, as well as a collar across the fore neck; entire back grey, as well as the wing-coverts; quills and tail dusky blackish, externally grey like the back; entire throat white; breast and abdomen fulvous white, separated from the pure white throat by the before-mentioned black colour; thighs grey; under wing-coverts and axillaries fulvous white; "bill, legs, and feet black; iris dark brown" (*H. O. Forbes*). Total length 6 inches, culmen 0·6, wing 3·15, tail 2·5, tarsus 0·9.

Adult female. General colour above reddish brown, brighter rufous on the head and upper wing- and tail-coverts, and also on the outer edges of the quills, especially of the secondaries; the lower back and rump somewhat washed with olive; tail-feathers dusky, reddish brown externally and at the tips; lores whitish; ear-coverts rufous-brown; cheeks and throat white, narrowly streaked with dusky blackish, as also the sides of the body, which are washed with yellowish; thighs brown; under wing-coverts and axillaries white; "upper mandible soot-brown, lower the same at the tip, but at base pale flesh-colour; legs and feet lavender-pink; irides dark brown" (*H. O. Forbes*). Total length 6 inches, culmen 0·6, wing 3, tail 2·4, tarsus 0·25.

Hab. Tenimber group of islands.

a. ♂; *b, c.* ♀ ad. sk.	Larat, Timor Laut, Tenimber Islands (*H. O. Forbes*).	British Association [P.]. (Types of species.)
d. ♂ ad. sk.	Moloe Island, Tenimber group (*H. O. Forbes*).	British Association [P.].

Page 226. Insert:—

49 *a*. **Pachycephala fortis.**

Adult. Head and nape dark slaty grey; entire back and wing-coverts dark olive-green; quills dusky, washed on the outer web with green like the back; the bastard quills and primaries externally grey; tail olive-brown, with dusky cross bars; lores ashy whitish, sides of face and ear-coverts dusky grey; cheeks, throat, and chest light ashy; centre of abdomen white, washed with yellow; flanks light olive-brown; thighs grey; axillaries and under wing-coverts dull olivaceous. Total length 6·7 inches, culmen 0·8, wing 3·6, tail 2·8, tarsus 1·1.

Hab. S.E. New Guinea.

a, b. Ad. sk.	Astrolabe mountains, S.E. New Guinea.	Mr. A. Goldie [C.].

Page 240. **Lanius major.**

Add:—

i. ♀ vix ad.	Tschikai R., Transbaikalia.	Purchased.
k, l. ♂ ♀ ad. sk.	Moscow.	Purchased.

ALPHABETICAL INDEX.

abietinum (Parus), 41.
Acanthiparus, 54.
Acredula, 54.
aculeata (Sitta), 353.
acuticauda (Hylophilus), 310.
acuticaudus (Hylophilus), 310.
advena (Sitta), 342.
Ægithaliscus, 54.
Ægithalus, 66.
æmodius (Parus), 41, 42.
ænobarbus (Allotrius), 116, 117, 118.
ænobarbus (Pterery-thrius), 116.
ænobarbus (Pteruthius), 116, 117.
æralatus (Ptererythrius), 114.
æralatus (Pteruthius), 114.
æthiopicus (Dryoscopus), 139.
æthiopicus (Laniarius), 139.
æthiopicus (Lanius), 139.
æthiopicus (Malaconotus), 139.
æthiopicus (Telephorus), 139.
æthiopicus (Turdus), 139.
afer (Lanius), 169.
afer (Nilaus), 169.
afer (Parus), 39.
affinis (Climacteris), 338.
affinis (Corvinella), 231.
affinis (Dryoscopus), 141, 144.
affinis (Hapalophus), 141.
affinis (Laniarius), 141.
affinis (Lanius), 265.
affinis (Malaconotus), 159.
affinis (Nilaus), 170.
affinis (Pachycephala), 195.
affinis (Pœcile), 35, 48.
affinis (Sitta), 347.
agilis (Lanius), 295.
agilis (Vireosylvia), 295.
agilis flavoviridis (Vireosylvia), 295.
albata (Sittella), 362.
albicilla (Fringilla), 75.
albicilla (Mohoua), 75.
albicilla (Orthonyx), 75.
albicillus (Certhiparus), 75.
albicollis (Pachycephala), 186, 189.
albifrons (Pachycephala), 204.
albifrons (Vanga), 110.
albinotatus (Lanius), 230.
albispecularis (Pachycephala), 212.
albiventer (Parus), 10.
albiventris (Cyclorhis), 319.
albiventris (Parus), 10.
albospecularis (Pachycephalopsis), 212.
algeriensis (Collyrio), 244.
algeriensis (Enneoctonus), 244.
algeriensis (Lanius), 244, 246, 247, 248.
Allotrius, 112.
alpestris (Parus), 51.
alpestris (Pœcila), 51.
alpestris (Poikilis), 51.
alpina (Tichodroma), 331.
altiloqua (Vireosylvia), 293.
altiloquus (Vireo), 293.
altirostris (Cyclorhis), 319.
amabilis (Parus), 22.
amaurocephala (Sylvia), 308.
amaurocephalus (Hylophilus), 308.
amauronotus (Vireo), 298.
americana (Certhia), 324, 326.
amurensis (Sitta), 345.
anchietæ (Laniarius), 129.
anchietæ (Telephonus), 129.
anchietæ (Telophonus), 129.
angolensis (Dryoscopus), 134.
angolensis (Laniarius), 134.
annexus (Parus), 31.
anophrys (Ægithaliscus), 57.
anophrys (Ægithalus), 57.
anthophila (Sylvia), 70.
Anthoscopus, 66.
antiguanus (Lanius), 268.
antinorii (Lanius), 255.
aplonotus (Machlolophus), 25.
aplonotus (Parus), 25.
approximans (Archolestes), 156.
Archolestes, 150.
arctitorquis (Pachycephala), 338.
ardosiaceus (Lanius), 245.
argenteus (Cracticus), 99.
armillaris (Turdus), 189.
arnaudi (Fiscus), 256.
arnaudi (Lanius), 256.
Artamia, 106.
arundinaceus (Mystaceus), 78.
a-scack (Lanius), 261.
asiatica (Certhia), 327.
asiatica (Sitta), 343.
assimilis (Lanius), 249, 250.
assimilis (Pachycephala), 207.
assimilis (Pœcila), 51.

astrolabi (Pachycephala), 200.
ater (Crataionyx), 6.
ater (Parus), 40, 41, 43.
ater (Pœcile), 41.
ater, var. rufipectus (Parus), 44.
atkinsoni (Parus), 29.
atrialatus (Dryoscopus), 143.
atrialatus (Laniarius), 143.
atricapilla (Pœcile), 45.
atricapillus (Ægithalus), 68.
atricapillus (Parus), 44, 46.
atricapillus (Vireo), 300.
atricapillus, var. occidentalis (Parus), 45.
atricapillus, var. septentrionalis (Parus), 45.
atriceps (Parus), 16.
atricristatus (Lophophanes), 31.
atricristatus (Parus), 31.
atricroceus (Laniarius), 153.
atrocæruleus (Laniarius), 133.
atrococcineus (Laniarius), 152.
atrococcineus (Lanius), 152.
atrococcineus (Malaconotus), 152.
atrocristatus (Lophophanes), 31.
atrocroceus (Laniarius), 153.
aucheri (Lanius), 247.
aurantiifrons (Hylophilus), 310.
aurantiopectus (Malaconotus), 159.
aureo-capillus (Regulus), 80.
auricapillus (Regulus), 80.
Auriparus, 66.
australis (Eopsaltria), 176.
australis (Malaconotus), 122.
australis (Motacilla), 176.
australis (Muscicapa), 176.
australis (Muscipeta), 176.
australis (Pachycephala), 176.
azurea (Sitta), 357.

Bacbakiri (Le), 162.
Bæolophus, 3.
baicalensis (Parus), 51.
bailloni (Petrodroma), 337.
bakbakiri (Chlorophoneus), 163.
bakbakiri (Laniarius), 162.
bakbakiri (Lanius), 162.
bakbakiri (Malaconotus), 163.
bakbakiri (Tchagra), 162.
bakbakiri (Telephonus), 162.
baldensteinii (Parus), 51.
barbarus (Laniarius), 153, 154.
barbarus (Lanius), 153.
barbarus (Malaconotus), 154.
barbarus (Tchagra), 154.
barbatula (Vireosylvia), 293.
barbatulus (Phyllomanes), 293.
barbatus (Calamophilus), 78.
barbatus (Hypenites), 78.
barbatus (Mystacinus), 78.
barbatus (Panurus), 78.
barbatus (Parus), 78.
Barita, 93.
bartramii (Vireo), 296.
Basanistes, 228.
beavani (Lophophanes), 29.
beavani (Parus), 29.
belli (Vireo), 301.
bentet (Collyrio), 266.
bentet (Lanius), 266, 267, 268, 269.
bernieri (Artamia), 108.
bernieri (Oriolia), 108.
biarmicus (Ægithalus), 78.
biarmicus (Calamophilus), 78.
biarmicus (Mystacinus), 78.
biarmicus (Panurus), 77, 78.
biarmicus (Paroides), 78.
biarmicus (Parus), 77.
bicolor (Artamia), 108.
bicolor (Artamus), 108.
bicolor (Bæolophus), 32.
bicolor (Cyanolanius), 108.
bicolor (Cyanolestes), 108.
bicolor (Dryoscopus), 108, 138.
bicolor (Laniarius), 108, 138.
bicolor (Lanius), 108.
bicolor (Lophophanes), 32.
bicolor (Parus), 31.
blanchoti (Malaconotus), 156.
blanfordi (Laniarius), 127.
blanfordi (Telophonus), 127.
boccharensis (Parus), 16, 17, 18.
bogotensis (Vireo), 294.
bogotensis (Vireosylvia), 294.
bojeri (Dryoscopus), 141.
borealis (Collurio), 240.
borealis (Collyrio), 240.
borealis (Lanius), 240, 241.
borealis (Parus), 50, 51.
borealis (Pœcila), 51.
borealis (Poikilis), 51.
borealis americanus (Lanius), 240.
borealis europæus (Lanius), 239.
borealis sibiricus (Lanius), 239.
Boubou, Le, 134.
boulboul (Dryoscopus), 135.
boulboul (Laniarius), 134.
boulboul (Lanius), 139.
boulboul (Malaconotus), 135.
boyeri (Laniarius), 141.
brachydactyla (Certhia), 324.
brachyrhynchus (Regulus), 84.
brachyrhynchus (Tichodroma), 331.
brandti (Parus), 53.
brandtii (Pœcile), 53.
brevipennis (Neochloe), 305.
brevirostris (Pœcile), 51.
britannica (Certhia), 324.
britannicus (Parus), 41, 43.

brunnea (Eopsaltria), 175, 219.
brunnea (Pachycephala), 214, 219.
brunneicauda (Hyloterpe), 220.
brunneicauda (Pachycephala), 220.
brunneiceps (Hylophilus), 310.
Brubru, Le, 168.
brubru (Lanius), 168.
brubru (Nilaus), 168, 169.
bucephalus (Enneoctonus), 270.
bucephalus (Lanius), 270.
bucephalus (Phoneus), 270.
Bulestes, 93.
burra (Lanius), 252.

cæruleanus (Parus), 14.
cæruleus (Cyanistes), 12.
cæruleus (Parus), 12, 15.
cæruleus, var. teneriffæ (Parus), 14.
cæsia (Sitta), 347.
cæsius (Parus), 16.
Calamophilus, 77.
caledonica (Eopsaltria), 180.
caledonica (Muscicapa), 180.
calendula (Corthylio), 85.
calendula (Motacilla), 85.
calendula (Phyllobasileus), 85.
calendula (Reguloides), 85.
calendula (Regulus), 85.
Calicalicus, 119.
calidris (Motacilla), 293.
calidris (Vireo), 293.
calidris (Vireosylvia), 293.
calidris, var. barbadensis (Vireosylvia), 293.
calidris, var. barbatula (Vireosylvia), 293.
calidris, var. dominicana (Vireosylvia), 293.
Calisitta, 341.
calliope (Pachycephala), 196.
cameranoi (Pterorythrius), 115.
cameranoi (Pteruthius), 115.
canadensis (Sitta), 353, 354.
caniceps (Collyrio), 264, 265.
caniceps (Lanius), 265, 266.
cantatrix (Muscicapa), 301.
capelli (Fiscus), 260.
capensis (Ægithalus), 70.
capensis (Gryllivora), 70.
capensis (Lanius), 168.
capensis (Paroides), 71.
capensis (Parus), 70.
carbonarius (Dryoscopus), 132.
carbonarius (Laniarius), 132.
carbonarius (Parus), 41.
carbonarius (Rhynchastatus), 132.
carmioli (Vireo), 303.
caroli (Ægithaliscus), 71.
caroli (Anthoscopus), 71.
carolinensis (Lanius), 245.
carolinensis (Parus), 46.
carolinensis (Pœcile), 46.
carolinensis aculeata (Sitta), 353.
carolinensis minor (Sitta), 356.
cashmiriensis (Sitta), 352.
caspius (Ægithalus), 68.
Cassican de la Nouvelle Guinée, 97.
cassicus (Cracticus), 97.
cassicus (Rhamphastus), 97.
cassini (Vireo), 299.
castanea (Sitta), 351.
castaneiceps (Hylophilus), 309.
castaneiventer (Parus), 37.
castaneiventris (Parus), 37.
castaneiventris (Sitta), 351.
castaneoventris (Parus), 37.
castaneoventris (Sitta), 351.
castaneus (Ægithalus), 68.
castaneus (Lanius), 262.
castanilia (Sitta), 352.
caudata (Acredula), 59, 60, 61, 63.
caudata (Mecistura), 60, 61, 65.
caudata (Orites), 60.
caudatus (Lanius), 254.
caudatus (Orites), 65.
caudatus (Parus), 59, 61, 63.
cephalomelas (Collyrio), 269.
cephalomelas (Lanius), 269.
Cephalophoneus, 232.
Cephalopyrus, 66.
Certhia, 323.
Certhiparus, 75.
Chaunonotus, 130.
Chestnut-backed Shrike, 262.
chinensis (Lanius), 262.
chinensis (Sitta), 347.
chivi (Sylvia), 295.
chivi (Vireo), 295.
chivi (Vireosylvia), 295.
chloris (Ixonotus), 166.
chloris (Laniarius), 166.
chloris (Lanius), 166.
chloris (Muscicapa), 77.
chloris (Nicator), 166.
chloris (Tchagra), 166.
chlorogaster (Vireolanius), 315.
Chlorophoneus, 150.
chlorura (Pachycephala), 194.
christophori (Pachycephala), 200.
chrysocephalus (Regulus), 80.
chrysogaster (Laniarius), 154, 159.
chrysogaster (Malaconotus), 159.
chrysoptera (Neops), 360.
chrysoptera (Sitta), 360.
chrysoptera (Sittella), 360.
chrysorrhous (Eopsaltria), 177.
cincta (Pœcile), 35.
cinctus (Parus), 35, 36.
cinerascens (Dryoscopus), 146.
cinerascens (Pachycephala), 216.
cinerascens (Parus), 39.
cinerea (Certhiparus), 75.
cinerea (Muscitrea), 220.
cinerea (Pica), 347.
cinerea (Pœcilodryas), 181.
cinerea (Sitta), 347.
cinerea (Vanga), 101.
cinereiceps (Hylophilus), 307.

cinereus (Bulestes), 101.
cinereus (Cracticus), 101.
cinereus (Lanius), 237.
cinereus (Parus), 15, 16, 17.
cinereus communis (Parus), 49.
cinereus montanus (Parus), 51.
cinnamomeoventris (Sitta), 351, 352.
cinnamomeum (Pseudorectes), 200.
cissoides (Basanistes), 229.
cissoides (Corvinella), 229.
cissoides (Lanius), 229, 231.
cissoides (Urolestes), 229.
citreogaster (Pachycephala), 186.
Climacteris, 333.
clio (Pachycephala), 186.
Clitonyx, 75.
Clytorhynchus, 109.
cobanensis (Vireosylvia), 296.
Colemouse, 41.
collaris (Collyrio), 255.
collaris (Fiscus), 255.
collaris (Lanius), 255, 257, 259, 260.
collaris (Pachycephala), 197.
collaris (Telephorus), 162.
Collurio, 232.
collurioides (Collyrio), 289.
collurioides (Lanius), 289.
Collyrio, 232.
collyrioides (Lanius), 289.
commixtus (Parus), 16, 17.
commixus (Parus), 16.
communis (Pœcile), 49.
concinna (Acredula), 57.
concinna (Psaltria), 57.
concinnus (Ægithaliscus), 57.
concinnus (Ægithalus), 57.
consobrinus (Ægithalus), 67.
contrerasi (Cyclorhis), 320.
corallina (Sitta), 358.
corallirostris (Hypherpes), 366.
corallirostris (Hypositta), 366.
corallirostris (Sitta), 366.
coronatus (Ægithalus), 68.
coronatus (Dryoscopus), 134.
coronatus (Lanius), 121.
Corthylio, 79.
corvina (Corvinella), 231.
corvina nubiæ (Corvinella), 231.
Corvinella, 231.
corvinus (Collurio), 231.
corvinus (Lanius), 231.
costæ (Certhia), 324.
Cracticus, 93.
crassirostris (Cracticus), 94.
crassirostris (Enneoctonus), 290.
crassirostris (Lanivireo), 301.
crassirostris (Otomela), 290.
crassirostris (Vireo), 301.
Crataionyx, 3.
Creeper, Common, 336.
cristata (Oreoica), 174.
cristata (Otomela), 271.
cristatum (Sphenostoma), 74.
cristatus (Enneoctonus), 271.
cristatus (Lanius), 271, 272.
cristatus (Lophophanes), 27.
cristatus (Otomela), 271.
cristatus (Parus), 27.
cristatus (Regulus), 80, 82, 83.
cristatus (Turdus), 174.
Crocias, 230.
crococephalus (Regulus), 80.
cruentatus (Dryoscopus), 152.
cruentatus (Laniarius), 152.
cruentatus (Telephonus), 152.
cruentus (Dryoscopus), 152.
cruentus (Laniarius), 152, 155.
cruentus (Rhodophoneus), 152.
cruentus (Telephonus), 152.
Cubla, Le, 148.
cubla (Dryoscopus), 139, 146, 148.
cubla (Hapalolophus), 148.
cubla (Laniarius), 148.
cubla (Lanius), 148.
cucullata (Ægithalus), 69.
cucullata (Eopsaltria), 179.
cucullatus (Laniarius), 127.
cucullatus (Lanius), 126, 189.
cucullatus (Telephorus), 126.
curvirostris (Lanius), 104.
curvirostris (Vanga), 104.
cuvieri (Corthylio), 82.
cuvieri (Regulus), 82.
cuvieri (Sylvia), 82.
cyana (Pachycephala), 182.
cyana (Pœcilodryas), 182, 183.
cyanea (Muscitrea), 224.
cyanea (Pachycephala), 224.
cyaneus (Cyanistes), 11.
cyaneus (Parus), 11.
Cyanolanius, 106.
Cyanolestes, 106.
Cyanistes, 3.
cyanus (Cyanistes), 11.
cyanus (Myiolestes), 182.
cyanus (Parus), 10.
cyanus tianschanicus (Parus), 11.
Cyclorhis, 316.

damii (Vanga), 110.
damii (Xenopirostris), 110.
dealbatus (Lanius), 247, 249, 250.
decurtata (Pachycephala), 207.
decurtata (Sylvicola), 307.
decurtatus (Hylophilus), 307.
Dendrophila, 341.
dentatus (Mystaceus), 78.
destructor (Barita), 100.

destructor (Cracticus), 98, 100.
destructor (Vanga), 100.
diademata (Eopsaltria), 204.
diademata (Pachycephala), 204.
dichroides (Lophophanes), 33.
dichrous (Lophophanes), 33.
dichrous (Parus), 33.
discolor (Certhia), 328.
dorsatus (Parus), 10.
Dryoscopus, 130, 148.
dubia (Motacilla), 192.
dubia (Pachycephala), 219.
dubusi (Vireolanius), 315.

Ecorcheur de Madagascar, 104.
Enneoctonus, 232.
Eopsaltria, 175.
elegans (Collyrio), 251.
elegans (Cyanistes), 11.
elegans (Lanius), 245, 249, 251, 252.
elegans (Parus), 22.
erythrocephala (Acredula), 56.
erythrocephalus (Ægithaliscus), 57.
erythrocephalus (Orites), 56.
erythrocephalus (Parus), 56.
erythrogaster (Dryoscopus), 154.
erythrogaster (Laniarius), 154.
erythrogaster (Lanius), 154.
erythrogastra (Malaconotus), 154.
erythronotus (Collurio), 263.
erythronotus (Collyrio), 264.
erythronotus (Enneoctonus), 264.
erythronotus (Lanius), 263, 264, 265, 266.
erythrops (Climacteris), 338.
erythropterus (Laniarius), 127.
erythropterus (Lanius), 113, 128.
erythropterus (Pomatorhynchus), 122, 125.
erythropterus (Pterorythrius), 13.
erythropterus (Pteruthius), 113.
erythropterus (Telephonus), 125, 126, 127.
erythropterus (Telophonus), 121, 125.
erythropterus (Telophorus), 121.
europæa (Sitta), 342, 347.
europæa (Tichodroma), 331.
excubitor (Collyrio), 238.
excubitor (Lanius), 237, 238, 242, 252.
excubitorius (Collyrio), 253.
excubitorius (Lanius), 253.
excubitoroides (Collurio), 245.
excubitoroides (Collyrio), 245.
excubitoroides (Lanius), 245, 246.
exilis (Parus), 53.
exilis (Psaltria), 53.
eximius (Lanius), 236.
eximius (Vireolanius), 316.

falcata (Pachycephala), 205.
Falcunculus, 171.
fallax (Lanius), 245, 247, 248, 249, 252.
familiaris (Certhia), 323, 324.
familiaris, var. americana (Certhia), 324.
familiaris, var. mexicana (Certhia), 326.
ferox (Lanius), 289.
ferrugineifrons (Hylophilus), 311.
ferrugineoventris (Sitta), 351.
ferrugineus (Laniarius), 134.
ferrugineus (Malaconotus), 135.
Fiscus, 232.
fiscus (Collyrio), 256.
fiscus (Lanius), 256.
flammiceps (Ægithalus), 69.
flammiceps (Cephalopyrus), 70.
flammiceps (Paroides), 70.
flava (Crataionyx), 6.
flaveola (Sylvia), 313.
flaveolus (Hylophilus), 313.
flavescens (Lanius), 236.
flavicapillus (Regulus), 80.
flaviceps (Ægithalus), 72.
flaviceps (Auriparus), 72.
flaviceps (Paroides), 72.
flaviceps (Psaltria), 72.
flaviceps (Psaltriparus), 72.
flavicollis (Eopsaltria), 176.
flavifrons (Ægithalus), 72.
flavifrons (Lanivireo), 298.
flavifrons (Pachycephala), 204.
flavifrons (Parus), 72.
flavifrons (Vireo), 298.
flavifrons (Vireosylvia), 298.
flavigaster (Eopsaltria), 179.
flavigaster (Todus), 176.
flavigastra (Eopsaltria), 179.
flavigastra (Sylvia), 176.
flavigulus (Falcunculus), 173.
flavipectus (Cyanistes), 11.
flavipectus (Cyclorhis), 320.
flavipectus (Parus), 11.
flavipes (Dendrophila), 357.
flavipes (Hylophilus), 312.
flavirostris (Lanius), 231.
flaviscapis (Pterorythrius), 116.
flaviscapis (Pteruthius), 116.
flaviventris (Cyclorhis), 320.
flaviventris (Hylophilus), 309.
flavocristata (Melanochlora), 6.
flavocristatus (Parus), 6.
flavogrisea (Pachycare), 227.
flavogrisea (Pachycephala), 227.
flavoviridis (Phyllomanes), 295.

flavoviridis (Vireo), 295.
flavoviridis (Vireosylvia), 295.
Flycatcher, Black-breasted, 192.
Flycatcher, Olive, 180.
Flycatcher, Southern, 176.
Flycatcher, Yellow-headed, 76.
foliorum (Sitta), 347.
formosa (Calisitta), 357.
formosa (Sitta), 357.
fortis (Pachycephala), 369.
frenatus (Telephonus), 122.
fringillago (Parus), 19.
frontalis (Dendrophila), 358.
frontalis (Hylophilus), 313.
frontalis (Lanius), 168.
frontalis (Motacilla), 358.
frontalis (Orthorhynchus), 358.
frontalis (Sitta), 358.
frontatus (Falcunculus), 173.
frontatus (Lanius), 173.
fruticeti (Parus), 51.
fuliginata (Pachycephala), 222.
fuliginosa (Acredula), 65.
fuliginosa (Mecistura), 65.
fuliginosa (Pachycephala), 192.
fuliginosus (Ægithalis-cus), 65.
fulvotincta (Pachycephala), 196.
funebris (Dryoscopus), 133.
funebris (Laniarius), 133.
funereus (Melanoparus), 9.
funereus (Parus), 9.
fusca (Certhia), 324.
fusca (Pachycephala), 192.
fuscatus (Collyrio), 263.
fuscatus (Lanius), 263.
fuscicapillus (Hylophilus), 309.
fuscus (Parus), 39, 70.

galeatus (Lophophanes), 31.
gambensis (Dryoscopus), 146.
gambensis (Hapalophus), 146.
gambensis (Laniarius), 146.
gambensis (Lanius), 146.
georgiana (Eopsaltria), 178.
georgiana (Muscicapa), 178.
gilberti (Pachycephala), 210.
gilva (Muscicapa), 296.
gilva (Vireosylvia), 296.
gilva, var. josephæ (Vireosylvia), 297, 298.
gilva, var. swainsonii (Vireosylvia), 297.
gilvus (Vireo), 296.
gilvus swainsoni (Vireo), 297.
glaucogularis (Acredula), 65.
glaucogularis (Orites), 65.
glaucogularis (Parus), 65.
glaucura (Pachycephala), 194.
Gobe-mouche à gorge blanche, 181.
Gobe-mouche géorgien, 178.
Gonolek, 154.
gouldi (Falcunculus), 173.
græcus (Lanius), 236.
graeffei (Pachycephala), 202.
Grande Pie-grièche, 231.
Grande Pie-grièche verdâtre de Madagascar, 107.
griffithii (Parus), 24.
grimmi (Lanius), 250.
Grimpereau, Le, 324.
Grimpereau de Muraille, 331.
grisiceps (Hyloterpe), 215.
grisiceps (Pachycephala), 215.
griseiventer (Parus), 40.
griseogularis (Eopsaltria), 178.
griseonota (Pachycephala), 217.
grisescens (Parus), 35.
griseus (Parus), 85.
grisola (Hyloterpe), 220.
grisola (Muscitrea), 220.
grisola (Pachycephala), 220.
grisola (Tephrodornis), 220.
guianensis (Cyclorhis), 319.
guianensis (Falcunculus), 319.
guianensis (Laniagra), 318.
guianensis (Lanius), 319.
gularis (Eopsaltria), 181.
gularis (Muscicapa), 181.
gularis (Nicator), 167.
gundlachii (Vireo), 304.
gundlachii (Vireonella), 304.
guttatus (Dryoscopus), 137.
guttatus (Laniarius), 137.
gutturalis (Chlorophoneus), 165.
gutturalis (Crocias), 230.
gutturalis (Falcunculus), 174.
gutturalis (Laniarius), 163, 164, 165.
gutturalis (Lanius), 165.
gutturalis (Malaconotus), 165.
gutturalis (Oreoica), 174.
gutturalis (Pachycephala), 192, 193.
gutturalis (Pelicinius), 165.
gutturalis (Telephonus), 164.
gutturalis (Telephorus), 163.
gutturalis (Tschagra), 165.
gutturalis (Turdus), 163, 192.
gymnocephala (Barita), 90.
gymnocephala (Gymnorhina), 91.
gymnocephala (Pityriasis), 90.
gymnocephalus (Cracticus), 91.
gymnopsis (Dendrophila), 357.
Gymnorhina, 91.
Gymnorrhina, 91.

Habia verde, 318.
hamatus (Dryoscopus), 142.
hamatus (Laniarius), 142.
Hapalolophus, 130.
haplonotus (Parus), 25.
Harpolestes, 120.
hattamensis (Pachycephala), 225.

hattamensis (Pachycephalopsis), 225.
helviventris (Psaltrites), 56.
hemileucurus (Lanius), 249, 250, 251.
heteroclites (Certhia), 76.
heteroclitus (Orthonyx), 77.
himalayana (Certhia), 327.
himalayana (Sitta), 349.
himalayensis (Regulus), 80.
himalayensis (Sitta), 349.
hodgsoni (Certhia), 324.
hoffmeisteri (Tichodroma), 332.
hombroni (Pachycephala), 204.
homeyeri (Lanius), 242, 243.
Honey-eater, Buff-winged, 337.
Honey-eater, Rufous-vented, 208.
hua (Mohoua), 77.
hudsonicus (Parus), 34.
hudsonicus, var. littoralis (Parus), 35.
humeralis (Lanius), 255, 257, 258, 259, 260.
huttoni (Vireo), 303.
Hylocharis, 182.
Hylophilus, 305.
Hylophorba, 119.
Hyloterpe, 182.
Hylypsorhis, 329.
Hypenites, 77.
hyperythra (Pachycephala), 213.
Hypherpes, 365.
hypochryseus (Vireo), 304.
hypoleucus (Collyrio), 289.
hypoleucus (Cractieus), 92.
hypoleucus (Lanius), 289.
hypopyrrhus (Archolestes), 156.
hypopyrrhus (Harcolestes), 155.
hypopyrrhus (Lanius), 155.
hypopyrrhus (Malaconotus), 156.
Hypositta, 365.
hypoxanthus (Hylophilus), 310.

ictera (Vanga), 156.
icterocephalus (Orthonyx), 77.
icteroides (Eopsaltria), 204.
icteroides (Pachycephala), 204.
icterophrys (Vireolanius), 315.
icterus (Archolestes), 156.
icterus (Laniarius), 156.
icterus (Malaconotus), 156.
ignicapillus (Regulus), 83.
ignicapillus (Sylvia), 83.
ignotus (Parus), 19.
incertus (Lanius), 290.
innominata (Pachycephala), 197.
inornata (Eopsaltria), 177.
inornata (Pachycephala), 210.
inornatus (Lophophanes), 32.
inornatus (Parus), 32.
insperatus (Parus), 21.
insularis (Hylophilus), 310.
intermedia (Pachycephala), 201.
intermedius (Allotrius), 117.
intermedius (Pterorythrius), 117.
irbii (Acredula), 63.
irbyi (Acredula), 63.
italicus (Enneoctonus), 236.
italicus (Lanius), 236.

jacquinoti (Pachycephala), 203.
japonicus (Regulus), 80.
jaxartica (Ægithalus), 67.
jerdoni (Machlolophus), 25.
jerdoni (Parus), 25, 26.
jobiensis (Pachycephala), 215.
josephæ (Vireo), 307.
josephæ (Vireosylvia), 297.
jounotus (Collurio), 263.
jouschistos (Ægithaliscus), 58.
jouschistos (Ægithalus), 58.
jouschistos (Orites), 58.
jouschistos (Parus), 58.

kamtschatkensis (Parus), 51.
kamtschatkensis (Pœcila), 51.
kandavensis (Pachycephala), 191.
kiek (Lanius), 253.
knjaeseik (Parus), 11.
krueperi (Sitta), 347, 350.

lafresnayi (Xenopirostris), 110.
lahtora (Collyrio), 252.
lahtora (Lanius), 247, 251, 252.
Laletes, 313.
Laniagra, 316.
Laniarius, 150.
Laniellus, 230.
lanioides (Pachycephala), 224.
Lanius, 232.
Lanivireo, 292.
Lantzia, 104.
lapponicus (Parus), 35.
lathora (Lanius), 239.
latimeri (Vireo), 304.
ledouci (Parus), 44.
lepidus (Laniarius), 166.
Leptopœcile, 86.
Leptopteryx, 106.
leucocephala (Artamia), 107.
leucocephala (Sitta), 361, 362.
leucocephala (Vanga), 104.
leucocephalus (Lanius), 107.
leucocephalus (Leptopteryx), 107.
leucogaster (Falcunculus), 174.
leucogaster (Pachycephala), 222.
leucogastra (Eopsaltria), 181.
leucogenys (Acredula), 59.
leucogenys (Ægithaliscus), 59.
leucogenys (Ægithalus), 59.
leucogenys (Orites), 59.
leucogrammicus (Laniellus), 230.

leucogrammicus (Lanius), 230.
leucogrammicus (Telephonus), 230.
leucogrammicus (Telephorus), 230.
leucomelas (Melaniparus), 7.
leucomelas (Parus), 7.
leucomelas (Pentheres), 7.
Leucometopon, 232.
leuconota (Barita), 92.
leuconota (Gymnorhina), 92, 93.
leuconotus (Lanius), 250.
leuconotus (Melaniparus), 10.
leuconotus (Parus), 10.
leuconotus (Pentheres), 10.
leucophæa (Certhia), 336.
leucophæa (Climacteris), 336.
leucoproctum (Trichastoma), 224.
leucopsis (Dryoscopus), 144.
leucopsis (Sitta), 352.
leucopsis (Sphenostoma), 73.
leucopsis (Xerophila), 73.
leucoptera (Certhia), 336.
leucoptera (Sittella), 363, 364.
leucopterus (Bulestes), 98.
leucopterus (Cracticus), 98.
leucopterus (Lanius), 242.
leucopterus (Melaniparus), 7.
leucopterus (Parus), 7, 9.
leucopterus (Pentheres), 7.
leucopygus (Lanius), 250.
leucopygus (Thamnophilus), 148.
leucorhynchus (Dryoscopus), 132.
leucorhynchus (Laniarius), 132.
leucorhynchus (Rhynchastatus), 132.
leucorhynchus (Telephonus), 132.
leucostigma (Pachycephala), 223.
leucotis (Vireolanius), 315.
leucura (Eopsaltria), 180.
leucura (Niltava), 224.
lineolata (Pachycephala), 216, 217.
littayei (Pachycephala), 198.
longicaudata (Mecistura), 61.
longicaudatus (Lanius), 262.
longipennis (Lanius), 236.
longirostris (Harpolestes), 121.
longirostris (Telephonus), 121.
longirostris (Telophonus), 121.
longirostris (Telophorus), 121.
Lophophanes, 3.
lucionensis (Enneoctonus), 271.
lucionensis (Lanius), 271.
luctuosus (Parus), 7.
ludovicianus (Collurio), 245.
ludovicianus (Collyrio), 245.
ludovicianus (Lanius), 245, 246.
ludovicianus, var. excubitoroides (Collurio), 245.
ludovicianus, var. robustus (Collurio), 243.
luehderi (Dryoscopus), 134.
luehderi (Laniarius), 134.
lugens (Pœcila), 47.
lugubris (Dryoscopus), 133.
lugubris (Laniarius), 133.
lugubris (Lanius), 263.
lugubris (Pachycephala), 222.
lugubris (Parus), 35, 47, 51.
lugubris (Penthestes), 47.
lugubris (Pœcile), 47.
lugubris (Poikilis), 48.
lugubris (Rhynchastatus), 133.
lunularis (Turdus), 192.
luscinia (Hylocharis), 220.
luteifrons (Hylophilus), 311.
Machlolophus, 3.
macrocercus (Lanius), 253.
macrodactyla (Certhia), 324.
macronyx (Ægithalus), 69.
macrorhynchus (Pachycephala), 185, 186, 189.
macrorhynchus (Tichodroma), 331.
macrourus (Lanius), 262.
macrourus (Pendulinus), 67.
macularius (Lanius), 208.
madagascariensis (Calicalicus), 119.
madagascariensis (Collurio), 104.
madagascariensis (Dryoscopus), 119.
madagascariensis (Lanius), 119.
madagascariensis (Pachycephala), 116.
madagascariensis cæruleus (Lanius), 108.
madagascariensis major viridis (Lanius), 107.
madagascariensis minor (Lanius), 119.
madagascariensis rufus (Lanius), 105.
madagascarina (Loxia), 108.
maderensis (Regulus), 84.
magister (Vireo), 295.
magister (Vireosylvia), 296.
magna (Sitta), 345.
magnirostris (Eopsaltria), 177.
magnirostris (Lanius), 289.
magnirostris (Otomela), 290.
major (Certhia), 324.
major (Dryoscopus), 136, 137, 138.
major (Laniarius), 136, 137.
major (Lanius), 239, 242, 369.
major (Parus), 3, 19.
major (Telephonus), 136.
Malaconotus, 150.
malzacii (Malaconotus), 146.
mandellii (Certhia), 329.
Mecistura, 54.

medius (Pendulinus), 67.
megarhynchus (Certhia), 324.
melalophus (Parus), 28.
Melaniparus, 3.
melanocephala (Pœcila), 48.
melanocephala (Sitta), 353.
melanocephala (Sittella), 362.
Melanochlora, 3.
melanoleucus (Cracticus), 95.
melanoleucus (Hapalolophus), 143.
melanoleucus (Lanius), 229.
melanoleucus (Penthestes), 7.
melanoleucus (Urolestes), 229.
melanolophos (Lophophanes), 28.
melanolophus (Machlolophus), 28.
melanolophus (Parus), 28, 29.
melanonota (Climacteris), 334.
melanops (Eopsaltria), 203.
melanops (Pachycephala), 203.
melanota (Climacteris), 334.
melanothorax (Lanius), 157.
melanotis (Acredula), 55.
melanotis (Ægithaliscus), 55.
melanotis (Allotrius), 117.
melanotis (Parus), 55.
melanotis (Pœcile), 55.
melanotis (Psaltria), 55.
melanotis (Psaltriparus), 55.
melanotis (Ptererythrius), 117.
melanotus (Climacteris), 334.
melanthes (Lanius), 263.
melanura (Climacteris), 334.
melanura (Pachycephala), 185, 189.
melanurus (Lanius), 229.
melitophrys (Lanius), 314.
melitophrys (Vireolanius), 314.
mellivorus (Lanius), 231.
melodia (Muscicapa), 296.
mentalis (Cracticus), 102.
mentalis (Pachycephala), 189.
mentalis (Vanga), 102.
meridionalis (Collyrio), 247.
meridionalis (Lanius), 244, 246.
meridionalis (Parus), 46.
Meristes, 150.
Merle à collier du Cap de Bonne Espérance, 162.
Merle noir et blanc d'Abyssinie, 139.
merula (Oreicola), 186.
merula (Pachycephala), 186.
merula (Saxicola), 185.
meruloides (Pachycephala), 192.
meruloides (Timixos), 212.
Mésange à ceinture blanche, La, 35.
Mésange à longue queue, La, 59.
Mésange à poitrine noire, La, 16.
Mésange à teste noire de Canada, La, 44.
Mésange brune, La, 39.
Mésange de Marais ou la Nonnette cendrée, La, 49.
Mésange de Sibérie, La, 35.
Mésange grise à joue blanche, La, 16.
Mésange grisette, La, 39.
Mésange huppée de la Caroline, La, 32.
Mésange noire, La, 7.
mexicana (Certhia), 326.
mexicanus (Lanius), 245.
michalowskii (Parus), 43.
minima (Acredula), 56.
minima (Pœcile), 56.
minima (Psaltria), 56.
minimus (Parus), 56.
minimus (Psaltriparus), 56.
minimus, var. plumbeus (Psaltriparus), 56.
minor (Certhia), 324.
minor (Enneoctonus), 236.
minor (Lanius), 235, 252.
minor (Parus), 15, 17.
minor (Sitta), 347.
minuta (Drymoica), 70.
minuta (Sylvia), 70.
minutus (Ægithaliscus), 71.
minutus (Anthoscopus), 70.
minutus (Laniarius), 128.
minutus (Telephonus), 128, 129.
minutus (Telophonus), 128.
minutus (Telophorus), 128.
miosnomensis (Pachycephala), 215.
missouriensis (Lophophanes), 32.
mitratus (Parus), 27.
modestus (Ægithalus), 34.
modestus (Laniarius), 159.
modestus (Parus), 33.
modestus (Sylviparus), 33.
modestus (Vireo), 303.
Mohoua, 75.
mollis (Lanius), 241.
mollissimus (Malaconotus), 146.
moluccanus (Lanius), 185.
monacha (Pachycephala), 222.
montanus (Parus), 47.
monteiri (Laniarius), 157.
monteiri (Meristes), 157.
monticola (Parus), 21.
monticolus (Parus), 20.
morariensis (Pachycephala), 199.
mossambicus (Dryoscopus), 137.
multicolor (Laniarius), 158.
muralis (Certhia), 331.
muraria (Certhia), 331.
muraria (Petrodroma), 331.
muraria (Tichodroma), 331.
muscicapinus (Hylophilus), 308.
Muscitrea, 182.
musculus (Ægithaliscus), 71.
musicus (Vireo), 301.

mystacalis (Climacteris), 339.
mystacalis (Meliphaga), 339.
mystaceus (Regulus), 84.
mystaceus (Rhabdornis), 330.
Mystacinus, 77.

nagaensis (Sitta), 344.
narbonensis (Parus), 67.
nasutus (Collyrio), 268.
nasutus (Lanius), 268.
nattereri (Certhia), 324.
neglecta (Pachycephala), 202.
neglecta (Sitta), 349.
neglectus (Dryoscopus), 136, 137.
Neochloe, 305.
Neolestes, 170.
Neops, 360.
nepalensis (Tichodroma), 332.
neumayeri (Sitta), 345, 346.
Nicator, 165.
niger (Melaniparus), 7.
niger (Parus), 7, 8, 9.
niger (Pentheres), 7.
nigerrimus (Dryoscopus), 133.
nigriceps (Collurio), 268.
nigriceps (Collyrio), 268.
nigriceps (Lanius), 268, 269.
nigrifrons (Lanius), 236.
nigrigularis (Cracticus), 95.
nigrimentum (Pachycephala), 189.
nigrirostris (Cyclorhis), 317.
nigrirostris (Laniagra), 317.
nigrithorax (Laniarius), 157.
nigrogularis (Cracticus), 95.
nigrogularis (Vanga), 95.
Nilaus, 167.
nilsonii (Regulus), 84.
nipalensis (Certhia), 328, 329.
nipalensis (Lanius), 260.
nipalensis (Parus), 16.
nipalensis (Sitta), 349, 352.
niveogularis (Acanthiparus), 58.
niveogularis (Acredula), 58.
niveogularis (Ægithaliscus), 58.
niveogularis (Ægithalus), 58.
niveogularis (Orites), 58.
novæ seelandiæ (Certhiparus), 76.
novæ seelandiæ (Parus), 76.
novæ zealandiæ (Certhiparus), 76.
novæ zealandiæ (Parus), 76.
noveboracensis (Lanius), 301.
noveboracensis (Muscicapa), 300.
noveboracensis (Vireo), 300, 303.
nuchalis (Parus), 38.
Nuthatch, Ferruginous-bellied, 351.
Nuthatch, New-Holland, 336.
Nuthatch, Orange-winged, 360.

obiensis (Pachycephala), 186.
obscurior (Collurio), 260.
obtecta (Pœcile), 35.
obtecta (Pœcilia), 35.
obtectus (Parus), 35, 36.
occidentalis (Pachycephala), 193.
occidentalis (Parus), 45.
ochraceiceps (Hylophilus), 310.
ochraceus (Vireo), 302.
ochrocephala (Cyclorhis), 318.
ochrocephala (Mohoua), 77.
ochrocephala (Muscicapa), 76.
ochrocephala (Orthonyx), 77.
ochrocephalus (Certhiparus), 76.
ocularis (Glyciphila), 336.
œnochlamys (Dendrophila), 359.
œnochlamys (Sitta), 359.
oleaginus (Malaconotus), 162.
Oliva, L', 160, 161.
olivacea (Muscicapa), 180, 294.
olivacea (Pachycephala), 212.
olivacea (Phyllomanes), 294.
olivacea (Vireosylvia), 294.
olivaceus (Chlorophoneus), 162.
olivaceus (Hylophilus), 313.
olivaceus (Laniarius), 156, 161.
olivaceus (Lanius), 156, 161, 294.
olivaceus (Malaconotus), 162.
olivaceus (Meristes), 156.
olivaceus (Telephorus), 162.
olivaceus (Vireo), 294.
olivaceus, var. chivi (Vireosylvia), 295.
olivaceus flavoviridis, var. agilis (Vireosylvia), 295.
optata (Pachycephala), 190.
orbitalis (Lanius), 250.
Oreocharis, 2.
Oreoica, 174.
organicum (Barita), 93.
organicum (Gymnorhina), 92.
orientalis (Dryoscopus), 141, 144, 148.
orientalis (Laniarius), 144.
orientalis (Malaconotus), 144.
orientalis (Pomatorhynchus), 125.
Oriolia, 106.
orioloides (Pachycephala), 200.
Orites, 54.
ornatum (Conirostrum), 72.
ornatus (Lanius), 162.
ornatus (Malaconotus), 163.
orpheus (Hylocharis), 213.
orpheus (Hyloterpe), 213.

orpheus (Pachycephala), 213.
osburni (Laletes), 313.
Otomela, 232.
ouratensis (Orites), 65.

Pachycare, 226.
Pachycephala, 182.
pachycephaloides (Clytorhynchus), 111.
pachycephaloides (Xenopirostris), 111.
Pachycephalopsis, 182.
Pachysylvia, 305.
pallens (Collyrio), 250.
pallens (Lanius), 250.
pallens (Vireo), 302.
pallida (Pachycephala), 206.
pallidirostris (Collyrio), 247.
pallidirostris (Lanius), 247, 248, 249.
pallidus (Allotrius), 118.
pallidus (Collyrio), 247.
pallidus (Lanius), 247.
palustris (Poikilis), 49.
palustris (Parus), 45, 49.
palustris (Pœcile), 49, 51.
palustris, var. borealis (Parus), 51.
palustris, subsp. camtschatkensis (Parus), 51.
palustris japonicus (Parus), 49.
Panurus, 77.
papuensis (Sitta), 365.
papuensis (Sittella), 365.
paradoxa (Certhia), 324.
Paroides, 54, 66, 77.
Parus, 3.
parvula (Eopsaltria), 177.
parvula (Eremomela), 71.
parvulus (Ægithaliscus), 71.
pectoralis (Ægithalus), 69.
pectoralis (Hylophilus), 307.
pectoralis (Muscicapa), 192.
pectoralis (Pachycephala), 192, 208.
pectoralis (Xerophila), 74.
pekinensis (Parus), 41, 42.
peli (Laniarius), 166.
Pelicinius, 150.
Penduline, La, 67.
Pendulinus, 66.
pendulinus (Ægithalus), 67.
pendulinus (Parus), 67.
pendulinus, var. jaxartica (Ægithalus), 67.
pensilis (Ægithaliscus), 70, 71.
pensilis (Paroides), 70.
Pentheres, 3.
Penthestes, 3.
persicus, Parus (Cyanistes), 14.
persicus (Parus), 14.
personata (Barita), 97.
personatus (Cracticus), 97.
personatus (Psaltriparus), 55.
Petite Sittelle, La, 347.
Petrodroma, 331.
phæonota (Pachycephala), 214.
phæonotus (Pachycephala), 214.
phæonotus (Parus), 44.
phaionotus (Myiolestes), 214.
philadelphica (Vireo), 296.
philadelphicus (Vireo), 296.
philippinensis (Hyloterpe), 221.
philippinensis (Pachycephala), 221.
philomela (Hylocharis), 220.
philomela (Hyloterpe), 220.
philomela (Muscicapa), 220.
phœnicoptera (Tichodroma), 331.
phœnicura (Otomela), 271.
phœnicurus (Lanius), 271.
Phoneus, 232.
Phyllobasileus, 79.
Phyllomanes, 292.
picatus (Cracticus), 96.
picatus (Dryoscopus), 138.
picatus (Laniarius), 138.
picatus (Thamnocataphus), 368.
piceæ (Parus), 44.
pictus (Telephonus), 152.
picumnus (Certhia), 336.
picumnus (Climacteris), 336, 337.
Pie-grièche à diadème, 204.
Pie-grièche à masque noir, 203.
Pie-grièche à queue épineuse, 182.
Pie-grièche Blanchot, 156.
Pie-grièche bleue, 108.
Pie-grièche bleue de Madagascar, 108.
Pie-grièche calicalic, 119.
Pie-grièche d'Antigue, 268.
Pie-grièche d'Italie, 235.
Pie-grièche du Sénégal, 153.
Pie-grièche, Grand, 231.
Pie-grièche grise, 237.
Pie-grièche grise du Sénégal, 124.
Pie-grièche loriot, 200.
Pie-grièche Perrin, 165.
Pie-grièche rousse à tête noire du Sénégal, 124.
Pie-grièche rousse de Madagascar, 105.
Pie-grièche rousse du Sénégal, 153.
pileata (Sittella), 362.
pileatus (Lanius), 268.
pinetorum (Lanius), 236.
pinetorum (Parus), 41.
pinetorum (Sitta), 347.
Pityriasis, 90.
Pityriopsis, 90.
placens (Climacteris), 335.
pleskii (Parus), 12.
plumbea (Lanivireo), 300.
plumbea (Psaltria), 56.
plumbea (Vireosylvia), 300.
plumbeus (Lanivireo), 300.
plumbeus (Parus), 56.
plumbeus (Psaltriparus), 56.
plumbeus (Vireo), 299.
plumbiceps (Hylophilus), 307.
Pœcile, 3.
pœcilotis (Hylophilus), 308.

Poekilis, 3.
poeltzami (Mecistura), 64.
poliocephala (Cyclorhis), 319.
poliocephalus (Laniarius), 156.
poliocephalus (Lanius), 156.
poliocephalus (Malaconotus), 156.
poliochlamys (Laniarius), 155.
poliosoma (Pachycephala), 226.
poliosoma (Pachycephalopsis), 226.
polleni (Vanga), 110.
polleni (Xenopirostris), 110.
polonicus (Ægithalus), 67.
polonicus (Parus), 67.
Pomatorhynchus, 120.
Poule, 83.
Poule ou Souci de Pensilvanie, La, 85.
princeps (Lanius), 253.
Promerops de Muraille, 331.
propinqua (Vireosylvia), 298.
przewalskii (Lanius), 242.
Psaltria, 53.
Psaltriparus, 54.
Psaltrites, 54.
Ptererythrius, 112.
Pteruthius, 112.
Pterythrius, 112.
Ptilobaphus, 3.
Pucherania, 182.
pulchellus (Vireolanius), 315.
pulverulenta (Eopsaltria), 180.
pulverulenta (Pœcilodryas), 180.
pulverulentus (Colluricincla), 180.
pulverulentus (Myiolestes), 180.
punctifrons (Ægithaliscus), 70.
pusilla (Sitta), 356.
pusillus (Hylophilus), 307.
pusillus (Vireo), 301.
pygmæa (Sitta), 355.
pyrocephalus (Regulus), 84.
pyrrhonota (Climacteris), 339.
pyrrhonotus (Collyrio), 266, 268.
pyrrhonotus (Lanius), 266.

quadricolor (Laniarius), 164.
quadricolor (Pelicinius), 164.
quadrivittatus (Parus), 22.
quoyi (Barita), 94.
quoyi (Cracticus), 94.
quoyi (Vanga), 95.

rapax (Lanius), 238.
reguloides (Regulus), 83.
Regulus, 79.
regulus (Motacilla), 80.
regulus (Sylvia), 80, 82, 83.
remigialis (Telophonus), 128.
remigialis (Telophorus), 128.
Remiz, Le, 67.
rex (Machlolophus), 367.
rex (Parus), 367.
Rhabdornis, 333.
Rhodophoneus, 150.
Rhynchastatus, 130.
robusta (Pachycephala), 186.
robustus (Cracticus), 95.
robustus (Lanius), 243, 244.
robustus (Parus), 19.
Roller, Piping, 91.
Roller, Red, 97.
rosea (Acredula), 61.
rosea (Mecistura), 61.
roseilia (Sitta), 343.
roseus (Lanius), 236.
roseus (Malaconotus), 152.
roseus (Parus), 61.
rubidiventer (Parus), 30.
rubidiventris (Machlolophus), 30.
rubidiventris (Parus), 30.
rubineus (Regulus), 85.
rubrifrons (Hylophilus), 311.
rufa (Artamia), 105.
rufa (Climacteris), 335.
rufa (Lantzia), 105.
rufa (Schetba), 105.
rufa (Vanga), 105.
rufescens (Pachycephala), 217.
rufescens (Parus), 34.
rufescens (Pœcila), 34.
rufescens (Sitta), 345.
rufidorsalis (Certhia), 324.
rufinucha (Pachycephala), 211.
rufipectus (Parus), 44.
rufipennis (Pachycephala), 218.
rufiventer (Parus), 40.
rufiventer (Ptererythrius), 115.
rufiventer (Pteruthius), 115.
rufiventris (Dryoscopus), 134, 135, 368.
rufiventris (Laniarius), 135.
rufiventris (Malaconotus) 134.
rufiventris (Pachycephala), 205, 208.
rufiventris (Parus), 40.
rufiventris (Sylvia), 208.
rufogularis (Pachycephala), 209.
rufonuchalis (Lophophanes), 29.
rufonuchalis (Parus), 29, 30.
rufus (Artamus), 105.
rufus (Calicalicus), 105.
rufus (Lanius), 105.
rupestris (Sitta), 345.
rupicola (Sitta), 345.
russicus (Mystaceus), 78.
russicus (Parus), 78.
ruticilla (Hylophorba), 119.
rutilans (Ægithalus), 69.

sabinei (Chaunonotus), 143.
sabinei (Dryoscopus), 143.
sabinei (Thamnophilus), 143.
saebyensis (Parus), 11.
salicaria alpina (Pœcila), 51.
salicaria assimilis (Pœcila), 51.
salicaria borealis (Pœcila), 51.
salicarius (Parus), 49.
salimæ (Dryoscopus), 144.
salimæ (Laniarius), 144.

Salpornis, 329, 330.
salvadorii (Hylypsornis), 330.
sanguinifrons (Dicæum), 70.
satrapa (Regulus), 82, 83.
satrapa, var. olivascens (Regulus), 83.
saxatilis (Sitta), 345.
scandens (Climacteris), 336, 337.
scandulacea (Certhia), 324.
schach (Collyrio), 262.
schach (Lanius), 261, 263, 266, 267, 268.
schach, var. formosæ (Lanius), 262.
schistonotus (Parus), 16.
schlegeli (Pachycephala), 195.
scolopacina (Motacilla), 324.
seebohmi (Lanius), 243.
semibrunneus (Hylophilus), 309.
semicinereus (Hylophilus), 312.
semiflavus (Vireo), 302.
semilarvatus (Melanipa-rus), 38.
semilarvatus (Parus), 38.
senegalensis (Lanius), 255.
senegalensis (Tchagra), 121.
senegalus (Laniarius), 125.
senegalus (Lanius), 121, 124.
senegalus (Telephonus), 128.
senegalus (Telophonus), 124, 125.
senegalus (Telophorus), 124.
senex (Pachycephala), 214.
senilis (Certhiparus), 75.
senilis (Parus), 75.
septentrionalis (Certhia), 324.
septentrionalis (Lanius), 240.
septentrionalis (Parus), 45.
septentrionalis (Regulus), 80.
septentrionalis (Sitta), 342, 347.
septentrionalis, var. albescens (Parus), 45.
sericea (Sitta), 342.
sericophrys (Parus), 33.
Shrike, Frontal, 173.
Shrike, Great Cinereous, 237.
Shrike, Hook-billed, 104.
Shrike, Rufous, 105.
Shrike, Senegal, 124.
Shrike, Varied, 158.
Shrike, White-headed, 107.
Shrike, Yellow-browed, 159.
sibirica (Pœcila), 35, 48.
sibirica (Pœcile), 35.
sibirica (Sitta), 343.
sibirica vera (Pœcila), 35.
sibiricus (Calamophilus), 79.
sibiricus (Parus), 35, 48.
sibiricus (Pœcila), 35.
similis (Chlorophoneus), 159.
similis (Laniarius), 159.
similis (Malaconotus), 148, 159.
simplex (Pachycephala), 219.
sinensis (Sitta), 347.
sitchensis (Parus), 34.
Sitta, 341.
Sittella, 360.
Sittelle à tête brune, La, 356.
Sittelle à tête noire, 354.
Sittelle du Canada, 354.
smithi (Ægithaliscus), 70.
smithi (Paroides), 70.
smithi (Parus), 71.
smithii (Collurio), 258.
smithii (Collyrio), 255, 259.
smithii (Fiscus), 259.
smithii (Lanius), 258, 259.
solitaria (Lanivireo), 299.
solitaria (Muscicapa), 298.
solitaria (Vireo), 298.
solitaria (Vireosylvia), 299.
solitarius (Lanius), 299.
solitarius (Vireo), 298.
solitarius cassini (Vireo), 299.
solitarius, var. plumbeus (Lanivireo), 300.
solitarius, var. propinquus (Vireosylvia), 299.
somalicus (Dryoscopus), 130.
somalicus (Lanius), 130.
songarus (Parus), 48.
sonnerati (Barita), 97.
sophiæ (Allotrius), 118.
sophiæ (Leptopœcile), 86.
soror (Pachycephala), 196.
Souci, 83.
Sourciroux, 319.
souzæ (Fiscus), 254.
souzæ (Lanius), 254.
spaldingi (Cracticus), 102.
Spasornis, 104.
sphenocercus (Lanius), 242, 251.
Sphenostoma, 74.
spilonota (Certhia), 330.
spilonota (Salpornis), 330.
spilonotus (Machlolophus), 26.
spilonotus (Parus), 26.
spilonotus (Salpornis), 330.
spinicauda (Pachycephala), 182.
spinicauda (Pterorythius), 182.
spinicauda (Pucherania), 182.
spinicaudus (Pteruthius), 182.
squalida (Pachycephala), 215.
stictirus (Dryoscopus), 136.
stictirus (Laniarius), 136.
stoliczkæ (Ægithalus), 68.
stoliczkæ (Certhia), 328.
stoliczkæ (Stoliczkana), 86.
Stoliczkana, 86.
striata (Pachycephala), 208.
striata (Sittella), 364.
strigatus (Lanius), 290.

striolata (Climacteris), 339.
stromei (Parus), 19.
stulta (Sitta), 354.
subcoronatus (Collyrio), 260.
subcoronatus (Fiscus), 260.
subcoronatus (Lanius), 260.
subflavescens (Cyclorhis), 320.
subhemalayana (Tichodroma), 331.
sublacteus (Dryoscopus), 140, 141.
sublacteus (Laniarius), 140.
sublacteus (Malaconotus), 140.
submicrorhynchus (Pœcile), 35.
subviridis (Machlolophus), 26.
subviridis (Parus), 26.
suchii (Lanius), 266.
succica (Sitta), 342.
sulfureipectus (Chlorophoneus), 159.
sulfureipectus (Dryoscopus), 159.
sulfureipectus (Laniarius), 159.
sulfureopectus (Malaconotus), 159.
sulfureopectus (Tchagra), 159.
sulfuriventer (Hyloterpe), 221.
sulfuriventer (Pachycephala), 221.
sultanea (Melanochlora), 6.
sultaneus (Parus), 6.
sumatrana (Melanochlora), 6.
sundevalli (Parus), 71.
superciliaris (Tephrodornis), 220.
superciliosus (Laniarius), 159.
superciliosus (Lanius), 271, 319.
superciliosus (Malaconotus), 159.
superciliosus (Telephorus), 159.
swainsonii (Sylvia), 308.
swainsonii (Vireo), 296.
swainsonii (Vireosylvia), 296.
swinhoei (Mecistura), 65.
sylvicola (Muscicapa), 298.
syriaca (Sitta), 345, 346.

tæniura (Certhia), 327.
Tanagra, 318.
Tchagra, Le, 121.
tchagra (Lanius), 126.
tchagra (Potamorhynchus), 121.
tchagra (Telophonus), 127.
tchagra (Thamnophilus), 121.
Telophonus, 120.
Telophorus, 150.
teneriffæ (Parus), 14, 15.
tenuirostris (Sittella), 363.
tephronota (Acredula), 64.
tephronota (Sitta), 346.
tephronotus (Collurio), 260.
tephronotus (Collyrio), 261.
tephronotus (Lanius), 260, 265.
tephronotus (Orites), 64.
tephronotus (Parus), 64.
Thamnocataphus, 368.
Thamnophilus, 318.
thamnophilus (Dryoscopus), 147.
thamnophilus (Laniarius), 147.
thoracicus (Hylophilus), 307.
Thrush, Black-crowned, 192.
Thrush, Ethiopian, 139.
Thrush, Guttural, 192.
Thrush, Orange-breasted, 208.
Thrush, Yellow-breasted, 176.
tibicen (Barita), 91, 92.
tibicen (Coracias), 91.
tibicen (Cracticus), 91.
tibicen (Gymnorhina), 91.
Tichodroma, 331.
tigrinus (Enneoctonus), 290.
tigrinus (Lanius), 290.
Tit, Azure, 11.
Tit, Cape, 70.
Titmouse, Azure, 11.
Titmouse, Bearded, 78.
Titmouse, Blue, 12.
Titmouse, Crested, 27, 32.
Titmouse, Great, 19.
Titmouse, Hudson's-Bay, 35.
Titmouse, Long-tailed, 60.
Titmouse, Marsh, 49.
Titmouse, New-Zealand, 76.
Titmouse, Penduline, 67.
Titmouse, Toupet, 32.
Torche-pot, 347.
torquata (Pachycephala), 201.
torquatus (Bulestes), 100.
torquatus (Cracticus), 100.
torquatus (Neolestes), 171.
Trichophorus, 166.
tricolor (Dryoscopus), 132, 150.
tricolor (Laniarius), 150.
tricolor (Lanius), 268.
tricolor (Regulus), 83.
trivirgata (Acredula), 62.
trivirgatus (Laniarius), 122.
trivirgatus (Parus), 62, 65.
trivirgatus (Pomatorhynchus), 122.
trivirgatus (Telephorus), 122.
trivirgatus (Telophonus), 122.
tschagra (Telephonus), 127.
tschagra (Telophonus), 121.
turatii (Dryoscopus), 140.
turatii (Laniarius), 140.

ultramarinus (Cyanistes), 14.
ultramarinus (Parus), 14, 15.
uncinatus (Lanius), 245, 246, 248.
uralensis (Sitta), 342.
Urolestes, 228.
urostigma (Parus), 76.
ussheri (Laniarius), 124.
ussheri (Telophonus), 124.

vagans (Mecistura), 61.
Vanga, 104.
varia (Barita), 97.
varia (Coracias), 97.
varia (Gracula), 97.
varia (Sitta), 354.
varians (Cracticus), 97.

variegata (Eopsaltria), 180.
varius (Cracticus), 95, 97.
varius (Parus), 37.
velata (Sitta), 358.
venustulus (Parus), 23.
verreauxii (Dryoscopus), 141.
vicinior (Vireo), 300.
vigil (Lanius), 236.
villosa (Sitta), 355.
vinacea (Acredula), 65.
violaceus (Parus), 14.
virenticeps (Cyclorhis), 317.
Vireo, 292.
vireo (Nicator), 166.
Vireolanius, 314.
Vireonella, 292.
Vireosylvia, 292.
virescens (Pachycephala), 215.
virescens (Vireo), 294.
viridiflavus (Hylophilus), 312.
viridis (Cyclorhis), 318, 319.
viridis (Laniarius), 165.
viridis (Malaconotus), 164.
viridis (Saltator), 318.
viridis (Telephorus), 165.
vitiensis (Pachycephala), 190, 201.
vittacauda (Certhia), 327.
vulgaris (Regulus), 80.

waldeni (Lanius), 290.
Warbler, Rufous-vented, 208.
wernei (Malaconotus), 154.
wiedii (Cyclorhis), 318.
wollweberi (Lophophanes), 31.
wollweberi (Parus), 31.

xantherythræa (Pachycephala), 207.
xanthetræa (Muscicapa), 207.
xanthetræa (Pachycephala), 207.
xanthochloris (Allotrius), 118.
xanthochloris (Pterorythrius), 118.
xanthochloris (Pteruthius), 118.
xanthochloris, var. pallida (Allotrius), 118.
xanthocnemis (Pachycephala), 186.
xanthogenys (Machlolophus), 24.
xanthogenys (Parus), 24, 25, 26.
xanthoprocta (Pachycephala), 211.
xenopirostris (Vanga), 110.

zelandicus (Parus), 76.
zeylonus (Pelicinius), 162.
zeylonus (Telephonus), 162.
zeylonus (Telophorus), 162.
zeylonus (Turdus), 162.

END OF THE EIGHTH VOLUME.

PRINTED BY TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.

LIST OF PLATES.

	Plate
Ægithalus caroli, p. 71	I.
—— capensis, p. 70	
Telophonus ussheri, p. 124	II.
—— blanfordi, p. 127	
Laniarius poliochlamys, p. 155	III.
—— melanothorax, p. 157	IV.
Nilaus capensis, p. 168	V.
—— afer, p. 169	
Lanius dealbatus, p. 250	VI.
—— elegans, p. 251	VII.
—— fallax, p. 247	VIII.
Pachycephala poliosoma, p. 226	IX.

J. Smit, del. et lith. Mintern Bros. imp.

1 Ægithalus caroli. 2 Ægithalus capensis.

J. Smit. del.et lith. Mintern Bros. imp.

1. Telophonus ussheri. 2. Telophonus blandfordi.

J. Smit del et lith. Mintern Bros. imp.

Laniarius poliochlamys.

2/3

J. Smit del. et lith. Mintern Bros. imp.

Laniarius melanothorax.

J. Smit. del. et lith. Mintern Bros. imp.

1. Nilaus capensis. 2. Nilaus afer.

2/3

J. Smit del et lith. Mintern Bros. imp.

Lanius dealbatus.

J. Smit del et lith. Mintern Bros imp

Lanius elegans

J. Smit del et lith. Mintern Bros. imp.

Lanius fallax.

J. Smit del et lith. Mintern Bros. imp.

Pachycephalopsis poliosoma.