ZOO QUEST
IN PARAGUAY

by

DAVID ATTENBOROUGH

With 42 photographs
including 5 in full colour

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Acknowledgments

WHEN we landed at Asunción Airport in Paraguay we knew no one. When we departed from it for London, four months later, we left behind us many friends who, to judge from the unstinting help and hospitality they gave us, seemed to have been waiting all their lives to lavish their kindness on two Englishmen bent on collecting animals. A few of their names appear in the pages that follow, and I hope maybe that some part of our debt to them will be apparent, but there are many more unmentioned without whom we should have found it extremely difficult to get beyond Asunción. Pre-eminent among them are Dr. and Mrs. Rogelio Espinosa, Sr. Andreas Jurrita, Mr. and Mrs. Douglas Kimberley, Mr. and Mrs. J. Pethybridge, Mr. and Mrs. J. W. Wall, and Mr. David Wood; also Mr. and Mrs. C. H. Gibson, and Mr. and Mrs. T. J. Lynn of Liebig's Extract of Meat Company. To them, and to many more besides, I would like to express my deepest thanks.

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I must also thank Charles Lagus for his companionship during the expedition, the fifth we have shared together. His was the arduous and often irritating task of recording our journey on film for television. The frontispiece, the colour

photograph of the parakeets opposite page 60, the two colour photographs opposite page 122, and Plates 12 and 27 were taken by Charles Lagus. The lower photograph opposite page 165 is reproduced by permission of Central Press. The rest of the photographs are my own.

DAVID ATTENBOROUGH

Richmond, Surrey
August, 1959

Introduction

WE went to Paraguay to look for armadillos. To have gone so far in search of a creature whose attractions are not, perhaps, immediately obvious may need a little justification. There are many reasons why animals appeal to us. The exquisite beauty of birds, the grace and sleek strength of great cats, the dramatic, slightly horrifying appearance of giant snakes, the flattering affection of dogs, the mischievous, near-human intelligence of monkeys—all these are characteristics which win many devotees. But armadillos possess none of them. They are drably coloured and, except to the most sympathetic eye, not particularly beautiful. As far as I know, they cannot be trained to perform amusing tricks (to be truthful, I suspect that they are really rather unintelligent) and they do not make endearing pets. Yet they have one quality which, for me, is the most potently fascinating of any that an animal may possess—a blend of the exotic, the fantastic and the antique which is only inadequately summarized by the word "strange".

It is not easy to define this characteristic. A lion does not possess it for a lion is, after all, essentially a larger version of our familiar domestic cat. Neither does a polar bear appear surprising or odd to us; it is after all very like a dog, merely somewhat larger, with a white coat to make it inconspicuous among the snows of the Arctic. Even such a curious creature as the giraffe is built on a pattern which is familiar to us, for it belongs to the tribe which includes the common European deer.

But there is nothing in Europe which remotely resembles such extraordinary creatures as the kangaroo, the giant ant-eater, the sloth—or the armadillo. Both in their general appearance and their internal anatomy, they are quite unlike anything which inhabits our own continent; they are the last of their kind, the survivors from past geological ages when most of the animals of today had not yet appeared on earth. They, indeed, are truly "strange".

The causes of their survival are, in themselves, fascinating. The kangaroo's ancestors once inhabited much of the surface of the earth. In their time, their newly developed ability to nurture their tiny embryonic young inside a pouch made them the most advanced creatures of the age. But as even more highly developed animals evolved—the placental mammals which were able to retain their young in a womb inside their bodies—the marsupials became out-moded, and were no longer able to win the battle for food and living space. As a result, the majority of them died out. Some—the opossums—survived in South America, but most of the marsupials of today are found in Australia, for that continent became separated from the rest of the world by an arm of the sea before the newer mammals evolved. Consequently, the old-style marsupial was protected from outside competition and lived on, in many different forms, until the present day. Australia, in fact, is a museum of living antiques.

South America, by virtue of its rather more complicated geological history, contains other strange animal antiques as well as the opossum. For many millions of years it was connected to North America by a wide bridge of dry land, but soon after the appearance of the first placental mammals it, too, became separated from the rest of the world. At this time the Edentates—the group which contains the sloths, the armadillos and the anteaters—were in the ascendant. During their period of isolation in South America, they evolved to produce

found in a cave on the shores of a bay a rolled-up animal skin. He took it back to his ranch, and, thinking little of it, hung it on a tree to serve as a boundary mark. Some time later, a section of it was examined by a scientist. He found that it contained curious bony nodules and was quite unlike the skin of any known living animal. One piece was brought to London and shown to the Fellows of the London Zoo at a Scientific Meeting in 1899. There seemed little doubt that it belonged to a giant sloth—a Mylodon. The only point at issue was how recently the animal had been alive, so a team of scientists went to Patagonia and carefully excavated the cave in which the skin had been discovered. They found that part of the cave had been enclosed by a rough wall of boulders to form a separate chamber and it was in here that they discovered another piece of skin, great quantities of dung, remains of heaps of hay and some Mylodon bones. Most of these bones had been split as though to extract the marrow and one skull had been cracked open. The dung was examined by a British scientist who showed that it contained stems of grass which had been cleanly cut with some sort of a knife and not roughly broken as it would have been if the sloth had cropped it by itself. There seemed little doubt that Mylodons had been stabled in the cave and given fodder by early man. Whether the creatures had been accidentally cornered in the cave, whether they had been driven in there and then penned up, or whether Mylodons had been habitually kept as semi-domestic animals is uncertain. But there could be no doubt whatsoever that these gigantic animals were alive within the past few hundred years, which was many thousands of years later than scientists had previously supposed. Many people believed that there might still be some roaming in the lesser known, remote parts of Patagonia and several expeditions set out to find them. Unhappily, all were unsuccessful. Nonetheless, the discoveries of the coelacanth fish in the shallow coastal waters of Africa and

the Notornis bird in New Zealand, both creatures which scientists had believed to be extinct, are warnings that we should not dismiss absolutely the possibility of the existence of living Mylodons.

Although modern man has never seen one of these giants alive, some of their close relations still survive—the sloths and the anteaters. These odd animals have persisted because they have adopted extremely specialized modes of life in which they have not had to face competition with newer immigrants from North America. Nothing disputes food or territory with the sloths of today for they spend their lives suspended upside down from the branches of the forest trees, slowly browsing on leaves and creepers; and nothing cares to compete in the gathering of ants and termites with the sloths' cousins—the giant, the pygmy and the tamandua anteaters.

The armadillos are the only surviving relations of the Glyptodons. To look at them is to see a link with the strange, primitive beasts of prehistory, and it is this more than anything else which makes them, for me, so intriguing. They live in burrows and trot through the forests and over the pampas, eating roots, small insects, and carrion. It may well be that they owe their continued existence in some measure to their armour-plated shells. Indeed, they seem to be an extremely successful group of creatures, for there are many different species of them ranging in size from the tiny pygmy armadillo, no bigger than a mouse, which burrows in the sand of Argentina, to the giant armadillo that grows to four or five feet long and which roams through the hot moist forests of the Amazon basin.

* * * * * * *

Charles Lagus and I had filmed and captured sloths and anteaters in British Guiana some years previously, but neither of us had ever seen a wild armadillo. We hoped that we should do

so in Paraguay. We also planned to look for many other birds, mammals and reptiles, as well as armadillos, but when the Paraguayans asked us why we had come to their country, I simply replied, without amplification, "We are here to look for *tatu*."

Tatu, I believed, meant armadillo. It is not Spanish but Guarani, the language which, with Spanish, is the official tongue of Paraguay.

My reply always had the same effect—roars of laughter. During our first days I had supposed that for some reason a man looking for armadillos must seem to be an irresistibly comic figure to all Paraguayans, but I began to mistrust this explanation as being too simple. When my reply reduced a senior official of the Banco National del Paraguay to mirth bordering on hysterics, I felt the time had come to solve the mystery. Before I could say anything further, he asked me another question.

"What kind of *tatu*?"

I knew the answer to that as well.

"Black *tatu*, hairy *tatu*, orange *tatu*, giant *tatu*; all the different kinds of *tatu* that are found in Paraguay."

He seemed to find this even funnier than my first reply. He was convulsed. I waited patiently for him to recover. Until then he had impressed me as a friendly and helpful man; he spoke perfect English and our conversation together had been most useful. His laughter subsided.

"Perhaps you mean some sort of animal?"

I nodded.

"You see," he explained, "*tatu*, in Guarani, is also used as a not very polite word which means . . . well . . ." he hesitated, "a sort of young lady."

Why the armadillo, fascinating though it is, should have given its name to such a different being was not clear to me, but at last I understood the joke. In the months that followed,

we were asked the same question many more times, but now I was able to give my reply with the conscious air of making a joke, and to use it, as a witticism, to soften the barriers of formality with ranchers, Customs officials, peasants and Indians.

On a few occasions, however, the joke misfired, for one or two people considered it quite unremarkable that we were wandering in the remoter parts of Paraguay in search of young ladies and were totally incredulous when we insisted that we really were looking for the four-legged variety of *tatu*. Sometimes, after we had cracked our *tatu* joke, some of our questioners went on to ask exactly why we were so interested in armadillos. I never managed to make myself clear on this point. My Guarani dictionary did not include words for either Glyptodon or Mylodon. Perhaps it was fortunate that it did not. I blench to think what, if they existed, their other more colloquial meaning might have been.

PARAGUAY
Miles
50 0 50 100
Marsh
60°
56°
20°
24°
28°
BOLIVIA
BRAZIL
Chaco
Rio Paraguay
Olimpo
Puerto Sastre
Puerto Casado
Puerto Pinasco
Pedro Juan
R. Verde
Tropic of Capricorn
Concepción
Horqueta
R. Monte Lindo
Rio Pilcomayo
Estancia Elsita
San Pedro
Rosario
R. Jejuí
Yhú
R. Confuso
Alto Paraná
Asunción
Paraguarí
Villarrica
Pilar
Corrientes
Río Paraná
ARGENTINA
SOUTH AMERICA
Paraguay
Estancia Ita Caabo
To Buenos Aires

CHAPTER ONE

The Decline of a Luxury Cruise

CHARLES and I had filmed and collected animals together on four previous expeditions. At times, during all of them, we had been decidedly uncomfortable, and we often kept our thoughts from our aching legs or empty stomachs by trying to devise the ideal expedition on which we should live in lazy luxury, yet find the most beautiful and exciting animals in the world.

In New Guinea, we had walked several hundred exhausting miles to find some elusive birds of paradise. Towards the end of that journey, Charles had stated categorically that the first essential of his ideal expedition was some form of mechanical transport. When we had sailed together in a small fishing prau through the islands of Indonesia and had lived, perforce, on an exclusive diet of salt fish and rice, I had stipulated that my priority would be an immense and infinitely varied larder of tinned delicacies. In a particularly flimsy camp in Borneo, we had both agreed, as we struggled to save our film and cameras from being soaked by torrential rains, that a completely waterproof habitation was also vital. In moments of less serious crisis but equal exasperation we had calmed our ruffled tempers by adding other details: I was determined to have an inexhaustible supply of chocolate; Charles to sleep somewhere that was infallibly proof against beetles, cockroaches, ants, centipedes, wasps, mosquitoes and all other biting or stinging insects. This hypothetical expedition eventually became very

real to both of us, but neither of us imagined that it would ever be translated into fact. Within a week of our arrival in Paraguay, a British meat firm in Asunción spontaneously offered us the means of making a journey which matched these specifications almost exactly.

This embodiment of our dreams was called the *Cassel*. She was a thirty-foot-long, diesel-powered, capacious cabin cruiser with a draught so shallow that she should be able to take us, our equipment and our food up the small, tortuous rivers of the far interior without the slightest difficulty on either her part or on ours. We accepted the offer of her loan with alacrity and enormous gratitude.

As we steamed past the wharves of Asunción, up the wide brown Rio Paraguay, we stowed our cameras and recording equipment into roomy bone-dry cupboards in the cabin. We piled the galley high with packet soups, sauces, chocolate, jars of jam and tinned meats and fruit in amazing variety. We fastened double layers of mosquito netting over the window frames. I arranged above my bunk a small library of paper-backed books. Charles tuned the little wireless to a radio station in Asunción and filled the cabin with haunting guitar music.

More than satisfied with our luxurious accommodation, I walked aft to have a loving look at the dinghy that the *Cassel* was towing from her stern. It was fitted with a 35-horsepower outboard engine and we already referred to it, reverently, as the speedboat. In it, we hoped to roam far and wide among the smaller tributaries looking for animals and returning to the *Cassel* for food and sleep.

There was nothing further to do. I climbed on to my bunk and relaxed. We were on our way, in unprecedented comfort, to the southern fringes of the great tropical forest which begins in the north-eastern part of Paraguay and extends across Brazil to the Amazon Basin and beyond towards the Orinoco—the

largest area of primary jungle in the whole world. It seemed too good to be true.

It was. Within ten days we were to be more wretchedly uncomfortable than we had ever been on any previous expedition.

* * * * * * *

We had three companions on board. Our guide and interpreter was a husky, brown-haired Paraguayan who spoke fluent Spanish, Guarani, and one or two Indian languages. In addition—and astonishingly, for he had never been outside South America in his life—he spoke English with a broad Australian accent. His name was Sandy Wood.

Paraguay is full of people of foreign stock. Poles, Swedes, Germans, Bulgarians and Japanese, all have flocked to this small republic in an effort to escape land shortage or religious oppression, political tyranny or the law. Sandy's parents had come with nearly two hundred and fifty other Australians just before the end of the last century. At that time there had been a disastrous general strike in Australia and a journalist named William Lane, who had long preached an ideal form of socialism, banded together a group of farmers, carpenters and other working people who shared his views, and brought them to Paraguay to set up his perfect society. The Paraguayan Government gave the colonists good arable land and the new community of Nova Australia was founded. All property was to be communally owned; those who joined the group had to give all their money and possessions to the colony's exchequer; everyone had to work, not for individual wages but for the common good. These high-minded political ideals were combined with a dash of puritanism. There was to be no contact with the local people, no drinking of spirituous liquors, no music, no dancing.

Within a year, the strain of living in conformity with such high principles began to tell on the community. The attrac-

tions of the pretty Paraguayan girls, the taste of *caña*, locally fermented cane-juice, and the gaiety of the guitar-playing villagers caused some of the colonists to backslide. Even more serious for the young community's economy, some of the less energetic colonists began to leave the hard work to others and to content themselves—in Sandy's phrase—with doing the grunting.

Colonia Australia was a failure. Undiscouraged, Lane founded another colony, Colonia Cosme, on a new site and took with him the few people who had remained true to their original principles as well as some new immigrants from Australia. But this venture, too, was unsuccessful. Its members began to defect. A Paraguayan revolution was fought over the colony's land and the buildings were sacked first by the revolutionaries and then by the avenging Government forces. The members of the community scattered. Many went down to Buenos Aires to work in the railyards. Some went as far afield as Africa to try farming. A few remained in Paraguay and earned their living as loggers, farmers and carpenters. Sandy's parents had been among them, and Sandy himself had been born and reared a Paraguayan. He had tried a variety of jobs. He had felled timber in the higher reaches of the river up which we were planning to travel, he had worked cattle on an *estancia*, he had been a hunter, and currently he held a spasmodic and ill-defined job in a tourist agency in Asunción. His linguistic skills, his knowledge of the forest and his placid temperament made him an ideal guide for us.

The other two people on board constituted the official crew. There was some doubt as to which of them was actually captain. Gonzales, the thinner, taller and more cheerful of the two, wore a nautical cap. Originally it had been handsomely wreathed with gold braid but it was now so battered that the braid had come adrift and hung drunkenly down the peak. This cap, he told us in confidence, was really the insignia of

captain, but in addition to possessing all the skills that this exacting post required, he was also uniquely qualified to tend the engine. However, he had decided that even he could not deal properly with both jobs at once, and in consequence he was willing to allow his companion to be referred to as "Capitan" even though, as he was at pains to explain, this was in reality only a courtesy title.

Capitan was short and alarmingly pot-bellied. He habitually wore an enormous bell-shaped straw hat with its brim turned down and, beneath it, dark glasses. He did not remove these glasses even in the evenings so that we were tempted to speculate as to whether or not he wore them in bed. His mouth was set in a down-pointing semi-circle of permanent pessimism and his cheeks were marked by some kind of skin complaint which produced un-sunburnt patches of livid pink. He occupied his leisure moments—and he seemed to have many of them—by smearing these patches with a special ointment. His unfailing rejoinder to any comment, question or observation, was to suck his teeth dismally.

To reach the remote area of forest in which we had decided to work, we had to travel north up the Rio Paraguay for some seventy-five miles and then turn eastwards along one of the Paraguay's great tributaries, the Rio Jejui. We hoped to continue along it until we reached its lonely headwaters where no one lived except Indians and a few timber men. The journey would take us at least a week.

During the first few days, we spent much of our time lying on deck watching the *Cassel*'s bows knifing the brown waters of the river and severing the rafts of *camelote*, floating water hyacinth whose elegant spatulate leaves, swollen at their base into buoyant air bladders, shrouded clusters of delicate mauve flowers. The larger clumps we avoided, for even if our boat could have cut into them, their matted dangling roots would have fouled the propeller. Some of these islands carried their

own passengers—herons, egrets, and, prettiest of all, chestnut coloured lily-trotters which stepped fastidiously among the camelote leaves, lifting their long-toed feet high as they searched for the little fish which had misguidedly taken shelter there. As we approached, they took fright at the noise of our engine and flew up, flirting their yellow underwings. They circled us, their long legs dangling limply, and then landed again on their camelote raft which was by now behind us, undulating in our wake.

Sandy sat in the stern sipping *maté*, Paraguayan tea. Gonzales squatted by his engine, enthusiastically strumming a guitar and singing loudly, though none could hear him for the engine completely drowned the sound of his voice. Capitan was perched on a tall stool in the wheelhouse, steering the ship with one hand and smearing ointment on his face with the other. It was fiercely hot. In an endeavour to keep cool, Charles and I went below and lay on our bunks; but there it seemed even hotter, for in the shelter of the cabin there was no breeze to evaporate our sweat, and soon our sheets were drenched.

Suddenly the engine stopped and the unaccustomed silence was filled with shrill voices of Gonzales and Capitan arguing fiercely. We scrambled on deck. Sailing sedately downstream behind us we saw two cushions and a seat. The speedboat itself had disappeared entirely. Sandy explained unemotionally that Capitan had just put the boat into a sharp turn in order to avoid a clump of camelote and the speedboat had capsized in our wake. Gonzales was leaning over the stern ineffectively tugging at the speedboat's painter which was still attached to the bollard but which descended almost vertically into the muddy water. Capitan sat in the wheelhouse with an outraged expression on his face, vociferously sucking his teeth.

In the argument that followed, it transpired that neither Capitan nor Gonzales could swim. While the pair of them continued their recriminations Charles, Sandy and I stripped off

our clothes and clambered overboard. Fortunately and unexpectedly the river here was not deep, but even so it took us nearly two hours to drag the submerged speedboat to the shallows, to right it, and to recover the engine, the three fuel tanks and the toolkit. By the time we had finished, the seat and the cushions must have been well on their way to Asunción, for though we returned downstream for a mile or so we did not find them. It was not a real disaster, but it made us suspect that Capitan's watermanship was not impeccable.

The next three days were uneventful. We left the Rio Paraguay and turned eastwards up the Jejui. A few miles up it we stopped for an hour or so at Puerto-i, the last village of any size on the river. When we left it, Capitan's habitual expression of gloom deepened perceptibly. He had not been along the Jejui before, and now that he was doing so he did not like it. These were dangerous waters and he sensed an impending catastrophe. He faced it on the morning of the fourth day. Ahead of us the river twisted into a hair-pin bend round which its waters rushed in a series of blistering whirlpools.

Capitan stopped the engine with an air of finality. He had already, against his better judgement, performed miracles of navigation but the hazard ahead was totally un-negotiable. We must go back. After persuasion, he consented to inspect the bend in the speedboat. When he returned, his expression made it clear that this closer view had only confirmed his worst fears.

There then developed a somewhat emasculated argument. Sandy, as interpreter, seemed to have decided that it was better to convey to each party only those sections of the discussion which were strictly germane to the problem in hand and to omit the scathing personal references which I suspected Capitan was making about us—and which we were certainly making about him. To us, the bend seemed tricky but by no means impossible. To slink back to Asunción, having wasted

at least a week, was unthinkable. Neither could we work in the surrounding country for it was semi-cultivated. We should never find in it the animals we were seeking. But Capitan's mind was made up. He did not wish to die, he said somewhat melodramatically, and he did not suppose that we wished to do so either. We retorted scornfully. Sandy made a polite translation. As we argued, a filthy little launch, its engine knocking painfully, crawled past us and unconcernedly disappeared round the bend.

As we watched it, our fury redoubled. Not to be able to convey the full strength of our wrath directly to Capitan, without Sandy as middleman, became almost unendurable. We all lost our tempers. It was Charles who finally produced the two words of Spanish which, for the first time, enabled us to establish direct and unambiguous communication with Capitan. An hour or so earlier, Capitan had been struggling with a paraffin stove and he had explained that it never worked properly and was always giving trouble because it was not of European manufacture but "Industria Argentina". Now, Charles pointed vigorously at Capitan and said with all the venom he could muster, "Capitan—industria Argentina". He seemed so pleased with himself at this linguistic triumph that we all laughed. Sandy seized the moment to retreat tactfully and make himself some more maté. Without him, the argument necessarily came to a halt.

Charles and I joined Sandy to discuss the situation. We recalled the little boat which had passed us during the heat of the argument. If one was going upstream, there might be another which might be able to give us a lift. Consoling ourselves with this last shred of hope, we ate our evening meal and went to bed.

We were woken at midnight by the sound of a launch. We rushed on deck and shouted as loud as we could and it drew alongside. Fortunately Sandy knew its captain, a small, swarthy man named Cayo, for the two had met when Sandy had been

logging in this area several years before. For ten minutes, he and Cayo talked, flashing their torches over the launch and its cargo, over the *Cassel* and on to one another's faces. Charles and I waited patiently in the darkness outside the torch-lit arena of discussion.

At last Sandy turned to us. Cayo was on his way to a small logging settlement high up in the headwaters of the Rio Curuguati, a tributary of the Jejui. This was exactly the area we had hoped to reach. However, Cayo already had three passengers—axemen who were going to work at the camp—and a full cargo of stores. There was no room for us, but he could take the essential part of our equipment and a minimum quantity of food. We ourselves could make the journey in the speedboat.

"How do we get back?" I murmured, almost ashamed of myself for asking such a chicken-hearted question.

"Well, that's a little uncertain," said Sandy airily. "If the river is high, Cayo may spend a few days up there looking around. If it's not, he'll come back immediately and we might be stuck for three or four weeks or more."

There was no time for a long discussion. Cayo wanted to be on his way. We decided to take the risk of being stranded, sealed the bargain with an advance payment and rapidly transferred our equipment on to Cayo's launch.

Half an hour later, Cayo left us, taking with him several thousand pounds' worth of cameras and recording gear. We watched the yellow stern light grow smaller in the blackness of the night and then finally disappear as he rounded the bend. Charles and I went back to our bunks assuring one another that neither of us was in the least apprehensive about our new plan of action. Supposing we are stuck for a week or two, we said, it will be rather fun, won't it? Neither of us seemed very sure.

The next morning, we said good-bye, with slightly forced affability, to Capitan and Gonzales, untied the speedboat and roared away up-river in pursuit of our equipment. I did not

have time to snatch a last look at the *Cassel*, for Capitan had had good cause to be baulked by the bend. Its eddies and whirlpools snatched alarmingly at the hull of the speedboat, and we skated and slid over the surface of the water in a most frightening fashion. By the time we reached a smoother stretch of the river, the *Cassel* was out of sight. I was sorry. I would have liked one last lingering look at the vessel which still contained in its waterproof mosquito-proof cabin, our luxury foods, our little library, the radio and the comfortable bunks. It was sad to have deserted our ideal trip almost before we had started. As we raced on up the river, the forest on the banks seemed depressingly desolate and threatening. Heavy storm clouds were gathering in the sky ahead of us.

I experienced a nasty sensation of nakedness.

* * * * * * *

We soon caught up with Cayo although he had been travelling continuously since he left us. His launch was labouring valiantly onwards but she was loaded to the gunwales and was not making more than three knots, while we in our speedboat had been going at six times this speed. The prudent course would have been to tie up behind the launch and remain close to our cameras, food and bedding, but there was no room for us on board and to have tied our speedboat behind would have slowed down the launch even further. We decided to abandon uncomfortable caution and continue our exhilarating surge up the river, taking with us a camera in case we saw something filmable, our hammocks and enough food for three meals in case we failed to meet the launch again that night.

Cheerfully we swept round the bends of the increasingly serpentine river, our gigantic wake fanning out from our stern to roll in waves along the river banks and lose itself among the bushes and creepers which grew close to the river's edge.

As we went farther upstream the size of the forest trees increased until soon we were speeding between high green walls beyond which rose the rounded domes of giant hardwoods—*quebracho* and *lapacho*, *curupay* and Spanish cedar—the valuable prizes which tempt men into this deserted country. Our roaring engine flushed birds from the banks—nose-heavy toucans, scarlet macaws always in pairs, flocks of parrots and most commonly, black hangnests with scarlet rumps which shot shrieking from their club-shaped nests that dangled in groups from the branches of trees overhanging the river.

Once again we were alone with the forest; and once again it seemed brooding and malevolent. As we raced past its lowering green walls, the white water sparkling and tumbling from our stern and glistening in the sunshine, we seemed so close to it and yet in such a different world, that I felt the same thrill as comes from sitting comfortably indoors while outside, the thickness of a pane of glass away, it is cold, wet and unpleasant.

But I knew that if the engine were to fail, if we were to strike a submerged log and rip a hole in the bottom of our boat, if the looming blue storm clouds on the horizon were to break into a heavy rainstorm, we might be faced with a prospect which would certainly be extremely uncomfortable and might well be disastrous. I thought longingly of the comfort and security of the *Cassel*'s cabin.

At sundown, we reached the mouth of the Curuguati. We decided to camp on the bank and wait for Cayo. It was a wretched camping site. The neck of land between the two rivers had been cleared of bush and a squalid shanty built by the loggers who sometimes used the place as a base from which to travel into the forest and fell trees. The clearing was littered with rusting wire, empty oil-drums which would be used as floats for the rafts of heavy timber, and patches of waste diesel oil, spilled by the launchmen when refuelling their boats. It

we had stopped in a place that was haunted by swarms of vicious mosquitoes which stung us maddeningly and continuously. All the time I was thinking of Cayo, steaming steadily away from us, taking with him our only supply of food and our equipment. This was the sort of disaster that I had been dreading.

An hour passed before we were able to start again. In a more sober fashion we continued up the river. To my surprise, the improvised repair seemed to hold quite well, though there was continual danger that the knot might jam as it wound round the steering column.

At last we caught up with Cayo and once again we passed him. I breathed a sigh of relief. Now if the steering broke down irreparably, all we should have to do was to wait for him to catch up with us.

In the early afternoon the heavy sullen clouds which had been ominously building up for the past few days, burst with a loud clap of thunder. Heavy drops of rain began to pockmark the surface of the river. Then the engine stalled. Despairingly we tugged at the starting rope. It coughed into action just as the worst of the storm arrived.

The remaining hours of that day were miserable. The rain fell so heavily that the view ahead of us was blotted out as though by thick mist. The engine began to stall with increasing frequency, but we dare not remove the cowling to trace the cause of the trouble in case the drenching rain reached the plugs and the carburettor and stopped the engine for good. It was wretchedly cold. Sandy drove doggedly on. I sat beside him, keeping watch over the knotted cable. Charles lay in the stern ready to pulled the starting rope when the engine failed. When it was running he covered himself with an old leaky tarpaulin in a more or less successful attempt to keep dry and warm. At the beginning of this journey he had decided to grow a beard and he had also equipped himself with an

(*above*) *The logs were shackled beneath the axles of the jinkers*
(*below*) *The timberman riding the rafts down to Asunción*

American-style baseball cap with a long peak. Neither Sandy nor I thought it suited him. Now, whenever we stopped, this curious bearded, capped figure peered out of the tarpaulin, smoking a cigarette in a long holder, rain water pouring down his face and dripping off the end of his nose, to swear eloquently and with great deliberation.

We drove on through the storm. The cameras and film had been stowed in the fore-peak where we hoped they would remain dry. Sandy claimed that we were now quite close to the hut occupied by a timber-man and his wife, which was our final destination. Each time we rounded a bend, I searched hopefully for it. The engine sputtered to a halt again and again and remained obstinately silent until Charles beat it into action with savage pulls on the starting rope. Twice the steering cable parted and needed re-securing. The sun had disappeared in the cloud-soaked sky many hours before, but the darkening river told us that it must have set and that evening was on us. It was almost dark when we turned a bend and saw, far away up the new reach of the river, a pin-point of yellow light. By the time we reached it, the night had long since fallen. We moored the boat at the foot of a small cliff and ran to the house up a steep, narrow path, which in the continuing storm had turned into a waterfall.

The light came from a large fire of logs burning in the centre of the earth floor of a small rectangular hut. There was no door. Crouching round the fire, their faces illuminated by the flames, squatted a young woman dressed in a long-sleeved blouse and trousers, a black-haired man of about thirty, and two Indian youths with oval, sallow faces and almond eyes. The noise of the lashing rain and the screaming wind drowned the sound of our footsteps so that the occupants of the hut were unaware of our presence until we stood, dripping, on their threshold.

The man jumped up and welcomed us in Spanish. There was no time to make lengthy explanations for our baggage and

equipment was still out in the storm and he ran with us back to the boat to fetch it.

After a meal of hot soup, our host showed us into a store-room where he said we might spend the night. It was full of barrels, bulging sacks, greased axes and pieces of rusting machinery, all draped with cobwebs. Huge brown cock-roaches covered the mud walls in a glistening, moving carpet, and, above, bats were flitting among the rafters. The room reeked with the nauseating stench of putrefying salt beef. But it was dry. Gratefully we slung our hammocks as the thunder crashed over the forest outside. Within a few minutes we were asleep.

CHAPTER TWO

Butterfly Blizzards

THE storm blew itself out during the night and in the morning the sky was cloudless and intensely blue. The settlement at which we had landed was called Ihrevu-qua, a Guarani name which meant "Place of the Vultures". Our host, Nennito, and his wife, Dolores, also owned a small modern house in the town of Rosario, but they seldom visited it for Nennito had been granted by the Government a concession to work timber in the forest up here on the Curuguati. If he could fell all the trees that in theory belonged to him, and float them down the river to the saw-mills in Asunción, he would be a rich man. He did not do any of this work, himself, however, for he was the *patron* whose function was a strictly supervisory one, and he engaged teams of men, like those coming up on Cayo's launch, to do the felling, hauling and rafting. When there were no men to supervise, as was the case when we arrived, he had nothing to do except sit outside his house and drink maté.

Although he had lived at Ihrevu-qua for several seasons, he seemed to have done little to make his home comfortable. There were no mosquito-nets over the windows and there was little furniture. No banana or paw-paw trees had been planted. Dolores cooked on an open wood-fire and she had no refrigerator. The rigours of this uncomfortable existence had already begun to show on Dolores's handsome fine-boned face. Whereas some women, living in primitive conditions,

manage to keep themselves miraculously spruce, she no longer seemed to care about her appearance. She did put a skirt over the long trousers she always wore to protect herself from the biting insects, for she considered that not to do so would have been flagrantly immodest, but her teeth were uncared for and decayed, her long black hair was matted and unkempt, and her clothes ragged and dirty.

Nonetheless, they were a happy, cheerful pair and most hospitable. Their home, they said, was ours for as long as we wished to stay.

There were several buildings in their little homestead, all of them interconnected by covered verandas: the kitchen, in which the fire was perpetually burning; the storehouse in which we had slept on our first night; a bedroom for Nennito and his wife; another for the two Indian boys; and a third outhouse which was occupied only by chickens and a few stores until we used it later to sleep in. From the huts, the ground sloped away towards the river until it fell more rapidly in a steep incline of smooth red sandstone. At the foot of the rocks ran the turbulent brown waters of the Curuguati, swollen by yesterday's storm. Behind the huts Nennito had planted a small patch of cassava and maize, and beyond began the forest itself.

On that first morning, the whole of the clearing was filled with a blizzard of butterflies. It was an astonishing sight. So numerous were they that a single sweep of my net caught thirty or forty of them. They were beautiful creatures, their forewings iridescent blue, their hind-wings scarlet and their undersides patterned with luminous yellow hieroglyphs. I recognized them as belonging to the genus Catagramma.

Butterflies are known to migrate in astonishing numbers and over vast distances. The great American zoologist, Beebe, once saw a swarm of migrants which flew over a pass in the Andes at a rate of at least a thousand a second and continued to

do so in an unbroken stream for several days. Many other travellers and naturalists have noted the same thing. But the Catagrammas at Ihrevu-qua were not migrants, for they flew only in the clearing by the huts. A few yards away in the forest or further down river there were none to be seen. We found that we could predict the appearance of these Catagramma swarms. They came always after a heavy storm when the sky was clear and the sun shone so fiercely that the rocks by the riverside were hot enough to be painful to the naked foot.

As night approached they gradually disappeared until by the time it was dark they had all gone. If the next day was not hot and sultry, then they did not appear at all. Perhaps this particular type of weather caused the chrysalises to hatch in their tens of thousands and so cause the swarm. But where did all these insects go to at nightfall? A butterfly's life is a short one but they could hardly all have died at the end of the day. Did they fly to the forest and there roost, rank upon rank, beneath the leaves of the taller trees? I do not know.

Catagrammas were not the only species of butterfly that flew around Ihrevu-qua. Nowhere else have I seen so many. Not only were there vast numbers of individuals but also a great number of different species. To amuse myself when we had nothing better to do, I began to collect some. I did not work industriously or go out of my way to look for them. I did not beat bushes and explore the swamps in the way that a true lepidopterist would have done. I merely tried to catch a specimen whenever I happened to notice a butterfly of a kind I had not seen before. Yet in the fortnight that we spent in and around Ihrevu-qua, I collected over ninety different species. There must have been at least twice as many in this small area if I had had the patience and skill to have caught them. How remarkable this number is, can be judged from the fact that in the whole of Great Britain only sixty-five species have ever been found and these include the rarest migrants.

The most gorgeous and the largest of all the butterflies I saw, lived only in the forest. This was a species of the magnificent Morpho group, and like nearly all its relations it was emblazoned on its upperside with a wonderful shining blue. It measured over four inches across its wing-tips. At first, when I saw one flapping lazily and erratically through the forest, I would set off in pursuit, running through the undergrowth, my shirt catching in the thorns, trying to follow it as it twisted and turned, and flailing my net wildly. But the Morphos knew when they were being chased, or—to put it with more scientific exactitude—they behaved differently when they were alarmed, for once I had made a close but abortive swipe at them with my net they would change their gait immediately and fly rapidly and straight, often soaring high among the branches and well out of reach. It was only after I had made several of these useless, sweat-provoking sprints that I realized that I should have to change my tactics.

The Morphos seemed to prefer flying in clear spaces, unimpeded by branches or bushes, and they therefore favoured the wide paths that Nennito's men had cut in the forest so that they could easily haul the logs down to the river. The Morphos often floated down these rides, their wings flashing as they caught a shaft of sunlight. At first I would go towards them, my net raised for action, but if I were moving by the time they came close to me, they would take fright and swing suddenly away, up into the tangled forest. The better technique was to stand quite motionless, net poised, until the insect, unknowingly, was within reach, and then try to net it with one sweep. It was not unlike a game of cricket and certainly the tricky jerking flight of the Morphos was as deceiving to the eye and as unpredictable as any googly delivered by a Test bowler.

There was, however, a much easier way to catch them. Professional butterfly hunters tempt the insects down with a bait, usually a mixture of sugar and dung. But here it was

unnecessary. The forest was full of wild, bitter orange trees and much of the fruit lay rotting on the ground. The Morphos came down, nearly always in pairs, to sip the fermenting juice. Even when they were feeding, however, I had to be cautious and stealthy in my approach and accurate in the pounce if I were to net them.

Other butterflies had different tastes. On one of my walks in the forest, I smelt a nauseating whiff of putrescence. I traced it to its source and found the decomposing body of a large lizard. But I had difficulty in recognizing it, for it was almost completely concealed beneath a quivering mass of butterflies whose wings were patterned with a subtly modulated design in shades of midnight blue. They were so absorbed in their repellent feast that I was able to pick them off by their closed wings with my thumb and forefinger.

Though the Catagrammas, the Morphos, and the rest of the forest butterflies were abundant, none of them could compare, in sheer numbers, with the brilliant hordes that congregated at the edge of the river.

My first view of one of these great assemblies took me totally by surprise. One day, I stepped out of the moist twilight of the forest into a sunlit meadow of lush grass studded with small palm trees. A little stream glided silently through sedge and moss from one deep brown pool to another. I stood quietly and still in the shade of the trees behind me, searching the meadow with my binoculars, for I was anxious to spot any creatures that might be grazing or fishing in the stream, before I made myself conspicuous by stepping out into the sun and so scared them away. It seemed deserted. And then I saw that on the far side the stream was smoking. For a moment I thought, quite illogically, that I had found a hot spring, or perhaps a sulphur fumarole like those that erupt on the flanks of quiescent volcanoes. But a second's thought told me that there could be no volcanic activity in this area. Puzzled, I

The yellow butterflies were so closely packed that their bodies almost touched

(overleaf) Each one was feverishly probing the sand with its proboscis

walked towards the smoke. It was only when I was within fifty yards of it that I realized with certainty that I was looking at a cloud of butterflies of a concentration that I would not have believed possible.

As I came close to them, the ground seemed to explode silently into a vast yellow cloud, but even as I stood there, amazed, the butterflies settled to the ground again. They were so densely packed that, as they sat with their wings folded, their bodies almost touched and it was difficult to see the sand beneath them. A few yards away, on the fringe of this tremulous yellow carpet, a group of black ani birds were busily feasting on the unresisting butterflies. They were oblivious of the birds and of me.

Each one had uncurled its proboscis, which is normally carried curled like a watch spring beneath its head, and was feverishly probing the wet sand. They were drinking. Yet as fast as they drank, they squirted little jets of liquid from the tips of their abdomens. They could not be short of water. It seemed more likely that they were absorbing the mineral salts dissolved in the water as it passed through their bodies. I squatted down to watch them more closely and as I did so they confirmed my suspicion that they were seeking salts, for as soon as I had stopped moving they settled on my arms, my face and my neck. They found my sweat as attractive as the mineral salts of the swamp and soon there were several dozen on me and others were circling my head, their wings making a loud, dry rustling in the air. I sat still and felt their tiny, thread-like probosces gently exploring my skin and their delicate legs almost imperceptibly pattering across the back of my neck.

Though this sight and this experience was to become familiar in the weeks that were to follow, it never lost its fascination. We found these drinking assemblies not only by streams and marshes but even more commonly on the silver beaches

Some of the swallowtails were yellow with black bars and patches

and sand-spits of the river above Ihrevu-qua. There, on any sunny day, we could be certain of seeing these gaudy swarms. In addition to the yellow species that I had first found, there were many other kinds, each tending to settle in a group by itself. I counted over a dozen different kinds of swallow tails alone. They were large, handsome creatures and as they drank they always quivered their wings. Some were velvet black with carmine blotches on their wing tips, some were yellow with black bars and patches, some had almost transparent wings marked only by delicate black veining. The reason each kind assembled in a group by itself seemed to be that each butterfly was attracted to its own image. If one, flying by, caught sight of another coloured like itself, then it settled down by it until, in a few minutes, there was not one but forty or fifty similar insects. Yet they were not always identical. Their powers of vision may not have been perfect, for when I came to examine the groups in detail I often found that in each there were several kinds which, though they resembled one another superficially, were in fact quite distinct, differing sometimes in size as well as in the details of their patterning. At first I thought that these might be individual variations or perhaps sexual differences, but when later I came to identify them scientifically, I found that they were distinct species.

As we travelled up the river in our boat, the wash from our wake often rolled up in waves across these sand beaches. It crashed into the drinking butterflies and overwhelmed them. When the water receded, it left behind a sodden, bedraggled patch of broken wings and bodies on the sand. Yet even these still contained the colours and shapes which attracted the flying butterflies and within seconds more had come down to settle on the corpses.

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Unfortunately, butterflies were not the only insects that

were unusually abundant at Ihrevu-qua. We were tormented by hordes of vicious biting pests. They were not only the most ferocious that I have ever encountered but they also had another distinction. They worked on a rigid shift system.

At breakfast time, the mosquitoes were on duty. There were several sorts, the most savage being a large kind with a distinctive white head. We usually ate our breakfast close to the fire in the hope that its acrid smoke would keep them at bay, but some of them endured even that in order to suck our blood. By the time the sun had risen above the forest on the other side of the river and was baking the red earth of the clearing, turning it to dust, the mosquitoes had forsaken the house and retreated to the shade beneath some of the trees which overhung the river. They would still bite us as enthusiastically as ever if we were incautious enough to go down there, but as far as people in the house were concerned, they were off duty.

Their responsibilities were taken over by the *mbaragui*, large flies like bluebottles, whose bite felt like the stab of a needle and left a small spot of red blood beneath our skin. The mbaragui were hard-working. They pestered us unmercifully throughout the heat of the day, but when dusk approached, they retired. A few of the mosquitoes might now return to work, but the main burden of our persecution was born by the *polverines*. These were tiny black flies no bigger than a speck of dust and they were perhaps the most unpleasant of all. At least the mosquitoes and the mbaragui were large enough to be caught, and when you smack one which has its proboscis deep in your skin and burst its distended abdomen so that the blood it contains spatters your skin, you feel some sense of satisfaction—even though it is your own blood. The polverines, however, were so small and numerous that even though we massacred fifty with a slap it seemed to make no difference to the hazy black cloud which hung around our heads. What is more, there was absolutely no protection against

us with fuel for our speedboat and our tanks were almost empty. The situation was serious. If Cayo had broken down soon after we had last seen him and had stayed there, we should just have enough petrol to take us back to him. If, however, something irreparable had happened to his engine and he had decided to try to drift and pole his boat back to the Jejui, then he would be beyond our reach by engine and we, too, might be reduced to the lengthy and hungry course of drifting down after him.

As the days passed we became increasingly concerned. But on our fifth day at Ihrevu-qua he arrived smiling cheerfully, as though nothing had happened.

We threw him a rope and within a few seconds he had moored the launch and was striding up the rock slope to the huts. I stayed by the river long enough to see our box of tinned food put ashore and then followed him.

Sandy, Nennito and Cayo were sitting round the fire, drinking maté, which was being dutifully replenished and handed round by Dolores. Maté is the crushed, dried leaves of the yerba maté tree, a shrub related to the holly. It is put in a horn or a gourd; water, hot or cold, is poured on it; and then the infusion is sucked through a *bombilla*, a tube with a strainer on the end. It has a bitter-sweet, astringent taste and both Charles and I were beginning to be very fond of it. We joined them.

"Cayo had a bit of engine trouble," Sandy told us, "but it is all right now. He says the river is high, so he is going farther up-river to see what the timber is like up there. If the water stays high, he will be gone for a couple of weeks. If it begins to fall, he'll come back sooner and in a hurry. Either way, he will pick us up and take us back to Asunción."

It seemed a good arrangement. Cayo put on his hat, shook hands all round and went back to his boat. In a few minutes he was out of sight.

CHAPTER THREE

Indians, Toucans and Armadillos

NOW that our return journey was assured, we could give our minds to the collection and filming of animals. The first thing to do was to enlist some help. Several pairs of eyes and hands are better than only three, particularly if the additional ones belong to Indians who know the forest and its inhabitants better than any European. Nennito told us that there was a *tolderia*, an Indian village, some five miles away through the forest. Sandy and I set out to find it.

The tolderia proved to be a group of dilapidated thatched huts in a pleasant little valley, wide, unwooded and verdant. The Indians, coffee-coloured people with straight black hair, had largely abandoned their traditional way of life. They wore tattered rags that had once been European clothes, and instead of hunting for meat in the forest they kept a few diseased chickens and some half-starved cattle whose ribs stuck painfully from their sides and whose hides were lumpy with maggot-filled abscesses.

We explained that we were looking for birds and mammals and, in particular, for armadillos. We would pay well for any they brought to us and we would give good rewards to anyone who could show us inhabited nests and holes.

As Sandy talked, they looked at us pensively and sucked maté. No one seemed very enthusiastic. I could hardly blame them. It was so hot and humid that lying in a hammock was very much more pleasant than rushing around in the forest. I

also realized, with something of a shock, that there were no insects biting us. I interrupted Sandy's exhortations and asked him to inquire if they were ever troubled with mosquitoes, mbaragui or polverines. The Indians slowly shook their heads. I wondered how long my own energy would last if I lived here permanently. Perhaps I, too, if I had no insects goading me and were untroubled by the need to be energetic in order to survive in a competitive society living in a cold climate, would also take to my hammock and wait for the chicken to lay an egg and the bananas to ripen on the tree outside.

The headman explained gravely that our request had come at a rather inconvenient time. For the past few weeks, the men of the village had been discussing whether or not to chop down a tree in the forest nearby which contained some wild honey. They might make up their mind to do so any day now and, obviously, no one could contemplate doing anything else until this particular problem was solved.

However, he was sure that if anyone happened to *come across* anything, they would collect it if they could and they would let us know. Sandy and I returned to Ihrevu-qua. I could not see much hope of getting any real help from the Indians.

Day after day we roamed through the forest. It was an oppressive, slightly terrifying, place. An English wood is gentle and welcoming. Its boundaries are broken by innumerable entrances which invite you to stroll down the sun-dappled corridors that lead to its heart. But the forests that encircled Ihrevu-qua resisted entry with vicious snatching thorns and tangled creepers. When we forced our way inside, we were met with fresh hordes of stinging insects, with ticks and with leeches. If we did not take a compass we had no sure idea of our orientation, for the sun was hidden from view by tier upon tier of leafy screens. In order not to lose our way we marked our route by slashing the tree trunks so that we had a line of

white wounds which we could follow to lead us back to safety. All around us were the signs of frantic growth, and of decay and corruption. Most plants must rise to the sunlight to survive; some had outgrown their strength in the effort to do so, had toppled and were rotting on the ground. Creepers and lianas were climbing upwards by clinging to the trunks of established trees and those that had reached their goal were already strangling their helpers. Only where a giant tree had fallen could a shaft of sunlight flood the forest floor, and then there had sprung up a tangled mass of smaller plants which would flourish until such time as new sapling trees overtopped them to steal their light and ultimately kill them. Except in these clear areas we saw few flowers.

There were no big animals in the forest. The largest we could expect to find was the stealthy jaguar. It is not rare, but it moves so quietly and its camouflage is so perfect that the traveller seldom sees it unless he hunts it with dogs. Indeed, at first sight the forest seemed deserted, except for the butterflies and the singing, chirping insects which filled the moist air with a continuous chorus of whistles and chirps.

But animals were there, watching us, unseen from their leafy concealments. Once we saw a racoon but it flashed away in front of us and disappeared in a scuffle of rustling leaves. We could only be sure of what it was that we had seen by examining the footprints it had left behind. The ground, indeed, was the ledger in which we could check the identities of the creatures which had been along our path before us and which had silently vanished before we had arrived. The commonest spoor was that of the tegu lizard—a serpentine twisting groove made by its tail with, on either side, the marks of its clawed feet. Sometimes we followed such a trail and saw the lizard itself, gun-metal grey, nearly three feet long and motionless as a statue. But, that, too, would be gone in a flash if we approached to within a few yards of it.

A peon at Ita Caabo

Of all the inhabitants of the forest, the birds were the least difficult to see.

Trogons, the size of cuckoos, with scarlet chests and bristling moustaches around their beaks, sat in the trees bolt upright by the globular brown termite nests in which they habitually make their own nesting holes. On the ground, the almost flightless tinamou, a little chestnut brown bird rather like a partridge, stepped hesitantly and unobtrusively through the shade, sometimes calling melodiously with a sustained, liquid whistle. Once we found its nest, filled with a dozen purple eggs as polished and shiny as billiard balls. The urraca jays usually came to find us for they are so unfailingly inquisitive that if we walked near a party of them they would hop and flutter through the branches towards us and stay close by, shrieking and cackling; they were beautiful creatures with cream undersides, bright blue backs and wings, and curious close-feathered heads which made them look as though they were wearing some odd cap. One bird—the bell bird—we seldom saw, but we knew it was abundant for wherever we went we heard its astonishing metallic call. When we did catch sight of it, we saw no more than a white speck perched on the topmost twig of the highest tree. The bell birds divided the forest into their own territories and proclaimed their ownership by calling almost continuously for periods of over an hour at a time. Sometimes, too, one would indulge in vocal battle with another half a mile away so that its call seemed to have an echo and the whole forest rang with the cries.

With the arrival of Cayo's passengers, logging work began. The men in pairs went out each day to fell the gigantic hardwood trees, some nearly a hundred feet high. Other men, supervised by Nennito and aided by the two Indian boys who lived at Ihrevu-qua, began the laborious job of hauling down the cleaned and weathered logs which had been felled the previous season. They used jinkers—giant wooden wheels, over

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(above) The oven bird worked industriously at its unfinished nest
(below) The completed construction of mud is almost impregnable

ten feet in diameter and joined in pairs by heavy wooden axles. The logs were shackled by chains beneath the axles and then pulled out of the forest by a team of specially trained oxen. They were stacked in a clearing on the river bank just below the huts until such time as there were enough to chain together to form a string of rafts. Then the timber-men would ride them down the river to Asunción, a journey which might take them a month.

After a few days, we sent one of the Indian boys to the tolderia to see whether anything had been caught. He came back with exciting news. The chief had captured a toucan, an anteater, three tinamou and best of all, an armadillo—and how much would we pay? I was ashamed of myself for having doubted his enterprise. If the Indians were, after all, such energetic hunters, it was obviously better that we should leave Ihrevu-qua and camp by the tolderia so that we could be on hand to take charge of the animals as soon as they were caught. The proposition was made even more attractive when I remembered that the Indians' valley was almost free from biting insects. Nennito lent us two of his horses on which we loaded our gear. "If Cayo arrives, send us a message," we said, "and we will come back immediately."

Then we left in high spirits.

We arrived at the tolderia in the evening. The chief, however, was not there. One of the men told us that he was away looking at one of his cassava patches in the forest.

"No, no," I said with an attempt at mild humour, "he is looking for more animals for us."

The Indians laughed rather more heartily than I felt the pleasantry warranted and left us to finish making camp.

The next morning, a messenger arrived from the chief.

"The chief has a sore foot," he announced. "He cannot come and see you."

"But the animals," we said. "Where are they?"

"I will ask him," said the messenger and strolled away.

Later that evening the chief appeared. He did not seem to be limping.

"The *señors* wish pay for the animals," Sandy said. "Where is the armadillo?"

"It escaped."

"And the giant anteater?"

"It died."

"And the toucan?"

A slight pause.

"It was eaten by a hawk," said the chief, sepulchrally.

"And the tinamous?"

"Aha," said the chief. "I never actually *caught* those but I think I know where I can find them. I only said I'd got them to see how much you would pay."

Exactly why the chief had claimed to have captured animals he had obviously never possessed was not clear. My own explanation was a rather vague one involving the importance of politeness and the shame of losing face in a primitive society. Charles had a rather more down-to-earth solution.

"I expect," he said dourly, "that it was to teach us not to ask silly questions."

However, now that we had come to the tolderia we decided that we should stay a few days and see what we could find in this new patch of forest.

Filming animals as we met them in our walks was almost always impossible. Usually they fled within a few seconds of our seeing them and even if Charles had been able to set up and focus his camera in time, the resultant film shot would have been so short as to be unusable.

Charles was very specific about his filming requirements. He wanted a place to build a roomy hide in which he could put up his cameras and from which he could get a totally unimpeded view (preferably with the sun behind him) of a place

where some photogenic creature would appear, without fail (and within half an hour), to do something interesting and worth filming.

I found it for him. The Indians had burnt and cleared a patch of forest close by the tolderia and had planted their crops between the charred branches and uprooted stumps. A few dead tree trunks remained standing and in one of them I noticed a hole. I thumped the trunk with my fist and put my ear to it. Through the wood I could hear muffled chirps. There were some baby birds inside. I asked the Indians if they knew what was nesting there. "*Tuka-siadju*," they said, without hesitation. I looked up my Guarani glossary and found that the word meant toucan. The bird was certainly photogenic and the site ideal. Charles and I returned there together and at the edge of the forest we built a hide of branches which gave us a perfect view of the hole. The best time to see the bird would be in the early morning, for then the sun would be directly behind us and shining on the nest-hole and the parent birds would be busy feeding their young.

We had brought the camera with us. As the weather was fair, we decided to set it up in readiness and leave it in the hide overnight so that we should make the minimum of noise when we returned the following day. To protect it from the dew, we put caps on all the lenses and slipped a large polythene bag over the top.

At half past five the next morning we went back, carefully picking our way in the darkness through the dead branches that littered the cassava patch. We stooped and entered the hide. To our horrified surprise, we found that the inside of the polythene bag and the whole of the camera was encrusted with several hundred large silvery moths, their eyes glowing red in the light of our torches. We brushed them off with our hands, but they were reluctant to leave. Some went back to the camera and others settled on us.

"I suppose," said Charles, as he picked them from his hair, "that the only effective way to get rid of these filthy things and their unpleasant relations would be to bring up an entomologist who was mad-keen to see them. The creatures round here are so perverse that I'm sure he wouldn't be able to find a single one."

The moths had covered the whole of the equipment with a white, dusty fur which had rubbed off their bodies. Still grumbling, Charles cleaned his equipment with a silk handkerchief. Later in the day, he would be the personification of optimism, but before breakfast he was seldom able to see the cheerful side of things.

We sat down to wait. It was cool and pleasant. As the darkness faded the forest began to come to life. A flock of parrots flew overhead on their way to find their first food of the day. Some doves settled on the maize patch. A fruit crow, a large black bird with a scarlet breast, alighted on the tree above us, unaware that we were watching. The sun rose above the trees behind us and illuminated the toucan's nest-hole with a pale yellow light.

As we sat in silence waiting for the bird itself to arrive, we saw, coming up the path from the tolderia, two young half-naked Indian girls with empty baskets on their backs. We sat still and quiet in our concealment, hoping that they would pass by and go out of sight. Instead they put their baskets down on the ground within a few feet of us and began to dig for cassava, oblivious of our presence. As far as Charles was concerned, this was the last straw. He thrust his bearded head through the branches of the hide.

"GO AWAY," he yelled.

The girls dropped their baskets and fled, screaming like banshees. It effectively put an end to our bird watching for that morning.

In the afternoon we took the precaution of visiting the

Indians in their village to explain what we had been doing in their cassava patch and to ask that no one should go there the next morning.

When dawn broke the next day we were in the hide once again. Once more we watched the creatures of the forest begin to stir. And then, directly above us, we saw the toucan. I slowly began to turn my head to look at it properly, but before I could do so, it flew straight towards the nest-hole. Most birds will perch on a branch close by their nest before they sit, but this toucan disappeared inside its hole with scarcely a break in its flight. It reminded me of a black billiard ball speeding across the table and suddenly vanishing down a pocket.

Charles was indignant. "Well, I filmed it," he said, "but it won't be any good. No one could possibly see what it was."

We waited. Abruptly the bird's face appeared at the nest-hole looking like a grotesquely comic puppet. It stayed, its head framed in the hole for almost two minutes, and we could see clearly its spotless white chest and the bright blue pigmented skin around its eyes. But my attention was monopolized by its great beak, bright yellow and rimmed with scarlet along the top and bottom.

Although the toucan's beak is so large, it is in fact extremely light-weight, for it is not solid but filled with a sponge of wafer-thin bony tissue. Naturalists are not agreed on what function it serves, but surely such a cumbersome structure must have some value to its owner, otherwise, in the course of evolution, it would have disappeared. Waterton, the eccentric British traveller who was among the first to study the animals of South America in the field, pointed out that "it cannot be for the offensive, as [the bird] has no need to wage war with any of the tribes of animated nature; for its food is fruit and seeds, and these are in superabundance throughout the whole year in the regions where the toucan is found. It can hardly be for the defensive, as the toucan is preyed upon by no bird in South

America"; but he offered no positive explanation. One of his contemporaries suggested that it was full of nerves and was "an admirable contrivance of Nature to increase the delicacy of the organ of smell"—but dissection of the bill showed that he was mistaken.

Other people have claimed that its only function is to gather food, for it has a hooked tip admirably suited to tearing off fruits and berries. Yet other birds, with more conventional bills, manage to feed perfectly well on fruit, and the toucan is so encumbered by its vast beak that in order to swallow its food it often has to throw it in the air and catch it in its mouth.

But the most significant feature of the beak is its colour. There are many species of toucans, most of which have rather similar black bodies, yet the gaudy colours of their bills differ widely. The Indian hornbill, which may be considered the Asiatic equivalent of the toucan, also has a large beak. It is drably coloured but the hornbill actually paints it bright yellow by rubbing it on a gland at the base of its tail which produces a yellow secretion. If the display of colour is indeed the bill's primary purpose, then it seems reasonable to assume that it serves a similar function to the other extravagant adornments that are so widespread among birds—the crest of a cockatoo, the plumes of a bird of paradise, and the gaudy cumbersome tail of the peacock. All these are used for display. They are psychological weapons exhibited by birds in the competition to secure mates.

Whatever its use, our toucan in its hole in front of us was determined to give us a good view of its resplendent bill. It waved it back and forth so that sometimes it regarded us with its left eye and sometimes with its right. Then at last it flew away.

Within a few minutes it was back. This time we got a better view of it and saw that it was carrying a small berry in its beak. It seemed astonishing that such a large bird could fit inside

such a small hole, but the toucan is able to overcome this difficulty by cocking up its tail so that it lies flat along its back, and so reduces its length by almost a third.

We filmed it for nearly an hour. At last the intervals between its visits to the nest began to increase in length. It seemed that the chicks' breakfast was almost over. We packed up the cameras and walked back to the tolderia. Although we had not yet had breakfast, even Charles was forced to admit that we had had a fascinating morning.

Our continued presence by the tolderia seemed to stir the Indians into some activity. It was not enough to stimulate them to begin actually catching animals, but they became quite sympathetically concerned about the success of our trip and often came to our camp to sit about, drink maté and make helpful suggestions as to what we might do and where we might look. One man recalled that he had heard of someone who had recently found some eggs of a bird called *djacu peti*. These, he said, were very rare creatures and the man had taken them home to hatch them underneath one of his domestic hens. From his description it seemed that djacu peti was a white-crested guan, a turkey-like bird and one of the most handsome members of its family. We were interested. Where could we find this man? The Indian looked sly. What would we give for the chicks? We haggled for some time and at last we agreed on a scale of barter which was to be finally fixed when we saw how many chicks were for sale, what sort they were and whether they were really healthy. The Indian, who clearly had advanced ideas of how much profit a middleman was morally justified in making, said that he himself would fetch them.

He left us and returned two days later. The chicks were delightful little balls of fluff, mottled yellow and black. We had no means of knowing whether or not they were white-crested guans, but took his word for it and bought them.

They were already quite tame and they became even more so. Soon they began to follow us around so closely that we were frightened of stepping on them and we had to keep them in an improvised pen for their own safety. They fed with enthusiasm on grain and small pieces of meat, and they grew rapidly. We watched them intently. What would they turn out to be? As time went by, one of them seemed to be slightly different from the others, but it was only some weeks after we got them back to London that we were at last certain of their identity. Three of them were indeed white-crested guans—their wings were black dappled with white, and they had magnificent caps of long white feathers and brilliantly coloured dewlaps, part purple, part scarlet. The fourth bird, however, was much more drably coloured. It was brown with only a small red dewlap. If the Indians had purposely sold us this chick from another nest, under the impression that they were fobbing us off with an inferior bird, they were mistaken. For this was another species, Sclater's guan, which the London Zoo had seldom had before. For us it was the rarest and most valuable of the quartet.

The sight of a solid shining knife being exchanged for four small guan chicks did not pass unnoticed, and two days later one of the younger men from the tolderia arrived at our camp holding an enormous tegu lizard, fully three feet long, suspended by a noose around its neck. I handled it with the greatest care for the tegu has extremely powerful jaws and I had no doubt that it could easily amputate my finger if I gave it the chance. I gripped it by its neck and its tail. The reptile twisted, there was a faint cracking noise and to my astonishment I found that it had severed its tail close to its back legs and I was holding half the reptile in each hand. The tail was wriggling as energetically as the front half. There was no blood, except for tiny, scarlet pinpoints at the end of the long, leaf-like flakes of muscles which projected in a ring around the

broken edge. Smaller lizards often shed their tails in this way but to have such a comparative giant do so as I held it in my hands was both unexpected and a little unnerving.

The tegu seemed none the worst for its self-inflicted mutilation, but it had spoilt its beauty. I rewarded the Indian, but I released the lizard in the forest to let it grow a new tail.

The next day, the same man brought in a second tegu. It was almost as big as the first and I handled it with even greater care. Unfortunately it was injured, for when the Indian had cornered it in a hole, it had attacked and bitten its captor's bush knife. As a result, its mouth was badly bloodied. I could not believe that it would survive, but I carefully put it in a cage and gave it an egg to eat.

The egg had gone the next morning and the tegu lay somnolently in the corner. Over the next few weeks its mouth slowly healed, and when we eventually handed it over to the London Zoo it was fully recovered and as vicious and spiteful as it had ever been.

Our collection was now quite large. In addition to the guans and the tegu lizard, we had a pair of rare Maximilian's parrots, a young urraca jay and five tiny parrot chicks. But we had still not found the creatures that I was most anxious to see—the armadillos.

Day after day, we searched for their holes. There was no difficulty in finding them. There were many, for the armadillo is an enthusiastic and energetic hole-digger. It tunnels in search of its food, it digs lots of spare bolt-holes throughout the forest, no doubt believing that they will come in useful some day. It sometimes abandons its old nesting-hole and excavates a new one.

At last we found a burrow that showed every sign of being inhabited. There were fresh foot-prints near the entrance and scraps of green, unwithered leaves in the rubbish just inside. If there were indeed armadillos in the warren, then the obvious

way to catch them was to try to dig them out. I doubted very much if we should be able to capture adults by this method, for they would certainly retreat to the deepest shaft, which might go down as much as fifteen feet, and even if we ourselves could dig as deep as that, I was sure that the armadillos could dig even deeper and much faster than we could. Our real hope lay in the possibility of finding youngsters, for armadillos usually make their nurseries quite close to the surface and avoid the deeper parts of the warren which are unsuitable for permanent habitation as they are apt to become waterlogged in wet weather.

It was very hard work and extremely hot. The ground was matted together with a tangle of roots. After an hour of exhausting digging we found that the main tunnel was running more or less horizontally about three feet below the surface of the ground. We came across increasing quantities of leaves. I felt sure that we were getting near to the nesting chamber. On my hands and knees, I cleared away the loosened earth and peered down the tunnel in an attempt to make sure that there was nothing dangerous inside before I put my hand down it; but I could gain very little confidence for I could see nothing whatsoever. The only thing to do was to try. I lay flat on my stomach in the pit which we had excavated and plunged my hand into the hole. I could feel only leaves. Then there was a movement. I made an unseeing grab and caught hold of something that was warm, and wriggled. I was sure that I had an armadillo by its tail, but whatever it was, I could not pull it out. The animal seemed to be bracing its back against the roof of the hole and digging its feet in the floor. I hung on while I managed to squeeze in my other hand. While I was fumbling and struggling, I discovered one fact about the animal I was tackling. It was ticklish. Inadvertently, I touched it under its stomach with my left hand, and as soon as I did so, it doubled up, lost its grip and out it came like a cork from a bottle.

To my joy and relief, I found that I had caught a young nine-banded armadillo. There was no time to examine it in detail, for there might be others inside. Rapidly I put it in a bag and returned to the hole. Within ten minutes, I had caught another three. This was exactly the number I had expected, for the female nine-banded armadillo has the extraordinary characteristic of giving birth to identical quadruplets. We took the four brothers back to our camp in triumph.

Our first task was to provide them with comfortable cages. Fortunately we had still not used four boxes which had been given to us by a British friend in Asunción and which we had brought with us, dismembered and tied into a neat bundle. Rapidly we reconstructed them and nailed fine wire-netting over the tops. With some earth and dried grass inside them, they made perfect cages for the armadillos. They also provided each of the animals with its name, for the boxes had originally been sherry cases and soon we were automatically talking about their occupants as Fino, Amontillado, Oloroso and Sackville. Collectively we called them the Quads.

They were the most attractive creatures. Their shells were pliable but polished and smooth. They had small, inquisitive eyes, and large pink stomachs. For most of the day, they lay sleeping beneath their hay, but in the evening they came to life and rampaged around their boxes, impatient to get their food. And they had enormous appetites.

Nine-banded are perhaps the commonest and most widespread of all armadillos. Paraguay is almost their southern limit, but they occur in most of the other South American countries to the north, and during the last fifty years they have extended their territory into the southern part of the United States of America. The Indians often came to look at the Quads and would sit on their haunches watching the animals' every movement. Why they should have been so interested I could not understand, for all of them must have seen many

(above) The white-crested and Sclater's guans
(below) The baby parakeets were feeding well

armadillos before. Indeed it forms a much relished item of their diet. Perhaps it was because they had seldom watched a living one for any length of time, for doubtless whenever they captured one they killed and ate it immediately.

They told us many things about them. They said that when an armadillo wanted to cross a river, it simply walked down the bank, into the water and then continued walking, submerged, on the river bed until it reached the other side. It seemed a fantastic story and I did not pay much regard to it. When we got back to England, however, I discovered that this tale is probably quite true. The armour-plating that the armadillo carries on its back makes it very heavy so that it would have no difficulty in remaining on the bottom of the river-bed. Furthermore, it has an astonishing ability to hold its breath for a very long time and to build up an oxygen-debt in its tissues. This is very necessary for it often has to dig very rapidly and continuously, and when it does so its nose is inevitably buried in the ground so that it is almost impossible to draw breath. These two characteristics make it quite possible for an armadillo to walk under water and an American research worker has been able to encourage them to do so under laboratory conditions. So far, however, there have been no first-hand reports published by a scientist who has observed the armadillos crossing rivers by this method of their own accord and it is also known that they are able to swim in the normal way along the surface if they wish to do so, by filling their lungs with air in order to lighten their heavy bodies.

Now that we had caught the Quads, we began to worry again about our return trip. There had not been any heavy rain during the past few days and it might be that the river was beginning to fall. Cayo might well be on his way down again. It would be disastrous if we missed him, so we gathered all our things together and marched back to Ihrevu-qua.

Nennito and Dolores welcomed us with maté. We sat round

the fire passing the gourd from one to another, while we heard the latest news.

The polverines had been very bad during the last few days. The logging was going well and many of the trees had been felled and a lot of logs were lying stacked on the bank. Soon there would be enough to start building the rafts.

"And Cayo?" I asked.

"*Vamo*," replied Nennito, in an off-hand way.

"Gone?" We could not believe our ears.

"*Si, si*. The river is getting very low. I asked him to wait while I sent a message to you, but he said that he was in a hurry."

"But how will we get back?"

"I think perhaps there is another boat upstream somewhere. If there is, I expect they will be coming down some time. I am sure they will take you."

There was nothing we could do except wait and hope.

Very fortunately, we did not have to wait long. Two days later, a tiny launch came noisily chugging downstream. There were five people on board and obviously no room for us, but the captain agreed to take most of our baggage and the animals. They too were in a hurry. The river was falling fast. If they did not get to the Jejui within three days, they said, they might be stranded for weeks until there was more heavy rain and the river rose again. They were not, however, going to Asunción, but only as far as Puerto-i. We reckoned we had more chance of finding an Asunción-bound boat there than in Ihrevu-qua. Within an hour, we had packed up everything, had said good-bye to Nennito and Dolores and were in our speedboat, following the launch.

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It took us just over three days to get back to the Jejui.

As we approached Puerto-i, I saw another launch coming

towards us. I reached for my binoculars. It was the *Cassel*. I could even see the unmistakable, straw-hatted figure of Capitan at the wheel. I would never have imagined that I could have been so glad to see him again.

We drew alongside. Gonzales leaned out and waved us on board. As we transferred our gear and the animals, Capitan told us that when he had returned to Asunción the kindly people at the meat factory had been horrified to see him come back without us and had told him to refuel and to return up-river to wait for us. And here he was.

The cabin seemed like paradise.

Charles turned on the wireless, lay back on the bunk and started to make a plateful of elegant *canapés*—buttered cream biscuits garnished with neatly-curled anchovies.

He took a long drink from a glass of beer at his side. "Not a bad trip," he said, meditatively. "Apart from one or two dodgy days in the middle, not a bad trip at all."

ZOOLOGICAL GARDEN 222W CALCUTTA

CHAPTER FOUR

Nests on the Camp

THE *Cassel* reached Asunción and slid alongside the meat company's jetty early in the morning. Capitan shouted to Gonzales to stop the engine and then clambered ashore, with the broadest smile we had ever seen on his face, to be greeted by his stevedore friends as a returning hero. Gonzales followed him and collected his own attentive audience as he described with lavish gestures the story of the voyage.

After the trials and uncertainties of the past few weeks, Charles and I were equally happy to see once again the garbage-strewn waters and the squalid quays of the Asunción docks. As we walked up to the manager's office to thank him for the use of the launch, my mind was full of the delights that awaited us in the town—a waterproof bedroom, a soft mattress, letters from home, and delicious meals which neither of us had prepared, served on a polished mahogany table and eaten with shining silver cutlery. We should be able to spend at least a week in lazy comfort because, in view of the doubt about the date of our return, we had made no arrangements for another journey and it would inevitably take some time to do so.

The manager greeted us warmly.

"You have got back at just the right moment. You remember that you said that you would like to visit one of our estancias some time? Well, the day after tomorrow, the company's plane is coming to Asunción and it could easily take you down

to Ita Caabo on its way back to Buenos Aires, if you would like to go."

Even though it meant forfeiting our week of luxury there was no question of refusal, for when Ita Caabo had first been described to us we both realized that a visit there might be one of the most rewarding excursions that we could make. The estancia lay two hundred miles to the south, in Corrientes, the northernmost province of Argentina. For many years it had been managed by a Scotsman, Mr. McKie, who believed that the successful ranching of cattle did not automatically necessitate the extermination of all wild animals, and as he was an enthusiastic naturalist he prohibited hunting on the vast area of land under his control. As a result the estancia not only produced great quantities of beef but also became an animal sanctuary. The tradition had been continued by Dick Barton, the present manager, and now, at Ita Caabo, the wild creatures of the Argentinian plains flourish in greater numbers than almost anywhere else.

Our week of idle living became transformed into two rushed days of feverish activity. We dispatched our exposed film to London and overhauled all the equipment. We built pens and cages as semi-permanent accommodation for our animals in the large garden belonging to the British friends with whom we were staying. To look after the collection in our absence, we engaged, at our hosts' suggestion, their gardener, a delightful Paraguayan lad named Appolonio, and arranged for one of his brothers to come to the house to take over the work in the garden. Appolonio had an abiding passion for animals and the joy and excitement with which he took into his care the guan chicks, the parrots, the Quads and even the surly tegu lizard left us in no doubt that he would tend them all with the utmost devotion.

The company's plane arrived on schedule and proved to be a tiny single-engined aircraft, so small that it was only with

considerable difficulty that we managed to cram inside it the basic essentials of our equipment.

Within a few minutes of taking to the air, Asunción and Paraguay had disappeared behind us and we were flying over Argentina. It was a new land, geographically as well as politically. Nothing interrupted the geometric precision of the roads and fences which here and there crossed the grass plains like red and silver lines ruled across a blank green canvas. It seemed almost inconceivable that any wild creature could exist in such a country so devoid of cover and so completely dedicated to the scientific production of beef. For nearly two hours we droned on. Then the pilot yelled to us above the noise of the engine and pointed ahead at a small hollow rectangle of red buildings, enclosed by a narrow belt of trees like a picture in a dark green frame. This was Ita Caabo. The horizon tipped, the buildings loomed larger, and the tiny specks which dotted the plains resolved themselves into cattle. We levelled out and landed.

The manager was awaiting us. He was a tall humorous-faced man, wearing a misshapen trilby hat and leaning on a walking stick, who might easily have stepped out of a farmhouse in Herefordshire. His first words were as English as his appearance.

"Good afternoon. My name's Barton. Come along in—I'm sure you chaps want a glass of ale."

The garden through which he led us, however, was far from English. A giant palm tree waved its fronds lazily in the middle of the velvet lawn; jacaranda, bougainvilia and hibiscus blazed in the shrubberies, and working among the flower beds, meticulously snipping off the dead heads of some of the plants, stood the romantic figure of an Argentinian cow-hand, complete with baggy trousers, a massive leather belt, in which he had stuck a great naked knife, a wide-brimmed hat and a heavy black moustache.

The house itself, single-storied and rambling and roofed

with corrugated iron, was hardly beautiful, but though it lacked elegance it was certainly luxurious, being built and furnished on a scale which was almost Edwardian in its opulence. Charles and I were shown into a separate spacious guest suite with its own private bathroom, and we joined Dick Barton in a vast billiard-room for our promised beer.

We told him what animals we hoped to see—rheas, capybara, turtles, armadillos, viscachas, plovers and burrowing owls.

"Bless me," he said. "That's easy. We've got lots of 'em. You can have one of our trucks and wander about the place until you find 'em. Anyway, I'll get the men to look out for things and warn them that I shall be fearfully egg-bound if they can't show you what you want."

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The land surrounding the house was not entirely flat, as it had appeared to be from the air, but undulating like the gentle sweeping downs of Wiltshire. Nor was it totally devoid of trees, for a few spinneys of Australian casuarinas and eucalyptus had been planted to provide the cattle with shade. Dick spoke of it not as "the pampas"—that country lay several hundred miles to the south towards Buenos Aires and is as level as a table—but as the "camp", an anglicized abbreviation of the Spanish word which means, simply, "countryside".

The eighty-five thousand acres that belonged to the estancia were divided by wire fences into several vast paddocks, each of which was as large as a small English farm. Their lush grass made excellent grazing for the cattle, but apart from the few copses of shade trees they provided no cover to shelter birds nor any sites for nests. Nonetheless several kinds of birds managed to flourish by employing techniques of nesting specially suited to this open inhospitable country.

The alonzo or oven bird, a small reddish brown creature about the size of an English thrush, makes no attempt what-

ever to conceal its nest from hawks or to place it beyond the reach of nuzzling cattle. Instead, it shields its eggs and young from danger by building an almost impregnable nest, a domed construction of sun-baked mud, shaped like the earthen oven in which the local people bake their bread. It is about a foot long and has an entrance which is large enough to admit a man's hand. But the eggs are well protected, for just beyond the entrance, the nest is divided by an internal wall enclosing the nesting chamber which is pierced only by a small hole, just large enough for the bird itself to squeeze through.

Having devised such an efficient fortress, the oven bird has no need to conceal it and builds in the most conspicuous places. If there are no trees available, then it makes its nest on the top of fence posts, telegraph poles, or anything else which will support it above ground level where it might be kicked and cracked by the cattle. We found one which had been cemented onto the top bar of a frequently-used gate so that it must have been swung through ninety degrees several times a day.

The alonzos are bold creatures and seem actively to prefer human company, for they frequently choose to build close to a house. The cowhands, the *peones*, in return for the compliment, are very fond of this small bird which is so companionable and so fearless, and they have given it many pet names. Just as we talk affectionately of Robin Redbreast and Jenny Wren, so they refer to the oven bird as *Alonzo Garcia* and *João de los Barrios*, which means roughly Mud Puddle Johnny. They say that the bird has an exemplary character: it is cheerful, for it sings constantly; it has high moral principles, for it mates for life; and it is extremely industrious, working from dawn to dusk during the time it is building its nest—except, they say, on Sunday, for it is also exceedingly pious.

We had already watched alonzos before we came to Argentina; a pair were nesting close to Nennito's house at Ihrevu-qua. Their brood had hatched some days before we arrived and the

The plover chicks are perfectly camouflaged and have the instinct to remain motionless

parents were busily collecting insects and grubs with which to feed their ravenous young. Although we could not see inside the nest, we knew that it was being kept scrupulously clean, for very often when the adults emerged after delivering a meal, they carried in their beaks the nestlings' droppings which the chicks had voided neatly enclosed in white faecal sacs. Here in Argentina, however, we were several hundred miles south of Ihrevu-qua; the season was not so advanced and the alonzos had not yet finished building. Charles and I were very anxious to watch them doing so. As they were such bold creatures and extremely abundant on the camp, we thought that they would make an easy subject with which to begin our filming.

We soon found many complete nests, but all of them were old deserted ones, for although the alonzo builds its oven so stoutly that it may survive undamaged for several seasons, it nonetheless constructs a new one each year. But we were unable to find any of the birds at work and the reason was clear. We had arrived during a spell of hot weather. The camp was so parched that the cattle were gathered around the troughs to drink the water pumped up from underground springs by aluminium windmills, clanking on top of their skeleton towers. Nowhere could we discover patches of mud which might provide the alonzos with their nesting material. On the evening of our third day, however, the sky filled with dark blue clouds and throughout that night heavy rain hammered on the iron roof of the estancia house. In the morning, surely, the alonzos would be at work.

But even if they were, we had yet to devise a method of filming them. Bird photography usually presupposes the use of a hide, either an improvised one made from branches and bushes gathered on the spot, or a prefabricated screen of canvas equipped with guy-ropes and pegs.

At Ita Caabo we could use neither kind. There were no bushes with which to build one and, although we had hessian

The teros pair for life

with which we could make the alternative type, we knew that it would be of little use. In the first place it would be painfully conspicuous, standing out of the open camp; and in the second place, if we pitched it one evening so that we might use it the next morning after the birds had become accustomed to its presence, it would without doubt be knocked flat and trampled upon during the night by the cattle.

The solution to the problem seemed to be the truck. Perhaps the animals of the plains were so accustomed to seeing and hearing a car that they would take little more notice of it than they would a cow. If this proved to be so we could park it close to a nest and clamp our cameras to the car door.

We set out next morning to test the idea.

Soon we found a half-built alonzo's nest plastered on the top of a fence post. It was no more than a wide mud saucer and it was easy to deduce from its dark brown sticky rim, which contrasted markedly with the lighter grey sun-baked mud of the centre, that it was being actively worked upon. We parked the car twenty yards away and almost before we had the camera ready, one of the alonzos alighted on a nearby fence post, its beak loaded with mud. It cocked its head at us, seemingly more from curiosity than from fear, paused for a few seconds, and then fluttered to its nest to begin plastering and kneading the mud into the matrix of the saucer.

We could not tell the sex of the bird we were filming for cock and hen are identical, but whichever it was, it worked for several minutes, standing in the middle of the saucer and turning round and round, thrusting its head back and forth like a shuttle. The mud it had brought was soon incorporated in the rim, but still the bird worked on, apparently rearranging the mud already there. After a while, it stopped and began a silvery trilling, fluttering its wings and fanning its tail. An answering call came from a patch of mud some yards away, and its mate flew across to join it on the nest. There was barely enough

room for the two birds and the first one immediately flew off towards the mud patch where it strode athletically up and down, gathering more nesting material.

They worked so hard that, within half an hour, I was sure that the nest had visibly increased in size. They seemed determined to build as rapidly as possible before the baking sun once more turned their mud patch into dust. They paid no attention whatever to us. Emboldened by their preoccupation, Charles slowly climbed out of the car and, carrying his camera and tripod with him, advanced cautiously towards the nest, stopping every now and then to film until eventually he stood, unconcealed, within three yards of it. And still the birds worked, absorbed in their task. Charles retreated, having taken all the shots he required, and I took his place with my still camera. When we finally drove away, the birds were still working.

If all the creatures of the plains proved to be as bold as the alonzos, our work would be easy.

* * * * * * *

Of all the birds living on the open camp, the most abundant were the spur-winged plovers. Wherever we went, they flew into the air in front of us and circled our heads, shrieking *tero-tero-tero*, the call which gives them their local name. When we had passed by, they settled again in groups on the ground and marched up and down with a military air so suited to their aggressive disposition. They closely resemble our own plover, possessing the same elegant slender crest and the same shape of body, but they are considerably larger, more distinctly marked and their wings are armed on their fore-edge with a pointed coral-pink spur which jerks into sight from beneath the feathers with every step that they take.

The teros pair for life, and adopt a plot of land which they retain throughout their mated existence. Even if their eggs are

taken or smashed by the hoof of a lumbering cow, they do not desert the area and the same birds may be found on the same plot, year after year. Curiously they do not stand in pairs but in groups of three. It seems that a pair welcomes other plover visitors, and a bird from a neighbouring territory, if its mate is sitting and it has nothing particular to do, will often fly over to join its neighbours. W. H. Hudson, the great Argentinian-born naturalist writing at the turn of the century, describes a curious ritual dance that the teros perform on these visits. The three birds solemnly parade back and forth together and then end their choreographic conversation by suddenly lowering their beaks to the ground in a low bow, remaining in this odd position for some seconds. Dick Barton had often seen this plovers' quadrille, but though we nearly always saw the birds in groups of three, and watched them carefully, we never observed their dance.

The tero's solution to its nesting problem is based on quite opposite principles to those on which the oven bird relies. Whereas the alonzo's nest is easily seen but inviolable, the tero's eggs are laid unprotected on the ground, and their security depends entirely on their efficient concealment and the valour of the adult birds.

So perfectly do the eggs match the ground that, even though you may be certain that they lie within a yard of your feet, it is often infuriatingly difficult to find them. The parent birds do their best to disguise the exact position of their eggs. If you flush an incubating bird it does not always immediately take to the air but, crouching, runs several yards from the nest before it flies. As you stand, wondering exactly where it had been sitting, it will land again and settle down straightaway as though it were on its eggs. You walk towards it. Again it flies and as you look at the empty patch of grass that it has just left it circles above you, cackling.

If you continue to search and either by accident or design

approach the eggs, then the agitated parent will attempt to drive you away by attacking you, diving straight at your head and coming so close that its wings almost brush your face. Should this fail, then the tero's last tactic is to alight, spread one or both of its wings and scream piteously. Whether or not the bird is pretending to have broken its wing is impossible to say, but certainly this extraordinary display often succeeds in persuading you to walk towards the bird and away from the nest.

If at last, in spite of all these manœuvres, you find the nest, you will discover four black-blotched olive eggs, lying with their narrow ends pointing to the centre, in a shallow scrape, lined only with a few wisps of dry grass.

The newly hatched downy chicks are as perfectly camouflaged as the eggs from which they have emerged and, for the first few days of their lives, they exploit their protective colouring by steadfastly refusing to make any tell-tale movements. They will even remain motionless when you pick them up and hold them in the palm of your hand. A few days later they lose this instinct and, when danger threatens, they will run rapidly to take cover in the depths of a tussock of grass. The combination of all these techniques of camouflage, attack and deception must be extremely successful in protecting the tero's eggs and nestlings, for the birds throng the plains in enormous numbers and their haunting plantive cries fill the wind and echo ceaselessly over the emptiness of the paddocks.

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In the folds of the downs and on the banks of the streams there grew occasional patches of a thistly weed called caraguata which sends up tall fruiting stems over six feet high from basal rosettes of savagely spined leaves. These thickets were the home of many small and beautiful birds which only occasionally ventured out onto the open camp.

Troops of scissor-tails came there to feed, flying from stem

to stem in erratic swoops, or clinging to the top of a particularly tall plant to chirrup their clicking percussive song in the sunshine, opening and closing their long cleft tails as they did so. There also we found the little widow tyrant, pure-white except for the tip of its tail and the primary feathers of its wings which are black, and the exquisite churinche, black on its tail, wings and back but elsewhere a miraculous vivid scarlet. The peones call it, in Spanish, the Fireman, Bull's Blood, or, perhaps most appropriate of all, *Brazita de Fuego*, the Little Coal of Fire. Whenever we saw the churinche, we had to stop to gaze on its beauty and mourn the fact that the film we were making was in black and white.

The most elegant of all the inhabitants of the camp were the rheas. Dick considered that we were fussily pedantic to call them anything other than ostriches and, indeed, the two birds are very similar. True ostriches, however, live only in Africa and the rheas, which are restricted to South America, differ in several details. They are a little smaller, their feathers are not black and white but a warm ashy grey, and they have three toes on each foot, whereas the ostrich has only two.

We saw the rheas often, pacing slowly over the grasslands with the dainty deliberation of mannequins. The estancia's ban on hunting had made them comparatively fearless and they allowed us to drive within a few yards of them. They warned us when we had reached their safety limit by ceasing to graze and lifting their heads to stare suspiciously at us in the same way as deer will do. Their long necks inevitably gave them a supercilious look, but their large eyes were liquid and gentle.

Being flightless birds, their fluffy billowing wings served no function, except perhaps to keep them warm, for their bodies are only scantily clothed in short cream-coloured feathers and when they ruffled their wings, wrapping them around their naked-looking bodies, they did so with the air of rather chilly fan-dancers.

Each group was made up of one male bird and a number of females of varying sizes and ages. The male was usually the largest and was distinguishable from his wives by the black stripe which ran down the back of his neck and in a narrow yoke around his shoulders. The females also possessed this stripe, but it was brown and not so distinctly marked.

If we ignored their warning gaze and drove too close to them, then the whole party would stampede away, running leggily and at great speed, their powerful feet beating a muffled tattoo on the ground. Dick told us that they could out-distance all but the speediest of horses and were so adept at swerving and jinking that they were extremely difficult to catch.

We found one of their nests in a marshy patch of reeds. It was a shallow depression, nearly three feet across, lined with dry leaves, and it contained an astonishing number of gigantic white eggs, each nearly six inches long and over a pint and a half in capacity. There were thirty of them, lying untidily in the nest. As I looked at them, I made a rough mental calculation. In terms of yolk and albumen, I had found in this one nest the equivalent of nearly five hundred chickens' eggs. However this was not an exceptionally large nest. The previous season a peon had found one which contained fifty-three eggs, and W. H. Hudson wrote of a really gargantuan clutch of one hundred and twenty.

Needless to say all the eggs in a nest are not laid by a single female. All the members of the male rhea's harem make their contributions and, when I looked closely at the nest we had discovered, I could see that the eggs varied slightly in size, the smaller ones having been laid by the younger females.

A number of questions formed in my mind. I knew that the male selected the nesting site and incubated the eggs after they had been laid, but how did all his wives know where he had built the nest and how were the laying operations organised so that all the females did not wish to lay at the same moment,

or alternatively that no eggs were added to the nest for days on end. Unfortunately, we could not find the answers to these questions by keeping watch on this particular nest, for the eggs were cold. It was deserted.

Three days later, however, as we walked into a patch of caraguata growing on the banks of a stream, to get a closer view of a churinche, a rhea sprang up in front of us and thudded away, dodging and weaving through the tall stems. We found his nest a few yards in front of us. It contained only two eggs. If we kept continuous watch on it we might perhaps be lucky enough to see exactly what does happen when the rheas came to lay.

From our experience with the oven birds, we decided once again to use the car as a hide. The best vantage point was some thirty yards away on a rising slope which would enable us to look down slightly on the nest. The caraguata, however, was so thick that the nest was invisible at a distance of more than a few feet. Carefully, we cut down a few of the taller stems to form the beginnings of a narrow corridor down which we should be able to look. I was anxious not to trim too much at one time, so that the male rhea would become accustomed bit by bit to what might amount to a considerable change in the surroundings of his nest.

Every morning, for the next few days, we returned to the site, each time parking the car in exactly the same position. Every morning, as soon as the rhea left his nest, we enlarged and perfected the narrow avenue leading down from the car to the eggs. We knew that our activities were not disturbing the birds, for every morning we saw an extra egg, newly laid and bright yellow, contrasting strongly with the remainder of the clutch which had faded to an ivory colour. At last our corridor was clear and on the fifth morning, we began our watch.

By now, we felt we knew the old male rhea quite well. We

We often saw the rheas, pacing slowly over the grasslands

christened him Blackneck. He was sitting on the nest, but in spite of all the gardening we had done it was still quite difficult to distinguish him, for his grey feathers matched and blended with the grass and caraguata, and he had folded his long neck so that his head lay on his shoulders. Only his bright eyes gave a clue to his presence and even then, had I not known exactly where to look, I do not suppose that I should have noticed him. We settled down for a lengthy stay.

Two hours later, Blackneck had still done nothing. He had barely moved. The sun had risen and already it was getting hot. Some cows that had been grazing on the open camp when we had arrived had retired to the shade of a plantation of eucalyptus trees behind us. Beyond the nest, a heron which had been fishing in the stream flapped noisily away, its breakfast finished. Blackneck sat motionless. Every few minutes, I raised my binoculars in the hope that I might see him doing something interesting. The only movement he made was to blink.

We became drowsy in the heat. A large bull emerged from a patch of tall grass on our right. He looked around slowly and meditatively, chewing. Then, with his dewlap swaying and his head hanging low in the heat, he plodded slowly towards the nest.

"If he scares Blackneck away," whispered Charles angrily, "he'll ruin everything."

There was nothing we could do but sit and watch him as he got nearer and nearer the nest. Ponderously, he lumbered on. He was already closer than we had been when Blackneck had first taken fright and run from his nest, but now he did not move. The bull put down his head to snuff the nest and Blackneck indignantly raised his head high, like a submarine's periscope.

The bull and the bird regarded one another for a minute or so. I held my breath, fearful that Blackneck would lose his courage and run away, and so ruin our morning's watch. Then

There were thirty rheas' eggs, lying untidily in the nest

suddenly the old bird lunged forward and delivered a sharp blow on the bull's cheek which so startled the beast that he made an elephantine curvet and snorted with surprise. As soon as he was out of range he collected himself, and lowered his head in a threatening manner. But Blackneck was unimpressed and, with his neck as stiff as a ramrod, he glowered back at the bull. Then abruptly, the bull changed his attitude. He turned and walked away unconcernedly, his tail swishing, his head high, gazing at the landscape. If he had been a human being, he would have been humming loudly and assuming an expression of exaggerated unconcern. Blackneck lowered his head again and settled back into somnolence, with the air of someone who had dealt with such intruders many times before.

We had now been watching from the car for two hours. Surely the bird could not have started incubation yet. He could not have more than six eggs beneath him—nothing like a full clutch. Over the brow of the hill on our right a group of six rheas appeared, grazing idly. They were all females—his harem. They worked their way slowly towards us, then back again to disappear over the skyline.

Blackneck got to his feet. He stood for a moment and then slowly walked away in the direction of his wives.

We then began a long wait. Blackneck had left at nine o'clock and we saw nothing of him or his harem for the next three hours. Then, at a quarter past twelve, he strolled over the brow of the hill accompanied by a young female. The two of them walked together towards the nest. I would have liked to have imagined that Blackneck was leading or shepherding his partner towards the nest, but it was impossible to tell if that were so. However, as there were more wives in his harem than there were eggs in the nest, it was quite likely that she herself had never previously visited the nest, in which case, Blackneck must have been showing her where it was.

Whether or not she had seen the nest before, when she

finally reached it she did not seem to think very highly of it. For several minutes she examined it closely. Then she bent her head and picked up a small feather from among the eggs and disdainfully flicked it over her shoulder. Blackneck stood by her, watching. She made one or two other alterations to the nest, but even when she had spent some time tidying it up, it still did not seem to meet with her approval for she stalked away to the left, through the tall caraguata stems. Blackneck followed her.

They walked on for a hundred yards until, suddenly, she sat down, almost disappearing in the tall grass. Blackneck, who had been leading, turned to face her—and us—and began to sway his head from side to side. The actions of most mating displays seem designed to show off the markings and adornments which distinguish sex and certainly Blackneck's dance had the effect of flaunting his glossy black neck stripe and yoke in front of his mate. The female rose to her feet, and then she too began to sway. Almost immediately Blackneck took a step towards her. Their weaving necks came closer and closer until they met and snake-like, entwined. For a few seconds they swayed together ecstatically. Then the female sank down to the ground again. Blackneck broke away and in a flurry of grey plumes he mounted her, his head held low. They remained so for several minutes and all we could see of them was a grey hump of feathers. Then they separated and Blackneck walked away up the hill, nibbling in a desultory way at some caraguata fruits. The female rose to her feet and joined him, both of them ruffling their wings to set them back neatly into position. They came back together to the nest. Once again the female stooped and examined it, but she did not sit and the pair walked away to the right in the direction of the rest of the harem.

Once more the nest was vacant and there were no rheas in sight. We sat on in silence, doggedly determined to see an egg

being laid. It seemed clear that we had seen the first part of the process. We had witnessed the male bird showing the nest to one of his wives and then coupling with her. If this had been the initial mating with this particular hen, then she would not be ready to lay a fertile egg for some days. It might be, however, that the mating we had watched was the continuation of the display and designed to serve as a stimulus to lay. We had no means of knowing.

For three hours, the nest was deserted. Then at four o'clock a female appeared again from the caraguata thicket on the right, and behind her came Blackneck. They walked straight up to the nest. We could not tell whether this female was the same bird that we had seen earlier in the morning or another one. She examined the nest, removed pieces of dried leaves from it and then, very slowly, head and neck erect, she sank down.

It had never occurred to me to wonder what a male bird did while its mate was laying an egg. Most males, I imagine, are not present at the time and are quite oblivious of its happening. Not so Blackneck. He strode up and down behind the nest as the female sat, looking as agitated as any father outside the maternity ward of a hospital. The female did not seem comfortable. She ruffled her wings once or twice. Then she lowered her head to the ground. Several minutes later she rose and rejoined him, and together they walked away.

When they had gone, I quietly got out of the car and walked down to the nest. There, outside the nest's rim was a seventh egg, still wet and a bright yellow. The hen's body was so large that the egg had been laid well away from the others. No doubt Blackneck would be back as evening came to put it into place with the others and guard the clutch for the night.

We started up the car and jubilantly drove back to the house. We had found the answer to at least one of my questions. It was the male rhea who showed the females the position of the nest and he who organized the egg-laying.

The capybaras' heads were almost rectangular and their shoulders were shaggy with a long reddish mane

But there was one story we had not been able to verify. Sandy Wood had told us that when the male bird has a complete clutch and begins to incubate, he pushes one of the eggs outside the nest. This he said was called *el diecma*—the tithe. This stays by the nest until the main clutch hatches. Then the male bird breaks it open with a kick so that the yolk spills on the ground. Within a few days, this patch of earth is wriggling with maggots, which provide the young chicks with a perfect meal just when they are in most need of it. I wished we could have stayed long enough at Ita Caabo to have seen Blackneck do so.

The burrowing owl glared at us with its bright yellow eyes

CHAPTER FIVE

Beasts in the Bathroom

FOR the animal collector, there is no more useful room than the bathroom. I first discovered this truth on an expedition in Africa, when we stayed in a rest-house the bathroom of which was so primitive that we had little compunction in foregoing its largely hypothetical amenities and using it as an annexe of our embryonic zoo. Its only claim to its title was a monstrous, somewhat chipped enamel bath which stood majestically in the middle of the otherwise bare floor of red earth. It still sported a plug, shackled to the brass overflow by a heavy chain, and its taps were bravely labelled 'Hot' and 'Cold', but if the water had ever flowed through their tarnished Victorian nozzles, it must have done so in some earlier more distinguished situation, for here they were unconnected to any pipes and the only running water within miles flowed through a nearby river.

But though this bathroom had little to commend it as a place in which to wash, it provided excellent accommodation for animals. A large fluffy owl chick relished the gloom, so similar to the dim light of its nesting hole, and perched happily on a stick thrust through the rush walls across one corner. Six corpulent toads inhabited the dank clammy recesses beneath the deep end of the bath, and later a young crocodile, a yard long, spent several weeks lounging in the bath itself.

To be truthful, the bath was not the ideal home for the crocodile because, although he was unable to scale its smooth

sides during the day, at night he seemed to draw on extra sources of energy and each morning we found him wandering loose on the floor. We took it in turns, as one of the regular before-breakfast chores, to drop a wet flannel over his eyes, pick him up by the back of his neck while he was still blindfold, and put him back, grunting with indignation, into his enamel pond.

Since that time, we have kept humming birds and chameleons, pythons, electric eels and otters in bathrooms as far apart as Surinam, Java and New Guinea, and when Dick Barton showed us the elegantly appointed private one at Ita Caabo, I had noted appreciatively that it was by far the most suitable that we had ever had at our disposal. Its floor was tiled, its walls of concrete, the door stout and close fitting and it was furnished not only with a bath possessing fully functional taps, but a lavatory and hand-basin as well. The possibilities were immense.

When we first flew in the company's plane, I had decided that there would be no room in it for any animals on the return trip to Asunción, but as the days passed, and the precise memory of the plane's size began to fade, I managed to convince myself that there must surely be enough space on board for just one or two small creatures. It seemed a criminal waste not to take some advantage of the bathroom's potentialities.

I found the first lodger for the bathroom one day when I was out riding on the camp shortly after a heavy rainstorm. The paddocks were waterlogged and in the hollows wide shallow pools had formed. As I rode past one of them, I noticed a small frog-like face peering above the surface of the water, gravely inspecting me. As I dismounted, the face disappeared in a muddy swirl. I tied my horse to the fence and sat down to wait. Soon the face appeared again from the farther edge of the pool. I walked round towards it and was soon close enough to see that whatever else this inquisitive

little creature might be, it was not a frog. Again it vanished and swam away beneath the surface, stirring up a cloudy line as it went. The trail stopped as the animal settled on the bottom. I put my hand into the water and brought up a small turtle.

He had a beautifully marked underside, patterned in black and white, and a neck so long that he was unable to retract it straight inwards like a tortoise, but had had to fold it sideways. He was a side-necked turtle—not a rare creature, but an engaging one, and I was quite sure that we could find room in the aeroplane for one so small and attractive, even if he had to travel in my pocket. The bath, half-filled, with a few boulders in the deep end on which he could climb when he was bored with swimming, made him an excellent home.

Two days later, in one of the streams, we found him a mate. As the pair of them lay motionless on the bottom of the bath, each displayed two brilliant black and white fleshy tabs which hung down from beneath their chins like lawyers' bands. It may be that these odd appendages, which their owner can move about if it wishes to do so, serve as lures to attract small fish fatally close to the turtle's mouth as it lies unobtrusive and stone-like on the bottom of the pond. But our turtles had no need to use them, for each evening we begged some raw meat from the kitchen and offered it to them with a pair of forceps. They fed eagerly, shooting their necks forward to engulf the meat in their mouths. As soon as they had finished their meal, we took them out of the water and let them wander around on the tiled floor while we used the bath for its more conventional purpose.

I was particularly curious to discover what sort of armadillos lived in this part of Argentina, for it might be that there was one which was not to be found in Paraguay. Dick told us that two different kinds were commonly found on the camp; one was the nine-banded species which we had found on the Curuguati, but the other, which he called the *mulita* or "little

mule" sounded unfamiliar. Dick promised to ask the peones to bring one in if they saw one, and the very next day the foreman arrived at the house with a mulita wriggling inside a bag.

To our delight it proved to be a species that, as far as we knew, did not occur in Paraguay. Although it resembled the nine-banded in general shape, it had only seven bands of separate articulating plates across the middle of its back, and its shell was not polished and shiny, but rough, black and warty. We must surely find space in the plane for him. The Quads had already taught us that armadillos are powerful and persevering burrowers and will demolish all but the most substantial cage. There seemed little point in building one, when the bathroom, tiled, spacious and secure, was still relatively underpopulated. We gathered a pile of dry hay, put it in a corner by the lavatory, together with a dish of minced meat and milk, and released the mulita in his new home. He dived straight into the hay, and scuffled invisibly to and fro so that the pile heaved and tossed like a stormy sea. Then tiring of that, he poked his head out, caught a whiff of the meat, trotted over to the dish, and began to feed, chewing the meat and puffing so stertorously that he blew bubbles of milk on his nostrils. We watched him finish his dinner. Then we turned out the light and went to bed, happy in the thought that we had a second species of armadillo to join the Quads.

When I went into the bathroom the next morning to shave, the mulita was nowhere to be seen. I assumed that he must be slumbering beneath the hay, but when I looked he was not there. It was difficult to imagine where he might be hiding in the bleak, hygienic bathroom. I looked beneath the bath, behind the lavatory and at the base of the towel rail and the hand basin. That seemed to exhaust all feasible hiding places, but still I could not find him. It was impossible to believe that he had escaped, for there was no way out. The only explanation was that one of the servants had opened the door and inadvertently

released him. Dick was most upset at the news and questioned all the servants but none of them had been into the bathroom that morning. We searched again after breakfast. The mulita had certainly disappeared but how and by what route we could not imagine.

Two days later we were brought a second mulita. This one was a female. Once again we put her in the bathroom, and at hourly intervals throughout the evening I looked in to see how she was faring. She seemed very comfortable and fed with as much gusto as her predecessor. But when I went to visit her at midnight, she too had gone. She *must* be in the bathroom somewhere. I called Charles and Dick and together we began a detailed search. Perhaps, in some mysterious way, she had dived into the lavatory. We lifted the man-hole cover in the courtyard outside, but there was no sign of her. We crawled around the bathroom floor looking for unseen gratings or crannies but found none. Then at last, sticking out of the small space between the wall and the base of the lavatory, we discovered a black warty tail. She had gone to earth inside the hollow porcelain pedestal. Getting her out was extremely difficult for she had wedged herself very tightly and we only managed to do so by employing the stomach-tickling technique which we had learned on the Curuguati. When finally she had been extracted, Charles peered into the porcelain cavern, marvelling that she had managed to squeeze herself into such a confined space.

He sat back and grinned.

"Have a look," he said, and there at the bottom of a tunnel almost concealed in the loose soil of the foundations, I saw a black hump. It was the first mulita. Only an armadillo could have discovered this one chink in the bathroom's defences but I was sure that, with a little rearrangement, the room could still successfully house even such expert escapologists as the mulitas. I half-filled the hand basin and transferred the turtles to it.

Then I emptied the bath, lined it with hay and put in the two mulitas. They scampered around among the hay, skidding wildly over the smooth enamel. They pushed their noses down the plug hole, made one or two tentative scratches at the brass rim, decided that it was not suitable for excavation and then settled down beneath the hay and went to sleep.

We turned out the light and left them.

"You know," said Dick, "I'm almost sorry we discovered where they were. I'm sure they would have provided many entertaining and instructive hours for our future guests. After all, there cannot be many bathrooms with resident armadillos in the loo."

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Half a mile from the house, a deep stream wandered across the camp, gliding between banks high with reedy plants and lined with overhanging willow trees. Here and there it rippled between constricting sand banks or splashed white over a natural weir of boulders, but for most of its course it slid gently from one placid sun-dappled pool to another. Herons and egrets came here to fish, standing knee-deep in the shallows; dragonflies flashed their iridescent wings over its surface as they hawked for mosquitoes and midges; and in its more secluded reaches, families of teal floated in pretty squadrons. All these we had seen for ourselves, but Dick told us of one particular stretch where, he said, we should find capybara.

This was exciting news. Charles and I had long tried to film these odd creatures. They are rodents, related to mice and guinea-pigs, but they are the largest of all the members of that family, being the size of a fully grown domestic pig. They spend much of their time swimming in the rivers and are admirably equipped for an amphibious life: their feet are webbed and their eyes, ears, and nostrils are all placed high

on their heads so that, like a hippopotamus or a crocodile, they can lie almost submerged with only the top of their heads showing and yet see, hear and smell all that is going on above water.

They are not rare creatures but they are very shy and wary for the capybara is keenly hunted both for its flesh, which has a flavour reminiscent of veal, and for its hide, which makes unusually soft, pliable leather, much prized for aprons and saddle cloths. In Guiana, several years previously, we had often found their spoor and droppings, and heard their coughing barks in the night. Once we saw the skeleton of one, picked clean but still articulated, lying on a sandbank, like some mysterious hieroglyph incised on a temple wall. We eventually found some tame young ones kept as pets in an Indian village, but of the wild ones we never caught the briefest glimpse.

We had also found plenty of evidence of their abundance on the Curuguati and we even saw one in the distance, slumbering on the bank; but it was so far away that it looked no more than a brown hump, and when we tried to approach closer it dived into the water with a resounding splash and, swimming beneath the surface, disappeared upstream before we were within two hundred yards of it. Never once had we succeeded in taking film shot of a wild one.

"You won't have any difficulty here," Dick told us confidently. "There are hundreds and, because no one is allowed to hunt them, they are as bold as brass. Anyone could get a snap of them with a box Brownie, let alone with all the complicated paraphernalia that you've got."

We treated this remark with a certain reserve. People have said such things to us before and they usually presage the immediate disappearance of all animal life in the neighbourhood and, as a result, unsympathetic gibes about our prowess as hawk-eyed observers; but the next day, armed with our most powerful telescopic lens and prepared for the worst, we fol-

lowed Dick's directions and drove down to the stream. We came upon it suddenly, as we rounded a plantation of eucalyptus. Charles cautiously stopped the car and I scanned with my binoculars the line of trees which marked its banks. I could hardly believe my eyes. Even Dick's description, taken at its face value, barely did justice to what I saw.

Over a hundred capybara lay on the grass by the water's edge, as crowded as Bank Holiday bathers on Blackpool beach. Mothers squatted on their haunches, indulgently watching their babies frolicking around them. Old gentlemen snoozed full length, in isolation, their heads sunk on their outstretched forelegs. Young bucks strolled idly among the family groups, sometimes disturbing one of their dozing elders and being forced to make hasty lumbering canters to safety before they became involved in a quarrel. But the air was heavy with heat and most of the herd were in no mood for strenuous activity.

We drove slowly closer. One or two of the old males heaved themselves onto their haunches and gravely inspected us. Then they turned away and resumed their sleep. Their heads in profile were almost rectangular and their shoulders were shaggy with a long reddish mane. On their muzzles, half-way between their nostrils and their eyes, projected a conspicuous weal-like gland, which the females did not possess. They had an air of nobility and a supercilious expression which reminded me not of rats or mice but of lions.

A mother slowly plodded down the river, her six youngsters following at her heels in Indian file, and waded into the cooling water. We were now close enough to see that there were almost as many swimmers as there were sunbathers. They floated idly or swam nonchalantly back and forth, seemingly with no purpose other than enjoyment. An old female stood belly-deep in the water, meditatively champing lily leaves. Only one among the whole herd, a young male, was swimming fast. We watched him cross the width of the river, a bow

wave fanning from the back of his neck. Unexpectedly, he submerged. We followed the line of ripples that marked his course until suddenly he bobbed up, gasping and blowing, beside a sleek female who had been floating demurely close to the opposite bank. She immediately swam away, and the two of them, with only their brown heads showing, forged down the river, like model boats steaming in line astern. She attempted to avoid him by diving, but he did likewise and when she surfaced again he was still beside her. The flirtation continued up and down the river for ten minutes or more, the male pursuing her with ardour and skill. At last she relented, and they coupled in the shallows beneath an overhanging willow.

We filmed the herd for two hours that morning, and nearly every day that followed we went down to the stream to watch them, for they were a unique sight. Nowhere else in the world can there be so many capybara so close to civilization.

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Paradoxically, the creatures which had once been the commonest of all the animals of Argentina, a rabbit-like creature called the viscacha, was now, at Ita Caabo, the rarest.

Seventy years ago, Hudson wrote that there were parts of the pampas where a man could ride for five hundred miles and not advance more than half a mile without seeing one of their warrens, and that in some places a horseman could see at least a hundred at one time. This vast population of viscachas had arisen largely because of the actions of the estancieros themselves, for they had hunted and killed most of the jaguar and foxes which are the viscacha's natural enemies, so that it was able to proliferate unmolested. Soon, however, the ranchers realized that these swarms of creatures were consuming so much grass that they were ruining the pasturage, and a vigorous war was begun against them. Streams were diverted to flood the war-

rens, and the animals, driven above ground by the waters, were clubbed and slaughtered. The *viscacheras*, as the warrens are called, were partially dug out and the tunnels blocked with stones and earth so that the animals, trapped below ground, starved and died. When the hunters used this method, however, they had to guard the ravaged warren overnight, for viscachas from nearby colonies in some mysterious way became aware of their neighbours' plight and, unless prevented, would come to the assistance of their entombed companions and clear the tunnels. Today, there are few viscachas left. Although Dick could have easily ordered their total extermination at Ita Caabo, he preserved one colony in a distant corner of the estancia and, late one afternoon, he took us in a truck to see it.

After half an hour's driving, we left the rutted earth track and bumped over the tussocky turf through tall thistles, to park twenty yards away from a low mound of bare earth, capped with untidy piles of stones, dry wood and roots. Around its base we saw a dozen great holes.

The cairns of stones were not part of a naturally occurring outcrop of rock, but had been built by the viscachas themselves, for these creatures are possessed by a collecting mania. Not only do they drag onto the top of their mounds all the stones and roots which they excavate from their burrows, but they also gather up any interesting and movable object that they find on the camp. If a peon loses something when he is out riding, he is most likely to find it in these untidy but cherished museums.

The animals themselves were still below the ground slumbering in their maze of tunnels, for they only come up in the evenings to graze in the safety of darkness.

It was pleasantly cool. A gentle breeze fanned our faces and rustled among the caraguata. A group of four rheas appeared on the skyline and stalked slowly towards us. They sat down on a patch of bare earth and, ruffling their downy wings, lowered their heads to indulge in a dust bath. The cries of the spur-

winged plovers dwindled and ceased, and the birds settled in pairs by their nest. The crimson sun, looking gigantic, sank slowly to meet the straight line of the horizon.

Although the builders of the warren had not yet appeared, the mound was by no means deserted. A pair of small burrowing owls, with striped waistcoats and bright yellow eyes, stood bolt upright, like sentinels, on the top of the stones. These birds are quite capable of digging their own nest holes, but often they make use of one of the outlying burrows of the viscachera, and take advantage of the stone cairns by using them as observation posts from which they can survey the surrounding country and find the rodents and insects on which they prey.

These two seemed to own a hole on the far side and were most concerned by our presence, bobbing up and down, swivelling their heads and blinking angrily. Every now and then they lost courage and scuttled down their hole, only to reappear a few minutes later to glare at us once more.

They were not the only lodgers in the warren. Several small miner birds pattered around on the surrounding close-clipped grass. They nest in long narrow tunnels, but as there are few suitable sites elsewhere on the camp they usually excavate in the sides of the viscacha's hole, just beyond the entrance. Like the oven bird, to which they are closely related, they build themselves a new nest each year, but their old tunnels were not wasted for they had been taken over by the swallows which were gliding and swooping around the warren. The viscachera was in fact the focal point for most of the wild life in the neighbourhood. While the lodgers disported themselves in the soft evening light, we waited patiently for the landlord himself to appear.

We did not see him arrive, but suddenly noticed that he had materialised and was squatting, like some grey boulder, by one of the entrances.

He looked like a rather large portly grey rabbit, except that

he had short ears and a broad black horizontal stripe across his nose, which made it seem as though he had been trying to stick his head sideways through some newly painted railings. He scratched himself behind his ear with his hind leg, and grunted, jerking his body and baring his teeth as he did so. Then he hopped clumsily onto the top of his mound and settled down to survey the world and see how it had changed since he was last up here. Having satisfied himself that all was well, he began a more careful toilet, sitting up to scratch his cream-coloured stomach with both his front paws.

Charles climbed cautiously out of the car and, carrying the camera and tripod, moved a step at a time closer and closer to him. The viscacha transferred his attention from his stomach to his long whiskers, combing them carefully. Charles walked faster, for now the sun was sinking rapidly and he was anxious to get really close before the light faded so much that photography became impossible. Swiftly though he moved the viscacha remained unperturbed and eventually Charles set down the camera within four feet of him. The burrowing owls, aghast, had retreated to gaze indignantly at us from a tussock many yards away. The miner birds flew twittering nervously around our heads. But the viscacha, impervious and unconcerned, remained on his ancestral throne of stones, like royalty sitting for his portrait.

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Our stay at Ita Caabo was only a short one. Two weeks after we had arrived, the company's plane returned to take us back to Asunción. It had been a comfortable and fascinating interlude and we were sorry to go. We took back with us the mulitas, the turtles, a little tame fox given us by one of the peones, and unforgettable memories and film of oven birds and burrowing owls, plovers and rheas, viscachas and, perhaps most memorable of all, the giant herd of capybara.

ZOOLOGICAL GARDEN
CALCUTTA
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CHAPTER SIX

Chasing a Giant

FROM the cobbled hilly streets of Asunción, you can look over the docks, thick with shipping, across the brown expanse of the Paraguay river and into a flat desolate wilderness. It begins on the opposite bank of the river and stretches westwards beyond the horizon and over the Bolivian border, five hundred miles, to the foothills of the Andes. This is the Gran Chaco. For part of the year it is a parched desert of dusty plains and cactus scrub, but in summer it turns into a gigantic mosquito-ridden swamp flooded by the heavy rains and the streams which, swollen by melting snow, pour down onto it from the flanks of the Andes. We had decided that we should spend the remainder of our time in Paraguay in this extraordinary country. Everyone in Asunción had something to tell us about the Chaco. Most people described hideous hardships, others gave us lists of essential but unlikely-sounding equipment, and some produced fairly convincing reasons why we should not go there at all.

On one thing, all were agreed: it was very hot. Accordingly, we began our preparations by looking for two straw hats. We went first to a small shop down by the docks, the window of which, opening onto a shady colonnade, was filled with a wide variety of cheap clothing.

"*Sombreros?*" we asked. Our Spanish, fortunately, was not to be taxed further, for the proprietor, a young but very stout unshaven man, with a jungle of black curly hair, a loosely

knotted tie and very few teeth, had once been to the United States and as a result spoke a picturesque brand of Brooklynese. He provided us with the hats which were inexpensive and exactly what we wanted. Unwisely, we told him why we were buying them.

"The Chaco, she's a verra terrible bad place," he said with relish. "Ho gracious, the mosquitoes and the *bichos* they *muy muy bravo*. They so plenty, you make the snatch in the air and you got yourself one hextra-large-size, foist-class steak. *Amigos*, they gonna *devour you*."

He paused, entranced by the vision. Then he beamed.

"I got hextra-fine-quality mosquito-net." We bought two.

He leaned conspiratorially over his counter.

"She gets plenty terrible cold," he said. "In the night, ho gracious, you gonna freeze. But you no gotta worry one bit. I got fines' *ponchos* in Asunción."

He produced two cheap blankets, slit in the middle so that you can slip them over your head and wear them as cloaks. We bought them.

"You plenty good on the horse's back? You go like Gary Cooper?"

We had to admit that we did not.

"She don' matter, you gonna learn," he said hastily, "an' you gonna need *bombachos*." He produced two pairs of pleated baggy pantaloons. This seemed too much.

"Not necessary, *muchissima gracias*," we protested. "We're going to wear trousers *inglesi*."

He screwed his face up in a frightening simulation of agony.

"She's not possible, *amigos*. You gonna hurt yourselves real terrible. You *mus'* have bombachos."

We capitulated. In doing so, we laid ourselves wide open for his next attack.

"Now you got yourselves plenty beautiful, very lovely, high class bombachos, "he said reflectively, as if to congratulate us on

our skill in selecting them with such perspicacity, "but the cactus an' the bush in the Chaco she very spiny." He clawed the air to make his meaning clear. "She gonna tear your beautiful bombachos in plenty hundred pieces."

We waited for the sequel.

"DON' WORRY," he shouted, and with a flourish, like a magician pulling a rabbit from a hat, he produced two pairs of leather leggings from beneath the counter. "*Piernera*."

We owned ourselves beaten. We bought them. There now seemed no portion of our anatomy that he had not clothed; but he had not finished. He peered over the counter and dispassionately looked us up and down.

"You no got belly," he concluded sadly, "but," he added firmly, "I t'ink you gonna need *faja*," and he reached down from a shelf behind him two rolls of thickly woven material, about six inches wide. "Look, I show you." He wrapped one of them three times around his enormous corporation and then indulged in a pantomime, jumping up and down as though he were on the back of a horse.

"You see," he said triumphantly, "the guts. They don' bang about."

Heavily laden and totally defeated, we staggered from the shop.

"I don't know how much of this lot is going to be any use to us in the Chaco," said Charles, "but we're certainly going to be absolute knockouts at the next fancy dress ball."

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These curious items of clothing were not the only equipment which we were persuaded was essential if we were to survive our stay in what some people rather melodramatically referred to as "*L'Inferno Verde*"—Green Hell. We acquired special half-length boots without which, apparently, it was impossible to ride a Chaco horse; two dozen label-less bottles filled with

The harp maker was seated at his work bench

evil-smelling yellow fluid which we were assured contained extra-strong, army surplus, insect repellent; several lengths of very thick elastic which Charles had discovered in the market and which he had been unable to resist ("Jolly useful, old boy, for traps and things like that"); great quantities of anti-snake-bite-serum (together with an appropriately gargantuan hypodermic syringe), which had been pressed on us by one of our kinder but more pessimistic Paraguayan friends; and a wooden crate of tinned foodstuffs that felt, when we lifted it, as though it were filled with lead weights.

Our preparations were now almost complete. We had rediscovered Sandy Wood in the tourist agency for which he worked and had once more enlisted his aid as interpreter, and we had managed to reserve three passages on a plane that was flying out to a remote estancia in the middle of the Chaco.

We now had three days to spare before we left Asunción and we decided to fill them seeking for one of Paraguay's unique riches—its music. When the first Spanish settlers and Jesuit missionaries came to the country three hundred and fifty years ago, they found that the Guarani Indians possessed only a primitive form of music—simple and monotonous, slow in tempo and minor in key. The missionaries introduced their converts to European instruments and the Indians quickly and enthusiastically learned to play them. Their latent musicality soon flowered into a widespread passion. As they absorbed each new European style—the polka, the galop, the waltz—so they transformed it into something fresh and individual, at once rhythmic yet languorous. Furthermore they began to make instruments for themselves. The guitar they adopted unchanged, but the harp they modified into virtually a new instrument. Their version is made entirely of wood; it is small and portable; and unlike the European concert harp it does not have any pedals so that the performer cannot play semi-tones. But this seems to be no handicap and the Paraguayan harpist

Faustino ranched Zebu cattle

exploits all his instrument's potentialities, not only playing melodies with impressive dexterity, but richly decorating them, sweeping his fingers across the strings to produce thrilling glissandos, or plucking the bass strings to add a heady rhythmic beat. I had already heard something of this ravishing music from records made by Paraguayan groups visiting Europe. Now I wanted to hear it played in its proper setting.

One of the most skilled of Paraguay's instrument makers lives and works in the little village of Luque, a few miles from Asunción, and we went out to see him. His small house was surrounded by the fragrant orange groves that are so typical of this fertile and beautiful part of Paraguay. He himself was seated at his work bench, polishing a part of a harp with the unhurried loving movements which bespeak the true craftsman. Two tame parrots swung in the rafters of the stable behind him and a pet hawk perched on a wooden stand in the garden. We sat down beneath the orange trees, and his wife brought us some cold maté. While we passed it from one to another, he played to us on the guitar he had just completed. Two lads from a nearby farm joined us, and for an hour they played guitars and sang in the bitter-sweet half strident voices which are so typically Paraguayan. Their music was gentle and full of engaging cross-rhythms and syncopations; it had none of the harsh almost savage rhythm that characterizes the music of neighbouring Brazil, for that is the contribution of the negro element in the population and very few negroes have ever lived in Paraguay. Eventually the guitar was passed to me and the old man asked me to play "*una cancion inglesi*". I did the best I could.

The guitar he had handed to me was most beautifully made and had a rich mellow tone. I admired it so much that I asked, in as tactful a way as I could, whether it was possible to buy it.

"No, no," the old man replied with such vehemence that I feared for a moment that I had offended him. "I could not

allow you to have that one. It is not good enough. I will make a guitar specially for you that will sing like a bird."

When, a month later, we returned to Asunción after our journey in the Chaco, I found the guitar awaiting me. It had been made from the handsome woods of the Paraguayan forests and at the top of its finger board the old craftsman had inlaid my initials in ivory.

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The next day we met Sandy in a bar in the centre of the town, where he was obviously preparing himself to withstand weeks of total drought in the Chaco. He bought us a beer.

"By the way," he said, "a chap came into the agency yesterday asking if it was true that there were some boys in town who were interested in armadillos. He said that he had got a *tatu carreta*."

I nearly choked over my drink. The tatu carreta—"cart-sized tatu"—is the local name for the giant armadillo. It is a magnificent creature, almost five feet in length and so rare that it had never been brought alive to England. Very few people have ever seen a living one and only in moments of wildest optimism had I dared hope that we would be able to find it.

"Where is this man? What is he feeding it on? Is it in good health? What does he want for it?" Excitedly, we bombarded Sandy with questions. He took a long and contemplative drink of beer.

"Well, I don't rightly know where he is now. If you are as interested as all that, we'll go and find out. I didn't see him myself."

We rushed over to the agency and found the clerk who had spoken to the man.

"He just wandered in," the clerk told us, amazed at our excitement, "and asked how much the *inglesi* would pay for

a tatu carreta because he had a captive one for sale. I didn't know whether you would be interested or not, so he said that he would come back some other time. His name, I think, is Aquino."

One of the loungers, who habitually spent his days sitting on the agency steps, joined in the conversation.

"I think he sometimes works for a timber firm down by the docks."

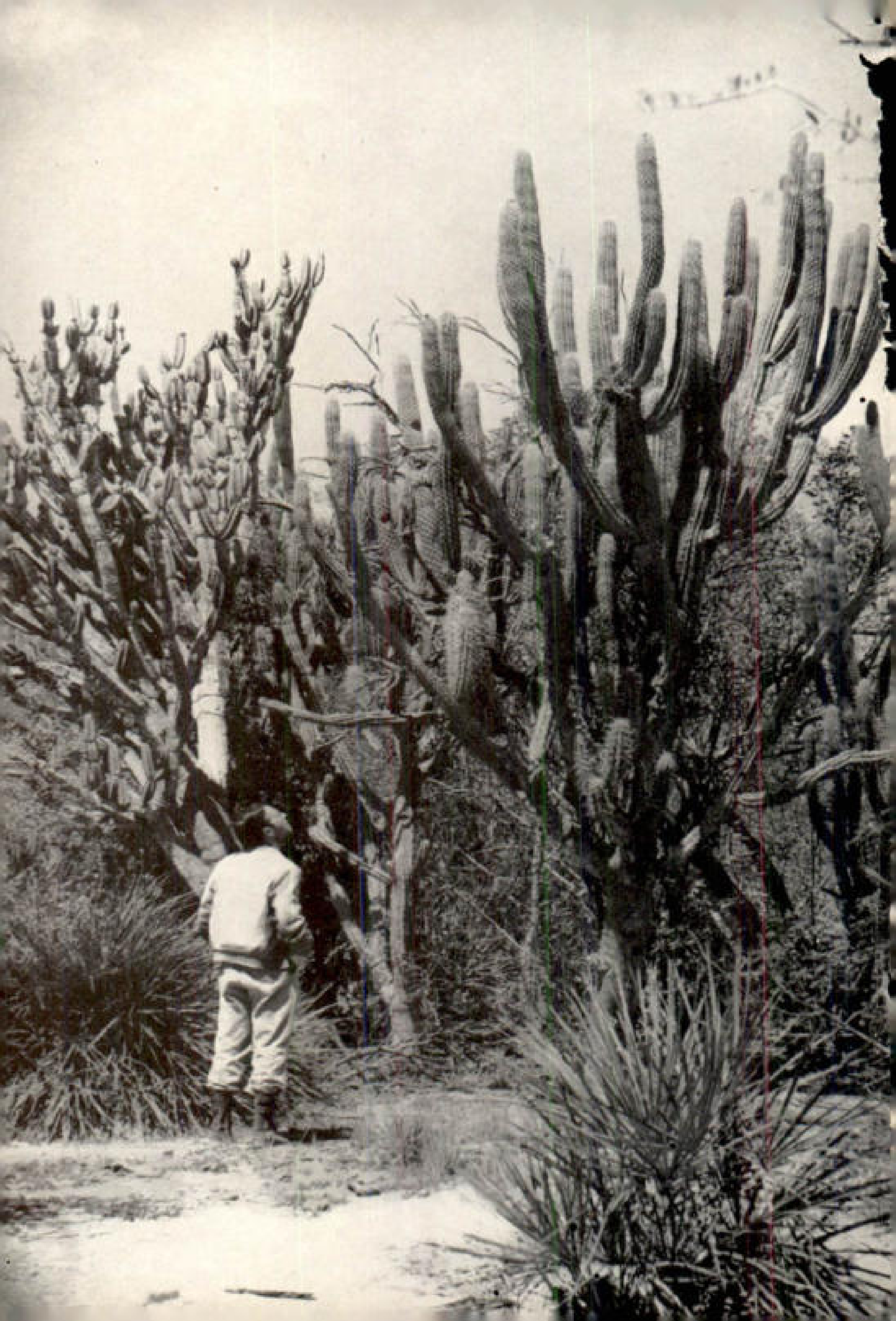
In a fever of excitement, we hailed a taxi and drove off to try and trace him. At the offices of the timber firm, we discovered that Aquino had arrived three days ago on board a cargo boat loaded with logs. He had come from the riverside town of Concepción, a hundred miles away to the north, but he had not brought a giant armadillo with him. It must still be in Concepción. Aquino himself, they said, had gone back there on a boat which had left several hours ago.

It was imperative that we found him as soon as possible. I knew only too well, from past experience, that many people merely throw rice or mandioca into the cage of any animal they catch, and if it does not eat they assume it is ill and pay no more attention to it. It might well be that this rare creature was at this very moment starving to death somewhere in Concepción. We must find it and ensure that it was being properly tended, but we had only two days in which to do so, for we could not abandon our Chaco plans.

We dashed over to the airline office. A plane was leaving for Concepción the very next day and there were two spare seats on it. We decided that Sandy and I should take them and that Charles should stay behind to make the final preparations for the Chaco trip.

The plane left Asunción at seven o'clock the next morning, and just over an hour later we landed in Concepción. It was a small quiet town of dusty streets and simple adobe whitewashed buildings. We went straight to its only hotel, for

The drunken tree epitomizes the armoured vegetation of the Chaco



Sandy was sure that this was the best place in which to start our detective work. The patio was crowded with coffee drinkers. I wanted to go from table to table asking if anyone knew a man named Aquino, for we had little time to spare, but Sandy insisted that this would be grossly impolite; many of these people were old friends of his and they would be very offended if he did not greet them in a civilized and leisurely way. One by one, he introduced me to them all. We exchanged polite pleasantries as I tried to contain my impatience.

Sandy explained that I was very interested in giant armadillos. Everyone considered this to be most extraordinary, and said so, at length. Sandy increased their astonishment by revealing that not only was I interested in giant armadillos, but that I actually wanted to acquire a live one. There then followed an extended discussion on the various methods of catching a giant armadillo. This proved to be somewhat unproductive, for no one had ever seen the creature, no one had ever tackled such a job, and everyone made it clear that they had no ambition ever to do so. As a result, the topic veered slightly onto the question of how one would manage to cage the creature once it had been captured. The general concensus of opinion was that this was virtually impossible as it would dig its way out of anything except a steel tank. The waiter sat down beside us and indulged in a little humorous back-chat on the subject of what one should offer a giant armadillo to eat and drink. I became increasingly desperate, for after all we had only twenty-four hours to trace it. At last Sandy raised the question of the identity of Aquino. Everyone knew him. He had not yet returned from Asunción, but he usually worked as a lorry driver and had recently been fetching timber from a logging camp run by a German, ninety miles away to the east, close to the Brazilian border. If he had a captive tatu carreta it would undoubtedly be there.

"Can we hire a truck to take us out to the camp?" I asked,

Charles among the cactus of the monte

realizing, as I spoke, that in all probability this would provoke another half-hour's discussion. Happily, this question was quickly answered, for there was only man in the whole of Concepción who owned a truck which could do the job. His name was Andreas, and a small boy was dispatched to find him.

While we waited, I visited a nearby shop to buy something on which we might feed the armadillo. All I was able to get were two tins of lambs' tongues and a tin of condensed milk (unsweetened), but at least this would provide a reasonable approximation to the diet which had proved successful with our other armadillos.

Half an hour later, Andreas arrived. He was a young man, with a luxuriant black moustache and oiled hair, wearing an American shirt patterned with vivid floral designs. He ordered a cup of coffee and sat down to discuss the proposition. Three cups later he agreed to take us. All he had to do was to visit his mother, his wife, his brother and his mother-in-law to tell them where he was going, fill up the truck with petrol and then he would be ready to set off. By now, I was beginning to feel that we would never leave the coffee bar, but Andreas was as good as his word and he reappeared with a new and powerful truck only twenty minutes later. Sandy and I squeezed into the cab with him and we roared away, our horn blaring, accompanied by shouts of encouragement from the coffee drinkers and the waiter. All things considered, I felt we had done remarkably well to be on our way within four hours of arriving in the town.

Our speedy progress, however, was not maintained, for Andreas suddenly turned sharp right down a small side turning and drew up outside the local hospital.

He explained that he had spent the previous night drinking with a sailor who had come up the river from Uruguay. His new friend had made the mistake of inviting one of the girls who was also in the bar to join him in a glass of caña, whereupon a man standing next to him suddenly and surprisingly

stuck a long knife in the Uruguayan's stomach. Now the sailor was in hospital and Andreas was sure that he would be thirsty, so he was taking a couple of bottles of caña to slip under the sailor's pillow when the nurses were not looking. His visit was a short one, but long enough for me to reflect on the importance of observing local customs.

The road, a wide red earth track cut through the forest, was appallingly rutted and pitted with huge pot-holes. Most of these hazards Andreas managed to avoid by swerving violently from side to side and only rarely did he slacken speed. Every few miles we passed an encampment of conscripts who, in theory, were supposed to be maintaining the road. However none of them were actually working and, as Andreas pointed out, it was really rather unreasonable to expect them to do so. A conscript's pay is very small, and, as he receives it whether the road is repaired or not, he is much more profitably occupied doing something else, such as chopping firewood to sell to passing travellers. It did not seem to me that many of them were doing even this, for most were fast asleep in the shade of the trees by the roadside. It was extremely hot and I would have sympathized with them if it had not been for the fact that my teeth were rattling in their sockets and my head continually banging on the roof of the cab as we careered onwards over the increasingly uneven road.

Every few minutes, we passed a heavy lorry, laden with bulging sacks on their way to Concepción.

"Coffee," said Andreas.

I was surprised that Paraguay produced so much coffee in what I had been told was a barely cultivated part of the country.

"It's not Paraguayan coffee," Sandy explained, "it comes from Brazilian *haciendas* over the border. The big coffee-producing nations have an international quota system so that exports are limited and there is not a world glut. Paraguay doesn't produce coffee in any quantity herself so she wasn't

involved in the agreement and, as Brazil produces far more than she is allowed to export, it is just sent over the border and down to Concepción where it is sold as Paraguayan coffee and everyone is happy."

Thirty miles from Concepción, we came upon one of these lorries sunk up to its axles in a boggy part of the road. Its wheels were spinning uselessly in the mud and some twenty soldiers were ineffectively pushing on its tailboard. It completely blocked the road. Andreas stopped with a philosophical sigh and observed that we were going to be here for some time. We had parked just outside a small thatched shanty. On its veranda sat a remarkably pretty girl demurely sewing.

"I think," said Andreas, his eyes brightening, "that I'll see if I can get a drink of maté."

I remembered the Uruguayan and walked over to the bogged-down lorry. It was quite clear that it would never move until it was unloaded, but it was equally obvious that no one was very anxious to start on such a heavy job until every other method had been tried. After nearly an hour of fruitless exertion and heated discussion, the soldiers agreed to take off the heavy sacks. As soon as this was done, the driver started up the engine, the soldiers pushed and shouted, and the lorry slowly climbed from its ruts and out of the bog. I walked back to tell Andreas the good news. He was sitting close to the girl, playing a guitar and singing 'O Sole Mio' in an ear-splitting tenor voice. The young lady was obviously captivated. Andreas looked very injured when I suggested that we should leave and it was only with the greatest of reluctance that he finally said farewell to her.

We reached the lumber camp at five o'clock. It was merely a single hut, with some big wheels for carrying logs like those we had seen at Ihrevu-qua standing in front of it. As we approached it, my heart beat uncomfortably fast. Was the giant armadillo alive? With difficulty I prevented myself from run-

ning along the track which led to the hut. Instead I strolled up to the door, pretending that I was not really excited.

The hut was deserted. Not only was there no one at home, but I could see no sign of an armadillo, nor any place where one might have been caged. However there were signs of occupation—an old shirt, three shining axes, some enamel plates leaning to dry against the log walls, a giant mirror-fronted wardrobe, and an empty hammock slung across one corner. Presumably the German must be out at work in the forest. We halloed and yodelled. Andreas sounded a braying fanfare on the car horn. But no answering sounds came from the forest. We seated ourselves disconsolately in the shade of the hut walls and waited.

At six o'clock, a man on horseback came round a bend in the road ahead. It was the German. I ran towards him.

"Tatu carreta?" I said anxiously.

He looked at me as though I were a raving lunatic. At that moment I realized that we were not going to find a giant armadillo that day.

Sandy extracted the full story and, aided by a little deduction, all became depressingly clear. A week earlier a Pole who worked for the German had come into the camp from a far distant section of the forest where he had been surveying the timber. Over the evening meal he mentioned that he had met an Indian who said that he had recently enjoyed a magnificent feast at his village in which the main dish had been a giant armadillo. The Pole remarked that he had never seen this rare creature and that when he went back he was going to ask the Indians if they could catch another to show him. Aquino, who had come up from Concepción to collect a load of timber, overheard the conversation. Obviously he remembered some gossip about the Englishmen in Asunción who were looking for armadillos, and without saying anything to the Pole he had returned to Concepción with his load and had accompanied it

down to Asunción. There he had traced the gossip to Sandy's travel agency, and, in order to make his bargaining position a better one, had claimed that he had already captured a tatu carreta. Now he must be on his way back and was no doubt going to offer the Pole a trifling sum for one of the animals. Then he would take it down to Asunción and make a vast profit by selling it to us. The German thought this was vastly amusing—not only because we had come so far for a mere animal, but because we had unknowingly thwarted Aquino's plans to make a fortune. He produced a bottle of whisky and passed it round.

"*Musik!*" he cried, and from out of the wardrobe he dragged an enormous piano accordion. Andreas was delighted, and the pair of them began an even more inaccurate version of 'O Sole Mio' than the one I had heard before. My heart was not in the singing. I was bitterly disappointed. It was gone ten o'clock when we finally persuaded Andreas to start up the lorry again. We left the German with a firm offer to pay well for any giant armadillo that was brought in, detailed instructions on how to care for it, two tins of lambs' tongues and a tin of condensed milk (unsweetened).

By the time we had returned to Asunción, the next day, I had largely recovered from the crushing disappointment of discovering that Aquino's armadillo was a fiction, and as I recounted to Charles the story of our excursion I began to feel a little more optimistic. Although we had not actually set eyes on the beast, we had at least spoken to a man, who employed a logger, who had met an Indian, who had eaten one. It was really, I insisted, quite a narrow miss and there was every chance that the rewards I had asked the German to tell the Pole to mention to the Indians, would be enough to persuade them that a giant armadillo could be converted into something more valuable than a few pounds of rather tough stewing steak. We might get one yet.

I sensed that Charles remained unconvinced.

CHAPTER SEVEN

Ranch in the Chaco

WE left for the Chaco the day after Sandy and I returned from Concepción. Early in the morning we piled all our equipment onto a lorry and drove to the airport. When we arrived it was immediately clear that there was no chance whatever of packing all our baggage into the tiny plane which was to take us. We tried, but it was impossible. Something had to be abandoned. Reluctantly we decided that it should be the food, for the rancher with whom we were going to stay had insisted, on the radio, that there was no need to bring any supplies whatsoever. It was a decision that we were to regret later.

We took off, and as we circled Asunción we looked eastwards for a moment towards the verdant hilly country, rich with orange groves and small holdings, that begins just outside the town and is the home of three-quarters of the inhabitants of Paraguay. Then we swung west over the Paraguay River, a broad brown ribbon glinting in the sun, and saw ahead of us the Chaco. From the very edge of the river, it looked totally different from the land so close to it on the opposite bank. We could see no signs of human habitation. A stream wound across it, twisting so extravagantly that in many places it looped back upon itself; the current, seeking a more direct course, had cut through the necks of the meanders so that the forsaken stretches of the river were left as weed-clogged stagnant lakes. I saw from the map that this river was very

understandably called the Rio Confuso. Here and there, the land had been colonized by palms which were scattered thinly over wide areas, like a thousand hat-pins stuck in a faded green carpet, but for the most part, there were no houses, no roads, no forests, no lakes, no hills, nothing but a desolate featureless wilderness. I noticed that our pilot had armed himself with two large pistols and a well-filled ammunition belt. Perhaps, after all, the Chaco was as uncomfortable and as dangerous a place as our acquaintances in Asunción had claimed it to be.

We flew westwards over this ferocious inhospitable country for nearly two hundred miles until at last we sighted Estancia Elsita, our destination.

Faustino Brizuela, the *patron*, and his wife Elsita, after whom he had named his ranch, were waiting for us by the side of the airstrip as we landed. He was a huge man, though his mammoth girth made him appear shorter than his actual height of six feet, dressed in a strikingly unconventional costume comprising an unmatched pair of violently striped pyjamas, a large pith helmet and dark glasses. He welcomed us in Spanish, flashing a wide and predominantly golden smile, and introduced us to Elsita, who stood by his side—a small rotund lady, holding a baby in her arms and chewing an unlit cheroot. A group of half-naked painted Indians had also come to meet us. They were tall barrel-chested men, with straight black hair tied at the back of their heads in pony tails. Some held bows and arrows, one or two carried antiquated shot guns. In the weeks to come Faustino seldom appeared in public without his pyjamas or Elsita without her cheroot, but the barbaric appearance of the Indians was not typical; they had decked themselves specially for our arrival, and never again did we see them looking so spectacular.

An acquaintance in Asunción had told us that the ranchers of the Chaco were lazy people, and to prove it he related the

The Indian had arranged an excellent picture for us

story of an agricultural expert from the United Nations who, visiting an estancia deep in the Chaco, had been appalled to find that the rancher lived on nothing but mandioca and beef.

"Why don't you grow bananas?" the expert asked.

"Bananas just don't seem to grow here; I don't know why."

"What about paw-paw?"

"That doesn't seem to grow either."

"And maize?"

"It just doesn't grow."

"And oranges?"

"Same trouble."

"But a few miles away there is a German settler and he grows bananas, paw-paws, maize and oranges."

"Ah yes," replied the settler, "but he *planted* them."

If Faustino was typical, however, the story was unjust, for the central courtyard of his house was shaded by orange trees, laden with ripe juicy fruit, paw-paws grew by the kitchen door and beyond the garden stretched an acre of tall betasselled maize. Above the red pantiled roof, an aluminium-vaned windmill spun in the breeze, generating electricity for lighting the house and running the radio. Furthermore, Faustino had even devised a method of supplying the kitchen and bathroom with running water. By the side of a large, duckweed-covered lagoon which lay near the house he had dug a shallow well, lining its sides with wooden boards. Above it he had built a scaffold which supported a large iron tank and this was filled every morning with buckets-full of well water hauled up to it by a rope and pulley operated by a little Indian boy on a horse. From the tank, the water ran down pipes to the taps in the house. It was an admirable and very efficient arrangement, and we assumed that the water itself was good, for Faustino, Elsita and their children all drank it freely. It was not until we ourselves had also been drinking it for several days that we had any cause to examine the well in detail.

The Firewood Gatherer

We needed some frogs to feed a cariama, a large bird which one of the peones had brought in to us, and Faustino suggested that we should find an endless supply of them in the well. I went down to it and swirled my net in the turbid, slightly smelly water. When I took it out, I found that I had caught three lively olive-green frogs, four dead ones and a partially decomposing rat. Maybe the rat had accidentally fallen in and drowned, but what ingredient of our drinking water had killed such accomplished swimmers as the frogs was a zoological problem that I did not care to investigate. For two days afterwards, we surreptitiously dropped chlorine tablets into any water that we drank, but they produced such a revolting taste that eventually we abandoned the habit.

* * * * * * *

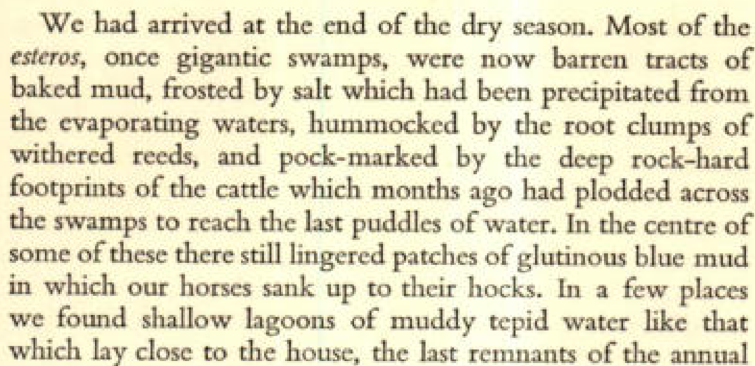
The frogs in the well were by no means the only ones near the house. They were merely the spill-over from the enormous population which flopped and splashed in the weedy lagoon behind, and each evening the whole assembly sang together in deafening chorus. There were many species, each with its own distinctive call. One or two produced sounds which were recognizably amphibian and which could be reasonably described as croaks, but most of them had voices which seemed more properly to belong to some totally different creature. Some mewed like plaintive kittens; some quacked like ducks. One species cried "Oh! Oh! Oh!" in high-pitched girlish voices, and another replied with deep mournful groans. All together, they constituted a versatile orchestra which performed endless variations on its basic theme, each species singing in unison for a minute or so and then falling silent to allow some other group to dominate the music.

We spent several evenings by the lake-side, recording both the individual singers and the united chorus. One of our best and most reliable performers was a particularly large toad who

habitually sang from the end of a half-submerged log close to the shore. He was one of those who produced the deep groans which made up the bass part of the music, and he did so by blowing up his throat into a huge white balloon which acted as an amplifying resonator for the gravelly noises from his vocal cords. He looked so spectacular when he was doing this, that we decided to photograph him by flash-light.

In order to focus our cameras, however, we had to shine a torch on him for a second or two and this disturbed him. Again and again, just as we were about to take a photograph, he jumped off his platform and swam away. Then Charles had an idea. He rewound the tape we had just recorded and began to play it back. A rather tinny reproduction of a toad's groan floated over the water. Within a few seconds, a ripple appeared by the log and the toad scrambled hastily back on his platform. He blew out his throat and began indignantly replying to his electronic rival. As each insulting groan came from the recorder he answered vehemently, and so intent was he in responding to this challenge and establishing his sovereignty in the area, that he ignored our torch light and continued to sing lustily while our flash-bulbs exploded again and again in front of him.

* * * * * * *



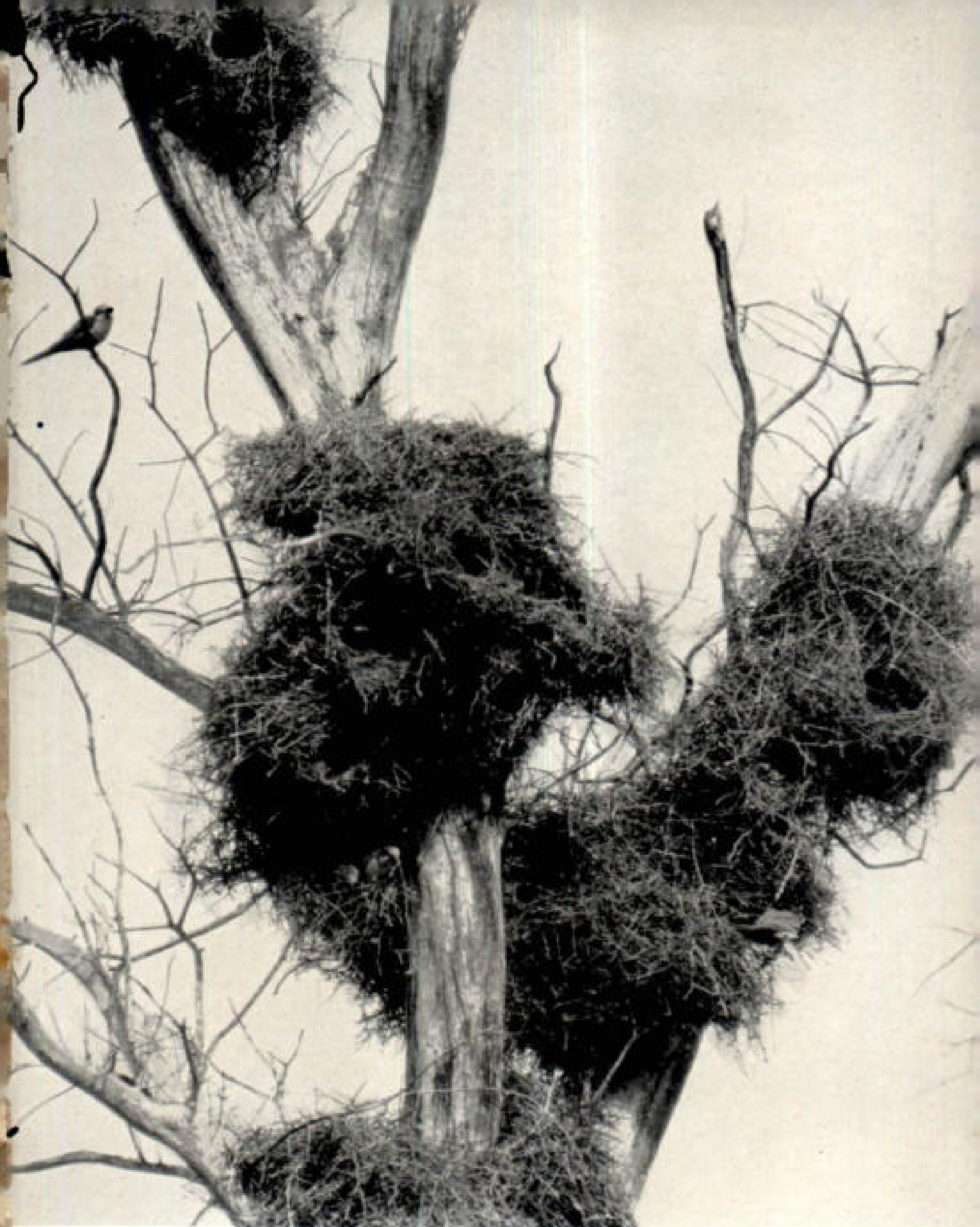
We had arrived at the end of the dry season. Most of the *esteros*, once gigantic swamps, were now barren tracts of baked mud, frosted by salt which had been precipitated from the evaporating waters, hummocked by the root clumps of withered reeds, and pock-marked by the deep rock-hard footprints of the cattle which months ago had plodded across the swamps to reach the last puddles of water. In the centre of some of these there still lingered patches of glutinous blue mud in which our horses sank up to their hocks. In a few places we found shallow lagoons of muddy tepid water like that which lay close to the house, the last remnants of the annual

floods which had so recently covered the greater part of the country.

Only where the ground rose slightly above the general level of the surrounding country was it possible for trees or bushes to grow, safe from death by drowning, and such areas had been colonized by scrub vegetation, the *monte*. All the plants bore savage spines which protected them from the grazing cattle, desperate for fodder in the drought, and many had also developed devices to enable them to conserve water during the dry season. Some did so in their huge underground roots, others, like the hundred-armed candelabra-like cactus, in their swollen fleshy stems. The *palo borracho*, the drunken tree, conserved moisture in its distended bloated trunk, thickly studded with conical spines. These trees, perhaps, epitomized the character of the armoured vegetation of the Chaco, standing in groups like grotesque bottles which had come to life and sprouted branches.

The Indians lived half a mile from the estancia house. Not many years ago, these people, the Maká, were untrustworthy and murderous and no doubt the early pioneers who invaded their country had given them every cause to be so. Originally they seldom stayed long in one place but wandered over the Chaco, building temporary encampments wherever game was relatively plentiful. Most of the people in this village, however, had abandoned their traditional hunting life and many of the men worked as peones on Faustino's estancia. Their tolderia was, in fact, a permanent settlement, but even so, the style of their houses had not changed or elaborated—they remained crude dome-shaped huts, roughly thatched with dry grass. The people spoke a language quite unlike any that I had heard before. It consisted predominantly of guttural words each of which, as far as I could tell, had the emphasis placed on the last syllable so that their speech sounded remarkably like a tape recording of an English voice played backwards.

The untidy colonial nests of the Quaker parakeets



from the house when we saw an armadillo crossing a dried-up marsh only a few yards ahead of us. While Sandy held the reins of my horse, I set off on foot in pursuit. The armadillo was over two feet long—considerably bigger than a tatu hu, his yellowish-pink shell was sparsely covered with long bristly hairs and his legs were so short that I found it hard to believe that he could run very much faster even if he wanted to. So instead of catching him immediately, I trotted by his side to see what he would do. He stopped for a moment to look up at me with his tiny bewhiskered eyes and then he trundled on over the rough surface of the estero, grunting loudly to himself. Soon he came across a depression in the ground. He sniffed it and began to dig, throwing back great quantities of earth with his forepaws. Within a few seconds, only his hind legs and tail were showing and I decided that the time had come to catch him. With his head buried in the hole, he was unaware of my intentions and unable to take avoiding action, so that all I had to do was to seize hold of his tail and gently extract him. He came out, puffing and grunting, and still making breast-stroke movements with his forelegs.

We took him back to the house and Spika came along to identify him.

"Tatu podju," he said, approvingly, and "Podju" thereafter became his name. Scientifically, he was a six-banded, or hairy armadillo. In Argentina, this species is called the *peludo*. Hudson was full of admiration for these animals which he considered to be the most adaptable in diet and habit of all the creatures of the pampas. He tells one extraordinary story about the way in which one made a meal of a snake. The peludo crawled over the angry hissing reptile and swayed backwards and forwards so that the jagged edge of its shell lacerated the snake and almost sawed it in two. Again and again the snake struck at its attacker, but without effect and eventually it died, whereupon the armadillo began to eat it, tail first.

Housing Podju was a considerable problem. As we should be in the Chaco for several weeks, I was anxious to provide him with something more spacious than a mere travelling cage, but to devise anything larger, that was at the same time escape-proof, seemed almost impossible. Faustino suggested that we might use a semi-derelict ox-cart that stood abandoned by the corral. We went down to look at it. It was ideal. We hauled it up to the house and parked it outside the window of our room. We lined the floor with hay, laid heavy planks across the top, and put Podju inside.

He made a brief, three-lap circuit of inspection around the walls. Then he selected the largest pile of hay and went to sleep beneath it. We mixed a dishful of milk, meat and eggs and put it close to him so that he should find a good meal awaiting him when he wanted it.

He woke up some time after we had gone to bed and began careering around the cart creating such a noise that neither Charles nor I could sleep. At two o'clock in the morning we had almost decided to leave our comfortable beds and try to haul the cart back to the corral in the dark, when silence fell. Perhaps he had escaped. I tiptoed out to the cart and listened. From inside came a rather wet guzzling sound.

We went out to look at Podju first thing in the morning. The dish was empty and licked clean. By its side slumbered Podju. He lay on his back, breathing heavily, his corpulent pink stomach cradled in his shell so that he looked like some fat old gentleman snoozing in a hip bath.

* * * * * * *

Every day we explored the surrounding country. Sometimes we went out on horseback with Faustino or the peones. Admiringly I tried to emulate their manner of riding, so different from the bobbing style practised in England, for they sat fast in their sheepskin-padded saddles as though they and their

mounts were welded together. We started by wearing all the equipment that we had purchased in Asunción—bombachos, riding boots, leather leggings and fajas. One by one we discarded them. The voluminous floppy bombachos, though excellent and cool when riding, were serious handicaps when we dismounted and walked into the thorny monte. My boots, after a single excursion into a bog, dried in a distorted shape and became so excruciatingly uncomfortable thereafter that I could not bear to wear them. The leather leggings were far too hot and stiff, and the faja, though decorative and highly professional-looking, had to be worn so tightly if it were to serve its proper function that I preferred to abandon it and run the risk of "my guts banging about". Only the ponchos were of any real value to us—we used them as padding for our saddles.

Sometimes we went out on foot, often with Spika as our guide. His stay in Asunción had not caused him to forget any of his knowledge of the bush and he patiently and painstakingly instructed us on the nature of the nests, spoor and holes that we found.

The nearest tract of monte began just beyond the tolderia and stretched for several miles northwards to the banks of a salty sluggish stream, the Rio Monte Lindo. In its denser parts, it was virtually impenetrable. Giant cactus, thorn bushes and stunted palm trees were matted together with lianas; the ground was overgrown with the fleshy rosettes of caraguata; and every plant, bush and tree bristled with spines, daggers and barbs that snatched at our clothes, stabbed through our canvas shoes and ripped our flesh.

Here and there *palo santo* and *quebracho* trees grew high above the thorn thickets and in a few places the bushes thinned into desolate meadows of isolated cacti growing among tussocks of coarse grass.

Some of the birds which lived here seemed to be possessed by a mania for nest-building and constructed mansions so

large that they were extremely conspicuous. In one clearing, we found a dozen stunted thorn trees, each of which supported in its topmost branches, untidy ricks of twigs nearly twice the size of a football. The architects of these homes, small drab birds a little smaller than thrushes, perched on top of their nests singing shrilly in the ferocious sun. Sandy called them *Leñatero*—Firewood Gatherers. Some of them were still busy building. Although they were not powerful fliers they were nonetheless extremely optimistic about what they could carry and selected twigs of a size and weight that would have daunted many a larger bird. We watched them fly valiantly on rapidly beating wings towards their nests, carrying cross-ways in their beaks twigs that were longer than they were. As they approached their nests, they sometimes were unable to summon up the necessary strength to enable them to make a clean landing and their twig would catch on part of the bush. The little birds were then compelled to let go and the twigs fell to the ground. They never attempted to retrieve this fallen material and, indeed, I doubt if they would have been able to do so, for to carry it vertically upwards would require a strength of flight they did not seem to possess. Instead, they flew away to find new twigs which they could transport to the nest by flying along a lengthy slowly-climbing approach route. As a result, piles of abandoned sticks and twigs had accumulated beneath each nest. This would have made excellent kindling wood for a camp fire and it was easy to see how the leñatero had acquired its name.

The largest of all nests, we found in a dead palo santo tree which stood alone just beyond the margin of the monte, gaunt and barkless, its naked trunk bleached by the sun. Around its branches had been built several elongated constructions of twigs and sticks, the size of large corn-stooks. These were the homes of a colony of Quaker parakeets, green birds with grey cheeks and undersides, about twice the size of budgerigars. All

shape and smooth the inside of her cup. After a few more strokes of her bill she once again darted away to gather another batch of material.

She worked so hard that after an hour I was sure that the nest had visibly increased in size since I first saw it. I had sat so long in silence studying the humming bird that the other creatures of the monte seemed no longer to be aware of my presence. Small lizards pattered around on the bare earth between the grass tussocks; a working party of Quaker parrots settled on a thorn bush and began to collect building materials, squawking and chattering among themselves. As I watched all this activity around me I thought I saw, out of the corner of my eye, a slight movement beneath a clump of spiny cactus. I searched the area with my binoculars but I could see nothing among the withered grass and the twisted fleshy stems of the cactus except a round clod of yellowish earth. And then, as I watched, the clod moved. A dark vertical line appeared in its lower half which slowly expanded. Then with a jerk a little hairy face peered out and the ball was transformed into a tiny armadillo. It was a tatu naranje. Gingerly it pushed its way through the grass but, as soon as it reached an open space, it increased its speed, running on the tips of its toes, its little legs moving with such rapidity that it looked like some odd clock-work toy. I jumped up and set off in pursuit. The armadillo executed a neat swerve and disappeared down a low tunnel beneath the leaves of a patch of caraguata. I hopped over the plant and waited for the armadillo to emerge, feeling as though I were playing trains. In a few seconds out came the armadillo straight into my hands.

The little naranje grunted angrily and snapped tight, transforming itself once more into a yellow ball, its scaly tail fitting beside the horny triangular shield on top of its head, so that no unarmoured part of the body was exposed. In this position nothing could harm it except perhaps a wolf or a jaguar which

might be able to crack it open with their powerful jaws. I took a cloth bag out of my pocket and put the rolled-up naranje inside. These bags are extremely useful for carrying newly-caught animals of all kinds. Being loosely woven they allow enough air to pass through to enable the creature to breathe properly and, in the darkness, animals nearly always lie still and do not struggle and injure themselves. I put the bag with the armadillo inside on the ground and went back to my place by the humming bird's nest where I had left my binocular case. When I came back, the bag had gone. I looked around and saw it, moving slowly along the ground turning over and over. The little clockwork naranje had uncurled and was running away inside the bag. I gathered it up and took it back to join Podju in the ox-cart.

Within a week, we had assembled three pairs of naranje and two pairs of nine-banded armadillos as well as Podju. The ox-cart was fully big enough to house them all, but the amount of food they ate was enormous and we put in such quantities each evening that we began to refer to it as the Soup Kitchen. There was no shortage of beef at the estancia, for a cow was slaughtered every week. But meat in itself was not sufficient. The armadillos needed milk and eggs as well, and these were not so plentiful. Fortunately, by now, one of the hens which passed in and out of our bedroom had decided to make its nest in my kitbag. My initial reaction had been to turn her out, but as she produced an egg each day I deceitfully said nothing to Faustino and Elsita and added it to the armadillos' feed each evening together with as much milk as could be spared for us from the kitchen.

The naranjes, however, did not settle down well. The tender pink soles of their feet began to develop raw patches. To prevent this we lined the bottom of the Soup Kitchen with earth. This cured the trouble but involved us in a great deal of extra work, for the armadillos were such messy feeders that

they spilt much of their food which tended to putrefy in the earth and turn it sour. We had, therefore, to clean it out every few days and put in new soil.

Then the naranjes began to develop severe diarrhoea. It was only too easy to discover which of them were afflicted for they were very highly strung little creatures and when we picked them up, not only did their legs quiver in alarm, but they always obligingly produced samples of their droppings. We tried varying the proportions of their food. We experimented by adding boiled mashed mandioca to it—but they refused to eat it. The diarrhoea got worse. Both Charles and I became very worried. If we could not cure them, we felt we must turn them loose rather than let them die in captivity. We discussed the problem endlessly. Then it occurred to us that in the wild, the naranjes, grubbing about for insects and roots, would inevitably consume a great deal of earth. Perhaps their digestions required it; perhaps the food we were offering them was too rich. That evening we added two handfuls of soil to our mixture of minced meat, milk and eggs and stirred it up into an unattractive runny mud. Within three days the naranjes were cured.

CHAPTER EIGHT

Chaco Journey

WHEN the wind blew from the south, it brought with it chillingly cold weather and often hours of drenching depressing rain. On such days of forced inactivity we often visited the open-sided thatched hut by the corral where the peones congregated to chat, to sharpen their knives and plait raw-hide lassoes, to flirt with the half-Indian girls from the estancia kitchen, and—most important of all—to drink hot maté. A wood fire usually burnt in the centre of the floor and the peones would always make room for us on the bench so that we might warm ourselves by the flames and share in the maté as it passed from hand to hand. It was a friendly hospitable place, smelling of horses, leather and the fragrant smoke of palo santo wood.

One rainy morning, when I went up to the hut in search of a drink of warming maté, I found to my disappointment that the place was deserted, except for half a dozen sleek and well-fed dogs. As I arrived they sat up and looked at me suspiciously. Then I noticed a man stretched full-length on his back on the wooden bench, with a dusty broad-brimmed hat flat over his face. As far as I could tell, I had never seen him before. He was very tall—certainly over six feet—and was wearing torn baggy bombachos, an unbuttoned shirt and a faded Indian-woven faja around his waist. His feet were bare and it was clear from their horny and calloused soles that he seldom wore shoes.

"*Buenas dias,*" I said.

"*Buenas dias,*" replied the stranger in muffled tones from beneath his hat.

"Have you come far?" I asked in halting Spanish.

"Yes," he replied, without making any movement except to scratch his stomach lazily.

There was a pause.

"It is cold," I said, rather pointlessly, but I could think of no topic other than the weather with which to prolong the conversation. The stranger swung his legs to the ground, pushed his hat on to the back of his head and sat up.

He was a handsome man with tightly curling black hair, greying in places, a deeply tanned face and several days' growth of grizzled stubble on his chin.

"Would you care for some maté?" he asked and without waiting for a reply he began undoing the canvas bag which he had been using as a pillow. He extracted a cow's horn cup, a silver bombilla and a small packet from which he poured some dry green maté into the horn. In silence, he added water from the earthenware jar that stood by the bench and sucked at the bombilla. He spat out the first few muddy mouthfuls, refilled it and courteously passed it to me.

"What do you do here?" he inquired.

"We are looking for animals."

"What sort?"

"Tatus," I replied airily. "All kinds of tatus."

"I have a tatu carreta," he answered.

At least that was what I thought he said, but I was not certain. Perhaps he had spoken in the past tense; or had said he could catch a tatu carreta if he wanted to. I could not be sure.

"*Momentito,*" I said excitedly and bolted out of the hut and into the rain to fetch Sandy from the house. When we returned together, Sandy embarked on the polite protracted small talk which he insisted was the correct way to preface any serious inquiry. I sat by, fidgeting with impatience. After a few

minutes, Sandy translated a brief summary of his conversation. The stranger's name was Comelli. He was a hunter who roamed over the Chaco looking for jaguar, nutria and fox or anything which had a skin sufficiently valuable to trade for matches, cartridges and knives and the few other things that he required to enable him to follow his wandering life. He had not slept in a house for ten years and had no wish to do so.

"And the tatu carreta?" I asked anxiously.

"Ah!" said Sandy, as though he had forgotten all about it.

Once again he and Comelli chatted.

"He once had a tatu carreta and kept it for several weeks, but that was a long time ago."

"What happened to it?"

"It died."

"Where did he catch it?"

"Many leagues from here, beyond the Pilcomayo River."

"Could he take us there tomorrow?"

Sandy translated the question. The stranger grinned broadly.

" With pleasure."

Excitedly I ran back to the house to tell Charles the news. I was keen to leave immediately for the place Comelli described. Whether we found a giant armadillo or not, we might well see the other animals which did not occur around the estancia. It would take us three days to ride there and, if we were to allow any time at all for hunting, we should have to be away for at least a fortnight. Faustino offered to lend us two horses, a cart for our equipment and a pair of oxen to pull it. But we had no stores.

"Oh, we'll live off the country," I said to Charles enthusiastically, but rather vaguely.

"Well that couldn't be much worse than our food at present," he replied morosely.

In this, I had to agree with him. Faustino and Elsita were extremely hospitable, but their meals were scarcely appetizing

The three-banded armadillo, tatu naranje

to anyone unused to them, for they consisted exclusively of various parts of the anatomy of a cow—fried intestines, numerous shrivelled but curiously shaped organs which I was, perhaps fortunately, unable to identify, and interminable slabs of leathery meat the texture of vulcanized rubber. It would be a positive relief to "live off the country" if this implied a change of diet.

We discussed the problem with Faustino.

"The Chaco is hungry country," he said. "We can give you mandioca and farinha and maté, but a man will not get fat on that." (Farinha is dried grated mandioca.)

Then he brightened.

"Never mind. When you get hungry, I give you my permission to kill a cow."

* * * * * * *

It took us two days to make all the arrangements. The leather harness of the cart had to be repaired; the oxen and the horses had to be found and rounded up. Elsita looked out the stores and produced a big cast-iron cooking pot and a frying pan. Charles and I gathered a box full of oranges, and Faustino solicitously gave us the left hind leg of a cow which, he explained, would provide us with at least one meal before it went bad in the heat.

At last, all was ready. The cart was piled high with equipment, and the oxen yoked to it. Sandy took the reins and, to the accompaniment of piercing squeaks from the greaseless wheels, we lumbered away from the estancia. The wind had changed to the north, the cold rainy weather had disappeared and we rode beneath a cloudless harshly blue sky. Comelli went ahead, leading the way. With his broad-brimmed hat, his long legs dangling stirrupless and nearly touching the ground, he looked like some South American Don Quixote. His dogs ranged far and wide around us. Comelli knew each

Comelli, the jaguar hunter

of them not only by their voices but by their footprints and, as we travelled, he called to them from time to time. The head of the pack he had named Diablo, the Devil; the second in command—Capitaz, the Foreman; there were two others whose names I never learned and a big brown bitch, the laziest and most handsome of them all who was devoted to Comelli and he to her. He called her Quarente, because, he said affectionately, her feet were so large that she would take size forty in boots.

We headed south. Soon the estancia and its nearby monte had dwindled to nothing and vanished. Before us stretched the wide flat plain populated only by a few of Faustino's cattle. The oxen plodded slowly forward. They were incapable of walking faster than about two miles an hour and in order to keep them moving at all the driver had to shout at them almost continuously. Having only a couple of horses between the four of us we took turns in riding and in driving the oxen, and when we were doing neither we sat on the tailboard of the cart, sipping cold maté.

In the late afternoon, we sighted on the horizon the gaunt skeleton of a tree. As we drew near, we saw that its top branch supported a huge nest of a jabiru stork. A lake lay in front of it and thorn bushes were clumped around its base.

"Laguna Quebracho," said Comelli. "We will camp there tonight."

As soon as we arrived, we unhitched the oxen and turned them out to graze, while Sandy lit a wood fire and began to construct a spit of green wood on which to roast some of the beef. Comelli heard the faint yelp of Diablo in the distance, which told him that the dogs had found game, and he left us to ride off and investigate. When we had finished making camp, an hour of daylight still remained and Charles and I walked into the monte to see what creatures might live there.

On the jabiru stork's nest stood a single almost fully-fledged

chick. He was a tall creature, about three feet high, with a long mottled bill and a shabby ruff of baby down around his otherwise naked black neck. His parents were doubtless away fishing. We decided to build a hide and set up the cameras so that we could return before dawn the next morning and film the whole family. We cut branches, wove them into a screen, and returned to the camp. Comelli's pack had found a wild pig which he had shot and brought back, and now the dogs were gorging themselves on its rank tough meat. Sandy had prepared a meal of beef steaks and fried farinha cakes.

As we ate, lying on our ponchos spread on the ground by the wood fire, darkness came suddenly. The sky was cloudless and filled with stars. A cooling gentle breeze fanned our faces and blew sparks from the embers of the fire. The horses, tethered by long raw-hide ropes, whinnied softly to one another. Cicadas began to whirr among the thorn trees and from the lagoon came the groaning, bleating, clicking chorus of frogs. Every few minutes, a shooting star momentarily scored a line across the blackness above. Contentedly, we climbed into our hammocks and went to sleep.

Charles and I rose before dawn and crept down in the darkness to our hide. The jabiru chick had been joined by one of his parents, and the two birds stood motionless on the nest, black silhouettes against the lightening sky. Just before the sun rose sufficiently to provide enough light to enable us to film, the parent bird spread its huge wings, toppled forward, and flapped slowly away.

The chick, left to himself, seemed very bored. Once or twice he took a step or two across the width of the nest, turned round and paced back again. Then he began exercises to prepare himself for the moment when he would have to launch himself from the nest for the very first time: he spread his wings and flapped them energetically so that he rose three or four feet in the air and hovered there frantically. After a few seconds he

subsided and then bounced up again, with his head nervously craned downwards. After ten minutes or so, he tired of this and stood disconsolately, with his head sunk on his hunched shoulders, in the fierce heat of the morning sun.

The monte in which we sat was the only patch of cover for many miles, and thus it had to provide homes for most of the birds which foraged on the surrounding plains. Competition for the available building sites was therefore keen. The jabiru's nest held not merely the chick, but the underside, the basement flat as it were, had been taken over by a colony of Quaker parakeets. Nor were these the only birds which had made their home in this one tree, for a pair of small kestrels inhabited a hole in the main trunk close by the jabiru's nest. Every time one of these little hawks emerged, its appearance threw the Quakers into a fit of panic and they flew squawking around their nests. As we sat watching this crowded tenement, I counted in the bushes around us six different species of birds—scissor tails, scarlet bishop birds, large brown Guira cuckoos, tanagers, carancho hawks and vultures.

At eleven o'clock, one of the parent jabirus came volplaning over the bushes and landed on the nest. It was a little larger than its offspring and its bulbous black neck was encircled by a scarlet band. The chick begged, loudly clopping its mandibles together. Charles and I bent over our cameras anxious to film the presentation of food. The cine-camera whirred, but as far as we could see the adult stork did not produce any food and, after fencing with their beaks once or twice, parent and child stood silently in the sun, seemingly ignoring one another.

An hour later, the other adult arrived. Once again Charles and I peered into our view-finders but this bird did not bring any food either. The chick must now be very hungry indeed. Surely it would be fed soon.

The adults did not stay for long. First one left, then ten minutes later the other followed and the chick was alone once

more. We determined to film him being fed, even if we had to spend the whole day in the hide doing so. I stealthily crawled back through the monte to tell Sandy and Comelli that we might be spending another night here.

When I returned, bringing with me some oranges and cold beef for Charles, the chick was still alone. We watched him continuously throughout the afternoon. Occasionally he stood on one leg and lifted his free one, its toes dangling like a wet black glove, to rest it on his thigh. This was something of a muscular strain and he would then let it slide down in the hope that it would catch and rest on the swelling of his knee, but it would only stay there for a second or two and when it slipped off the chick nearly fell over. At four o'clock, he sat down and dozed, and when nightfall came his parents had still not returned.

Bitterly disappointed that so long a wait had been fruitless, we went back to camp. That evening I wrote in my journal that the day had been wasted. We had been ideally placed to make a film record of the home life of a jabiru stork; we had watched patiently for twelve hours; but we had failed to photograph the most important event of the chick's day, his mealtime.

Three months later in London, Charles and I sat in a viewing theatre looking at all our film for the first time. The jabiru chick came on the screen. Charles groaned. Without shots of the feeding the sequence was almost useless, for nothing of any real interest happened. Then, as we watched glumly, we saw the first adult alight on the nest. To our astonishment, it promptly lowered its head and disgorged three eels. Within a few seconds, the chick had picked them up and swallowed them. When the parent had first arrived we had been so intent on looking into our cameras, checking the focus and exposure, that we had failed to observe the action which we had waited so long to see.

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For the next three days we made our way southwards across the plains. Comelli spoke of the copses of monte as islands, and the name was apt—they were islands of bush in a sea of grass and, like a man at sea, Comelli used them as landmarks by which to navigate. The weather since we had left the estancia had been suffocatingly hot and the sun had scorched us as we rode, but on the morning of the fourth day, the wind changed, the sky clouded over and it was raining hard by the time we reached the Rio Pilcomayo in the late afternoon.

The river itself had divided into several streams which slipped muddily between untidy spits of gravel. Eighty years ago the Pilcomayo had been accepted as the boundary between Argentina and Paraguay but since that time the river had changed its course countless times as it wandered across the flat Chaco. Now it flowed many miles north of the channel it had followed when the frontier had been agreed, so that the land on the southern side was still in Paraguayan territory.

We urged our horses into the river. Though it was not deep, the water swilled perilously close to the floor boards of the cart before the oxen finally hauled it onto the other bank.

Two days previously, we had finished the beef Faustino had given us. We had found no game and already our diet of unrelieved mandioca, farinha and maté was beginning to pall. Comelli, however, assured us that we were heading for a small trading store, called Paso Roja, which was always stocked with tinned foods of every description. My mouth watered at the thought.

We reached the tract of monte which sheltered the store in the late afternoon during a downpour. The equipment was in danger of getting soaked unless we could find some shelter and Comelli led us along a muddy track through the thorn scrub to a small derelict shanty. It consisted of nothing more than four crumbling adobe walls and a sagging thatched roof.

Comelli told us that the man who had built it had died there a few years earlier and now lay buried somewhere in the monte. Since then the hut had been deserted. The rain gushed from its roof, a wide pool lay on the threshold and the wind whistled through the gaps in the walls. Hastily, we unloaded the cart and stacked the equipment in the few places inside the hut which were clear of the drips falling from the leaky roof.

We were all tired, wet and hungry, and as soon as we had finished we went together through the rain to the store which stood half a mile away in the monte. It was a little larger than the hut we had appropriated, but almost as dilapidated. We walked through the open doorway, stepping between the bedraggled chickens and ducks which had collected inside to shelter from the storm. Two hammocks were slung across the room and in one of them lay the *patron*, drinking maté. He was surprisingly young and, to my mind, unaccountably cheerful. As we introduced ourselves, he called his wife and another young man, his cousin, from a back room to meet us. We sat ourselves on some wooden boxes, shivering in our wet clothes, and Sandy asked if we could buy some food.

Patron smiled happily and shook his head.

"None," he said. "I've been expecting an ox-cart to come up with supplies for several weeks, but it hasn't arrived. All I have is beer."

He went into a side room and brought out a crate containing six bottles. One by one, he handed them to his cousin who proceeded, to my alarm, to remove the metal tops with his back teeth.

We drank from the bottles. The beer was thin and cold, the last sort of refreshment I would have chosen for preference and certainly no substitute for the tinned sardines and peaches that I had been mentally relishing for the whole day.

"*Paso Roja*, very good?" asked Comelli jovially, clapping me on the shoulder.

I gave him a wan smile of assent but I could not bring myself to express the lie in words.

* * * * * * *

That night we lit a fire in our hut so that we could dry our soaked clothing and cook an unappetizing meal of farinha. There was not enough room for all four of us and the dogs to sleep under cover so Charles and I volunteered to spend the night outside, for although it was still raining hard our hammocks, which had originally been made for American troops serving in the tropics, were fitted with a slim rubberized roof and were, in theory, waterproof.

Not far from the hut stood a ruined outhouse. Its roof and three of its walls had fallen, but its corner posts were still standing. During a lull in the storm, I ran out and slung my hammock between two of them. Charles tied his between two tall trees nearby. Within a few minutes, I was inside mine and out of the rain. I zipped up the mosquito net that joined the roof to the main part of the hammock, wrapped myself in my poncho, put my torch by my side and went to sleep almost immediately, feeling warmer and more comfortable than I had all day.

I awoke soon after midnight with the unpleasant sensation that my feet were approaching my head and that I was folding up like a jack-knife. I fumbled for my torch and by its light discovered that the posts from which I was suspended were leaning drunkenly towards one another and that the hammock had sagged to within a few inches of the ground. I lay still and considered the situation. The rain was still falling heavily, puddling the earth around me. If I clambered out, I should be soaked to the skin within a few seconds. Yet if I stayed in my hammock, the posts would slowly hinge closer together until I was deposited on the ground. I reasoned that when I reached that position, I should be no worse off than sleeping on the

floor of the hut so I decided to stay where I was and went back to sleep.

I was woken an hour or so later by a cold wet feeling in the small of my back. I did not need my torch to realize that I was virtually sleeping on the ground and that I had settled in the middle of a large puddle which was slowly seeping through both my hammock and poncho. I lay in this position for half an hour, watching the lightning illuminate the driving sheets of rain. I tried to weigh the discomfort of my present situation and balance it against the certain soaking I should get if I returned to the hut. The thought of warming my chilled body by the embers of the fire in the hut finally tipped the scales. I unzipped the mosquito net, abandoned my sodden bed in its puddle, and splashed in my bare feet across the muddy clearing.

The hut was reverberating with the snores of Sandy and Comelli and smelt strongly of wet dogs. The fire was out. Miserable and cold I squatted in a vacant corner. Quarente had noticed my arrival and stepped delicately over Sandy's outstretched legs to settle herself at my feet. I wrapped my wet poncho around me and awaited the dawn.

Comelli was the first to wake. Together he and I blew life into the fire and put on a saucepan of water to boil for maté.

With the coming of dawn, the storm cleared. Charles awoke in his hammock, stretched himself luxuriously, announced that he had spent a splendid and most comfortable night, and remarked facetiously that he would like his maté in bed that morning.

I did not consider his joke to be in the best of taste.

During breakfast, Patron, Bottle-opener and a third man strolled into the hut and seated themselves by the fire. Patron introduced the stranger as another of his cousins whose chosen vocation was to slaughter cattle. He was a surly-looking man and his appearance was not enhanced by a puckered scar which stretched across his face, twisting his eyebrow, contorting his

eyelid and pulling the side of his mouth into an unpleasant leer. Patron explained that the scar had been inflicted during an evening of heavy drinking when Slaughterer had been irritated by Bottle-opener and had set on him with his butchering knife. Bottle-opener defended himself with a broken caña bottle with such effect that Slaughterer sobered up very quickly and Patron's wife was summoned to sew up his wound. The three cousins, however, still seemed to be the best of friends, which was as well, for they were the only inhabitants of Paso Roja and there was no other homestead for many miles.

We told them that we were looking for animals of all sorts and were particularly interested in tatu carreta. Bottle-opener agreed that he had once found the spoor of one, but none of the men had ever seen the animal itself. They promised us that they would keep their eyes open for any creatures which might interest us.

It was clear that they intended spending the morning with us. First they asked to see our equipment. Bottle-opener was captivated by Charles's hammock and climbed inside where he remained, lost in admiration of the zips, the mosquito net, the pockets and roof. Patron sat outside the hut on a log inspecting my binoculars with reverence, turning them over and over, stroking the barrels and occasionally putting them to his eyes. Slaughterer was professionally interested in knives. He found mine and squatted by the fire admiringly testing its blade with his thumb and dropping very obvious hints that he would welcome it as a gift. As I did not respond to them—it was after all the only small knife I possessed—he changed his line of approach.

"How much?"

"One tatu carreta," I replied without hesitation.

"The bitch!" he said somewhat enigmatically, using a rather vulgar Spanish word, and with a flash of his arm, he threw the

knife so that it stuck quivering in the trunk of a tree fifteen feet away.

After breakfast, Comelli suggested that he should leave on a long tour of the monte to the east to see if he could find any traces of giant armadillos. He would need two or three days to cover all the territory that he wanted to inspect, but if he found anything interesting he would return immediately and fetch us. It took him no more than a few minutes to gather together the few things he required—a poncho, a bag of farinha and another of maté—and before the sun was above the trees, he rode quietly away on one of the horses, his dogs trotting ahead of him their tails waving happily.

Sandy volunteered to spend the day repairing the hut, building a shelter to serve as a kitchen and generally endeavouring to impose some order on our untidy and hastily established camp.

As we now had only one horse between us it was not possible for Charles and me to go on a long journey together, so instead we decided to load the remaining horse with our cameras, the recording machine and water-bottles, and set off on foot to reconnoitre the plains to the north.

The Chaco between Paso Roja and the Pilcomayo was diversified by *riachos*—long shallow creeks, some nearly a hundred yards long, which arose from nowhere and ended abruptly and unexpectedly in a puddle of mud. They were filled with water hyacinth and other floating weeds, and hummed with mosquitoes and huge vicious horse flies. On the banks of one of them I discovered an interesting-looking pile of dried reeds. I poked among them cautiously with my bush knife and found in the damp lower layers a dozen little caiman, the South American relatives of the crocodile. Several of them scuttled over my feet and flopped into the water of the riacho, but I managed to pick up four. The reeds were the remains of a nest in which the mother caiman had laid her eggs and then left them to hatch in the heat of the sun. The ones I had caught

were babies, only about six inches long, but young though they were they snapped at my fingers, made angry honking noises and glared at me ferociously with their jaws apart so that they exposed the lemon-yellow leathery lining of their mouths. I dampened a cloth bag and dropped the little reptiles inside.

As we looked round to see what else might be living in the riacho, I suddenly realized that on the opposite bank four men were standing watching us in silence. They were Indians. Each of them carried a long ancient-looking gun. They were naked to the waist, bare-footed and wore only trousers and leather leggings. Their faces were tattooed and their long hair hung in matted locks down their cheeks. Two of them carried bulging bags and one was holding the butchered, plucked carcass of a rhea.

Obviously they were hunters. Here was an opportunity to recruit highly skilled assistants. We paddled across the riacho to join them and tried to suggest by gestures that they should return to our camp with us. They listened to me with puzzled expressions on their faces, leaning on their guns. At last I succeeded in making my meaning clear and after a rapid guttural conversation among themselves, they nodded agreement.

Back at camp, Sandy was able to talk to them in Guarani and Maká. He discovered that they had left their tolderia many days before and had been hunting for rheas. Rhea feathers fetch a good price, for in Argentina they are used to make dusters. Consequently the Indians are easily able to sell them to traders such as Patron and obtain matches, salt and cartridges in exchange. The Indians had disposed of their feathers somewhere close to the Argentine border and were now on their way back to their village. Sandy explained to them that if they would help us in our search for animals, we would supply them with farinha for as long as they stayed with us and that we

would pay good rewards in addition for every animal that they brought to us. We would give a specially high price for a tatu carreta. They agreed to join us and immediately demanded some maté as an advance payment. We gave them several cupfuls from our dwindling supply. I hoped that, as the terms had now been agreed, they would stride off into the monte and begin hunting straightaway, but they interpreted their duties somewhat differently. They lay down in the shade of the trees, pulled their ponchos over their faces and went to sleep. Perhaps, after all, it was a little late to begin searching that day.

They awoke at sundown, built a fire some distance from our own and came over to ask us for some farinha. We supplied it, and they took it back to their fire where they began to boil it with joints of rhea meat. The moon rose, large and silver above the trees, and we began to prepare for sleep. The Indians, however, seemed refreshed by their afternoon's siesta and showed no signs of retiring early.

"Perhaps," I remarked hopefully to Sandy, "they are planning to hunt all night."

Sandy laughed mirthlessly. "I'm sure they are planning no such thing," he said. "But there is little point in trying to persuade them. You can't hurry an Indian."

I re-rigged my hammock between two trees, climbed in and composed myself for sleep. The Indians seemed very happy, shouting and laughing among themselves. From where I lay, I could see that they had a bottle of caña which they were passing from one to another, taking long swigs from it. The party grew more riotous and with a whoop one of the Indians threw the now empty bottle into the bushes beyond the fire. I watched one of his companions fumble in his bag and produce another full bottle. It would be a long time before they settled down for the night. I turned over, pulled my poncho over my head and tried once more to go to sleep.

Suddenly there was a deafening explosion and something

hummed over my head. I peered out in alarm and saw that the Indians were now cavorting around their fire, one of them holding a caña bottle and all of them brandishing their guns. One of them let out a yell and fired his gun into the air again.

The situation was now getting out of hand and something had to be done before someone was injured.

Charles was already out of his hammock and in the hut. I joined him and found that he was urgently unpacking the medical kit.

"My God!" I said. "Did they hit you?"

"No," he replied darkly, "but I'm going to make quite sure that they don't."

One of the Indians lurched over towards us, mournfully holding a caña bottle upside down to show us that it was empty. He mumbled something which seemed to be a request for a refill. Charles handed him a mugful of water and dropped something into it.

"A sleeping pill," he said to me. "It can't hurt him and with any luck, we won't need to dodge more than a couple of volleys before it works."

The other Indians gathered round, and stood swaying unsteadily, anxious not to miss whatever it was their companion had been given. Charles obligingly supplied each of them with a pill. They all threw down their dose in a single gulp and blinked, surprised that the drinks we had given them had no appreciable taste.

I had no idea that sleeping tablets could take effect so quickly. The first man dropped his gun and sat down heavily, shaking his head. For a few minutes he tried to sit up, nodding groggily, until finally he collapsed on his back. Soon all four of them were fast asleep. At last there was silence in the camp.

In the morning the Indians lay exactly where they had collapsed the previous night. None of them stirred until mid-afternoon. The caña had left them with the most dreadful hang-

overs and they sat miserably beneath the trees, bleary-eyed, their hair hanging untidily over their faces.

That afternoon, they drifted out of the camp. I had hoped maybe, that the party being over, they had now decided to begin work in order to pay off what they owed us in maté and farinha; but we never saw them again.

CHAPTER NINE

Second Sortie

QUARENTE trotted into the camp two days later and greeted us with an effusion of barks and licks. Diablo stalked in behind her, dignified and aloof, leading the rest of the pack, and the dogs lay down together beneath one of the trees. Ten minutes later, Comelli appeared round the corner of the bend, jogging easily on his horse, his hat on the back of his head and a great rent in his bombachos. As soon as he saw us, he shook his head sadly.

"Nothing," he said dismounting. "I went many miles east as far as the end of the monte, but I found nothing."

He spat eloquently and began to rub down his horse.

"The bitch," I said, using Slaughterer's Spanish word which, when spoken with venom, richly expressed disappointment.

Comelli grinned, his teeth showing white in his half-grown black beard.

"You can search," he said, "but unless you have luck, it is no good. Last year when I was in the monte back there, I found many many holes of tatu carreta. I had nothing better to do, so I started to hunt for him. I just wanted to see what he looked like. Every night for a month I searched with my dogs but we never got a single lousy scent. So I said to hell with it. One evening, three days later, when I had forgotten all about the rotten thing, a young one walked across the path in front of my horse. I just jumped off and caught him by the tail. It was not difficult, it was lucky. He was the first and the last one that I've seen."

The ox-cart which carried our baggage across the Chaco

I had not been so recklessly optimistic as to imagine that Comelli would have returned with a giant armadillo, alive and kicking, tied across his saddle, but I had cherished the wisp of a hope that he would find a hole, some spoor, some droppings, anything to show that the creature inhabited some particular area of monte. With such evidence we could organize a careful and thorough hunt. Without it, a search was pointless.

Comelli smacked his horse on the rump and sent her away to graze.

"Do not be sad, *amigo*," he said. "You cannot tell with old man carreta. He might walk into the camp tonight." He untied a cloth bag from his pack. "Here. Perhaps this will make you a little happier."

I unfastened the mouth of the bag and cautiously peered inside. At the bottom I saw a large ball of reddish fur.

"Will it bite?"

Comelli laughed and shook his head.

I reached inside and extracted first one, then two, and eventually four small furry kittens with bright eyes, elongated mobile snouts and long tails, ringed with black. They were baby coatimundis. For a moment my disappointment about the giant armadillo was lost in the pleasure of handling these delightful little creatures. They were quite fearless and clambered all over me, uttering little chirring growls, biting my ears and poking their noses into my pockets. They were so active that I could not hold them for long and soon they were on the ground scampering after one another, rolling over and over and chasing their own tails.

A full-grown coatimundi is a very formidable creature with huge canine teeth and a seemingly overwhelming desire to bite almost anything that moves, whether it be large or small. They wander through the bush in family groups, terrorizing the smaller inhabitants and devouring grubs, worms, roots, young nestlings, anything which is edible. Comelli's dogs had

The parent jabiru stork and its chick stood silently in the sun, seemingly ignoring one another

come across a female with a litter of ten. They had given chase and she had run up into a tree and, as the youngsters followed her, Comelli had managed to catch these four. They were still young enough to be tamed and there are few creatures more entertaining than a pet coatimundi. I was delighted with them.

We built them a large enclosure of saplings, woven together with creepers, into which we put a branch to serve as a climbing playground. For their first meal we gave them the only food we had available, some boiled mandioca. They fell upon it with enthusiasm, champing it noisily in their small jaws. Soon they had stuffed themselves so full that they could no longer scamper but only waddle. They settled themselves in a corner, spent a few minutes scratching their distended stomachs, and then, one by one, they went to sleep.

But mandioca was not, by itself, a satisfactory food for them. They really needed meat. And so did we. We had had none for several days, but now, one way or another, we must get some. Before we reached a decision on exactly how we should do so, our problem was providentially solved for us.

Twenty peones galloped into Paso Roja, whooping and yelling and driving in front of them a bellowing steer.

"*Portiju*," cried Comelli, scrambling to his feet and picking up a knife.

I had always imagined that if I were compelled to enter a slaughterhouse I should become a confirmed vegetarian overnight. But when the steer was lassooed within fifty yards of our camp, I was feeling so hungry that I watched it being slaughtered and butchered without any qualms whatever.

Comelli returned, his hands and arms bloodied to the elbow, carrying half the ribs of the steer over his shoulder. Within minutes they were sizzling and browning over the fire and, only three-quarters of an hour after the peones had first appeared, we were eating our first meat for many days. Knives seemed superfluous. We held the huge bow-shaped bones in

our hands and picked off the tender meat with our teeth. I could not understand why it was so much more succulent and tender than the leathery beef that Elsita had produced for us.

"There's only two ways to eat Chaco beef," said Sandy, in between mouthfuls. "Either after it has been hung for several days, or like this—immediately after it has been killed and before rigor mortis has set in. And of the two, this is the best."

I had to agree with him. Never had beef tasted so good.

The peones had come from an estancia many miles away and were scouring the Chaco for cattle that had strayed from their herds. Every few days they killed a steer for food and we were fortunate that they had decided to do so when they spent the night in Paso Roja.

The bonanza benefited everybody for even such huge eaters as the cattlemen could not consume a whole cow by themselves. Slaughterer walked by carrying a leg dripping blood. Patron and Bottle-opener had a flank between them. Comelli's dogs gobbled the offal and the coatimundis squabbled over pieces from the ribs. Black vultures had assembled in the trees overhead and were patiently awaiting an opportunity to descend on the remains of the carcass and claim their share.

Soon the ground between our camp and Patron's house was dotted with small crackling fires around which the peones sat in groups of twos and threes, and the whole monte was filled with the rich fragrant smell of roasting beef.

Comelli had managed to secure more than the ribs—he had also brought back a huge piece of shoulder muscle. We could not eat this straightaway so we decided to make it into *charqui* by cutting it into long strips and hanging it from a line to dry in the sun. Charqui, properly prepared, is not particularly appetizing but it will keep for quite long periods and still remain edible. No sooner had we finished preparing it and had returned to our fire, than a flock of Quaker parrots flew on to the strips of meat and noisily began to gorge themselves.

Parrots, of course, are supposed to live on fruit and seeds, but these Quakers of the Chaco, living in such a barren country, had obviously learned to eat almost anything that was available. Nor were they the only birds to have modified their appetites in this way, for soon they were joined by handsome red-headed cardinals, by saltators—large finches with black cheeks and orange bills—and by mocking birds, which flicked their long tails up and down in order to maintain their balance on the string as they pecked at the raw meat.

* * * * * * *

Comelli planned to continue the search for tatu carreta by a reconnaissance westwards and I wanted very much to go with him. All of us could not go, abandoning the oxen, our belongings and the coatimundis, but neither could Comelli and I take both the horses and leaves Charles and Sandy with none. We then discovered that Bottle-opener had a spare horse. He said that he did not want to lend it to us but he intimated that he might be persuaded to sell it. Pancho, the horse in question, was produced for our inspection. I am not skilled in the art of judging the finer points of a horse, or of assessing its age by its teeth, but it was quite clear, even to my inexperienced eye, that Pancho was exceedingly elderly. His cheeks were sunken, his back sagged in a deep arch, his ears flopped sadly and his head drooped. It occurred to me that Bottle-opener did not want to lend him to us in case the poor creature died from unaccustomed exertion, which he would doubtless be in danger of doing if he was ridden in the wild and ferocious manner affected by the peones. But I had no such intention. All I required was something that would amble gently onwards with me on its back and Pancho seemed capable of doing that. A young frisky creature would have been a positive embarrassment. Even so, I was not sure that I wished to buy Pancho.

"How much?" I asked.

"Five hundred guaranies," replied Bottle-opener positively.

This was equivalent to about thirty shillings. Even Pancho, I thought, was worth that, and I bought him.

The next day, Comelli and I left together, taking with us a bag of farinha and some of the charqui. We followed a narrow track through the bush which here was higher and not as universally spiny as the monte around Estancia Elsita. The dogs ranged silently ahead of us, occasionally coming back to Comelli and then leaving again on another exploration into the undergrowth on either side.

In the late afternoon, Comelli suddenly reined his horse to a standstill and vaulted to the ground. By the side of the track yawned a gigantic hole. He did not need to tell me what it was. I knew at once, both from the triumphant look on his face and from the hole itself, that at last we had found the burrow of a giant armadillo. Fully two feet across, it had been dug in the side of a vast mound of compacted earth that was the nest of a colony of leaf-cutting ants. Great clods were scattered in front of it, some bearing deep grooves that had been made by the armadillo's massive front claws. I lay on my stomach and peered into the hole. Mosquitoes hummed in a cloud just inside the mouth. It went down farther than I could see, so I cut a stick from the bush and poked it inside. The tunnel was not a long one—no more than about five feet. It was not the permanent home of a tatu carreta, but merely a pit that it had dug into the side of the ants' nest in order to feed on them. Comelli meanwhile was following the trail that the animal had made when it left the hole. It led through the bush, round the ants' nest, to the other side where we found another similar hole that the creature had dug in its search for food. Its size and that of the lumps of earth that had been thrown out of it were dramatic testimony of the animal's great bulk and strength. Excitedly we followed the trail, cutting our way through the thorny undergrowth. Twenty yards away, we

found a third hole. After half an hour of searching, we had discovered fifteen. The dogs confirmed that all of them were empty. None of them was anything more than an excavation for food.

We sat down to discuss the situation.

"The tracks could not have been made more than four days ago," said Comelli, "for the rains that fell on the day we arrived in Paso Roja would have washed them away. But they are not fresh. There is no scent and they are rather blurred. I think they are about four days old. Carreta is probably miles away by now."

Even though this was disappointing, I could not but feel elated for at last I had seen tangible evidence of this beast which I had been beginning to suspect to be almost mythical. We searched painstakingly through the bush for some clue which would tell us in which direction the giant armadillo had departed. We found nothing and the trail was so old that the dogs were unable to find any scent to follow. All we could do was to continue westwards along the track and hope that somewhere we would find fresher traces of the animal.

At sundown we stopped. Comelli built a small fire and we made an evening meal of charqui.

"We will sleep a little until the moon rises," Comelli said, "and then we will start again."

I spread my poncho by the fire, shut my eyes and dreamed of the giant armadillo walking across the track in front of Pancho's feet.

When Comelli woke me, the moon had risen, white and full, and was illuminating the monte with a light so bright that it would have been possible to have read a book. Once more we saddled the horses and set off quietly through the bush. There was little to be heard but the jingle of harness and the sudden brushing of branches against our legs and the horses' flanks. From a distant part of the monte came the deep sombre hoots

of an eagle owl, and in the ground beneath us crickets stridulated frantically until they were silenced by the thud of Pancho's hooves.

It was nearly midnight when suddenly we heard Diablo's high-pitched screaming yelps. He had found something. Even Pancho seemed to sense the excitement for, when I urged him towards the place where Diablo was baying, he broke into a canter and plunged boldly through the thorny bushes. I reached the dog at the same time as Comelli. Together we jumped down and forced our way into the thicket where he sat. He was crouching, snarling and yelping over an animal. Comelli called him off. There, lying on the ground, we saw an armadillo. It was a nine-banded one.

The dogs found two more nine-banded armadillos that night, but that was all. We made camp at three o'clock in the morning and slept until dawn.

We continued the search for three more days and nights. During the daytime it was extremely hot. We had long since drained the boiled muddy water that we had brought with us in bottles from Paso Roja and there were no waterholes or streams from which we could replenish them. When my thirst became insupportable, Comelli showed me how I could quench it even in this dry country. Low stumpy cacti were abundant in the bush and a section from one, trimmed of its spines, was refreshingly juicy. It tasted something like cucumber, but I was not very fond of it for it had an unpleasant after-taste which set my teeth on edge. However there was another plant which provided a purer-tasting drink in even greater abundance. It was difficult to recognize, for it had only a small twiggy stem and sparse nondescript leaves, but two feet below ground its roots was swollen to the size of a large turnip. The flesh of this distended root was white and translucent and so loaded with liquid that we obtained cupfuls merely by squeezing pieces of it in our fists.

Barren though the bush appeared to be, Comelli found much in it to supplement our meals of farinha and charqui. He cut the white centre shoots from the low carandilla palms which, he said, were particularly sought after by Indian women when they were suckling babies because they were so nourishing. They were white and nutty with a pleasant taste reminiscent of chicory. He showed me which berries were edible and which were poisonous. Once we found a fallen tree in which a colony of bees had made their nest. As Comelli prepared to chop it open, I suggested that we should build a smoky fire in order to drive most of the bees away and minimize the chances of our being stung. He was vastly amused at the idea. There were bees in the Chaco, he said, which did have painful stings but these were not they and though they buzzed alarmingly around our heads as we chopped at the trunk with our machetes, they made no attempt to molest us. We extracted the large honey-laden combs and ate them as they were—wax, pollen bread, grubs and all, the liquid honey dribbling down our chins.

Although we rode constantly throughout the day, we had little expectation of finding the giant armadillo itself for Comelli was sure that it seldom came out of its hole except at night, but we did hope that we might find some signs of the animal's presence. We discovered several more pits, but they were all of about the same age as the ones we had first found and none of them was a nesting hole. At night we relied on the noses of the dogs to detect the presence of any animal that was abroad. They found a hairy armadillo, several three-banded ones, and on one evening they caught and ate a fox. But neither they nor we found any recent traces of tatu carreta.

We travelled along the track until it emerged into the open plains. Comelli was positive that tatu carreta seldom if ever ventured beyond the shelter of the bush, so there was no point in going any farther. Sadly we returned to Paso Roja.

Charles and Sandy came out to meet us. As we sat round the fire telling them of what we had done and seen in the monte, Slaughterer walked into the camp. In his hand he held a large fluffy owl chick with huge yellow eyes, extravagantly long eyelashes and very large feet. Slaughterer grinned a little sheepishly as though he were really rather ashamed at being associated with such a childish thing. It was no part of his nature to be kind or considerate towards such insignificant beings as baby birds, but he did not dare to treat the little creature in too off-hand a manner for it was quite obvious that he was hoping to sell it to us.

He placed the chick on the ground and joined us by the fire. The little bird stood upright, clopped its beak and trilled softly to itself. I pretended I had not noticed it.

"Good evening," said Slaughterer punctiliously.

We responded with equal politeness.

He jerked his head towards the chick.

"Very good," he said. "Very rare."

I laughed disbelievingly. "That is a *ñacurutu*—an eagle owl. They are not rare."

Slaughterer looked affronted.

"Very valuable bird. Much rarer than tatu carreta. I was going to keep him."

He waited for me to express disappointment. I looked at the fire.

"I will let you have him if you would like him."

"And what do you want to sell him for?"

This was the moment for which Slaughterer had been waiting, but now that it had arrived he seemed almost ashamed to put into words what I knew he had in his mind. He poked the fire with a stick.

"Your knife," he mumbled.

We would soon be leaving the Chaco for good and I could easily buy another knife in Asunción. I handed it

over to Slaughterer and took the young chick to give it a meal.

The baby owl was our last acquisition in Paso Roja. The next morning we had to leave, for in five days' time a plane was coming to Estancia Elsita to take us back to Asunción.

The return journey to the estancia was a slow and uneventful one. Although the tatu carreta had eluded us, I was not sorry that we had made our long excursion to Paso Roja, for we had seen many fascinating things which we should certainly have missed had we stayed at the estancia all the time. But the Chaco had one final vision in store which was to linger in my mind as one of the loveliest sights we saw during all the time that we spent in this extraordinary country.

We made our last camp on the site of our first at Laguna Quebracho. We arrived late and there was no time to look round before darkness fell, but I noticed that the jabiru storks' nest was empty; the chick we had watched for so many hours when we were first here had fledged and flown.

I rose early the next morning before the sun was up and quietly walked through the waking monte to savour for the last time a Chaco dawn. I made my way softly through the dew-heavy bushes towards the farther end of the monte where it abutted on to the lagoon. As I glimpsed its waters through the trees I saw that they were covered with a vast concourse of birds.

I sat beneath the last bush of the monte where I was partially concealed but had an almost unimpeded view of the whole lake. Close by me on the shore, platoons of ibis marched and countermarched, their heads down, probing the drying mud with their long curved bills as they went. Among them moved a few stilts, immaculately plumaged in black and white and stepping delicately on their long chilly-pink legs. Snowy egrets fished in the deeper waters, each with its mirrored reflection at its feet, and cormorants squatted on the black tree stumps

which broke the surface of the lagoon away on my left. Most numerous of all were the ducks which swam in the centre of the lake—white-faced tree ducks, Brazilian teal, with blue flashes on their wings, and, largest of all, glossy blue black Muscovies, with red wattles around their beaks, so much more elegant than their grotesque domesticated relations that live in farmyards all over the world.

On the farther shore, I saw three old friends—the jabiru storks together with their chick which now had lost all traces of his baby down and was almost as big as his parents. They looked gigantic and dwarfed all the other birds, making even the Muscovies seem small by comparison. All the birds, in their various ways, were feeding—dabbling, probing, diving and pecking in the pearly light of the dawn.

As I sat hidden in the monte, watching them, I heard a soughing of wings above me. I looked up and saw a great squadron of roseate spoonbills gliding low above the trees. They landed on the lagoon with clumsy splashes, scattering the teal, and immediately they began to feed, swinging their spatulate bills from side to side with the curious scything motion by which they gather the small insects on which they live. Their gorgeous feathers were part white, part pink and part scarlet. One of them, which was wading in the centre of the lake, suddenly fluttered into the air with alarm. I turned my glasses on it to see why it had been disturbed. It began fishing again, moving its bill closer and closer towards a curious black hump which projected an inch or two above the surface of the water. As the bird's beak touched it, the hump wriggled, rippling the water and frightening the spoonbill so that it leaped into the air once more. The hump was the back of a fish so large that the shrinking waters of the lagoon could no longer cover it. If rain did not come within a few days, it would be stranded, gasping on the mud, to die.

After an hour, most of the birds had stopped feeding and

stood about in groups, preening themselves. The spoonbills were particularly fastidious, dipping their beaks into the water and dabbling them on their breasts and beneath their wings.

Without any warning, a party of spoonbills flapped into the air. Some teal followed them. Then the egrets left, and the ibis, their melancholy metallic calls ringing over the waters. Group after group took off to wheel above the lake before flying away into the distance. A few spoonbills lingered, but at last they too spread their wings and flew off eastwards, their pink feathers losing their colour as they were silhouetted in the scarlet of the clouds around the rising sun.

The lake lay deserted except for the three creatures to whom it really belonged—the jabiru storks, which stood motionless, black and white, on the far shore where I had first seen them.

CHAPTER TEN

Moving a Menagerie

THE weather, which had been hot and rainless for over two weeks, changed once more as we rode into Estancia Elsita and the clouds which had been gathering in the sky since the scarlet dawn burst into a heavy storm. Within a few hours the airstrip by the house was waterlogged. That night Faustino spoke to Asunción Airport on the radio and cancelled the flight of the plane which was due to collect us the next day.

It was nearly a week before he was able to call them again and report that the airstrip had dried out sufficiently to allow an aircraft to land in safety.

At last, however, the plane arrived. Carefully we stowed inside it the armadillos, the caiman, the coatimundis, the young owl and all the rest of the animals. As we gathered on the airstrip making our last farewells, Spika, the Indian, appeared with three baby parakeets. To his immense satisfaction he completed a final sale. Faustino gave us a huge side of raw beef which he asked us to deliver to his relations in Asunción. "The unhappy ones," he said. "They are never able to get good Chaco beef." Elsita, still chewing a cheroot, brought out the babies to watch us depart. When Comelli said good-bye, he shook me warmly by the hand. "I will go on looking for old man carreta," he said, "and if I find him before you have left Paraguay, I'll ride to Asunción and bring him to you myself."

The plane roared into life and we slammed the door. Two hours later we were in Asunción.

We were overjoyed to find that all the animals we had collected on the Curuguati and at Ita Caabo had flourished under Appolonio's devoted care. Many of them had grown beyond recognition and Appolonio had added to their number some opossums and toads which he had caught himself.

Now began the busiest and most worrying period of the whole expedition. All the animals had to be rehoused in light travelling cages. Customs officers had to inspect and count them. Officials from the Ministry of Agriculture had to examine them and certify that they were in good health and free from infectious diseases. Detailed arrangements had to be made with the airlines to fly the menagerie and ourselves on freighter planes down to Buenos Aires, thence to New York and finally to London, and the numerous regulations concerning the transit of animals at our various ports of call had to be disentangled from official documents and carefully studied to make sure that we had all the necessary papers and health certificates.

At the same time as doing all this, we had to feed and clean the animals themselves. Even with Appolonio doing much of the work, this seemed like a full-time job in itself. The babies were by far the most trouble. The owl chick could not be given ordinary meat, for all owls require bits of fur and gristle, sinews and feathers, which they regurgitate as pellets. If they do not get these ingredients in their food then their digestion seems to go wrong. Consequently Appolonio and his brother, the gardener, spent a great deal of time catching rats and lizards which we had to chop up and feed to the chick by hand.

We also had some toucan nestlings which were incapable of feeding by themselves and three times a day we had to give them berries and small pieces of meat which they demanded

should be pushed deep into their grotesque beaks and half-way down their throats. Fortunately, two of the baby parakeets that Spika had sold to us were quite old and feeding well, but the third was smaller than the rest and for many days he would only feed if we simulated his parents and allowed him to put his small beak between our lips to take chewed-up bananas from our mouths.

When we had first arrived in Paraguay, I had confirmed that the only practical way of flying a cargo of animals from Asunción to London was through the United States. It was a long way round, there was the possibility that we might be delayed in making our connections and, as it was now December, we should be faced with the problem of finding heated accommodation for the collection during the time we should have to spend in New York. It was not an ideal route but we believed it to be the only one.

Then Sandy told us that by chance he had met the local representative of a European airline who had claimed that he could quite easily arrange for us to fly direct from Buenos Aires to Europe, thereby reducing the journey by many hours. This would be a far more satisfactory arrangement and we rushed round to the airline office to find out the details. Sandy's friend confirmed that this was indeed possible, for, he said, although there were no freighters crossing the Atlantic from Buenos Aires many of his company's passenger planes were returning from South America three-quarters empty at this time of the year and he was certain that he could get special permission for one of them to take us and our menagerie. All that he required was a list of the animals. With alacrity we produced a copy of the exhaustive catalogue we had prepared for the Customs authorities which listed the sex, size, and age in years and months of every animal we possessed.

He read it through out loud, in a wondering tone of voice. When he came to the armadillos, his brow furrowed and he

reached down a bulky manual of regulations. After studying the index for some considerable time, he looked up at us.

"What are these animals, please?"

"Armadillos. They are rather charming little creatures, actually, with hard protective shells."

"Oh, tortoises."

"No. Armadillos."

"Maybe they are a kind of lobster."

"No, they are not lobsters," I said patiently. "They are armadillos."

"What is their name in Spanish?"

"Armadillo."

"In Guarani?"

"Tatu."

"And in English?"

"Strangely enough," I said jocularly, "armadillo."

"Gentlemen," he said, "You must be mistaken. There must be some other name for them, because armadillo is not mentioned in the regulations and *all* animals are listed in here."

"I am sorry," I replied, "but that is their name and they have no other."

He shut up his book with a bang.

"Never mind," he said gaily, "I will call them something else. I am sure it will be all right."

On the strength of his assurances, we cancelled the elaborate arrangements we had made to travel via New York.

Two days before we were due to leave Asunción, the airlines man reappeared at the house with a worried look on his face.

"I am very sorry," he said, "but my company cannot accept your cargo. Head office in Buenos Aires say that those animals that were not mentioned in the manual will smell too bad."

"Nonsense," I said indignantly, "our armadillos do not smell at all. What did you say they were?"

"I just called them something which I was sure that no one

We had found the burrow of a giant armadillo

would have heard of before. I could not remember the name you said, so I found one in my son's animal book."

"What did you say they were?" I repeated.

"Skunks," he replied.

"Please," I said, trying to contain my fury, "will you cable Buenos Aires and explain that my armadillos are not skunks. They do not smell. Come and see for yourself."

"It is no good now," he said contritely, "the space has been reserved for another cargo."

That afternoon we had to return to our original airline and, full of apologies, asked if it would be possible to renew all the arrangements to travel by way of New York, that a week ago we had cancelled.

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The longer we stayed in Asunción, the larger our problems became, for by now the whole of Paraguay seemed to have learned of our existence and men from all over the country began to converge on our house on bicycles, in rattling lorries and on foot, bearing a wide assortment of animals in gourds, boxes and string bags. The rarest and most exciting of these last minute acquisitions was brought to us by a man I had met in the Concepción hotel when Sandy and I had gone there on the first of our abortive sorties in pursuit of the giant armadillo. He arrived at the house trundling a handcart. On it, surrounded by a frail network of laths and string, stood a huge and extraordinary-looking wolf, a majestic creature, with a long reddish coat, large furry triangular ears, a white bib and fantastically elongated legs out of all proportion to the rest of his body. It was as though the image of a rather good-looking Alsatian dog reflected in a fairground distorting mirror had suddenly come to life. This was the rare *aguara guazu*, the maned wolf, which lives only in the Chaco and the northern part of Argentina. Its long legs enable it to run extremely

The eagle owl chick, half fledged

swiftly and some people have claimed that it is the fastest of all land animals, excelling even the cheetah. Why it should require such speed is a mystery. There can be nothing from which it needs to escape—jaguars do not live on the open plains frequented by the wolf—neither is such extreme swiftness essential to catch the armadillos and small rodents on which presumably it preys, and there is no record of it ever attacking rheas which are the only things it might meet which could rival it in speed. It had been suggested that its height enables it to see for great distances over the flat plains and this is certainly true, but it hardly seems sufficient justification for the development of such extraordinary physique.

I was overjoyed to have it, for we had only just received a cable from the London Zoo saying that they had acquired from a German zoo a large male maned wolf, and asking if we could possibly find a mate for him. The one we now possessed was fortunately a female.

Housing her presented us with a great problem. Not only was her present cage so flimsy that it was quite insecure, but it was also so small that the poor creature was unable to turn round. Although her owner had told us that she was newly caught, she seemed quite docile and raised no objection when Appolonio and I fitted a leather collar around her neck. Cautiously we led her out of her cage and tethered her to a tree. I offered her some raw meat, but she spurned it. Appolonio insisted that we should give her some bananas. It seemed an unlikely diet for a wolf, but to my surprise she ate four immediately. After some time, she began tugging at her lead so persistently and energetically that I was afraid that she might injure her neck, so we shut up the kitchen chickens in their house and released her in the vacated hen run. Then we set to work with saws and hammers to transform a large wooden crate into a cage for her. We finished it by the evening and put it in the chicken run close by the wire. Coaxingly,

we tried to persuade her to enter it, but she snapped and growled at us in a frightening manner. We changed our tactics. Appolonio put more bananas in the far end of the cage and sat himself in a strategic position on the other side of the wire, ready to drop the door behind her as soon as she ventured inside. Meanwhile I began work on a travelling cage for the coatimundis.

Dusk came and still the wolf showed no signs of entering her box. I walked over to consult with Appolonio and as I did so the wolf suddenly bolted and with a leap and a scramble she cleared the chicken netting and was gone.

The garden itself was securely fenced to keep out stray dogs, so I was reasonably hopeful that it would prevent her escaping into the town, but the grounds of the house were immense and heavily planted with clumps of bamboo, flowering trees and decorative thickets of cactus. By now it was dark. We ran for torches and for an hour, Charles, Appolonio and I searched the garden. We could find no trace at all of the wolf. She seemed to have disappeared entirely. We separated and each of us combed one section of the garden.

"*Señor, señor,*" shouted Appolonio from the other end of the garden. "She's here."

I ran across to him and found him shining his torch on the wolf which was sitting snarling in the middle of a small clearing surrounded by low cactus. Now that we had found her, I wondered rather vaguely what we did next. We had neither ropes nor nets nor cage. While I was still thinking, Appolonio leaped over the cactus and grabbed her by the neck. I could hardly hang back when he had so courageously shown the way, so I jumped over the cactus, dived at the struggling yapping pair and caught Appolonio neatly around the waist. By the time I had disentangled myself from him, the wolf had fastened her jaws on his hand so that I was able to straddle the animal and securely grip her head without any danger of being

bitten myself. The wolf, feeling herself held from behind, released Appolonio's hand. To my relief, he had not been badly bitten. While all this had been going on, Charles, very sensibly, had gone to fetch the cage. After what seemed like an interminable delay, with the wolf struggling frantically in our arms, he arrived with it and we were able to bundle her inside.

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At last all the arrangements were completed and the time came for us to leave Paraguay. Many of our friends came down to the airport to say good-bye and we took off for the last time from Asunción airport with feelings both of reluctance and relief.

We had two days to wait in Buenos Aires, but we managed to quarter the collection in the Customs shed and so avoided the complications of immigration and quarantine. While we were there, I heard that a friend of mine and his wife were also in the city at the beginning of their own animal-collecting expedition. I discovered his telephone number and rang him up. His wife answered the telephone and, after we had told her what animals we had managed to collect, she told me of their plans.

"Oh, by the way," she said nonchalantly, "we have got a giant armadillo."

"How wonderful," I said, doing my best not to sound jealous. "Would it be possible for us to see it? We searched for one for so long in Paraguay. I would like to see what they actually look like."

"Well," she said, "we haven't actually *got* it. But we have heard of a chap five hundred miles away in the north of Argentina who has caught one and we are going up there to collect it."

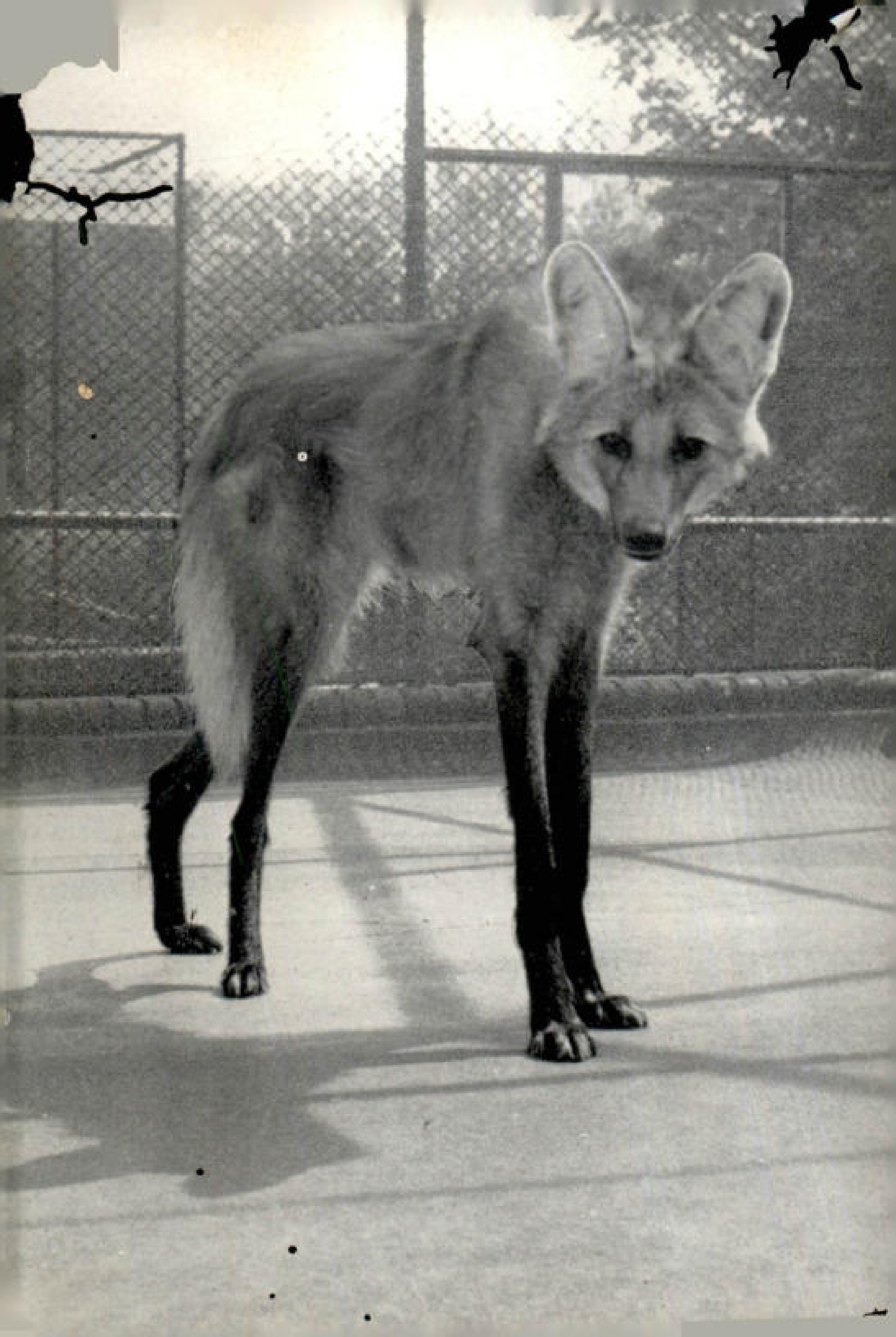
I thought that it would be unfairly discouraging to relate the

(above) *All the birds were feeding on the lagoon in the pearly light of dawn*

(below) *The toucan chicks demanded that their food should be pushed half-way down their throats*

(overleaf) *The Quaker parakeets began to gorge themselves on the strips of meat*

The maned wolf in the London Zoo



story of our experiences in Concepción. Months later I discovered that they were just as unlucky as we had been.

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The departure of our freight plane was delayed by several hours and as a result we missed our connection in Puerto Rico. Fortunately there happened to be a luxurious passenger aircraft returning completely empty to New York and the airline authorities kindly allowed us and our animals to travel in it. We were now running short of animal food, but the steward on the plane had large supplies of unclaimed packaged dinners. I did not experiment to see if any of our animals would enjoy caviare, but the armadillos and coatimundis relished some smoked salmon, and the parrots dined eagerly on fresh Californian peaches.

As we landed in New York, I was alarmed to see that the ground was covered in snow. If we could not find a heated room for the animals within minutes of landing they would surely die. But I had forgotten the American passion for central heating. The animals were taken to an ordinary warehouse the inside of which seemed to me to be even hotter than an average day in Asunción.

The next night we were in London. Officials from the Zoo met us with heated vans and the whole collection was whisked off to Regent's Park. As they disappeared into the night, a load of worry dropped from my mind and was replaced by a feeling of relief that, throughout the six days that had passed since we had left Asunción, not one of the animals had shown any sign of illness or discomfort, and not one of them had died.

I went to see them at the Zoo many times in the weeks that followed. The eagle owl chick was almost fully fledged and had grown enormously. The Zoo already possessed a male eagle owl that had been without a companion for some years. Female owls are larger than their mates and, young though our bird

(above) One of the coatimundi cubs
(below) The Giant from Birmingham with one of the three-banded armadillos

was, she was already as big as her companion-to-be and well able to take care of herself when she was put in the same cage.

I was particularly anxious to see what happened when we introduced our maned wolf to the male that was already established and settled in the Zoo. One of the most important functions a zoo can perform is to establish breeding pairs of rare animals so that if the species is faced with extinction in the wild state it can be preserved in captivity and later, perhaps, zoo-bred animals may be released in reservations and re-established in their home lands. Ambitious though this may sound, the London Zoo has already played an important part in doing just such a thing. The rare Père David's deer, which once lived in China, but which became extinct there many years ago, was preserved in paddocks in the Zoo and at Woburn Abbey, the Duke of Bedford's home, and recently deer from the Zoo have been sent back to China to settle in the country where they have been extinct for half a century.

In time to come, the maned wolf may also be in danger of extinction. Already it is very rare, and year by year more of the Chaco is colonized by ranchers and brought under control. It was very important to us, therefore, that our female wolf and the male should accept one another. There was, nonetheless, a considerable risk in putting them together, for they might well fight and injure one another before they could be separated. Desmond Morris, the Curator of Mammals, and I watched as the keeper opened the gate which allowed the male wolf to walk into the same pen as the female. He trotted briskly out, but as soon as he saw her, he sprang back and stood taut and stiff, his mane bristling, his lips drawn back in a soundless snarl. She reacted in a similar way. Suddenly he snapped at her, but his jaws did not touch her. She snapped back at him and for a few seconds they sparred. They separated. The male slowly advanced upon her, his head held low. She stood her ground and submitted to his sniffs. Then she walked away and

settled unconcernedly in a corner. He followed her. Soon the two were lying side by side, the male uttering gently crooning noises deep in his throat and stroking her outstretched fore-limbs with his front leg. There was no doubt; they had accepted one another. Perhaps, in years to come, there may be a family of these wonderful creatures in London.

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Desmond Morris was very complimentary about our armadillos. We had brought fourteen of them of four different species, but I was still very sad that we had not managed to bring back a giant. I described to Desmond the huge holes that we had seen and the lengthy and abortive journeys that we had made in search of the creature. Desmond was fascinated by my descriptions and agreed with me that it would have been most exciting just to have seen this miraculous creature. But he charitably minimized our failure. "After all," he said, "you have brought us more armadillos, both in actual numbers and in species, than we have ever possessed at one time before, and the three-banded belongs to a sub-species that has never been exhibited here alive."

A week later he telephoned me.

"Wonderful news," he said excitedly. "By an extraordinary coincidence I have just had a letter from a dealer in Brazil who says that he has got a giant armadillo."

"How marvellous!" I replied. "Are you absolutely certain that it really is a giant, or that he is not just trying to discover how much you would pay for one, like my friend in Concepción?"

"Oh yes. He's a very reputable dealer and he knows what he is talking about."

"Well, I do hope you are going to get it," I said.

"I certainly am!"

A week later he telephoned me again.

"That armadillo has just arrived from Brazil," he said, "but I'm afraid you are going to be rather disappointed. He is just a rather large hairy armadillo like your Podju. You can enrol me as Vice-President in your Failed to Find the Giant Armadillo Club."

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Three months later he telephoned me once more.

"I thought you might be interested to know," he said in a flat voice, "that we've got a giant armadillo."

"Ha, ha!" I said, "I've heard that story before."

"No, he really is here in the Gardens. I've just been looking at him."

"Good gracious. Where on earth did you get him from?"

"Birmingham!" said Desmond.

I went round to the Zoo immediately. The armadillo had been sent to the Birmingham dealer from British Guiana; he was the first of his kind ever to have arrived in this country alive. Fascinated, I examined him closely and he peered back at me from his tiny black eyes. Over four feet long, he had gigantic front claws and unlike any of the armadillos that we had caught, he seemed to prefer to walk on his hind legs, with his front feet only just touching the ground. The plates of his armour were large and distinct, but pliable, so that he appeared to be wearing a coat of mail. He ambled up and down his den, trailing his stout plated tail like some antediluvian monster. He was one of the strangest and most fantastic beasts that I have ever seen in my life.

As I looked at him, I thought of the German in the forests beyond Concepción; of the huge holes and footprints we had found at Paso Roja; and of the nights that Comelli and I had spent searching through the thorny moonlit monte of the Chaco.

"Nice, isn't he," said the keeper.

"Yes," I said, "he's nice."