THE LAST OF THE WILD

ON THE TRACK OF RARE ANIMALS

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Foreword

As President of the World Wildlife Fund the publication of this beautiful book, *The Last of the Wild*, gives me great pleasure. Eugen Schuhmacher's illustrations provide an impressive photographic record of species that are in danger of extinction. International conservation bodies carry the heavy and difficult responsibility of ensuring that the fauna of the world is preserved for the enjoyment of future generations. It is my hope that this book will be seen by many people and that the information it contains will be assimilated by a wide public, so that the fight for the preservation of these last traces of 'Paradise' will receive full support.

PRINCE BERNHARD OF THE NETHERLANDS

Soestdijk, July 1966

Seven years' filming on all continents

The cliffs and reefs off the Newfoundland coast are pounded by the relentless power of the sea. Generations of seafarers have experienced the rise and fall of the foaming swell under lowering skies. A strong wind whips up the salt-laden spray and tosses it like whirling snowflakes against the rocks. The sea is seldom calm in this storm-centre of the North Atlantic Ocean.

In the year 1578 a small fishing vessel bobbed like a cockle-shell on the turbulent water and came to rest in a small bay sheltered by low-lying cliffs. Several bearded men jumped ashore, watched by hundreds of densely packed birds which stood quietly on the rocks, each one as tall as a goose. They showed no sign of alarm as the men made the boat fast and balanced heavy planks to make a swaying gangway to the shore.

The huge black-and-white birds did not take to the wing. They were incapable of flight, using their wings only for swimming and diving. Although they resembled penguins, they were in fact the largest member of the auk family—no penguin has ever occurred in the north. These flightless giant auks were not alarmed by the sight of humans. Equally the fishermen and sailors of that period were not afraid of the large birds, regarding them only as fat prey which could be killed easily because they were incapable of flying away.

Armed with cudgels the men started to round up the birds which still showed no sign of alarm. As the men advanced on them, shouting and driving them closer together, the birds made a move but did not attempt to attack the intruders or to defend themselves in any way. They were driven towards the boat and up the swaying gangway until the boat could hold no more. Many of the birds were killed in the process, being trodden underfoot, stunned and pushed over the side where they were swept underwater and dashed against the rocks. The men appeared to be unmoved by the fate of these birds; after all, those in the boat would meet the same fate in the end. The heavily laden boat then sailed away with hundreds of giant auks on board. Shortly afterwards the birds would be skinned and salted, to make valuable food which would keep in a satisfactory condition for a long time.

From time immemorial this gruesome slaughter had taken place. Throughout the centuries, the birds were taken year after year, not only on the Newfoundland coast but on the cliffs of Iceland and anywhere that garefowl—another name for the giant auk—were known to be present. Later, when ships were driven by steam, the birds were even used as fuel for the ships' boilers. Wood and coal were more costly than the corpses of giant auk which had a high content of fat.

In 1831 twenty-four giant auks were caught on the cliffs of Eldey off Iceland. In 1844 there were only two and these were probably the very last living specimens of this bird. Today there are only about eight skins, two skeletons and approximately seventy blown eggs of this species. These valuable remains of an extinct animal species are carefully guarded in museums.

In the 17th century another group of birds was exterminated by man: the dodos and the solitaires. They were large and plump. According to the anatomical structure of their bodies, they were related to the pigeons but like the giant auk they were also flightless. At that time the dodos and solitaires lived on the islands of Mauritius, Réunion and Rodriguez in the Indian Ocean. We have far less information about them than for other extinct animals. We know, however, that they were easily captured by crews of passing ships and that, similar to the giant auk, their fleshy carcasses provided a welcome change to the monotony of ship's rations in those days. A few skeletal parts, one bill and three feet are all that remain as evidence of this sad story.

When the Boers colonised Africa they moved up from the south, taking the land by force. They penetrated far into the interior and found themselves amongst herds of mountain zebra, white-tailed gnu, bontebok, blesbok, bluebok and quagga. In the extensive areas through which the Boers trekked, these herds numbered millions of animals. Time and again their wagon columns were held up by huge concentrations of wild animals and the treks were often forced to wait a long time while animals crossed their route.

With the advance of the white man and his settlement of the country, the decimation of the population of wild animals began. Animals were slaughtered senselessly. Skins were used to make sacks for corn and potatoes but only a small proportion of dead meat was eaten by the native workers. For the most part, carcasses were just left to rot in the sun. Compassion did not enter into the picture and animals were killed without any kind of forethought or plan.

The resulting toll: the last bluebok was killed in 1799. By 1858 only two quaggas remained alive in the wild and the last two specimens in captivity died in the Berlin Zoo in 1875. Today there are scarcely more than 800 bontebok still surviving, about 85 mountain zebra and little more than 1,000 head of white-tailed gnu. These last survivors would have suffered the same fate if it had not been for the last minute efforts of animal-loving farmers and nature conservationists.

In the same way the passenger pigeon was exterminated by the white man after his discovery and settlement of the New World. Up to the turn of the 19th century there were still millions of passenger pigeons to be seen. They darkened the skies, landing in trees and breaking the branches with their weight as they settled down to rest or to breed. When the passenger pigeons arrived in a neighbourhood, everyone who could carry a gun ran out and shot at random into the flock, using lead shot or small stones which also served as projectiles. At that time they were sold for a penny a bird. The end of the passenger pigeon in the wild came in 1907. The last captive specimen died in the Cincinnati Zoo in 1914.

These few examples are sufficient to bear witness to the trail of disaster to wildlife left by man as he moved into new areas all over the world. Up to 1800, some 33 large animal species had been exterminated by man; from 1800 to 1900 the number was much the same. During the last 50 years man has been responsible for the disappearance of yet another 50 species.

This senseless destruction of wildlife still goes on. Leaving aside the position of invertebrates and plants, there are 1,000 species of vertebrates which are threatened with the fate of the giant auk, the

dodo and others. Over and above this, habitats everywhere are in danger of being destroyed—habitats not only of wild animals and plants but also those of man. Signs that the whole of nature is in jeopardy lie all around us: the air is polluted, the freshwaters of the land are contaminated, the soil is eroded or poisoned, even the sea is polluted; everywhere the pressures of human population are resulting in land being built-up or taken over in the name of progress. As civilisation advances, it brings its own destructive forces to the countryside.

These are some of the factors to be borne in mind if we are to plan for the future. The destruction must not only be brought to a halt but damage as a result of earlier mistakes must be rectified and nature restored wherever this is still possible.

Two large organisations have already been established for protection and conservation: the International Union for the Conservation of Nature and Natural Resources (IUCN) and the World Wildlife Fund (WWF). As an animal lover and conservationist I soon gravitated towards these two international bodies. I managed to stimulate their interest in the idea of making a documentary film about nature protection—a dream which had been taking shape in my mind for several years—and I offered my services. With the aid of photographs and films the concept of nature protection and the need for conservation could be carried to all parts of the world.

The film would have to be a colour documentary, backed by natural sounds, covering all the rare and threatened species wherever they still survived. Such a film could provide absorbing entertainment to hundreds of people. Inevitably the locations would be in the beautiful landscapes of the more important national parks and nature reserves, as it is only in such places that rare animals and plants still survive in unspoilt, natural surroundings.

These protected areas, which have been saved at the last minute from the foolish exploitation of man, are now publicly owned. They are important centres of research. They are also living examples of bygone ages, the last paradises in the best sense of the word. If it were not for these protected areas, the world would be even poorer than it already is in beautiful, natural scenery.

I started work on the film in the spring of 1959. It was the largest assignment—and without any doubt the most important—in my 35 years of film-making. The film was called *Die Letzten Paradiese* and parts of it were shown on BBC TV under the title of *The Rare Ones*. The idea for this book was conceived at the same time. It was intended that both the film and the book should be widely distributed in order to arouse the interest of people of every nationality in the need for conservation measures. Conservation is the concern of every one of us, wherever we live. By continually breaking the laws of nature man has already imperilled his existence all over the world and it is already apparent that he who destroys nature destroys himself.

Modern man has acquired a great deal of knowledge about technology and he is proud of his progress in this field. He knows far too little about the value and beauty of nature and he remains surprisingly indifferent. He does not realise that it is only in nature that he will find the wealth and power which he needs in order to develop into a complete human being instead of turning into a mechanical robot.

Producing the film and preparing the book has been a difficult but wonderfully rewarding task. The work has taken seven years to complete, seven years which have been arduous and fully occupied in every respect. I have travelled on all continents, undertaking one journey after another, searching continually for rare animals, hunting for them in their last strongholds and then stalking them with my cameras. Sometimes it was necessary to make two or even three journeys through the same area in order to achieve my aim. I had many adventures in my attempts to get close enough to the animals and it was a constant battle to outwit the weather and the changing seasons. It has been a race from one half of the globe to the other, passing through friendly countries and others less friendly, experiencing all climatic zones and varying habitats from one pole to the other.

Although the species in which I was interested were living in protected areas, many of the places where I was looking for them held only small numbers. In some cases the total world population of a threatened species was down to fifty, sometimes only two dozen or as few as eight or ten specimens were still surviving. It is only as a result of their protection in these nature reserves that they have been saved from extermination.

The International Union for the Conservation of Nature and the World Wildlife Fund opened the way for me, gaining access to many places which would otherwise have been difficult or even impossible for me to enter. Both organisations have given me constant assistance in the protracted business of film-making. For their constant encouragement and support throughout my undertaking of the film and this book, I offer these two organisations my sincere thanks.

I also wish to acknowledge with gratitude the assistance given to me in the completion of both projects by the Agfa organisation of Leverkusen and the Perutz Film factory of Munich, the Ministry of Culture of North Rhine-Westphalia and the head of the Nature Conservation organisation in Bavaria.

I must also thank the governments, state and private nature conservation establishments, the national park authorities, conservation agents and officials, the many wildlife wardens, rangers, assistants and private persons in the Antarctic, Argentina, Australia, Austria, Belgium, Borneo, Brazil, Canada, Chile, Ecuador, France, Germany, Great Britain, Greece, Holland, India, Indonesia, Italy, Japan, Kenya, Malaya, New Guinea, New Zealand, Norway, Peru, Poland, Sarawak, Spain, Spitsbergen, Switzerland, Tanzania, Turkey, Uganda, the Union of South Africa and the United States of America.

My thanks are also due to my colleagues Helmut Barth, Erwin von Dessauer and Peter Höser. Whereas Peter Höser could only take part in a few expeditions, Erwin von Dessauer and his wife undertook most of the photography in South America. Helmut Barth, however, accompanied me for five whole years, working indefatigably under all kinds of conditions. At many critical moments he remained at my side as I filmed. He also carried out many difficult assignments, working on his own in remote places. Many of the photographs in this book were taken by him.

I would also like to thank the authors of various zoological publications: Dr G. Diesselhorst, Dr I. Eibl-Eibesfeldt, Dr T. Haltenorth and Professor W. Hellmich.

THE AUTHOR

Grünwald near Munich—Summer 1966

Asia

INDIA

Early in 1963 we set out on yet another expedition overseas, this time with India as our first goal. The weather was bitterly cold as we left but overnight we flew into warmer latitudes. With the exception of our first journey to Australia, all our travelling was done by air as this was the only way that our extensive filming programme could be fitted into a seven-year schedule. We landed at Calcutta. It took us some hours to get from the airport to the centre of the city. The streets were blocked by a seething medley of motor cars, bullock carts, cows and humans. The congestion here was worse than any that I had experienced before.

The next day we went on to Assam via Guahati. The Kaziranga Reserve was the first protected area that we wanted to visit in India. In November and December of the previous year we were given the impression that it would not be possible to visit this part of the country which lies in the region of the frontier between India and China. At that time there was a frontier war and the Chinese troops advanced alarmingly close to the Kaziranga Reserve before halting for some unknown reason. Had they reached the Reserve, it would have been disastrous for the rhinoceros population which lives in the Reserve. The Chinese believe that the powdered horn of these animals is a powerful aphrodisiac and Chinese pharmacists will still pay fantastic sums for this so-called miracle drug. This demand still takes its toll of many rhinos, not only in Asia where there are scarcely any left, but also to an increasing extent in Africa.

We were escorted to Kaziranga by Mr E. P. Gee, an English conservationist from Upper Shillong in Assam. I could not have wished for a better adviser on this project. He looked after us remarkably well and it was due to his extensive knowledge of the Indian fauna that our stay in the Kaziranga Reserve was such a success.

One can only penetrate into the sanctuary of the great Indian rhinoceros by a very unusual method of transport: by riding an elephant. Swaying gently as we sat on the back of this singular riding animal, we were taken into the heart of the wide grassy plains. These extend for several miles into the low-lying area of the Bengal plain which is flooded by the Brahmaputra river. The thickets of grass are 18 to 24 feet high and the rhinos lead a secluded and protected existence here. Amongst the world's largest land mammals the great Indian rhinoceros is second in size only to the elephant. It is only in the Kaziranga Reserve that the rhinos are still able to exist in comparative security; outside this area man has hunted them so ruthlessly that there are only about 300 of them left. In addition, small numbers are still found in a few other Indian reserves and in neighbouring Nepal. The total population of Indian rhinos in the world today is not more than 675.

Every day we rode out into the grass jungle and filmed the rhinos. We watched them grazing and wallowing; we saw the laborious way in which they heaved their bodies through the swamps and, by contrast, their astonishing agility as they hurried through the thickets of grass, apparently light-footed. We often came on them with only a few yards between us. Sometimes they would rush at us like

locomotives whose brakes have failed, which I found quite alarming, but our riding elephants stood firm like a barrier of armoured shields. We had been allotted the best riding elephants in Kaziranga and they stood their ground, refusing to give way by even an inch. Although such charges are usually only sham attacks, it has been known for riding elephants to run off with their riders when seriously attacked by rhinos.

We frequently got down from the elephants and filmed from the ground. Here the camera had a steadier position than on the back of an elephant where it was inevitably subjected to vibration and movement. We never knew whether the rhino intended to attack or whether it was merely inquisitive, and it was of considerable advantage not to have to take flight when the rhino came to within fifteen to eighteen feet of the camera. Filming under an elephant's belly is scarcely a familiar position for a camera-man but it was reassuring to have the massive body towering above us.

There are also some wild elephants remaining in the Kaziranga Reserve. We came across them and filmed them just as we did the wild water buffalos, swamp deer, the wild boars, the numerous egrets, storks and pelicans. We also found the tracks of a tiger which had ripped open a newly born rhino calf. The enraged mother must have driven the tiger off before we arrived.

From Kaziranga we flew back to Calcutta and Bombay, then on to Keshod in Gujarat State. From Keshod it is not far to the Gir Forest Reserve where the last remaining lions on the continent of Asia live; their numbers are estimated at about 280. These big cats are continuously controlled and watched by the State Forestry Department which also administers the lions' protected area. It is not difficult to get a sight of the lions in this area, although the terrain is covered with dense bushy forest and is nothing like as easy to see across as the plains and savannahs of Africa. But the shikaris, who are part of the staff of Gir Forest, are first-class hunters and they know the favourite spots of the lions. They know where they like to rest during the heat of the day, where they go to drink in the late afternoon and where they prefer to hunt.

In the Land-Rover which brought us out to the area where the lions were, a goat was frequently on board with us, as well as the skilful shikaris. The goat had an important part to play on our filming expedition as it was our bait. Its bleating would attract the attention of the big cats and draw them towards us; for the most part it was vociferous but when it stopped bleating, one of the hunters tweaked its ear. It seemed a bizarre idea that the so-called king of beasts could be lured by the bleat of such a humble animal but it certainly worked successfully.

Although there is plenty of larger game in the Gir Forest, such as deer, boars, nilgai and wild peacocks, the lions often attack the domesticated animals of the farmers who have settled there. The lowing of cattle and the bleating of goats are consequently familiar sounds to the lion. Furthermore it is easier for a lion to bring down a domesticated animal than the many faster and more wary wild animals. Such damage is however made good by the forest authorities so that the lions can be preserved. This is an unparalleled example of conservation at work, on bold and imaginative lines, in a country which undoubtedly has more important problems to solve.

To the north-west of Gir Forest, the last remaining Indian wild asses live in the Little Rann of

Kutch. Everywhere in India, rare animals are protected by the Forestry Department and this applies also to the Little Rann which is situated not far from the Pakistani border.

We had to drive far out into the brackish-water lake of the Little Rann, which at this time was completely dried out, before we found the wild asses. They looked small and rather indistinct as they stood in the shimmering heat on the treeless horizon. There was a herd of about thirty in the distance but we drew near quite fast as the floor of the dried out lake was as hard as cement. As we approached the asses started to move off, going farther out into the shimmering expanse of the lake basin. They appeared to be floating over the ground, their shapes reflected as in a mirage. As we chased after them, it developed into a race between animal and machine, the asses galloping away as fast as they could. All our photographs had to be taken through the side windows or windscreen of the vehicle, travelling at a speed of 25 to 35 miles per hour. Sometimes we managed to gain on them, sometimes they drew away. The wild asses withdrew deeper and deeper into their strange domain, in which there is unlimited space but not a single blade of grass. No one can follow them for long when they retreat into this area, and we soon realised, from the stuttering of the over-heated engine, that in the long run the asses were bound to win.

JAPAN

From the blistering heat of India the aeroplane quickly brought us into cooler regions again. When we stepped out of the aeroplane in Tokyo we were met by a cold blast of wind. It was February and winter-time in Japan, just as it had been in Germany when we had set out on our expedition four weeks earlier. We were greeted with great kindness by people from the Nature Conservation Society of Japan. Dr Tamura, Mr Ishigami, Dr Miyawaki, Mrs Otsuki and others had already got everything ready for my filming in the island realm of Japan and it all worked like clockwork.

We first travelled down to the southern island of Kyushu with Dr Miyawaki as interpreter. In an area that is decidedly cold but usually free of snow, hundreds of white-necked cranes and hooded cranes overwinter every year. We left the train at the small town of Izumi where we were greeted at the railway station by the mayor, his assistant and a German priest; our reception almost amounted to a festive ceremony.

The next morning we were taken into the reserve of the white-necked cranes. Two wardens, who were as friendly as they were helpful, had already got everything ready for a long session in a prepared hide. There was even a small charcoal stove burning in the hut in front of which the cranes were fed. It was extremely cold but the heat from the small stove enabled us to remain there the whole day in comparative comfort and we were able to take comparatively good pictures of these rare birds. On the following day we filmed hooded cranes in their hundreds; we also took more photographs of the white-necked cranes just as they were preparing to set off on the long journey to their breeding places on the mainland of China and Manchuria.

To my surprise and pleasure the people of Izumi arrange a ceremonial farewell feast in honour

of the departure of these large birds. The inhabitants were very proud that we had come all the way from Germany to photograph their cranes and many people gathered in the town hall which had been specially decorated for the occasion. The birds are sent on their way with songs and good wishes to accompany them on their long journey, the inhabitants of a whole town imploring the birds to be sure to come back again. Every citizen of Izumi, whether young or old, rich or poor, contributes his mite towards the preservation of these beautiful birds. Why should this take place only in Japan which is one of the most densely populated countries in the world? One of the two birds wardens has called his little daughter 'Zizuru', which means a thousand cranes. Could there be a closer relationship between man and animal?

In the course of the following weeks we visited and took photographs in the volcanic area of Mount Aso in Kyushu, the Nikko National Park with the Toshogu shrine and the Kogon waterfall, the giant Buddha of Kamakura, the sacred mountain of Fujiyama with the National Park not far from Hiroshima and the largest torii—an arch often placed at the approach to a Japanese shrine. Japan has twenty National Parks in which it protects not only scenery, plants and animals but also the sacred places of its ancestors. The preservation of such places as temples, shrines and toriis, carried out with deep respect and piety, is a special feature of the Japanese nature conservation movement. However the most memorable experience of my Japanese journey was the sight of the large Manchurian cranes in the vicinity of the Akan National Park on the northern island of Hokkaido. We were still in the heart of winter and deep snow covered the mountainous countryside, over which vapour trails drifted from the Akan volcano. These white birds, the height of a man, were already beginning their courtship dance.

We took up our quarters in a small farmhouse. The cranes, known to the Japanese as *tancho-zurus*, were less than a hundred yards away. Like the white-necked cranes on Kyushu these too were fed daily by bird-loving humans, thus making it easier for them to bear the wintry conditions. Each day the cranes came to the feeding place behind the farmhouse and did not appear to be at all shy.

In the morning, after they had drunk and bathed in the adjacent Akan river, they came flying over as the sun appeared above the mountains. Gliding on powerful wings, they drifted overhead and came in to land one after the other, uttering their melodious calls in greeting. Then they began to dance. The males gave an impression of perfect courtesy as they solicited the favour of the females. With low bows, stimulated by loud trumpeting, the participants joined in the dance. There are few other birds—let alone man—which express their desire with such grace and refined elegance. We watched them leaping beside each other to a height of three feet, hopping light-footed over each other, and running about the dance area before bowing to each other once again as though observing the proprieties. They laid their heads right back along their backs as they trumpeted with widely gaping bills, apparently shouting their joyous desire to the heavens. As we watched the enchanting courtship dance with its many amorous scenes, we could not help feeling that the birds had voluntarily put on this display as an expression of their gratitude for the care given to them by humans throughout the long winter. We filmed their courtship displays repeatedly and recorded their 'love-songs' on tape from a

small hide on the snowfield. Finally there were 32 Manchurian cranes dancing, courting and trumpeting. It was an extraordinary spectacle.

At the beginning of spring these large birds depart for their nesting sites. Most of them fly over to the mainland of Asia. Recent research has shown that only a small number nest on Hokkaido. They are gradually becoming established again in the inaccessible Kushiro swamp; they disappeared as a breeding species from this area a long time ago. The regular feeding at their winter quarters has certainly encouraged them to remain in Japan during the summer. In any case the Japanese nature conservationists do all that they can and take a lot of trouble to encourage these rare cranes to settle once again in their islands. Unfortunately there are only about 150 pairs still surviving.

BORNEO

We travelled southwards through Formosa, Hong Kong and Singapore to the large island of Borneo. Our goal was Sarawak in the north and our first stop was the small attractive town of Kuching. Tom and Barbara Harrisson of the Sarawak Museum were very friendly and helped towards the achievement of my next film project which was concerned exclusively with the orang utan. We found these apes without delay in the Bako National Park, which was founded on the initiative of the Harrissons and supported by IUCN.

Bako is an island. It is primarily an acclimatisation station but also a refuge for these anthropoid apes whose survival is seriously threatened everywhere else. One could not have found a better place for the orang utan than this area of tropical rain-forest. Above all the animals are safe here from any kind of persecution and their solitary forest life is not continually threatened by illegal hunters and speculators as it is in other areas. The continuous demands of zoos, museums and circuses allowed the world population of the orang utan to decrease to an alarming extent. Nowadays orangs only live in Borneo and the other neighbouring island of Sumatra. Barbara Harrisson estimates the total population of wild orang utans at about two thousand. The reason that this number is so low is easily explained when one realises that quite often up to twenty animals have to be killed in order that a single youngster can be brought healthy and viable to a foreign country.

Formerly it was primarily old animals that were caught. This was troublesome, costly and often dangerous, and this method is no longer followed. Nowadays the mothers are summarily shot and the babies taken. Three-quarters—and often more—of the young orangs captured in this frightfully brutal and illegal way die long before they reach their destination, either through falling out of the tree or due to unsuitable handling and wrong feeding. It is not difficult to forecast that with the employment of such violent means of capturing these anthropoid apes, the death knell has been sounded for those which still survive in the wild in Borneo and Sumatra. Unfortunately the existing conservation laws and export prohibitions are not of much avail in this country where there are so many back doors available for unauthorised trading in orang utans.

On Bako I was given a quick introduction to the natural life of this 'man of the jungle' as its Malayan

name of orang utan means. I was able to film, photograph and watch them in their natural habitat the whole day long. Although there were no fully mature animals, the orang utan lived in complete freedom on Bako and gave me good opportunities to record all those aspects of behaviour which are peculiar to this large anthropoid ape. I was constantly presented with ideas of what kind of an animal an orang really is and of how they behave as real 'men of the jungle' when they do not have to eke out their existence behind the bars of a cage.

Armed with a stick a male approached us on one occasion and seriously threatened to strike with it. He climbed from tree to tree above us and swung from branch to branch like an acrobat. He showed us how to drink water out of canna plants and how one can extract hidden insect larvae from stems using fingers and a small stick. We found the sleeping nests of the orangs which they make afresh every evening. We also saw how they shield themselves on the ground with branches and palm leaves from the oppressive heat in the rain-forest. The hot and humid atmosphere of the tropical jungle appears to suit them best. They undoubtedly feel well in this climate where we were continually bathed in sweat.

It is to be sincerely hoped that the Bako National Park will continue as a safe refuge for this threatened species and that these remarkable anthropoid apes which are subjected to so much persecution will be able to live here, free from any form of disturbance.

INDONESIA

From Sarawak we went on to Indonesia. Hans Klein, the Cultural Attaché of the German Embassy in Djakarta, like Harold J. Coolidge in Washington, had procured entry for us into those areas which for a long time appeared to be unattainable. After negotiations with Indonesian police, military and conservation authorities which took up a lot of time, we were finally able to proceed on the long journey eastwards through the chain of the Sunda Islands. Armed with a written 'open-sesame' from the Commander-in-Chief of the Army we started out on our expedition: by air, motor car and boat we moved from island to island, making gradual progress through east Java, Bali and Lombok to Sumbawa. From there on, the forestry authorities gave us as much help as they possibly could. Fuel and transport, such as we pampered Europeans know it, were extremely scarce in this country. Even when I reached Bima, the easternmost town in Sumbawa, it was some days before I could make the last crossing to the tiny island of Komodo, the home of the dragons. Unfortunately, Helmut Barth was forced to remain behind in Sumbawa as he was suffering from an attack of paratyphoid.

It was fifteen days after our departure from Djakarta that I was able to make the final stage of this long and complicated journey through the islands. Mr Abdul Kahir, the Governor of East Sumbawa, was kind enough to put his boat at our disposal for this sea voyage. His was the only small boat in this little town which was in working order. On board, apart from the Governor and his personal staff, there were six soldiers in full field kit with machine-guns and rifles, three armed policemen in uniform and a member of the secret police. I learnt to my astonishment that they were all in the party for my

personal protection, including an interpreter and a forestry assistant assigned to me by the forestry authorities; there were 26 persons in all. The small boat that set out for the island of the *boja daras* or Komodo dragons was swarming with people. The voyage took two days and passed without incident.

When we arrived on Komodo none of my retinue gave a thought either to myself or to my project. The first three days were spent in festivities which consisted of much feasting and drinking. For the few wretchedly poor people who lived on this small and god-forsaken island our presence was a most unusual event. It was only when the festivities were completed that I was able to break away and proceed with the search for the large lizards, which after all was the reason why I had come to one of the most remote islands in the world.

The thought of attempting to film with all these people hanging around my neck was appalling. I managed to persuade the six war-like soldiers that they would do far better to remain behind instead of setting out with me into the unknown to look for the dangerous dragons. According to the custom of the country I had to feed them; however, the official travel rations which I had obtained in Sumbawa were scarcely sufficient for myself alone. I was not so successful with the three uniformed policemen who insisted on carrying out their orders to accompany me to the place which I chose as the most suitable for a base camp. It lay in a small bay, about three miles from the little village of Komodo. However, when night came and the supply of food was inadequate, they were persuaded to return to the others.

This left the detective, the interpreter, the forestry assistant and a villager who knew the locality. The latter was an essential companion if I was to find the dragons. The detective was extremely stubborn and it was not easy to deflect him from his duty. On the second morning I explained to him through the interpreter that the valuable boxes of film and equipment ought not to be left unprotected in the camp and that he was precisely the right man for this job. By this strategy I managed to avoid taking him with me during the actual filming when he would only have got in the way.

After we had gone about 2½ miles inland on our first reconnaissance, a dragon crossed our path in a dried-out river bed. It was not long before we noticed a wild pig snuffling and munching round a dead Timor deer. The carcass was already starting to decompose, spreading the smell which the dragons like so much and which attracts them from great distances. I agreed with my guide that we should make an attempt to film at this spot. A small hide was quickly erected about ten yards away from the dead deer. The guide and the interpreter were sent back with instructions to return in the evening.

After waiting for two hours a Komodo dragon came straight down the dry river bed and approached the carcass. After some licking it began to feed without delay. It was somewhat larger than the first one we had seen. I estimated its length at about six feet. When it had eaten enough, it disappeared with its belly full and the wild pig approached again without delay. It had been waiting all the time in the bush for this moment. But it was not left in peace for long. Another dragon, a bit larger than the first two, arrived on the scene. Its arrival was sufficient to drive off the pig again. Soon after a fourth dragon appeared and then a fifth. A greedy munching began.

I was able to film these giant lizards tearing and eating their food without difficulty and I took no

particular precautions. They were neither shy nor aggressive, although they saw me manipulating my equipment behind the inadequate hide. Apparently hunger made them abandon all caution. Evidently they were unfamiliar with humans. None of the inhabitants of Komodo ventured into the bush; the local people were frightened of these large lizards and never went to the places where they lived. When a particularly inquisitive dragon crept up within reach of us, my forestry assistant made off with alacrity. But the reptile only licked my battery boxes and looked at me in astonishment; I explained to him that there was nothing to eat here and he moved off again. When the sun had set on this first day's filming we hung the evil-smelling remains of the deer high up in a tree so that it should not be completely devoured overnight.

The second and third days passed with just as much incident. I counted fifteen Komodo dragons as they arrived, fed and went off again at varying intervals of time. One tore an ear off the carcass, another tugged at the flank. One of them pulled at a leg and another hung on to the exposed neck. Once they had seized any part of the carcass with their teeth they did not let go again. With powerful jerks they tore large pieces of flesh and skin off the bones and swallowed them whole. They constantly licked their huge mouths and gazed around into space for a long time before beginning to feed again. They did not go away until their bellies were full to bursting point.

Fifteen Komodo dragons came and went, tore and munched, without showing any sign of aggression towards each other. The largest of them was about ten feet long. I was able to compare its length with that of the deer carcass; Timor deer are only a little smaller than European red deer. At the end of the third day only the ribs and skull with the antlers remained. The *boja daras* had done a good job.

The results of my visit to the island of dragons were some hundreds of feet of film, numerous photographs and impressive tape recordings of this unusual feast. It is just as well that we film people are not yet in a position to record smell in addition to sound and vision.

The return journey to Djakarta went more quickly. At Sumbawa I joined up again with Helmut Barth. Dr Poech, an extremely helpful Austrian doctor who was doing a period of service in Sumbawa had managed to cure him. Full of anticipation we set out on the next stage of the journey through south-east Asia.

Udjung Kulon National Park lies at the extreme south-western tip of Java. The last Javan rhinoceroses, the rarest large mammals in the world, live here. They are found nowhere else. Some experts estimate the population at forty individuals, others at twenty-five. I personally believe that there are still fewer.

For a long time it seemed impossible to get to Udjung Kulon. Scarcely any of the Indonesian conservationists at present stationed in Djakarta and Bogor had ever been there, and no one could tell me for certain how to reach Udjung Kulon. Many valuable days were spent in trying to work out a route with suitable means of transport and in searching for anyone who could give me any kind of detailed information about the area. I then received a useful hint from a naval officer who suggested that I should try to get there on a naval ship as naval exercises were going on all the time in Indonesian waters. After long discussions, visits to naval headquarters and other high authorities, I actually

obtained permission for an oceanographic research vessel to take me into this mysterious area, which few people, even in Djakarta, appeared to know. The whole undertaking took on increasingly the character of a journey into the unknown.

At last everything was ready. The trip in the *Yahalindi* took an afternoon and one night. We sailed through the Sunda Strait, past the volcanic island of Krakatoa and then towards the east. I had already sailed past here once before, in spring 1959, when I set out on my big film project in Australia and New Guinea. At that time Udjung Kulon was already included in the list of film projects and as we sailed past, I had made a careful examination through binoculars of this tongue of land stretching far out into the sea, with rain-forest reaching right down to the water's edge. Now it looked as though this important part of my filming schedule would be achieved. I still scarcely dared to believe it.

Early in the morning, round about six o'clock, the ship dropped anchor in the bay at the mouth of the Tjigenter River which flows out from the reserve area and enters the sea here. We were taken ashore in a small dinghy and without more ado abandoned in the wilderness with the sole information that this was the reserve area and we would be picked up in exactly two weeks at the same place. Thus I finally reached Udjong Kulon, the most important National Park in the whole of south-east Asia.

Udjong Kulon National Park is a wildlife reserve that has hitherto been visited by very few white men. It was established by the Dutch when these islands of the East Indies were still a Netherlands possession. It was the Dutch who had the foresight to allot this remote area to the Javan rhinoceros, which had already become a rare species. We are indebted to the Dutch for the fact that these animals still survive at all.

Udjong Kulon is unsuitable for any kind of agricultural use. It is covered with dense tropical rain-forest, interspersed with swamps and a few small rivers whose waters flood the forest when in spate. The few rhinoceroses live in this environment; it is the kind of habitat they require because they are forest animals in contrast to the African rhinos which live in bush country and on plains. How much longer will they be able to continue to wander through the morass, leading a secluded existence? I fear that it will not be for very long unless more effective measures for their protection are taken than those now in operation at Udjong Kulon.

In my opinion the present management of this wildlife reserve is completely inadequate. It is only occasionally that a ranger comes from a distance to visit it; there is no permanent watching station or resident ranger. The few installations previously built by the Dutch have fallen to bits, as has everything else which was once provided by man for the protection of the animals in this area. Guarded by the sea on three sides and only connected to the island of Java on the east side by an impenetrable swamp, Udjong Kulon is well protected by nature. But as there is no supervision of any kind it is wide open to poachers. It is quite easy for them to land from the sea and disappear again without being observed. Although the dense forest presents plenty of difficulties, these catlike poachers will continue to find the tracks made by the rhinos which they find so desirable. We shall never be able to establish how many forest rhinos have been killed by the snares and poisoned arrows of the Malayans since the

departure of the Dutch. The high price paid for the horn attracts them just as irresistibly as all poachers in other countries where rhinos still survive. The protection laws exist only on paper and the people who should see that they are enforced are well away from the scene of action. They sit in Djakarta and Bogor and do not even know how to get to the reserve. So the slaughter of these rare animals continues unchecked.

We found an old dilapidated watch-tower in this fabulously beautiful wilderness of rain-forest and made our quarters there. It stood on the edge of an artificially created clearing, which had become practically overgrown again. Behind it the green wall of forest rose implacably, secretive in its impenetrable darkness. An enchanting tropical world extended all around; in our wildest dreams we could not have imagined a lovelier place. There was not another human being for miles and miles, communications with the outside world did not exist and there was not the slightest sign of civilisation anywhere. This was nature completely untouched. The innumerable voices of the rain-forest are never hushed by day or night and the abundant vegetation bears witness to the inexhaustibility of life. Udjong Kulon is an indescribable tropical paradise; nowhere else have I seen a more beautiful wilderness, not in the African rain-forest nor in the mountain jungle of New Guinea, not even on the Amazon nor in any other place near the equator.

For two weeks we made strenuous efforts to find the Javan rhinoceros. A native guide piloted us through jungle and swamp, leading us through pools and streams. We pressed on under a dense canopy of leaves through which scarcely a single ray of sunlight penetrated. We built hides in the trees from which we mounted watch for days and nights at a time. We glided in a canoe up and down narrow streams of crystal-clear water and when the boat could go no further, we waded through the boggy tributaries. Each day we found fresh tracks of the rhinos in the mud on the river banks and on the soft forest floor. We heard the heavy animals breaking through the undergrowth and we could smell the sweat on their bodies at very close quarters. But we never saw them.

Our spirits flagged as time went by and the day we were due to be fetched drew nearer and nearer. We filmed monkeys, wild peafowl, Timor deer, flying foxes, wild banteng and other inhabitants of this wildlife reserve. We also continued to film the beauty of the tropical vegetation and the efforts of our column to move forwards in this wonderful forest. It would not have surprised me if one day Adam and Eve had popped up in person in front of us.

We then decided to split up into different groups. While I went on watching alone at night, perched high in the trees, and paddled along the little river by day, Helmut Barth went by water to the far distant eastern side of the reserve, taking with him our guide and a young assistant. There, on the last afternoon, he finally succeeded in getting within camera range of the rhinoceroses which had eluded us for such a long time. His guide discovered an adult and a young one in the dense undergrowth; they were only a few yards away with the rain-forest all around but he had to risk everything on this last chance.

He stood in front of the rhino for ten minutes. The guide and the porter had already climbed up a tree as they were frightened of the huge animal. However, Helmut stood his ground fearlessly and

filmed as well as he could in the poor light. During this short period he was able to take about 200 feet of film of this rare animal. And at the end he even managed to get a colour photograph. This unique encounter with the Javan rhinoceros came to an abrupt end. They disappeared as fast as they had appeared, the rain-forest of Udjong Kulon swallowing them up as they moved on.

Naturally we are proud of these 200 feet of film; they are the first to be taken of this animal that is so close to extinction. The single colour photograph is also the first of its kind. These pictorial documents are of special value because the Javan rhinoceros cannot be seen in any zoo in the world; and if they are exterminated at Udjong Kulon this species will be lost for ever. One cannot help wondering who will be the next person to meet and photograph these animals in their last refuge.

A short time after this fortuitous meeting with the long sought rhino, a naval vessel appeared in the small bay; the light was just going. Two hours later we were on board. We sailed for Djakarta, and the rain-forest of Udjong Kulon sank slowly into the tropical night.

MALAYA

Soon afterwards we flew on to Malaya. Dr Elliot McClure was waiting for us at the airport in Kuala Lumpur and escorted us to the place where we were to do our filming: the mountain forests north of Kuala Lumpur. Some time earlier Elliot had erected a roomy platform in one of the very tall trees which he used for his own observation work. It was built a hundred and fifty feet above the ground in the fork of a branch and the tree extended above it for a further sixty feet. He believed that from this platform we would be able to film gibbons and siamangs without much difficulty. It certainly gave a wonderful view over the whole valley and the opposite mountain range. As far as the eye could see there was only forest, tall and luxuriant tropical forest.

I first heard the gibbons calling while we were lifting the heavy camera equipment up into position. The forest reverberated with their remarkably melodious voices. No other mammal has such a powerful and musical range at its disposal as the gibbon. In between we could hear the calls of the argus pheasants and of many other birds.

Within a week we had taken sufficient film of the wild monkeys. They were the brown and black white-handed gibbons which haunt the mountain forests around here and give a full-scale display of their climbing and acrobatic abilities. They swing through the branches like flying spirits, allowing themselves to fall deliberately, only to swing themselves up again, effortlessly and weightlessly. The black siamangs do not follow the gibbons. They hunt in small groups in the tops of the trees, passing through the 'walls' of rain-forest, now here now there, singing in a chorus which carries far and wide.

From the mountain forests near Kuala Lumpur we then drove over to the east coast of Malaya. According to Elliot, it was at this time of the year that the big leathery turtles lay their eggs near Trengganu on the sandy shores of the South China Sea. They only do this at night during high spring tides and I was advised by friends to take floodlights and batteries with me, although it was not easy to get hold of this auxiliary film equipment.

We arrived on the shore at Trengganu at noon with our various bits of film gear. There was plenty of time to get everything ready before midnight. In order to familiarize ourselves with the local conditions we undertook reconnaissance trips along the shore, each going in opposite directions. We soon came across the curious, large tracks which the leathery turtles had left in the sand the previous night. We saw where they had come out of the sea and had crawled up the sandy beach. The tracks were six feet wide and were more like the caterpillar tracks of a tractor than the spoor of an animal.

Then Helmut came rushing up and reported breathlessly that not far away a large leathery turtle was just starting to crawl out on land. Now? In the afternoon in broad daylight? I was speechless. We quickly set up the cameras and were able to film the whole process of egg-laying from beginning to end. And all this took place in daylight, a chance, as the experts in Kuala Lumpur later confirmed, which very seldom occurs. Normally the leathery turtle only comes ashore during the night to lay its eggs.

The excavation of the deep nest hole appeared to tax the strength of the reptile. It was, in fact, a considerable feat because the pit was so spacious that it would have accommodated a fair-sized table or washing machine. The animal took two hours digging out the sand. There were tears in its eyes, to which small clumps of sand were attached. The laying of the spherical eggs, each the size of a ping-pong ball, was accomplished with less obvious effort. Thrusting with a natural rhythm, about 80 to 100 eggs rolled into the pit. Then they were all carefully covered up and the tired turtle crept slowly back to the sea. The exertions on behalf of its offspring were at an end; it had taken five hours of hard work. As the exhausted animal disappeared again into the sea, the blood-red sun sank below the horizon and a warm golden glow spread over the surrounding landscape. My varied programme in south-east Asia had been full of interest but it could scarcely have ended with a more impressive scene.

The peaceful sunset along the shore of Trengganu was spoilt, however, by a disgraceful event. The numerous spherical eggs with soft parchment-like shells which our leathery turtle had hidden in the sand with so much circumspection and care, did not remain long in the place selected by the mother. As soon as we had finished our filming the eggs disappeared into a basket held in readiness by greedy men. One by one they were dug out by the dirty fingers of the egg collectors. Earlier on, we had almost come to blows with these heartless people when they had wanted to remove the eggs while I was still filming them falling into the pit. They had only been prevented from collecting the eggs then by our direct threats.

For generations the turtles have been regarded by the local population as providers of eggs. They plunder the egg pits without any thought and thereby deprive the unsuspecting reptiles of their offspring. Turtle eggs have long been a much prized delicacy to the Malayans and Chinese here. Usually the eggs do not even reach the sand but, as they are laid, they fall straight into a container held ready by the collectors. Unfortunately once the animal has started to lay nothing disturbs it, although it is sensitive to disturbance before actually starting to lay its eggs. The greedy men are well aware of this and sit in their small huts, which have been built right along the beach at Trengganu, until the turtles

have started to lay. It is only along a stretch of about seven miles in this area that the leathery turtles still occur in large numbers. On other sea coasts they have virtually disappeared, although formerly they came ashore to lay on all the beaches from Ceylon to Hong Kong.

Leathery turtles are the largest members of the tortoise and turtle group which contains many species. They are even larger than the terrestrial giant tortoises. When fully grown and sexually mature they weigh 1000 to 1200 pounds. Even in this locality, however, their numbers have been much reduced by the removal of the eggs. Only the egg-laying females come ashore to the beach. They can be counted and an estimate made of their total numbers, but as the males and juveniles never come out on land their numbers cannot be estimated even approximately.

No authority makes any serious effort to stop the taking of the eggs and the men do not fear any punishment for such acts of robbery. For them the collection of turtle eggs is such a natural activity that there would be a popular revolt if one attempted to stop them by force. But if, in spite of all opposition, a halt is not called to this egg-robbing and strenuous protective measures are not enforced very soon, then this giant among the marine turtles will be one of the next animals to disappear from the face of the earth.

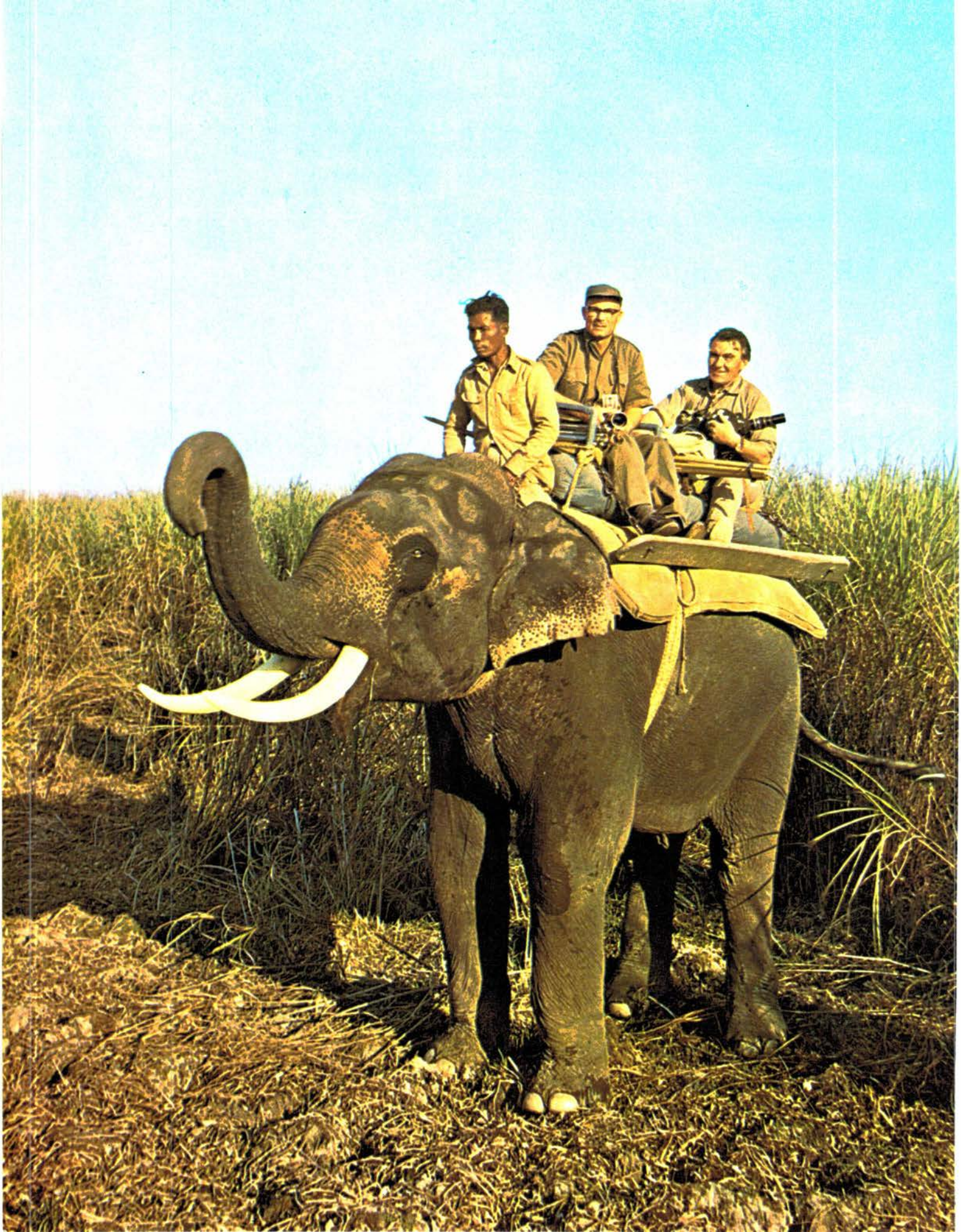
We tried our luck at yet one other place in Malaya. On the Slim River we took turns in stalking the Sumatran rhinoceros at various times. This species is almost as rare as the Javan rhinoceros in Udjung Kulon.

The Sumatran rhinoceros has two horns. In this it resembles the two African species, the black and the white rhinoceros. The front one of its two horns is however not very pronounced and is really nothing more than a knob on the nose. The Sumatran rhinoceros occurs in some areas of Malaya, in neighbouring Burma, in Thailand and Sumatra. It is possible that a few specimens still survive in other countries of south-east Asia, but it is nowhere common. The total population is reckoned to be not more than a few dozen. It is therefore one of the most threatened of all wild animals.

Whereas the two African species of rhinoceros are plains dwellers which avoid forests, the Sumatran rhino lives for preference in mountains and swampy forests. It is the smallest of the five living species and looks relatively slender and long-legged. Also, whereas the white and the black rhinoceros are almost completely hairless, the Sumatran rhino has bristly hairs on the belly, nape and ears.

On the second day of my stay on the Slim River I found quite fresh tracks which had not been there the day before. By creeping through the undergrowth I found the footprints just as we had seen them in Udjung Kulon. I saw the Malayan tapir and heard the Malayan wild elephant breaking through the forest just ahead of me. On one occasion Helmut fancied he had a Sumatran rhino close in front of him at a water-hole; he had his camera all ready but he never got a sight of the animal. In the swampy forest we were constantly devoured by leeches and mosquitoes, forest ticks burrowed into our skin, we suffered hundreds of midge bites, and rainstorms drenched us every day. Our stay on the Slim River became unbearable. We had not succeeded in filming the Sumatran rhinoceros and we gave up the search for it in bitter disappointment.

Today the area of western Malaysia has been pushed into the political arena. Indonesian partisans are infiltrating in increasing numbers into the region where the Sumatran rhinoceros lives. They slink about in this habitat and Malayan soldiers try to capture these guerilla fighters. As in parts of Indo-China there is shooting, burning, plundering and poaching. These military operations constitute a very serious threat to an animal that is already very rare. All in all, the chances of survival of the Sumatran rhinos, the smallest species of rhinoceros in the world, seem rather slight.



While we were riding on our domesticated elephants, we met some wild ones which stared inquisitively at their tame cousins, trumpted several times and then moved off. In India, elephants like rhinos are relatively safe from persecution only in protected areas.

Left. In the Kaziranga Reserve in Assam we moved through a thick screen of grass, growing 18 to 24 feet high, on the back of a well-trained and experienced riding elephant. We were looking for the great Indian rhinoceros.

There are still five species of rhinoceros living in the world today: two species of African, the Sumatran, the Javan and the great Indian rhinoceros (illustrated here). In contrast to both African species and to the Sumatran rhinoceros, the Javan and Indian rhinos have only one horn. Outside the reserve areas this one-horned species was exterminated long ago.

The powerful Indian rhinoceros is covered with very thick skin which looks like armour plating. It has a truly prehistoric appearance. Like all the rhinoceroses the Indian rhino is completely vegetarian, and as with all pachyderms in the tropics, it likes to bathe frequently or at least to wallow in the mud.

Like the other species of rhinoceros, the Javan rhinoceros is continually threatened by poachers. They kill it wantonly in order to get the rhino horn, which is still much in demand as an aphrodisiac throughout Asia and particularly in China. In the female the horn is very small or sometimes absent, as is clearly shown in this photograph. But the horn of aged males may be up to 6 inches long.