



A RHINO AND HER CALF

It is believed that this is the only photograph ever secured of the one-horned Indian rhinoceros (*Rhinoceros unicornis*) in a wild state. These two animals lived in a patch of thorn and bush cover near the camp established by the Faunthorpe-Vernay Expedition. They might easily have been shot, but only good specimens were desired and the horn of this female was poorly developed and her calf too small. Because the members of the expedition saw her again and again during their sojourn, they came to feel for her a familiarity that was untainted by contempt. They named her Lizzie



The leaders of the expedition, Colonel Faunthorpe on the right and Mr. Vernay on the left

Jungle Life in India, Burma, and Nepal

SOME NOTES ON THE FAUNTHORPE-VERNAY EXPEDITION OF 1923

By LIEUTENANT COLONEL J. C. FAUNTHORPE

Late Commissioner of Lucknow, India

THE PICTURES ACCOMPANYING THIS ARTICLE WERE TAKEN BY MR. G. M. DYOTT, THE PHOTOGRAPHER AND CINEMATOGRAPHER OF THE EXPEDITION

THE fauna of India have until now not been well represented in the American Museum of Natural History, and it was to remedy this deficiency that the expedition to India was undertaken by Mr. Arthur S. Vernay and myself in 1923. The specimens collected will be shown in the Asiatic hall, which is one of the additions to the Museum now being built.

A matter to which Prof. Henry Fairfield Osborn is devoting much attention is the deplorable rapidity with which the wild animal life of the world is being destroyed, and recent articles of his entitled, "Can We Save the Mammals?"¹ and "The Close of the Age of Mammals"² have attracted widespread attention. The almost com-

plete disappearance of game animals in the United States is, of course, notorious, but the same thing is going on practically all over the world.

Sir H. H. Johnston, in his introduction to Schillings' book, *With Flashlight and Rifle in Africa*, draws attention to the "ravages of European and American sportsmen, which are still one of the greatest blots on our twentieth century civilization." He adds, "All the wrongdoing does not rest with the white man. The Negro or the Negroid, armed with the white man's weapons, is carrying on an even more senseless work of devastation," and "Public opinion should strengthen as far as possible the wise action of governments in protecting the world's fauna all the world over, wherever the creatures thus protected do not come into dangerous competition with the welfare of human beings. Moreover, it

¹"Can We Save the Mammals?" by Henry Fairfield Osborn and Harold Elmer Anthony. *NATURAL HISTORY*, Vol. XXII, Number 5, pp. 388-405.

²"The Close of the Age of Mammals," by Henry Fairfield Osborn and Harold Elmer Anthony. *Journal of Mammalogy*, November, 1922.

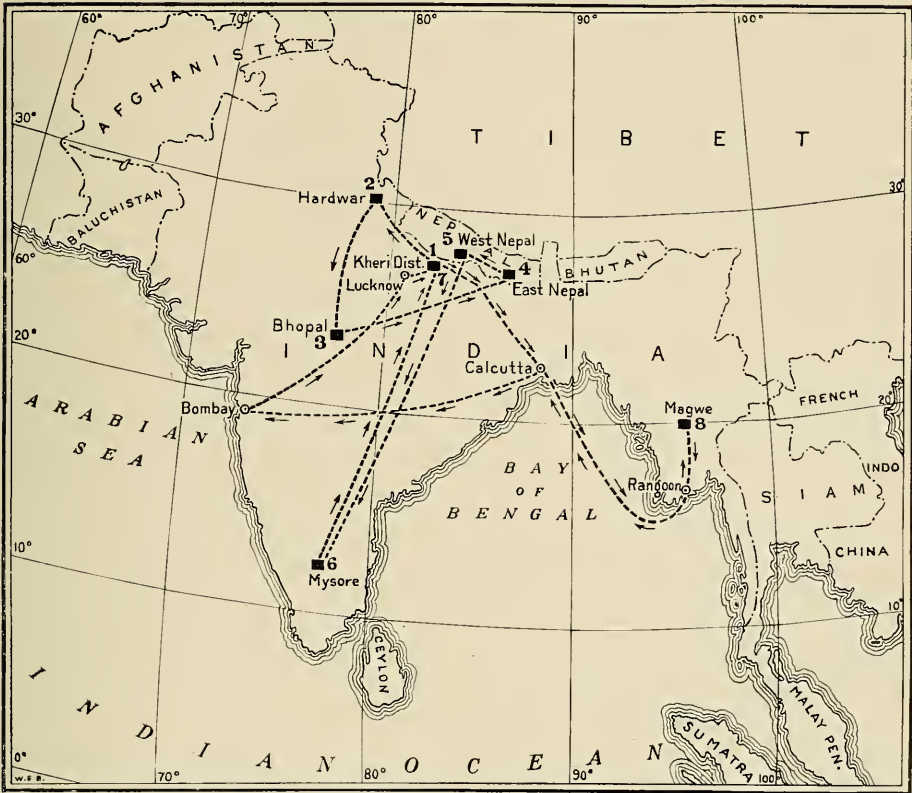
is for the welfare of humanity in general that this plea is entered. The world will become very uninteresting if man and his few domestic animals, together with the rat, mouse and sparrow, are its only inhabitants amongst the land vertebrates. Man's interests must come first, but those very interests demand food for the intellect." Schillings himself writes: "Already a great number of the inmates of our zoological museums have been struck out of the book of living things, though they existed in millions in the time of our fathers. The work of destruction entered upon by civilized man goes on with terrible swiftness. . . . To-day there is still time in the case of many species. In a few years it will be too late."

And the extermination of wild animals is not confined to Africa, nor to the United States, where it is already practically complete. Particularly since the introduction of the "Reformed" government in India, which has resulted in a generally slackened enforcement of existing laws and rules (the Arms Act and Forest Act among others), the diminution of game, as I can state from my own personal observation, has been rapid. There are many more guns in the villages than formerly and I know many districts where game animals and birds, abundant not many years ago, have now practically disappeared. Within a measurable space of time there will be no game in India, except in preserves maintained by native chiefs and in the more inaccessible of the government forest reserves. And even in the government forests, the depredations of the Indian poacher are becoming continually more extended and at the same time are less resisted by the Forest staff.

It was the consideration of these facts which led the American Museum authorities to plan an Asiatic collection and to welcome the offer made by two Englishmen to provide the Asiatic wing, adjoining the Roosevelt hall, with a representative collection of the animals of the plains of India and Burma.

The idea of the Indian collection began as far back as 1918 when, owing to a disagreement with my superiors as to the proper administration of the branch of the Intelligence Department of which I was in charge, I left the Army in Flanders and went to New York on the British War Mission. One of my fellow passengers on the good old "Baltic" was Mr. Arthur S. Vernay, an Englishman who has been in business in New York for the last twenty years or more. Another was Mr. William Beebe of the New York Zoological Society, author of the well-known *Monograph of the Pheasants*. Through him I met Prof. Henry Fairfield Osborn, who showed me over the American Museum, including the taxidermy rooms. I was much impressed by the perfect system of taxidermy in use and by the artistic manner in which the animals were shown in groups in a reproduction of their natural surroundings, as well as being struck by the fact that the fauna of India were represented by very few specimens, and those of a very poor quality.

Later, on my return to India after a period of duty with the British Embassy at Washington, I wrote to Professor Osborn and offered to make a collection of Indian animals, if he would provide me with a capable taxidermist. Vernay came to India on a shooting trip shortly after this, and we discussed the matter, with the result that when he returned to America, it



Route of the Faunthorpe-Vernay Expedition to India, Burma, and Nepal, with the hunting areas indicated in solid black and designated by numbers showing the order in which they were visited

was arranged that a collection should be made. The Museum promised us a taxidermist, and Vernay, who not only has ideas but the energy and the means to carry them out, undertook to finance the expedition.

It was obvious that photographs and cinematograph films would add greatly to the value of the collection, especially as the American Museum makes a feature of lectures, illustrated by films. The Museum's educational activities with the schools reach yearly, I believe, about a million and a half people. The services of Mr. G. M. Dyott, F.R.G.S., as photographer and cinematographer to the expedition were fortunately secured. Dyott has done a great deal of exploration and photographic work

in the wilder parts of South America, and during the War was a commander in the Naval Flying Corps and specialized in aërial photography.

Dyott had his first introduction to the Indian jungle when we were collecting specimens of swamp deer. Wearing a pair of rubber thigh boots (surplus government stores), he took station, with his movie camera, in about two feet of water to await the arrival of the deer, which we undertook to drive in his direction. Vernay having roused a fine stag, the line went off in a different direction, and the unfortunate photographer did not get his pictures until about three hours later. Although the leeches are rather active in those swamps, he made no complaint.

He was always ready "to take a chance on anything" in order to secure a good film. On several occasions he was posted on the ground when tigers were being beaten out of the thick growth, and twice, when in this precarious position, he secured an excellent film of a tiger galloping across the open, as well as "close ups" of elephant, rhinoceros, tiger, and many other animals.

I had arranged to have a shooting party in the Rancee of Khairigarh's jungles in the Kheri District at Christmas, and was fortunately able to secure Jonas, a taxidermist sent by the American Museum, in time for this. I was successful in obtaining fine specimens of that beautiful and rare animal, the swamp deer, as well as some other mammals and certain rare birds. It was a good omen for the success of the expedition that one of the two stags I shot carried very massive antlers, having twelve points and measuring 39½ inches, which is, I believe, a record for the province. It is certainly by far the best head I have ever seen.

Vernay and Dyott arrived early in January, and assisted by Turner, the Forest Officer of Kheri, and by Kunwar Dillipat Shah of Khairigarh, completed the swamp deer group, and secured some other specimens as well as good pictures.

The chief difficulty which confronted us was how to obtain groups of the maximum number of species in the short time available, for, owing to the extreme heat and the rainy season, shooting in the plains of India must practically cease by the end of May, and in Burma by the end of June. We had only about five and a half months in which to do our work.

The India Office and the government of India had already given their

approval to the expedition, and the local governments and native chiefs provided generous help. The India Office persuaded the Indian government to place me on special duty (without pay) to assist the expedition for a period of three months.

After completing the swamp deer and the nilgai groups, Vernay made a special expedition into the lower range of the Himalayas on the Ganges to shoot a big tusker elephant which the year before had chased the Forest Officer and would undoubtedly have killed him had the officer not succeeded in scrambling across a nullah, which the elephant could not cross. It is curious, by the way, how small a ditch will prove impassable to an elephant. In the old days, in some of the forest divisions, deep and square-cut but surprisingly narrow, ditches used to be dug around the forest bungalows to keep the elephants out. I don't think an elephant can get over a six-foot ditch; one of seven feet will certainly defeat him.

This big tusker was, no doubt, somewhere in the neighborhood, but could not be located, which is perhaps not surprising considering the great density of the Sal Forest up north, compared with the forests in the Billigirangan Hills in southern India, in which we got our elephants later.

The next place visited was Bhopal, where Her Highness the Begum and her ministers were most helpful, and Vernay was fortunate enough to secure a sambar stag with a massive and symmetrical head of 41-inches, and also specimens of the Indian antelope and gazelle. A 41-inch sambar is a fine trophy in these days.

I fear that game has become very scarce in Bhopal, as His Excellency the Viceroy, who visited that state

about the same time, and no doubt had the pick of the jungles reserved for him, did not succeed in securing a sambur.

While Vernay was hunting in Bhopal and elsewhere, I was continuing to do a bit of useful staff work (in addition to my ordinary duties of misgoverning the Lucknow Division) by arranging for future trips. The chief point was to get the specimens in the shortest time. This depended mainly on selecting the best locality and season for obtaining each species. Colonel O'Connor, the British Envoy to Nepal, had offered to help and very kindly asked Vernay and Dyott to join his tiger shoot in eastern Nepal, where Vernay bagged a couple of tigers and Dyott got some good films. The permission of the government of Madras was obtained to shoot one tusker and one female elephant, and the bison required for the group, in Madras Government Forest, and the Maharajah of Mysore allowed us one tusker elephant in his territory.

Our object was to obtain a group of each animal. For instance, of the bison—one bull, one cow, and one calf; and, in addition to this material for a group, one skeleton of an adult bull. The skeleton series is of great interest for anyone studying the evolution of types. In the case of elephant and rhino we omitted the calf; in the case of the smaller deer and antelope, we added an additional male or female or both.

THE RHINOCEROS HUNT

The animal of which we were most anxious to secure good specimens was the great Indian one-horned rhinoceros, now extremely rare in British territory, and decreasing rapidly in Nepal. In the Morang District of the Nepal Tarai this rhinoceros was plentiful not many years ago, but now not a

single specimen is, I believe, to be found within two hundred miles. As regards British territory, only a few still survive in Assam.

That enlightened ruler, my friend His Highness Maharajah Sir Chandra Shumshere Jung of Nepal, fully appreciated the importance of the expedition. He first arranged that we should visit the tract of country where His Royal Highness the Prince of Wales and staff had recently shot tiger and rhino, but later proposed that we should enter the more inaccessible Gandak Valley, where there was a probability of our obtaining better specimens in a shorter space of time, once we got on the ground. But getting on the ground was not so easy. This interesting tract of country is cut off from the plains by ranges of broken hills, through which the Gandak River cuts a tortuous way to the plains, flanked in its course by a series of precipitous gorges. The valley is inhabited almost entirely by Tharus of a very fine type.

The only ways of entering the valley are by boat, towed up a swift-running stream, which takes two days, or on foot over the hills, where there is no road. In many places the trail resembles the dry bed of a mountain stream more than anything else. We took fifteen hours to do the first march of eleven miles. We came out by boat in five hours.

The Maharajah provided us with coolies and six elephants for transport, but although I have for the last fifteen years been accustomed to riding elephants over all sorts of country, the going was so bad that we did practically the whole march on foot, picking up on the way a very fine specimen of the Indian sloth bear, which luckily fell to a single shot from a .275 Rigby



Typical rhino country in the Gandak Valley of Nepal.—The female obtained by the Faunthorpe-Vernay Expedition was shot a short distance from the tree with broadly forked branches that is conspicuous on the right of the photograph



Rhino tracks deeply impressed in the soft soil

Mauser, the only weapon we had actually with us when we sighted the bear.

The Nepalese government keeps six or eight of its elephants in the Gandak Valley, near where we camped on the second day after entering Nepal, and some of the mahouts have the reputation of being expert rhinoceros trackers. We first started beating for rhino with elephants and drove out a female rhino with a small calf that lived in some patches of thorn and bush cover near the camp, which was on the river bank. We refused to shoot them, as the calf was very small and the cow had a very short horn, and we wished to make certain of obtaining good specimens. The trackers expressed surprise and regret. With this lady rhino,

whom we met frequently and whom we called Lizzie, we became quite friendly, but I think she was glad when we left. Vernay on one occasion crawled up to her private mud bath and watched her at about four yards' range. Dyott with his movie camera sat over the mud bath for the next two afternoons, but Lizzie did not appear. She had a distinctly peevish expression when I last saw her.

The local trackers did not seem keen to show us big rhino, but a little heart-to-heart talk and the promise of good rewards to the trackers and also to the villagers induced the former to take us to a large solitary male rhino, that was located in a valley in the Sal Forest, containing heavy bush cover and several pools of water. This enormous



This rhinoceros, wounded by the first shot fired by Mr. Vernay, turned and charged him, but was dropped by his second bullet

slate-colored beast, apparently quite unconcerned at the presence of several men in the trees who were watching him, allowed us to approach on elephants to within about seventy yards, from which range both Vernay and I fired, with the result that after galloping about a hundred yards, the rhino pitched over dead. He was a big and very old male, whose horn had been splintered and worn down to about 8 inches by digging or fighting. This rhino was shot several miles from camp, and the taxidermist and his satellites had to spend the night by the carcass.

The trackers were bitterly reproached because we wanted horns of at least 12 inches, and it was decided that it would be more sportsman-like and also more effective to stalk the remaining specimens on foot rather than to shoot at them from somewhat unsteady elephants.

The next day, after a fruitless expedition under the guidance of the trackers, we were informed by the villagers on our return to camp that a rhino had been seen drinking in a pool on the other side of the river. The energetic Vernay immediately crossed in a boat. I sat down and ordered tea.

Shortly after arrived the Nepalese Munshi (the District Officer's assistant), who had gone out with the local Nepalese Lieutenant to shoot birds with my gun. He brought us the news that there was a big rhino wallowing in a pool not far from the river, about a mile down stream. The Munshi was breathing heavily from excitement and exertion. His account of how they came to see the rhinoceros was amusing. He said he saw what he took to be a black water bird in the pool and said to the Lieutenant, "Give me the gun and I will shoot that bird." To which the Lieutenant replied, "Brother, if

there is any bird shooting to be done, I will do it myself." They then approached the supposed bird under cover of the heavy jungle on the bank above the pool, only to find that it was the horn and ears of a rhino which lay soaking in the water.

I jumped into a boat and hustled down stream. It was rapidly becoming dark, and after a hurried scramble for about half a mile over most uncomfortable pebbles, I saw the rhino still in the water and managed to get up near him just as he was leaving the pool. This proved to be a fine male with a horn measuring $12\frac{1}{2}$ inches. He had evidently been fighting and had festering incised wounds on flank and in stomach.

On returning to camp I found that Vernay had accounted for the other rhino, also a very fine male, with a horn more than 12 inches in length. This animal after being wounded had tried to charge him but had been dropped in the grass on the river bank by another bullet from his .465 Holland. I was using a .400 Jeffery rifle.

The great Indian one-horned rhinoceros is, of course, the biggest rhinoceros in the world. His horn is smaller than are those of the African rhinoceroses, either the black or the white, but in height and bulk he far exceeds the African species. The males we shot measured well over seventeen hands at the withers. The one-horned rhino is a curious animal to look at. With its shields and warty protuberances it has a kind of prehistoric appearance.

It seems to be extraordinarily regular in its habits. In the evening or late in the afternoon the rhinos of the region where we hunted emerge from the heavy jungle and wallow in the numerous pools and backwaters near the

Gandak River. They spend the night in feeding and in the early morning are to be found at the edge of the heavy covers, into which they retire during the heat of the day.

We had now obtained our male rhinos, and the unfortunate taxidermist had his work cut out. We had brought down from Lucknow a good Indian skinner, named Pancham, a servant of my old friend, the Ranee of Khairigarh, but we were able to find only a very few Chamars (low-caste Hindus who skin dead cattle) in the valley to do the rough work. The villagers are almost entirely Tharus.

We still had to obtain a good specimen of a female rhinoceros, but it was necessary to wait a day or two in order to enable the taxidermist to deal with the skins of the males.

Stimulated by the rewards which we had paid for the rhinos, an intelligent headman of one of the villages, assisted by the Munshi, who, by the way, spoke a weird mixture of Nepalese, English, and Hindustani, had volunteered to locate some tigers.

THE TIGER HUNT

We went out after a tigress next day and beat for her in a patch of tree and bush jungle, along the edge of the Gandak River. I posted Vernay on the point and put Dyott, with his movie machine, in the broad nullah that divided this strip of cover from the heavy forest. I myself took up a position on the edge of this nullah, to one side of the patch. The tigress, curiously enough, was not in the patch at all but lying in a little thorn bush outside it, and Dyott, when he got off my elephant with his movie camera to go and stand in the nullah, must have passed within two or three yards of her.

She rose behind me when the beat

was nearly over, dashed across the nullah, and was knocked over by a lucky shot at about one hundred and fifty yards, but recovered herself and went on. Dyott was in time to secure a picture of her galloping up the bank. We put an end to her in the heavy forest not far from the bank. She had been practically crippled by the first bullet, which had hit her in the hind quarters. She was a beautiful heavy-coated animal measuring nine feet, and will be immortalized in the American Museum.

Another day we beat for a tigress farther north, also in a strip of heavy bush, thorn, and tree jungle, which narrowed down to a point to the south and was there separated by a broad nullah from the covers in which our friend Lizzie habitually lived. This tigress had come from the north and the trackers said it was impossible to beat her southward. On the other hand, there was no hope of obtaining a picture of her except by forcing her out to the south, for to the north the jungle broadened out continually and was impossibly thick with heavy thorn undergrowth. About fifty Tharus were enlisted for the purpose of beating and placed in batches between the six elephants with instructions to make a good deal of noise, while the Nepalese Lieutenant, armed with my gun, maintained an intermittent fire of shot cartridges. The tigress was forced out at the southern end of the jungle and galloped across the broad nullah, giving Dyott an opportunity of which he took full advantage, obtaining a beautiful motion picture of her dashing across the open, including the splashes of dust kicked up by bullets ineffectually fired at her. This tigress was now in the upper section of Lizzie's home, which we knew well.

RINGING THE TIGER

To ring the tiger (*Tigris tigris*) numerous elephants are employed in an encircling movement, one group going in a wide arc silently and in single file to the left and the other group in like manner to the right until the leaders of each of the two lines meet and the ring is complete. Then the elephants face inward, their riders begin to make a din, and the host of hunters converges upon the beleaguered animal. The circle becomes smaller and smaller. The tiger has secreted itself in the densest patch of jungle. The fateful moment has come. Two large tuskers are sent in to rout out the concealed beast. As they move cautiously toward the center of the circle, suddenly the tiger with a great whoof makes a bound for freedom. While the agitated elephants that form the circle hesitate whether to stand the charge or turn in flight, one of the four mounted gunners takes quick aim and fires, more often than not stopping the tiger in its tracks





THE PURPOSE ACHIEVED

After a tiger has been shot the rite known as *pija* is performed and every one gathers round to view the animal

BRINGING IN THE TIGER

Even in death the tiger is dreaded by many of the elephants that are used in hunting it and more than one elephant rebelled at having the dead enemy placed upon its back. The elephant in the picture stoically accepted the burden.

The Indian elephant is an exceptionally intelligent animal and invaluable when progress is to be made through the jungle. Even when full-grown trees stand in his way they are no obstacle to his advance, for he has been taught to bring his great bulk to bear against them and uproot them. Steep banks he climbs and descends with caution, testing the ground before taking action. Though his weight may equal that of thirty-five or forty men, he moves through swampy ground with comparative ease because of the fact that his foot contracts as soon as pressure is relaxed, enabling him to lift it out of a hole in the mire without suction resulting.



AN EXCEPTIONALLY FINE
TIGER

The power of this animal is still apparent even though it has been deposed from its rule in the jungle and has become a museum specimen.

In the tiger group that is to find place in the Asiatic hall of the American Museum, specimens obtained by the expedition will have their reincarnation. Two cubs are still required to complete the group as planned, but the tiger and tigress that are to be the center of interest are available, thanks to the marksmanship of the members of the expedition. The animals will probably be shown drinking at a stream in a jungle thicket, with the tall grass densely massed so as to form a background



Dyott was then posted with his movie camera on a fallen tree in the center of an open space to the south, while Vernay and I on elephants took one corner each. The tigress, came out first of all, in front of Dyott, but withdrew in horror when he started turning the handle. He secured, however, a brief picture.

She then tried each corner in turn and found both stopped; the final shock to her nerves came when, upon showing herself, she was immediately charged with violence by my elephant. With morale absolutely shattered she then made a bee line to the Gandak River and swam across this swift and broad stream. We did not grieve over her escape. We did not want her as a specimen, and she had given us a film probably unique in the history of cinematography.

RESUMPTION OF THE RHINOCEROS HUNT

Having now given the skinner two or three days of comparative rest—for a tiger is a mere trifle to cope with in the taxidermy line—we got two female rhinos marked down to the south of camp, about five or six miles away. The first one retreated into impenetrable thorn scrub, but after wading through a swamp, we found the second standing in a dense clump of low trees. She had a half-grown calf with her, which was wandering about making most extraordinary noises, resembling the squawking of some large bird. We could see the mother dimly through the saplings, and Vernay stalked her on foot and shot her through the neck, at a range of about twenty yards, killing her with one bullet. The neck shot is the most deadly for rhino, aim being taken between the deep neck creases, which are such a marked feature of this curious animal, about two-thirds of the

way up the neck. For this shot a soft-nosed bullet is best. The rhinoceros proved to be a fine specimen, but her horn was much worn down, measuring only about 8 inches. The taxidermist outfit spent another night out with this specimen, as in the darkness they could not return through the swamps. The Tharus built shelters of branches for them.

It was now March 14 and getting fairly warm and the skins were giving us some anxiety, as portions of the epidermis had begun to slip on one of them, but with a liberal application of a mixture of salt and alum this deterioration was arrested and, I believe, they arrived in New York in practically perfect condition.

We came out of Nepal by boat through most picturesque scenery. The river is frequently flanked by precipices and in places runs very swiftly through the gorges. Where the river bed widens, there are banks covered with crocodiles of both species, and some good films were obtained on the way down.

THE ELEPHANT HUNT

Our next trek was a long and weary one to the Billigirangan Hills, which lie partly in Mysore territory and partly in the Coimbatore District of the Madras Presidency. This is the country described by Sanderson in the well-known book¹ in which he tells of his life among wild animals while in charge of the government kheddah operations.

Our ground was more than seventy miles from the railway. It is a charming tract of country averaging about 4500 feet above sea level, with the higher hills running up to 6000 feet.

We were dependent here on the help of the coffee planters, especially Cap-

¹*Thirteen Years Among the Wild Beasts of India.*

tain Fremlin and Mr. Ralph Morris, who made all arrangements and provided us with skilled Sholaga trackers. We went up into the hills some seven miles from Morris' coffee estate, to a spot where he had built grass huts in a shola close to one of the many routes used by the herds of wild elephants. But the first tusker elephant was bagged before we went there. Two elephants had been for some time haunting Fremlin's coffee estate and the neighborhood. One was a muckna, or tuskless elephant, and the other a large tusker with one tusk only. It was decided to shoot the latter for the skeleton series in the American Museum, and he fell to Vernay's rifle on the day of our arrival. The Sholagas were pleased, for this elephant used to come and ravage their banana plantations. The lament, "Yes, we have no bananas" in Canarese (a most unmelodious language) was often heard in the land.

We regretted afterward that we had not shot the muckna instead for the skeleton, as he was a magnificent elephant,—I think the finest I have ever seen, either in the wild or in captivity. An elephant has as many points as a horse, and this huge muckna was not only perfectly shaped, but had a smooth and effortless action, reminding one of a really good race horse. It is extraordinary how noiselessly a huge beast like this can move through heavy forest and how invisible he is when standing motionless. When in movement he resembles a shadow and when at rest might well be mistaken for one of the big gray rocks which are abundant on the hillsides.

Warned by our difficulties with the rhino skins, we were taking no chances with the elephant hides. In addition to Jonas, the American taxidermist,

we had Pancham, the Ranee of Khairigarh's skinner, four expert Indian skimmers provided by Van Ingen, the taxidermist of Mysore, and twenty Madigas, low-caste men similar to the Chamars of Upper India, to do the rough work. We also had ropes and pulleys to enable us to turn the elephant's body over when necessary.

An elephant is skinned in three pieces; first the head and neck are stripped and then the body skin is taken off in two pieces by skinning down the backbone and along the center of the stomach. There still remains a good deal of work as the skin is of great thickness and has to be considerably pared down.

When on the way to the grass-hut camp at Hool Patchi Hulla we were lucky enough to fall in with a large herd of wild elephants, which contained no really big tusker (for these are generally found living solitary or semi-solitary lives) and obtained some wonderfully fine cinematograph pictures, including one of a tusker that came so close to the camera that a rifle had to be fired into the air to turn him off. This herd eventually left the shola in which they were temporarily staying and made off at a rapid pace down one of the beaten tracks which the elephants have made and regularly use in this neighborhood. These elephant tracks are, in fact, the only paths of any kind available in these jungles.

Our big tusker specimen was a stranger that arrived one day from some distance and was reported by one of the Sholagas as having taken up a position under a large and shady tree in a valley two or three miles from our camp. Making a very early start the next morning, we found him within a few hundred yards of this spot. Rain had fallen and the forest was open enough to



This tusker (*Elephas maximus*) was shot at a distance of not more than forty yards. He sank into a sitting posture and even in death, which was practically instantaneous, looked singularly lifelike

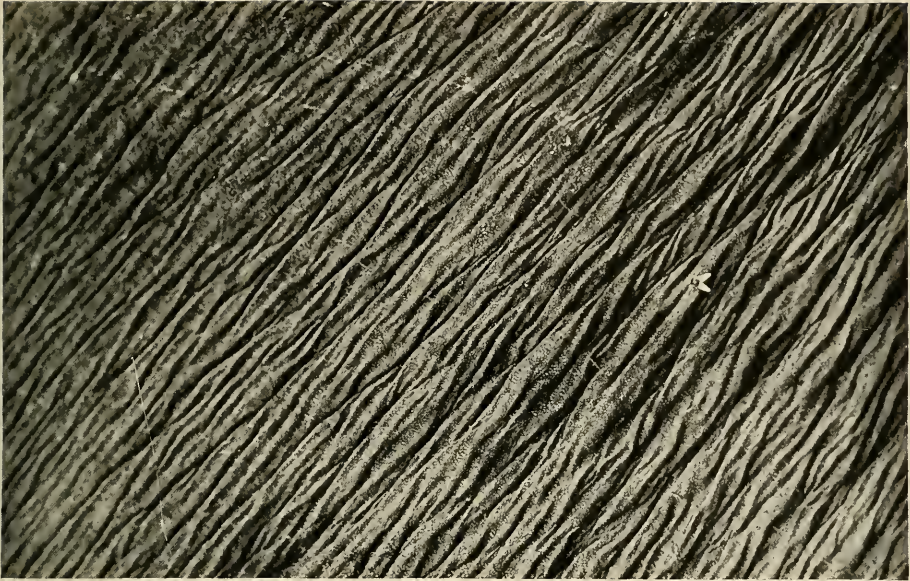
enable us to see from some distance this magnificent animal loafing slowly along on the hillside, plucking and eating a branch at intervals. The stalk was an easy one on the damp ground and we got up to within forty yards without any difficulty. We were slightly to his left rear. We had arranged that Vernay should take the brain shot. I supplemented this by one behind the shoulder, but Vernay's .465 bullet had reached its mark. This magnificent tusker slowly extended his forelegs and then slowly sat down, stone dead. He was supported in a sitting position by a stout tree and as he sat there dead, looked singularly lifelike.

I have had so much to do with tame elephants that I never wanted to shoot one, and we both regretted hav-

ing to destroy this splendid animal. We took comfort, however, from the thought that he will attain something near immortality when set up under the Akeley process of taxidermy in the American Museum, where he will be a worthy counterpart to the fine African tusker in the group prepared by Mr. Akeley. It was with even more regret that Vernay later shot a very fine female elephant. This completed our elephant group, namely, one tusker, and one female, and one tusker for the skeleton.

THE BISON HUNT

Owing to the grass having been very little burned, bison tracking was difficult, but on March 30, a big solitary bull was located in the lower



The elephant, when viewed at close range, looms so large that one is apt to have one's attention absorbed by his bulk and proportions to the neglect of the details of his anatomy. Yet a closer examination reveals many points of interest. In the upper picture is shown a section of the hide, rugose and tough in character. The head of the animal is not bald but, as indicated in the lower picture, is covered with a rather plentiful growth of upstanding hair

country. To approach him involved not only climbing an awful mountain, which almost invariably had to be negotiated before one could get anywhere, but also walking along the ridge with a similar descent at the other end. I shall never forget that mountain. Walking up and down hill never was one of my favorite recreations; Vernay seems to enjoy doing so.

The Sholaga trackers took some time picking up the bull's tracks and by the time they did so the sun was well up and we had to hurry, as the bull, they said, was making for some heavy cover where he would probably lie for the day. After crossing a couple of low ridges we came up with him on a steep hillside. The stalk down hill was a simple one and he was disposed of without difficulty, a fine old black solitary bull with horns measuring more than 20 inches in girth at the base, but considerably worn and splintered at the tips.

SLOTH BEAR, TIGER, AND LEOPARD

We still had to get another bison bull, a cow, and a calf. These Vernay and Morris undertook to shoot and, as it was now April, I was anxious to get up north in order to secure the required specimens of sloth bear, tiger, and leopard. There was also a better prospect of getting good cinematograph films, especially of deer, up north.

Dyott and I left the Billigirirangan Hills and made the long and wearisome journey up to Oudh. Here we were joined by Turner, the Forest Officer, and by Kunwar Dillipat Shah of Khairigarh. Turner undertook to arrange cinematograph pictures of deer in a small block of outlying forest, which had been carefully kept undisturbed. Dyott and he put in three or four days of strenuous work and ob-

tained some really good pictures of herds of chital, antelope, and nilgai.

In the meantime Dillipat and I were concentrating on getting a bear group, and at first were singularly unsuccessful, not because there were no bears about, but because we seemed to be unable to hit them. Very few elephants are steady to bear, and those we had were not. Dillipat is, as a matter of fact, an exceptionally good shot at a running animal, but both he and I missed several bears before I eventually hit a large male in good coat, worthy of being included in the bear group in the Museum. This bear, when hit, stood up and bit through a sapling before he fell dead. The female bear we had previously obtained in Nepal when after rhinoceros. Turner shot another very big bear, which, although it had a bad coat, was desired for the skeleton series.

The sloth bear is a very bad-tempered animal and will frequently attack human beings absolutely unprovoked, as will also the wild boar at times. The jungle people are much more afraid of the sloth bear than they are of the tiger and leopard.

One day we were beating ratoa grass patches (ratoa is a very dense grass somewhat resembling sugar cane) for bear when the elephants gave sign of the presence of tiger and I was fortunately able to shoot a fine male in good coat, measuring 9 feet 8 inches, which was immediately earmarked for the Museum tiger group. I also shot a very fine leopard close to camp one evening.

Quite by chance I found one morning a place which provided us with very beautiful pictures of deer and pig coming down to drink at a pretty little pond just inside the forest. I saw a herd of chital there and we found a

tree in which Dyott could sit with his movie camera and command the pond. He spent about three days in this tree, and the results are, I think, the most beautiful cinematograph pictures I have ever seen.

On April 19 we were joined by Vernay, who brought with him—as I had a shooting pass for tigers and certain other game in Nepal across the border—Fremlin and Morris, the coffee planters who had been so good to us in Mysore. They had shot tigers before but never had seen the method of beating them out with elephants, which is practically the only method employed in my part of the country. They secured three tigers.

Vernay had, as anticipated, completed the bison group in addition to shooting a big leopard, and had safely delivered the skins and skeletons of bison and elephants to Van Ingen of Mysore, who undertook to pack them for shipment to New York.

No one who has not seen the enormous size and weight of a big elephant's bones and hide can appreciate the labor involved in transporting them across country. We were about 5000 feet up in the hills and the whole collection had to be carried six miles by coolies and twenty miles by bullock carts. For the balance of the distance to the railway, motor lorries were fortunately obtained. It required a good deal of organization.

Curiously enough, although leopards are numerous in that neighborhood, we failed to obtain a female leopard and two cubs, which were wanted for the group, although we spent some time trying to get them. Conditions had been unusually wet at the time when the grass outside the fire-protected forest is usually burnt, and the leopard, extraordinarily skillful in con-

cealing itself and evading the line when being beaten with elephants, had us at a disadvantage.

Dyott had an interesting experience one day. One of my men who had been sent to a place eight miles away came in with the local forest guard and reported that early that morning they had seen a large tiger asleep by a pool of water near a patch of ratoa grass just inside the forest. It was a terribly hot day but it was decided that, if the men thought it worth their while to walk eight miles, it was up to us to go and investigate matters.

Four elephants—all that were available—were therefore sent off at once and Dyott and I followed in a light Overland car, which is a first-class conveyance over unmetalled roads and forest tracks.

The tiger, which, judging by the smell, had a kill in an extremely high condition, was duly aroused, ran out of the grass, and stood in the forest with his head and shoulders concealed by a



A chital faun.—This beautiful animal (*Axis axis*) retains the white markings in the adult stage and is popularly known as the spotted deer. The chital is inclined to be gregarious in habit and this little faun showed no timidity when handled by its captors



Typical tiger country on the Nepal border



One day a tiger, though wounded, succeeded in secreting itself in the high ratoa grass. Four elephants moving abreast were directed toward the area where the tiger was supposed to be. Colonel Faunthorpe, gun in readiness, was mounted on one of them. Suddenly the tiger jumped from its place of concealment right up on the elephant's head, but its claws had scarcely touched the thick hide when it dropped back dead, shot by the Colonel in a vital spot. The picture shows the elephants approaching the place where the tiger lies crouched, invisible in the high grass

tree. I was, therefore, compelled to shoot him through the center of the body instead of getting a deadly and crippling shot at the center of the shoulder, which is the most effective shot of all, as it not only brings the animal down with a broken shoulder but also kills him.

The wounded tiger dashed back into the grass, where we hunted for him for some time without his showing a sign. The men, who had had a long trek in great heat, were getting rather disheartened, especially when one of them found a bullet mark in a tree where the tiger had been standing when I fired.

Examination proved, however, that this was merely the base of the nickel-covered soft-nosed .400 bullet, which had clearly, therefore, gone through the tiger. The men, of course, did not believe this, but we went on beating up and down this extremely dense grass. I was, personally, confident that the tiger was either lying very close in it or was actually dead, and the grass was so thick and matted that had he been dead, he might easily have escaped notice. We were beating the grass for the third time, when there was a sudden snarl and a rush at the edge of the grass and the tiger jumped on the flank elephant and clawed her severely across the top of the trunk. The beast was now located. There happened to be a forked tree close by, into which Dyott climbed and lashed his movie camera.

The four elephants were formed in line and, with extreme reluctance, advanced on the place where the tiger had settled down. Each mahout was trying to keep a little bit behind the others. They were eventually persuaded to advance with a little more speed and the tiger, with another snarl, jumped right up on to my ele-

phant's head, but a snap-shot, as he landed, took him between the eyes, a very lucky fluke which saved old "Lachma" from a severe mauling. She received only one almost invisible puncture from a claw. Throughout she stood like a rock, otherwise I should no doubt have missed the tiger.



Not always is the tiger ringed or driven out of the jungle by the heavy approach of elephants. Another method of hunting is to place a platform, known as a *machan*, high up in the fork of a tree and from that point of vantage await the return of a tiger to his kill

While this was going on Dyott was turning the handle of the movie camera. We hoped for a wonderful film. It is one of the greatest disappointments of my life that, owing to the height of the grass, the tiger does not show in the film when on the elephant's head, though one can clearly see that something has charged the elephant and has been shot.



A common Indian squirrel (*Funambulus*)

CONCLUSION OF THE SEASON

The expedition concluded its work with a visit to Burma, where the Governor, my old friend Sir Harcourt Butler, gave us every possible assistance.

We wanted groups of tsine, an animal akin to the Indian bison, and of



The bamboo rat (*Rhizomys*) of Burma lives in holes in the ground under bamboo clumps

the thamin, or brow-antlered deer, and succeeded in getting both in the Magwe District. We also obtained a group of the barking deer and added several interesting specimens to our collection of the smaller mammals, birds, and reptiles. We did not succeed in finding a hamadryad, but secured several specimens of that beautiful but dangerous snake, the Russell's viper.

It took a lot of work on foot to get the tsine. In fact, I think this animal is the most difficult to stalk that I have ever met. He is very active and when grazing and wandering about, appears to move much faster than the bison, and when he has settled down for the day, is so wary that it is almost impossible to approach him. Hunting the tsine was really hard work, and it was infernally hot.

Our work for the season was now complete. The collection totals about 450 specimens, of which 129 are mammals. We have also some 26,000 feet of cinematograph film, including many animal pictures which I believe to be absolutely unique. Nor was the cinematograph work confined to shikar subjects. We took a very large number of pictures illustrating native life, which, when shown in America, will lead to a better comprehension of the true condition of India and Burma. The movie camera used was an "Akeley," which, because of its simple and rapid elevating and traversing mechanism, is by far the best for this kind of work.

We obtained groups of all the larger animals of the plains of India, with the exception of the Indian buffalo and the Indian lion, and we hope to secure these this year.

The expedition is not over. Vernay is now going from Moulmein on the coast of Burma across the Ta-Ok

Plateau, which lies partly in Burmese territory and partly in Siam, to the Meping River and thence to Bangkok, and hopes to obtain some valuable specimens. The Ta-Ok Plateau is very little known and has never been properly explored from a natural history

As for the collection made in India, Burma, and Nepal last year, complete groups were obtained in nearly all cases and the collection as it stands is probably unique for this reason.

The elephant, bison, and rhino specimens are exceptionally fine ones and



The blackbuck (*Antelope cervicapra*) is one of the most beautiful of the Indian antelopes. The popular name does not apply to the young males. These are tolerated by the lord of the herd until they begin to turn black, when he forces them out of the family circle

point of view. It is believed to be particularly rich in birds, and an ornithologist, obtained from the British Museum, is accompanying the expedition. I, myself, shall probably visit India to complete the Indian collection this year and it is possible that both Vernay and I may also visit French Indo China.

both the tiger and tigress are unusually good specimens, with good coats. Among the deer, we have several specimens which approach the record in horn measurement; for instance, a 39½-inch swamp deer and a 38-inch spotted deer.

In addition to the mammal groups, numerous specimens of reptiles and

birds were collected—some of the latter in particular being of rare species. We made particular efforts to obtain the pink-headed duck but the nearest we came to this rare bird was hearing of one which had been eaten by a planter two years before. Renewed efforts are being made this season to obtain it and, if it is not extinct, I am not without hope

that a specimen may yet be secured.

It only remains to add that, with the exception of three or four tigers and here and there a specimen required by Mr. Vernay for his private collection, we shot nothing which did not go to the American Museum. And we are proud to be able to say that not a single animal got away wounded.



Russell's viper (*Vipera russellii*), a beautiful but dangerous snake, of which the expedition secured several specimens