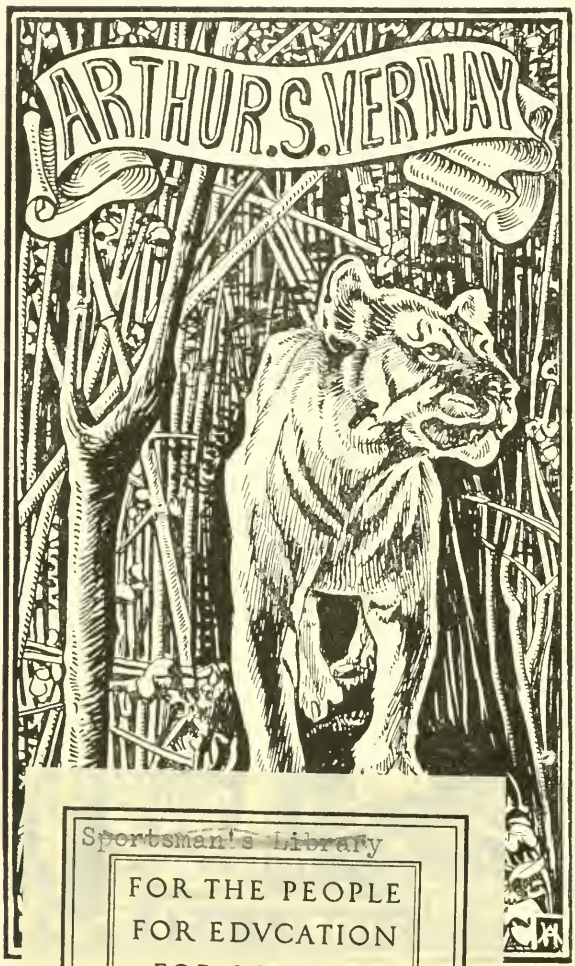
THE DIARY OF A SPORTSMAN NATURALIST IN INDIA

A. S. VERNAY,



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THE DIARY OF A SPORTSMAN NATURALIST IN INDIA

BY THE SAME AUTHOR

STALKS IN THE HIMALAYA

ON THE SERBIAN FRONT IN MACEDONIA

JUNGLE BY-WAYS

THE BODLEY HEAD

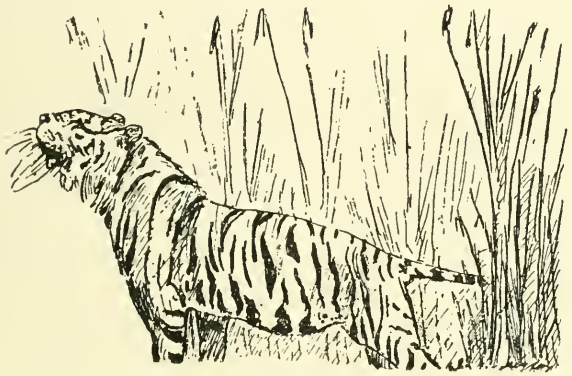
W. J. Stebbins, photo.

THE AUTHOR OUT FOR AN AFTERNOON STROLL ON A PAD ELEPHANT THROUGH THE TALL TIGER GRASS

THE DIARY OF A SPORTSMAN NATURALIST IN INDIA

BY E. P. STEBBING
F.Z.S., F.R.G.S.

WITH ILLUSTRATIONS FROM PHOTOGRAPHS AND SKETCHES BY THE AUTHOR AND OTHERS



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PREFACE

THIS book was nearly completed on that momentous date in August, 1914, when the Great War burst upon us. Early in 1915 my Publisher accepted the suggestion that its publication should be delayed until the German challenge to the World had been dealt with and disposed of.

Since the Armistice Part II has received some revision. The rest remains as written. In *Jungle By-Ways* I dealt fully with the description and habits of the various game animals of the Plains of India. I have not therefore considered it necessary to repeat this matter here. The sporting anecdotes and material selected from my note-books, which form the greater part of the book, are designed to lead up to and emphasize the necessity which exists of affording an adequate protection to the Game and other Animals of India. That this matter, with its threefold objects of maintaining the animals of the Chase, securing a revenue from the economic products yielded by the Fauna of the country, and preserving the Fauna as a whole, is one of the first importance, is known to that small band of shikaris who are both sportsmen and naturalists. A perusal of the chapter dealing with the operations of the Indian unarmed poacher will, of itself, bear evidence to the fact that India is threatened with an irretrievable decrease in and deterioration of the most interesting members of its Fauna.

To Sir John Prescott Hewett, G.C.S.I., Mrs. E. M. Sparkes, and my Wife my thanks are due for the striking Plates which illustrate the Diary.

E. P. STEBBING.

HAWTHORNDEN CASTLE, MIDLOTHIAN.
March, 1920.

INTRODUCTION

HAVE you ever been out in camp in the jungles of India in the cold weather ?

If so, you will have had a foretaste of a Paradise. If you have not and can by any manner of means compass a visit, take the advice of one who has and go.

The jungles of India are nowadays—alas that it is so !—easy of access, even to the man with but a small purse, and a few months' leisure. Fourteen days will take you from Charing Cross to Bombay Harbour. A luxurious first-class carriage will then carry you close to as wild a jungle as heart of man can desire, the number of hours spent on the railway being dependent on your choice of locality. And, once arrived, you must indeed be hard to please if the glamour and fascination of your surroundings do not grip you.

You may be sportsman, zoologist or botanist. Your hobby may be sketching—the jungles have but rarely been adequately portrayed. You may admire scenery, wild scenery, or be merely a lover of nature in its purest

untrammelled freedom. Or your quest may be for solitude and rest and freedom from worry, or perhaps it should be said major worries—minor worries you must expect in the East. Whatever your object, it should be possible to attain it in one or other of the great jungles of India.

It is not proposed to write an Indian Baedeker. The choice of locality must be left to yourself. There are some 245,612 square miles of Government Reserves and other forest, and about 128,300 square miles of forest land in the Native States and private ownership in the country. There is room for all. That is room so long as your object is not sport, i.e. sport concerned with the slaying of animals. When such is desired much more trouble has to be taken nowadays in the selection of one's jungle, and certain first-hand knowledge is essential.

The stay-at-home Englishman often hears the Anglo-Indian descanting at great length upon the disagreeables of Indian life, and you may be sure that they do not lose anything in the oft-repeated narration. The heat, the wearying monotony of the rains in the monsoon period, the malaria and mosquitoes, the " bugs " of all sizes and conditions, the depressing, narrow life of the small up-country Station, the constant transfers, the great expense of coming " home," the customs of the country, so entirely at variance with those of the West, the dilatoriness of the native, his conservatism and all the rest of it.

Granted that all these factors do detract from the pleasure, ease and comfort (and pocket) of the members of the Ruling Race. It was to make up for these drawbacks that in the days of yore the salaries of official and non-official alike were fixed on a scale equivalent to double the amount received by holders of corresponding posts in England. There was some meaning in the expression " Pagoda tree " and " nabob " in those halcyon days—now, alas! gone to return no more.

But there *is* another side to the question!

It is not all work in India! We have not always the heat or the rains with us; nor even when they are present are they necessarily always uppermost in our thoughts. We are not always counting our rupees or grumbling at our lack of them, or saving them for that trip home! One could write of many pleasant hours passed amongst friends in the Station. Of dinners and dances, gatherings at the

Club, football and hockey contests, gymkhanas and race meetings, of days under the burning sun in enjoyment of that prince of sports pig-sticking, hunting the wily "jack" or paper-chasing (on horseback, *bien entendu*); of keen tussles at tennis and badminton, of theatricals and concerts, all amateur performances, and for this reason the more enjoyable, especially the rehearsals! Of bridge and the Club bar; of the softer delights and amenities of the Ladies' Room, and of those thrillingly dangerous drives and rides in the delicious, cool evening air, or 'neath the brilliant moonlight with as companion the particular goddess amongst the fair sex. The mere enumeration of the above delights must assuredly convict the most confirmed Anglo-Indian grouser of a lapse of memory.

But to a considerable portion of our race in India the delights of the Station hold but a subordinate place in their scheme of life in the East. The most unalloyed joys are realized in the untrammelled free life in camp in the jungles. True in these busy, worrying, hurrying days the post and telegraph can reach one even there, sooner or later. But not, thank God, that invention of the fiend, the telephone!

The fascination of the Jungle!

Who can say in what it really lies. Its appeal is so wide. To the stay-at-home the very word "jungle" conjures up all sorts of visions, entrancing for some, fascinating for others, repellent, it may be hoped, for the few. The word is perhaps most commonly associated by the man in the street with the tiger—the Royal Bengal Tiger. And yet there are many who have spent months, aye and years, in India's jungles and have never set eyes on a tiger. Yet others again who, *mirabile dictu*, might have done so and yet have not cared to.

True the novice when he first goes out is under the impression that he will find a tiger behind every bush or walking up every ravine or nullah. I can well remember my first walk in such a locality—finger on trigger, breath coming short, brain in a whirl of excitement—and probably not a tiger within ten miles of me! Quite as well perhaps that there was not. I had been but six weeks in the country and was accompanied by a forest guard and a coolie only, whose language I did not know. It is not very long, however, before the new-comer is disabused of this common fallacy.

No, the jungle may be, and in parts is, the happy playground and hunting-ground of the tiger, but he does not play or usually hunt in the open in the daytime, and he is precious difficult to find at any hour of the twenty-four.

And with the other jungle denizens—that wonderful sagacious beast the elephant, the shy gaur or Indian bison, the fierce and treacherous buffalo, the rhinoceros, now so near extinction, the bears and leopards and deer and antelope, they are not to be found in the jungle cooped up cheek by jowl as we have become familiar with them in our childhood or maturer years at a Zoo.

Without a knowledge of their habits and characteristics you may pass months, even years, in the jungles without seeing, save by accident, pelt, horn or hoof.

Nor to many does the great fascination of the jungle reside in its animal life either as sportsman or zoologist.

In what then does it reside?

It is difficult to say. The jungle is so intangible, and there is probably to be found in each one of us that instinct which still survives, no matter how deeply it may be overlaid by present-day civilization, the instinct which takes us back to the time when the world was young and its inhabitants few; to the days when the greater portion of the land surface of the Globe consisted of pathless jungles against which our ancestors waged unremitting war, and amongst which they lived and died.

Most Anglo-Indians (of the Services, at least) know the feeling of relief, of relaxation from care and worry, which pervades the mind when, the Station left behind, one sits down to the first dinner in camp. The log fire burning and crackling merrily outside, the subdued buzz of talk from the servants' lines, the whinnying of the picketed ponies or the shrill voices of the syces raised in execration when a biting or kicking match commences, the dull rumbling of the elephants engaged on their fodder, resembling distant thunder; the great columns of the trees forming a background to the camp, on to which the camp-fires cast fitful shadows, whilst overhead the picture is closed in by the blue-black vault picked out with innumerable jewels and spangled with diamond dust. How pleasant it all is. Are these the delights which make for fascination? For many, perhaps. For others that indefinable sense of mystery which attaches to the Indian jungle, and to so much else

in India, and which, to a degree probably unsurpassed in any other country in the world, assuredly pervades these vast tracts of wild country which cover so great a part of India. For in many of these wild tracts history has been made in the past—forgotten history. Hidden in these pathless wastes the remains of cities and towns and evidences of a high civilization in a remote past are to be found—now represented by crumbling walls or columns or mere heaps of stones and bricks covered up by a victorious vegetation, the homes of many and often the crueller members of the jungle folk.

The fascination of such spots is readily understood, and the mind easily weaves spells and calls up pictures and phantoms of that long dead and buried past.

India's jungles have then many aspects apart from the usually accepted and inaccurately portrayed one of the uninitiated.

The notes embodied in this book, jotted down for the most part under very varying conditions in camp and under the influence of these great jungles, are an attempt to reproduce one side, that of the sportsman and naturalist, of the many fascinations of the life passed amongst them. An endeavour is also made to point out how much they will lose of interest and health-giving enjoyment if protection is not afforded to some, at least, of their most interesting inhabitants.

For if sport or the study of the fauna be your object in visiting the jungles, you will find matters in a very different state from what they were a score of years ago.

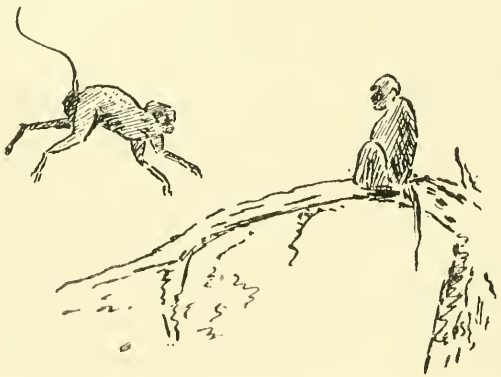
With the wonderful improvement and cheapening in price of the modern rifle, and with the great development in railways and opening out of roads, not to mention the more recent introduction of the motor-car, extraordinary facilities (compared to former times) have been placed within the power of the sportsman, and what were formerly famous shooting jungles are now within easy fifteen days of London, and their former denizens know them no more.

The destruction of game has proceeded apace with the increase of facilities for attack, and some of the finest of Indian game animals are now within measurable distance of extinction. Protection in various forms has been started in different parts of the country, chiefly in the Government Forest Reserves and in some of the Native States. But the steps taken for the country as a whole are still far from

adequate and affect but a tithe of the extremely interesting fauna of the country; and even those are protected but partially. Poaching, at which the native is an adept, still flourishes with all its pristine and cruel vigour.

The creation of Game Sanctuaries has been commenced with a view to affording protection to certain animals, such as the gaur or bison and rhinoceros and elsewhere to deer. The question as to the length of time a tract should remain a sanctuary is, however, still a debatable point, as also the period of the close time which should be instituted for animals in areas outside the sanctuary.

It is the object of these notes to draw attention to the urgent necessity of considering the Indian Fauna question as a whole. The chapters devoted to sport bring out the ever-increasing diminution in the numbers of game animals in different parts of the country within the last two to three decades. The economic value of the fauna is also dealt with; a matter which has received but little attention in the past. In the last chapter it is suggested that the Indian Fauna as a whole requires a more adequate protection based on a correct understanding of the habits of the varying species. Zoologists consider this fauna to be one of the most interesting of the land fauna of the Globe. In the face of modern developments—the extension of agriculture, in the activities of the Forest Department, the opening out of the country by railways and roads for motor traffic, in the construction of canal and irrigation works—it has become vital that measures for the protection of the fauna based on an impartial review of existing facts should be undertaken before it becomes too late.



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PART I

SPORT IN THE BIG GAME JUNGLES OF INDIA

CHAPTER I

THE JUNGLES OF CHOTA NAGPUR

The jungles of Chota Nagpur—A fine shikar country—The Kols and their villages—Bishu, head shikari—Marvellous tracking powers of the Kols—The Indian gaur or bison—Pick up the tracks of an old bull—Deserted villages in the forest—Villagers' hopeless struggle with wild animals, malaria, and the encroaching jungle—Promising young tree crops occupy areas—Follow the bull—River terraces—Giant old trees and feathery bamboos—A rocky ravine and beautiful scenery—Come up with the bull—An unlucky contretemps—A grateful halt—Set out again—A long trek—Again find the bison—Face to face with the bull—A hurried retreat—The bull badly hit—Follow him down the valley—A last shot—Bishu's determination—Death of the bull.

SOON after dawn, one December morning, a score of years ago, I stood leaning on my rifle and surveying a scene of great beauty which lay outspread before me. The point reached after an arduous climb was the summit of one of the higher ranges of hills in the wilds of Chota Nagpur, at that time forming the Western division of the province of Bengal. Below stretched a sea of brilliant green forest of the valued sál (*Shorea robusta*) tree densely clothing the valleys, ravines and lower part of the sides of the tumbled chaotic mass of hills upon which I gazed. Away in the distance a yellow ribbon with a silver streak (a tributary of the Mahanadi River, the only river of importance in Chota Nagpur) serpentining across it, over which hung a white filmy mist, showed where the hills dropped into an elevated area of cultivated table-land.

The sun had just risen and was rapidly sucking up the white vapour which lay in the deeper ravines. Here and there a faint smoke rising above the deep sea of green proclaimed the presence of a jungle village, consisting of a collection of miserable mud-walled thatched huts, the

abodes of the jungle tribe, known as Kols, who inhabit these hills. They are a fine race of hunters these men, absolutely fearless and entirely trustworthy ; but in other respects indolent and thriftless, content to earn sufficient to keep them in rice and the material they require for their scanty garments. The men pass the rest of their time roaming the forests and in cock-fighting, a pastime they are passionately fond of. In fact, it is as difficult to get them away from an inter-village cock-fight where the stakes are annas and pice, as it was to stop our far more aristocratic grandfathers wagering sovereigns over similar events in this country.

The forest-clad hills upon which I gazed with delight (I had but a year's service to my credit at the time) formed part of a great Government Reserve—a reserve at that time practically untouched by man, the home of the elephant, bison, sambhar, spotted deer, tiger, leopard and bear, and many other animals of interest to the sportsman and naturalist. It was as fine a hunting-ground as the heart of the hunter could desire. And it was on sport that I was bent that keen, sharp, exhilarating December morning, one of the finest sports in India or elsewhere—bison-tracking on foot.

In those days it would have been difficult to find a finer tract of country for this purpose in the whole of India. The great forest stretched untouched and unbroken for league upon league, the Government Reserves joining on to vast areas of forest in neighbouring Native States. Although the Reserve had been under the management of the Forest Department for some years, the forests had not been worked for timber to any extent, and were in their primeval condition. In other words, in that condition in which they had afforded an asylum *par excellence* for centuries past, and still did, to the elephant and shy bison. For both these animals require great stretches of undisturbed forest to live in—in fact, they can only exist in a wild state under such conditions.

The Indian gaur or bison (*Bos gaurus*), as it is always termed, has no affinity with the true species. It is far superior to the American bison, being much larger and heavier. When wounded and turned to bay, it is reputed amongst sportsmen to be far more dangerous than either the tiger or elephant.

TRACKS OF BISON OR GAUR—WALKING
Scale about 1/12th natural size

With my head shikari, Bishu, and two assistants I had left camp several hours before dawn, and we had reached our present position without having come across what we were in search of, the tracks of a solitary bull bison. Those of a herd with a young bull in it had been followed for a short distance and dropped at the foot of the last steep rise to the position now occupied as they trended off round the slope, and I had wished before proceeding further to obtain a bird's-eye view of the surrounding country, and check if possible the direction of a certain valley and stream which there was reason to believe were wrongly marked on the map.

The point had been settled, and having gazed my full at the wonderful scene outstretched before me I turned to the head shikari with a query as to the direction in which we should proceed. As the question left my lips one of the assistants, who had been sent to prospect down the far side of the crest, returned, a broad smile upon his not unprepossessing visage. In a whisper he conveyed the information that less than half a mile away he had picked up the tracks of an old bull who had passed the afternoon before. A few questions from the head shikari and we set off for the spot. A very cursory inspection proved that the assistant was correct, and Bishu added the information that the bull had passed at four o'clock, indicating the position in the sky the sun would be at that hour. They are marvellous trackers these Kols, and will carry a trail over the most difficult country in the world with scarce a falter, often taking it at a smart walk over hard trap rock, where, to the uninitiated and untrained eye, it appears to be an impossibility to say that an animal has passed by. If they have a fault it is a fondness for cutting round the base of a hill instead of following the trail to the top in the expectation that their guess of the animal's direction, often a most shrewd one, will prove correct. And it must be admitted that they are not often wrong.

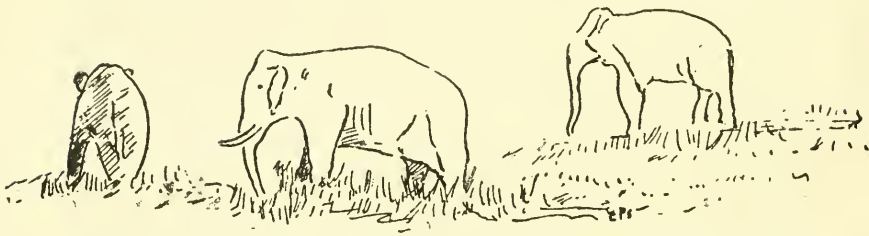
A council of war was called, and it was soon determined to follow the tracks of the old bull, for he appeared to be something out of the ordinary.

The trail took us straight down the rocky, stony hill-side through a sparse forest at first, the going proving arduous owing to the masses of the long, trailing "sabai" grass (*Ischæmum angustifolium*) which grew in tufts from amongst

the loose stones and twined round the ankles in a most aggravating manner. This grass, known as "bhabar" in Northern India, is a valuable forest product as a coarse paper is made from it.

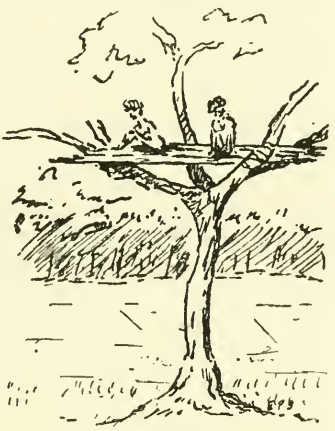
As the upper slopes of the hill were left behind the forest grew thicker, the trees became taller, with finer boles and larger crowns, and clumps of bamboos made their appearance.

The bison had proceeded slowly, feeding as he moved along, and the tracks trended eastwards, dropped into a valley, and wandered down the banks of the stream, eventually emerging on to a clearing covered with tall grass. This was the site of a deserted village. For some years several families had settled here, cleared off the forest for a few hundred acres or so, built themselves the usual mud-walled thatched huts, and cultivated a paddy crop on the cleared ground. It was a precarious existence and almost



doomed from the first to failure. For the contest between the Forest and its inhabitants and man was too unequal. As soon as the crops commenced to show above ground, the herbivorous jungle folk, from the elephant downwards, arrived at night, and even by day in these secluded regions, and took toll. Little recked they of the puny efforts of the owners to drive them away. The elephants soon learnt that the tremendous noise made by the one or two old matchlocks in the possession of the jungle men was harmless; and occasionally if more than usually worried, or from one cause or another short of temper, would charge the frail staging, or machan as it is called, on which the would-be protectors of the crops sat and scatter it to the winds, probably killing the occupier. The never-ending fight against the encroachments of the neighbouring jungle and weed growth, combined with the deadly malaria, resulted in a life of great strenuousness. The grim con-

test sooner or later ended in the defeat of the jungle man and his departure for the outskirts of the great forest tracts, where he had a better chance of combining, through greater numbers, against animal foes; although he was here certain to suffer more from the depredations of the human sharks who found him such easy prey.



Such was the history of the clearing, and in the course of my wanderings in these jungles I came across others. Some, relapsed into forest conditions once more, were already covered with a fine crop of thriving young sál poles, the size of the latter enabling a shrewd guess to be made as to the date the former occupiers of the clearing had vacated it or all died of fever. For this tract of country holds a deadly malaria in its forests throughout the rainy season.

To return to the bison.

The tracks skirted the clearing and proceeded through a thick piece of forest beyond until they reached a beautiful little stream, the Koina. Up this stream we quietly proceeded for about a mile, a succession of lovely views opening out before us. The stream at this part was of fair size, and for the most part flowed over a rock-bed. Consequently cataracts, rapids and miniature waterfalls, alternating with deep, silent pools, most tempting to the eye of the fisherman, were numerous. Or again we came to places where the stream flowed in a long, silent reach between terraces clothed here and there with beautiful brakes or clumps of the feathery bamboo, interspersed with the great red columns of magnificent, giant, old sál trees, upon which the morning light played with an indescribably beautiful effect. The great trees were festooned with thick ropes of creeper growth, whilst beneath, in glades where the forest floor was more open, the short grass was in places almost reminiscent of the soft, deep, velvety turf of a home park. Here the stalking was pure joy. It was gloriously cool under the shade of the great trees, and a

couple of minutes' breather being called I flung myself down on to the cool green turf.

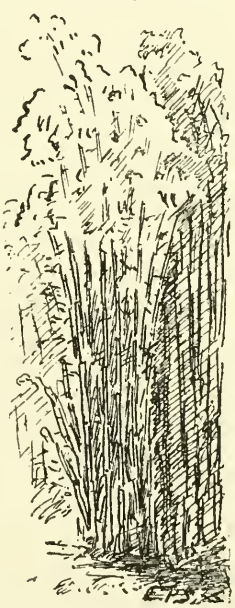
Then we took up the trail again. Soon a rocky ravine opened out in front, and the brook, which had been running so decorously down the quiet reach, became a brawling, turbulent torrent once again. The tracks proceeded up the rocky side of the ravine, and we had to take to hard climbing ; for the bed of the stream now dropped in a series of giant steps, over which the brilliant, sparkling water tumbled in beautiful foaming cascades. High above stretched the great forest, the boles of the trees rearing up straight on either side, their crowns forming a gigantic dome to the rocky chasm. Here and there in the rock-walls clumps of bamboo clung with precarious foothold, their feathery tops gracefully drooping over the sparkling water beneath ; whilst the maidenhair fern grew in drifts and patches against the dark rock.

The path which we followed, if a series of steps could be entitled a path, must have been trodden through the centuries by the hooves and feet of countless animals, for the rock was worn down on the line the bison had taken. As we mounted higher the sides of the ravine grew less steep, the forest came down to meet us once more, and we soon found ourselves on the edge of a sloping hill-side, sparsely covered with bamboo clumps.

Here Bishu signalled a halt, whilst he moved off to prospect. I was nothing loath, for the climb in the heat had been arduous, and for the time being I was pretty well done and was only too glad to stretch myself out for a few minutes in the shade of a clump of bamboos. The interlude was brief. Within a quarter of an hour Bishu appeared, and on his ugly physiognomy was the broad smile I had learnt to interpret as the near presence of the animal we were stalking. Getting silently to my feet I seized the rifle, cocked it and prepared to follow the shikari. Very slowly we moved forward, skirting in and out of the bamboo clumps, every inch of the ground being studied before the foot was set down. For I had learnt that the slightest unusual sound at this stage would mean the alarm and flight of the bison. We may have gone a quarter of a mile, it may have been less, when Bishu stretched out an arm. Eagerly looking in the direction indicated I tried to make out what my companion saw. For a frantic

minute I could see nothing. Then gradually four white legs with black upper edges framed themselves on my vision beneath a bamboo clump. The rest of the animal was invisible.

As soon as Bishu was satisfied that I had made out the animal, he signified, by a movement of the arm, that we would move to the left, at the same time indicating that I should be ready to fire. Rightly or wrongly we started to execute this flank movement. Bishu, with bare feet, glided over the ground with ease and in absolute silence. Not so myself, weighted down with a heavy rifle and heavy boots, which I had not at that time learnt to discard for light stalking shoes. To me the movement was a nightmare. After twenty yards I looked up. There was Bishu, the smile on his face and his fingers signalling frantically, the arm held rigid to the side of the body. A hurried step forward and the sharp snap of a twig sounded on the still air, to be succeeded instantaneously by a short, sharp bellow and a crash in the bamboo jungle, followed by a rush I hurriedly glanced round. The white stockings had disappeared. I dashed forward, my noise more than drowned in that made by the bison; but within forty yards I came to a standstill, the bamboo clumps growing so thickly together as to render further progress or any chance of seeing the animal hopeless. I could have cried with vexation. As a matter of fact I swore.



Bishu called a halt and we sat down, one of us in no enviable frame of mind, and for the first time for hours conversed in a low voice. The shikari said that it was probable that the bison was more startled than frightened, and that he would be unlikely to go far as he was certain the animal was not aware of our presence. We could rest for half an hour and would then take up the tracks again.

I took advantage of the respite, though with very bad grace, to have some lunch, as I had then been on the move for six hours. It was a grateful rest in spite of my anxiety,

and as I lay upon my back looking up into the shimmering green of the delicate bamboo leaves I speculated on the size of the owner of the stout white stockings so recently seen; upon the size of the trophy they supported and whether it would ever become mine. Also what sort of a dance he was likely to lead us that afternoon, and at what time we were likely to see camp again. I was just dropping into an untroubled slumber when a touch on the arm brought me wide awake on the instant. It was Bishu. The quest was to begin again.

Skirting the dense mass of bamboos we soon came upon the bull's tracks leading straight up a rocky slope covered with long grass. I had some trouble here owing to loose stones, the trippy nature of the grass, and the blazing heat of the sun, and it must have taken us an hour to go a mile. Then the ground became easier and we followed the tracks over the ridge and down into the cooler valley below. It was a relief to get out of that sun and glare. The valley was filled with bamboo clumps, and great circumspection had to be used as we knew that if the beast was put up a second time and I failed to get a shot we should never see him again. The bison was not in the valley, however, and another long, hot hill-side had to be negotiated. For three hours we slowly followed the tracks, using a tantalizing caution wherever the jungle thickened. Again the trail dropped to a nullah, somewhat broader than those passed through latterly, the ground on the opposite side of the stream rising but gradually. The forest here thickened, the trees being of good growth and height.

Once again Bishu went on alone after signing to me to halt. I had become very despondent over my chances, for the bison had evidently been more alarmed than Bishu had imagined. But this spot looked so favourable for a bison to lie up in that I became again optimistic and waited the reappearance of the shikari with high hopes. Nor were they vain ones.

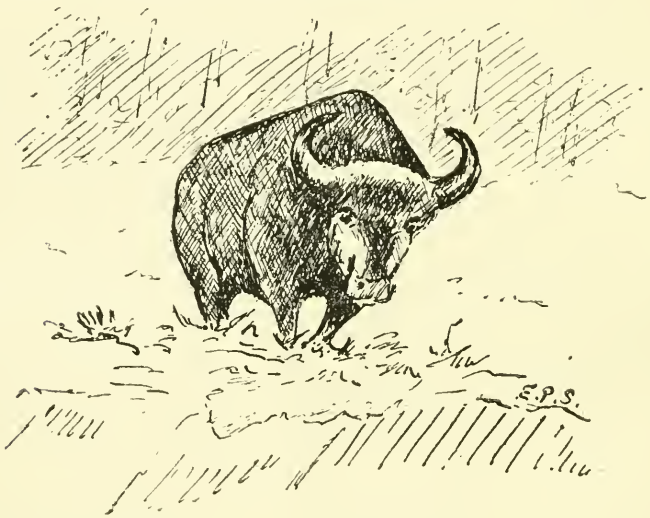
Without a sound Bishu suddenly reappeared, and one glance at his face told his tale. I stepped silently towards him, grimly resolved to move at my own pace and repress all excitement no matter what my companion did or what appeared in front of me. I advanced through a low undergrowth of small plants and shrubs which yielded easily as I pushed noiselessly through them, eyes alternately on

my feet and in front. Slowly and yet slower we moved forward, Bishu slightly to my right. The ground dropped gently to the stream, and I had approached to within twenty yards of the bank when away on the opposite side I suddenly perceived the bison. My breath came short and sharp, and then I seemed to cease to breathe altogether, whilst my heart pounded like a sledge-hammer. It was the first solitary bull I had had a full, clear view of in its native jungles. Its bulk staggered me, for the animal stood almost broadside on beneath a great tree, wholly in view save for the hooves and part of the white stockings. Ye gods ! What a sight the great fellow was !

Have you ever seen one under such conditions ? If not I fear I cannot help you to realize his full beauty ; for words fail to adequately portray it. They can but feebly convey the colossal total of his massive " points." Eighteen hands—and this specimen stood well over that—of coal-black beauty shining like satin on the back and sides, where the light filtering through the branches struck him, with four clean white stockings from the knee downwards. On to this enormous bulk the great head and thick, short neck were set, the frontal bone high, covered with whitish yellowish hair, the curved horns thick, much corrugated at their bases and blunted at their tips. Such was the sight upon which I gazed with a palpitating heart. As he stood there he was not more than forty to fifty yards distant, his tail swinging lazily from side to side as he flicked away the flies.

For a few seconds I stared at the bison, fascinated at the grand sight, and then slowly sank on one knee and brought the heavy ten-bore " Paradox " rifle I carried to bear on the shoulder. The rifle was a weighty one and I recognized that I was feeling fagged after the day's exertions, and so, with a deep-drawn breath, I let the barrels sink slowly down till the sights made a bead on the shoulder and immediately pressed the trigger. There was a loud roar as the six drams of powder propelled the heavy bullet forward and a thick cloud of smoke enveloped everything. But the roar was followed almost instantaneously by a second, as the left barrel, which was at full cock, jarred off with the concussion of the first. It was a habit this rifle had, as I was to discover later on several occasions, until I learnt to remember to cock only one trigger at a time. The

"kick" of the rifle under the sudden discharge of twelve drams of black powder almost knocked me backwards, and had I been firing at a target in cold blood would probably have done so. As it was I was braced to a considerable tension. Recovering myself and forgetting that I was unloaded I rose to a stooping position and dashed through the smoke to see what had happened to the bison. A glance was sufficient. The old bull had dropped and was struggling on the ground. Without a thought I rushed forward with a shout, dimly hearing Bishu's voice raised in a piercing exhortation of some sort.



Leaping lightly into the bed of the stream I splashed through the water and clambered up the six-foot bank on the opposite side. Reaching the top I stood erect and took a few strides forward, only to be brought to a standstill by the vision of the bison up on his feet and facing me. For a second or two we stood looking into each other's eyes. It was the first time I had ever looked at the eyes of a wild animal mad with rage. I saw red fury blazing out in all its untamed nakedness from the enraged brute's eyes, whilst, with his forefoot, he tore up the turf beneath him. Mechanically I raised the rifle, the movement being accompanied by a bellow of wrath from the bull, glanced along the barrels, noted that both hammers were down, and

realized in a flash what it meant. At the same moment down went the head of the bull and with a hoarse roar he charged. I turned, and in a couple of bounds had dropped into the nullah bed. The drop brought me to my knees. I was up in a trice, blundered through the shallow water, my spine deadly cold, and dashed through the low jungle to a large sál tree round which I dived. Pulling up, I cautiously looked round the trunk from the opposite side, opening out the rifle and jamming in a fresh cartridge as I did so. The sight I saw caused me to breathe a sigh of relief and mutter a thankful prayer.

The bull had not charged home. There he stood on the edge of the little cliff on the far side of the stream, his head swaying from side to side, evidently hard hit and apparently dazed and undecided as to whom to go for. His position was a bad one for a shot, but I was too excited to think of that, and raising the rifle I fired at the head facing me. The animal half turned to the shot, shook his head viciously, but did not drop, and after a few seconds' apparent indecision set off down-stream, keeping just within the forest. His direction was easily followed from the blundering way he crashed through the undergrowth.

As soon as I had slipped two fresh cartridges into the rifle I looked round for the shikari. At the same moment a head appeared slowly from behind a neighbouring tree and a pair of eyes, blazing with excitement, gazed into mine, the lower part of the face being set mask-like in a diabolical grin. It was Bishu. His body followed the head, and without a sound he glided up and motioned me to follow as he led the way. Slowly and cautiously we proceeded down our side of the stream, and had gone some fifty yards when out from the edge of the forest on the opposite side, some seventy yards away, slowly walked the bison and entered the bed of the stream, the bank shelving into it at that point. Bishu stepped aside, and I hurried forward for some twenty paces and then again sank on my knee and fired my right barrel, the left being safely at half-cock this time. Without a sound the great bull sank to his knees and rolled over on his side on a gravel bank at the edge of the little stream,which at that point ran deeply under the bank on our side.

Aflame with excitement and forgetful of my previous experience, I was again about to rush forward when I felt

a firm grip on the arm. I turned angrily to meet the shikari's gleaming eyes and bared teeth. Incensed, I was opening my mouth in wrath when the old hunter vigorously shook his head and whispered that the sahib should reload his empty barrel and stand ready to shoot whilst he would go forward to see if the animal was dead. Youngster as I was and mad with excitement I was all for disobeying, but some instinct made me give into the man of the jungles and I nodded. Bishu disappeared, worming his way like a snake through the short undergrowth and taking advantage of every tree as a shelter in his progress forward. As soon as he got near enough, after a tantalizing interval of quiescence, he picked up some stones and commenced a fusillade on the great black bulk of the stricken bull. But no sign of life or movement came from that quarter. Slowly and more slowly the shikari approached, keeping up his rain of missiles until, at last, he was within some fifteen yards. He then circled round so as to get below the beast, and at last, after what seemed an eternity to me, who had eagerly watched every movement, he held up his hand and sprang lightly down into the stream, and stood beside the body. I was with him in a trice, and how describe the pride with which I stood beside my first old bull bison! And truly he was a magnificent beast as he lay there silent in the majesty of death.

With a youngster's disregard for the sun, the climate and everything else, the head of a bottle of ice-cold Bass was knocked off, and in a nectar fit for the gods an acknowledgment of the great and brave spirit of the gallant bull was drunk with fitting ceremony.

CHAPTER II

HAPPY DAYS AS AN ASSISTANT

Sport as an Assistant in Chota Nagpur—Game animals in the forests and open country—The man-eating tiger—Two men killed—An unsuccessful quest—The cattle killers—Sit up for them—Other efforts to meet tigers—M.'s adventure—Leopards—Hyenas, wild dogs and jackals—Stalking sambhar in the hills—Abundance of good heads—Sambhar and the mhowa flower—Shooting sambhar in the rains—Set out to find a stag—Death of the big stag.

AS an Assistant in the Chota Nagpur Jungles I had the time of my life. Although bison were my first love, and remained my last, my attention was not confined to this fascinating animal from the hunter's point of view. It was the accident of my first posting to this fine country which enabled me to participate in a sport which many good shikaris only enjoy at the end of their time of service and then often only as the result of a specially planned trip and the expenditure of many hard-earned rupees; whilst the vast majority probably never have the chance of seeing a bison at all. Even in these jungles, however, I could not spend my days in the one

pursuit since the animal was only to be found in the extensive areas of heavy jungle. Some of my work kept me near the outer borders of these tracts, whilst at times I was in isolated small forests out in the agricultural parts of the district, although this was rarer. No bison, of course, came anywhere near these areas. There were, however, plenty of other animals to make acquaintance with. Sambhar (*Cervus unicolor*) in this thinly populated district were to be found at certain seasons quite near the open cultivated lands to which they were attracted at the periods when the young crops were springing up. Spotted deer or chital (*Cervus axis*) were numerous. Also that curious antelope, the blue bull or nilgai (*Portax pictus*), with khakar, or barking deer (*Cervulus muntjac*), and pig or wild boar (*Sus indicus*), and the little four-horned antelope, *Tetraceros quadricornis*. Bear, the Indian black bear, *Ursus labiatus*, in the open parts of the district were very plentiful. Amongst the carnivora tiger (*Felis tigris*) and leopard or panther (*Felis pardus*), hyena (*Hyæna striata*), wild dog (*Cuon rutilans*) and, of course, jackal (*Canis aureus*) were comparatively common ; the first-named difficult to get as owing to the abundance of the herbivorous jungle-folk cattle-killing was by no means common and man-eaters during those two years were rare.

I remember one occasion, however, when I had strong hopes of seeing my first man-eater. It was during my first year in India, and although I had sat up for tiger on several occasions I had never yet seen stripes. My chief and I had been snipe-shooting in the morning whilst on our way to one of the forest rest-houses. On reaching the latter place about 11 a.m. a sub-inspector of police came up and reported that two men had been killed by a tiger early the morning before at the railway tunnel about a couple of miles away. A man had gone out grass-cutting later in the day and had come suddenly upon the tiger, who was engaged in eating one of the bodies.

We decided to go out at once, and having ordered the small elephant to be got ready and as many beaters as possible collected made a hurried breakfast. We had two elephants with us, but unfortunately the larger one was not staunch to tiger, having been badly mauled on some previous occasion in her history. Moreover, in this part of India our elephants were chiefly employed as transport animals,

carrying one's camp paraphernalia, or in dragging timber. Occasionally one made use of them for riding purposes, but only rarely for shooting from. Shooting was primarily done on foot, a great contrast to the more usual methods adopted in the high grass jungles in the north of India and in the east, in Assam and elsewhere.

We set off just before noon and arrived at the village nearest the end of the tunnel at which the men had been killed. On the way we gathered a good deal of information about this man-eater. Of course, he was known in the district, and by repute to us as a reward had been offered by the Government for his destruction, a reward which was subsequently raised to a considerable sum as the beast became more daring. But already he was the scourge of this district and of, at least, two neighbouring ones. Wood-cutters fled from the forests and grass-cutters and others refused to stir from their villages into the jungles as soon as a " kill " took place in the neighbourhood. He was said to be a very old beast with worn teeth, this being a reason for his having taken to man-killing, as he was no longer able to pull down deer or cattle.

On arriving at the village we enquired for the guide who was to show us the place, and to our disgust discovered that he had gone out to cut grass in the fields in an unknown direction, but certainly not in the one where the tiger was supposed to be. It transpired that he had promised the sub-inspector to remain at the village till 11 a.m., and if the sahibs did not turn up by then he would go out to get his daily load of grass. The policeman on being heatedly interrogated, of course, said the villager had misunderstood him. After a consultation one of the villagers volunteered the statement that he thought he knew where the man had gone and could bring him back within the hour. We agreed to wait for this period, and, sending off the man, dismounted and sought the shade of a tree, where we smoked and endeavoured to possess our souls in patience. The villager did not return at the appointed time and after giving him half an hour's grace it was decided to set out for the tunnel and see if we could find a trace of the kills. This we thought should be easy, as the man had so definitely said they had taken place near the tunnel mouth.

The elephant was taken very cautiously over the half-mile which separated us from the spot, the beaters marching

close behind the animal, whilst the village so-called shikari and another man walked just in front. We were on a pad, my companion sitting up behind the mahout facing the front and I behind facing left. Not the most enviable position from which to beat out a tiger! But we had no howdah, nor had I yet ever been in one.

We reached the tunnel, but no sign of the kill could we see, and my chief absolutely refused to allow the shikari to enter the jungle and rather dense grass which lined either side of the railway line and clothed the top of the tunnel. The elephant was taken into the grass and made a bit of a cast to the right of the tunnel, but we found no pugs nor any other trace of stripes, and then reluctantly gave it up, arranging to be on the spot at daybreak next morning in the hopes of being able to beat up the beast; but the hope as we knew was a very faint one. I was so frightfully keen that I expect my chief arranged this mainly for my benefit.

Next morning the original villager led us to the scene of the bloody deed. It turned out to be nearly a mile from the tunnel mouth, and in the scrub and grass jungle on top of the tunnel! But the native's ideas of distance are negligible.

What we found of the remains of the men I prefer not to dwell upon. It was to me a ghastly and gruesome sight. It roused our blood, however, and we spent four or five hours beating for the devil who had done the deed; but, although we found his pugs and followed them up, we saw no trace of him. Nor was he heard of in those parts for several months. I sat up for the brute in another part of the forest at a later period, but did not see him. He was far too cunning and I never heard that the reward offered for him in our district was claimed, or rather, paid. It was claimed often enough by native shikaris on flimsy pretexts which would not bear the searching light of the enquiry to which they were subjected.

But as I have said, we were not plagued at that time with man-eaters. Nor was it surprising when game was so plentiful in the forests, necessitating but slight trouble on the part of the tigers to maintain a full stomach. And when they got old and heavy and, therefore, lazy, they could always fall back upon the cattle of the villagers, large herds of which grazed in the outer forests in the

neighbourhood of the villages, and had done so from time immemorial.

I remember once, as I was riding back to my camp situated in a beautiful grove of banyan trees (*Ficus bengalensis*), coming across an instance of the work of one of these cattle-lifters. It was in the cold weather—January —and the sun was already low in the sky. A large herd of cattle, buffaloes and cows, was being driven back to the village by the herdsmen, of whom there were two. I could hear their cries to the animals and see the red dust rising on the edge of the forest as I trotted along the mud road towards the forest boundary. I had had a long day and was looking forward to the quiet of the camp and a comfortable tea with, I hoped, letters from home to render it more enjoyable.

Suddenly the shouts in front turned to piercing yells, and I heard a rush of many hooves trampling down the jungle and coming back into the forest. "What on earth has come over the beasts?" I muttered, rising in my stirrups to try and get a view to my right. Suddenly one word clipped clear-cut on the air amidst the vociferations of the herdsmen, "Bagh! Bagh! Bagh!" repeated several times. "Tiger! Good Lord!" I thought, and jammed the spurs into my mount. I was out of the forest and in the open country beyond in a flash. It was only a matter of a couple of hundred yards and my action must have been purely instinctive. I reined up and turned the pony, who was rather restive, though she had been done brown just before, and looked to see what was happening in the forest. The two men were on the boundary line outside the forest, and some of the animals were shambling out sideways from amongst the trees, tails standing on end and ears cocked in a ludicrous fashion.

On seeing me the men at once came up wailing and lamenting, and said that a tiger had killed three of their animals. This story was rather tall and I could hardly credit it. Why, I had been in the forest myself at the time and the whole performance could scarcely have taken a minute! However, I told the men to call out their animals, count them and bring them close to my tents, a bare quarter of a mile away. I then galloped off, and on reaching the camp at once sent for the headman of the village. He was already on his way to me, apparently

having heard all there was to hear, the news having spread to the village in the mysterious manner it does in the East.

There was still nearly an hour of daylight, so I told him to raise as many men as he could at once, and if enough were forthcoming we would go and see if we could find the three beasts said to have been killed. I had a hasty cup of tea and then set off, all my available staff of servants, save the cook, whom I refused permission to come in deference to my dinner, accompanying us.

We must have presented an extraordinary and incongruous sight as we set forth, and the noise was deafening as none of the men wished to meet the tiger. And to be perfectly truthful I do not think I did myself with that rabble. Sure enough we found three dead cows all struck down within the space of twenty yards. A great argument took place as to whether there had been one or two tigers, and I inclined to the side of the party who maintained that there was a large and a small one—probably a tigress and her part-grown youngster—giving him lessons in the art of how to kill. There was no trace of the tigers now, however, the cattle having effectually frightened them off after the killing had been done, and our noise had probably caused them to leave the locality altogether. I selected a tree and had a machan built at once, as I thought it would be a certainty for me this time. But although I sat up over the kills for two nights and early afternoons into the bargain the tigers never came back, and presumably had to be content with wild game on that occasion.

I have often thought, however, that had I possessed a little more experience and had we not gone to seek the stricken cows with such a horde that I might have had a soft thing in tigers early in my career.

I had curious luck altogether with tiger in this district. In another part I sat up at least four times in the same machan, erected in a tree at the junction of a narrow nullah with a broader stream-bed. The locality was per-

Sir J. P. Hewett, phot

A MEMORABLE MAY DAY'S BAG IN THE HOT TERAI JUNGLES

fectly ideal for tiger and was, in fact, a well-known tiger "walk," if I may so express it. The first time I sat up was over a freshly killed young sambhar. It was very early in the morning and our approach had evidently disturbed the tiger at his meal. The struggle and death of the deer could not have taken place more than half an hour before. I had a machan made there and then and sat up. The tiger was close by all the time. Of that I felt certain, but he was suspicious. Once I feel sure that he came out behind me. I dared not move as the hastily constructed machan was of the flimsiest, and I feared to make a sound. With bated breath I waited to see him appear below, but he never came and I had to give it up in the end.

On three other occasions I sat up in that machan, more solidly constructed now, each time over a "kill" which had been tied out. In one instance the tiger came out all right and had a good meal just below me. My luck was dead out, however, as the moon, which had been brilliant,

became overcast with rain-clouds, most unusual at that time of the year, and I could not see even the outline of the kill, much less the tiger on it.

It is a curious and uncanny feeling which invades one on such occasions. The tiger, on first interviews at any rate, like the snake, exercises a weird mesmerism over the senses. I felt this to the full as that beast lay there below me crushing and cracking up the bones of the kill with his powerful jaws and making all the sounds, though greatly intensified, produced by a cat eating its food.

At length, out of patience, I fired in the direction of the sounds. A startled roar from below and I heard two slight sounds as of an animal making off very lightly, and then silence. Immediately after pulling the trigger I bitterly regretted the action, and I spent the rest of the night in a most agonized state hoping against hope that I had made a

lucky hit, vowing I would never act like that again, and so forth. We have all been through it! The orderly with me

slept like a log, and snored and grunted at intervals. I could not sleep a wink. Anxiety kept me awake. With the first grey appearance of the dawn I strained my eyes downwards. Dimly I made out the outline of the kill. There was no tiger lying on or near it. I still hoped that he might be in the neighbourhood, badly wounded perhaps! As soon as it was light enough we carefully surveyed the stony beds of the two streams, but could see nothing. We then descended and hunted from below all round the kill, but found no trace of the tiger save for his pug marks nor any blood.

There is another tiger incident, I remember, in connexion with this district. I was out on duty bent with an assistant, M. We had parted on the slope of a forest-covered hill, I going straight to the top, only a few hundred yards away, he with orders to make a slight detour to inspect some work and then to join me at the top. I had just arrived at the summit, and was standing to get my breath and look round me, when I heard hurried footsteps behind. I turned. My assistant was advancing rapidly, and as I caught sight of his face, pale and tense with excitement, I jokingly said, "What on earth's the matter? You look as if you had met a tiger." In jerky words M. replied that that was just what he had done.

"What!" I exclaimed, "impossible here." However, he soon convinced me—words and manner were convincing enough. M. had apparently got on to a narrow, stony animal run, which followed a contour round the hill, and turning a corner sharply had come face to face with a tiger within fifteen yards. The man stopped, petrified with amazement, and stared at the beast. The tiger recovered himself first, or felt fear first, for he was obviously as surprised as the man, and with a startled "wuff" sprang into the jungle and disappeared. M., who was quite unarmed, turned and more or less stumbled blindly up the hill after me—at least, this is how he expressed it. He did not take long to recover, and then fury took him at the fright he had

been given. I had a rifle in my hand at the moment and he soon got his from a forest guard who was carrying it. On the advice of one of the local forest staff we made for a ravine down which it was thought the tiger would move if he had not been frightened enough to make a clean bolt. We took up positions about one hundred yards apart, commanding the approach. I was squatting on top of a ten-foot rock, and before long began to doubt seriously whether I was sufficiently safe should I only wound the beast. We sat in our positions till dusk, but no tiger appeared, and we found subsequently that he had come down into the nullah much higher up, having kept to the forest on the hill for some considerable distance. It was some time before M. got over that experience.

The district I am writing of swarmed with leopards in those days. Practically the only sure way of bringing them to book, and that was by no means a certainty, was to sit up over a goat—I never would sit up over a dog, even a village pi-dog, as some men did—and try and kill the leopard before he killed the goat, if he made up his mind to attack it. But so cunning is this beast that in numberless cases he smells a rat when there is no seemingly apparent cause, and refuses to come up to the scratch. I did my share of this sitting up in my salad days, probably as much as most youngsters, and I enjoyed it immensely and certainly learnt a great deal by doing it. But it must be admitted that once the novelty had worn off, and I really loved it at first, I got horribly bored by the monotony of it. It was all right so long as daylight lasted. There was plenty to watch in the jungle round about. But at night in the fitful moonlight the strain of trying to decipher objects was wearisome, and when the fight with sleep began it became painful. In spite of the drawbacks, for a number of years I enjoyed it very much.

Of the other carnivora hyenas were plentiful. I was never drawn to this animal, for his furtive ways and his diabolical laugh used to make my blood run cold when going through my first experiences out in the jungle in camp by myself. In fact, I think the satanic laugh of the hyena and the mournful dirge-like wail of the jackal used

to make me more depressed, and consequently homesick, during my first year in India than any other experience to which the youngster is subjected. But sleep and sunlight next morn quickly dispelled such fits of the blues, and my dislike of these beasts did not prevent my endeavouring to shoot them whenever I met them in the jungles. Hyenas I only saw in beats, on no occasion in that district did I ever meet one face to face.

Wild dog were fairly plentiful, and they gradually increased in such numbers in neighbouring districts in parts of the Central Provinces as to seriously threaten the game of those areas. Whole blocks of forest would be entirely deserted by deer and such-like once a pack of wild dogs commenced hunting in them.

Next to bison I suppose I devoted most hours at that time to the fascinating sport of tracking down sambhar on foot. The miles I must have footed it with Bishu in this pursuit !

We used to start out long before dawn and make for some more or less lightly tree-clad, stony hill-side, and be somewhere high up on this just before dawn. A careful survey of the neighbourhood as the light became strong enough would often disclose a number of sambhar feeding at various elevations on the hill-side. When I look back at those excursions I am lost in amazement at the number of good heads, even large heads, we sometimes saw in this fashion. There was usually little difficulty in so arranging the stalk that one got a shot at a good stag. Of course, the doe sambhar with their " sentry-go " propensities gave trouble when the stags were with the hinds. But in those days of pick and choose we paid much more attention to the solitary old stags, often possessing record heads, which would be found feeding alone.

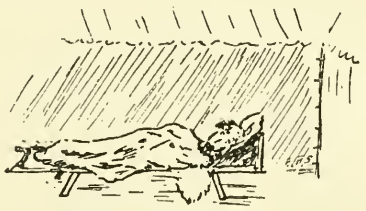
Another good place for a find was the broad, cleared, fire traces or lines which ran round or through the forests for miles. Here, when the young grass was coming up over the burnt area—the traces were cleaned and burnt in the cold weather—after the first rains of the " chota bursat," in the early morn or just before dark, you might, by quietly

walking up the fire-line, come across numbers of sambhar, and with moderate luck bag a good stag.

In March and April—the period varies with the differences in climate throughout India—the mhowa tree comes into flower. Like other deer the sambhar are very fond of these flowers and collect in the jungles in which the tree is abundant. A knowledge of this fact will enable the sportsman to pick up many a good head and will save him many weary hours' search in areas in which at other periods of the year he may confidently expect to find the deer, but from which they will have migrated to the tracts in which they know they will find this favourite food. It furnishes a good illustration of the paramount necessity, if he wishes to enjoy successful sport, that the shikari should make himself acquainted with the jungle lore of the district in which his operations are carried out.

After the rains had broken and we were all back in the Head-quarters Station again, Bishu would now and then come in or send word that he had marked down a good sambhar. At this season when rice crops were coming up, the sambhar used to come out from the recesses of the great forests and take up their quarters for the time in the outer fringe of the jungles. From the position so chosen they would issue forth at night and walk down into the fields and take toll of the crops. By careful watching it was possible to mark down a particular stag, who might have a doe or two with him, and with luck get a shot at him.

I remember an occasion of this kind, one of many similar incidents. Having received word from Bishu I sent off a breakfast-basket with a couple of men and rode out after dinner about eight miles from the Station. Arriving at a small bungalow I rolled up in a thin blanket on a camp bed to sleep for four hours. Bishu awakened me almost to the minute with that wonderful sense or instinct, or whatever it is, for time possessed by the jungle man.



After a cup of tea and some toast we set off. Luckily the rain had ceased about six o'clock the previous evening, and the night, though dark, was not distressingly so. The noise

made by innumerable frogs and night birds and the drone and hum of millions of insects filled the night air with an extraordinary medley of sounds as we made our way across the paddy fields by that most aggravating mode of progression, walking along the bunds. The native, born and bred to it, proceeds with such ease, whilst the European stumbles about on the often greasy and invariably narrow surface, the constant "cuts" made to let the water through, necessitating a frequent change of step or jump, adding to the annoyance. There is only one thing more aggravating to my knowledge and that is having to ride along them.

We proceeded in this fashion for an hour or more, now and then following a village road for a short distance or going through a sleeping village itself, when the whole village pi-dog pack would turn out and bay at us, setting the jackals wailing in the distance and even waking up the village chowkidar or watchman, who ever sleeps his soundest during his hours of supposed duty.

At last we arrived at a slight rise in the ground with a clump of trees situated on it. Here Bishu wanted me to take up my station. He pointed to a low range of forest-covered hills dimly looming up about a quarter of a mile away. "That's where the stag spends the day, sahib. He regularly passes here at dawn, usually with one doe, and if he is down to-night we should see him." We were, in fact, on one of the deer "runs."

A light mist was hanging over the paddy fields, in which the water lay deep in parts, the green heads of the paddy showing above it. A narrow village path ran a circuitous course from the little knoll where we were to the forest-clad ridge. It was partly by this village path that the stag usually returned after his nightly foray into the fields. Bishu wanted me to take up a position to command this path. That would be simple, the only difficulty appeared to be the mist. It was light now, but should it get thicker it would be almost impossible to get a shot unless the stag walked right on to us. I was not very keen on a shot of this description, however, and staying here meant limiting myself to the chance of seeing one stag only, and that problematical. I determined, therefore, to make for the hills in front of me, and this, in spite of Bishu's opposition, we did, proceeding there by a circuitous course. On reaching

the foot of the ridge we climbed up through the scrub of *Eugenia* and other plants to about thirty feet elevation and then sat down to wait the dawn, now rapidly approaching. The mist was much lighter here. Already the sounds of the night folk were lessening. Away to our left a pea-fowl sent forth its peculiar call and the koel bird had started singing in a tree hard by. Gradually the darkness lying over the cultivated lands below us lifted as the East flamed red and gold with dark, threatening streaks, and patches of rain-clouds hanging above the brilliant colouring of the dawn. A light breeze had risen, blowing down from the ridge behind us, and was dissipating the mist in front.

Eagerly we scanned the ground beneath, and I looked out carefully for the run by which the stag was said to return to the hills. One dark patch I discovered about three hundred yards off, and was just turning to Bishu to ask him about it when he touched my arm and pointed away to the right or south-east. Out in the plain I descried the small rise and clump of trees where Bishu had wanted me to take up my station. I could see nothing else at first. Then suddenly I saw what Bishu meant. Two deer were advancing from the direction of the clump. The rapidly increasing light showed them up sharply. The one in front was a doe, stepping daintily along the path, her ears constantly flicking backwards and forwards and her eyes travelling in all directions as she turned her head to left and right and nosed the air for danger. Behind, some fifteen to twenty paces, came her companion, a lordly stag. I suppose he was about two hundred and fifty yards off, perhaps a little more when I first saw him, and he appeared a fine heavy beast. Anxiously I watched the doe. In what direction would the run, for she was evidently on a run, take her. If she advanced towards us I should not get an easy shot at the stag. I glanced at Bishu, but could make nothing of his face. I looked back to the doe. She was now advancing directly for us. The stag would accordingly take the same direction as soon as he reached the turn in the run. Should I fire while I still had him more or less diagonally on to me? I half lifted the rifle and then lowered it. I did not like the shot. Bishu moved his fingers, but I did not know what he meant.

The doe was now within one hundred and fifty paces,

the stag directly behind her. Suddenly she halted and stood like a statue, her ears flung forward and her nose held horizontally. She stamped her forefoot into the ground and for some reason or other was evidently suspicious. We were hidden behind some bushes and she could not have seen us. But she evidently did not feel easy in her mind, and after advancing another twenty paces or so, changed her direction to the left, moving diagonally towards the foot of the hill. The rays of the rising sun formed a sort of halo round her as she moved off, suspicion in every line of her body. To my relief the stag still continued to advance, but not for long. He quickly noted the changed direction of his companion and suddenly up went his head, he turned half-left and stood stock still.

What a sight the old fellow was! Well over fourteen hands he stood, heavy and massive, the long bristly hair on his neck and the thick, widespread antlers, together with the heavy dark-brown body giving him a rugged and majestic appearance. A very king amongst stags is a fine old sambhar. The sun's rays gave a golden edging to the antlers, and the drops of moisture on the rough coat shone like jewels.

In a tense silence and with bated breath I raised the rifle and sighted on the shoulder. As I did so a sharp, warning cry came from the doe, and the crack of the rifle synchronized with a sudden start forward on the part of the stag. He stumbled to his knees, but was up again and galloping off in a lumbering fashion when the second barrel caught him true behind the shoulder and he dropped in his tracks and never moved again. I rushed forward with a shout of delight, for he was my first big stag. As I did so I heard a sudden bell of a stag behind me, and, looking round, saw a couple of does followed by a fair-sized stag entering the jungle at the foot of the hill, about three hundred yards in our rear, whilst several other does were stampeding across the fields at a still greater distance.

"Sahib, we might have had another stag if you had not moved," said Bishu sorrowfully. For a moment I was annoyed, but only for a moment. "The big stag's enough for me, Bishu," I replied, and we went and stood over him, and measured every part of him. The horns

were very massive and thick, but just did not tape the forty inches.

Measurements made I returned—luckily picking up my pony on the way—to the small bungalow where I made a good breakfast before riding back to the Station and the inevitable (at this season) day in the musty, fusty office.

CHAPTER III

BEATING FOR BEAR IN CHOTA NAGPUR—A STATION SHOOT

"Mixed" shooting parties—The bundobast necessary for a Station shoot—Beating for bear in March—Ordered to prepare the machans—Bruin brought to book—The leopard and the goat—Bear country—Bears as plentiful as blackberries—Tackling bear—Crows—The Indian vulture and its habits—Bears' partiality for the mhowa flowers—Incidents of the day's shoot—Several bears bagged—Usual method of shooting bears—Bear caves—Beating bears out of caves—Bears hard to kill—A day after bear—A.B.C. and his laugh—Successful sport—A.B.C. and the bear—A perilous moment—The bear's discomfiture—Failure to get him—A.B.C. explains—A good day's bag.

"MIXED" shooting parties are not, perhaps, greatly favoured by the keen shikari man. In my experience such parties are commoner in the cooler and less malarious climate of North-Western India than in the Central and other parts of the country.

As an Assistant, however, I plead guilty to having thought them great fun, the presence of some members of the fair sex adding a piquancy to the proceedings not entirely due to the sporting element.

And what a business it is, a day's Station shooting picnic when the ladies are included!

The bundobast necessary to ensure matters going smoothly is terrific. It is not costly. It is not the expense of the

thing that appals one, but the magnitude of the scale on which the arrangements are made. And yet it is simple enough compared to what an outing on the same scale would entail at home. In the East many of the wheels require little oil. We ourselves and our servants live a nomadic life for at least half the year, and therefore the commissariat presents small difficulties. Servants, food, its preparation, drinks, etc., are placed in the hands of one or two of the most experienced servants in the Station. When all is ready a few bullock carts are loaded up and dispatched the evening or morning before in charge of an attendant or two, and a cook; and the necessary number of table servants to wait are told off to start in time to ensure their being ready with a meal on the arrival of the sahibs.

The members of the shoot drive or ride out in the early morning so as to be at the rendezvous by the hour settled upon. A certain amount of manœuvring and heart-burning take place over the question as to "who" shall go with "who"; but that is usually trivial compared to the struggle amongst the bachelors at the end of the jolly day as to who shall be their companion for the drive or ride back!

One of the many shooting picnics of this kind I enjoyed in my salad days comes to my memory, and I will describe it as roughly noted down at the time in my journal.

It was in the third week in March and the sun was already making its presence felt with unpleasant intensity. The hot weather in that district was terrific, and no amount of description will give those who have not experienced its fierce power an idea of what the sun can really do when it means business. That year we had a real "corker," and it began early.

I was out in camp and the first intimation I received of the coming festivity was an order from my chief to proceed to a certain favourite beat of ours and inspect the repairs which had already been ordered to be carried out to a line of machans which were in existence. Having been by myself for some weeks I hailed the order with delight. Leaving my camp standing I set out at 3 a.m. next morning and rode through the forest to catch the mail at 4 a.m. at a small station about six miles off, the train arriving at a junction at 5.30 a.m. Here I got some breakfast with new bread, a luxury I had not seen for weeks, and mounting a pony, which had been sent out for me, galloped to K. about eight

miles away. It was gloriously fresh, and I can remember, as if yesterday, every incident of that ride. As I passed a tank where I had often shot I noted there were still some duck and teal on its placid surface. Further on was a patch of forest on a small rocky hill where we had one day rounded up a bear. Bruin had stayed too long one night feeding on some succulent crop in the open country, a habit of the species to which I shall refer later on, and being surprised by dawn had not had time to get back to his cave, and so had lain up here for the day. Unfortunately for him the irate owner of the crop he had been robbing had noted him leaving in the morning and marked down his refuge. Ordinarily too lazy to carry shikar khubbar to the sahibs, rage in that instance overcame apathy, and the man himself had appeared at the door of the office where my chief and myself sat over dreary files and returns. Within half an hour the two of us, a tiffin basket, orderly, and the villager were in a trap bowling along for the patch of woodland and bruin was brought to account.

A mile further on just behind the small wayside village was the tree in which I had sat up over a village goat, which had been killed by a leopard. The animal had seized his prey, but, frightened by the shouts of some men in the neighbourhood, had dropped his kill in his flight. I spent ten hours in a machan in the hope that the leopard would return and give me a shot. No trace of the beast did I see, though the villagers told me in the morning, and the pugs of the animal supported their statement, that he had come to within fifty yards of the kill and then, growing suspicious, or being too cowardly, had retreated. There

was a fine moon that night and my surroundings were brilliantly lighted ; but a leopard can hide himself behind

the smallest bush or patch of low grass, and moonlight is at best very deceptive. Moreover, I had not yet acquired much of a jungle eye for night work.

What glorious days those were as an Assistant, before one realized fully that responsibility had to be shouldered and that life was not all shoots with the work sandwiched in between !

Arrived at K. I started on the inspection. The terrain of the day's business consisted of a steep rocky hill covered with low stunted sál trees, here very different in appearance from the same species of tree when growing in the great reserves to the south-west. But the rocks, piled up in tumbled masses, formed caves of varying size, affording magnificent residences for bear. These rocky scrub-covered hills, which were plentiful in the more open parts —the agricultural parts—of this district, were in fact ideal homes for bruin, and gave shelter to innumerable families of the common sloth bear (*Ursus labiatus*) or bear of the plains. We used to say that they were as plentiful as blackberries in those days, and with very little difficulty great sport, often accompanied by ludicrous incidents, could be enjoyed. In fact some of the sportsmen of the district, those not officially connected with the great forests, had numbers to their credit. That my own bag was small in my Assistant's days was primarily due to the fact that my work lay in the large jungles to a great extent, and that I was bitten with the " bison fever " rather badly. Whenever I consistently could, and whilst still an Assistant one's conscience is somewhat elastic perhaps, my energies were devoted to bison.

The black bear of the plains of India is a far more sporting beast than his Himalayan confrère with whom I subsequently had numerous encounters. The bear of the plains is both plucky and aggressive as the native well knows. It is not an uncommon sight to meet a villager with one half of his face or his shoulder scarred in an unsightly manner owing to an unpremeditated encounter with a bear. As the latter is about six feet long and three feet high, when standing up on his hind legs, a practice to which he is much addicted, he stands some seven feet high to the crown of his head, and is then an ugly customer to meet unless one is suitably armed. And he will carry a lot of lead unless shot in a vital place. From the point of view of danger he is not to be compared to tiger, leopard, much less a wounded bison, or a

buffalo. The danger from bear and the nasty " accidents " which have occurred to sportsmen when attacking bear are attributable to the fact that the average shikari is apt to look upon the bear as an easy quarry to bring to book and to take liberties with him in consequence. And then bruin turns nasty. And his antics, for at all times his comical appearance and actions have a strong effect on the risible faculties, unsteady one at a critical moment and one of the party gets mauled. Sportsmen are not so apt or inclined to play the fool when a wounded tiger or leopard is in the vicinity! But I digress.

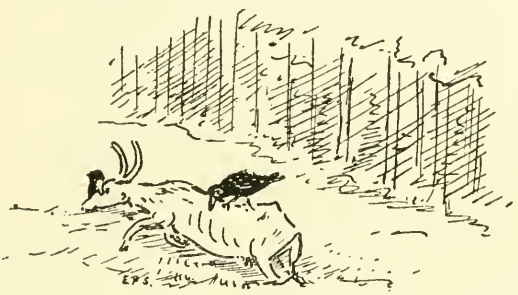
The line of machans was posted about one hundred yards below the crest of the hill, and on the side which was least broken up by narrow nullahs. There were a number of small caves on this side below the machans. On the other side of the crest the hill was much broken up, contained the chief of the large bear caves, and formed by far the greater portion of the eminence. There was also a small outlying spur to the right of the line of machans facing down the slope. The procedure was to have three beats or " hanks " as we called them locally. In the first or morning one the men beat the larger part of the area bringing the quarry over the crest and down to the machans. The animals which escaped unhit or unseen took refuge in the caves below the line of machans. This area was beaten back in the afternoon, and as a finale stops were placed along the crest and the outlying spur was beaten on the flank of the machans, the animals coming past the whole line, or if extra cunning passing so far below them as to almost certainly ensure their escape to any but very good shots.

I spent the day in examining each machan. In view of the fact that I was well aware that my work would be exposed to the criticism of all the men of the Station, older and more experienced than myself, and that such criticism would be made openly in the presence of the ladies, whose playful raillery I was young enough to be mortally afraid of, I worked extremely hard. Several of the machans were taken to pieces and rebuilt. Others were given beautiful roofs of green boughs to protect the fair heads they were to shelter.

The day was spent over those machans, and as the event disclosed some were made too comfortable for sportsmen satiated with lunch and the society of ladies fair.

I also had some litters prepared in which to carry the ladies up the hill. In this then unsophisticated part of the world we had only one palki or palanquin in the whole Station, and dandys and rickshaws were unknown; not that the latter would have been of any use.

At last I was satisfied and, as the sun neared the horizon, I climbed down the rocky hill-side to the small bungalow on the road where I was to pass the night, and spent the evening in a dream of delightful anticipations, the only excitement being the arrival of the carts with the commissariat for the next day—and by their number that was evidently to be done in no niggardly fashion. Just before I reached the bungalow on my return I noticed some vultures winging their way across the firmament and dropping to earth at the foot of the hill to my right. Being still new to the country and interested in everything I deviated from my route to see what they were about. I soon spotted a dead village cow with two crows on it, and several vultures approaching with ungainly hops to their unsavoury feast.



These vultures are a common sight in India. They each have a station of their own high up in the heavens, and soar slowly round in circles throughout the day, keeping a close look-out both upon the country below them and on their neighbours in the sky. If they see a dying or dead animal on the earth below them they drop to the ground in great sweeping circles, ever dropping and dropping till they get close to the earth, when they plane down a steep incline of air to the ground. If, on the other hand, they see one of their neighbours high up in the heavens leave his station and start off in a certain direction, they know he is making for a place where there is a dead carcase, and they take the same direction, keeping on and on till they see the bird in front of them dropping to earth, when they do likewise.

It is an interesting spectacle for the naturalist to watch these great birds soaring in the heavens, and to speculate on the tremendous powers of vision they must possess to enable them to see what is going on below them on the surface of the earth from the great heights at which they slowly revolve. As interesting, though somewhat repulsive, is it to watch a number of them collected round a carcase and fighting for a position from which they can tear out a lump of flesh. Fierce pecks they give each other with their strong bills, and squabble and push and struggle amongst them-

selves, for all the world like a pack of unmannerly humans in a low-class tavern. And then after the feast they sit round on the ground, or perch on neighbouring trees, with wings outspread and drooping, looking like so many drunken bedraggled birds, whilst they slowly digest the mass of flesh they have gorged themselves with. As soon as the mass is partially digested the heavy birds take a short run along the ground and launch themselves into the air, moving their great heavy wings in unwieldy flaps till they have got up sufficient momentum, when they rise in a straight line and then slowly soar upwards in ever-widening circles.

The next morning I was up at " crow's dawn " and, after a cup of tea, climbed up the hill to have a last look at my machans. I expected the party at eight o'clock, and as I descended the hill I descried a dogcart about a mile away —the first contingent. We were not a large party in the Station in those days—a dozen all told, and ten, of whom four were ladies, were to form the party, the other two men being away in a distant part of the district. Three traps completed the driving contingent, the other four, two of them our fair unmarried spins, riding out.

The breakfast had been laid out on tables under the shade of some fine banyan trees, and we lost no time in sitting down to it. To myself, after several weeks of my own company, the mere fact of finding myself amongst fellow-beings of my own race once more put me in roystering spirits, only dimmed now and then by anxiety about the verdict on the machans. I had good news to impart as to the certainty of there being bears in the caves on the hill, and that sent up all spirits.

The mhowa (*Bassia latifolia*) tree flowers at this season, and it was particularly abundant in the vicinity. Bears are very fond of feeding on the shed flowers of this tree. The flowers have a vile smell, but are sweet tasting, and consequently loved by bruin as also by the various deer and the curious antelope known as the nilgai (*Portax pictus*). The jungle tribes distil a kind of arrack, a most potent spirit, from the flowers. White ants, which abounded in the district, are also much liked by the bear, who pulls down with his powerful claws the conical dried mud heaps of the termites and feeds noisily on the builders.

We did not dally over breakfast, hot meal of many courses—so dear to the heart of the native cook—though it was. Before nine o'clock we were on the narrow winding rocky path leading up the hill, the two older ladies installed in the palanquins. The girls had elected to walk, each accompanied where possible by two attentive cavaliers.

It was always an amusing episode (for the older people at least) that walk up to the machans. The path at times narrowed so that only two, and often only one, could proceed at a time, and it was at such places that the attentive swains endeavoured to displace one another, so as to keep nearest the girl of their choice for the time being.

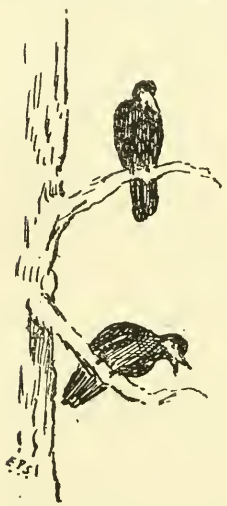
The older men used to say, confound them, that it was as good as a play that walk up the hill. Perhaps it was to them !

Arrived at the first machan the party halted, and the process of allotting machans for this the most important beat of the day was proceeded with. On such occasions and in such company this was a most anxious moment for the youngsters, and my rueful face gave rise to uproarious mirth, in which the girls merrily joined, when I was allotted the machan we were standing before. By no means could a lady be put in it.

" You will keep a good look out, S.," said the senior male member of the party. " Don't go to sleep, and don't let your thoughts go wool-gathering to the other machans."

Another shout of laughter and the order to move on was given.

I watched the party halt before the next machan. Hurrah ! Young T. was left behind and his attitude of dejection relieved a part of my gloom. This was all I saw of the party till the end of the beat and I climbed into my machan. I had one man with me, and we took up our positions so that I commanded all the likely places.



A long wait now ensued. The sun rose higher and higher and the very trees themselves took on a listless air, the leaves appearing to droop. The only signs of life I could see were two black crows, who sat in a neighbouring tree and cursed at me at intervals ; there were also lizards and insects. The heat bothered neither, especially the flies !

Suddenly I heard a very faint halloo, and as it always does it braced me up at once. The beat had begun. I sat motionless. The chaff and pinpricks of the morning were forgotten now, in the keen desire to distinguish oneself if the opportunity arose. This beat took the best part of two hours to put through, and at times one lost sound of the voices when the men dropped into a ravine. At others they swelled in volume when they were endeavouring

to ascertain whether the larger caves contained occupants. It must have been an hour after the start when the sharp crack of a rifle to my left broke the stillness. It was not repeated. A little later I happened to glance at T.'s machan and saw him raise his rifle, but he did not fire. Not long afterwards he went through the same motion, but again lowered the rifle. He told me afterwards he had seen a four-horned antelope, but never clear enough to fire at it.

A loud burst of noise now quite close to the crest above me and quite suddenly a black ball appeared on the skyline, and without a moment's pause, made down the hillside, rolling along from rock to rock in an extraordinary manner and at a considerable pace. At first I thought he would come straight for me, but the bear, for it was bruin, changed his direction for a diagonal course and I soon lost him to sight. A shot, followed by a second, showed that he had been seen by one of the machans. Soon afterwards the first of the men appeared on the crest. A storm of yelling on the left followed by a fusillade, a dropping shot or two, and the beat was over. I waited. Dusky, beautifully built men, naked but for a loin-cloth and a huge turban, used as a covering at night, gathered below my machan, talking and laughing like children, going over the incidents of the beat.

Two blasts of a whistle and I hurriedly climbed down and made for the rendezvous, a solitary, stunted but shady banyan tree situated near Machan No. 4, which time-honoured custom had made the tiffin place. Here the party soon assembled, some rather gloomy at their bad luck, others very excited at their bags. The result arrived at from the excited babel of talk was three bears killed, two supposed wounded, and, according to the native shikaris, three others which had apparently got by unseen. Anyway, ran the verdict, there would be plenty of fun in the afternoon. Whilst this went on the servants brought with us, who had been stowed away in the larger machans, were laying out the lunch. Ice-cold drinks were produced, and most members of the party slaked a thirst that was worth quenching. We gathered round the board—snowy damask tablecloths spread on the ground—in a festive mood.

The heat did not impair our appetites—not of the younger

members of the party. The tiffin, hot and cold, with a curry such as one can only get in the East, was a regal meal, compared with the few sandwiches which formed my usual midday fare when out in the jungles away from camp, and was a repast I did full justice to.

What merry parties those were, even with the unmerciful chaff, always dealt out to the youngest griffin of the Station, " to lick him into shape, you know," as the elders put it. And it was a fiery furnace which certainly accomplished the end in view so far as that was possible.

The shikaris came up and reported that one of the bears said to have been wounded had been hit, but they could find no blood in the other case. They also intimated that it was time to commence proceedings again. By then most of the party were in a semi-drowsy condition, save the more energetic of the youngsters, who were fanning the girls with palm leaves.

The machans were again apportioned. The fiat went forth ! All ladies were to either go with their respective husbands or fathers or with a senior male member of the party. The younger members of the party protested vigorously and the girls looked their disapproval. But apparently two leopards had been reported on the hill, and as it was quite likely that one or both might come out in the beat, no risks with excitable youngsters were to be taken !

Gloom settled over the younger members as, with elaborate politeness, they helped the elder ladies and men to collect their belongings and set off for the machans. I had No. 4 given me. Nos. 3 and 5 were large roomy ones in each of which a lady was to go, elderly to the left, young one to the right.

As there was a wounded bear afoot the beaters were to proceed out into the plain to beat a small rocky islet about half a mile from the hill to which one or other of the bears might have gone. This would make a longer beat of it, and should, with good fortune, send at least five bears back to the machans.

I had a most entertaining afternoon in that machan. D. and his wife with the other elderly, rather voluble lady, who, on hearing about the leopards, said she would only go with D., occupied No. 3 to my left, whilst No. 5 was tenanted by one of the fair spins and an elderly bachelor.

Poor T., desperately gone on the aforesaid fair damsel, was in No. 6, and his shooting was at first sadly affected thereby.

It was very hot—in fact appallingly so—though I cannot say that I ever minded the heat very much.

Watching the occupants of the machans to my left and right settle down proved most interesting and entertaining.

D. was a very good shot and a fine shikari. But he always treated these picnics in a light-hearted fashion and not as serious business ; and, moreover, he had had an excellent lunch and a bottle or two of beer. Mrs. D. did not shoot, but was always very alert and keen in a machan, and not much escaped her gaze. The other lady evinced no interest in shikar. The couple to my right had commenced sparring before they got into their machan, and flippancy was all that could be expected from them. That the match continued after they were comfortably settled was evidenced by the occasionally slightly raised voices and silvery laughter followed by deeper guffaws. This annoyed me rather as I feared it would frighten the bears from our line, and besides it was directly against all the rules I was having inculcated into me as to correct behaviour whilst engaged in beats and sport generally. Also the spin had no business to be enjoying herself with the old bachelor. However, I knew allowances had to be made when ladies were present, even though I myself was desperately in earnest and out to kill. But my anxiety and interest was mainly centred in D.'s machan, which at the present moment did not seem to be in much better case.

D. was at the time my beau-ideal of the shikari, and I was endeavouring to model myself on him. My faith suffered a rude shock that afternoon !

The two ladies apparently found it difficult to settle down in comfort. An awful row went on in their machan for some little time in which the voice of the talkative one predominated.

Such fragments as—

" What on earth you can find amusing . . . " voice became indistinct.

" My dear, as I said, this machan . . . and that young man ought . . . " murmur, murmur—at which I blushed to the ears at the apparent scornful reference to myself. Silence for a space.

"It's absurd. It's fearfully hot. Preposterous. . . . No! Mr. D.," in a freezing voice, "I will stay where I am, if *you* please. Nor do I see anything amusing about my position . . . " murmur, followed by a loud guffaw from D.

"Don't be foolish, D.," from his wife. Silence.

"My dear," loudly, "I tell you I'm positively melting; it's trickling all down my back and front, so hot am I. No, it's not indecent, Mr. D. . . . " murmur, murmur.

This continued for a time even after the beat had commenced and proved most diverting. But I could not make out what D. was about to permit it. I could see him, or rather his topi and shoulders, and he appeared to be watching the hill-side below him. He was in the front of the machan which was one of the roofed-in ones. The ladies were behind, and I could see Mrs. D. and hear her companion. The voices, the latter's chiefly, gradually sank and finally lulled to a murmur and then stopped. My comments on ladies out shooting during this stage were not polite. At last total silence reigned in Machan No. 3. Mrs. D. sat erect, but when I looked for D. I could only see the top of his topi. This did not strike me at the moment. Ripples of laughter still came from No. 5, and not much of a look out I surmised was being kept there.

The beaters were now at the foot of the hill below us and the fun was evidently waxing fast and furious. My eyes glanced down the slope. The shadows of the trees, hard and clear cut on the rocks, were commencing to lengthen somewhat. Suddenly a black form appeared on the top of a rock some way below. It disappeared. I waited with bated breath. There it was again coming in my direction. Finger on trigger, in intense excitement I waited. Again it disappeared. Then I saw it again, more to the left now, and making straight for D.'s machan. Disappointed, I had no thought of firing. I had learnt that lesson. Now it was within thirty yards. I glanced at the machan and saw Mrs. D.'s head bend suddenly forward. D.'s topi and shoulders immediately appeared. The bear was by then below the machan. The next moment it appeared to be half-way to the crest. I heard a shot from D.; the bear disappeared over the crest, and I turned to see D. with his rifle at his left shoulder. He had fired from that position and had

obviously missed. I loyally tried not to think it, but I knew D. must have been asleep—the last enormity to be committed by the occupier of a machan. I was absolutely horrified and dared not look in the direction of that machan from which I heard subdued voices coming. The shot had one effect. It stopped the frivolity in No. 5.

The beat approached. The noise was prodigious, interrupted by peals of laughter from the Kols who were enjoying their outing immensely. A prolonged howl and a bear appeared on a rock sixty yards from me. I fired on the instant, for he was high above the beaters. He disappeared, and for a second I thought I had killed him. In a flash he was in front of my machan, and as he passed within twenty yards I fired again, and he dropped and rolled over down the hill. Seizing the smooth-bore, in which I had a spherical lead bullet, I fired again and he was pulled up by a rock and lay quiet. At the same moment I heard a shot on my left. Turning, I was just in time to see another bear passing D.'s machan, and on the instant it fell, crumpled up and dead to the second barrel.

These shots had roused the beaters to a frenzy. They were quite close, and I could see the men below bounding from rock to rock. Suddenly another rifle shot clove the air, followed by a second, and after a brief interval by a third. Again the uproar from the beaters who now climbed up to the line of machans.

Our orders were to sit tight where we were till the small third beat was over. But the news was passed along that T. had bagged a bear, so that we had three more as the result of the second beat.

The third beat was short and quickly over and proved blank.

Again the party collected near my machan, and D. had to answer some pertinent enquiries as to what the first shot fired in beat No. 2 was at, and what the result ! I carefully kept my mouth shut and so, of course, did his wife. The other lady had been asleep, as had D. !

We were to have tea under the big banyan trees at the foot of the hill, before the party started back to the Station. I had to catch the night mail back to my camp many miles away, as I had no permission to be away more than the one day. It was a heavy heart I carried as we commenced to wend our way down the rocky hill. I noted that T. had

secured his lady fair for the walk down, and that Captain H. had walked off with number two without a by your leave to anyone. But now that the fun was so nearly over I was not in the humour for skirmishing. It was a merry party, however, that went down that rocky hill-side, and a noisy one at the subsequent tea. For myself, in spite of being rallied about it—deep gloom had settled down upon me. The jolly day was over. The sun was within an hour of setting when the party began to prepare for the journey back. As I got up from the table D. suddenly said, " Oh ! by the way, youngster, I've a telegram about you," and searching in his pocket he drew out and threw the flimsy paper across the table. On it I read " S. may spend night in Station and rejoin his camp following day. C." It was one of the ways by which D. endeared himself to the youngsters. He had guessed how hit I should be at having to go back to my lonely camp and leave them all at the end of such a jolly day. He had, therefore, wired to my chief on his own account and obtained permission for me to go back with them all. He read my thanks in my face, and made some chaffing remark about a damsel dark and damsel fair, but his wife said, " What a shame not to have told him before." But would it have been quite the same ? By special request I made a third with T. and his lady-love in the ride back to the Station. However, before we had gone half-way I, without a pretence of an excuse, put spurs to my pony and galloped off. I was to put up for the night with the D.'s, where all the Station were dining that evening.

What a jolly dinner that was, and what yarns we all swapped !

* * * * * * *

The usual method of operating against bears is not, however, from the machan. The best fun is to be had in tackling them on foot, either by lying in wait for them in the vicinity of their caves as they return from the fields where they have been guzzling on some sweet crop at the expense of the unfortunate villager, or by beating them out of their caves during the day. Two or more rifles are preferable for this work as more bears are, or should be (by no means the same thing in bear shooting), bagged than is possible for one rifle when two or three bears are afoot at

one and the same time. Also there is always an element of danger in the encounters, made stronger by the fact that bear are extraordinarily hard to kill. This is especially the case when you are awaiting the return of the animal from the fields and it arrives before daylight. Owing to its black colour it is difficult to make out the form of the approaching beast, much less distinguish the dull white horseshoe mark on the chest or the place just behind the shoulder, the two best spots for a fatal shot. Unless brained, shot through the heart or spine, each shot put elsewhere appears to act as an additional incentive to a vigorous attack. In charging a bear usually gets up on to his hind legs, and the bullet in this case should be placed just below the middle of the white horseshoe. If he is on all fours fire at his white muzzle, which is the one conspicuous object which you will be able to pick up on the foresight of the rifle.

Many a rough and tumble we had with bruin in the palmy days in Chota Nagpur. There was never any difficulty in getting together two or three rifles, and when life became irksome or monotonous in the Station in the hot weather or rains a day's beat was arranged as a variation. Ludicrous incidents occurred with a frequency which, if related, would render oneself liable to the charge of romancing by those who have not enjoyed the sport. The following episode is a good illustration.

The rains had been falling for days, weeks, with that boring persistency and monotony too well known to the Anglo-Indian banished for the time being to one of the small Stations of a province where half a dozen represents the total complement of men of his race.

A welcome break arrived and the sun shone, and incidentally the earth began to steam as only India knows how during a break in the rains.

A day after bear was voted and out we went, four of us, including a youngster in the police, possessed of the loudest and heartiest laugh I had ever heard then, or have encountered since for that matter. A.B.C. we will call him (these formed part of his extraordinary collection of initials); F., R. and myself formed the rest of the party.

We drove out some ten or twelve miles to a small rounded rocky eminence, separated by a couple of miles or less from

a rather higher elongated ridge several miles in length. This latter was honey-combed with caves, and it required considerable bundobast and a week's work to do it thoroughly. It was a gigantic bear colony. The rocky eminence, which a closer approach showed to possess a cleft at the top dividing it into miniature twin peaks, was our objective that day. It contained several caves, one of considerable and unknown dimensions. We had always intended, the younger ones of us, to explore that cave thoroughly, but for one reason or another the expedition never came off while I was stationed in the district.

We started at dawn with the Anglo-Indian's customary idea, ingrained in all of us, of escaping the heat later on. Though as we were going to play about all day amongst rocks burnt to a fiery heat and would not begin much before 10 a.m. or so, the object of dragging us out of bed in the dark was not apparent to the youngsters.

The rocky hill, save for a few stunted, sparsely foliaged trees, was devoid of covering, and I can well remember the scorching heat as we took up our posts perched on rocks near the first cave. We had tossed for priority of shots and I came third on the list, A.B.C. being fourth.

The ball commenced with the first cracker tossed in at the cave opening. We were posted so as to cover the probable lines of retreat, R. being in front and nearest. Whether the cracker fell on bruin I do not know, but as I heard the first report of the firework a black shape appeared at the cave mouth. R. fired and hit him somewhere, too low as we afterwards found, and the bear rose up and went for him. The second shot tumbled the animal over. For a space of seconds he lay inert and then was up and over the top of the cave, aiming a blow at the cracker man, who had gone up there for safety, which fortunately missed. A fusillade opened at once, but bruin had gone two hundred yards before he dropped in his tracks. Feeling fairly certain that there was a second bear in the cave we spent a scorching half-hour and a lot of fireworks in endeavouring to get it out. It proved a waste of time.

From the next cave one bear only was bolted and killed with a shot through the brain by F. A second expenditure of crackers failed to elicit a sound from this cave.

It was now my turn for first honours. I perched on a flat rock slightly to the left of the cave mouth, and the usua

proceedings took place. As the second cracker commenced to detonate and reverberate inside a snarling growl arose. Tingling with excitement and finger on trigger I waited. Suddenly a black form appeared at the opening and shot out. I fired. On the instant it turned and set upon a second bear which had just reached the entrance. A free fight took place, the first bear on being hit attributing the pain to an act of his companion. A fight of this description almost invariably takes place when two bears come out together and one is hit. I think we all emptied two barrels into the fighting black mass of fur, the only result being that the bears parted ; one going off up the hill-side, the other down. We all had twelve-bore guns loaded with Mead shells as our second weapons. I saw both of A.B.C.'s shells fired at the uppermost bear explode on the rocks, and also my first. The second hit somewhere, but the bear disappeared as A.B.C.'s great exasperating laugh came down to me. " What on earth is the fool laughing at ? " I thought. R. and F. knocked over the other one. We retrieved the upper bear dead later on. It had five bullets in it, in addition to my Mead shell which had struck it on the pad.

The main cave now lay before us, and here we fully expected plenty of fun. Nor were we disappointed. I should say that up to now, although at each cave we had heard A.B.C. or rather his great laugh at frequent intervals, he had not as yet taken any close part in the proceedings. The only bear that had gone near him was one of the two which came out of the third cave—the one he fired the Mead shells at. I may also add that none of us had ever been out bear shooting with him before.

The big cave had a wide cavernous mouth, out of which a dozen bears could have charged abreast. There was also a platform of considerable extent in front rising slightly from the mouth of the cave to the far side. Midway near the edge here was a small rock projection which formed the post of the first rifle. A.B.C. installed himself thereon, and the rest of us took up positions so as to cover all possible avenues of escape, and with instructions to each choose a bear and endeavour to kill him outright, an instruction of perfection by no means easy to attain as has been shown already.

As soon as we were posted three men approached the

cave mouth armed with our largest and noisiest fireworks and threw them in as far as possible, immediately climbing nimbly up to positions of safety. The cracking reverberations made noise enough but nothing happened. A.B.C. started a laugh but was quelled into silence by our furious gestures. Three times was the firework manœuvre repeated. Yet a fourth time the men advanced. One of the three, owing to carelessness or laziness, hung behind the other two,

and their crackers were already banging inside as he raised his arm to fling in his. On the instant two bears appeared at the cavern mouth. The man dropped the cracker and bolted. The firework, a big one, at once commenced that erratic and elusive mode of cracking and jumping which is so bewildering. Two rifles rang out, and the bears appeared to fall upon one another almost at the same instant, snarling and cuffing in a rough and tumble. Only two of us could

see the animals in their present position, and we again fired, and almost on the instant the cracker with a side jump got between the bears. At its next explosion they shot apart, and one of them went out of my vision. The second rose on its hind legs, and in a second saw A.B.C. immediately in front of him some fifteen paces or so away. A.B.C. fired at the animal once without apparent effect, and I was thinking that I would shoot the moment he had put in his other barrel—he could not miss, and no more could I, the animal looked as big as a haystack, so close was it—when to my surprise and utter consternation A.B.C. dropped the muzzle of his gun and commenced to shake with great gusts of that preposterous laugh of his. The bear was by then within five to seven yards of him. Ho! Ho! Ho! . . . Hah! Hah! Hah!—he bellowed in great rolling gusts of sound. The animal halted and for a few seconds stood erect staring at A.B.C., then dropping to its feet it turned round and bolted back into the cavern. I was furiously angry. For some instants I had thought A.B.C. a doomed man, for I did not dare fire. And that the bear meant mischief and would kill A.B.C. before my eyes appeared a certainty. Reaction came with that wild laughter and the disappearance of the bear, and in my turn I laughed till I was almost sick. To see that maniac within a few yards of a bear up on its hind legs and meaning mischief, to realize that he was a doomed man, and then to hear that great bellowing laughter. It was an inconceivable and altogether impossible situation! I did not think of it at the time. I was too anxious and horror-struck. But after all I do not wonder the bear turned tail. I think most of the natives believed A.B.C. to be a bit of a deity plus devil combined.

It transpired, after some considerable and heated questioning from the older members of the party, that A.B.C. had never been bear shooting before (we were all so accustomed to it that no one had ever asked him), and that the rough and tumble of the bears and their separation by the cracker had appealed irresistibly to his sense of the comic—and it was ludicrous enough it may be admitted. When the bear got on to its hind legs and came for him it put the final touch to the farce as A.B.C. saw it, and he just collapsed and roared. "Couldn't hold the gun up, you know. Most comic sight I ever saw in my life." "That b-b-bear . . .

up on his d-d——d h-h-hind l-l-legs, you know," and off he went again in that monstrous laughter of his.

We did not get that bear out of the cave. It would not face A.B.C. again. The other men retrieved the first and we got another one later.

It proved an interesting day taking it all round.

CHAPTER IV

A HUNTER'S PARADISE

Chota Nagpur once more—The fascination of the study of the natural history of the forest—Malarious jungles—Extraordinary abundance of the large game animals—Big herds of bison—Monsoon and hot weather conditions—An animal census of the forests in the late nineties—Arduous nature of bison tracking—Behaviour of wounded bison—The commissariat question—Start off to fill the larder—A moonlight walk—The decision—A barking deer—Come upon the fresh tracks of a herd of bison—The ·450 express and temptation—Proceed to track the bison—Hot weather conditions—Come up with the herd—I follow the herd—Fire at a bull—Am charged by a young bull—I fire at him—Search for the bison—Am charged again—An ineffective rifle—A third charge—Treed by the bull—A long vigil and a vindictive enemy—A rescue—The dead bull—Carried back to camp.

TWO years later I found myself back in, and now in charge of, the division in which I had enjoyed such fine sport as an Assistant. With a greater knowledge of the jungles and Indian sporting methods I promised myself a good time—hopes that were to be fully realized.

Already, however, my attention had been attracted to the study of the fauna of the great jungles in which my work lay, and I had begun to realize that there was a stage beyond the mere sportsman's pleasure in stalking and shooting and searching for record heads, fascinating as these pursuits proved ; that the study of the fauna of the jungles as a whole, and not of the game animals alone, was a most enthralling pursuit before which the mere acquisition of heads would occupy a secondary position.

My work for the next year kept me out in the jungles the year round. This was exceptional and a hardship in its way. For owing to the deadly nature of the malaria prevalent in these forests in the monsoon months, the orders in force enacted that the whole of the forest staff

should retire to their head-quarters out in the open country at this period, brief visits only being paid to the jungle.

The reasons which entailed my remaining on the spot proved, as it turned out, a golden opportunity; as unique opportunities arose for studying the fauna of this part of India as I could not otherwise have hoped to do.

They were an extraordinary place those jungles in the monsoon in the late nineties of last century. Teeming with animals they were, in fact, a giant sanctuary in which the shyest members of the jungle folk, such as the elephant and the bison, roamed at will, free and practically unmolested. It is difficult to believe that this state of affairs existed, for the short interval which has elapsed has brought about very different conditions, so far as the numbers of the game animals are concerned.

On one brilliant day during a break in the rains in August of that year three separate herds of bison, two containing over forty animals apiece, were tracked down and put up, whilst two old solitary bulls were seen; one inadvertently run into as he was resting under the shade of a bamboo clump, and the other after two hours' hard tracking. This latter was a fine old bull, his skin jet black and shining like satin, and horns deeply furrowed at the base and blunted and worn at the tips.

The fleeting glance we obtained of the other bull, as he sprang up and crashed away into a bamboo thicket, showed an animal in its prime, with what appeared to be an unusually long and curved pair of horns.

That day, as regards the number of bison actually seen, proved a red-letter one. But we had few blank days—either seeing animals or coming upon absolutely fresh tracks on most occasions.

And the same state of affairs was disclosed with respect to other game. Sambhar were plentiful and many a good head could have been bagged had I not held my fire, being unwilling to disturb the jungles in the hopes of obtaining a good bison.

In the light of the present condition of these forests in this respect I often bitterly regret that I did not keep an accurate daily record of the animals seen. It may be admitted that such a record would not have been absolutely correct, since the same animal may have been put up more than once. But as the tract of jungle visited at different

intervals that year extended over some nine hundred square miles, such a record would not have been without its useful side.

It was not only in the rains that the animals were so plentiful. At that season, when food and water were to be had in abundance everywhere, the animals roamed throughout the whole length and breadth of the vast jungles. In the hot weather they were more restricted, as the vegetation died down under the fierce heat of the sun and the streams dried up, leaving only pools. At this season these water-holes and the perennial streams which maintained a much reduced flow of water were the places to visit. In the evening, throughout the night, and early morning such places were the rendezvous of an extraordinary concourse of the jungle folk, and it was quite possible to arrive at some estimate of the numbers of the different classes of animals present in the surrounding tract of country. As the hot weather drew to its close the ground in the neighbourhood of these drinking places became trampled down into a shining, stony consistence, the surface showing a network of fine lines and curves left by the impress of the hoofs of the innumerable animals resorting to the drinking places to quench their thirst.

Here again such figures as might be given, relative to the numbers of the various species probably existing in these jungles at that time, would scarce be credited in the light of the more or less accurately estimated numbers of the various species inhabiting the tracts at the present time. From my own personal observations made in the late nineties it can be said that considerable numbers of wild elephants were present in these forests and large herds of bison, whilst sambhar were very plentiful, big heads, forty inches, being fairly common. Spotted deer, barking deer, and four-horned antelope were numerous, as also pig, hyena, wild dog, and so forth. Tiger and leopard, though difficult to get at, were plentiful. Bear in the more open country, as already mentioned, were easily obtainable.

As has been said, shooting in the Chota Nagpur jungles is done on foot, and if one wishes to track the bison with any chance of success it is absolutely essential to keep in hard and fit condition. One will almost certainly have to spend hours on end tracking, exposed to a hot sun. Camp may be quitted at two or three in the morning, and should

a fresh trail be picked up it may be late afternoon before one comes up to the quarry. All will then probably depend on one shot. If the sportsman is so tired out that he cannot hold the heavy rifle straight and steady he will have had his trouble for nothing. And this is by no means a rare ending to many hours' strenuous exertion. For these hours of tramping over rocky hills under a hot sun are terrifically arduous work. One must be abstemious—I do not mean teetotal—and reduce the smoking allowance whilst engaged on this kind of work or success need not be expected.

One of the fascinations of bison shooting on foot resides in the fact that it is not possible to anticipate how an animal will act once he is wounded. The gaur is amongst the shyest and most timid of animals. He is endowed with a most wonderful sense of hearing and smell, and the slightest taint of man's presence in the air or the snap of a small, dry twig breaking the great midday silence of the jungle will send him crashing blindly away on a trek during which he may cover, if seriously alarmed, thirty miles or more before he stops to browse and take matters easy once again. It is a knowledge of these characteristics which necessitates that slow, cautious and absolutely silent approach which is imperative when on a hot trail, if the stalker wishes to obtain a result from his hard work. It is this timidity also added to the natural wildness and constitutional inability to remain anywhere in the neighbourhood of civilization or man, allied to the bulk of the animal and his roaming propensities, which necessitates the maintenance of large tracts of untouched primeval jungle, if the species is to be preserved from extinction.

When wounded this instinct for self-preservation and solitude may prove uppermost in the animal's mind and lead to a blind rush for safety dead away from the direction in which he imagines the danger to be. He may act thus. In many cases he does. On the other hand, in numbers of recorded instances he has exhibited a very different spirit. The wound appears to have roused in him a blind fury, under which all his usual instincts of timidity, fear and cravings for flight to a safe solitude, seem to be overpowered by an overmastering passion for revenge; and to that consuming fury he often adds a cunning which is of the jungle and commonly found in all jungle folk when they turn to bay against their enemies. It is now that the bison

becomes one of the most dangerous and vindictive of animals and resembles his cousin the buffalo. With his marvellously developed senses of smell and hearing to guide him he charges down on his antagonist, and if he misses him will wheel, as soon as he can pull up his heavy bulk, and come on again with rigid determination and eye blazing fire and deadly fury. It is on such occasions that a life hangs upon a thread and coolness and a heavy rifle alone stand between the sportsman and eternity.

I had an experience of this kind that hot weather, and although the ludicrous aspects of my position have often appealed to me since that day, there was no possible doubt at the time as to the tight fix I had got myself into.

One night at dinner my Khansamah informed me that the stock of murghis (fowls) had run short, that the commissariat arrangements had gone wrong owing to some unforeseen delay, and would the sahib go out next morning and shoot a sambhar or spotted deer for the larder. We had considerable difficulty over supplies that year and cholera broke out badly in the district, adding to our troubles. It was a bad business for a time, but we managed to weather the storm. To my Khansamah I replied that his desire could be easily fulfilled without interruption to the work I had on hand. The moon was late that night or I would have gone out there and then. Before I turned in I gave orders to be called at 3 a.m.

Dawn next morning found me several miles from the camp accompanied by a gun-bearer, who also carried a light lunch-basket and a couple of bottles of cold, weak tea, all I ever drank now when out in the jungles by myself. The moon had afforded us plenty of light and the path, a broad elephant track, had been an easy one. We had already seen or heard numerous deer, and a possible easy shot or two might have been obtained had I not wished to reach a certain hill in the cool before the sun rose and whilst walking was pure pleasure. My object was to get the work done, bag if possible a young stag, and be back by ten o'clock in camp, where I had a long day's office work to get through.

As the moon paled before the brightening rays of the rapidly rising sun the surrounding forest became pervaded with a lovely rosy light which gave to the crowns of the great creeper-covered trees a wonderfully soft effect. In front a trappy, rocky hill-side covered with stunted, scattered trees and sparse tufts of sabai grass lay already bathed in a hard golden sunlight, which meant fierce heat later on. It was this hill we were making for, and to my annoyance we had not reached it as soon as I had hoped to do. I was now faced with the problem as to whether to climb the hill and get the work done whilst it was still comparatively cool, or make certain of replenishing the larder and face the greater heat on the hill-side, once the commissariat question was settled. The latter alternative appeared the most prudent, and quitting the track, we entered a narrow deer run to the left, and proceeded slowly, keeping a look out for fresh tracks or animals.

We had not gone far when we saw, away to the right, a small dull reddish shape cropping the grass at the foot of a fine old sál. It was about forty paces away and quite unconscious of our presence. The khakar or muntjac, the so-called barking deer, for such the little animal was, raised its head, listened intently for a second or two and then stamped its forefoot into the turf, emitted a succession of sharp barks, listened again and returned to its feeding. I raised the rifle and then lowered it and signified to my companion to move forward. I had not the heart to fire at the little beast and I had remembered that the camp followers would like to have some meat, and that it would be as well to kill something larger than a khakar.

Within ten minutes we were standing before the absolutely fresh tracks of a herd of bison ! The animals could not have passed, by all the evidences, more than an hour before, and were evidently browsing as they went along.

The jungle man's eyes gleamed as he thought of the feast that he would have if the sahib bagged one of them. A corresponding gleam was in my eyes. What would Bishu, the head shikari, say if the sahib bagged a good bison without his being there to show it him. The sahib

whom he himself had taught to decipher the tracks and signs of the jungle to some small extent.

My hesitation was but brief, and was perhaps chiefly connected with the rifle I carried. Not wishing to overburden myself, I had only brought with me a light ·450 black powder express. Cordite express rifles had not then come into general use. To those who know its significance their advent alone speaks volumes for the decrease in the game animals of India. Now to face a bison with a black powder ·450 express is madness. Of course, many have done it and wounded their animal and never seen it again or, a far rarer event, killed their beast by a lucky shot ; others have done it or tried it and have paid the penalty with their lives. Elephants have been killed with a ·303, but few would care to stand up to a charging rogue elephant with only this weapon in their hands. I had a fair-sized bump of caution about me, but I was young and the temptation was out of all proportion to the size of my caution bump—as it has been to many before and will, in like circumstances, be to the end of time. Nor am I quite certain in my own mind that I should not succumb to the temptation now.

A motion of the head and we set forth to follow the tracks of the herd.

I am not relating this episode with any idea that it redounds to my credit. Far otherwise. It may read amusingly, and I have since been able to perceive the entertaining side of it. At the time, however, as events will show, my attention and interest were held by the serious aspects of the position. Also I have little hope of persuading any other keen youngster to act differently. With the temptation in front of him he will certainly give way to it. But this episode will show him one of the experiences he may have to confront when, inadequately armed, he follows up dangerous game on foot.

The tracks of the herd we now commenced to follow were simple enough to read, and it was evident that there were, at least, a score of animals in it. The difficulty lay in the fact that the forest at this season of the year was all as dry as tinder, and walking without making a considerable rustle and crackle was by no means easy, so thickly did the dead, dry leaves of the sál trees lie in the denser parts of the forest.

Since I could not emulate my companion in his noiseless progression which, in his eagerness, would quickly have left me far behind, I placed him behind and we advanced in this manner for well over an hour and a half. In the period we covered a bare three miles, the tracks leading us dead away from the direction I wished to go in. But this appears to be almost invariably the case in bison tracking, and you must be prepared to follow where the trail leads. Latterly we had been silently walking through a piece of high sál forest, following a narrow path which was more or less clear of dead leaves—swept clear probably by the fierce, hot wind which blows during the day at this season. Gradually the ground began to rise and the forest to open and thin out in front. Evidence had shown that the trail was becoming hotter and hotter, and I was breathless with excitement and anxiety, expecting momentarily to run into the herd or to hear the well-known short, sharp, snorting bellow which is the signal for a stampede.

As soon as we noted the forest thinning again with the rise of the ground, it became evident that the herd must be close. I could not trust my companion sufficiently to send him on to make observations; nor, at this stage, would I give up the honour I wished to have myself of running down the bison and telling the head shikari about it afterwards. Slower and slower still we advanced. Suddenly I felt a touch on my arm and a hand came stealthily forward, pointing to my right front. I turned my head slightly and at once made out the head and shoulders of a bison. The rest of the body was hidden behind the stems of two sál trees. We stood motionless, not daring to move even an eyelash, as for all we knew there might be bison on our left flank. Gradually I made out three other bison immediately in front of us. They were in the thinner part of the forest and the light fell in large chequered patches on their backs. Look as I might I could see no more. There was nothing for it but to wait till they moved away. The animals were all browsing, and in about a quarter of an hour or so they gradually fed forward and disappeared. We waited another ten minutes and I then motioned to my companion that I would go forward and that he was to follow at some distance behind. He nodded, and may or may not have understood. So far

as I was concerned I saw nothing more of him till a much later stage in the proceedings.

I crept forward with infinite precaution, the ·450 at full cock in my hand. The weight of the light rifle had not caused me much trouble or fatigue on this stalk! As I advanced my eye was held by a curious-shaped, forked, almost deformed tree standing at the edge of the forest and directly ahead of me. The tree was thick and stumpy, forked at about twelve feet from the ground with a thick branch growing out horizontally from the trunk about six feet up. This tree was subsequently to play an important part in the day's operations. I arrived at the place where the forest thinned out, keeping so far as possible a tree or two always in front shielding my line of approach. The rise was more gradual here, and as I approached what may be called the edge of the forest the grass, with the lighter overhead cover, at once became thicker and higher intermingled with bushes. Out beyond the hill-side, as is so commonly the case in this part of the country, grew stonier with elevation; being covered with a scattered, rather stunted tree-growth, interspersed with tufts of the sabai grass and bushes growing in clumps. A glance showed me that a number of bison were grazing here. Several were near the top of the slope, whilst others had probably already crossed the ridge out of sight. I was evidently only just in time if I was to get a shot before the herd disappeared—for once on the other side the animals might get into bamboo jungle and give an infinite amount of trouble before I could get up to them again.

I watched the herd with bated breath. In spite of some acquaintance with this fine beast I had not yet learnt to look upon him in his native jungle unmoved, and the sight before me set my pulses tingling and my heart beating a double tattoo on my ribs. My object was, naturally, to pick out the master bull of the herd, and I could form no estimate as to what his size would be. I had not had the practice, and even with it I knew I could never hope to vie with Bishu in his wonderful capacity for picking out the biggest head after a hurried glance over a feeding, or even a bolting, herd. As I surveyed the animals in front of me most fervently did I wish he were beside me. The animals were half and, at times, wholly hidden by the bushes or scattered trees, and as they moved about slowly browsing,

I only got glimpses of their heads. So far as I could perceive there were twenty animals on the slope when I came up, and already three of these had crossed the ridge and disappeared. Again I ran my eye over each animal as his head became visible. The nearest was, I suppose, about seventy yards off, the furthest under two hundred and fifty yards. There were two I had marked down as bulls and their heads appeared pretty level as regards size, and therein lay the difficulty. Surely there must be a larger bull in such a herd !

Patiently I searched the bushes again, starting on the left and working round past the curious forked tree in front of me, until I reached my right front. Ah ! What was that glint ? I waited and watched, and suddenly a black form loomed up above a bush and moved slowly forward. This must be the Lord of the Herd for certain. A fine massive beast in his prime. One long look I gave him and then as he moved diagonally away from me, too diagonally I have since thought, but I had forgotten that I had only the light rifle, I aimed slightly behind the shoulder in the hopes of reaching the heart. The sharp crack of the ·450 was followed by amazed snorts and bellows from the herd and a general stampede ensued. I saw the big bull lunge forward and then my attention was diverted by a crash to the right. I turned sharply to see a bison charging down directly upon me from about fifty yards away. Where he had come from I had not time to consider then. Raising the rifle I aimed hurriedly at the neck just behind the lowered head with the idea of trying to sever the spinal column, and fired my left barrel. He was within about twenty yards when I pulled the trigger. Springing aside I got behind a neighbouring large sál tree, the bison passing within ten yards of me, being carried on by the impetuosity of his rush. The whole thing was a matter of a few seconds only, and I was totally at a loss for the moment to explain the extraordinary action of the animal, for he was nowhere near the large bull at which I had fired. Afterwards I came to the conclusion that the animal, in its first rush, was not charging me at all, but only stampeding away in fright and by chance took my direction. As I silently extracted the spent cartridges and put in a couple of fresh ones I listened intently for any fresh sounds of the bull, but could hear nothing. A deep silence had given

place to the turmoil which reigned so shortly before. "Perhaps he is down," I thought, and with the idea I at once started to find out. Leaving my tree I advanced cautiously in the direction in which the bull had disappeared. The dry leaves were a bother, but the tree-trunks, being still fairly numerous, afforded a certain amount of protection

and concealment, and luckily for me I was not encumbered with the heavy boots I used to wear on such expeditions, but was shod in light stalking shoes. I had gone about fifty yards on the line the bull had taken and was beginning to think I must have overshot the mark, when suddenly from behind me a deep bellow sounded, followed by the

rush of a heavy body. I sprang round to see the bull viciously charging down on me. There was no mistake about it this time. He had spotted me, and mad with fury meant having me. I was quite close to a big tree and, hurriedly firing my right barrel, got behind it, loosing off the left as he carried on past me. I might have been using a pea-shooter for all the apparent effect on the bull, who only answered to the shots by enraged bellows. He was a young bull, not having yet reached his prime, but brimful of viciousness as I was beginning to discover. I was now becoming seriously alarmed, and as I reloaded the rifle, with fingers that trembled in spite of me, I cast about hurriedly for a refuge. That the bull would return I had no doubt, and I did not like this hide-and-seek business amongst the trees. All round me the trees were large with stout, clean stems and quite unclimbable. Suddenly there flashed across my mind the queer forked tree I had noted on the edge of the forest from my first position. It was an inspiration and I at once set out towards it, my actions hurried by the fact that I heard the bull stop and turn and advance in my direction again. So far as possible I moved backwards in the direction I knew the tree must be, having the edge of the forest on my right hand as a guide and facing in the direction of the bull. I moved very slowly, trying to make as little noise as possible, but I had not gone half the distance before, in stepping round a tree, I walked on to a mass of dry sticks. The sharp crack they produced was immediately followed by an angry roar from the bull. I had by then discovered the position of the tree and so knew the direction to make for. I started running, but realized that I could not get there in time as the grass and bushes were thicker now. Again I sought the protection of a friendly tree and fired a shot at the bull as he passed. But I was now shaking like a leaf and could hardly see out of my eyes for perspiration, and the bullet went in far behind as was subsequently discovered. This charge settled me. I could hear the bull already pulling up and I ran stumbling through the grass and undergrowth for the tree, the instinct of self-preservation uppermost. Panting and swearing and perspiring and in a blue funk, for I heard the bull again advancing, I made a jump for the low horizontal branch, missed my hold and came to earth. Scrambling up I had another try, got on to the branch and

climbed up into the fork of the tree. There I clung, shaking with fright, the perspiration pouring down my face and blinding me. Luckily, though I was unaware of it at the time, my topi had not fallen off, as I usually wore it with a stout, leather chin-strap. As I climbed up into the fork I had a dim realization of a great heavy dark mass rushing beneath me. It was the bison, and when I began to recover my senses somewhat I looked about to ascertain the position of affairs. I soon saw the bull. He was out in the open, his impetus having carried him some considerable distance. He was now advancing in my direction at a shambling trot, and, passing quite close to the tree, went on into the forest ; to shortly depart for good, I hoped, when he could not find me. I had read, it is true, of men being " treed " by bison, but I did not imagine then that my position would entail anything but momentary inconvenience now that I was out of his reach. As I recovered from my fright my chief feeling was one of wrath at the young bull whose blundering interference had, I then thought, caused me to lose the old bull. However, I may say at once that no trace of blood was subsequently found on the latter's trail and I do not think he suffered much from the encounter.

As has been said the young bull passed on into the forest, and as I made myself as comfortable as possible in the fork of the tree with my back resting against the thickest stem, I heard him blundering about amongst the undergrowth, though the surrounding foliage prevented me seeing him.

As soon as I was comfortable I concentrated my attention on the bison. He still seemed quite close, and then suddenly the noise advanced in my direction and the brownish-black form appeared about twenty yards away. I could not make out what he was doing. He appeared to be, if I may so express it, routing about in the undergrowth. Routing about was the thought in my mind, and then suddenly I thought of another term, " nosing " about. And with the word my spine ran cold and I remembered what I had read and heard of " treed " men—men in the position I was in, in fact. That when wounded and thoroughly roused a bison, discovering his enemy in a tree, would patiently wait at the foot of it till weakness caused the latter to fall into his power to be gored to death. I confess terror again invaded me at the thought. My whole consciousness was

now concentrated on the actions of the bull. He again passed quite close to the tree ; again went out or rather blundered out into the open for fifty yards or so. I thought he might be giving up the quest and following in the tracks of the herd. But he circled round and once more entered the forest.

As I lost sight of him I peered down through the leaves, the foliage was scanty below me, to see if I could perceive the rifle. On jumping up from the ground in my second attempt to get into the tree I had left the rifle where it had fallen after my first desperate effort. So I was unarmed and helpless. From where I sat I could see nothing, but on moving a little I got a wider view, and—yes, there lay the rifle about ten yards from the foot of the tree. Though tantalizing, it gave me some comfort to see it there.

Again the bull approached. This time he came quite close and circled round the tree. His course seemed aimless at first, but I cannot make up my mind that it was. Nor could I say definitely that he ever saw me in my present position. What he actually did was to blunder round the tree at about fifteen to twenty paces away and then sit down. He was in full view when he stopped and sat down, and I was thunderstruck at the proceeding. The only conceivable explanation that I could at the time give to account for this was that he had scented his enemy and was going to wait for him. It really appears the only plausible explanation of this and similar incidents which have been recorded. To say that my heart sank into my boots does not adequately portray my feelings. At first I buoyed myself up with the hope that he was so hard hit that he was dying but I soon had to give up that idea. He was sitting diagonally, head facing me, ears flung forward, the picture of alertness and, so it seemed to my anxious gaze, wickedness. For an hour, or perhaps longer, I did not keep count of time at that juncture, I sat holding on like grim death to my tree, dazed and despairing. The sun got hotter and hotter, and I could feel it beating on to my topi and through it on to the top of my head, in spite of the leafy screen above me. It may have been this intensity of heat that at last woke me to reality again.

Quite suddenly I found myself looking at the bull. He was still apparently in the same position. He surely must be dead I thought. Then I glanced downwards and my

eye fell on the rifle. A thought flashed through my brain and I began to let myself down on to the horizontal branch below, keeping my eye on the bison the while. From the lower position I found I could only see a part of him, but still most of the head. Taking my eyes from him I looked down ; there lay the rifle, not immediately beneath me, but still fairly close if I could only reach it without sound. This I proceeded to try and do. I turned over on to my stomach and was commencing to lower myself slowly when the buckle of a leather belt I wore caught in the bark and made a loud scraping crack. I heard a sudden movement to the left, a bellow and crash followed each other instantaneously, and I was sitting palpitating on the fork again. I could not have explained how I got there. The bull, for he it was, passed almost below the tree. What pace he was going I had no idea. But I heard him turn and then sit down again quite close ; but now I could not see him.

I made no further attempts to get the rifle.

The effort had done me good, however, and I now turned seriously to a consideration of the position. I had no watch on me, but calculated it must be between eleven and twelve o'clock. The effect of the sun was what I most feared. Drowsiness would do for me. The noise I made no longer bothered me. I felt the bull knew all there was to know, so I selected a better position, and taking off my leather belt, slit a hole in the end of it, and passing the end of a handkerchief through it, knotted it securely. The added length enabled me to tie myself to a fair-sized branch and thus ensure partial safety if I dozed. The added tightness round my middle also stilled the pangs of hunger that were making themselves felt, for I had not eaten for about nine hours. The thought of food brought to my memory my companion and the tiffin basket. Where, I wondered, were they ? And then I began to calculate. Assuming that the man was more or less aware of my position and had returned to camp, how soon could I expect relief ? Three hours either way should do it and an hour to collect the men who in my absence might be all over the place. Three o'clock at the earliest, and I wondered if I could stick the heat, always greatest between one and three o'clock, or felt most at that period. I had luckily never taken to the afternoon *siesta* in the hot weather so usual in the East for European and Indian

alike, and so the fight against drowsiness was not so awful as it must otherwise have been. But I must have dozed.

Once I thought, or dreamt, that the bull came close up to the tree and I grew cold with fright. But this incident may have been a chimera of the brain. Another time I felt myself falling off the tree. That effectually roused me and I was broad awake. I looked round. The shadows were lengthening. I noted that, and as I did so I heard a faint halloo. I listened, my faculties keenly on the alert. Silence, a dead silence, save for the tiny twittering of a small tree-creeper on a neighbouring tree. Again—surely that was a human voice. With strained faculties I listened intently. There! unmistakable that time, and on the instant I opened my mouth to shout back. But no sound came save a harsh cackle. My tongue was baked dry and hard as a parrot's. Again I tried, with no better result. Despair seized me. Suppose they went away and left me to my fate. I grew frantic and gazed wildly round. My eye fell on the sál leaves. I plucked a couple and crammed parts of them into my mouth and chewed feverishly. Again the hail—nearer this time. I attempted an answer and got out a sound and continued my chewing. I tasted nothing, but I felt a little saliva beginning to form and the blessed hails came nearer. At last I gathered up my whole powers and yelled. A certain amount of voice had come back and my third shout was heard, for a volume of shrieks answered me. I plucked some more leaves and chewed hard, for it was imperative that the men should be warned about the bison. To my wandering senses, after the protracted vigil in the intense heat, he had assumed the form of a devil, armed with the cunning of a serpent, and I did not want my deliverers to suffer at his hands. The voices approached, and I did what I could to warn them. But I doubt whether they understood me at the time. And it was immaterial. They thoroughly understood the wily nature and cunning of the animal they had to deal with. Bishu told me afterwards that the men guessed, from the moment they heard my voice, how it was with me; for my companion of the morning had been apparently convinced that I was "treed" before he left. I did not clearly follow the men's subsequent movements, as in the reaction my senses must have wandered. I was brought back to reality by a great shout and I heard indistinctly voices saying, "He's dead,

sahib. The shaitan's dead." They found him lying on his side at the place I had last heard him sit down. And he must have been dead an hour or two before the men arrived !

They took me from the tree and I drank two long whiskies and sodas, and ate a couple of sandwiches whilst they hurriedly made a palanquin of creepers and branches. Into this I got, for I could not have walked a yard, and immediately fell fast asleep, only waking up as we reached the camp.

CHAPTER V

IN THE BERARS—MY FIRST TIGER

From Simla to Berar in the rains—Sport in Berar "played out"—A rough monsoon morning in the Berar jungles—A tiger kill—Arrange to go and sit up—The machan and kill—A depressing performance—The crows and the feast—Weather gets worse—A weary wait—The tiger appears—Removes the dead buffalo into the jungle—My despair—The tiger has dinner—Portion of head only visible—An anxious wait—Determine to risk the shot—Silence after firing—The orderly's opinion—See stripes lying dead—The tiger's requiem and the villagers' gratitude—Start for home—Lose the way—A weary tramp—My friend's greeting.

ON a gloomy morning in the month of July a train was dragging its tortuous way, with much noise and little speed, across the rain-sodden plains of Central India. In a first-class compartment another man and myself lay at ease on the seats. My companion, just landed from the Old Country and South Africa, was on his way to rejoin his regiment, stationed in the part of the country to which I was bound. I had just left the "Summer Capital" and the mighty Himalaya, and we growled in concert at the mugginess and unpleasant climate of the plains. The conversation turned on shooting, as it so often does between men in India, and I questioned my companion as to the sport to be obtained in the —— hills in the neighbourhood of his Station, to which I was bound.

"The —— forest, you mean?" was the reply. "That part of India is played out. Nothing to be shot there. The recent drought finished off what we had left. The

——th, you know, are a sporting lot, and we have some keen shikaris amongst us."

My companion, L., told me a great deal about the successes they had had in times past, but assured me it was " no go " now, unless a black buck head would suit me, and that would in all probability be but a small one !

On arriving at our destination I wished L. good-bye, promising to look him up on my way back, and next evening found me ensconced in a bungalow in the heart of the forest. There I met the Forest Officer, and almost his first words finally settled my hopes of sport. In reply to a question he repeated almost the identical words made use of by L.

" Shooting ? None ! Shot over too much, and the drought carried off what was left ! " This was a clencher.

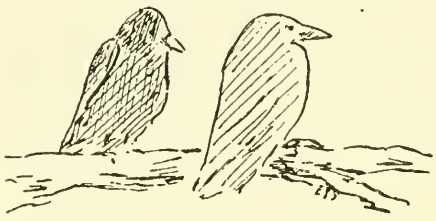
The next morning broke a good average gloomy monsoon day ; but the showers were light, and we started out early on a tour of inspection, returning to breakfast at about eleven o'clock. I had spent the last four days in hard travelling in tonga, train and saddle, and confess I was looking forward to a lounge and a book after the meal was over.

During the latter part of our walk the clouds had come low down, and half a gale of wind was blowing them in blinding showers across the hills as we arrived at the bungalow. This increased during breakfast, and when an orderly came to the door and reported that a man had come in with the information that a tiger had killed his buffalo early that morning at a spot about six miles away, the news was not received with very great enthusiasm. I suggested that he be told to wait till breakfast had put more heart into us, and that meanwhile men might be sent off to build a machan over the kill.

The weather was worse after breakfast, but when the villager had told his tale, and added that a machan had already been prepared, I felt that the opportunity was too good a one to miss. One had been on a wild-goose chase of this description before, but there was always the chance of the luck turning. From the outset my companion had made no pretence of either wanting or intending to go. As he remarked, the weather was vile, not fit for a dog to be out in, even whilst on the move ; much less so for a man sitting in a machan in a wet jungle.

However, I collected together the remnants of my rapidly diminishing courage, and changing into jungle kit, hurriedly started so as to get wet through at once. This done, it was not worth while going back, and forward was the word. I rode two miles and tramped the remaining distance up over the wet molehills—for so they appeared to me after the giant Himalaya—until I reached the kill, and a more depressing show I have rarely assisted at.

The tiger had killed in the open on the top of a grassy plateau, which was quite treeless. The ground sloped suddenly and steeply on the western edge of this plateau, the hill-side being covered with scrub jungle; through this scrub the tiger had dragged the carcase of the dead buffalo —out of which only a few pounds of flesh of the hind-quarter and the tail had disappeared—a short distance, and a narrow track had been cut by the men to expose the body. In a small space at the end of the trail I could see the spot where the carcase lay, the jungle having been cut so as to leave a small clearing just round it. Up above in a tree full of wet creepers, in which two crows sat contemplating the kill, some fifteen feet from the ground I saw my quarters for the next three hours or so. Overhead hung the lowering clouds, whilst a strong wind blew the driving rain across my face. The prospect was not enlivening.



Having inspected the defunct buffalo from a distance, and noticed a couple of vultures perched in a tree close by, I climbed up into the machan, covered myself up in my mackintosh, and sent the men, all but the orderly, away. Hardly

had they disappeared when a blinding shower came on, and for the time being jungle and buffalo were hidden from me. The squall was accompanied by a gusty wind, which necessitated frantic clutches at the nearest branch to prevent myself being blown down the khud below.

The time crawled on with leaden wings. The weather appeared to get worse and I grew weary of abusing myself for my folly at having come out on such an afternoon. The buffalo carcase, on which my eyes had been fixed so intently and for so long, began to assume fantastic shapes to my dazed vision and to lift the legs I had thought so stiff and stark.

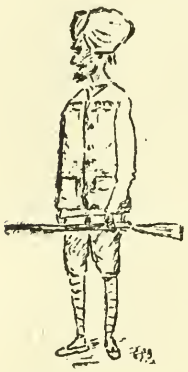
Suddenly, from absolute lethargy and inertness, my body assumed a tense rigidity, the tension of the muscles being almost painful, so tightly were they braced. Without a sound, without the movement of a branch or crackling of a twig, a fine tiger stepped out into the small clearing round the buffalo with all the lightness and grace of a kitten, carrying its head held high in regal fashion. One lordly glance up the track by which the carcase had been dragged down was all he vouchsafed, and then stepping half round the buffalo he picked it up in his powerful jaws as easily as a kitten would pick up a ball of yarn, carried it just out of the clearing into the jungle alongside, and squatting down—I could guess this—began to crunch up the carcase. To describe my own feelings were impossible. From the seventh heaven of hope and delightful anticipation of bagging my first tiger I was reduced in a moment to the black depths of despair.

Do you understand what had happened? The space cut round the dead buffalo was only just sufficient to enable me to see it clearly, and I had understood that the carcase had been tied down to stakes in the ground. It had not been so pegged, and the tiger by moving it out of the clearing had taken it and himself out of my range of vision. I turned round to the man with me, and in frantic pantomime asked him what was to be done. He was shaking like a leaf with excitement or something else. Nothing was to be got out of him? I turned my eyes back to the clearing.

Luckily the wind was still blowing, although not in the terrible gusts experienced an hour or so before, and the machan had steadied down and was no longer like the deck of a ship in a gale. The noise of the rustling branches was still sufficient, however, to drown any sounds I made in getting free of my mackintosh and standing up in the machan. By moving to the extreme right-hand edge, clinging on by a small branch and leaning well over, I perceived, after a time, to my infinite delight, the tiger's left ear showing snowy white against the surrounding foliage, and soon after for a short moment the left half of the crown of his head as he moved it in his crunching operations. He was apparently squatting on the ground with the hind-quarters of the buffalo between his fore-paws, feeding just as a cat would. This I conjectured, but although I watched for nearly half an hour, not an inch did the beast budge from its recumbent position. It became evident that I should have to fire at what I could see, or take a chance shot at where I thought the tiger's body was. I soon determined that if I had to fire at him in his present position I would take the head shot and risk it. The minutes went by, and I became aware that the light was failing ; in addition to this serious fact I could stand the irksomeness of my present position no longer. I have said that to see the tiger at all I had to cling to a small branch and lean right out of the machan, standing at its extreme right edge. There was no parapet of any kind, and the drop below was about thirty-five feet, as the ground sloped steeply, so that the position was not an enviable one. Even the slight support accorded me by the branch was unavailable when I wanted to fire, as I should require both hands were I to succeed in hitting the mark presented. The only way to negotiate the difficulty was to make the orderly hold me round the waist, as I could not hold on to the branch, and my pantomime signals were most energetic as to the consequences to himself should he let go and send me below. If he held tight, all would be well. If he let go, well I did not care to think about the consequences. I didn't like it, not a bit, as it was depending on a native more, much more than I had ever done before. But what could I do ? There was my first tiger below me, and ordinary common-sense and prudence were relegated to the background. With one final glare at my

companion, resulting in a frantic and almost too energetic tightening of the clasp round my legs, I leant out of the machan and, waiting till a movement showed me the left ear and almost half the portion of the head nearest to it, I took as long a breath as my extremely irksome position permitted, wondered where I should be in a second or two, and fired. The shot was followed by a clutch that pulled me backwards into the middle of the machan, and I found myself reposing on the head and shoulders of my companion, but luckily still semi-erect and with my rifle, of which the left barrel was still ready for further operations, in safety. I gathered that the clutch was only the result of the great tension to which the man's nerves were strung. The report loosened them, and luckily for me in a backward direction. Had it been forward I should have had a poor time of it, the conditions below being an unknown quantity. I confess I was jumpy myself, but I had listened as carefully as the circumstances would permit after the shot, and save for one sound, as of something falling in the grass, I had heard nothing. No growl! No crash! Had I killed the beast outright? It seemed almost impossible that such a piece of luck should be mine after the half-hour or more of anxiety I had gone through. Or, dreadful thought, was it a clean miss? I turned to the orderly and enquired what he thought. His answer sent my hopes to zero. He thought he had heard the beast spring away. As I was sitting on his head at the moment, and he himself was in as big a fright as was possible, I might have spared myself the pang which this reply gave me. I was too excited, however, to think rationally just then. I told him to get half down the tree and see if he could see anything. He did so, and presently came back and reported that he thought he saw the jungle waving about near the buffalo. As a wind was blowing and every tree was dripping, the jungle most certainly was on the move; but from other causes than the death-throes of a wounded tiger. Nevertheless, his words were golden to me at the time. I then bethought me of standing up in the machan and endeavouring to get a little higher than the position I had fired from. It was just possible to raise myself a little and yet see through the branches the place which had been occupied by the tiger's head, and there—surely a sight for the gods! —was a little patch of pure white with two or three black

streaks across it. 'Twas all I could see, but I knew it was my first tiger lying on its back ! I got down, called up the man who had again gone part of the way down the tree, and sent him up to see what I had seen, which he quickly corroborated. The question now to be faced was, what was to be done ? It was no good firing at what I could not see, and I had no intention of spoiling the skin by trying aimless shots at what I was convinced was a dead tiger. I had fired at the head and I felt that the bullet, by some marvellous luck, had gone truly home. After some consideration we called out to the men who were some way off in the open above, and, as soon as they were near enough, explained the position to them. They sent down a few bushel-loads of stones, sticks, and mud, etc., to wake up the brute should he be only stunned or wounded, and I then got down and, accompanied by the Rajput Forest Ranger, armed with a prehistoric implement he called a rifle, we marched up to the tiger and found him lying on his back, his legs in the air, with a bullet-hole just beneath his right ear. Death had been instantaneous ! We stood round, and the requiem of the dead monarch was shouted by a babel of voices, all explaining how much they had helped in the deed of death, the number of buffaloes and cows the marauder had eaten, with other details of his life history, the refrain, which came in at intervals when want of breath stopped the chief performers, consisting of a chorus of grunts and wah ! wah ! wah ! wahs ! !



It was now nearly dark, and leaving instructions that the beast was to be brought straight in, I turned away, and for the first time for nearly an hour became aware of the fact that I was wet, cold, hungry, stiff and tired. The rain was coming down as if it meant to continue, and I had six weary miles to get over.

We got up out of that jungle and started best pace for home. Before a mile had been covered it was pitch dark, and the dense mist came down on the hills like a thick white pall, fit shroud for the dead lord of the jungle. Two miles or more were got over in safety, and I was beginning to think that in a short time we should drop down on to

Sir F. P. Heygate, photo

BRINGING BACK A DEAD TIGER TO CAMP. THE BODY IS PLACED IN A STRONG ROPE NET, TO PREVENT IT SLIPPING, AND THEN TIED TO THE PAD ON AN ELEPHANT. THE ELEPHANT DISLIKES A LOAD OF THIS KIND, CONSEQUENTLY SOME CARE HAS TO BE EXERCISED IN "PADDING" THE TIGER AND MAKING SURE THAT THE BODY WILL NOT SLIP, FOR THE LATTER WOULD PROBABLY RESULT IN THE ELEPHANT STAMPEDING

the cart-road where all would be plain sailing, when the orderly, who was leading at a good round pace, faltered in his stride, went on, hesitated again, took a few more steps forward, and then came to a dead stop and volunteered the information that we were on the wrong road. My castles began to fall, but I was in too good a frame of mind to allow them to crumple quite to pieces, and I tramped for twenty weary minutes behind the man, while he tried various directions in search of the road. I only kept my eyes or rather attention fixed on the direction we had come from, but I soon gave that up as hopeless, as it was terribly dark and the thick mist made it impossible to see the ground even at one's feet at all plainly. The rain was steadily falling and the wind blew pitilessly through my bones, for we were apparently on the summit of an open down with small scrub jungle here and there in patches; at least I gathered this to be the position of affairs by running into the said patches at intervals. I began to have visions of a night passed on the —— hills in a thin khaki shooting suit with no food or drink (there was plenty of the latter it is true, but my vitiated taste required, I fear, something stronger) —and even my tiger began to recede slightly from its prominent position in my thoughts as my imagination pictured only too vividly the realities of the situation.

At length the man seemed completely at fault, and I suggested that we should go back to the place where we had first lost the way, if we could find it, on which point I had grave doubts, and make a cast round there. This we proceeded to do. On the way we came upon a dark-looking line running at right angles to the direction in which we were moving, and my companion, after kneeling down and examining it, pronounced it to be our path. Heaven only knows how he knew, but he turned sharp to the right and trotted on. I followed, fearing every moment to see him check again. He held steadily on, however, and proved correct, for we came to a slightly broader track full of sharp-cornered trap-rock stones which, from its vile nature, I had marked down on the way up in the afternoon. Bad indeed was the walk down that path, which wound in zigzag fashion down the hill to the cart-road below, and throwing dignity to the winds I, in many places, took to the methods of our remote ancestors and went on all fours. The weary two-and-a-half-mile tramp along the cart-road I do not

remember much about. The lights of the bungalow brought me back to the world, and tired, wet and muddy, I stamped in, subsided into a long chair, and laughed at R.'s incredulous " Nonsense, what ? Well, I'm . . . ! What ? " as I assured him I had bagged (within twenty-four hours of my arrival in the " no shikar " country) the tiger, my first tiger.

I sent the skin to L. next day with a note worded much as follows : " Dear L.—Herewith a tiger skin. Will you look after it for me till I turn up. Shot the brute yesterday. Understood you to say there was no shooting in the —— hills, and that it was a poor country. I find it top hole."

His reply was perhaps more emphatic than polite, although extremely pithy. It consisted of—

" Dear S.—Well, I'm d——d ! "

CHAPTER VI

SHOOTING TRIPS IN THE CENTRAL PROVINCES—A FINE SHIKAR COUNTRY

Visit the Central Provinces—Description of country—The Satpuras and area to south—The Nerbudda River—The Central Province jungles —A magnificent sporting area—Methods of travelling—Tigers before breakfast—Elephants, bison and buffalo numerous—Sambhar and spotted deer with record heads—An old-time sportsman's paradise—The coming of the railways—The present-day sporting possibilities—The jungles in the monsoon—Seonee—Wonderful sight of the teak forest in full bloom—Historical ruins in the jungle—A fine tank—An old ruined fort—Mahommed Khan, the Chieftain—Legend of the fort—I sit musing on the battlements—A leopard appears—The leopard charges—The frightened shikari—Death of the leopard—A curious belief—A mainah appears—The evil spirit.

IT was subsequent to the rains during which I bagged my first tiger that I paid one or two trips to the Central Provinces and had a very pleasant time in these glorious jungles. I was acquainted with the parts adjacent to Chota Nagpur, but the great jungles to the north were new to me.

Those who have read and loved their *Seonee or Camp Life in the Satpuras* and Forsyth's *Highlands of Central India* will understand the keen anticipation with which a lover of the jungle visits this famed region. It is true that parts of it are very similar in character, and of course in fauna, to the Chota Nagpur areas, but sport, and all pertaining to it, was far better understood in the Provinces than it was in the Chota Nagpur of my day; and this is the only period I can speak of. Some brief description of this glorious shooting country will be of interest. The northern or hill districts which culminate in the Satpuras greatly resemble the southern hill districts of Central India to the north, culminating in the Vindhyas, the two areas being separated by the great basin of the far-famed Ner-

budda River, which has a perfectly straight east and west course to its mouth in the Gulf of Cambay. This northern part of the Central Provinces consists of a wild, picturesque, chaotic mass of forest-covered hills drained by crystal brawling streams, and inhabited by jungle tribes such as the Bhils and Gonds. Further south the country opens out into more extensive flats and tablelands with a red gravel soil and outcrops of laterite. The forest growth is often more open and park-like in character, with areas of dense grass, bamboo clumps and scattered trees. Still further south the forest becomes poorer in character, with wide areas of stunted and scorched vegetation stretching across Eastern India from the Godaveri—to be mentioned in a later chapter—to the Eastern Ghats. The Mahanadi River already mentioned drains the eastern half of the Provinces. The Nerbudda River and the valley of the Son —the latter belonging to the Gangetic system—divide the north of India from the south. The Nerbudda is one of the most sacred rivers in India, and it is said is to displace the Ganges itself in the religious estimation of the Hindus. The Nerbudda is surrounded by more romance and mystic interest than any other river in India, and its extraordinary beauty is freely admitted by all. Tourists know the Marble Rocks near Jubbalpur. But its course from its source at Amarkantak in the Rewah State down to where it dashes in rapids and whirlpools through the Vindhya and Satpura Hills is everywhere beautiful.

What magnificent game jungles existed in the old days and up to quite recently in the Central Provinces ! Great stretches of jungle-clad hills and valleys spread for mile upon mile across the countryside. The villages were small and scanty in number throughout much of the tract. Great towns were practically absent, and railways few. The tonga was still the conveyance for travelling long distances in the Province ; or in default the palanquin, bullock cart, or saddle pony. The animals and, in fact, game of all kinds had this enormous area to themselves, and the shikari, in the absence of the modern facilities for getting about, and armed with the old muzzle-loader or black powder rifle which followed it, could enjoy his fill of sport whilst making little impression on the numbers of the animal life which disported itself practically unchecked. A tiger or more than one was no uncommon bag made close

to the small Station between dawn and the eleven or twelve o'clock breakfast ; or one might arrive by night and be found lying up in your back garden in the morning ! Instances are on record of such occurrences, and most amusing they usually were in their *dénouement.*

Elephants roamed these jungles ; gaur or bison were plentiful, as also buffalo. Sambhar, with lordly heads of well over 40 inches—43, 44, 45's—were to be had (a record single dropped horn of 48 inches was picked up in Khandeish) for the looking for. Spotted deer heads vied with those of Northern India and Nepal in size, whilst the smaller animals, not to mention game birds, swarmed.

Palmy days were those in the Central Provinces when you might easily meet a tiger or get khubbar of one during the ordinary morning's routine work in the jungle, or run upon the fresh tracks of bison, buffalo or sambhar. And the jungles were not overshot, not at the period of which I am writing. The powerful cordite rifle had not come into existence, and, more important, railways did not exist. The mail ran across from Allahabad to Bombay, passing through part of these jungles, but as a main line only ; and the Bengal-Nagpur Railway ended at Nagpur. None of the new branch lines had been constructed, and consequently the jungles were difficult to get at and shoot. Their delights were therefore practically confined to the local district officials and an occasional friend or stray traveller ; and these latter rarities were very occasional and extremely stray ! And, mind you, the district official of that day needed those gorgeous jungles sorely, for he had no other relaxation during his long years of exile. He did not get home every three years or less as now. He was not so constantly transferred about the country, and he could not get away on short leave to the hills in the hot weather and rains, or down to Calcutta for the delights of Christmas week. All these amenities to Anglo-Indian life now exist. The railways have given them to us. But their enjoyment has not been an unmixed blessing ; for the facilities which have rendered them possible have also resulted in an influx of keen sportsmen into every fine jungle in the Provinces with a consequent rapid and alarming decrease in the game. I would not be understood to say that these jungles do not afford magnificent sport at the present day. They do. But protection has come in. Very rightly so. The Game

Sanctuary has come in. Equally rightly so. The old untrammelled freedom has gone. Had it not done so the game would have disappeared for good. To this point we shall return at a later stage of these notes.

It was early morning in a fine jungle not a hundred miles from Seonee, the time of the year August, and the monsoon had been blowing and the rain falling more or less continuously and heavily for several weeks. The morning in question, however, broke clear and bright and appearances pointed to a welcome break in the long-continued spell of cloud and gloom.

I had left the small bungalow in which I was putting up before dawn as I wished to get up to the top of a neighbouring hill so as to obtain a good view over the neighbouring forest if the fates were propitious and the clouds and mist permitted, and enjoy the wonderful sight of the teak trees in full bloom. It is a thing to have seen, and a picture to meditate over, the great teak forests when in their monsoon panoply of creamy white inflorescence.

On reaching the top of the ghât on this clear morning the sight was stupendous. Mist and cloud lay in the deep valleys, it is true, but the upper portions of the hills were covered with a creamy white canopy under the rising sun. Leaning on my rifle I stood and gazed on the scene with rapture and forgot all about the quest upon which I was bent. The great teak forests in flower ! I had often heard that they were a marvellous picture at that season. But my anticipations were more than fully realized by the beauty of the panorama they presented. How long I remained there I was unaware at the time, but at length my attention was caught by a loud, though somewhat nervous cough, from the local shikari, who had been kindly sent up to me by the Forest Officer of the District. My attention secured he intimated by a glance at the sun that it was time to be moving if we were to achieve one of the aims of the expedition. I had been told that in the neighbourhood there existed the ruins of an old fort, now engulfed in the great jungle. This part of India is full of these structures, the strongholds of bold adventurers of old times. Such places had always roused my curiosity, historical ruins possessing a fascination all their own. And here in the great Indian jungle such remains possessed the added interest that their history was often lost in a mist of legendary

tradition and romance handed down in the locality through generations of fakirs and wild jungle-men.

As I went down through the forest on my quest we passed a tank full and brimming with water. This place was famous in these parts in the hot weather. When the small streams and water holes had dried up under the rays of the fierce sun, the entire community of the jungle folk from the surrounding forests resorted to the old tank to drink from its much-diminished water level. Hundreds of head of game, including tiger, leopard, bison, sambhar, chital, and others, visit this spot to quench their thirst at this season, and although I never had the luck to be in this locality at that period I saw others of a similar nature. The hot weather season is the one *par excellence* during which it is possible to form an idea of the abundance of a certain species of animal in a particular locality owing to the absolute necessity of the animals visiting the, at that season, comparatively few drinking places in the forest. A very different aspect the tank now presented with its edges lapping the green grass and its surface, where not covered by a beautiful water-lily, reflecting the sea of green by which it was entirely surrounded.

It proved a hot trek to the old fort, or what remained of it. We came upon it quite suddenly, lost in a tangled mass of thick jungle which climbed densely up the lower flanks of a steep hill. The fort appeared to be on a small hillock or low spur jutting from the hill, and was probably an ideal stronghold for defence against old-time warfare. A small gateway was flanked by deep red walls with a broken tower or two at the angles and portions of loopholed battlements still standing. Inside a court, now overgrown with scrub amidst debris of masonry fallen from the building, a very much ruined stairway climbed up the side of an inner wall. This was a difficult structure to negotiate as several stairs had fallen away. Beneath it and on either side of the main gate were some small cells either cut or built into the thick walls, their entrances more or less covered with creepers and growths. As I passed these I remember thinking that these cells would make excellent lairs for animals, but at the time I was too intent on getting up the stairway so as to see as much of the upper parts of the ruins as was practicable, to throw more than a cursory glance at them.

What extraordinary incidents this old place must have witnessed tenanted by its horde of dark-skinned daring and treacherous occupants. What forays they must have set out on from the very gate I now looked upon clad in their shirts of chain mail, steel morions inlaid with gold or silver, great steel gauntlets and armed with their quaintly shaped tulwars and other weapons and beautifully made bucklers.

The business and method of life were very similar to our own marauding days, but the setting so extraordinarily different.

The chieftain who was reported to have built the present fort, one Mahommed Khan, had a history which must have been quite common at the period. A junior Commander at one of the Courts of a Feudatory State on the Guzerat side, he was noted both for his great personal beauty, enormous strength, and a wonderful command of his weapons. Becoming enamoured of the only daughter of the Ruler who disapproved of his suit, he assembled his own command around him, by whom it is almost needless to say he was worshipped, and in most daring fashion carried the lady off. Tradition relates that she was more than half willing. After days and weeks of hard riding to escape an energetic pursuit the party halted one night, having got hopelessly lost, on the banks of the little river flowing round the foot of the small spur on which the ruins now stand. Next morning Mahommed Khan was so struck with the natural features of the position from a defensive point of view that he decided to remain there and build a fort. He appears to have erected a very powerful stronghold, upon whose ruins I now gazed; to have rapidly subdued the surrounding country and to have become a powerful robber chieftain. History or legend also credits his fair lady with presenting him with a fine race of sturdy offspring who in due course extended the parental domain.

What was she like I wondered, that slip of a girl who fired this man to risk far worse than death for her sake, had he been overtaken by the enraged Ruler. And was she content! She had a *man* at any rate for her husband, and that is what the sex mostly likes. Where were her quarters in this old ruin I wondered—small trace of them were now to be seen.

As I sat musing and smoking on top of one of the only entire pieces of battlement my attendant, who had climbed

up with me, probably because he was scared to death at the thought of the ghosts and devils said always to haunt such places, suddenly nudged me on the shoulder. I looked round and then down in the direction of his gaze. I have said that on either side of the gateway and below the stairway there were a few small cells, probably used as sleeping-places for the men-at-arms or some such similar purpose. The entrances were mostly overgrown with climbing plants and low undergrowth. From one of these cells a large leopard had suddenly emerged and now lay crouching half in the full sunlight, half in the shadow of a big boulder in the inner court below us. Her beautiful coat with its ringed spots glowed richly in the bright rays of the sun, whilst the portions in shadow looked black as night. I could just see the tip of her tail moving slowly from side to side as she lay snarling up at us.

I was so lost in conjuring up memories of the dim past of this place that for the moment I took it as perfectly

natural that a leopard should be down there; for most Indian Princes and Chieftains keep chained or loose pets of this nature and have always done so.

Then realization came and I moved out my hand feeling cautiously for the rifle which I had laid carefully on the unbroken piece of the battlement not far off. I did not remove my eyes from the leopard, and it was some time before I could feel the rifle—a ·500 express. Lifting it slightly so as to avoid scratching it as far as I was able I drew it towards me. I had nearly got the weapon on to my knee when the leopard shifted its position so as to face the gateway. I could not swear to any distinct movement on her part. I only know that whereas she had been at an angle to it she was now facing it, and her movements to reach this position must have been almost imperceptible.

As I hurriedly raised the rifle she leapt for the gateway and went clean through it in the bound. I pulled the trigger

on the instant and a snarl of rage came back to us. A second after, or so it seemed, the beast was back again in the courtyard and at the foot of the stairway. The next she was jumping up it.

" Sahib, sahib, shoot, the shaitan is on us. It is the devil of this place and is angered at our coming," came in a quavering voice from the shikari. I hardly took in the words at the time, but remember to have seen him, out of the tail of my eye, fingering the little axe which was his only weapon. I had only the one rifle with me as it was the close season for most animals.

The whole occurrence had taken place in a flash, and I had little more than time to lean over to make sure of not missing the leopard with my last barrel, for I had had no time to reload. I wondered vaguely why she took so long to get up the stairway, for a leopard should have got up the place in a couple of bounds. And yet luckily she didn't do that. When she was about two-thirds up I fired and hit her in the back, dropping her in her tracks. She crouched there for half a minute I should think holding on by main force with her front claws. Then gradually her hold relaxed and she slid down the stairs, bumping over the big gap, and fell into the courtyard below, where she lay snarling at us. Her back appeared to be broken, for though I had hurriedly reloaded fully anticipating a second charge she did not move, and another shot finished her. She lay quite still, and after watching her for some time I turned to the shikari and told him to go down and I would follow. But to my amazement he would not budge. In reply to my surprised queries he said that the devil of the place was in that leopard, that he did not believe it was dead, that if it was its spirit would pass into the man or animal who first went near it, and that he was frightened. And he looked it as he sat there grey in the face and shivering, with his eyes protruding and fixed in a fascinated stare on the still body of the leopard. As a matter of fact the man had an ordinary bout of jungle ague on him, whether brought on by the episode or due to come out at that moment in the ordinary course of things I know not. He moved sufficiently to enable me to get off the battlement on to the head of the stairway and I went down this gingerly, rifle in hand. As I was negotiating the break I noticed a mainah (the Indian starling) alight in the entrance gateway. Bold as brass, as this

bird ever is, it flew in, to have a look round I suppose, got close to the dead leopard before it saw it, gave a startled squawk and flew up in great agitation over the battlement and was gone. I wondered whether the evil spirit of the place, set free from the leopard, according to the shikari, would have to sink so low as to occupy the body of a mainah. The shikari vouchsafed no reply when I put this question to him subsequently.

The leopard was quite dead and a fine big beast. On examination I found that my first shot had struck the animal in one of the hind feet, and this must have been the reason for her somewhat slow progression up the stairway, a most fortunate shot for us. For a close acquaintance with a wounded leopard when one is sitting on a bit of battlemented ruin, practically unable to move, would have been far from humorous. We had come out of it well, however, all but the shikari, and I considered myself richly rewarded for the archæological inquisitiveness which had led me to make the expedition.

That day was a red-letter one in its way, for in the afternoon we had rather a ludicrous tiger episode, but that is another story.

CHAPTER VII

MORE EXPERIENCES IN THE CENTRAL PROVINCES

The hot weather in the Central Provinces—The new shooting rules—The fire line—Find a pangolin or scaly ant-eater—Habits of—The big bee—Precautions when shooting from elephants—Monkeys and the tiger—Try for the tiger—A frightened coolie—Stalk the stags—A fine head—Forest fires—Barking deer and young—Beating out bear—A bear appears—The youngsters follow—The villager's discomfiture—A chummery menagerie—Wound a second bear—Track him up—Bag the silent bear—A glorious shikar country.

THE broad fire line or trace separating two adjacent blocks of the great green sál forest was heavily wet with dew as we moved silently along it in Indian file one early morning towards the latter end of April. It was the hot weather in the Central Provinces ; all who have shot in or visited these jungles at that season know what this means as regards heat. The days were scorching and the hot wind blowing over the grassy glades and savannahs and into and through the outer parts of the forest took away the greater part of the amenity and coolness the forest would otherwise possess. It may be admitted that it is cooler in the forest than outside in the open country. One can spend the whole day in the forest whilst the sun is at its hottest in the hot weather season without the heat becoming absolutely overpowering ; though most of us would be sorry to have to do the same in the open country in April or May. Of course one grumbles and grumbles fiercely about the heat when out in it at all hours on duty bent. If it be a shikar trip in question, however, the heat is not noticed or bothered about to anything like the same extent. And very often in both cases it is not so much the heat as the flies which drive one to distraction.

On this particular morning I left camp just as the pearly light of dawn was giving place to the crimson

and gold which heralds the uprising of the sun in the East. We silently crossed the open grassy maidan or plain which stretched between the sál forest and the camp, disturbing a considerable herd of chital as we did so. The grass area was near the main forest road, which ran through these parts, and I did not look to find a good head amongst the lot in question. On leaving the maidan we got on to the fire line and pursued our way along it, making for a grassy savannah about a couple of miles distant. The programme was to try and secure a good head of barasingha and a chital as well if possible, and then visit some caves in a rocky hill and rout out a party of bears which were known to inhabit them.

Under the shooting rules which had but recently come into force in these jungles a sportsman was only allowed to shoot two head of barasingha, sambhar, and chital during a season. And this number was subject to a maximum for each forest division. Once this maximum had been shot the particular species became automatically closed to shooting for the year, the sportsmen in the forests and those arriving subsequently being notified accordingly.

I was consequently anxious on this occasion to come across a good head if possible. And it was not quite so easy a problem to solve as it had been a decade ago; although there were still plenty of good heads to be had.

We had gone but a short way along the fire line when I heard a low hiss behind me. Turning round I saw the shikari stooping over a dirty greyish hump on the line. I went back, but, after a short inspection of the ball-like hillock, was no wiser. The shikari signified that we should move a little backwards and said, "Wait, sahib." We waited.

The object I now saw had what looked like scales on its surface and had a rough appearance of a rolled up mahseer. After a minute or two the hillock began to move, after the manner in which a hedgehog does at home, when it commences to unroll, and I then realized what it must be. Slowly it unfurled itself and turned into a longish slim creature about two feet in length with a tail of a foot and a half, and with an armature on its back like the scales of a big scaled fish. It was a pangolin or scaly ant-eater (*Manis pentadactyla*). I had seen pictures of this curious beast in books, but never a live one before. The natives call it,

very appropriately, the " jungle carp " as its scales resemble those of one of their big tank fish. The animal lives in a kind of burrow and feeds on termites or white ants, of which there was no dearth in these parts, and also on one, at least, of the big black ants. The pangolin is found throughout the hilly districts of India. I think the next I saw was found in the lower part of the hills between Rajpur and Mussoorie up in the north-west, a native securing it and bringing it into a friend in Dehra.

The one we were now watching remained quite still for some few minutes after uncurling, and then went off slowly in a most ungainly fashion with the back arched and walking on the side of its feet, if it may be so expressed. I let it go, quite satisfied with having had the opportunity of seeing an animal new to me.

For another half-mile we continued along the line and then branched off down a nullah in which some fine cotton trees (*Bombax malabaricum*) of great size were growing. Hanging to the great branches in the lofty crown were a number of the semi-elliptical combs of the big bee (*Apis dorsata*). These combs measure several feet in length by a foot or two in depth at their greatest width, and contain a considerable quantity of wax and a strong, rank honey much sought after by the natives for sale in the local bazaars. The bees are vicious little pests in the hot weather and care has to be taken not to rouse them to fury by smoking or lighting a fire in their neighbourhood. To be attacked by a swarm is no laughing matter, for their stings are virulent at this season as many of us have discovered. In the north of India, when shooting from elephants, shikaris always take out blankets with them. In the event of a swarm of these bees being disturbed and attacking the occupants of howdah or pad, the latter rapidly envelop themselves in the blankets to escape the venomous stings, whilst the mahout urges the elephant forward at its best pace from the dangerous neighbourhood. It is not a pleasant interlude in the day's sport as those who have sat swathed in a blanket with the temperature at 110 degrees in the shade will be prepared to vouch.

Lower down the nullah I noted a number of the big grey lungoor monkey (*Presbytis entellus*) swinging about excitedly in some trees and jabbering vociferously. The shikari who was leading, halted and watched them attentively

RETURNING AFTER THE BATH. THERE ARE FEW THINGS AN ELEPHANT ENJOYS MORE THAN LYING ON HIS SIDE IN THE RIVER AND BEING SCRUBBED BY HIS ATTENDANT

Sir J. P. Hewett, phot'o

THE LINE IN STRAGGLING OPEN ORDER PROCEEDING TO THE NEXT TIGER BEAT

for a minute or more. "There may be a tiger down there, sahib," he said at length. "We had better climb out and try and get into the nullah some way ahead." Sending one of the two men with us up into a tree with orders to gently hammer on the trunk with his stick should the tiger come up the nullah, so as to turn him back again, we proceeded to climb up the steep side and then cautiously

continued along the top out of sight of the monkeys until a point had been reached about half a mile further on, and then silently and cautiously climbed down into the rocky stream-bed once more. Here we took up positions commanding the stretch of nullah above us and waited. I had been helped into the fork of a low tree, and settling in my uncomfortable perch I waited on events. Half an hour went by and then we suddenly saw the native we had left

behind appear on the hill above us. He climbed down and had a conversation with the shikari. The latter came up to me. "The man says, sahib, that the tiger came up the nullah past his tree. He says that he beat the tree as the sahib told him to do and that the tiger then sprang up the nullah bed and disappeared. I think," he added, "that the man lies, and that being fearful he only struck the tree after the tiger had passed him." It was useless being angry. "What now?" I asked. "We will go on to the little maidan, sahib, and look for the barasingha."

In twenty minutes' time we were cautiously approaching the edge of the grassy plain. As the trees of the forest we had been coming through thinned out, the shikari slid noiselessly ahead. I halted, glad of a few minutes' rest. I could see parts of the little clearing already beginning to shimmer under the rays of the sun, now well up above the horizon and already becoming powerful. "Too late," I muttered. "The deer will all have returned to the forest by now." I was wrong, however. The shikari reappeared and said that there were three stags on the far edge of the clearing, and if we hastened I might get a shot at one of them. We at once commenced to encircle the maidan, keeping just within the forest for some way. Then a jutting tongue of forest favoured us, and we cut across the angle in its shelter and traversed it as quickly as the dry and brittle leaves and twigs would permit. As we again approached the clearing I went ahead and cautiously looked out. Yes, there were the stags, about sixty yards away. One fair-sized head and two smaller ones. I also saw to my disgust a number of hinds closer to the forest. Some of these latter were fitfully cropping the grass. Their appetites were either satisfied or the lateness of the hour made them uneasy. Others were anxiously scanning the area and looked hard in our direction several times. But the stags took no notice and continued peacefully grazing in a lordly indifference. I soon saw that I should have to take the shot from where I was, for I could get no nearer ; it meant waiting, however, as the big stag was feeding away from me and one of the others half covered him. It was a most tantalizing position, as each moment the distance was becoming greater and the stag might never give me a decent shot before he reached and disappeared into the forest.

" Fire, sahib, fire," said the shikari.

These men rarely understand the reason for waiting once they have brought one up to the quarry.

The minutes passed and I began to despair of a shot, when suddenly the big stag turned broadside on and stood silently at gaze. He evidently heard something and was prepared to bolt. I raised the rifle and, almost without aiming, fired. The stag sprang into the air and in a few bounds was in the forest, my second barrel being, I felt certain, a miss. Almost before the first report sounded in my ears the does were gone, and the two young stags followed the older one in a flash.

" I hit him. He's down all right," I said, and hurried across the clearing. The shikari fell in at my side, but he did not appear to share my certainty. I passed, without a glance, the spot where the stag had stood, so sure was I of the hit, and entered the forest. Here, however, I was quickly pulled up by spear grass—that curse of the forests of these and other parts—and looked round for the shikari. He soon appeared with a few blades of grass died red with blood.

" He's hit, sahib. We shall get him. He can't go far."

We then commenced to search for blood and almost immediately a patch was found, and further on clots of it. Fifty yards, a hundred yards, passed under our feet and still the blood continued. We were attentively examining the last patch when suddenly a shape loomed up out of the spear grass, ran forward a few paces and, even as I sighted on it, fell over. It was the stag. When we got up to him he was dead, the fine eyes glazing over. He was a beautiful beast, the horns wonderfully symmetrical, the best pair I ever secured, in fact. But as I stood over him and gazed at the perfect beauty of the animal I regretted having shot him.

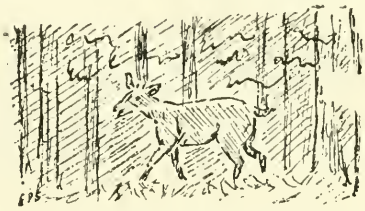
* * * * * * *

It was late in the afternoon when we reached the rocky hill in which we hoped to find the bear at home. We had marched several miles after the death of the stag, and I had sought then the shelter of an old mango tree growing near a trickle of a stream in a big ravine, and there had spent several hours enjoying tiffin and forty winks. At two, almost the hottest period of the day, we had started

onwards again. On the way we passed through an area of burnt forest and very parching work it had been, mouth, nose and eyes becoming clogged with the fine powdery dust which rose on all sides at our every stride. These forest fires, or rather the work of extinguishing them, is about the most onerous of the jobs the Forest Officer has to tackle in India. They occur in the hot weather between early March and the time when the rains break in June and early July. The forest during this period becomes like a tinder—full of inflammable spear grass two to three feet high, or in other parts elephant or tiger grass, fifteen to twenty feet high, with bamboos and other inflammable matter in abundance. Owing to the carelessness of travellers lighting fires to cook their food, smoking in the forest, or to wilful incendiarism by cattle owners or others, great tracts of forest may be burnt out at this season, backed as the fire is by the prevalent hot winds. Great sheets of flame sweep onward consuming everything, dry leaves, twigs, grass, and darting and curling up the tree-trunks and bamboos, the latter under the heat bursting with the crack of a rifle shot. It is a wonderful sight, but dangerous work trying to put out a big fire, as, without exercising care, one may get cut off by the flames creeping round without one being able to perceive it till too late.

Shortly before reaching the burnt-out patches we were suddenly startled by the sharp barks of the muntjac or barking deer coming from a point about twenty yards away. I crept forward and a rush sounded in the jungle, and again the sharp barks recommenced, but still quite close. I continued moving cautiously forward and suddenly halted. Before me in a small form in the grass lay a tiny, light yellow-brown object, pure white beneath. It was a tiny deer. Its large head—in proportion to the rest of the body—was borne on a long slender, thin neck, the elongate, slight body was covered with longish, rather coarse, light reddish-yellow hair slightly spotted and with a darkish dorsal line ; the belly white and legs long and very slender. It could have only been recently born and made no attempt to move. Whilst I was inspecting the little animal again came the short, sharp barks, and a rustling in the bushes now slightly to the right, but still

quite close. It was the agonized mother, for the youngster before me was a young barking deer. My companion wanted to carry it off to cook for his supper, but of course I would not permit this. We moved noisily away to let the mother know, my companion very surly at the thought of his lost supper. The barks ceased abruptly. The poor mother who had passed through such fearful anxiety had evidently rejoined her offspring, and in an ecstasy of wild frenzy was licking it all over to assure herself that it had come to no harm.



Soon after leaving the burnt-out tract we reached the rendezvous for the next item in the day's programme—the bear hunt. The procedure was fairly simple. I had a few squibs and crackers, and with them and burning grass we hoped to be able to induce the bears to come out. The rocky hill-side was similar to the general run of such country in these parts. Scrub-covered, with a small tree or two scattered about, and giant boulders and rocks strewing the surface. In these latter were hollows sufficiently large and deep to afford capital residences for the black or sloth bear. After inspecting the ground we determined to commence with the biggest cave which was also the lowest. I squatted on a rock at one side of the entrance which enabled me to command the exit, and two of the men then threw in a few squibs. I could hear them spluttering and banging inside, but nothing came out. Some bundles of lighted grass were thrown in with a like result. " Blank," I thought ; but not so the shikari. Warily he approached the entrance, and taking a large cracker he lit the end and hurled it into the dim recesses, at the same instant starting to climb nimbly up the rocks at the side of the cave. He had scarcely got up five feet when with a roar a great black mass hurled itself out of the entrance, pulled up and stood for an instant blinking in the light, and then turning swiftly made for the shikari. As the bear turned I fired, and then somewhat hurriedly pulled the second trigger. Both shots went home, missing was out of the question with the animal so close, but the beast only dropped to the second shot. It broke a leg we subsequently discovered. Scrambling up

again the bear turned, and spotting me, uttered another roar of fury, and standing erect came in my direction. I had a spare rifle, a ·303, and as he tried to get on the rock, fired at the V-shaped mark on the chest and bruin dropped in his tracks. After making certain that he was dead we all got off our respective perches and gathered round the black furry mass, and made an examination of the bullet holes. Whilst thus engaged we became suddenly aware of curious squeakings close by, and before we knew what was happening two black furry balls were upon us and one of the men lay screaming on the ground. I shall remember that man's screams and yells for many a long day. My blood ran cold. "At last my turn's come," I remember thinking, "and I've had a man killed out shooting." I bent over the man, lifted him up, and asked him where he was wounded. I could see no blood. The shikari, as is the manner of the native, was far more callous. "Speak, brother, where are you hurt? Don't you hear the sahib asking you?" The screams had now become reduced to groans and whines and tears. Yes, positively tears in the man's eyes and running down his cheeks. And yet there was not a scratch on him! We searched him all over. It was sheer fright and funk, which began I suppose when the old bear was playing about after having quitted the cave. The two little furry balls which had charged us were little baby-bears, who, frightened at being left alone in the cave, had bolted out. As luck would have it the would-be wounded man had been standing directly in the path of one of them, and the latter in its fright had run between his legs and bowled him over. Bad as was the fright he had had, when he thought that his own particular demon or devil had him by the leg at last, the chaff he had to endure from his companions that night must have been even worse.

The bear we had killed was a male, but we never got the mother out, if she was at home. Not that I would have shot her, but I wanted to send her to join her offspring, now out on the hill-side alone. Poor little beggars. The men wanted to catch them, but I would not have it. I was not going to have them dying by inches in their hands, and I had had enough of young bears myself in my salad days. In the chummery I lived in during my first year in India we had a menagerie consisting of seventeen dogs—a very mixed pack—two young bears, two hyenas, several

deer, and goodness only knows how many monkeys. And they used all to be led after us on strings when we went out for a round of golf in the afternoons !

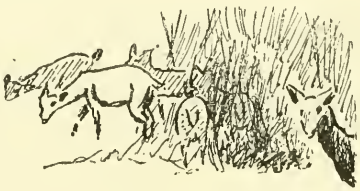
The second cave was blank. But the one above produced two more bears. One was lost, owing to our friend of the baby-bear episode planting himself, unbeknown to me, in a place of safety which was directly in the line of fire.

The second bear we had nearly given up. All the crackers and squibs were exhausted. Burning grass had no effect, and I had just called out to the shikari that we would give it up when without a sound a black form appeared at the

mouth of the cave, hung there for an instant and made off down-hill at its best pace. I had uncocked the rifle and laid it down preparatory to getting off the rock I was on. So the bear got a start. My bullet caught him far back and the second missed altogether, but turned him so that he took a more diagonal course. Picking up the Lee-Metford I aimed well forward and rolled him over. But he was up again and disappeared amongst some rocks. I did not want to lose him if there was a chance of bringing him to bag, so we hurriedly set off in pursuit. There was plenty of blood on the trail and we were soon amongst some large boulders, where circumspection was necessary, as none of

us was anxious for a mauling. We left the rocks and got on to the open hill-side again, and the trail then turned and went upwards. Ten minutes passed and still no sign of the bear, but plenty of blood. Again we were approaching rocks and went warily. The blood went up to a rock half the size of a small cottage and then took round the base. We turned the corner and there was our quarry slinking off up the hill-side, about twenty-five paces away and evidently hard hit. I aimed for the neck and this time reached the spot, and bruin came rolling down the hill on top of us. We sprang apart and the animal went between us, and was pulled up by the rocks below. It was quite dead when we got up to it, and from first to last had not uttered a sound. I was tempted almost to believe that it was dumb, although the probable reason for its silence was cowardice.

Leaving the shikari to make arrangements to get coolies to bring the bears into camp, I set off on my four-mile tramp, and on the way back through the beautiful sál forest with the green grassy savannahs occurring at intervals, I counted roughly over three hundred deer, chital, barasingha, and sambhar. What a gorgeous shikar country that was in the old days. It is still, but the numbers are nothing like they once were. Nor could one expect it nowadays, I suppose.



CHAPTER VIII

FOREST LIFE AND SPORT IN EASTERN BENGAL

Chittagong—The District and Hill Tracts—South Lushai Hills—An interesting fauna—The buffalo and rhinoceros—The mithan—Elephants and the Keddah Department—Mode of travelling—The tidal creeks and coast-line of Bay of Bengal—Bird life—The rivers of the area—Magnificent scenery and dense forest—Animal life of the forests—Swimming deer—Monkeys crossing a river—Rafting out forest produce—The game problem—The native and his umbrella—Shifting cultivation—Trackless forests—Difficult to find game—A fine animal sanctuary—Game in the Collectorate Forests—A Christmas shoot—A game card—The civet-cat—Dogs used with the beaters—Pig—A tussle with an old boar—The dogs go in—Death of the pi-dog.

DURING the closing years of the century I found myself stationed in Chittagong in Eastern Bengal. This district has earned an unenviable notoriety for malaria amongst officials and more especially amongst Forest Officers, the official connexion of many of the latter having been suddenly terminated by a medical certificate and a trip home. The climate suited me apparently, and during the three years I was there I had little fever.

The division was a very fine one for the zoologist and sportsman. For the charge included, firstly, the Chittagong district with its seaboard and network of tidal canals and series of low rocky ridges clothed with bamboo jungle, both localities invariably teeming with a variety of animal life including birds, much of it totally different from the fauna one had been studying in Chota Nagpur and the Central Provinces. Secondly, the Forest Officer held sway over the forests of the neighbouring Chittagong Hill Tracts District, an enormous, chaotic mass of wild pathless jungle-clad hills covering an area of some four thousand square miles. The hills in this tract run in parallel series of ridges more or less due north and south down to the seaboard, the rivers

and streams being the "roads" of the country and much of the travelling being done by water. To the north the district abutted on the South Lushai Hills of the Assam Province.

This tract of country is of extraordinary interest. In the old days, and not so far off either, the smaller one-horned rhinoceros (*Rhinoceros sondaicus*) roamed over these jungles. Alas, he has gone now for ever, the last being killed in the Chittagong district somewhere about the late 'eighties or early 'nineties. The bison of these parts, the gayal or mithan, first cousin to the gaur we have already had tussles with, still exists in the hill tracts and, of course, further north and east. But protection will be needed if this fine animal is to be preserved in its wild state. It is true that, unlike the gaur, it can be domesticated and will cross with the village cattle. I have seen it very often in the villages throughout the district. Buffalo used to exist in a wild state, but are no longer to be found in the jungles of which I write although their near relative the domestic animal possesses in these parts many of the attributes of its wild confrère and is an animal for the European to beware of. I do not know what makes these so-called tame buffalo so vicious in Eastern Bengal. They are often perfect devils so far as the sahib is concerned. I had a small adventure with one of these brutes once, being pursued by one, and have not forgotten it. It was only luck that enabled me to get clear. I was returning to my boat moored in one of the tidal creeks, after having inspected some small revenue station or other. It was about three o'clock in the afternoon, and I was trotting along the banked-up road running through the rice fields. Suddenly I heard a dull, hollow sound of galloping hoofs behind me. Turning in the saddle I saw about twenty yards away a large buffalo in full cry. One glance at his face was enough for me and I realized that the tales about the "tame" buffalo of these parts were fully justified in this instance. My pony must have realized the position sooner than I did, for he had been pulling hard for several minutes and I had wondered what on earth he was up to, as we still had a good many miles to go. He was a sorry tat at the best, a borrowed animal. I dug spurs into him now and we scurried up the road at our best pace. Five minutes passed and I realized that the buffalo was gaining steadily on us. I became seriously alarmed and cast about

for a loophole of escape. I did not want to part company with the poor little beast I bestrode, even if it were certain that the buffalo would follow the pony and pass me by. But there was no certainty on this head. Again I looked round, fifteen paces or less only separated us, and the brute was rolling along over the ground in vicious silence, and evidently meant business. My spine ran cold and already I felt those long horns pitching me up into the air. Again I glanced ahead. I strained my eyes for a haven of safety and suddenly noticed that the road made a sharp right-angle turn to the left about two hundred yards or so ahead. I remembered the place as I had come this way that morning. I also remembered to have heard it said that a buffalo in pursuing along a road would usually continue his course if one could get out of the straight line. I acted on the thought and with some difficulty pulled the pony, now mad with fright, off the road to the left. He slithered down the embankment on his quarters owing to the pace we were going, but luckily did not come down on his nose. Pulling him together we went across the paddy fields at our best pace, cutting off the angle and getting on to the road some way down the bend. I glanced round. There was the old buffalo charging along the road. But before he got round the bend I had gained over a hundred yards on him, and ran him out of sight. But it was quite near enough for me and rendered me more than ever distrustful of the so-called " tame " buffalo of Chittagong.

Elephant used to roam the jungles of the Hill Tracts in considerable numbers. Although protected now by Government, their numbers were sadly thinned by the Keddah Department, a Department which has probably done more to destroy game and thin out elephants during the last score of years than dozens of British sportsmen could do in double the period of time. Sambhar, khakar and other small deer were plentiful, though I never saw the spotted deer or the hog deer. Of the carnivora tiger and leopard were abundant, though the former was extremely difficult to get at, owing to the extreme denseness of the jungle and the hilly nature of the country. In fact in many parts of the district, and more especially in the Chittagong Hill Tracts, successful sport was difficult to attain owing to these causes.

The local conditions of travelling and of life generally

were so entirely different from what one had been accustomed to on the other side of Bengal. Here the major part of our camping work was done on the rivers in boats, and at first—I subsequently had a Government steam launch—native boats had to be hired for the purpose. One either lived for days on end in these boats or occasionally was able to put up in one of the district or forest bungalows for a short time when such were conveniently situated to the work. But that was not often.

Life in the boats apart from the work would have been appallingly monotonous, bearing in mind the awful discomfort of spending several weeks cramped up in a tiny confined space, had it not been for the fascinating nature of the country. If one were in the tidal canals, with their black mud-banks and occasional broad stretches of soft turf beyond, or out in the Bay of Bengal, banks and shores were alive with bird life of all kinds, curlews, plover, and a variety of sandpiper, redshanks, cormorants, and so forth. Low tide or, better still, at two-thirds high water was the best time for the birds, and at such times the shores were a paradise for the ornithologist. On my last trip in these parts before a transfer took me to North-West India, I had a brother officer, Mr. B. B. Osmaston, C.I.E., a well-known and extremely keen authority on birds with me. He was new to this part of India and was amazed at the extraordinary variety of bird life, much of it being, he said, strange to him.

The cormorants and curlews were ever a source of interest to me. Both extremely wary, the cormorants used to sit up in low mangrove bushes on the sides of the tidal canals near their entrance to the sea and either fish or rest in these positions—but they ever rested with one eye open !

Of the curlews the largest, a handsome bird, was quite common and possessed all the cunning this bird is famed for. A smaller greyish one was quite good eating—anyway to a hunter's appetite when in camp, the only occasions I remember partaking of it.

On the green stretches between the mud-flats plover swarmed, and but little care was necessary to make a bag of these birds once a flight had been marked down. Their colouring was extremely well attuned to their surroundings and so they were very difficult to see before they rose from the ground. The smaller waders, redshanks, etc., were legion, and I was never tired of watching the banks or marge of the

coast-line as I sat in the boat sailing or being pulled down the coast at twenty yards or so distant. In the paddy fields in the neighbourhood of the kals or creeks a large grey heron was fairly common—handsome birds but very wary. Of duck I saw numbers in the cold weather, and occasionally was able to get a shot either as a flight passed the boats within range or when we ran into a lot settled upon the surface in a creek or in one of the channels between the mainland and the islands out in the Bay. These were mallard, widgeon and teal of various kinds. That brilliant-plumaged bird the brahminy duck (*Casarca rutila*), surely one of the very wariest of the bird tribe, even including wild geese, inhabits these areas. I did not see many of these ducks in the Chittagong District but had great fun stalking them off the neighbouring district of Noakhally which I had occasion to visit once or twice. All who have read Simson's *Sport in Eastern Bengal* will remember this district as a famous pig-sticking centre in old days, with some of the finest galloping ground, green turf like velvet, I ever met in India. It had fallen on evil times at the period I write of and there was no tent club.

Rivers are numerous in this region, all flowing north and south, such as the Kornafuli of which Chittagong forms the port, and others flowing parallel to it between it and the Kaladyne which flows out at Akyab, through the district of Arakan; this river forming the boundary between Bengal and Burma. Proceeding up the rivers into the interior the scenery changes completely. Once out of the low country dense forests clothe either shore. The banks above tidal level are fringed with high grass and plantains, giving place to tangled cane thickets, bamboo clumps with a high overhead cover of fine timber trees. Occasionally the scenery becomes very bold and rugged, the broad river running between steep gorgeous-coloured cliffs, their faces either sheer rock or covered with a low scrub jungle, from which graceful bamboos droop over the water. In the morning or at sunset marvellously soft effects are produced by water and sky, colouring which one can only see in the tropics.

On the shore at daybreak or just before sunset, as one drifted along in the boats, one had a chance of seeing something of the jungle occupants of the great forests. On the upper reaches where the water is fresh deer would come down to drink as would also family parties of monkeys, jungle fowl,

and the black-breasted Kaleej pheasant (*Gennæus Horsfieldi*) would be commonly seen, though by no means so commonly bagged for the larder. With extreme good luck one might see a tiger or leopard come down in the late evening or early morning to drink. It was not an uncommon sight to come upon animals swimming across the rivers. I have seen sambhar and barking deer on several occasions, both animals swimming with ease, the head held comparatively high out of the water. Monkeys also, swarms of them, and they are a ludicrous sight. Monkeys, or anyway the species which inhabits these forests, swim very high out of the water, head and shoulders well above the surface. Also they swim with great ease. But the row and fuss they make when a boat containing men comes along is most amusing. Whilst still at a distance they are insolent, turn and jabber and make faces; as the distance between lessens they begin to put on the pace a bit, still losing ground by constantly turning to see how near the boat is getting and making the most comical grimaces in which fear now commences to appear. When they at last apprehend that the boat is actually coming for them and the danger is serious all semblance of defiance leaves them and a *sauve qui peut* takes place. Down goes the head and they take to a kind of overhead side-stroke, scrambling through the water at a great rate and deadly silent the while. On reaching the bank the more timid ones bolt straight into the jungle without more ado; pluckier or more cheeky members halt just on the edge of the jungle, face the river, give themselves a shake, have a scratch or two and fling at one a few of their choicest expletives, the words tumbling out the faster the nearer the boat approaches. As the keel impinges on the mud-bank, with a last curse they leap for safety and one hears the band disappear with indignant scolding and chattering amongst the trees.

Practically the whole of the forest produce in the shape of logs, dug-out boats, bamboos, canes, etc., is floated down these rivers in the form of great rafts a hundred feet and more in length. Two or three men are in charge and they spend weeks on board living in a small bamboo-walled thatched hut built on the raft. It is a sight to see these great rafts coming down-stream, and more especially when the river is in flood in the monsoon months. The rivers are also the highways of the local population. They bring their produce

THE FOREST LAUNCH ON THE KARNAPULI RIVER, CHITTAGONG DISTRICT IN THE MONSOON SEASON

Photo by Author

ON THE UPPER WATERS OF THE KARNAPULI RIVER IN THE CHITTAGONG HILL TRACTS. THE BOATS ARE DUG-OUTS HOLLOWED FROM THE STEMS OF TREES. THE LARGER IS FILLED WITH EARTHEN WATER-POTS BEING CARRIED UP STREAM, FOR SALE IN THE INTERIOR. THE TIME OF YEAR IS THE HOT WEATHER SEASON. NOTE THE UMBRELLAS OF THE PASSENGERS AND STEERSMEN—THE BADGE OF DIGNITY IN THESE PARTS

down in dug-outs to the bazaars in the Chittagong District, returning often with the dug-out piled high with earthen pots, so much in use by the natives for domestic purposes. On sunny hot days the ever present umbrella is also much *en evidence* on such occasions as the photograph so well depicts. The main portion of the boats in use is the great bole of some forest monarch which has been hollowed out usually by burning. The sides in the bigger boats are built up with planks, thus affording extra accommodation.

It is far from easy to discuss the game problem in this part of India, so far as the abundance of animals is in question. Some animals, rhinoceros and buffalo to wit, have disappeared from the area. In the great tracts of forest stretching down east into the North Arakan District a few rhinoceros may still be left. I saw the pugs of one or two on the borders of that country on the occasion of a trip I made that way, but that was the only time I saw any sign of this animal in that part of the world.

The Chittagong Division is a very densely populated part of India with 676 head of population per square mile, and the isolated patches of forest, consisting principally of bamboos and grass, contained practically no game animals. They had been exterminated by the neighbouring villagers by shooting, snaring or trapping, even before the more modern rifles made their appearance. These small blocks of forest are, however, valuable from the economic point of view, since both bamboos and grass are necessities to the villagers, forming their chief house-building material. In the great dense forests of the Chittagong Hill Tracts to the north, animals roamed at will probably as numerous as they had ever been, with the exception perhaps of the elephant, rhinoceros and buffalo. In this part inhabitants were few and the wandering tribes who were still allowed to practise that most iniquitous method of cultivation called "jhuming," had probably little influence upon the decrease of game animals with the exception of such shy beasts as the rhino. Jhuming, the oldest form of agriculture known (in Europe as well as in the East, for it is still practised in parts of Russia), consists of felling a piece of primeval forest, setting fire to the trees felled and burning as much of them as possible, spreading the resultant ashes over the cleared area and sowing the seed of a grain crop on top. The jhumer then squats down on his hams, smokes his

pipe and waits till the resultant crop ripens, when he again gets to work and cuts it over. He may repeat the operation the following year and even a third year. By this time a dense weed growth will be making its appearance, entailing more work than our jhumer has any stomach for, and so in order not to have to fight against that he moves on to a fresh piece of forest. The procedure results in a frightful waste of fine forest, the product of hundreds of years, which is replaced by a tangle of more or less valueless soft woods and bamboos. But the numbers of the various families practising this patriarchal form of existence were few, and as I have said probably had little influence on the game. On the other hand it was extremely difficult for the European sportsman to get at the game in these forests. There were no roads, it was difficult to collect coolies to carry one's camp paraphernalia even if one was willing to travel with the lightest kit. No food of any kind could be bought for oneself or servants and so all had to be carried with the party, and lastly the country, an intricate mass of hills densely clothed with jungle, bamboo, cane, long grass and high overhead cover with only narrow game paths to move along, offered almost insuperable difficulties to the sportsman. We tried our best, those of us who were up in that part of the world at this period and were keen enough to face the inevitable discomforts and hard life entailed, with but meagre results, however. The country forms a fine animal sanctuary, so long, and only so long, as the native inhabitants remain as sparse as at present and do not get hold of the modern sporting rifle. Once they do these jungles will follow the ones in the Chittagong District to the south. But that we may hope is a long time ahead.

I have said that the Chittagong Collectorate areas are practically without life so far as game goes. But this only applies to the isolated blocks of jungle. Some of the forests are in direct communication with the great tracts of jungle to the north, forest-clad spurs running right down to the seaboard. These spurs are constantly supplied from the north and at the time I am writing of contained numerous sambhar, barking deer, pig, and leopard and more rarely tiger and, of course, numbers of the smaller carnivora. On these hills areas of a tall strong grass termed "sunn" occur in parts. The areas covered with this grass, called "sunnkholas," are of considerable value and are leased for a

term of years, the grass being cut over annually and sold for thatching purposes. Sambhar could be found here.

Many pleasant shoots did we have in the district and more especially in the tracts of forest included on neighbouring tea estates. Here our kindly hosts had no difficulties about obtaining the necessary beaters from their own garden coolies. The beats were systematically organized and often resulted in good mixed bags being made, the evening game card perhaps reading somewhat as follows: wild boar, jungle fowl, sambhar, partridge, barking deer, civet-cat, hyena, leopard, snipe, plover. Such a return was, I remember, made at one of the Christmas shoots.

How jolly these Christmas shoots were, and how different the conditions and surroundings to other parts of India. Called in the dark we used to get into shooting kit with an extra sweater, as it was chilly and damp, oh! so damp, in the early morning. Assembling in the dining-room (men only, the ladies came out later after the sun was up, as there was no reason for their risking malaria) we made a hearty chota hazri or breakfast, whichever you liked to call it, and then off with the first dawn with probably a two- to three-mile walk to the first beat. Chilly outside with a sopping wet penetrating mist, this part of the proceedings was the one we least liked. It usually meant a certain amount of floundering about on slippery mud roads or narrow paths. When the sun was above the hill crests this discomfort soon disappeared and the day with its varying incidents was pure joy.

One such day I remember as typical of many others. No ladies were out, I forget why. There was to be some big dinner or other tamasha in the evening and they had all stayed at home to get things ready. We had varying fortune in the morning. A civet-cat (*Viverra zibetha*) was put up by the dogs, who as usual went wild over the beast. The animal is not uncommon in these forests. It has a greyish coat with black spots and stripes, the throat white with a broad transverse black band, the tail being ringed with black. The civet is about three feet long with thirteen to twenty inches of tail. The drug called civet which has a peculiar and most unpleasant odour, the cause of the dogs going wild when they smelt it, comes from the sub-caudal gland of the animal. The animal is a carnivorous predatory cat destructive to poultry and game of all kinds.

It hides easily and has to be carefully watched for in a beat or will get away to a certainty. The one in question was shot just ahead of the dogs by my neighbour in one of the beats.

As to the dogs mentioned above.

In their beating operations in these parts the men made use of village pi-dogs whom they train with great skill. From two to three couple of these, a most nondescript mongrel crowd to look at, but exceedingly good at their work, were taken into the forest with the beaters and then unleashed. They worked independently of each other and in no way as a pack, unless two happened to get on to the same slot, but once they had got on to an animal's trail, whether deer, pig, or more dangerous game, they never left it and sent it forward if possible to the guns. They also proved most useful in following up wounded animals.

On the day I speak of we had three beats in the morning, securing a sambhar, civet-cat, three pigs, and some jungle fowl. But the afternoon provided the excitement.

As we smoked a cigar after lunch some of the Mug coolies, a merry keen set of men who loved the outing, being themselves jungle-men from the Hill Tracts country, came and squatted round us and were questioned as to what we might expect in the afternoon.

" Pig, sahib, lots of pig and there is a very large old boar with long tushes. A very heavy old devil who is very fierce." In this part of the district pig were shot, as the country was quite unrideable and they were very destructive to the crops. Further west and in the neighbouring district of Noakhally pig-sticking could be indulged in, probably the finest sport to be obtained anywhere with as comrade a good handy fast nag. Another man volunteered the information that he thought there were at least five to six sambhar in the next two beats. One of the shikaris thought there would be a leopard. But there were few beats in these parts which were not credited with at least one pard—but, if present, he was usually cunning enough to get away, so we did not attach much importance to the statement.

We soon got into our positions. I was on a broad boundary line beneath a stunted mango tree which afforded shade from the sun and also hid me to some extent from anything breaking out. We never made use of machans

in this district, merely taking up the best position from which we could command the area of our fire.

For a space all was silent. The men were in a heavy piece of forest and not even the yapping of the dogs, who rarely ran silent, was audible. I could not see my neighbour to the left, but on the right the next rifle was easily visible on the top of a ridge some way above me and about two hundred yards distant.

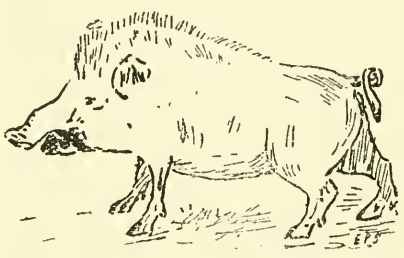
As I waited I suddenly heard a loud flapping of wings, and two large black hornbills flew over the line between the right gun and myself. I had a rifle in my hand and so did not fire, but my neighbour did so, without result.

Soon after the noise of the beat came to our ears and now and then a yap, yap from the submerged dogs, hot on a scent. I had set my heart on the old boar. I thought I should like to have the tushes of the hoary old sinner, even if they were not earned by riding him down. From the row proceeding in the jungle and the occasional vociferations from the coolies there was evidently game, and a good deal of game, afoot. The sudden sharp crack of a rifle to the left followed by a second produced frantic enthusiasm amongst the beaters and a stentorian voice was heard to shout, " Beat, beat, brothers. Beat, you lazy rascals. The sahibs are killing. There will be meat for all." The owner of that voice, costume and all, could have made a fortune on the halls at home.

Suddenly a heavy rush in the slight hollow to my right and a dark-coloured body plunged across the ride. Up went my rifle, but it was a doe sambhar. Another rush behind, I swung round. A sambhar, I think a doe, was half in the jungle on my side of the ride, another was in the middle of the ride, whilst a third, a stag with a moderately good head as it turned out (I had not the time to decide the point then), had just left the jungle on the far side of the ride. I raised the rifle and snapped at him. I heard the bullet hit as I fired the second barrel and he dropped on the edge of the jungle on our side of the ride and lay there. One of the two men I had with me, a Mahomedan, rushed up the ride and " hal-lalled " or cut the throat of the stag, to let the blood flow, though I am sure the stag was quite dead before he got up to him.

Meanwhile a terrific commotion was going on in the jungle in front of me. Voices were raised in anger, jubilation and

fear, whilst at least one youngster was crying with sheer funk apparently, so far as I could make out. Then a dog's note made itself heard, followed by a second and a third. They were evidently baying something. I listened, keen excitement holding me. What on earth was it ? Suddenly a chorus of grunts broke the silence. Pig, by the gods. Now the jungle was swishing and rustling in all directions. Nearer the noise approached and a large sounder broke on the ride between myself and the gun to my right. I raised my rifle, remembered and waited. The big old boar will be here, I reflected. The gun above me fired two barrels. Piggies charged to the right and left with enraged grunts, burrowing into the jungle on our side. Others, just emerging from the opposite edge, halted and looked about with their cunning-looking small eyes, doubtful as to what to do. But little as they liked the front, they liked the rear still less. The yapping was now quite close and I waited, finger on trigger. Closer came the dogs and louder grew the grunts of more of the sounder, now nearing the line. Quite suddenly a sow who was three parts out of the forest opposite and not twenty-five yards from me—I had hidden myself behind a little barricade of leafy branches—was propelled into the middle of the ride uttering a startled squeaking grunt as she was flung forward. I was on the point of bursting out laughing, she looked so comic, when a dim grey bulk took her place for an instant on the edge of the forest and then lumbered out on to the ride. It was the old boar ! He was a fine sight. Of giant bulk, his bristles grey with age and mouth adorned with a pair of giant tushes, by far the largest I had ever seen. On the ride he turned, his bloodshot eyes glaring red fury, whilst he champed his tushes and grunted. On the instant I understood the position. It was this old boar whom the dogs had been baying and, as the thought flashed through my brain, a dog rushed out of the jungle and commenced dancing round the old boar. I hesitated no longer, but let drive at the shoulder, though I confess with some trepidation.

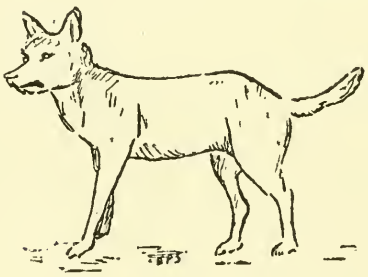


The boar turned to the shot, but the dogs, for another had joined the first, distracted his attention and I fired again. He lurched and I thought he was going over, but with a fierce grunt he staggered into the jungle on our side before I could get a third shot at him from my smooth-bore, which I had seized. A very pandemonium now began. A third dog had turned up and they were now all three engaged in baiting the old boar. His grunts of rage showed that he had still plenty of fight in him. I was unwilling that the dogs, who possessed considerable value in the eyes of their native owners, who had spent a lot of time in training them, should come to harm and so determined to follow them up and try and polish off the boar. My orderly and the other man with me, both of whom had long knives with them, agreed to follow and we hurried in the direction of the scuffle. Forty paces was all we had to go, and then we burst upon a scene which baffles description. The old boar was standing or half-squatting with his back against a large tree and five dogs were jumping round him, yapping for all they were worth. First one and then another would try and run in only to retreat as the old fellow's head came round with a vicious upward cut of the tush. The dogs appeared to be covered with mud and blood, but it was impossible to say whether any of them were yet severely hurt. So occupied were they all that it was a minute or two before they perceived us. I had tried to get a bullet into the boar, but the risk of hitting the dogs made it impossible. And I did not think he looked sufficiently harmless for me to walk up to him with only a knife in my hand. And sure enough he was not ! For as soon as he set eyes on us he got up and with a furious grunt tried to charge. But he was far spent. As I fired the biggest dog, a thick-set bright red brute with a terrific jowl on him, was in like a flash and got hold of the right ear, getting gashed as he did so. The old boar swayed on his feet and looked as if he would drop over. I fired again but just not quick enough. A second yellow-coloured dog, lithe and slim, went in on the left, and in a second lay disembowled on the ground, the old boar falling over on his right side after this last effort. I hastily reloaded and fired another barrel to make sure of finishing the business and we went up to the dogs. Four of them were now on the body each with his teeth firmly fixed in some part, nor could we move them.

"You won't get them off till their owners come, sahib. No one else can move them when they take hold like that."

I said nothing but turned to the poor wounded dog. A glance showed that nothing could be done for him. Poor plucky brute. I bent over him and poured some water over his mouth and head as he lay gasping. His brave eyes turned to me and I thought I read a gleam of gratitude in them. And then a film spread over them and he was gone.

He may have been only a pi-dog. But his heart and spirit were pure gold.



CHAPTER IX

WANDERINGS IN THE CHITTAGONG HILL TRACTS

Chittagong Hill Tracts and Lushai Hills—Accompany the Commissioner into the Hill Tracts—Luxurious travelling—Take to dug-outs—Burning forests—A day of smoke and heat—Land for the night—The Commissariat delayed—Dinnerless to bed—A wet morning—Continue our journey—A swimming snake and Kaleej pheasants—Reach the falls—A southern outpost—A wild frontier country—The Military Police—A fine fishing river—Proceed up-stream—Dense jungles and interesting fauna—A faunistic survey required—Meet the Political Officer—Bad weather and few fish—Southern Hill Tracts forests—Calling up sambhar—Stalking the mithan—A trip in the rains—The forest flora—Track the herd—A close encounter.

THE Chittagong Hill Tracts and South Lushai Hills are a most interesting piece of country to wander in. Of course, when once up in those parts one feels rather lost to the outer world and occasionally the feeling would come, as I remember it came to me very strongly on an occasion in the fastnesses of Upper Burma, that one had seen the last of civilization and was destined to leave one's bones in the wilds. But such feelings are evanescent. The lure of these wild tracts and their great fascination is far more dominant and lasting.

I remember one hot weather in April accompanying the Commissioner of the Division, who held almost autocratic sway over the Hill Tracts, with powers of life and death and other terrors, up into this region. The first eighty odd miles of the journey were done in a luxurious flat pulled up the river by a launch. The day was spent in dignified ease. An hour or two in the morning was given to perusing and noting upon stately bundles of red-tape-encircled files, extracted from japanned tin office-boxes on the outer covers of which the official titles of their owners were inscribed in large type. Followed a beautifully cooked hot breakfast and then, installed in comfortable long chairs,

we smoked, talked and watched the beautiful scenery of the Hill Tracts as reach after reach of the great river opened out before us, bearing upon its bosom long rafts, often thirty yards in length, consisting of great logs, bamboos, canes, etc., cut in the forests to the north and now on their way to the southern markets.

The next day we descended somewhat in dignity; only small dug-out boats could proceed further up the river owing to the prevalence of sandbanks and other obstacles. Behold, therefore, the Ruler of the Country seated solemnly in the centre of a dug-out canoe-like vessel, with a strip of bamboo matting fixed over the centre to afford some protection against the sun, rowed or poled or dragged up-stream by the boatmen, whilst an orderly squatted in the stern. This was all in the way of passengers the craft could accommodate with comfort and safety. We had a fleet of these dug-outs. I occupied No. 2, and the tiffin-basket and two native servants No. 3. The rest of our enormous retinue, for the Commissioner, even on a combined duty and sport expedition such as the present, always travels in style, occupied the remainder of the fleet, which, before we had gone very far, was strung out over at least a mile of river.

I had been anxious for the Commissioner to come up at this season to witness the enormous destruction being committed by the wholesale burning of the forest, done yearly by the occupants of the scattered villages in the outer hills and by jhumers elsewhere. The former fired the forest with the object of getting a crop of young grass as soon as the first rains fell for the pasturing of their miserable herds of wretched cattle and goats; their buffaloes were good, but the rest of the animals—a type of the poorest. The jhumers burnt the forest in order to provide areas on which to raise their crops with a minimum of trouble and labour. We saw enough of this burning that day to convince the most sceptical of the wasteful damage being done. At times the smoke was blown so densely across the river that we could not see twenty yards in front of us. At others large sandbanks necessitated our coming close into the shore above which the whole hill-side was blazing, where the heat added to the rays of an already very powerful sun was terrific. About one o'clock, on rounding a bend, I perceived to my relief,

for I was parched with thirst, that the Commissioner had landed on the right bank in a bit of open cultivated land near one of the curious Mug villages and was evidently going to have tiffin. I joined him there and found him in a very bad humour. I came in for some of it. It was the fires he was so mad about. Did not think they had been sufficiently reported, etc. I had covered reams of paper with reports, and as he unguardedly said he would read every line I had written on the subject I felt I could put up with the present dressing-down as I should get my own back if he held to his promise. At last the tiffin-boat hove in sight and having washed out the smoke we recovered our serenity somewhat and, as it subsequently turned out, unduly prolonged the welcome rest.

The afternoon passed very much as the morning. The fires were not so near the river-edge, and so the heat and smoke were not so aggressive. We did not halt for tea; the three dug-outs were lashed together, several men towing them from the bank, as it had dawned on us that we should be late in getting to the tiny bungalow we were to spend the night in. Tea over, the Commissioner decided to leave the servants' boat behind with orders to hurry on the rest of the fleet, which was nowhere in sight. Darkness fell and the proceedings became wearisome. I was not sufficiently acquainted with this part of the river to remember how far the bungalow was. It was useless enquiring of the boatmen, as their invariable answer was "Round the next bend, sahib." I had no light so could not read, and finally I lay down in the bottom of the dug-out and dozed fitfully. I was roused at length by voices and the gleam of a light. We were approaching a tiny landing-stage. I crawled from under my cover and looked out. The Commissioner was standing in the verandah of the bungalow near a lantern placed on the floor. A second lantern was on the landing-stage, which was a frail bamboo lattice-work arrangement supported on bamboo piles. I hopped out of the boat, glad to stretch my legs, and joined him. It was a pitch-dark night and nothing could be seen of our surroundings. The night air on the river was quite sharp or we felt it so in our thin shikar suits after the heat of the day.

We adjourned to the bungalow, a lantern was placed on the table and whiskies and sodas ordered and produced with

some biscuits. The refreshment was very comforting, but gloom held the Commissioner for some time. I could not make out why. But when he shouted out an enquiry as to whether the boats were arriving I began to understand the position. He was thinking of the dinner. It was then nearly eight o'clock. Another hour passed and still no boats. We had both spent it in silence over a book apiece, but at the end of this period the hunger pangs became more insistent. The Commissioner went out into the verandah and remained the best part of the next hour there. Being a junior officer and also a guest I felt the position to be a rather delicate one. At ten o'clock an enquiry was made as to what provisions we had. It turned out that a solitary bottle of beer and a couple of biscuits was the total strength of the commissariat.

Hungry as from my own sensations I do not doubt he was, I think my companion was more annoyed on account of his guest than for himself. And, besides, for a Commissioner's bundobast to go wrong in a country where he held powers of life and death was an unheard-of event ! At 10.30 he said we might as well have what there was, and we solemnly divided the bottle of beer and ate a biscuit apiece and decided to turn in, i.e. lie down on the bedsteads all standing for we had no bedding or anything else till the boats arrived, and it was too cold to take off one's boots.

I buckled up my leather belt to the last hole to still the hunger pangs and lay down, with my topi for a pillow. For nearly an hour sleep refused to come near me, and then I fell into a deep slumber. I dimly heard or dreamt of noises and of a voice saying " Sahib, Khana tiyar hai " (Dinner is ready) and I seemed to smell appetizing smells, but the real facts were that I slept till 6.30. I woke then to find my servant at my bedside with a tray full of a large chota hazri. I noted too that I had been covered up during the night with blankets. As soon as my eyes opened the gnawing pain came back and without question I devoured the victuals. I was told that the boats had turned up about 1 a.m. with a fine hot five-course dinner ready. (They said they got stuck on a sandbank in the dark). The Commissioner, who was awake, had his dinner brought to his bedside and ordered mine to be taken to me. They reported to him, however, that they could not wake me and were told to leave me alone. We ought to have got off at

4.30 that morning, but did not leave till 7.30 and had a shocking morning of it. The weather had completely changed. It had pelted with rain during the night and about eight o'clock a thunderstorm commenced and we had three hours of heavy rain. It was horribly cold and the mat roofing of my boat leaked like a sieve. I had to give up reading and in the end smoking also. I could not even swear in comfort, so I lay upon my back and stoically bore being leaked upon. Yesterday baked and roasted and parched with thirst the contrast this morning was almost ludicrous in its completeness. My only consolation was that the Commissioner had seen the hills blazing as I had promised him he would. Had the rain come twenty-four hours earlier I should not have had the satisfaction of having this point definitely settled. About 11.30 it brightened and I shortly heard a hail and was brought alongside the Commissioner's boat. He invited me in and we sat back to back under the bamboo covering, the only way we could sit without upsetting the craft, and had a strong whiskey and soda and some biscuits. (We were not always drinking whiskies and sodas. But whiskey is the best antidote to malaria in unusual conditions such as we had been experiencing). Soon after one of the boatmen in front shouted "Samp, sahib, samp." I crawled out at the end and sure enough a large grass snake was swimming across the river just in front of the boat. I had never seen one swimming before and the pace it went was prodigious. The Commissioner shot it. This woke us up a bit and I soon after got a brace of jungle cock, a number of these birds and the black Kaleej pheasants having come down to the river's edge to drink. We reached the landing-stage below the falls of this river at 2.30 and had breakfast, another thunderstorm hovering about making this a hurried meal. A little tramway connects the section of rapids below the falls and the rapids above them, with the navigable waters higher up and, breakfast over, we got on to a trolley and were run up to the bungalow at the Falls, reaching the house just as a thunderstorm burst over us. The line runs through thick forest with hills rising above the river, the scenery being exceedingly picturesque. This bungalow really forms the southern outpost of the wild frontier country which stretches for league on league to the north and east, the few white men who rule this part being

officers in charge of the scattered outposts of the Military Police. A solitary life they lead, but a most interesting one if the officer happens to be keen on shikar and natural history, or geography, ethnography, or, in fact, any one of the 'ologies.

The bungalow was to be our headquarters for the next ten days and fishing was to be our chief sporting occupation. This river is a fine one for mahseer, that most sporting of Indian fish, which is angled for to some extent on much the same lines as the salmon at home. The mahseer has a superficial resemblance to the latter fish though of thicker build and with larger scales and a more carp-like appearance. This place was a well-known fishing spot to the frontier officers though not as good as others higher up. Still twenty- to thirty-pounders had been taken.

We spent the afternoon settling down, the river, of course, owing to the unexpected rain, being unfishable and this state of things lasted for the next two days. We tried, of course, but it was useless. On the second day, the water still being unpromising, I went twenty miles up-stream to explore. The forests up here were practically unworked for timber, only bamboos and canes being cut in them and rafted down-stream. The pernicious jhuming system was in force. A beautifully cheap existence these nomadic tribes lived. Their houses are built of bamboos on bamboo piles bound together with creepers and canes. Their household utensils are chiefly made from bamboos and other property consists of a dug-out and a goat or two. Of garments I was going to say they had none. This is untrue. Still, they were so scanty as to be a negligible factor in the year's expenditure—a shilling or two covering a year's wardrobe. All but the goat and clothes was obtained from the forest for nothing. What a lot of money one could save by living a nomadic existence of this kind for a year or two !

The jungles up here are extraordinarily dense and thick, and with a total absence of roads over the hills save for narrow footpaths or animal runs. Shooting is accordingly a most arduous pastime, the results obtained after extremely severe work being very small. I often discussed the question with the Military Police officers of these parts and they were all of opinion that game was plentiful enough but very hard to get.

The fauna of this great tract is of extraordinary interest,

and there must be amongst the smaller forms of animal life, and especially insect life, many species as yet unknown to science. A systematic faunistic survey of the area is badly needed and would result in a rich reward to those undertaking it whilst at the same time providing interesting evidence on the distribution and spread of species and indicating the connecting links between the western and eastern hill ranges.

Have you ever in the wild spaces of the earth suddenly and unexpectedly come across a fellow-countryman? A curious sort of feeling, almost of shyness, comes over one. I went through this experience on my way back to-day. We had just started down-stream in the afternoon, when on rounding a bend I saw a large dug-out advancing and in the centre an unmistakable sahib in a topi. I knew the political of the fastnesses up in the north was expected up the river, but had understood that he was to stay a day with us on his way up and I was looking forward to meeting him. As the approaching boat drew near my men said it was the Political Sahib. Our boats instinctively approached each other and we met, total strangers, as if close friends, so tight are the bonds of country when one meets in the wilds. We spent half an hour together and parted. It was some years before we met again and then the conditions were very different. The Viceroy's band was playing a most seductive waltz, a great ballroom was ablaze with gold and glitter, with fair ladies and gallant men, and we were all enjoying the golden hours, discussing the latest news from home, admiring or otherwise each other's clothes and talking Indian scandal.

We got very few fish this trip. The weather was against us and all fishermen know what that means. The river was never once in real fishing condition, although usually at this time it is at its best. It was pure bad luck. I think five fish between us was the total bag, the largest about fifteen pounds. But the whole trip was most enjoyable, and my host and myself had always much to discuss in the evening about the events of the day. Officially also the trip was a success, for a number of matters which had been pending and creating friction for several years were settled. That is one of the best sides of India. So much real solid work can be got through out in camp, whether on a shooting trip or otherwise, provided all parties are really keen on camp life.

There can be little doubt that too much sitting at headquarters in the office is the greatest deterrent to sound and more rapid progress in India as it is to obtaining an adequate knowledge of the people one has to govern or work with.

I have alluded to the mithan, the bison of these parts. My remarks on the denseness of the forests in the Hill Tracts would lead to the inference that there was little chance of getting near these or other animals. And such is the case over a great part of the country. In the more southern portions of the Hill Tracts area, however, the forests are more open; hill-sides, probably jhumed in years gone by and so cleared of their primeval forest, are covered with bamboo growth only, principally the bamboo known as the muli bamboo, the stems of which grow out of the ground singly and not in clumps. Other tracts are covered with a tall coarse stout grass called sunngrass. Such clearings are known as sunnkholas and many of these were leased either by Government or their owners and cut over yearly. It was possible by judicious tending, removing coarse weeds, and burning after cutting, and so on, to greatly improve the quality and quantity of the grass on these areas and leases for a period of years were consequently given out.

Here and in the adjacent tree-covered areas one could find sambhar, and the shikaris of these parts call the stags out by imitating the rather shrill note of the hind. This they do by placing a leaf flat between the closed palms and blowing on it edgeways, thus producing the doe's note to perfection. We used to go out either before daybreak, so as to get into position by dawn, or be in our place in the late afternoon. There was one favourite hill of mine a mile or so away from a planter friend's house. By proceeding east along a mud road the neighbourhood of a nullah was reached. This ravine was densely clothed with a magnificent and luxuriant tropical vegetation and incidentally was full of fallen trees, monarchs whose day was done and past and who gave a lot of trouble to the progress of the stalker. An inspection of tracks here would almost invariably show that there were sambhar on the slopes of the hills higher up. The procedure then adopted was usually as follows : A man would be sent on to scout whilst we slowly wended our way up the nullah, wading through the water whenever it became necessary. Sooner or later the man would return and tell us he had marked down one or more sambhar.

On one such afternoon I remember the report was of two sambhar up on the hill to our left. We accordingly moved forward, and as soon as the ground became practicable climbed up the steep hill-side to our right. As soon as the dense tree growth had been left behind an examination was made of the upper parts of the opposite slope and a stag sambhar was spotted. The shikari then started calling the stag, who very soon answered to the apparent hind's call and began to move down the hill-side. As he did so he occasionally gave forth his deep note. This was suddenly answered or challenged by a stag's bell from higher up the valley. The latter, however, soon ceased, probably recognizing a formidable rival in the beast before us. I cannot say that I was enamoured of this method of killing stags, although in a dense jungle-covered country it was possibly the surest way to attain success. But omitting the slaying of the beast the actual calling him up and the study of the method of approach, especially when on a hill-side across a valley, was most fascinating. The method may be in existence in other parts, but I never saw it practised elsewhere myself.

The southern part of the Hill Tracts District, all hilly, the ridges, covered with a lighter jungle, in some cases running right down into the Collectorate and ultimately reaching the seaboard, were, as I have shown, quite shootable and practicable for stalking. It was in this area just within the borders of the Hill Tracts country that we went to search for the mithan, April and May before the rains had really commenced being the best months. I had not as much time to give to this sport as I should have liked, the work of the district being very heavy, but owing to the positions of some of my revenue stations and disputes over the sunnkholas, work luckily took me through this part of the country on several occasions. The year before I joined the district a party of three or four rifles had made a ten days' expedition and had good sport. Heat and thirst, I was told, were the chief drawbacks, and admittedly the damp heat of Eastern Bengal takes it out of one far more than the dry though even greater heat of Chota Nagpur and the Central Provinces. The party in question shaved their heads before starting and kept them bald, apparently, for coolness. Although satisfactory from their point of view the departure was not hailed enthusiastically by the ladies

of the Station, two of the party being married men, and on their return they were left severely alone till in the course of time their polls became presentable again.

Although the jungles were so different in character here, a deep green being the general colouring, as was the colour of our shikar suits (khaki being useless), the tracking was similar in many ways to the methods in favour in Chota Nagpur. Owing to the greater dampness in these jungles it was, however, far easier.

I remember one occasion when we ran down a bull and the incident is typical of the procedure.

It was late in the season, too late really for a variety of reasons, malaria being one. I had to go out on duty in the middle of June to meet the Collector over some dispute or other (these Chittagonians are the most cantankerous and litigious set of people on the face of the earth and give unending trouble) and I determined to make use of the occasion to visit some forests I had not yet been into. It was two years before I had visited the major part of the area I held charge of in this division, the country to be gone over being so large and the facilities for travelling so inadequate. It has since been divided into two separate charges or divisions.

I set off, allowing myself a day to have a look for bison. A hospitable planter friend whose tea garden was situated on the northern boundary of the district, the most remote of all the tea gardens in these parts, was to be my host and I had a very interesting ride to get to his place. Two rivers had to be crossed in the morning and, safely negotiating these, I arrived at midday at a little village, changing ponies on the way. My second mount, sent out for me by my friend, was a plucky little beast and gave no trouble at the second crossing, unlike the other cross-grained brute, who got engulfed in black mud and was only extricated with considerable difficulty. At the village I found the place I wanted to inspect was a mile away by a village path. I set off to walk this. The Station was most prettily situated on the edge of a small river and entirely buried in bamboo clumps. No European had apparently been here for years. The inspection completed, I walked back to the village, ate my sandwiches, and then climbing on to a big horse, also belonging to my friend, I set off for his bungalow. That was a hot ride, the road being a new-made earth one. We had

had a fair amount of rain already and the horse floundered about in the soft earth like a camel on a wet road. I was jolly glad to get in, and a warm welcome awaited me. Incidentally I did my friend a very bad turn in connexion with his new road. My kit was coming along on an elephant and the idiot of a mahout, with the official menial's disregard for anything and anyone non-official, took his beast right up the centre of the new soft road, gouging out two-foot-deep circular holes with every stride the animal took. Most enraging can these men be. The elephant plus the mahout belonged to the Commissioner and not to me, but that did not make matters easier.

Two-thirty a.m. saw me awakened next morning. A cup of tea and I dressed and had a solid meal in the dining-room. My friend was safely in bed and I envied him and devoutly wished I had never arranged to set out at such an unearthly hour.

The forests of this part of India are quite unlike the dry, hot jungles of Chota Nagpur and the Central Provinces. Here the great heat is present but with it an atmosphere impregnated with moisture. Consequently one lives in a greenhouse temperature, and the flora is characteristic of such a temperature. A great number of species of giant timber trees fill the valleys and stretch up the lower slopes of the hills, with an under-story of smaller soft-wood species, cane brakes and grass, alternate with great expanses of scrub growth of soft-wood species or whole hill-sides clothed with bamboos—the two latter the aftermath of the jhumer. The commonest bamboo is known as the muli (*Melocanna bambusioides*) which does not grow in clumps, each stem coming singly out of the ground from a ramificated underground rhizome. As the stems often grow very thickly together it becomes very difficult to make one's way through them, and even more difficult to pick up a bison in such jungle. Tracking, owing to the soft ground, is easy, and the peril of the dry leaf and snapping twig underfoot is absent. The great difficulty I experienced was to pick out an animal in these new surroundings. In Chota Nagpur I had learnt to pick up a bison in its natural environment with fair ease. But that experience did not help me very much here. The sea of green in these jungles was of a totally different colouring and density with, consequently, as an artist will realize, a complete alteration in the play of light

and shade. The difficulty was at its worst on the hill-sides covered with dense muli bamboo growth.

When we set out on our quest, though the sky was overcast and it was pitch dark the rain held off.

The going was fair at first as we only had to follow the road running through the tea garden and connecting with one of the few main district roads existing in this part of the world. After proceeding in silence for about an hour (there was no cause for silence, but one is not in a talkative mood at this hour in the morning) we quitted the road and got on to a village path. We went through several small villages, being greeted by the village pi-dogs with the usual vociferous pandemonium ; in one instance the village chowkidar was awake and we stayed a moment to have a few words with him. After quitting this village we entered the outskirts of the big high tree forest, and the going soon got so bad that I ordered a halt. It would be light in another half-hour, and I particularly wanted to see as much of this forest tract—one of the greatest interest to a forester and naturalist—as possible. The shikari with me was of a rather superior kind. He was a fairly well-educated Mahommedan, occupying a post as overseer on the tea garden, and had earned a great reputation as a shikari of parts, and I fancy as a first-class poacher to judge from the interesting conversation we had at intervals. But he was passionately fond of the jungle and of shooting, and was quite prepared to stand up to a mithan if a sahib was by his side. He carried my second rifle with permission to use it if necessary. Altogether a novel article in shikaris in my experience.

That day stands out vividly in my memory not only on account of the bison encounter which took place. It was the vast stretch of great tropical forest in which we became engulfed which caught and held the imagination. Giant trees of great girth and height and of many different species stood up like the pillars of some vast cathedral, their crowns hidden by a lower story of vegetation, smaller trees, bamboos of several species, besides the little muli, cane brakes, and an infinite variety of shrubs. The prevailing colour was many shades of green. Progression was not difficult as we kept to animal runs, but the going was very heavy on the lower levels, and in these areas ten yards was the range of vision. As we climbed the hills the character of the forests changed, the trees thinning out, and often

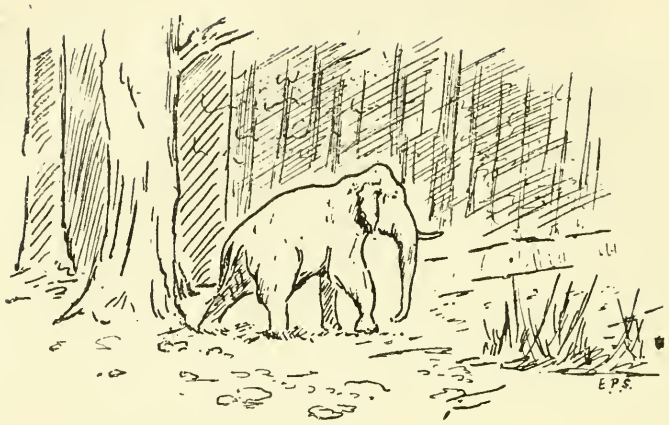
dense areas of pure muli bamboo growing thickly together alone occupied the hill-side. These areas were the result of jhuming, the fine timber trees which had previously occupied them having been ruthlessly cut down and burnt.

It was nearing eleven o'clock and some rays of sunlight were shedding a vivid brilliance over the wonderful scene when we came upon the first tracks of a herd of mithan. We came upon them quite suddenly after getting into a valley. The animals were evidently not far away, and after a cursory examination we commenced to follow. The Mahommedan said there were about twenty animals in the

herd. We were neither of us in as hard condition as we would have liked, and the long march had begun to become fatiguing. But all trace of lassitude now disappeared. Silently we left the valley and climbed the hill, the forest opening out with clumps of bamboos and little clearings appearing at intervals. We had just come to the edge of one of the latter when my companion touched my arm. I glanced at him and then in the direction in which he was gazing. I saw a clump of bamboos on the far edge with a dense mass of bamboos and other growth behind. In this mass a dim black shape loomed up. In the dense green

shade and the curious play of light due to the sunlight filtering through, it was not easy at first to realize that I was looking at a mithan. I shifted my position so as to get the bamboo clump between myself and the animal, and then signifying to the shikari that he should wait I cautiously advanced into the clearing. I got half across, bent double, when a warning snort broke the silence. I dropped on my knee and fired almost at once at the part of the indistinct mass I could see, distant about thirty yards. The shot was followed by bellows and crashes in all directions and I fell flat on my chest. The stampede which ensued was no new sound to my ears, and luckily all the animals were in front of us and went away ahead. I saw none of them, and the indistinct shape had disappeared. I crawled back to the shikari. I found him ensconced in a bamboo clump. Reloading the empty barrel of my rifle we circled the clearing to the right and cautiously approached the spot at which the animal had stood. The Mahommedan said it was a big old bull, and had lurched forward to the shot and then bolted with the rest. We soon found blood and determined to follow at once. For an hour we followed the blood trail, every moment expecting to find the bison, who was evidently hard hit. The going was arduous and the strain on the nerves severe, and I at length came to the end of my tether, sat down and took out my lunch. I held up ten fingers signifying I would halt ten minutes. For another three hours we followed the tracks. We had then reached the side of a hill of fairly open growth, and from here looked across at the face of a lower hill entirely covered with a dense crop of muli bamboos. Suddenly my companion halted and gazed intently at the latter. I stood and looked, and after a short space distinctly saw the gleam of a bison's horns. We sat down and watched. There could be no doubt about it. A bison was slowly making its way through the bamboos. We crawled slowly to a spot where we should be out of view and then walked rapidly ahead, dropped into the valley and climbed diagonally up the opposite slope. It was terrific going endeavouring to force one's way through the densely growing stems without alarming the bison ; but fortunately the rain had come on again and to some extent deadened the sound of our movements. The shikari was moving close on my left. Suddenly through the green stems I saw rise up the head and horns

of a bison directly fronting me. I fired at the forehead, a useless shot, but it floored the bison. I heard my companion fire. The animal was not twenty-five yards away. I hurriedly reloaded and had only just jammed the cartridge home when a struggling shape rose sideways. I sighted and fired as did my companion, though I had shouted to him to reserve his fire. The bison dropped, and a dead silence supervened. My companion wanted to go forward; he was mad with excitement—not the type to take out bison-shooting as I had discovered. I would not permit this. We fetched a compass round approaching from the opposite side, and bombarded the carcase with sodden clods and masses of refuse as soon as near enough. When satisfied we went up and found the bull dead, lying on a mass of smashed bamboos which his great weight had snapped.



CHAPTER X

THE JUNGLES OF THE BENGAL DUARS AND ASSAM

Fauna of Bengal Duars and Assam—Country to east and south—The rivers—Forest growth—Magnificent fauna sanctuaries—Disappearance of big game in western part—The Tista Division—Methods of shooting—Rhinoceros—Types of forest—Game formerly abundant in Duars—Migration of elephants to hills—Sambhar—Reason for smaller heads—Sitting up over a salt-lick—Shift my post—The zareba—Moonlight in the forest—A sambhar appears—Night noises—An unexpected intruder—A tiger kills the sambhar—An uncertain shot—An anxious vigil—The morning's discovery.

A SCORE of years ago, and less even than that, the elephant, bison, rhinoceros, all shy animals and animals requiring extensive jungles to live in, roamed through the great jungles of the Bengal Duars and Assam from the Jalpaiguri Forest Division eastwards, in numbers that may be characterized as large without undue exaggeration.

Those who have a first-hand acquaintance with these jungles at the present day could tell a very different tale. And yet these great jungles still form, or could be made to form, an ideal sanctuary for game life, and animal life, speaking in a zoological sense, of this part of India.

To the west of the area under consideration stretch the extensive forests of the plains and submontane hills of Nepal, a country closed to shooting to the European save

by invitation of the Ruler or Durbar. To the east the Naga and Manipur Jungles of Eastern Assam stretch across the Chindwin River into the extensive, almost illimitable jungles of Upper Burma and still further east into Chinese Yunnan. South in the western area the great jungles are bounded by the cultivated plains, whilst in their eastern sections they stretch, as we have already seen in a previous chapter, southwards through the rough table-land of the Khasia and Garo Hills and the Lushai Hills into the Chittagong Hill Tracts and Chittagong Collectorate, and still further east, south of Manipur, through the Chin Hills into the Arakan Hill Tracts to Akyab on the sea-coast. On the north this extensive tract of country is bounded by the great chain of the Eastern Himalaya, Bhutan and the outlying parts of Tibet, rising more or less steeply out of the plains, and forming a natural barrier to the further extension of the fauna of the region in that direction. The great Brahmaputra, that highway of Assam, drains north-eastern Assam as its great tributary, the Megna, does the south, the former eventually joining the Ganges. The two rivers best known to the sportsman are the Tista on the west, coming from Sikkim and flowing down the beautiful Tista Valley, and the Monas on the eastern borders of Assam, famed for its mahseer fishing. The tract of country under consideration is for the greater part under forests, in the form of fine primeval high forest of valuable timber trees and other soft-wooded species of all ages and in great variety, varied by extensive tracts covered by bamboos, cane brakes, grasses, or scrub jungle.

The whole of this area is not under the management of the Indian Forest Department. We have seen that Nepal is an independent State, to give one exception. So is Bhutan to the east of Nepal. But a vast tract of the area above roughly enumerated is under the charge of the Department, either in the form of Reserves, Protected, or Unclassed Forests. Perhaps nowhere in India is to be found so large an extent of practically conterminous heavy jungle—jungles capable of forming a permanent sanctuary to the larger and shier, as equally to some of the smaller and rarer forms of zoological life and to forms which are at present unknown to science. Nowhere throughout the Indian Empire is the zoological life of greater interest to the scientist, and in no other part would the institution of great permanent sanc-

tuaries be more feasible or prove of such high value both in the interests of the maintenance of the fauna and of its study.

The opening of the country has been largely responsible for the restriction of the animals' haunts in Bengal and Assam. For instance the Western Duars no longer contain sufficiently extensive jungles to harbour rhinoceros and buffalo. To the apathy displayed in the past by the authorities in this region is attributable the deterioration of the stock almost to the verge of extinction. The forests are in large blocks, and it would have been sufficient to enforce the existing rules under the Forest Act. Neglect on this score has now reduced the numbers of such animals as rhinoceros, buffalo and bison to such small figures that deterioration if not extinction must follow. This point, i.e. the neglect to enforce existing rules and regulations, applies, or applied till recently, generally throughout India.

In Assam sanctuaries have been in existence for some years in Goalpara and elsewhere, and these are closed to all shooting. In Jalpaiguri and the Buxa Duars no rhinoceros, buffalo or bison may be shot at all, as the forests are nominally sanctuaries for these animals, but the blocks of forest are too small to contain animals of such wandering propensities. Access to the Bhutan Hills during the hot weather is also now cut off, owing to the settlements of Nepalis on the outer hills. The animals thus have a much restricted habitat, and cannot get away into the outer hills as formerly during the fly season in the hot weather.

Fortunately Burma was disarmed comparatively recently, and the Government has not granted gun licences in anything like the same numbers as elsewhere. In many places game is believed to have increased, but the European sportsman has been at work there and the fine herds of brow-antlered deer or Thamin (*Cervus Eldi*) were almost exterminated before measures of protection were introduced. Deterioration must of necessity follow even if the race does not become exterminated.

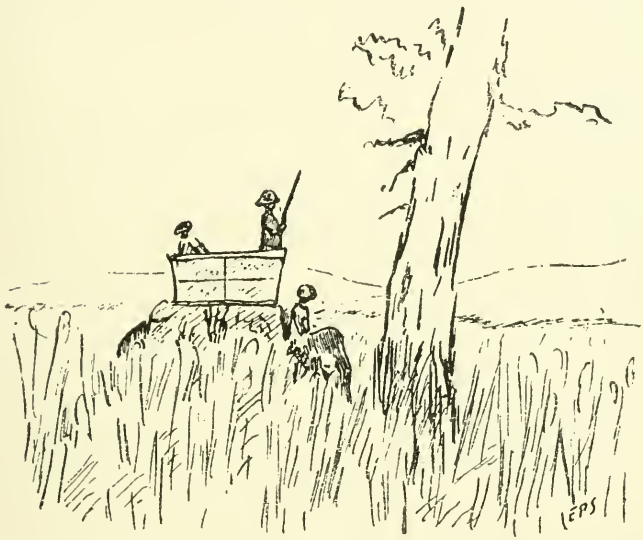
During a delightful two years' sojourn in charge of the Tista Division with headquarters in the beautiful little hill station of Kalimpong, four thousand feet up in the Himalaya (British Sikkim), and some twenty-five miles to the east of Darjiling, I was able to make some acquaintance with the plains fauna of the Bengal Duars, the western

Sir J. P. Hewett, photo

SHOOTING ELEPHANTS BEATING THROUGH THE HIGH GRASS JUNGLE IN THE TERAI FORESTS IN NORTHERN INDIA

part of the area I am discussing. Some years later I was able to extend my observations during a tour through Goalpara to the east of the Bengal Duars, and still further east into the Tezpur jungles.

They are magnificent jungles in this western tract, alike in many characteristics to the great Terai jungles of North-West India, which we shall consider later, but so unlike in others. The sál tree, which reaches the eastern boundary of its range near Tezpur, forms the principal species commercially in these great forests as it does in the Terai, but how different is their character! Here in the east the



climate is very hot and very damp, with the consequence that the vegetation is exceedingly dense, abounding in creepers, undergrowth, and tall grass, almost impervious, save to the elephant, rhinoceros and buffalo, whilst the luxuriant growth of canes, bamboos, giant creepers, a variety of brilliant flowering shrubs, and gorgeous-coloured orchids point to the tropical nature of the area. The grass both in and outside the forests is dense and high, and shooting save from the back of an elephant is almost an impossibility, if results are to be secured. Practically the only other method is to sit in a machan. In the foothills to the north the rhinoceros is sometimes pursued on foot,

the animal being tracked down into some mud-hole where he is wallowing, keeping off the flies and passing away the heat of the day ; but such work is extremely arduous in the terrific and enervating heat. I never had the chance of trying it myself, which was disappointing, as I should have liked to compare it with bison tracking in Chota Nagpur, the Central Provinces and elsewhere.

Further to the north in Assam and to the east a different type of forest—the so-called " evergreen " forest—is met with. These areas are still more impenetrable, canes, creepers, bamboos, and tall grass forming dense thickets beneath the high tree growth. Shooting in these jungles, as already indicated in the Chittagong Hill Tracts which have a similar type of forest, is an extremely difficult, arduous and usually barren pastime.

It was a glorious two years, those years spent in the Tista Division. My work kept me down in the plains all the cold weather. The country here is covered with illimitable stretches of tea cultivation interspersed with patches of heavy jungle of varying size belonging either to the tea gardens or under the management of the Forest Department. Game at this period was abundant, although already a note of alarm at its decrease was being sounded by the older planters who were fond of descanting on its abundance in the " good old days," as they called them. Of course the clearances of great tracts of primeval forest and jungle for tea cultivation would have a natural effect on the distribution of the animals previously existing in the locality, and the probability is that at the time I am writing of the animals were nearly as abundant only they had retired to a greater distance from the areas cleared for cultural purposes. Anyway, at the period of my first acquaintance with this area it was a paradise for sport. Tiger may be said to have been plentiful, leopard numerous, bison (gaur) not yet exterminated from these western areas, and elephants yearly visitants in the monsoon months. In fact some probably remained all the year round, retiring up into the higher hills to the north during the hot weather when the big horse-flies proved too much of a curse even for the thick skins of these pachyderms.

It was ever a source of interest to me to travel up into the mountains from the plains forests by one of these elephant paths or runs. Hollowed out or beaten down

throughout the centuries by generations upon generations of these great beasts, the track was an interesting and stupendous sight. Usually following a steep gradient up the hill-side the soil pressed down into a solid rock-like consistency, the track would on occasions reach a steepish precipice of solid rock. In the face of this giant footsteps appeared, to all seeming hewn out of the solid rock and subsequently rubbed smooth as pumice stone. Perhaps at the foot a beautifully clear silent pool would be situated, overarched by clumps of feathery bamboos with the crowns of the great forest trees far above them. It was difficult to conceive how the great beasts managed to climb this precipice by way of the giant footsteps, and yet these latter have been worn out by generations undertaking the summer outing to the hills. There was no other road. They went up and, more incredible and astonishing even they returned, by the one track.

Sambhar were abundant although the heads of this animal ran much smaller in this part of the world than one had been accustomed to in the Central Provinces and Chota Nagpur, or in the jungles of North-West India. Whether this fact has ever been authoritatively explained I am not aware. A number of reasons have been stated from time to time, but no proof appears to have substantiated them. Perhaps the damper more tropic heat may have something to do with the lessened growth of the horn structure of the *Cervidæ* and the greater weight the animals scale.

I know that it is contended that the thicker growth of the low jungle has resulted in the stags developing smaller

horns to enable them to get through the dense tangle with greater ease. But this, on the other hand, does not explain the decrease in the size of heads of the red deer in Scotland, where the deer "forests" are absolutely treeless and destitute of any scrubby growth which would afford an impediment to the horns of the stags.

One of the best methods of securing sambhar or of watching them, a pastime I was much addicted to, was to sit up in a machan over a salt-lick. The animals used to resort at night to these areas, a saline deposit of varying but usually small extent on the surface of the ground, and on moonlight nights it was most interesting to watch such places. Many hours I passed in a machan situated in a little nullah just off the Tista River where it debouches from the hills into the plains. There was a famous salt-lick here which was resorted to by numberless animals, and the attendances enabled me to form a fair idea of the abundance of wild life in that area. Of course I was not always successful in my vigils. On certain bitterly cold nights in the winter I remember passing some very miserable hours, vowing that I would never again give up a night between the blankets in a warm bed for such a questionable form of amusement. But the vow always appeared a foolish one a day or two later, and the fascination exerted by the jungle folk and their ways invariably drew me back again and again.

I remember with peculiar vividness one particularly cold night just before Christmas, both on account of the petrifying cold and because it was one of the few occasions, I think the only one, on which I saw a tiger at this particular place. A party of men from the garrison in Darjiling were

coming down for a week's Christmas shoot with me. Our first camp was to be in the neighbourhood of the salt-lick in question, and a day or two before I determined to spend the night in the machan and see what animals were in the vicinity.

I may say that there was a smaller salt-lick situated upon a little plateau about a mile and a half from the one I usually watched. On the edge of the smaller one I had had constructed a tiny zareba of branches and thorns on the ground. On occasions I watched here and sometimes if the big salt-lick proved blank I changed my quarters, but this only on very bright moonlight nights. With the perverseness of the jungle folk on some nights the small lick would be visited by all the animals in the vicinity whilst the larger one, where I sat up aloft, remained deserted. Nevertheless, I preferred the latter as one could see more when perched up above the ground, and the risk of fever was infinitely less.

On the night in question I changed my abode, shifting from the machan to the zareba at about midnight, up to which hour I had seen no sign of pad or hoof. The reason I gave myself was that I really wished to know what animals were about for the sake of my expected friends. The true facts were, however, that I was so appallingly cold that I felt I could not sit up there another minute; also a slight mist was coming up from the river and I felt sure it would thicken later. The chattering of my orderly's teeth, too, got on my nerves, and when I tried to lift the rifle I found I could not feel it at all. Get out of that machan I must, and it meant either bed or the zareba. I had intended bed, but after getting down and stamping some circulation into my feet and hands, to the orderly's speechless disgust, I gave the order for a move to the zareba.

My three years in India, whilst inoculating me with a zest for all pertaining to the jungles and jungle life, had hardly instilled into me that sufficient knowledge which results in the intuitive exercise of a certain amount of caution or discretion, call it which you will, whilst out hunting in the forest. It is that instinctive caution which animates the jungle-man. He does not move about unknown jungles in the dark, and on the occasion in question my orderly, a man from the Nepal Hills and plucky enough in the daytime,

was perhaps justified in his exhibition of distrust at my proceedings. However, he came along, all honour to him, for he knew the risk better than I did. As a matter of fact the rest of the night's proceedings opened my eyes not a little. How casually one takes these jungle experiences whilst they are happening. All in the day's work one passes from incident to incident and episode to episode, getting perhaps in and out of a tight place with scarce an afterthought, for several weeks together. And then a long period without event supervenes, to be once more followed by a period of incidents. To look back at or write about, these exciting portions of jungle life loom so much more largely in the eye than they do, I will not say at the time of their occurrence for then they may be exciting enough in all conscience ; but when the lapse of a few days has brought some new interest or episode into the foreground of one's camp life.

I digress with a reason for our change to the zareba on this particular occasion ran us up against one of the exciting experiences of jungle life and one which might easily have turned out otherwise. For on such apparently trivial happenings hang the decisions in these jungle adventures. The adventure occurred in this way.

We soon covered the mile and a half from the machan to the zareba, I proceeding in front, rifle at full cock and the orderly following behind, teeth still playing their tune, though it was not perhaps now solely due to cold. For myself, as soon as I had restored my circulation and the resultant pricking pains had departed I was perfectly happy. Our climb quickly took us out of the thin mist through undergrowth which was sopping wet. The forest in the bright moonlight was like fairyland, the foliage glinting and glancing as it caught the rays of moonlight. We went as fast as the jungle growth permitted, and in a little over half an hour were inside the zareba. I call it a zareba, but truth to say it merely consisted of branches stuck into the ground and intertwined with jungle creepers and bits of thorny shrubs. It was quite sufficient to hide us, but a half-grown sambhar or a pig could have run through it with ease. Once ensconced in our hiding-place I took a pull at a flask of strong whiskey and water, devoured some biscuits, and then prepared myself for the rest of the vigil.

The night was a perfectly still one, the leaves hanging

motionless from tree and shrub in the bright moonlight which fell full upon the small glade in which the salt-lick was situated. Our zareba lay in dense shadow as did the greater part of the surrounding forest, patches of moonlight appearing only in one or two places beyond the clearing. The forest was alive with sound; the crickets were shrieking as usual, night bush warblers and other nocturnal birds were voicing their sibilant or harsh notes, whilst at intervals the hoarse haunting hoot of owls rose on the night air, sounding like the cries of lost souls in purgatory. Weirdly uncanny are some of the night cries and sounds in an Indian forest. For an hour, perhaps longer, I sat and watched the little glade listening to these varying night sounds with always that persistent under note of the crickets. Once a khakar suddenly and silently appeared out of the darkness of the forest and stood ghostly grey in the clearing. For a brief space he remained as though carved in stone, intently listening, and then vanished as quietly as he had come.

I was beginning to wonder whether the vigil was to be a blank when I suddenly saw two round beads of fire, twin stars set close together in the darkness of the forest on the other side of the clearing. I first thought of fire-flies, to dismiss the idea as quickly as it had flashed across my mind. An animal, and from their height probably a sambhar, I surmised. No sound had I heard and for minutes nothing happened, only at times the stars disappeared as the wary animal moved its head from side to side and nosed the air for enemies. For a full minute the points of light disappeared altogether, and I was beginning to fear that the animal had retreated when I suddenly heard a slight rustle a little to the right of where they had appeared, and immediately afterwards a fine stag sambhar stepped quietly out into the clearing. Stepped out and came to a halt, head erect, muzzle pushed forward, nostrils dilated, and ears flicked to the front. He stood there as if carved in bronze, the moonlight turning to silver his antlers and upper parts, the rest being in dense shadow.

I had not come out to kill so much as to watch, and I had not made up my mind as to whether I should fire or not when fate intervened, and one of the tragedies of the forest was enacted before my eyes. Almost without a sound a mighty black shadow, coming from our right rear,

hurled itself through the air, and with a startled appealing bellow the lordly stag was borne to earth. A struggle of wildly kicking hoofs, a few gasps and gurgles and a rifle shot awoke the quiet depths of the forest.

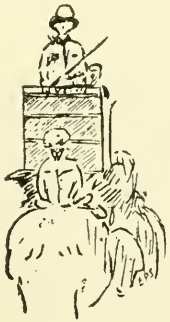
As the dark shadow hurtled through the air I gasped with amazement, and was conscious of a sudden frightened ejaculation from my companion. With the fall of the stag I came back to the realities, and keeping my fascinated eyes fixed upon the drama being enacted before them raised the rifle and so far as it was possible in the medley of conflicting black and silver shadows on the ground sighted on the black shape and fired. The sharp report was answered by a deafening roar, a roar which I afterwards interpreted as one of fright and rage, and a black and silver form leapt across the clearing and disappeared into the forest opposite, almost at the point from which the stag had issued. The briefest interval of crushing and rustling bushes and then a deep silence ensued. The stag lay inert, evidently dead.

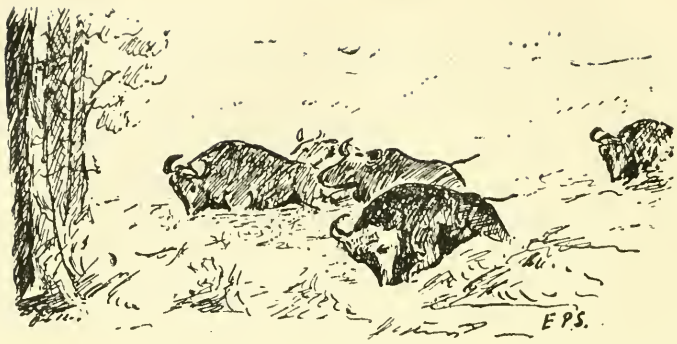
I drew a deep breath. The shape was a tiger, and I wondered whether it had been stalking us when the sambhar had so opportunely appeared on the scene, or whether it was as unaware of our presence as we were of his.

These were my first speculations, but they were soon succeeded by the tantalizing hopes and fears as to whether I had hit him or not. The whole drama was one of seconds only—could not have been longer. It had all occurred in a flash—the hurtling shadow, the felling of the sambhar to the ground, the report of the rifle and retreat of the tiger. And yet it had left different conditions behind it in the little clearing. The crickets, it is true, soon restarted their séance if indeed they had ever interrupted it, but otherwise a deeper silence pervaded the forest for other night sounds had ceased. We ourselves were very much on the alert and not a little uncomfortable, and passed the rest of the night sitting back to back very broad awake with our cocked rifles, for I luckily had two weapons with me, ready for instant use. My mind was in a whirl of anxiety as to the result of my shot and my inexperience led me to fear that I might have made more sure of my shot had I waited till the struggle was over. But I had fired without stopping to consider details. It was with a feeling of great relief that at length I perceived the waning moonlight give place to the first pale note of the dawn. Soon the trees began to

stand out dim and grey from the surrounding twilight, and with the wonderful abruptness of the East the dawn arrived. Cautiously and quietly we left the zareba and walked up to the dead sambhar. It lay on its side, head and neck outstretched and throat torn open and, as we soon discovered, with a bullet through the heart. So my shot had missed the tiger or, at any rate, had killed the sambhar, if it was not already dead at the time I fired, which appearances seemed to indicate. We made a short survey of the neighbouring grass for blood, but found none, and then I deemed it to be more prudent to get back to camp and fetch the elephant. I spent the morning searching for that tiger, but found no traces of blood. It appeared evident that, as ill-luck would have it, the bullet aimed at the struggling mass on the ground hit the dying or dead victim and missed the marauder, which is exactly the kind of mischance which so often happens in sport, and probably accounts for half its elusive attraction and charm.

The incident proved, however, a most cheerful and exciting piece of news to give to the guests of the Christmas party on their arrival, and I feel sure that each man retired to roost on the first night with the conviction that he would meet a tiger during his first day's sport in such a delectable region.





CHAPTER XI

THE JUNGLES OF SOUTHERN INDIA

The jungles of Southern India—Description of country—Ootacamund—The Ooty Hunt—A boar at close quarters—The river system—Denudation of forests—Cauvery Power Works—Game of the country—Malabar and Kanara—Dense jungles—Flora and hunting conditions—A queer shikari and a bull bison—Anacondu, shikari—Malabar jungles at night—A morning sunrise—A long trek after a great herd—Run into the bison—An impatient shikari—Wound a bull—Follow the trail—Typical jungle scenes—Come up with bull again—He again makes off—Dense bamboo jungle—The final tussle.

THE fine jungles of Southern India cover a very considerable area of the great triangular tract of country situated to the south of the Nerbudda River. This territory comprises the Native State of Travancore, famed amongst shikaris for its glorious sporting possibilities; the Annamallies and Palni Hills; the Wynaad, Coorg, Malabar and Kanara Forests. Eastwards the jungles stretch through Southern Mysore to Denkanicotta. The heavy forests fringing the Western Ghâts run from Malabar northwards as far as Sangor in the Central Provinces, and those along the Eastern Ghâts are also prolonged northwards on that side of the country to Sambalpur in the Central Provinces, and on into Chota Nagpur to the north-east. The Nizam's Dominions of the Great Haiderabad State are situated in the North Central portion of the triangle, and contain jungles which afford an asylum to most of the varieties of big game—an asylum in which the game conservancy policy undertaken for some

years past should result in maintaining, if not increasing, the head of game.

What a country this great tract is for the sportsman! Here the elephant and bison roam in numbers which, owing to the extent and density of the jungles in many parts, have remained almost unaffected by the rifle. The poacher has done infinitely more damage; and that dreaded scourge which resembles a form of anthrax, from which elephant, bison, buffalo and deer appear to be alike subject to decimation.

The territory here dealt with is broken up into series of hills, rising even to mountains, culminating towards the south in the beautiful Ootacamund Hills, a stretch of turf-covered downs reaching eight thousand feet in elevation, interspersed here and there with little jungle-filled cup-shaped depressions termed "sholas," and artificially formed *Eucalyptus* plantations.

The Ootacamund Downs provide an excellent hunting-ground, and Ooty has a first-class Hunt, the conditions of the chase being more reminiscent of home than is the case with any of the other Hunts I have been out with in India and Burma.

The animal hunted, as is usual in India, is the jackal, and fine gallops are enjoyed over the rolling downs, the only drawbacks being the treacherous bogs and swamps which are encountered and have to be crossed at the bottom of the slopes; and the sholas into which the hunted jack seeks shelter. The shola may be occupied by anything from a tiger, leopard, sambhar, boar, down to smaller fry. The hounds running a jack into a shola naturally follow in after him. And herein lies the danger. For if any of the larger game animals should be in the way hounds quit the old quarry for the new and commence to bay it, often with exciting results. Many a fine hound is lost in this way—English hounds imported from home at great expense. So dense is the evergreen forest and undergrowth of these sholas that they are almost impenetrable. The huntsmen and Master carry heavy revolvers for these occasions. But it often requires pluck of no ordinary kind to use them. I remember a yarn which was going round Ooty on my arrival there one season. The week before hounds ran their jack into a shola and followed in. Within a very short space bedlam broke loose inside. The hounds had got on to an old boar. The few riders up did their best to

see what was going on, but the jungle was too thick. A piercing shriek or two and the furious grunts of the boar made it too evident that the hounds were getting the worst of it. The revolver was produced and a volunteer called for to use it. " V.C." Alymer formed one of the party and volunteered to go in. He did so on all fours. He worked his way up somehow to the centre of the din and put a couple of bullets into piggy at point-blank range. Two fine hounds were killed that morning besides others wounded.

I must get back to my description of this southern area. Great rivers, such as the Godavery in the north, the Kistna, and the Cauvery intersect the country, filled by many an important tributary and rushing torrent descending from the hilly areas. All these rivers flow eastwards to the coast. The main branch of the Godavery rises near Bombay, two-thirds of the river flowing through the Haiderabad State. They all flow through the forest-clad highlands of the Deccan, finally reaching the flat, alluvial delta of the coast. In the Wynaad, Coorg, and other parts, considerable areas of forest have been cleared from the hill-sides by the planters for the cultivation of coffee and other crops ; whilst fire and axe, before the systematic conservation of the forests came into force, resulted in a serious decrease of the forest area in parts of the hilly tracts. These clearances have had some effect on the maintenance of the level of the water supply in the rivers, and have also resulted in erosion on the uncovered slopes, leading to devastating floods. The great floods of 1908 in Haiderabad are directly attributable to this cause. Many other parts of India have paid a like penalty for the ignorance displayed in the past in this matter. The apathy evinced towards the question of the necessity of maintaining the catchment areas of the rivers under forest is amazing when it is remembered that India is primarily an agricultural country, and that irrigation is so commonly employed for the cultivation of the crops. Now that the rivers of India are being harnessed for the production of power, such as the Cauvery in Mysore, to supply the power for the Kola Gold Fields, one of the first instances of a river being utilised in this fashion in the country, this question of the protection of the mountain and hill slopes by forest is one the importance of which is becoming fully recognized. But I well remember on the occasion of my visit to the Cauvery Power Works, anxiety

being expressed as to the possibility of the level of the Cauvery falling in the hot season below the point necessary for the provision of the power required.

The realization of the necessity of maintaining under forest the hilly tracts of the country, ensures the conservation of a great tract of forest country which will afford shelter to the jungle denizens, and we may hope that the day will never arise when the jungles of Southern India will fail to afford an asylum to the animals which render them of such high interest to the shikari and naturalist.

I have alluded to the elephant and bison as being, speaking generally, distributed through the denser portions of these jungles. With them are the tiger and leopard, the deer, such as the sambhar, spotted deer, barking deer, antelope, represented by the little Indian gazelle or chinkara, and so forth.

Until 1870 elephants could be shot anywhere, but since then the shooting of this animal has been prohibited in all areas under the Government of India, though permission is still given in the Native States, such as Travancore.

My knowledge of the sport obtainable in these southern jungles was derived during three trips paid at varying intervals to parts of the Mysore, Coimbatore and Annamally jungles, to the South Kanara and Malabar Forests, and to some of the scrub forests on the eastern coast. The varying character of the forest visited determined the nature of the large fauna to be sought for. But bison and sambhar, as also elephants, though they were taboo, I saw plenty of. Tiger and leopard were tried for with indifferent success so far as the former animal was concerned. But this was primarily due to the fact that I never had the time to sit down and carry out a prearranged plan of campaign against them—a matter of necessity where success is to be made reasonably secure. A novel kind of sport to me, outside the Himalaya, was the ibex stalking in the Coimbatore Hills, but my knowledge of this was confined to three well-remembered days.

Bears are, of course, common in parts, but with bigger game to encounter I never wasted much time over them down here. Groves of the date palm are a common sight in this part of India. The owners tap the trees by making incisions in the stem, catching the sweet sap in small earthen pots. This sap ferments quickly in the sun and

then becomes a strong intoxicant. Bears are very partial to this drink, which is known as toddy, and smash the pots to get at it. They say that it makes them drunk ! I never saw an intoxicated bear. Uncouth as his actions always are he would be a comical sight when drunk.

Bison were the animals I chiefly tried for, and in the dense jungles on the Kanara and Malabar side he provides a magnificent sport. But one must be in hard condition to enjoy it and obtain success.

These great jungles are dense and high, giant forest trees of teak and other species being interspersed with large clumps of the giant bamboo, its slender side branches armed with long, sharp spikes, causing extreme discomfort when one finds one's clothes, and often flesh as well, impaled on them ; dense cane brakes have to be skirted, areas of tussocky grass negotiated, whilst the going underfoot, so far as my experience goes, consists of a heavy mire deeply impressed with the footprints made by wild elephants (a foot or two deep these), bison, sambhar, and so forth, amongst which one flounders, stumbles and sinks as in a giant morass. Throw in a damp greenhouse temperature of between 90 degrees and 100 degrees, and you have the conditions under which the sportsman pursues and enjoys the cream of big game shooting in Malabar.

And both jungles and sport are magnificent. I remember a day, a very long day, I had with a shikari named Anacondu, as vividly as if the events had taken place only yesterday.

Anacondu, quite a fine type of the native shikaris of that part of the world, had been lent to me owing to the extraordinary behaviour of the man I first took on. The latter had, or was supposed to have, some reputation as a tracker and shikari of parts. In the former capacity I had no fault to find with him. After tracking an old solitary bull bison for some six weary hours through pestilentially thick and hot jungle for the most part, we came to a rise in the ground and started to climb a small hill covered with a coarse tussocky grass, with scattered, small trees and a few bamboo clumps. All the evidence went to show that the bison was close, and we expected to find him lying up in the shade of one of the trees or bamboo clumps. Half-way up the hill—we were climbing it bent almost double—my companion touched me on the arm and went silently forward round a small clump of bamboos. He soon re

appeared and beckoned me forward. I wormed my way to him and followed a short distance *ventre à terre*. He pointed in front. I could see a tree about twenty-five yards ahead, with a crown of fair size, but nothing else from my position. I moved slightly to the right, and there burst on my vision the sight of a fine old bull standing at an angle towards me, swishing the flies off with his tail. My position was not a good one for the shoulder shot, but a very short move still further to the right would be sufficient, and I proceeded to execute the movement without further reference to the shikari. I attained the desired position and slowly drew up the heavy rifle and sighted on the bull. As I was about to press the trigger the barrels of the rifle were struck violently upwards and a man leapt up at my side and shouted. A startled snort from the bison, followed by a rattle of stones and thud of heavy hooves, and the animal disappeared over the top of the rise and could be heard stampeding down the other side. I turned round furiously. There stood the shikari, almost white through his dusky skin and shaking like an aspen leaf. His was the form that had leapt up beside me, and it was his arm that had struck up the rifle. I had quite a lot to say to him in the heat of the moment, and said it pretty forcibly ; but as I could not speak his language I got no satisfaction at the time, nor at the subsequent enquiry which my friend conducted in my presence. I never had another instance of the kind.

It was sufficiently evident that the man lost his nerve at the last moment, and we had to leave it at that. But it was a maddening contretemps. The five-hour tramp back was a bad one, and I had not the heart to fire at either of the two very fine sambhar stags we ran into on the way home—one of them the finest head I ever saw in Madras.

This is a long digression from my day with Anacondu, but it may be useful as a possible experience for others.

The day in question was typical of others enjoyed in the Southern Presidency.

We made the usual early start, i.e. middle of the night, 2.30 a.m., which, often as I did it, I never could be got to face with any enthusiasm.

Within a few hundred yards of the little forest rest-house we had just quitted, we were floundering in the miry morass of the high forest and had started on our rough

tramp. The only other forests I am acquainted with at all resembling the Malabar ones for morasses are those in North Russia, and they are worse. One requires hip boots to tackle these. But there one does not get the elephant-foot imprints to fall into. Six miles lay before us in order to reach a place where the shikari's information led him to expect that he would find fresh traces of a big herd of bison ; and those six miles ran, apparently, entirely along a wild elephant track. It was a nightmare of a walk, my recollection of which is that I spent the best part of three hours in getting into and slowly pulling my legs out of two-foot deep pot-holes filled to the brim with water, left by a herd of elephants of all sizes that had preceded us but an hour or two earlier. We passed close to them at some time during that trek, but they did not wind us ; they were making too much noise in tearing down branches from the trees to hear us, and we were quite glad to hurry away from their vicinity.

Quite suddenly, when I was near the end of my tether for the time being, Anacondu, a dim, flitting shadow in front of me all this time, halted. We had arrived and were to await the dawn. All too soon it appeared. Trees, dim shadows till then, took on sharp outlines with amazing swiftness, the sky paled and then gleamed ; the crest of a dark mass in front became outlined in yellow and red, and fingers of light crept down the hill-side, dissipating the shadows with that incredible rapidity which is a never-ending surprise in the East. Anacondu had disappeared, and awaiting his return I watched the beautiful scene with a keen relish which, often as I had seen it, never palled. The shikari reappeared. He had found the tracks of the herd. Forty or fifty animals he thought it contained.

Having scant time at my disposal to give to sport on this trip, it had been understood that I was prepared to follow any tracks which appeared likely to give me a shot at a decent head, as I could not afford to risk a blank day by spending time looking for the tracks of a solitary bull. If fortune took us across any we would follow them if fresh enough. Otherwise a herd must suffice.

We now took up the tracks of this mighty herd, a far larger one than I had ever met in Chota Nagpur or the Central Provinces. Even in Eastern Bengal I had never come across a herd of this dimension, though the forests

here had something of the character of the Chittagong Hill Tracts. These jungles are, however, if not denser, infinitely heavier going and more miry, and the bamboo clumps of far greater size. In fact, in my experience they more resemble the evergreen forests of North Assam. But there you move about on elephants, whilst here we were on foot.

For two hours we followed those tracks, the ground churned to deep, sticky mud by the hooves of the heavy animals. I was in stout boots and gaiters. One had to be in such going and one slipped about at every step. The spikes and thorns of the bamboos kept catching my clothing, in impatiently freeing which—no one, not even Job, could keep patient under such conditions—the hands got torn, not to mention other and more tender parts of the anatomy. And through it all Anacondu glided on unconcernedly and lightly, though one was glad to see that even he, carrying the heavy rifle, got bogged at times.

We plodded on in this fashion and two hours went by. The herd was browsing slowly forward, and my experience with bison showed me that we were closing up and might run into it at any moment.

We had dropped down a slight incline and entered a dense mass of bamboos. Proceeding cautiously round a great dense clump, Anacondu dropped quietly in his tracks. I sat uncomfortably in mine, in a pool of water. But all lassitude and disgust had now disappeared. I could see from the man's face that we had reached the end of the petty worries. Suddenly I heard a rustle as of a heavy animal moving about. Listening intently, other sounds came to my ears, and I realized that we had come up to, and were very near, the herd. Cautiously raising myself I peered ahead into the dense sea of green which encompassed us, but could see nothing. Bison were ahead and bison were on our right and left flanks. So much was certain. Pushing the heavy rifle towards me and taking the light one Anacondu glided forward like a snake and was immediately engulfed. I waited, cocking the trigger of the double-barrel cordite ·500 express, a beautiful weapon I had with me.

I was glad of the respite, for I was shaking like a leaf, owing to the terrific exertions of the past two hours. This is ever the chief danger of bison tracking. The arduous nature of the work a long trek in the great heat entails

engenders such fatigue that one's powers are reduced to a minimum just at the critical moment when it becomes imperative that they should be at their maximum. Given that one can obtain a few minutes' breather before action is demanded, the tense excitement strings up the muscles to the steadiness requisite to place a bullet properly and stand ready for the subsequent developments.

And this is the reason why a heavy rifle is a *sine qua non*. One cannot be sure in thick jungle that one will be able to place the bullet in a vital spot. But the shock of the high-velocity, heavy rifle bullet, if the sportsman is fairly close up, will almost certainly result in his eventually getting on terms again with the wounded bison. This will never be the case if a man uses a light rifle. The wounded animal will go right away. In my salad days I learnt this inexorable rule by much bitter experience and many miles of heart-breaking tramps after wounded bison on which the light rifle had made no more impression than would a pea-shooter.

Anacondu soon returned and motioned me forward. I had the greatest difficulty in worming my way through the tangle, but we shortly reached a bamboo clump, the jungle proving slightly thinner on the far side. Peering round I soon made out portions of the bodies of several bison. The animals were moving about leisurely, browsing on the bamboo and other foliage. Gradually a head would come into sight and disappear again as its owner moved along. The minutes went by, but as yet I had seen no head worth firing at and I began to get anxious. The shikari from behind kept on touching me and signifying I should fire. These men are all alike. They know we come out only to bag a big head, but as soon as one gets into a herd in thick jungle their nerves begin to get jumpy and they want one to fire at the first animal the eyes light upon.

Our present position was not ideal, I admit, for if the bison winded us, as from their known and unknown positions they might do at any moment, we stood a strong chance of being charged over. I had been in at a charge of this description once and I did not wish to repeat the experience.[1] At length I saw a mighty form loom out of the jungle and he carried a fine head. I raised the rifle, but he disappeared to reappear again in a brief space, now nearly head on. I fired at the front of the shoulder, not an ideal position to

[1] Vide *Jungle Byways*, p. 136.

shoot at, but I could not risk waiting any longer. The bull dropped, got up again, whipped round and went dead away, my second shot, fired at his stern, having no apparent effect whatever. Pandemonium arose immediately, and the jungle all round was in a turmoil, the noise as the mighty herd stampeded in all directions being terrific.

We pressed ourselves into the bamboo clump and thus escaped being knocked over by several of the bison who rushed blindly past us. For a few moments the jungle was lashed as if squadrons of giant cavalry were riding "hell for leather" through it in a wild charge. Gradually the thunder of the hooves died down and silence supervened.

We went forward and soon found blood and proceeded to take up the trail. We followed this for about half a mile and then got out of the dense tree jungle and commenced to climb a steep hill, on the upper slopes of which the trees opened out considerably. Some twenty of the herd had gradually come together and joined up with the wounded bull. About a mile and a half took us to the top of the hill, and the shikari went forward to prospect. It was by comparison cool up here and I sat down to survey the scene in front. The forest was of a lighter character, interspersed with little glades and dotted with bamboo clumps. Also for the moment we had got rid of one of the curses of these and many other jungles of my acquaintance, the leech. A vile thing is a leech. It works its way through the gaiters or puttees, shoves its head through the sock or stocking, and then fills its repulsive body with one's blood. The spot attacked irritates, and if it is scratched may fester and produce nasty sores. I think the leech and the tick are two of the worst pests of this nature I have encountered in the course of my wanderings. And I am blessed with a hard skin. To the sensitive-skinned person I tender the advice to keep away from both these pests. But then he must not want to shoot big game in the glorious Indian jungles.

The shikari was away for a longer time than I had anticipated. On his return we left the trail and took a short cut —a cast ahead, as we say in the hunting-field—but the cast in this instance was one of about a mile. I dislike shikaris when they do this sort of thing. It may save time, but also it may lose the trail altogether. And by now I had come to like following each stage of the business throughout. In

this instance as I did not know the country and he did, I had perforce to submit.

We went through some beautiful open forest with glades filled with tree ferns and smaller bamboos and clumps of flowering plants, such as cannæ and others. For a time I enjoyed myself. But the rain which had held off all the morning, then restarted and we had some very heavy showers. These threatened to obliterate the trail and the shikari pushed forward rapidly. We came to the foot of a rise and had got about a third of the way up when Anacondu stopped and pointed to our right front. I looked and at once saw a bison. I could not have said for certain that it was the one I had fired at, for he was some eighty yards off, but he offered a good shoulder shot and I sighted on the shoulder and pulled the trigger. The animal stumbled forward on to his nose, staggered up and lurched off, my second barrel catching him too far back. The shot produced another stampede away to our left where apparently the rest of the bison had been. I turned in time to see them disappearing over the crest. My bull had gone over it, too, and we started off after him. By now I was badly in need of a rest and lunch. But we went off again, expecting to find him down on the other side. But the bamboo jungle was thicker on this side, necessitating a cautious mode of progress. Finger on trigger I went down that slope, expecting either a charge or to see a dead bison round each bamboo clump. We got to the foot of the slope, forded a small rain-filled, rushing stream, and turned along its bank ; the heads of the bamboos dropping into the turgid water. Slowly we moved forward, following the tracks, when a dull bellow sounded to our left rear, a crash through the bamboos and the bull thundered down on us. I whipped round, saw a black mass and fired on the instant. The black mass plunged to the ground and rolled over, its legs kicking in the air. I had jumped against a bamboo clump on firing and now rapidly got behind it. I heard a low half-bellow, half-groan, and peering round put another bullet into the shoulder of the bison which had half struggled up. He collapsed and rolled on to his side and lay still. I removed myself to a safer neighbourhood *pro tem.* The shikari appeared, and after fusillading the body with stones we went up and examined him. My first shot at the point of the shoulder had hit all right, but the bullet

had evidently not been able to reach the lungs owing to the enormous thickness of the body at this point. My second shoulder shot was too low. The frontal one, at about twenty yards or less as he charged, had merely floored him. He was too far spent, however, or his last charge would have in all probability got us. For he had cunningly doubled on his tracks, a nasty trick of this animal when wounded, and thus taken us in the rear.

CHAPTER XII

SPORT IN THE JUNGLES OF NORTHERN INDIA

The jungles of Northern India—Magnificent climate and scenery—Jungles and rivers—Densely populated plains—Fertile cultivation—Black buck and nilgai—First acquaintance with jungles—A novel transport—The beautiful Siwaliks—A porcupine appears—Damages trees—Arrive in camp—Search for chital—Jackal appears—Pea-fowl and jungle fowl—Dance of the pea-fowl—Other bird life—Chital appear—A sounder of pig—A surly old boar—Insect life—The chital stags—Fire at big stag—"Hal-lal"—Ruined trophies.

DO you know the great grass and tree jungles of the north-west in the cold weather?

In no other part of India will you find a climate to compare with that of the plains of Northern India in the winter season. Hackneyed as is the expression, I think the simile "like champagne" expresses to perfection the effect the glorious exhilarating air has upon one. And when one adds to this the brilliant Indian sunshine and scenery it would be difficult to surpass, it will be understood that Northern India, and especially

the jungles of Northern India, take a high rank. With some experience of the great jungles of India and Burma in the east and west and south, parts of all of which I have roamed through at different times, I can safely say that it is hard to beat those of the glorious north-west, or United Provinces, as they are now called, if one is searching for sport in a first-class climate combined with magnificent scenery.

Between the Jumna, which forms the western boundary of the Province here and the Ganges, the fertile plateau of the Dun exists with the Himalaya to the north and the Siwalik range fifteen to twenty miles to the south. East of the Ganges stretch the Terai jungles comprising the famous sporting area of the Ganges, Kumaon, Garhwal, and so forth, with the well-known Oudh jungles to the south. The Ganges is the great river of the Province which is joined by the Jumna at Allahabad. These two rivers rise quite close to one another in the Himalaya. The other main tributaries are the Ghagra, which divides the Province from Nepal on the east, and the Gundak, which separates it from Bengal to the south.

Although at the present day animals, and game animals especially, are by no means so plentiful in the United Provinces as of yore, yet these jungles form a most fascinating place to spend the cold weather months in and the hot weather also from the sporting point of view—for at the latter period tiger shooting and mahseer fishing are at their best.

In this part of the country the plains and neighbouring foothills of the great Himalayan chain are covered with great tracts of the beautiful deep green sál forest interspersed with stretches of tall elephant grass. Through this wild and lovely country the rivers, on leaving the narrow gorges in which they pursue their torrential course in the mountains, spread out in broad stony beds ; the channels, in which the flow of water is greatly reduced in the cold and hot weather, often varying from year to year. It is a sight to see these great rivers when in flood during the monsoon months. At this season the turbid dirty-coloured waters fill the whole bed often many hundred yards across and become for the period quite impassable. At the other seasons of the year it is difficult to recognize the country to be one and the same. The broad beds now consist of

great stretches of shingle with here and there dense patches of tall elephant grass. Islands, some of considerable extent and covered with sissu (*Dalbergia Sissoo*) and khair (*Acacia Catechu*) trees and elephant grass, break up the shingle patches, a favourite haunt of game, tiger, sambhar, and so on. One may have ridden a hundred yards or more across the rough fair-weather road, whose only claim to the title consists in a row of large shingles placed on either edge to mark the thoroughfare, before one sees a sign of the river and then a stream of beautiful clear, pellucid water is reached which may form the main river, twenty yards or so across, or may be a minor tributary branch. To the south the great forest, broken in the foreground by patches of sissu, khair, and tall grass, stretches away in the flat plain until it reaches the cultivated lands. To the north the foothills, also covered with an interminable sea of green, or with bare and scarred rocky faces higher up, block the view of the more elevated ranges behind them ; except where in some favoured spot an opening may give a *coup d'œil* of a distant snowy peak, vignetted against a blue sky with green hills on either side and waving grass and brilliant sissu copses at its base.

Out in the plains beyond the green forest line lies one of the most densely populated areas in India. Well-built pretty villages embosomed in trees or bamboo clumps, or with a neighbouring banyan tope, are dotted about amidst a fertile country in which magnificent crops are grown, the variation in height, appearance, and colour of which forms a most attractive feature of the countryside. Here the little black buck roam in numbers which are still very considerable in spite of the incessant toll taken of their ranks. The nilgai or blue bull, that curious antelope which in bodily appearance is so like a pony, also lives out in the fields, lying up in small patches of jungle during the day.

It is a beautiful country and perhaps to appreciate it to the full it is necessary to have spent some years in the hot, damp, pestilential heat of parts of India to the south—Eastern Bengal for example, and to have had the opportunity of experiencing for oneself the conditions of life of one's confrères in those parts.

It was in January that I made my first acquaintance with the jungles of the north-west. I had come straight up from

Chittagong and the contrast was as sharply marked as it was delightful. Within two days of my arrival I went out to camp. Even moving one's paraphernalia and camp equipage was, I discovered, a very different business up here. Coolies, both men and women, I had used for transport purposes, also bullock carts, mules, and pack-ponies, boats and elephants. But I had never yet made acquaintance with the idiosyncrasies of the camel as a baggage animal. And he is infinitely the worst of the lot. With a new set of servants for the most part and a hastily improvised camp equipage I was not looking for much comfort until I joined as a guest the Conservator's camp several marches away; and I did not get it. The first march out of headquarters was one of twelve miles. I was riding, so ordered all the men and camels to start off in the morning, intending to set out

myself in the afternoon. I remember that ride as if it was yesterday. The first part was glorious. Well, as I subsequently became acquainted with that road, running through the heart of the beautiful Siwaliks, those first impressions of it never faded. But it is not of its beauty that I propose to write. I had not gone four miles before I met most of the camels in charge of a couple of camel men, but no sign of the servants. The camel men who were from the Punjab either could not or would not understand my questions, so I went on. I soon after saw a porcupine which scurried across the road in front of me. He is fairly plentiful in the Siwaliks and damages trees by gnawing round the bark at the base thus girdling the tree and killing it. The khair tree is a special favourite in these regions. The porcupine is a comic little beggar to watch as, with all his quills up, he hurries away

indignant at being disturbed. Another two miles and I came upon an orderly. He said that two camels were on ahead carrying the cooking pots and cook's boxes. This was something. At the eighth mile I came up with these camels. Leading the head rope of the first was my new cook and with him his assistant. To my indignant enquiries the cook said that the camel men had stayed behind in the bazaar, as had the rest of the servants, and they would not be out for hours. The sequel to this march was that I reached my destination at sunset and sat in a cold bungalow—and it is cold at night up in these parts in January—for an hour or two, most of it in the dark. When the camels arrived I had to assist in unloading them, a job of which I was entirely ignorant. We had an exciting time of it; more especially as both were refractory, obstinate brutes, and one had the reputation of being a biter and he lived up to his reputation. Approaching unwarily I had one snap of his great yellow fangs in my face and that was enough for me. The brute pitched off one box of crockery (it is always the crockery that comes to grief) before we got him unloaded, and his appalling groans and grunts would have led anyone to infer that we were roasting him alive. Disagreeable-natured brutes these camels.

It was a few mornings afterwards that I went out to look for spotted deer. The season was early for them yet as their horns are mostly in velvet at this time of the year, but one sometimes has the luck to get one clean. I at the time did not know the difference in seasons up here as contrasted with those in other parts of India; a point moreover which has certainly not received a proper amount of attention in the past and which, of course, proves the futility of making one set of game laws applicable to the whole country.

To return to the morning in question, I had been told that a herd of chital, as the spotted deer is called in these parts, usually retired to the heavy forests to lie up for the day in a certain direction and I had arranged with my orderly to go out and see if we could obtain a good head. I had not done much spotted deer shooting at that time and I was keen on getting a good head or two and a record if possible.

Ere the sun rose next morning we were *en route*. The morning air was bitterly cold and I well remember how it

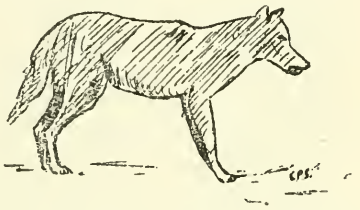
THE BEAUTIFUL JUNGLE-COVERED SLOPES OF THE SIWALIK HILLS

W. F. [illegible]

THE AUTHOR STALKING SAMBHAR IN THE FORESTS OF THE SIWALIKS, NORTHERN INDIA

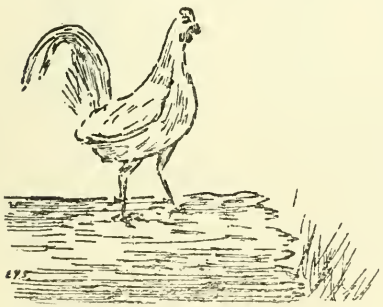
pierced through my skin and bones, accustomed to the damp heat of Eastern Bengal.

As we walked along the road in the direction of the forest, darkness began to give way to light and trees leapt out of the obscurity to take on their diurnal appearance. The sky from a dark blue-black flamed to red and then changed to pale yellow in the east and the night was a thing of the past. Once a grey shadow appeared on the road and silently disappeared into the grass on the left. It was a jackal.



At length we reached the spot and took up our positions about midway in a broad stony ravine, the orderly and his assistant arranging a small screen of branches and grass to hide our position.

The first rays of the sun were just appearing over the hill-crests behind us as we got into our places and a twittering, singing, and shrieking bird-life had begun to send up its morning pæan of praise. Lower down the nullah three pea-fowl and a cluster of jungle fowl were scratching for food in the dry river-bed. Now and then a cock, perched on the fallen trunk of a forest monarch, would elevate himself, flap his wings, and crow a defiance at a rival in the neighbourhood, to be promptly answered by a counter-challenge which was taken up in several other quarters. I was too used to the vociferous recriminations of these birds to pay much attention to them, but noted that the hens took little notice of their lords or their efforts to show off, being too intent on their search for the morning meal.



This red jungle fowl is the ancestor of all our varied breeds of domestic poultry. If the latter are allowed to revert to the wild state they assume the colouration of the jungle fowl. An attempt has been made to introduce

them as game birds into Scotland, but their habit of keeping to the ground and the difficulty of making them rise resulted in the effort being given up.

The pea-fowl were closer to my position but their energies, save for a continuous and keen survey of the surrounding neighbourhood made every now and then by one or other of the birds, were entirely confined to the search for food. What a handsome sight is a fine old peacock seen in his natural surroundings in the Indian jungle, and finer still when, his great tail feathers flaunting to the breeze, he sails down over the tree-tops. He is never so happy, however, as when dancing his extraordinary love-dance before the hens.

I had seen this performance once only when on my way up to the hills at the beginning of the hot weather and the extraordinary caperings and pirouettings and gyrations of the male bird filled me with astonishment and laughter. That such a proud-looking and splendidly plumaged bird as the peacock should have developed this extraordinary dance in order to make himself captivating to the hens, who may be seen watching him most intently all the time, appears little short of amazing, for the bird, to my eyes, seemed to be making a ludicrous spectacle of itself and taking away from, instead of adding to, his charms. However, his fair companions evidently thought otherwise.

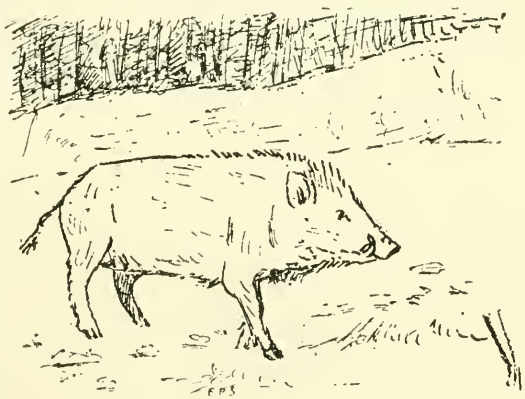
This morning, I remember, I was in the humour to notice the bird-life around me. Golden orioles flitted in the sun. Fly-catchers glanced from the boughs of neighbouring trees, swerved prettily in the air, and caught the insects they were pursuing and returned with them to their perches. The metallic notes of the coppersmith (one of the barbets) came from a khair tree and the tap, tap, tap, in the forest on the far side of the ravine told where a golden-backed woodpecker was at work, searching for insect grubs in the inner bark or wood of a tree.

But the birds were not to have all the place to themselves. A soft patter up-stream was a precursor to the sudden appearance of some spotted deer. They were all does though, with not even a small stag amongst them. A louder noise made itself heard further up and again I grasped the rifle.

This time there was more to see and even envy, for a sounder of pig appeared and grunted their way across the

THE GOLDEN BACKED WOODPECKER AT WORK ON A SÁL TREE
SEARCHING FOR INSECT GRUBS

nullah, some stopping to plough up the stones and sand in a search for a succulent root. There were several fair-sized boars and I should have liked to have had a shot at the old boar. But I was not out to fire at pig. The havildah's longing was far greater than mine, for he was a Gurkha, and a Gurkha can never see a pig without coveting its death, for he loves above all things the flesh of the wild boar. This fact was, of course, well known to me, but I had told the man, then a new servant, but destined to accompany me in many a shooting-trip all over India and to prove the staunchest companion and servant one could desire to have, that I should not shoot at pig that day. Also I had imagined that it was too frequented a spot at this time of the year to render it probable that a sounder would choose that route for their return from the fields at sunrise to the heavy forest. An old boar is at all times a dangerous customer to encounter in the forest as his temper is most uncertain and, when wounded, he becomes a savage and vindictive foe, pursuing and charging his enemy with untiring watchfulness and cunning. The boars are armed with long tusks in the jaws, the upper and lower front teeth on either side of the mouth being prolonged into short curved ivory tushes which may grow to seven inches or more in length. With this formidable weapon a boar can rip open a man or horse or other animal with as clean a cut as could be inflicted with a sharp heavy knife. When you remember that the wild boar is also a very speedy and extremely powerful animal and can keep ahead of a horse for a considerable time you can perceive that he is not exactly an easy customer to tackle on foot even by a grown man armed with a rifle, as many have discovered to their cost. In the forest most animals, even the tiger, are content to let an old wild boar



alone and to pass by on the other side when they discover his presence. Besides, to a man who has had many a stirring encounter out pig-sticking, which is the only proper way to kill the boar if rideable country is adjacent, the slaying of pig with the rifle has too great a similarity to shooting a fox. I had, and have since, shot wild boar, but only in unrideable country.

There was an old boar in this party. A surly old ruffian he was too. He had come out of the jungle into the nullah last of all and at once commenced grubbing about in search of roots. Two younger boars on ahead of him started to fight and were hard at work squealing and shoving for all they were worth when the old tusker drew near, tossing up the ground and sand with his snout as he advanced. When within a few yards he raised his head and watched the two youngsters sparring for perhaps half a minute and then, without any rhyme or reason, charged in between them with a vicious grunt. The two combatants were shot apart, one rolling over and over for several yards, the other turning a backward somersault. As they picked themselves up never were two more crestfallen pigs seen, and they hastened to hide their discomfiture in the neighbouring jungle whilst the surly old boar, advancing obliquely towards the jungle, continued to search for food. At length he entered the long grass and disappeared from view, and silence reigned in the nullah for a space.

The sun was already some way above the crest of the hill and I was commencing to fear that I had missed the deer altogether, or that they were not coming my way. One small herd crossed the nullah below about eighty yards off, but it only contained does and one small stag, and I resisted the temptation to loose off at the latter.

As I waited expectantly I began to take note of the multitude of insect life around me. Glorious butterflies floated past, insects which on other occasions I would have done my best to catch, glorious

Papilios, Vanessas, and many others which are to be commonly found on the borders of the forest in this part of India. Beetles droned past, chiefly dung beetles, and rose chafers and cockchafers, though a brilliant buprestis or two is to be found in these forests.

Bees and wasps were legion, as were many of the forms of small bugs and beetles which form so large a proportion in numbers of the animal world of the Indian forests.

Down in the river-bed, but a short distance from my stand, I saw a number of irregularly spaced circular holes in the sand, cone-shaped or terminating in a point at the bottom, the sides consisting of shelving sand. Well known to me were these as the abode of the curious insect known as the ant lion. The mature insect is a harmless winged fly with four large, colourless, net-veined wings with black splotches on them. It is from the grub that the insect gets its carnivorous name. This grub is a curious-shaped object, consisting of a swollen body and small head, the mouth being furnished with an enormous pair of shear-like jaws. The grub makes the orifice in the sand and then buries himself at the bottom leaving only his black jaws protruding from the sand. An insect, moving along the surface of the sand above, reaches the edge of the hole before he is aware it is there and tumbles down the shelving sand to the bottom where he is immediately seized in the large jaws of the grub and devoured. I had counted as many as ten insects which had gone to their fate at the bottom of the holes I was watching, when I felt a touch on the arm and, looking up, started violently.

I thought I must be dreaming. There in front of me were three chita stags, one of large size, or so it appeared to me. I had heard no sound and for some seconds I gaped at them mechanically without realizing that what I had come out for stood before me.

The deer were crossing the ravine at a sharp walk, but were in no way alarmed. Suddenly one stopped and

looked steadfastly in our direction and this brought me back to the world of reality.

"Quick, sahib, the burra singh wallah (the large-horned one) on the left," whispered the havildah excitedly, "Quick, he is going to run."

And in truth it was time. The stag whose suspicions had been aroused changed its walk for a trot and its smaller companion followed suit. The big stag halted and also gazed with his head in our direction. I had a clear bull's-eye to the shoulder. It was an easy shot, as from my position behind the leafy screen we had erected I was able to rest the rifle on a forked branch. Hurriedly sighting on the shoulder I fired. The stag stumbled and then bounded in the air and set off at a smart pace for the jungle into which the other two were disappearing.

"Again, sahib, shoot again. Quick, quick," yelled the orderly, oblivious of the definite instructions I had given him as to talking when out shooting.

I jumped up from my kneeling position, raised the rifle, and let fly at the rapidly moving animal. At the report the stag gave a great bound in the air and fell on to its side, half-raised itself up and then rolled over.

"He's dead, havildah. He's dead."

But the Gurkha paid no attention. Speeding across the interval in furtherance of a promise to make the meat "clean for the faithful followers of the Prophet" (a process known as "hal-lal"), he whipped out his kukri and made it over to his native companion who was a Mohammedan. The latter went down on his knees and, ignoring the fact that the stag was as dead as a door nail, cut the throat open and saw that at least a drop of blood flowed out.

"He is alive. See, the blood flows," and he repeated his formula.

"He lives, Bhai. He lives yet," said the Gurkha, to whom it was a matter of supreme indifference whether the animal was alive or dead for the meat was good meat to him in either event. But the Mohammedan may only eat the flesh of animals who have still lived whilst the throat has been cut to allow the red blood to flow and consequently many an animal shot through the head or heart and stone dead promptly has the throat cut if a Mohammedan is present. This must be done by a Mohammedan or the meat is not

considered clean. This custom is a great nuisance as the cut is often made so high up on the neck that the trophy is spoilt for mounting purposes as there is no neck skin left. This is the reason why one sees so many Indian trophies ruined; for even a first-class taxidermist, in the absence of the neck skin, finds it is impossible to set them up properly. My order as to the point at which the knife was to be put in to make the meat clean was very definite and I consequently secured heads which could be properly mounted.

Meanwhile I was standing over the fallen stag. He is a beautiful beast, his colouring harmonizing perfectly with his surroundings. But I never killed one without a feeling of compunction afterwards. The head in this case was a good one, nearly clean; but not a record. The quest for that record still remained.

CHAPTER XIII

A MORNING'S STALK AFTER BLACK BUCK

Stalking black buck—Glorious scenery—Description and habits of black buck—Methods of stalking—Experiences with buck—The villager shows the way—A disappointment—A difficult stalk—The lord of the herd—The alarm—A patient wait—Move forward again—Fire at the buck—A marvellous performance—The buck drops—A fine head.

I LAY *ventre à terre* on the grassy plain barely hidden by a small patch of the thorny ber plant. Behind me the havildah was similarly extended some hundred paces away.

The sun had been above the horizon about an hour, but the dew lay heavy upon bush and grass, sparkling and scintillating like pearls in the low slanting rays. To the north the hills stood up in bold relief, their bases enveloped here and there in filmy masses of mist. Stretching away from the foot of the hills lay a dark green belt of forest land, the famous Terai jungles towards which my camp had been slowly journeying for some days. In that direction my hopes of good sport were centred. For with moderate luck I expected to be able to bag at least one tiger and perhaps more.

I had left the camp that morning at dawn with the object of stalking a herd of black buck which contained a buck with a fine pair of horns, fine that is for this part of India.

The black buck is one of the most beautiful and dainty of the Indian antelopes, as unlike its great clumsy heavily built cousin the nilgai or blue bull, which resembles a pony more than anything else, as it would be possible to conceive. The old black buck males are black on the back and white beneath, and possess a pair of beautiful spiral blackish horns which are hollow and are not shed as are the antlers of deer.

The antelope live out on the great plains of India and

are never found, save on the outskirts, in the big forests. They live in herds of varying size usually consisting of an old buck and several smaller ones, and a number of does and youngsters.

They are wonderfully lightly and gracefully made, and possessed of considerable speed and of jumping powers which have to be seen to be credited. When alarmed the whole herd will go off at speed across the country in a series of marvellous leaps and bounds and rapidly run out of sight; for their colouring harmonizes so well with the country they live in that it is no easy matter to make them out when several hundred yards away.

In fact as I had discovered when making my first acquaintance with these dainty animals the shikari has to learn to pick them up out of their surroundings, an art which requires some practice and patience.

When not much shot at buck are approached comparatively easily, and the acquisition of any number of "head" is not a difficult matter. Things are different, however, in those parts of India where the little animals are constantly pursued by sportsmen. The herds then become very wary and difficult to approach.

Sportsmen often make use of the country bullock cart to reach a herd in such cases. Living as they do in the cultivated lands, the antelope pay no attention to the villager engaged in his occupation in the fields or to the country bullock carts slowly making their way along the main road or village feeder roads, or along the fair weather roads across the fields in the cold and hot weather months.

Consequently by having a country cart driven across the fields, which are not separated by hedges as in England, but merely by a small ridge known as a "bund" or by small boundary stones, and keeping under cover on the far edge of the cart a sportsman can often approach a herd well within range and thus secure an easy shot. I did not much

care for this method of stealing unperceived upon the animals, infinitely preferring to pit my skill as a stalker over open ground against the natural wariness of the antelope.

I had been out several times after buck before the morning dealt with here, but had only achieved success as yet on one occasion when the head secured had been a very small one ; for I had not had the patience to wait till I got near the big buck of the herd. On subsequent occasions I had missed other heads all stalked fairly in the open : sometimes I was seen by the graceful little animals who were ever on the *qui vive* in these parts—at others I had made bad misses.

This morning I was determined to take no chances as on the morrow the camp was leaving for the big jungles and I would probably not have another opportunity at buck that year.

As has been said the havildah and self had set out from the camp with one attendant at dawn, leaving instructions that we should be back to breakfast not later than eleven o'clock. I had ridden a pony to a place three miles from the camp where buck were usually plentiful, and where information had been obtained that one of the herds contained a good head.

On arrival at the rendezvous a villager was found awaiting us. I dismounted and telling the syce to wait with the pony in the shade of a clump of trees, I set off, preceded by the villager and followed by the havildah. The man who had accompanied us from the camp was ordered to follow at a distance and to sit down the moment the buck were seen. We had covered a bare quarter of a mile when we turned into a sunk mud road with prickly-pear bushes growing on the banks on either side. A little way along this the villager climbed on to the right bank and looked through the bushes.

He made a sign and I clambered quietly up. Looking in the direction pointed out I saw a herd of some fifteen buck about three hundred yards away in the open fields. Two hundred yards beyond them the fields dropped into a winding narrow ravine, the cultivated lands stretching for some hundred yards on the far side of the ravine.

At first the stalk appeared quite an easy one, as if I got into the ravine I could creep up and wait till the antelopes approached and get a pot shot.

I whispered this to the villager. The latter, however, pointed out that the part of the ravine we saw was really the top of a narrow horseshoe bend, and that it would mean a long detour to get into the ravine without being seen by the herd. The buck would probably have got in before we did, when we should see them no more.

"For several mornings I have watched this herd, sahib," said the man, "and they always leave the fields by that ravine and lie up in the shelter of bushes at some distance from here. I had hoped they would have been nearer to us when I looked through. On two mornings recently they have been within fifty yards of the place we are now in when I arrived. It is bad fortune to find them so far."

"What should I do then?" I enquired.

"You will have to stalk them, sahib," said the havildah. "See, over there we can approach behind the bamboo clump for some yards in safety, and then you will have to crawl up to them. He has big horns the black one to the left, he is the one to kill."

I had acted on the havildah's suggestion, leaving the latter behind the bamboo clump when I started off into the open. After my departure the wily Gurkha, however, noticed a place from which he might intercept the antelope and send them back to me, should they move off in a direction which was not anticipated, and so had crawled and wormed his way in snake-like fashion into his present position.

After very hard work I had negotiated about one hundred yards and was now wondering how the remaining distance, roughly about one hundred and fifty yards, was to be accomplished. Fifty yards was my desired firing distance. I had loosed off at longer distances without result before, and determined to get as near as possible before taking the shot.

I had come the greater part of the distance on my stomach, pulling myself along with my hands stretched out at full length in front of me and dragging the rifle up afterwards—a most arduous performance as all know who have tried it. The grass and stuff crawled over was wringing wet, and I was already soaked from head to foot with dew and perspiration. My shoulders began to ache considerably, but I had been through all this before and knew what to expect.

I now lay watching the buck, my head screened by the ber bushes.

The antelope were still feeding unconsciously, cropping the short-grass in eager mouthfuls. Now and then one or other would raise its head abruptly and cast a keen look around, but they were evidently unaware of the danger so near to them. The lord of the herd was a fine old black fellow with a glorious pair of horns set rather widely apart at the tips.

"I must have him," I muttered. "I must, he's a beauty." Again I recommenced my painful journey. Ahead of me there were two other small patches of the thorny bush, and in another ten minutes I had succeeded in attaining the nearest of these ; on reaching its shelter I lay gasping for breath for a minute and then cautiously raised my head.

A glance was sufficient. All was not well.

Something had alarmed the herd. The majority were standing stock still, their noses snuffing the air, for wind there was none. The old buck who was almost the nearest to me was still feeding, but even he seemed to be uneasy, and as I looked at them the animal raised his head and stamped a hoof into the ground in irritation.

I was not ready to fire as the rifle lay on the ground at my side. I dare not move it, so could do nothing but lie still.

Suddenly they all turned with one accord and looked away to the left. Raising my head slightly higher I looked in that direction and saw a country cart slowly trundling across the plain. After watching this steadfastly for a few minutes the antelope were apparently reassured as they resumed their feeding, but slowly moved off to the right.

At first I was in despair at this move, but learned to bless it as by degrees they brought the bush which was slightly to my right in line with me.

I at once saw my opportunity and took it.

Leaving the sheltering bush I crawled as rapidly as possible towards the one which was now ahead of me and just got up to it before the first of the does arrived at a point which would have made the movement an impossible one.

But by now I was reduced to a palpitating mass and could do nothing but lie and gasp, eyes blinded by the perspiration pouring into them, and my spine like a red-hot iron bar.

Gradually my breath came back, and I ventured to raise the head. My heart leapt to my mouth, and a thrill of excitement and covetousness ran through me.

There broadside on with head down, cropping the grass, stood the old buck, a splendid bull's-eye, and, as far as could be judged, within the stipulated fifty yards.

Quietly I drew up the rifle, pushed it through an opening in the thin bush, and brought the stock into the shoulder.

The thought of past misses unnerved me for a moment, but never had I had such a bull's-eye to fire at before. Drawing a breath, I aimed at the shoulder and pulled the trigger.

The effect was instantaneous. The whole herd as one bounded into the air, dropped on to their feet, and for an instant stood as if turned to stone. Then they swung round as one and went flying across the fields in a series of most extraordinary leaps, making tracks for the ravine.

I was lost in admiration at the sight, and for the moment did not even think about whether I had missed or not. The marvellous jumping powers of the light graceful antelopes held me spellbound.

The vanguard reached the edge of the ravine and sprang down into it, the youngsters taking the drop as easily as the older hands. Now the old buck, upon whom my eyes were fixed, for some of his leaps had been extraordinarily high, was within twenty yards of it, fifteen, ten, and then he suddenly crumpled up on to the ground and was seen lying struggling on his side.

The havildah's voice came to me as the man started to rush across the fields.

"He's down, sahib, he's down, reload and run and fire at him again."

The voice brought me back to reality, and jumping up I started across the fields, opening the breech and jerking in another cartridge from the magazine as I did so.

I was more than half-way towards the buck, who struggled still to gain his feet, before I stopped and raised the rifle. I was shaking badly, but noticed that the buck had half

risen on his front legs. I must fire I thought. But it was unnecessary.

Even as the idea presented itself to my mind, and when about to press the trigger the buck suddenly collapsed in a heap.

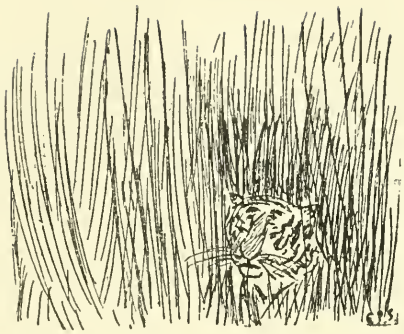
"He's dead, sahib, he's dead," panted the orderly, "no need to fire again."

It was true. When I got up to the antelope he was lying on his side, the black and white of the coat contrasting sharply in the brilliant sunlight, whilst the upper horn swept upwards in a wide outward sweep.

I was overjoyed. The perfect symmetry of the animal was something to marvel at.

"We should have lost him, havildah, had it not been for that cart. They were uneasy about something."

"They are often like that, sahib. They are so often startled that they are off at the smallest thing. It is a good head."



CHAPTER XIV

THE HAVILDAH'S STORY

The man-eater—The Nepal jungles—The havildah commences his story—The animals of the Nepal jungles—An expedition in the rains—Good hunting—Return to village—The man-eater's victim—The boy's grief and frenzy—Set out to search for the man-eater—Discover traces of victim—The plan of campaign—Ascend the ravine—Reach the cave—The man-eater appears—Face to face—The shot—Death of man-eater—The boy's mad rage.

"YOU have often asked me, sahib, to tell you the story of how I saw my first tiger," said the old havildah, one depressing afternoon in the rains. We were all up in the hill station, and it had been raining on end for weeks. I was lounging in the verandah watching the man clean the rifles and guns, the whole battery having been got out to see that the excessive moisture in the atmosphere was not attacking the barrels.

"Speak, havildah, and tell me the story. It was in your own village, and the beast was a monster, was it not?"

"Yes, sahib, a very bad man-eater, and I who speak to you suffered heavily from the shaitan. But I dipped my hands in his heart's blood afterwards, and tore out the heart of the evil one, that I did." And the old man's eyes gleamed vindictively as he spoke. And then his face grew sad as reminiscences of the past crowded on his memory.

"It was before I enlisted, sahib, before I left my native village—I have scarcely been near the place since—that I first met a tiger face to face on foot; and this was the fiercest and most devilish of all the beasts of my own country of Nepal."

"Well, havildah, let me have the story. It was in the rains, was it not?"

I went on meditatively—"How fine the jungles must look now with the tall bright green grass still growing upwards, and the flower-heads just beginning to swell out. One could not see to shoot much now in the grass jungles, not even from the back of an elephant? What a happy time the animals must have, with plenty to eat and drink everywhere, no long journeys to make to search for succulent grass and water-pools, as they have to make in the hot weather."

"Yet there is danger from other animals, sahib. The tiger and leopard are just as dangerous, and can approach without a sound when the wind is blowing through the grass stems and the rain is pattering and swishing down. It was during a break in the rains in this month that the man-eater I am telling you about visited our village."

"But you have not begun the story yet, havildah," I said, wishing to keep the old man to the point and get this yarn out of him if possible.

"Huzur, I will commence."

"It was long years ago now, and I was sixteen years of age at the time. I was not thinking of 'listing then. My father owned a good house and several fields and a considerable number of cows and goats. He was a big man in the village. I was his eldest son, and already I took a considerable share of the work in the fields. But my chief pleasure was hunting. Like you, sahib, from my early youth I was very keen on shooting animals, and was a firm friend of our village shikari, an old man who had shot every kind of animal

living in our parts, and you know, sahib, that the jungles of Nepal are full of beasts. Tigers are common, so are leopards, the rhinoceros roam about the jungles, and buffaloes exist there and are very fierce. All the deer tribe are plentiful and mighty sambhar are killed at times. I never had any difficulty in persuading old Sher Bahadur (the Great Tiger, as he was called) to take me out, once I had grown strong enough to be able to keep up with him. And, sahib, you should see the jungles of Nepal. Perhaps some day you may be lucky enough to do so. They are a shikari's paradise. Great stretches of tiger grass, interspersed with high sál forest, with open savannah-like grassy plains where you may count the

herds of chital in hundreds and sambhar and barasingha in scores.

One day we set out from the village on a shooting excursion to the lower jungles, to procure meat for the village, and such skins and horns for sale as our luck gave us. It was in a break in the rains, and for two days the sun had been shining brightly and the heat was very great. It would be hotter lower down, we knew, but what cared we for the heat when there was shikar to be had. Our village was situated at about four thousand feet in the hills, and looked like the villages you see out in the district round here. It consisted of some twenty-five houses, and to me it was not only home, but it contained the thing I most valued on earth, for I had recently been betrothed to the most beautiful girl in our village or in

any other for fifty miles round, and we were to be married very soon.

"The sun shone very brightly for me on that morning, sahib, and I laughingly replied to a remark made by a friend, to the effect that we would bring back the skin of a noted man-eater of those parts if he dared to come across our tracks.

"To speak true words, I, in common with most in the village, stood in considerable awe of this beast. Not that any of we youngsters would have minded so much a fair stand-up fight with our kukris in hand. But that was not the way of this skulking brute. Although he had already taken a number of lives, his victories had all been won on old men, women, or boys, and he had invariably lain in wait for them, crouched in some low piece of jungle, and sprung on to them without warning from behind. At least, this is what the tracks and marks showed, for no one attacked by this devil had up to then escaped to tell the tale. Portions of their bodies, a hand or arm or part of a leg or bits of clothing were all that had ever been regained of his numerous victims. A reward had now been placed upon this tiger by the Sirkar (Government), and several sahibs had been out after him. In fact, though the reward could not be claimed, as no real evidence was brought forth, it was thought that the beast must have been killed or died somehow, as nothing had been heard of him for six months at the time I speak of. His pugs were easily traceable, as he limped on his off hind leg, from an old bullet wound, it was thought inflicted either by a native shikari or by some sahib during one of the big tiger beats which took place every hot weather in the great jungles below.

"So I answered my friend that morning with small thought that we were all so soon to renew acquaintance with this dreaded scourge.

"We were away five days. It was scorching hot in the great grass jungles, so hot and heavy was the moist steamy air, that we both had a touch of fever before we had bagged all the animals we required. In this latter we had little difficulty, as the jungles positively teemed with deer, and we secured some good chital horns and picked up, I remember, four very large shed sambhar horns, besides some smaller ones. They were heavy loads each man had to carry back, but our hearts were light at the success of the outing, as we

PARK-LIKE GRASS LAND IN THE RANIKHET JUNGLES, UNITED PROVINCES

Sir J. P. Hewett, photo

HOWDAH ELEPHANTS COMING OUT INTO A HIGH GRASS SAVANNAH IN THE TERAI JUNGLES, UNITED PROVINCES

breasted the steep slopes on our last march back. To avoid the great heat of the day, for the break in the rains still continued, we marched at night, and it was close on dawn when, weary and jaded, we struck into the path which led up the last slope to the village.

" The dawn was stealing over the hills as we approached the village, and we looked to see if there was any sign of life about. We reached a corner, I with my heart beating high at the thought of a near meeting which I had not had out of my mind during the whole of the trip, and there lay the village a quarter of a mile or so away.

" But, sahib, it was not the village as we expected to see it. All the villagers seemed to be awake and outside of their houses. Some were running about, others were collected at the village meeting-place, and even from here as we hurried on, voices could be heard, and as we drew nearer these voices sounded as wails.

" ' What is the matter ? Sher Bahadur, what is it ? ' I cried anxiously.

" ' I know not,' he replied, ' I know not,' and there was a note of anxiety in his voice.

" A thought struck me, and my blood turned to water and my legs seemed to fail under me.

" ' The tiger, the man-eater, O, Sher Bahadur. It cannot be that the man-eater has visited our village ? '

" ' We shall soon hear,' was the grim reply.

" What I feared, sahib, as I hurried along, I know not, nor why I feared. I seemed to have a presentiment that I was to suffer that day—that the sight before my eyes was to affect me most of all, and I could have cried aloud in my pain.

" We hurried forward, scarcely feeling the weight of our loads, but now so heavy, in our great anxiety. We were soon seen, and a sudden hush fell upon all the throng. ' What is it, speak, oh, Jitman, speak,' said Sher Bahadur, and even as the words fell on my ears I seemed to see all eyes turned with looks of pity upon myself. As for me, I was speechless,

my heart was as water and my legs tottered beneath me. I felt as if I knew the words that were to be spoken.

" ' The tiger shaitan has been here, and Kali, the beautiful Kali, has been taken, but half an hour gone. Some of the men have already followed on his tracks. He has made for the jungle.'

" I dropped my load and sank on to the ground on top of it. Kali, my beautiful girl, Kali, taken by the tiger, I could not and would not believe it ! I was soon brought to myself by the women, who started wailing again. My weakness departed from me, and I sprang to my feet. A black, blind rage filled me, I frothed at the mouth and shrieked at the men to be told the direction the devil had taken. I would save her, I said, though the looks of the men told me there was little hope of that. I would have the black devil's heart's blood, and that before I was many hours older, or I too would die.

" Remonstrance was useless. They offered me food, I vomited at the sight, and grew so fierce that old Sher Bahadur said he would go with me. Soon two others volunteered to accompany us, and taking the few remaining matchlocks left in the village and our kukris, we set out.

" Of that journey I remember nothing. Sahib, I was as one demented. We took the downward path, and after an hour arrived at a dense patch of grass jungle, situated in a small valley, shut in by steep hills, having at its bottom a small torrent. On the edge we came upon the party of men who had started before we arrived at the village. I was in no condition to understand the conversation that followed. Had I not been held back, and it took several men to hold me, for rage had given me the strength of many men, I should have gone straight into the grass, and doubtless have been killed or frightened away the tiger, for he was filled with the cunning of all the devils. The tracks had been followed to a point some two hundred yards lower down, at which they entered the grass.

" A hurried council was held. The sun had become overcast, and there was need of haste, as rain was imminent, and if it fell, the marks would be all washed out. That Kali had been brought here was proved by a piece of her clothing still adhering to a thorny shrub at the place where the tiger had entered the jungle.

" Old Sher Bahadur here showed his worth, and no finer shikari could you find, sahib, than that old man was. He said he knew of a cave at the foot of the opposite hill where it dropped to the watercourse, and that our best plan would be to move lower down our side of the valley, get into the stream bed and make our way cautiously up it.

" This we proceeded to do. We were a party of twenty. Six men were sent to a point on the stream some five hundred feet above us and told to take up safe positions there and watch, should the beast try to escape in that direction. The rest of us went downwards. As we passed the place where the tiger had entered the jungle, I took the strip of Kali's dress from the thorn bush and placed it in my pouch, and vowed that her slayer should not live to see another sun rise, or that I would not. I cared not which it might be. On reaching the water course, a careful examination was made for tracks of the tiger, but none were visible. Six men were left here with instructions to climb into trees and keep a sharp look-out. We eight then commenced to carefully wend our way up the torrent bed. I went in front with old Sher Bahadur, as plucky an old man as you will ever meet, sahib. May he rest in peace ! The other men, three on each side, followed behind us. Very slowly we went, I in a fever of impatience, but wordless and with my senses on the stretch and eyes blazing like fire. I was mad, sahib, on that day, quite mad, and would have faced fifty tigers single-handed."

The old man paused and gazed with unseeing eyes at the rain, which was steadily pouring down outside the verandah. I, with my breath coming rather quick, as I pictured the scene, watched the speaker with fascinated gaze. There was silence for half a minute.

" It was I who found Kali, sahib, what had been Kali. It was part of her only. A bright piece of red caught my eye. I knew it for her dress. It was on a little sandy spot, beneath a large overhanging rock which formed the outer portion of the cave.

" At the sight I lost what little sense I still possessed. I had a heavy old matchlock with me, down the barrel of which I had crammed two large bullets and a double charge of powder. As I caught sight of the dress, I felt my blood turn to ice in my veins. Another look, and my eyes made out a

portion of a woman's body, poor Kali's body. Without thought of the consequences to myself or my companions, I started forward with a shout of frenzy and rage, and sprang for the cave opening. I jumped, half crouching, on to the sandy entrance, and as I got there, a dark yellow shape came from the interior of the cave. With a shiver of joy I found myself gazing into the dark green, fiery eyes, the snarling mouth, with its poisonous breath and enormous yellow fangs, of the tiger. What my face was like I know not. Surely it must have been as a devil's, for, sahib, the tiger quailed for a second before my glance. They say I shouted again. I may have done so, for I read in those devilish, cruel eyes that my days were numbered, and at the same moment I fired off my matchlock point-blank at the snarling jaws. I had not brought the weapon to the shoulder, I fired it as I carried it, with part of the stock beneath my right armpit. I remember a snarling roar, a deafening report, and a dull thud on the head.

" Some time afterwards I came to myself, to find old Sher Bahadur leaning over me with an anxious look in his eyes. He told me afterwards that he thought I had gone mad, and that the tiger's spirit had entered into me, as I had been raving ever since I fired the shot. And I raved then, for my eyes fell on the form of the tiger. My bullets had brained it and the recoil had shot me into the torrent bed with the tiger on top of me, for he must have sprung as I fired.

" Jumping to my feet, I fell on my foe and with my kukri slashed the body to pieces in a wild frenzy. After my first mad transports I proceeded more methodically, and ripping the breast up I tore out the heart, as I had vowed to do.

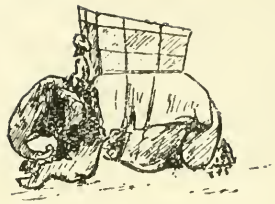
" Then rage left me and I went to the remains of her whom I loved so dearly. Collecting them together, I took off my coat, bound them carefully up in it, and then dropped to the ground.

" It was weeks before I was about again, sahib. I got the brain fever very badly and all thought that the tigers' spirit had got hold of me, that I was bewitched and that I should die.

" I did not die. Gradually I got well and strong again. But with my strength a feeling of restlessness entered into me—I could not stop in the village. So I arranged for my

second brother to take my place in the fields and house, and saying good-bye to the village, I set out from —— and enlisted.

"That is how I met my first tiger, sahib, and I have never forgotten it."



CHAPTER XV

BACK IN THE JUNGLES AGAIN

Back from furlough—The jungles again—The great grass jungle at the end of the rains—The animal inhabitants—Insect life—On foot in the grass—A moonlight ramble on an elephant—An early morning start—A fishing expedition—Forest spiders—Sambhar, hogdeer, and pig—Chital—A tiger episode in the Dun—Sitting up on a tiger "run"—Jungle denizens in the evening—Hear a tiger—The tiger approaches—Anxious moments—Fire at the tiger—The tiger drops—Gets up and disappears—Return to camp—The Raja Sahib—Appears next morning—Go in search of tiger—Death of tiger—The Dehra Dun Fishing Club—Glorious days—Disappearance of game in the Dun—Closure and game protection needed.

THOSE of us who have fallen under the glamour of the jungles of India will understand the feeling with which I left the Station one afternoon in late September for the high-grass jungles and the glorious rivers of the United Province Terai.

Well over a year and a half had elapsed since I had last seen them. It was in February of the previous year that I left the beautiful Dun and the Mussoorie Hills, a transfer taking me to Calcutta. After nearly a year in the City of Palaces, I applied for furlough and had a spell of leave at home. I rejoined at Dehra early in September and a few days' holiday occurring towards the end of the month saw me eagerly setting out for the jungles accompanied by a friend. We had two elephants and I had a modified cordite ·500 Holland and Holland rifle and a new gun, both of which I was thirsting to try. We arrived soon after four o'clock at a small bungalow in the heart of the forest and never shall I forget the thrill with which I sniffed again the odours of the great jungles.

The rains were over and we could count on fine weather. Already there was a touch of the glorious winter cold in the early morning and evening air, and for the midday heat we

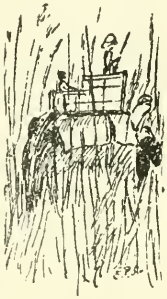
A CORNER OF THE SACRED CITY OF HARDWAR LOOKING UP THE GANGES

M.E. Spo[illegible] Photo

SCENERY IN THE BEAUTIFUL DUN. THE MUSSOORIE HILLS IN THE BACKGROUND

cared nothing. With luck the fishing should be good and the great grass jungles alive with game; though it was doubtful whether we should be able to see anything to shoot owing to the great height and density of the grass; unless we had the good fortune to stumble across a tiger or leopard.

Have you ever been out in the great grass jungles, the tiger-grass jungles, at the close of the rains? They are a stupendous sight as seen from the back of an elephant. A sea of green spreads all around one with, rising above it, the tall, graceful, nodding stems of the flower-heads, each ending in a long, elegant, white, feathery spike. They bend and dip as the wind whispers through them in a most delightful fashion. As far as the eye can reach stretches the giant grass with here and there a great tree rearing its lofty crown far above it. Down below, fifteen feet below, who can tell of the innumerable life which finds its home in the grass jungles at the end of the rains? As the elephant slowly forges its way through the dense mass you hear sudden rushes, but can perceive nothing. Only by the intensity of the sound can you make a shrewd guess as to the identity of the fugitive. Sambhar, spotted deer, hogdeer (*Cervus porcinus*), swamp deer or barasingha (*Cervus duvauceli*), it may be any of these. As for pig! You will know him right enough by the noise of his indignant protests at being thus disturbed, and by the disgust of the elephant at his near presence. But neither tiger nor leopard are likely to advertise their departure. They will recognize the presence of an elephant long before he is near them and will silently get out of his path; since they know it is both useless and unwise to provoke him. Of the smaller mammals—jackals, foxes, civets, wild cats, hyenas, wild dogs—numbers must be at present roaming the grass jungles, for it is here that the greater bulk of the animals on which they prey are collected. As you move along pea-fowl, jungle fowl, partridge, and quail will rise with startled squawks above the grass-heads, fly skimmingly over the surface for a short distance, and go to ground again, lost at once in the dense sea of green. Of smaller birds numbers will be seen clinging to the tall flower-heads, pecking at the developing seeds or



searching for minute insects. And of insect life you will find a plethora in the grass jungles. In the brilliant sunshine great gaudily decked butterflies float on burnished scintillating wing, now flirting with the curtsying grass-heads, now darting suddenly forwards, hovering for some seconds and then sinking to rest on a shimmering leaf-tip. Fast-flying skippers will flash past going at the hurrying pace these insects appear to affect and which, combined with their high-flying proclivities, makes their capture so extremely difficult. Brilliant dragon-flies hawk over the grass, their wings flashing in the sunlight as they swoop on to their prey. And low down, down in the depths of the grass masses, who can say what myriads of at present unclassified insect life exist—life which, should it survive to reach the systematist's table, may cause unconceived changes in his classificatory systems.

If the grass jungle is wonderful as seen from the back of an elephant, it is little short of bewildering if one gets down into it. Order the mahout to stop the elephant and make him sit down. Slip out of the howdah or off the pad and stand amidst the jungle itself ; sending the elephant and mahout a short distance on, not too far if you ever wish to get out again. Around you now rises a green wall pressing on to you on every side. Far away above you as the breeze blows over the tops you see the waving grass-heads, and above again small patches and rifts of a deep blue sky. On every side as you endeavour to pierce the screen you see nothing but a dead green barrier of the thick grass-stems. You can note that the grass grows in giant bunches, so to speak, each great clump starting from a centre, its stems radiating outwards and bending over as they reach the upper levels. But so close are the clumps together that the mass forms a continuous screen or wall. Move forward ten paces, forcing your way between the clumps. The horizon is the same on every side and you quickly realize that were you to be left to your own devices in a big grass jungle, or even in one of moderate size, you would stand a small chance of getting out alive owing to man's extraordinary tendency to walk in a circle if he has nothing he can recognize to guide him. Soon a feeling of suffocation takes hold of you, a dread that you will never get up out of this appalling grass, and it is with a feeling of relief that one climbs once again on to the back of the elephant.

What the feeling would be in the night, alone down below at the foot of the grass clumps, I have never tried. There are various reasons why one would not try it perhaps. But from the back of the elephant the grass jungle at night, on a moonlight night, is a most eerie place to be in. The tall white heads look ghostly under the moonbeams, a filmy white mist is usually floating just above the jungle, and the night birds, owls and their kin, flitting silently by or with a sudden squawk of terror are uncanny. Great night beetles drone by with humming sound and moths of a size which appears gigantic flap up out of the depths, often considerably disturbing one's serenity by blundering into the face. A variety of queer cries rise on the still air—cries of the night jungle folk which sound more like the unearthly shrieks of mortals in pain, setting one's nerves on edge, than natural cries and calls. Fine, it must be admitted, very fine, are the grass jungles at night but not to be compared with their glorious beauty by day.

And so I thought on the night of our arrival in camp that September. For immediately after dinner I ordered up an elephant intending to have an hour's stroll through the grass jungles before bed. My companion, stretched at length in an arm-chair with a cigar between his lips, thought I was mad, as did the much-disgusted mahout, who had to quit the camp fire and the circle of talkative servants to accompany me. But then neither of them had been away from the jungles for over a year and a half and could not be expected to understand or sympathize with my frame of mind.

We had no adventures that night. I do not think that the mahout was out for any if he could help it. I left the route to him, merely telling him that I wanted to be out a good hour. For myself the pleasure at finding myself back again in a real big jungle after so long an absence was sufficient for the present and, as I sat swaying on the pad, perched up behind the mahout, I drank in with gusto the smell of the jungle, malarious though it was, and listened to the well-known night sounds with keen interest.

And so to bed and a dreamless sleep.

The next morn soon after dawn and before the sun had climbed above the hills we were engaged on a substantial chota hazri in the verandah. In front lay the small clearing which was dignified by the name of the bungalow compound

and beyond the jungle—scattered trees interspersed with masses of the tall tiger grass. This stretched for half a mile to a white dense line of mist which hung above and proclaimed the presence of the river. Above the mist the upper part of the hills, the outer spurs of the Himalaya distant about six miles or so, stood up dark green and blue, their tops now gilding under the rays of the rising sun.

Away to the north the higher ranges stood out sharp and clear, their bases and lower ridges enveloped in a dense white pall of vapour.

The whole camp was astir and as we discussed our meal the confused medley of sounds which I knew so well and which I had not heard for so long rose on the still air. Mahouts' boys getting the elephants ready, syces grooming the ponies, peons getting out the rifles and guns and rods, whilst the servants fussed about putting the final touches to the tiffin-baskets, for we were to be away all day. And each and every sound was music to ears which had listened long for the well-remembered bustle.

The elephants lounged up to the verandah in their slow, lazy, silent fashion. Even they seemed alert, however, for they had done nothing but eat their heads off during the past three months and they knew as well as the rest of us that this was the beginning of business once again. They knelt down and we climped into the howdahs already packed with our paraphernalia for the day's outing. Slowly rising to their feet the great beasts left the compound and we were straightway in the jungle.

Our destination was a good reach of the river some five miles away, where we hoped to have some sport with the mahseer, now on their way down-stream from the higher shallow waters where they had spawned. Once in the jungle the two elephants separated, we having previously arranged to meet at the rendezvous. My friend took a circuitous route as he had a place to inspect. I was out chiefly for pleasure and my mahout had instructions to proceed straight through the forest and high grass areas for the distant reach.

How distinctly the memory of that morning comes back to me. The dense high jungle which had reached its culmination of growth at the end of the rains, the intricate tangle of matted shrubs and creepers forming the undergrowth of the high sál forest, the glorious fresh greenness

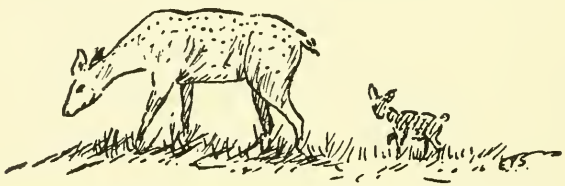
of the latter after its long cleansing by the monsoon rains, the giant, sticky, gossamer-like webs of the big forest spiders stretched across between the tree-trunks and glittering with sparkling drops of water from the past night mists, and the slanting beams of the sun throwing into fierce relief bright patches of tangled growth, tree-trunks and shining foliage.

Out from the shadows of the forest we came into the full blinding glare of the open and moved slowly through a wide grass savannah. A swarm of green parrots fly screeching by us as we enter the grass and a pea-fowl, an old cock bird who was finishing his morning meal, gets up at the feet of the elephant with an indignant squawk, a tremendous flurry of wings, and wheels back into the forest.

As the elephant slowly forges through the grass the drops of water fall in miniature sprays, like handfuls of shining jewels, from the grass-heads and the filmy mist winds itself up into the fleeciest of shawls which vanish under the sun's rays even as one watches them. There is a sudden rush and three dark backs go by and disappear at once, sambhar by their height, but it is impossible to say for certain. A partridge goes whirring by to the left and a jungle cock on the right. They go free. We are looking for bigger game than this and our fingers are closed round a rifle, not a gun.

Further on we come to a small opening covered with a short tussocky grass and half-way across this a hogdeer jumps up and dashes for cover. I did not fire, I only had the briefest glimpse of him ; but in any event the horns were still in velvet. The rush of the hogdeer disturbed two doe sambhar which were wading belly-deep in the rank vegetation, their rough coats plastered high up the sides with thick mud. They got out of the marshy ground and into the high grass with wonderful celerity considering their heavy build. On re-entering the grass the elephant showed signs of uneasiness. Is it a tiger afoot ? The thought flashes through the brain and high hopes rise only to be almost immediately dispelled. A series of short rushes in the jungle ahead and a babel of grunts and squeaks proclaims a sounder of pig. The elephant went distinctly short in his stride, giving one something of the feeling produced by a horse who has no stomach for the jump in front of him and who is making up his mind to refuse. The stilted stride of the elephant is most

unpleasant in a howdah and makes it difficult to shoot from. Not that there was any chance of a shot on the present occasion. The sounder must have been a big one for we appeared to have pigs all round us, and from the deep notes of the irascible grunts of some of the animals there were several old boars in the party. The havildah in the back seat of the howdah was in a state of tense excitement. He wanted meat and was straining his eyes into the depths in the hopes of seeing something which he could point out as a fair mark. I doubt whether even his sharp eyes saw anything in the thick tangle below. The attitude of both mahout and elephant was one of intense disgust at being so near the unclean beast. After this interlude we shortly again got into the forest and proceeded through it for a couple of miles without incident save that we passed a small herd of chital. There were three stags in the herd, one with a fair head, but of course all the horns were in velvet.



The deer were standing in a little glade almost free of undergrowth and as the elephant forged slowly ahead they watched him curiously, apparently taking the howdah as part of the animal itself. We advanced slowly almost on to them, our path keeping slightly to the right. When almost abreast the does started edging away, but quite slowly. Beautiful animals, with their light fawn colouring with the lines of white spots running down the ground colour. Very small they looked from my elevation, but eminently graceful.

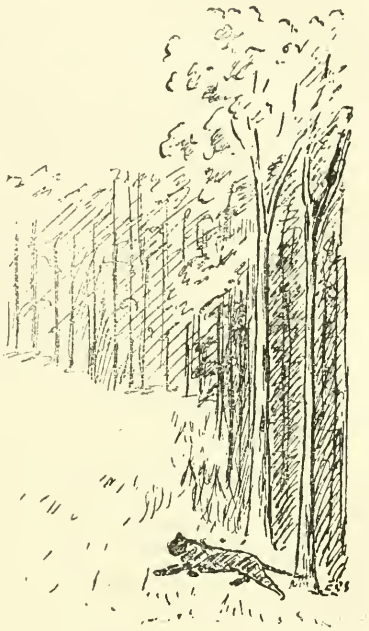
We soon afterwards left the forest and advanced over a broad stony nullah bed interrupted by two or three islands covered with shisham and khair trees and patches of tall grass. On one of these islands I recognized the tree in which I had sat up for a tiger on several occasions in the hot weather two years back, my second in the Dun, on which occasion I made a tour round the whole of it, both western and eastern, and had a most enjoyable seven weeks which

were followed by a glorious two months' tour in the Himalaya.

The episode in question took place in May. As I have previously mentioned in these notes I was given to sitting up for game in a machan or otherwise owing to the facilities this method afforded of watching the jungle inhabitants going about their several ways under undisturbed conditions. I had already got rather bored with the monotony at night, but as long as daylight lasted I enjoyed it. On the trip in question through the lovely Dun (Siwalik) forests I did a good lot of sitting up and at the instigation of my shikari I tried a method for tiger which I had not practised before. These Dun shikaris knew a great deal about the habits of the local tigers, then more plentiful than now. They knew their haunts and the paths by which they went on their nightly search for game. They could thus place a rifle in a likely spot from which he might be able to watch the tiger on his evening prowl, which to me was worth any amount of sitting up over " kills." I tried this method several times and twice saw tiger and once a leopard. Only once, however, did I get a shot, on the occasion I will now recount. It was on the island I referred to above. I spent a week in the neighbourhood on some investigation work I was engaged upon at the time. There was a forked tree situated at the northernmost point of the island standing on the edge of the stony nullah bed. The fork was situated about twenty-five feet up and was of such a nature that with the addition of a pillow (covered in a khaki pillow-case) from my camp bed it made a most comfortable seat with convenient rests for my feet. It was better than any machan and had the additional value that it left the place entirely undisturbed. Building a machan even of the flimsiest means men about chopping branches and making a noise, the proceedings being quite sufficient to scare away a tiger in the vicinity. There was a glorious moon that week and twice I had adjourned to the tree at four o'clock in the afternoon and stayed there till about ten o'clock without result. That the tree was close to a tiger walk was shown by the footmarks passing and repassing on a small path which ran across the nullah just missing the spit of the island. On my last night but one I determined to try again and climbed up into my tree at about 4.30 p.m. It was far too hot to make it necessary to go any earlier as no tiger would be on the move till

much before dusk. The shikari esconced himself higher up the tree and we waited in silence. Very soon afterwards a pattering over the stones announced an arrival and two chital stags came along the run and passed close by us—one carrying a fine head. One always sees the best heads when trying for lordlier game! They disappeared in the direction of the water and were shortly followed by some sambhar, all does. These went by in Indian file, meandering slowly along with heads held low, nosing here and there for a tuft of grass and wandering off the track for a few yards in an erratic fashion. Half an hour passed. A faint pattering some way out and three pea-fowl were crossing the nullah for their evening drink, every now and then halting and craning their necks about on the look-out for danger. A most wary bird is this fowl. Then silence for a time. The eastern sky was now reflecting the gorgeous colouring of the west, where the sun was setting, and I realized that the daylight would be shortly struggling with the light from the rapidly rising moon. Suddenly I caught a faint sound, half gurgle, half hum. It ceased. Then I heard it again a little more definite, but still some way off. I had heard it before and thought I recognized it. I caught the faintest whisper behind me. "Tiger, sahib. It's the tiger." I nodded and waited in suspense. Which way would he come? There was, of course, no certainty of his passing my tree. He did so often as the pugs showed, but he had other runs to go by as was evidenced by our not having seen him on the previous occasions. Again the noise, now nearer and sounding like a fretful half whine, half growl. He was evidently approaching in our direction. I looked round. Objects were still quite distinct, but the night was falling and there is little twilight to depend on in these regions. And the struggle between day and moonlight always produces, at least to my eyes, a more or less indistinct compound of the two, if I may so express it. Quite suddenly the noise sounded loud and distinct. The tiger was on the edge of the forest standing probably just within the fringe of grass on the edge of the nullah and surveying the broad expanse of stones and tufts of grass in front of him. Tigers, like other jungle denizens, are ever suspicious of the open and scan such places narrowly before they venture out into them. Another low growl and then dead silence. I fixed my eyes on the little run. Would he come or would instinct

warn him of danger. The suspense was painful. I was just giving up hope when a greyish shape appeared below me without a sound. It was the tiger. He loomed enormous though indistinct in the struggling light, stepping as lightly as a tomcat walking over a lawn, his tail swinging from side to side. The night was absolutely still, not a breath of air was moving and he evidently had no idea of our dangerous neighbourhood, for he was looking straight ahead. In spite of the light I felt quite confident of the shot, too confident perhaps as it appeared such an easy one. I had brought up the rifle very near the position of firing before the animal appeared to avoid attracting his attention by a movement, the frequent cause of so many missed opportunities: for the eye of the jungle inhabitant is extraordinarily quick at catching any untoward movement to which he is not accustomed. I had only to raise the rifle a few inches to sight on the animal and as soon as I was on I pulled the trigger. The report was followed by a loud roar and the tiger, who was dead in front of me, reared up on end and nearly fell over backwards. He righted himself, however, and came down on all fours, falling over on his side as he did so. I refrained from firing again thinking he was finished. To my astonishment, however, the beast was up again in a trice, whisked round, and bounded away. I hurriedly aimed on his grey shape and fired again, the report being followed by a loud growl. A swish of grass and a crash of bushes followed as the tiger entered the forest again on the side from which he had emerged and then silence. "The sahib should have fired his second barrel sooner while the tiger was on the ground," came from



behind. I was mad with rage and vexation at the contretemps and this was the last straw. I had heard a delighted "Laga, laga hai" (Hit, he is hit) from the shikari whilst the tiger was on the ground, and I felt sure that the shikari had thought the brute was done for as I had. And one does not want to spoil one's skins with unnecessary bullet-holes. I quickly silenced the shikari, therefore, and proceeded to possess my soul in patience. There was nothing to be done then, anyway. The orders left in camp were that if shots were heard a party of men, after waiting half an hour, should then make straight for the nullah bed which was fairly close to the camp and come straight down it to my position. They were to bring as many lanterns as they could lay hands on. About an hour later the procession hove in view, talking loudly and frightening every living jungle inhabitant within a mile or two. I returned to camp and wrote an urgent and pressing appeal to a neighbouring Raja with whom I had a passing acquaintance and who was a thorough gentleman and first-rate sportsman, asking him to bring out or send out to me one of his elephants to beat up the wounded tiger, if it was not already dead. I had dinner and turned in, passing a hot and restless night. At first dawn I heard a mahout's voice cursing his elephant's clumsiness and I knew that the Raja had turned out trumps. Nor had I had any doubts as to what he would do. I sprang out of bed and was donning my jungle-kit in haste when a servant appeared at the door of the tent with a cup of tea and the announcement that the Raja Sahib had himself arrived. I was out in a twinkling, profuse in my thanks to such a first-rate sportsman. We hurriedly partook of tea and were off for the scene of last night's episode. Below the tree was found a pool of still wet but half-congealed blood. A couple of patches were found between the tree and the forest in which the tiger had entered. Then our difficulties commenced. We first made a wide circle with the object of picking up any bloodstains should the tiger have travelled far. None were found, however, and the Raja, who was well acquainted with the area, nearly as well acquainted as the shikari, and the latter then held a consultation. It was finally agreed to commence at the spot at which the tiger had entered and work on the line they had mutually agreed as being the probable direction of flight. Slowly the elephant forged ahead through the dense matted jungle and for a time

nothing occurred. Then the elephant coiled up her trunk after first tapping the ground with it. At almost the same instant a roar resounded through the forest and a yellow mass sprang up out of a patch of grass and sank back into it again. It was the tiger. I had asked the Raja to take the first shot should we come upon the animal still alive as I wanted to repay him to some small extent for his kindness. The elephant was put into the grass patch and a second time the game tiger rose up with a roar. But it was his last effort, and he fell back with a bullet through the brain from the Raja's rifle. He was a game beast, for he had a fearful wound from my first shot which missed the heart by a little only. The second shot had hit him in the pad of the off hind foot.

Such was the episode which my brain conjured up as we passed close to the tree on this September morning. "Any khubbar of tiger about here, mahout?" I asked. "They were saying in the camp last night that a monster tiger had his beat in these parts, last hot weather, sahib. But who knows! Several of the sahibs from the Station were out but they never saw him. It was probably village lies!" Thus the mahout, whose opinion of the jungle villagers is ever small.

Shortly after we reached the rendezvous. I spent the rest of the day on, or I should say in, the river, as also the following two days, and my friend and self had quite fair sport with the mahseer. The Dun rivers, as are others in the north of India, are under the protection of a Fishing Club whose headquarters is at Dehra Dun. I was a member of the Committee of this Club for several years and most interesting were the questions which came up for decision and settlement. Owing to the heavy water which comes down these rivers in the monsoons and in the larger ones, the Ganges and Jumna, in the spring with the melting of the snows in the Himalaya, a river may change its channel, for distances which vary from a few hundred yards to a mile or two. The new channel is sometimes a matter of yards only or as much as a mile or two away from the old. Good reaches and pools may thus be entirely ruined and with them the work and money expended on building small bunds and revetment walls out into the stream to improve a good reach or pool. Considerable judgment, with these vagaries of the river to be borne in mind and the comparative smallness of the

funds at the disposal of the Club, has to be exercised in choosing the sites of the small fishing huts, of which a few were in existence. Although we were usually under canvas when on a fishing trip, the huts were a great convenience for members who wished to run out for a night or two without going to the trouble of taking out camp paraphernalia; as also for non-district members who came from a distance to spend a ten days' leave on these lovely rivers amidst scenery that could scarcely be surpassed. Glorious days these were passed thus on the river. On the occasion in question the hot September sun burnt all the skin off my arms, knees—we wore khaki shorts—neck and face, raising great and exceedingly painful yellow blisters. My year and a half's absence had made me soft, but the subsequent fortnight's painful morning and evening anointing with glycerine by my bearer was fully worth the ideal time we had of it.

We did not see much game, however, in the jungles. Nothing to what would have been a certainty at the end of the rains in the old days.

On our way back to camp on the last day I made some remark to the mahout about the curious absence of the large quantities of animals which at this season of the year could certainly have been found here a few years ago. "Oh, sahib, the Gurkhas were here last month," was the reply. "How many?" "From fifteen to a score," the mahout answered. That explained matters which subsequent investigations in following years were able to confirm.

This Gurkha question was not a new one, nor indeed was the case of the troops generally throughout the country, where shooting and the fauna was in question. But the Gurkha is the most typical case as instancing the harm which can be done, unintentionally done one would hope, by the grant of rights and pre-emptions which can only result in the extinction of the thing granted. Shooting rights in the jungles in the neighbourhood of their cantonments were originally granted to the Gurkha regiments when they were first settled in their present cantonments. This was an inducement to recruiting since the Gurkha is a great hunter. At the time the rights were granted the jungles swarmed with game and no one bothered their heads about the possibility, nay, probability, of this game decreasing to such an extent that it would come perilously near extermination in these parts. And yet this is exactly what has hap-

M. F. Stellingwerf del.

THE AUTHOR FISHING AT LACHIWALA IN THE DUN

pened in the neighbourhood of all the large cantonments in India. It is what has happened largely also in the neighbourhood of the Gurkha cantonments occupied by regiments who do not move their headquarters. These Gurkha regiments or battalions are situated on the outer spurs of the Himalayan range from the banks of the Sarda on the frontier of Nepal to the banks of the Indus. They number some fifteen thousand men,[1] all keen shikaris. Their chief opportunities of private shikar, i.e. as opposed to the occasions when they are out with their officers when their part is not the killing part, is during the monsoon months. During these months the sahib does not go out into the jungles which are very malarious. Not so the Gurkhas. This is their opportunity. From June to September it is comparatively easy to obtain leave, and a party of ten to twenty men proceeded to a jungle and systematically beat it, slaying everything that got up in front and that could be hit. This sort of thing took place year after year, in addition to the numbers of animals killed from machans on the outskirts of the forest by a sportsman who was out on his own and could not tackle the game in any other way. There can be little doubt that the Gurkhas decimated the animals in the neighbourhood of their cantonments, and this neighbourhood may be taken to be a radius of some thirty miles or more. It was most difficult to see how it could be stopped. The men had the permission from Government. It was one of the guarantees upon which they were enlisted in Nepal. Some of the finest shooting-grounds on the five hundred miles of country between the Sarda and Indus have been entirely ruined by this so-called shikar, and the sufferers are not only the Gurkha rank and file themselves, but their officers and the civil officers of the stations situated along this extensive line.

In many cases nothing but closure and the creation of considerable game sanctuaries will enable portions of these fine forests to become rehabitated to some extent. They are unlikely ever to form the shooting-grounds they once were. Nor will the old free shooting of the forest be seen

[1] This was written before the Great War.—E. P. S.

again, in our time at least. Close seasons all sportsmen would wish to see. Indiscriminate slaughter of animals, large and small heads and does, is simple blood-thirstiness and cruelty. But it *is* a restriction in India to those who have enjoyed the shoot-as-you-please fashion to be limited to a total of so many head, to find species barred to all shooting, and so on.

This state of affairs is attributable to the unchecked, indiscriminate slaughter of the past; to the extremely inefficient game laws and rules in force in the different Provinces; to the carelessness with which gun licences were issued and the deplorable absence of supervision which was maintained over those who received them; and last, but not least, to the unchecked snaring and trapping of animals by methods which often exhibit a maximum of devilish cruelty. These matters are dealt with in Part II. Brilliant exceptions there were especially amongst the magistrates and forest officers who were themselves real sportsmen; but, in most cases, of real supervision there was none, and the fauna of the country has suffered terribly accordingly.

CHAPTER XVI

AN ADVENTURE WITH A LEOPARD

An afternoon tryst in the Siwaliks—Proceed to the savannah—A herd of chital leaving the forest—Deer plentiful in the United Provinces in old days—Not so plentiful now—Sit and watch the deer—Sambhar appear—Youngsters engage in sparring match—A big stag appears—Night coming on—A dilemma—A new actor appears on the scene—Leopard stalks a hind—Kills her—The havildah misses a stag—I fire at leopard and wound it—Leopard bolts into forest—An anxious journey back to camp—Search for the leopard next morning.

I CANNOT count the occasions when I have had the opportunity of watching a leopard on "his own" in the jungle on both hands. In fact they are limited to three, and one of them I have already described elsewhere. One of the others was certainly not the least interesting of the encounters however, and I propose to narrate it here.

I was out in the jungles in the south of the Siwaliks early in April, and the weather, though commencing to get a trifle hot perhaps in the daytime, was still ideal for my purposes.

Before leaving the camp one morning early on some work, I gave the havildah orders to meet me at four o'clock in the afternoon near a big banyan tree at the edge of the forest, about a mile away.

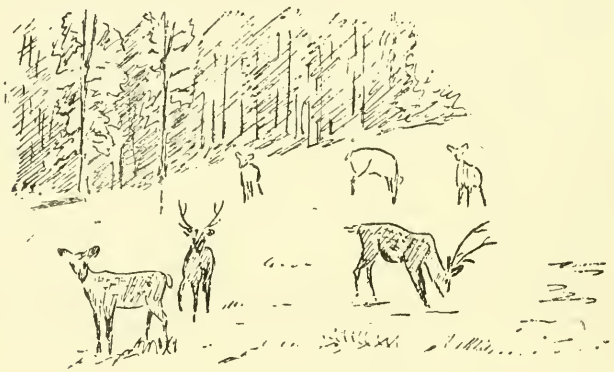
"The cook wants some meat and we'll see if we can stalk something before sundown, so bring the rifle and shot-gun."

"Very good, huzur."

I was up to time and found the havildah duly awaiting me, squatted under the banyan tree. I took the rifle and we set off down a narrow path through the forest, which led to an open savannah-like grassy tract of considerable extent and completely encircled by green forest, tongues

of the sál forest jutting out here and there into the beautiful green plain. These open, grassy areas are common in the jungles in this district and are burnt annually by the Forest Department Officials to prevent danger of accidental fires originating in the high grass, with which they become densely covered in the rains, and spreading into the adjacent valuable forest tracts. It is almost needless to state that they formed ideal areas in which to search for game.

We moved along noiselessly as I was wearing rope-soled boots which, with practice, permit of a quiet progression. A Gurkha out hunting is always noiseless. On our way to the grassy area we kept our eyes and ears wide open for sight or sound of animals, but saw and heard nothing. We were walking in Indian file. As we approached the savannah the



trees opened out in front, but the tall grass was still too thick to see through until we reached the extreme edge. I then sank down silently, the havildah following suit and dropping in his tracks. He crawled forward and we looked out on to the plain-like expanse in front of us.

About fifty yards distant a small herd of chital were grazing. These animals had evidently issued from a small piece of forest which jutted out some distance into the plain on our right hand. Others were closer to the forest, whilst the rustle of leaves and the cracking of a twig now and then showed that some individuals of the herd were still inside.

At the time I write of these animals, together with sambhar, hogdeer, and swamp deer or barasingha, were

exceedingly plentiful in the plains and forests of the United Provinces. Numbers still exist, but to nothing like the same extent as formerly. Nor are the big heads to be obtained now in the numbers which were comparatively plentiful in the gorgeous days of old.

Two decades ago, from the tent door or verandah of the forest bungalows in the early morning great herds could be seen feeding on the plain in areas where they were not often disturbed. One encountered them filing or jumping across the forest rides as one rode along on the pony or elephant on the march or inspection duty. In the early morning or evening one could watch them feeding out on the savannah-like expanses of grass where cut or burnt ; or entering or issuing from the neighbouring forests like troops of miniature cavalry. One could pick out and shoot a decent head with ease ; men shot several head of a morning or evening, good and indifferent (more's the pity). There were no rules and regulations in those days ; rules and regulations which are now so necessary if the game of the country is to be protected. A fat young buck or hind was shot without contravening any rule. In fact, for the Forest Officer it was a necessity, since he was often away in the jungle weeks on end by himself and dependent to a great extent on his rifle for his meat supply. And a record head is not usually accompanied by a delicate and tender flesh !

But those days are gone for ever and, as we shall see later, many causes up here have tended to produce the present state of affairs.

The sun was sinking as we sat and watched the deer at present visible. Already the sky was changing colour and a small cloud near the west took on a crimson tinge. Away in the forest the pea-fowl were calling from the trees, having already commenced to seek their roosting perches for the night in the darker shadow of the forest.

I was not out for a record this evening—not unless something exceptional in the way of a head appeared.

Sufficient meat for the camp was all that I intended to obtain, and that would be an easy matter—so I thought! In the meantime I was exceedingly interested in the movements of the animals in front of me.

As we sat there the first deer seen gradually fed further out into the plain. They were mostly does with one or two small stags amongst them. Others meanwhile issued from the tongue of forest, and it was in this direction that we maintained our watch. Only once did we remove our eyes, and then turned sharply to the left as a heavy animal broke out from the forest in that direction, followed by several others.

They were doe sambhar with two young ones at heel, and after satisfying ourselves that a stag was not with them, which was unlikely at that season of the year, we again turned our gaze to the right.

Two of the youngsters were now engaged in a sparring match, banging their foreheads together with a smack and pushing against each other for all they were worth, occasionally rearing up on their hind legs and sparring. I was watching them amusedly, for they were so thoroughly in earnest, when I heard a slight hiss from the havildah, and glanced quickly at him and then to the right. A bigger stag than any we had yet seen had left the forest quite quietly and was cropping the grass in short, quick mouthfuls. Two good-looking young does were just in front of him. As I looked a heavy rustle and clatter on the edge of the forest took place and out stalked a lordly stag. Even a cursory glance showed him to be of enormous size, and at a low muttered exclamation from the havildah I glanced at him. One look was enough. He was as excited as I was, old hands as we were at the game.

"Koup burra singh walla, sahib" (An enormous head, sahib"), whispered the havildah.

I nodded. "It is thirty-seven inches and perhaps more," I thought. "What is to be done?"

And truly the stag was well worth the excitement he created. The white spots glistened like satin on his beautiful fawn-coloured coat, whilst the horns swept magnificently upwards from the head, the brow antler long and sharp, the lower part of the main shaft roughened, and the two upper tines sharp and white.

The position was, indeed, an anxious one. The sun was

setting behind the tree-tops of the forest to the west. There was not too much daylight left. The smaller stag, if he continued to feed in his present direction, would come within range, but it would be dark before the big one got there, and if the latter remained where he was he would be a difficult shot once the light began to go.

Since we wanted meat, I told the havildah to place a ball cartridge in the smooth-bore and to be ready to fire at the nearest stag when I gave the word. At the same moment I would let drive at the big stag. It was not an ideal solution, but nothing better seemed to offer itself, unless the big stag moved much nearer to us, in order to enable me to make a certainty of meat and of horns to boot.

We then concentrated our attention on the two stags, and neither party saw the third actor in this vivid drama of the forest.

And yet there was one, and this no less than a fine male leopard, which was just leaving the forest some forty yards to our right. Quite unaware of the near proximity of his mortal foe—man—the leopard was intent on securing his evening meal, and for this purpose had selected a young doe which had straggled away from the main herd and was feeding towards, and some sixty yards from, the leopard's position.

On leaving the forest the leopard lay flat on his stomach and crawled stealthily along in the direction of the doe, who had suddenly altered her position and was now facing towards her companions. Whether instinct had warned her it is hard to say, but she stood at gaze for some seconds, the leopard meanwhile crouching motionless, flat in the short tussocky grass and absolutely indistinguishable from his surroundings, and then down went her head and she recommenced feeding.

The leopard still waited, and then once again began that slow crawl. It was difficult, indeed, to perceive that he moved at all, save that tussocks of grass that had been in front of him were left behind. Gradually the distance shortened, till but twenty-five yards separated him from the young, unsuspecting doe. Slowly he gathered himself together, and then with a few strong, supple, noiseless bounds he sprang on to the startled animal and struck her to the ground.

The tragedy was a matter of seconds, and yet its effect

on that quiet, peaceful, grassy arena was instantaneous. As the leopard lay tearing at the throat of his victim, startled squeaks sprung from the throats of the spotted deer, hoarser sounds from the sambhar, and two startled bellows from the two spotted stags.

A shot snapped out and the smaller stag bounded forward, as a bullet whizzed close over his head, and made for the forest. The big stag was already entering it unimpeded.

I had turned my attention to the more dangerous animal and the big head went scathless.

At the sound of the smooth-bore the leopard sprang to his feet snarling, and stood broadside on with his head turned towards us. A rifle shot rang out and the beast sprang into the air with a roar and made for the forest line. A second shot, but the animal held on and the light was bad. Crash ! the leopard had reached and bounded into the long grass with a last snarl.

I heard a groan as the leopard disappeared. It was from the havildah, but whether at his own miss or not I did not ask.

The sounds of the leopard, undoubtedly badly wounded, died away ; the deer in a maddened stampede were already far away, and the grassy plain now darkening rapidly lay tenantless, save for the dead body of the young doe. Overhead the brightening stars winked down on this tragedy of the forest.

We got silently to our feet, listened intently for a few minutes, and I then whispered to the orderly to reload the empty barrel of the smooth-bore. I reloaded my rifle, and this done, motioned my companion to the front and signed to him to move cautiously.

We had an anxious journey back to the camp. A wounded leopard about in a dark jungle is no joke, and I think we both had one of the worst half-hours we had had in our lives.

To this day I have not been able to make up my mind whether I was right in firing at the leopard. I feared that the animal, hearing the havildah's gun and maddened at being interrupted in his meal, might be about to charge, and in the bad light thought I had better take the standing shot. There was, also, that temptation which always assails the sportsman never to let off one of the larger cats when he offers a decent chance. I fancy that I should act in exactly the same way given another chance.

We did not speak much till we got back to camp. On arrival there, " What do you think, havildah, shall we get him ? "

" He was badly hit, sahib."

" So I think," I replied. " Have the elephant ready at dawn."

We found the beast next morning stone dead at the foot of a tree two hundred yards from the place where he had sprung into the forest.

CHAPTER XVII

JUNGLE LORE

The lore of the jungle a fascinating study—Jungle warnings—The crows —The advance picket—Crows' food—The tiger and leopard's kill—Crows, vultures, hyena and jackal—Wild cats—The owner advancing to his kill—Demeanour of birds and monkeys—Unenviable notoriety —Attitude of deer—Uses of the machan—"Picking out" animals in the jungle—Jungle kit—Knowledge of country necessary—Tiger and leopard—Methods of hunting them—Manner of securing their prey—Tracking—Physical fitness necessary—Jungle voices—Attitude of animals towards each other—Homeric fights.

THE lore of the Jungle! What a fascinating subject it is! There are so many aspects of jungle life to study, and the more deeply one's researches go the wider the field which opens out before one, until at length the at first faintly conceived surmise gradually grows into a conviction that the enquirer into jungle lore will remain at school all his days. Herein lies the fascination. There is always a new page to turn and invariably something of high interest to be obtained by perusing it.

Take for instance one of the first aspects of jungle life to which the attention of the sportsman is attracted: the warning which the jungle folk pass on when danger is approaching. This warning, though intended for the friends of the utterer, is understood by the whole community even though amongst themselves they may be respectively the oppressor and oppressed.

Most of us know, all boys know, the frightened screech emitted and passed on by the blackbirds, crows, and so on, when danger in the form of a youngster armed with a catapult is discerned lurking in a clump of bushes. The denizens of the Indian jungle behave in exactly the same way. The approach of tiger or leopard or man himself, is heralded by certain birds and mammals in a manner quite

unmistakable once the eyes and ears are opened to the meaning. It is simple jungle lore, but none the less its acquisition is imperative on the part of the shikari if he wishes to enjoy sport, apart from the mere killing, or target practice.

I have mentioned the crow. He is probably one of the most useful of the jungle birds to the sportsman. Once the crow's actions and the crow's warning notes are understood, the presence of a kill in the neighbourhood, or the advance of a tiger or leopard to a kill, can be read with certainty. The crow is the advance picket in the jungle and worthily he fulfils the duties of the post. Crows feed on meat (when they can get it), and a dead animal holds out to them the promise of a fine meal. When the animal is a villager's dead cow or jungle animal which has died through some cause other than sudden death beneath the claws of the larger carnivora, the crow considers he has as much right to his share as anyone else and disputes with magpies, vultures and others to get it. But matters are very different when the dead animal is a kill made by tiger or leopard. The crows then know perfectly well to whom the kill belongs, and that the owner is somewhere in the vicinity. They either sit dejectedly in the trees near by, or vociferate noisily to one another ; one or two bolder than the rest will fly down, have a hurried peck or two at the carcase, and then in fear fly squawking back to their perches. If one is sitting in a machan in the neighbourhood, the crows are perfectly aware of one's position, and will do their best, by raising the alarm note, to lure the owner of the feast back to the carcase, in the mistaken belief that a marauder is feeding on it. For both tiger and leopard know that there are lesser beasts and also birds of the jungle who will take their fill from the carcase if they can summon up pluck enough. They both lie up in the neighbourhood of their kills to protect them ; the leopard, with his greater cunning, hiding the carcase if possible.

The vultures collect with the crows and sit about in trees. One can make certain of the fact that there is a dead animal in the forest or neighbourhood, and judge with accuracy its position by observing the vultures. If they are seen quitting their stations up in the sky, where they wheel in great circles ever on the look-out, shooting towards a point and gradually

planing down to earth, the rendezvous is probably a dead animal. All round the horizon, vulture on vulture will be noted, drawing in and planing down to the spot. But the vultures will not venture down to the kill. They are heavy birds and can only resume flight after landing by taking a short run accompanied by a vigorous flapping of great wings before they can launch themselves into the air and soar upwards. Consequently, unlike the agile crow, the vulture would, if he had the temerity to come down, risk a buffet and death at the hands of the carnivorous owner, should he suddenly appear. The vultures sit round in the trees and wait. Amongst the mammals the jackal and hyena are ever on the look-out for a vicarious meal. An individual of either of these species may slink out of the neighbouring thicket, approach the kill in a furtive manner, and have a hurried pull or two at it—then start away a few paces, with ears laid back and lips drawn up in a snarling grin—the very embodiment of cowardly fear. A shrill warning from the crows overhead that the owner is approaching, true or untrue (how the crows must enjoy sounding a false alarm to these skulking brutes !) and the craven intruder fades away into the forest.

More rarely a wild cat may turn up. He is bolder and will make something of a meal of it, if given an ordinary chance, and will continue his stolen feast longer, even after he realizes that the owner is approaching ; but this may be due to the fact that the cat is of the same family as the tiger and leopard and therefore can more accurately gauge the exact moment at which it will be imperative to leave his cousin's neighbourhood.

Whilst sitting in the machan and watching this daily life of the forest, a most amusing comedy when one is able to follow the words, one has often been led astray by the crows—had the leg pulled, in vulgar parlance—and sat ready for the appearance of the owner before he has been anywhere near. For when he is on the move and advancing towards his kill from the spot where he has been lying up during the day, there is usually no mistake about the matter. He advances with an overhead escort which shouts out his title and the fact that, temporarily at least, he owns this bit of jungle. Birds of all degree shriek excitedly as he passes, or flutter overhead, keeping pace with his line of march. The crows are loudest in their homage, for they hope to have the

remains of the feast. If monkeys are in the neighbourhood they swing along from branch to branch, jabbering and cursing down at him. In inclement weather the animal has a better chance of approaching his kill unperceived as most of the jungle folk are then hidden away under shelter. This was the case in the incidents of my first tiger already related. Neither tiger nor leopard ask for, or like the notoriety forced upon them. They do not perhaps mind it so much when they are advancing to the kill, though even then one will see them look up occasionally and show their teeth in a vicious snarl ; but they dislike it immensely when they are on an evening prowl, looking out for their next meal. For, from the moment they are descried, and they take the greatest pains to remain undiscerned, every animal in the jungle is put at once on its guard by the performance of the birds and monkeys. The deer know perfectly well what it portends and remain on the alert till their enemy has left the neighbourhood. In fact it is quite common for a tiger or leopard, once he has been discovered in a jungle, to be fairly mobbed out of it ; for he knows that once all the jungle animals have been informed of his presence he has a poor chance of getting even a plump young doe to make his meal off.

Pea-fowl, after they have retired up on to the trees to roost, also give warning of a tiger on the prowl by suddenly giving voice to their " Hānk ! Pa-ōō ! Pa-ōō ! ", in the late evening or at night.

From what has been written above it will become apparent that the best and surest way for a newcomer into the Indian jungle to set about picking up jungle lore, is to sit silently and motionless in a machan placed in a convenient tree, with a sufficiency of branches to hide him without interrupting the vision. Both silence and rigidity are imperative ; the least sound will be heard by, and the least motion perceived by, the hundreds of ears and eyes of the jungle folk, ever on the alert and prying for danger. The motionless position becomes extremely irksome, even for an hour, and one has often to spend several hours in the machan. If awaiting the appearance of a leopard the rifle must be held in such a position that it can be brought to the shoulder with the smallest possible amount of movement, for it is necessary to aim and fire a fraction of a second after making the movement. The leopard, who is very prompt in decision,

will catch the movement at once and be off in a flash. This is not so necessary with the tiger who is not so prompt in decision and will wait to have a second look. He does not make up his mind with the lightning speed, nor has he anything like the cunning, of the leopard. As a general rule reduce the motion necessary to get the rifle to the shoulder to the minimum possible. Having picked up in the machan much of the jungle lore I have been able to assimilate, I have no hesitation in recommending it as the best educator available for the object in view.

A very brief introduction to the jungles and their denizens impresses upon the newcomer one factor—the great difficulty experienced in " picking up " the animals in their natural surroundings. Even when on the move it is by no means easy at first to pick them out from the background against which they are moving, and when they are halted the difficulty becomes immeasurably greater. This applies generally to all the jungle animals, from the elephant to a partridge or quail. Even a large animal like the tiger can move along in his surroundings in an almost invisible manner. His outline becomes merged in the general colour of the grass or scrub jungle but there is nothing definite to pick up, and when he is motionless he is almost invisible, if not quite, to the untrained eye. In the same fashion a leopard may be stared at, at comparatively close quarters, without the untrained eye being able to pick out its outline from the surroundings. It is usually the eyes of the animal which are first perceived if it is facing the observer. Other animals, sambhar, chital, and so forth, are easily quickly lost, after being picked up, owing to the extraordinary protective colouring which so blends with the colour of the jungle as to enable them to fade away whilst being watched within a comparatively short distance. The " jungle eye " is not born with the man of the higher civilization. Much patience and perseverance is required to acquire it up to a certain point. You will never emulate the jungle-man ; and even the latter may be beaten by the leopard who is a past-master in the art of hiding behind a tiny grass tussock and in sneaking out, *ventre à terre*, between closely advancing beaters, remaining *perdu* whilst they walk over him, or in slipping out between the rifles, the easiest task of all.

Whilst therefore, in a new environment and with an untrained eye, the newcomer finds some difficulty in picking

Sir F. P. Hewett, photo

DEAD TIGER IN THE HIGH GRASS JUNGLE WHERE IT FELL ON BEING SHOT. THE COLOURING AND MARKINGS OF THE ANIMAL RENDER IT ALMOST INDISTINGUISHABLE AT A SHORT DISTANCE AWAY

out any of the animals in his neighbourhood from their surroundings, the reverse is the case with the jungle folk. They will hear, smell, and see him, seconds, even minutes, before he has any chance of getting on terms with them. In order to reduce to the smallest dimensions the risk of being seen, the sportsman must take a leaf out of the jungle's book, and disguise himself in the protective colouring of the jungle. For the drier parts of the country, khaki is always worn, with no *white* collar or shirt or wristbands which will be visible many yards off. Also a khaki-coloured topi. In the moister, evergreen forests, such as Assam, Chittagong, Madras and Lower Burma, green shikari cloth is worn with the same coloured topi. Do not wear an uncovered wrist watch. It is apt to send helio signals to the animal you are trying to stalk.

Since the Anglo-Indian shikari in the jungles of the plains of India spends a good deal of the time he devotes to sport in endeavours to meet tiger and leopard face to face, a few words on the modes of life of these two animals, and how to circumvent them, may now be in place.

As a first necessity to successful sport a thorough knowledge of the country in which it is to be obtained is a *sine qua non*. One must endeavour to know one's locality intimately. If, from a variety of reasons, the necessary time for this purpose is not at one's disposal, one must find some trustworthy person who does, and has at the same time the requisite knowledge of the habits of the animals one is out after.

Tiger. There are several ways of endeavouring to arrange a meeting with tiger : With a line of beating elephants, as described in a subsequent chapter : or beating with coolies, as done in the Central Provinces, which is similar but more dangerous. Other methods are by tying up for him and tracking on foot. A tiger's beat is of necessity an extensive one. He has, as we have seen, to endeavour to ensure privacy, in other words to keep himself hidden from the jungle folk on whom he preys, and from birds and monkeys, and so forth. Once his presence is known in a jungle his chances of obtaining food are small and he will have to repair to another jungle in which his presence is unsuspected. An animal a week may be taken as his ordinary meat ration, and he endeavours to kill it conveniently near dense jungle, into which he can drag it, and near water. A knowledge of these habits

necessary to the sportsman if he is tying up "kills," i.e. buffaloes over which, when killed, he proposes to have a machan erected and to sit up to catch the animal when it returns to feed. The tiger starts out on his quest for food in the late afternoon. In the darker days of the monsoon period, when the sky is heavily overcast, he will start earlier in the afternoon, but at other periods he does not commence his round till within an hour or two of sunset, and knocks off an hour or two after sunrise, when he lies up for the day in some quiet retreat where shade and water are obtainable. He spends the day mostly in sleep. If he has been successful his kill is somewhere near him, where he can protect it from the flesh-eating predatory smaller fry of the jungle. For, as we have seen, they will know all about his presence and the kill.

In the early morning the sportsman will visit his tied-up buffalo, or buffaloes if he has several out. The animal is tethered by a rope to a foreleg and provided with fodder. The spot must be carefully chosen, a shady tree being selected and the surroundings left entirely untouched. All of the jungle animals are extremely suspicious and anything out of the way will at once make them shun the spot. Tiger and leopard are more than ordinarily suspicious, and tie-ups are left untouched for no rhyme or reason so far as the sportsman can understand. In fact in the case of an old tiger, who is not ordinarily a cattle feeder, it will often only be due to its non-success in securing a wild animal that will at length drive it by the insistent pangs of hunger to slay the tie-up. As soon as it is seen that the kill has been taken and dragged away, men are summoned, the wide trail is followed up and a machan erected some fifteen feet up in the most convenient tree. In placing the machan it is essential that the line of fire covers the kill. This is not so easy as it may appear at first sight. Branches and leaves will interfere, and yet it may be imperative that they should be left in order to hide one. And the impossibility of seeing behind, for one cannot move, always remains an aggravating factor. If sitting up in a tree without a machan, great difficulty is usually experienced in aiming at an animal passing to the right. It may be possible to obviate this difficulty by choosing a position which will enable you to do this. The best solution is, of course, to learn to shoot from the left shoulder. I have not met many who possessed this

useful accomplishment ; and fewer still who would risk losing a tiger by trying the left-shoulder shot. The higher up the tree you sit the more difficult will be the shot ; ten feet gives an easy shot, but the tiger, who can rear up to this height, will be able to reach you there if he gets to close quarters through mischance or bungling. Twelve to fifteen feet is the most usual height for tiger. A great deal has been written on the subject of the jumping powers and climbing powers of the tiger. He can leap up a certain height, and more especially should the lower parts of the stem have knobs and excrescences upon it (a not uncommon thing in parts of India), enabling the animal to get a purchase for his feet. By this means, and if the trunk were bent to one side from the vertical a little, a tiger could probably ascend to fifteen feet if charging and furious, and might succeed in pulling one down. But a tiger is far too heavy an animal to be able to climb, and in this respect is unlike the panther. That a tiger can reach up nine or ten feet is evidenced by the claw marks one sees in the bark of trees—long scratches made by the nails when the animal is stretching himself.

One occupies the machan in the afternoon, proceeding there quietly an hour before there is any chance of the tiger moving from his retreat. Success will now depend on the tiger coming back to the kill. If he has the least suspicion that anything is wrong or unnatural about the surroundings he will, after reconnoitring, make off. If he arrives it may be after dark, and should the moon, on whose fitful light one is depending for the shot, become overcast, one will hear the beast at his meal but a shot will not be possible. It is no use firing at the sound. We have all done that in the days of our inexperience ; sat in agonized suspense for the rest of the night perhaps, and found nothing in the morning. But if one has not disturbed him a second chance will be offered, for the tiger returns to his kill till he has consumed all he cares for, and a second night's sitting may give one the prize. If it is remembered that almost from the moment the tiger has killed until the time at which he moves off, replete from the remnants he has no use for, his whole actions are known to and watched by the bulk of the animal community in the neighbourhood, and that this knowledge on their part is loudly proclaimed to all, it will become obvious that the tiger's whereabouts will not be difficult to ascertain. The tiger is not a pretty feeder. He bites and

gnaws great chunks of flesh, including hair and skin, from the carcase and gulps them down, making hideous noises the while. In this respect he differs from the leopard who is far more fastidious and dislikes the hair and skin of its victim, removing it from the portion before feeding on it. In the case of the tiger who has become a pure cattle-slayer, either due to the fact that he has got fat and lazy or to some injury, usually to a foot, which reduces his chances of securing the alert, faster game animals, it may be unnecessary to tie up " kills." As soon as a villager reports the loss of an animal from his herd a search is made for the carcase and a machan built over it as already described.

Of course it is no use tying up kills in a jungle until by tracking it has been ascertained that a tiger is in the neighbourhood. An exception to this rule is made when the sportsman is resident for some time in the neighbourhood of a portion of an area known to be frequented by a tiger. The latter will return to the locality sooner or later and perhaps take the kill. In such cases buffaloes so tied up will be watched by one of the local villagers told off for the purpose, or one's own shikari is sent out. The latter is preferable since the villager is very unreliable in this respect.

Tigers and leopards who have taken to killing human beings and feeding upon them, are known as " man-eaters." Once the animals have taken to this practice they develop a taste for human flesh and eat nothing else. The making of a man-eater is probably usually due to the fact that through injury or worn-out teeth, due to old age, the animal is no longer able to kill wild animals, and finds man an even easier prey than village cattle. A wound in the pad or foot which results in lameness, owing to a badly placed shot, may easily result in a tiger taking to man-eating. Man-eaters of both species are usually thin mangy brutes and develop a wicked cunning.

Leopard. The leopard or panther is almost an animal of the village, for he is continually prowling round the village, endeavouring to steal a dog, goat, baby or small pony. His ways are consequently well-known to the villagers. The method of sitting up for leopard has been already described at length in previous pages. In all dealings with this animal, if success is to be made reasonably secure and even then it is far from assured, the main point to be borne in mind is the extraordinary craftiness of the animal. Sitting up in a machan

Sir J. P. Hewett, photo

DEAD LEOPARD IN HIGH GRASS JUNGLE IN POSITION AFTER BEING SHOT. ITS PROTECTIVE COLOURING AND MARKINGS RENDER IT EVEN MORE DIFFICULT THAN THE TIGER TO PICK UP

over a goat or dog used as a bait, the former the most useful and more preferable, is the chief method. In beating the chances are a hundred to one in favour of the leopard sneaking out unperceived. For he is extraordinarily difficult to pick out from his surroundings and can hide under the smallest bush or in tussocky grass. Being an adept at climbing, he frequently sleeps on a branch and is not uncommonly shot in trees; when pressed in a beat he probably frequently climbs up a tree and hides amongst the foliage, allowing the men to pass beneath him. The elevation at which the machan is prepared is according to taste, bearing in mind that the leopard climbs with ease, unlike the tiger. The sportsman occupies the machan and the goat is then brought and tethered beneath, the animal being unaware that the sportsman is sitting above him. One commonly makes the mistake at first of getting into the machan after the goat has already been tethered out below. The animal, as it then knows it has company, will sit down and go to sleep or feed if there is anything to eat; and the goat is quite impartial in its tastes in this respect. The goat is there to bleat and it will do so as soon as it considers it is forlorn and deserted. If a leopard is in the neighbourhood the bleats will soon attract it. But this does not mean that it will at once advance and seize the bait. Far otherwise! In any event its suspicions will be aroused and it will cruise around in the offing for a varying period before it has made up its mind. But once decided it will act with promptness and advance in bounds till it almost reaches the animal. If one reserves one's fire, the leopard seizes the goat, kills it, and drags it away, placing it for safety in the branches of a tree where it is safe from vultures who cannot get at it in this position. Like the tiger, the leopard keeps watch over it to prevent the smaller fry stealing the meat. The remains of his feast he will cover up with twigs and leaves in a manner similar to the way a dog buries bones.

The methods by which tiger and leopard capture their prey differ. The tiger is a heavy, powerful animal but has considerable pace for a short distance, even over the roughest ground and uphill. He is well aware that the fleet deer, once they have got into their stride, can outrun him in a very short distance. Hence the need of secrecy and the careful stalk which precedes the rush on to the animal. On getting alongside of the deer the tiger either jumps for the

throat or strikes it down with the powerful forearm, the nails lacerating the flesh. In the case of larger animals, such as the buffalo, his procedure is different. To approach alongside would be to court injury or death from the horns of the beast. The tiger therefore comes from behind and springs upon the animal, bringing it to earth by the sheer force of his pace and weight, his claws scoring down the withers whilst his fangs are fixed in the neck which he wrenches backward in order to break it. This mode of attack is usually successful but it requires a nicety of calculation and approach, for if the tiger does not land in exactly the right position on the animal's back, a beast so powerful as the buffalo will shake off the hold, and there is then either a battle royal or more commonly the tiger slinks away. For a tiger must entirely depend on the full play of his several parts, in fact, on bodily perfection, to secure his daily food and consequently dreads an injury which may mean slow starvation; unless driven to desperation by hunger he never takes unwarrantable risks.

A panther seizes its victim by the throat, worrying it to death in this fashion, four deep holes being left by the canine teeth.

The wounds received by a man when attacked by a tiger, usually after the latter has been wounded and the animal gets to close quarters, are very serious. The tiger bites deep, and in addition the claws score deeply into the flesh. The teeth and claws of the tiger are poisonous and gangrene sets in rapidly, resulting in death. Should only a limb be affected, by removing the attacked portion within a short space the poison may be prevented from spreading to the rest of the system. Sticks of caustic should be carried by sportsmen and the wounds immediately washed and treated with them.

The leopard, other than the man-eater, if he gets home after being wounded and mauls a man does not usually bite, the wounds being chiefly claw marks. These wounds are not generally fatal and the man recovers. In fact men have had hand-to-hand encounters with leopards and have even killed such by throttling them with their hands, and recovered from the wounds received. But they rarely have the same health afterwards. The golden rule should be to reduce the risk of ever getting mauled by the carnivora by being always suitably armed.

Tracking. The first golden rule when tracking dangerous game is to be suitably armed. If not so armed, not only does one take a foolish risk oneself but imperils the lives of one's attendants. The sportsman should have two rifles with him, of which one at least should be of heavy calibre—such as a ·500 or ·577 cordite express. The second will probably be one of the lighter calibres, of which there are now numerous different makes. The second rule is to remember that the safety of the men who accompany one is the first consideration. You are out for pleasure. They are out on duty or to earn their daily bread. In the case of a wounded tiger or leopard, whether you proceed to track it on foot or mounted on an elephant, none of your attendants, the trackers and so forth, should remain exposed in such a position as to be uncovered by a rifle. If an elephant is procurable, once the trackers have located the patch of jungle—it will often be very dense—in which the tiger has taken up his position all the men who cannot be taken up on to the elephant should be sent up into trees before the elephant advances. In the Central Provinces and elsewhere, where, in the absence of elephants, one tracks up the wounded animals on foot, no precaution and trouble are too great to reduce to a minimum all risk to the men accompanying one, whose only weapons will probably be a little axe, bow and arrow, or antiquated musket. To have a man who comes out to assist you, whether for the pure love of adventure or merely to earn a wage, mutilated or killed, is, if due to negligence on the part of the sportsman, unpardonable. Accidents will occur of course. In sport it is impracticable to eliminate them altogether. But they should come under that category; the sportsman can then be commiserated on his bad luck.

I have often been asked "What will a tiger do when he is wounded?" My only answer is "I do not know." He may charge or he may run away; but usually, not invariably, he will charge in the direction he is facing. Only if he is a cur will he turn sharp round. So do not fire at his head if you meet him face to face on a path. Stand steady and stare him out but do not fire.

I have already discussed bison tracking. Unless suitably armed one has little chance of bagging bison. There are other points, however, connected with this sport. It necessitates absolute physical fitness. This can only be

attained by drinking as little as possible whilst actually tracking in the hot sun, and not more than is absolutely essential on return to camp. Some stimulant is required in a climate like India, but reduce the amount taken to the lowest whilst on shooting expeditions which entail days of hard tracking. And the same applies to smoking. Although a smoker, I personally found that of necessity, and without suffering inconvenience, I gave up smoking all day, confining myself to a smoke after dinner. Of course smoking when on a hot trail is impossible. The risk of the animals scenting it is too great. After considerable experience and trials I found cold weak tea without milk (the milk always turns sour in the heat) or sugar is the best thirst quencher. Do not drink at every stream you reach whilst on a long track. You become much hotter by so doing as you climb the opposite hill and the perspiration pouring down your face blinds you. If you then run into your bison you run a strong chance of missing him. In addition the constant drinking reduces your powers of endurance and you become flabby and useless by the early afternoon. I admit that it is very hard at first to resist the temptation to drink at every stream. The water of the hill stream is so invitingly sparkling. But by dint of exercising restraint it is astounding how soon one finds the temptation diminish until in the end you do not feel an inclination to drink.

On the subject of the art of tracking itself ! One could write a book on it alone. It is too large a matter to be treated of here. Of one thing one may be positive. The European brought up in civilization can never hope to vie with or emulate the jungle-man who has spent his life in the forests, learning the woodcraft of the forest, and having at his back a long line of ancestors who lived a similar life. Our own ancestors, it is true, lived in similar fashion in the forests of Britain fifteen hundred or so years ago. But the senses of the jungle-man, which those ancestors of ours likewise possessed, have become atrophied in us by centuries of disuse. This is not to say, however, that we cannot, by giving our whole attention to the matter, absorb some of the jungle lore of the jungle-man and learn something of his marvellous tracking powers. Learn to pick out the tracks of the different jungle denizens ; learn to estimate the period of time at which these tracks were made—the hours which have elapsed since the animal left them behind him ;

learn to note on hard rocky ground a small overturned stone, showing a slightly darker, because moister, surface than its neighbours ; learn to read the marks left on foliage and bark by the teeth as the animal browsed, and so estimate by the oozing sap or its stoppage and the browning of the cut edges, the length of time which has elapsed since his passage.

Other signs which afford evidence are the peeling of the bark of saplings by deer ; rubbing the bark to allay the irritation set up when the velvet is peeling off the horns ; and the scoring of the bark with their claws by bears, either in stretching themselves or to cause the sweet sap to flow.

It is a wonderful thing to watch a first-class tracker carry the trail over all sorts of ground. Up to a certain point much can be learnt by hard work and persistent attention. It is one of the finest parts of the lore of the jungles. It may be commended as an art worth the serious study of all who wish to enjoy to the full the joys of the life of a shikari in India's glorious jungles.

I remember hearing it said by an Anglo-Indian, before I first went to India, that the peculiarity of the Indian jungles was their extraordinary silence. I do not think that he was a shikari man, and perhaps he only went into the jungles during the hotter part of the day. Most of the mammals, as also the birds, are then taking their *siesta ;* but even so, there is still noise enough, for the cicadas, grasshoppers, crickets and others of the clamorous portion of the insect life of the jungles, are awake and talking or singing after their fashion. But, if we omit the hotter portion of the day, in the morning and evening (and at night) the jungles are full of sound. In tigerish parts the animal may often be heard, either voicing his vexation in short angry growls when he has missed his quarry and has to seek a fresh neighbourhood ; or when on his way to his kill, uttering short roars varying in degree or snarling with rage at the birds overhead. Temper, i.e. the feelings uppermost at the moment, may have as much to do with the manner of approach as anything else—that and temperament. During the mating season the males are particularly noisy. But this is common to other animals, and the cat tribe are often very rough to their own mates. Stags, as is well known, are at that period full of fight and I have heard many a time and oft the hoarse challenge of the

sambhar stag, the sharper one of the chital, and witnessed fights of no mean order between the claimants to the favours of some fair hind. Whilst grazing, deer, especially the hinds, constantly emit sharp yelps or squeals, or high-pitched notes of various cadences, which doubtless in deer language signify endearments, repartees or merely tittle-tattle and scandal-mongering. The one note about which there is never any doubt is the note of alarm. It is the females in the deer tribe, and in fact all horned animals of my acquaintance, who do the sentry-go for the herds—usually old, experienced females. In stalking this fact has to be remembered. It is essential to mark down the sentries and also any young and foolish members of the weaker sex who may stray far in front of the herd whose lord and master, ever in the rearguard, is the object of the stalk. Failure to omit this necessary precaution will cause the miscarriage of many a stalk begun with rosy promise.

Deer feed chiefly at night, leaving the forest just before sunset and returning to it soon after sunrise. Chital require a lot of water and consequently will be certain to visit the water nearest to their haunts in the morning and evening, and they will keep to the plains forest ; but the larger and older sambhar stags prefer the foothills forming the base of the mighty Himalayan range or the hilly parts of the great plains of India. Consequently, if one wishes to secure a good sambhar, it is to the hills that one must resort to stalk the animal. It is astonishing what rough rocky ground this heavy stag will negotiate with ease and speed and the extraordinary, narrow knife edges along a crest which he can gallop over. When alone in this fashion and depending upon himself, he becomes most wary, usually taking up a position for the day on some commanding vantage point from which he can watch all approaches.

As regards the attitude of the larger animals of the Indian jungles amongst themselves, the carnivora, tiger and leopard, never willingly interfere with any of the more dangerous species, such as elephant, bison, buffalo, rhinoceros, bear or boar ; and they probably usually refrain from attacking the larger stags of the deer tribe. When aware of the near presence of the former, tiger or leopard will usually move silently in an opposite direction. This is not to say that homeric encounters do not take place between the carnivorous cats and the other species if through unforeseen circum-

stances they encounter one another, and when one of the two is in a particularly irascible mood—more especially if wounded and maddened by pain. Of course, as we have seen, the species fight amongst themselves, most commonly in the mating season. But this is usual with most animals when two males wish to win the favours of a particular female. I have heard tigers at night, and seen two male leopards fighting for this reason, though unfortunately it was the tail-end of the fight only. But I never had the good fortune to witness a combat of this description between elephants, bison or buffaloes.

Of far greater interest would it be to be present at an encounter between a tiger and an old boar or irascible bear, or an old bull bison or buffalo. Such combats are veritably the fights of giants. Native shikaris who have witnessed (more often heard them only) such encounters have told me that the noise of the growls, bellows or grunts is prodigious, the ground all round being ploughed up and bespattered with blood. The tiger counts on his activity, and endeavours to get on to the back of his enemy. Bison and buffalo depend chiefly on their horns, trying to pierce and gore their foe, to whom they ever present a wary front, circling with every movement of the tiger trying to take them in rear. The bear exerts himself to get to close quarters, with the object of securing a purchase and hugging the life out of the enemy. The old boar places his faith in his powerful tushes, and trusts to short rushes with the lightning side twist of the head and vicious upward cut of the tush which, if it gets home, will rip up and disembowel the foe.

Bears and old boars are probably the two animals which are most prone to take on or start a contest of this kind.

It is probably rare for an old tiger to ever risk such an encounter, save in exceptional circumstances, since with the wisdom and discretion of years he is aware that, even if he comes out victorious, the wounds inevitably received will probably incapacitate him from being able to procure his food. Young males in the pride of their strength and ignorance are the ones who apparently fall victims to their tempers in this fashion. The end of such a fight must depend upon a variety of minute circumstances, but if carried on for any length of time by two determined opponents the result is usually probably the death of both.

CHAPTER XVIII

JUNGLE LORE—*continued*

Local distribution of animals varies with water available—The monsoon, cold-weather and hot-weather seasons—Forest fires—Flowers of mhowa tree attract bear and deer—Wild dogs and game animals—Crops attract animals—Insect life—Defoliation of teak forests and effect on game—Defoliation of sál forests—Locust invasions—Areas of trees killed out—The big bee in the jungles—Attacks of the bee—Red ant and the sportsman—Red ant's house-building methods—Advice to sportsmen—Wood and bamboo "shot-hole" beetle borers in the bungalow and in furniture—The study of insect life in the jungles—The white ant or termite—The white ant heap—Habits—Ant heaps a shelter to sportsmen—The wounded bull bison.

IN the preceding chapter one aspect of jungle lore has been considered, the habits, idiosyncrasies and attitudes of some of the animals of the jungle. A study will show that there are other factors to become acquainted with, some of which have a direct influence on the distribution, or even the presence, of game animals at certain seasons in a locality.

The most striking illustration is the presence or absence of water. During the monsoon period water is to be found in abundance everywhere, and consequently the animals become widely distributed over a locality. During the ensuing cold weather water is still plentiful in the streams, but in the hot season which follows these streams dry up and even the larger ones may contain but a small trickle. Lakes and tanks also have a greatly diminished water supply. The drying up of the water supplies in common use by the jungle folk has inevitably a very considerable influence on their distribution in a locality. Most of the animals—not all, the little chinkara or gazelle is an exception—require to drink daily. The chital, as has been mentioned, will drink twice and even thrice a day. A knowledge of the places where water is to be found in the hot season is

therefore essential to the sportsman who wishes to enjoy sport and study the fauna. And the latter purpose can be carried out admirably at this season.

Forest fires form another illustration. In the Government Reserves the Forest Department, by dint of hard and assiduous work, have now reduced to small limits the vast fires of former times by which whole jungles were burnt out, being thereupon deserted by animals and birds until the rains of the monsoon resulted in the area being reclothed with herbage and young growth. Outside the Reserves large areas of jungle are still annually burnt by the villagers in order to provide, under the influence of the first rains, a plentiful supply of young grass for their cattle. And in the great Native States the heavy forest is still subject to bad fires in the dry season. A knowledge of jungles which may have suffered from this calamity during the season, is therefore necessary to save the hot-weather sportsman going on some wild-goose chase to an area which the animals have deserted.

These are two instances affecting local distribution due to causes which are easily ascertainable. But there are other factors, a knowledge of which the sportsman must acquire of his own initiative. Some acquaintance with the flora of the district and the food it affords to the game at certain seasons is demanded. The instance I have already quoted in these pages is a case in point. Both bear and deer are very partial to the sweet blossoms of the mhowa tree which flowers in March and April in different parts of India. The tree is usually found scattered sparsely over a locality in which it grows ; but here and there in a particular area more suited to it a number of individuals will be found flourishing in close proximity to one another. In the season of flowering the deer and bear from a considerable radius will be found gathered in the neighbourhood of this plentiful supply of a favourite food, coming out to feed at night. And tiger and leopard will follow the *Cervidæ*. If the sportsman knows his country and jungle lore he will be aware of this fact, and by visiting the spot enjoy unique opportunities of securing good heads or skins, and for studying the animals. If in ignorance of this trait or unacquainted with the locality he may select for a visit the areas from which the animals have migrated for the time being and draw a blank.

A similar but more unavoidable contretemps will be experienced if the sportsman has the bad luck to hit on a jungle which has been selected for operations by wild dogs. These animals are the curse of the Indian forests. Once the fact that a pack has arrived in a jungle becomes known to its inmates, the deer, they will hurriedly quit the area, being followed of necessity by the tigers who have no use for the wild dog. In fact most animals appear to have an innate dislike for this animal and desert the area once they are aware that a pack has made its appearance in it. I suffered on several occasions from this curse myself. During my first experiences I was unaware of the cause of the sudden extraordinary absence of animals in a jungle well known to me. On one of the last occasions in which I met with this experience—I had left the Station at the end of the rains to visit a famous jungle a few marches out—I was so annoyed at my bad luck that I devoted three days to the dogs, and although I only picked up three dead I think the tally was larger by several more. I never felt any compunction in killing this scum of the jungle, for every animal they secure, to support what appears to be a worthless existence, ends its life in horrible torture.

In areas in which wild dogs have become very numerous efforts have been made to poison them. Ordinary poisons such as strychnine and so forth appear to have little effect on the wild dog. He vomits up the poisoned flesh and goes on his way apparently untroubled by the experience.

When the crops are coming up in the fields, especially in areas of cultivation more or less surrounded by heavy forest, or which are bounded on one or two sides with conterminous heavy forests, the cultivated land stretching away for miles on the other sides, the herbivorous animals and the carnivora which prey upon them will be found to congregate in the forest adjacent to the fields, to which they resort at night to feed. Away back in its deeper recesses the forest will be found, in consequence, to be almost deserted for the time being. In this connexion the bear must not be forgotten, with his sweet tooth and partiality for the villager's succulent crops. Even the sambhar, who is chiefly a browsing animal, is much addicted to leaving the recesses of the thick forest, or the hills, in which he spends most of his life, to descend to the forest adjacent to the young crops on which he comes out to feed at night.

We now come to the next branch in the study of the lore of the jungles—Insect Life.

It may not at first sight be apparent that any knowledge of the insect life of India's jungles is necessary to the sportsman, or that insects and their habits should find a place in woodcraft. Yet I hope to be able to show that a certain knowledge of the modes of life and powers of offence of some of this section of animal life will be found of use and interest, if not an essential addition in some cases, to the knowledge of the jungle lover and sportsman.

In my study of the insect life of the forest, to which I devoted some years of research in India, I was led to form certain conclusions, with reference to insects and game animals, which I have nowhere seen recorded.

One has reference to the local distribution of animals in particular areas at certain seasons. I have alluded to the fact that water, fire and the incidence of a particular food in a certain locality may affect this distribution for a certain period. Insects under certain circumstances may exert a similar influence. For instance, there are two small caterpillars of the moths, known to science as *Hyblæa puera* and *Paliga damastesalis*. These caterpillars defoliate the teak trees. Great blocks of forest and whole hill-sides may be seen to be leafless at certain seasons of the year, the entire foliage having been stripped from the trees by the hordes of tiny caterpillars. The effect to the eye, in the case of the *Paliga* which skeletonizes the leaf, is as if a fire had swept through the forest, scorching and turning the leaves brown. And this defoliation may be repeated more than once in the same year. Such attacks may be seen in the Central Provinces teak areas, in the Bombay and Madras Presidencies and in Burma. My investigations into the operations of these pests led me to the conclusion that they had the effect of limiting the number of animals in the forest subject to the attacks. That, in other words, the animals, deer especially and the carnivora, deserted the leafless jungles for those which still retained their leaf canopy. The reason for the exodus of the herbivorous animals I attribute to the fact that the leafless forests become fully exposed to the hot sun and hot winds, thus affording the animals little food, the undergrowth becoming scorched and withered; shade or cool shelter during the hot hours of the day in

which they lie up is also absent. I observed very much the same thing, although over a smaller area—and therefore my observations were not so conclusive—in the hot weather of three different years in parts of the Dun and Terai forests of the United Provinces, where the sál trees were defoliated under the attacks of the caterpillar of a moth, and a scale insect (*Monophlebus*). Now if this observation is correct, and it remains for other sportsmen to corroborate it, it becomes obvious that it is useless making a shikar trip to a block of teak or sál forest at a period when the area is completely defoliated. If you are under canvas there is the added annoyance and discomfort that arises from the habits of some of these caterpillars. Descending from the trees by means of millions of silken threads, on reaching terra firma they invade one's tent, get into one's food, drinks, clothing and bed, and render life for the nonce unsupportable ! I and others had the same experience one year in the Dun with the scale insect above mentioned. This insect, a large white apparition resembling a giant wood louse, was literally in millions in the forest, and appeared in its thousands in and all over everything we possessed. And he was followed in his peregrinations by a lady-bird beetle (*Vedalia*) and its grub which prey upon the scale insect with avidity. This insect carried out his shikar parties all over the precincts of the camp to my great discomfort. In the end I had to shift the camp outside the forest limits to get quit of these pernicious attentions.

Locust invasions, visitations that luckily only occur at intervals which at present cannot be forecasted, may result in areas of forest being completely stripped of leaves, green bark, etc., all the undergrowth being cleaned off. I have seen a block of forest treated in this fashion. It is, perhaps, needless to add that it remained deserted by animals for some time. I remember trying the locusts at dinner. The natives spit them on little wooden skewers, a dozen or so together, and then roast them. They proved very tasteless.

More rarely, in the case of broad-leaved trees, an area of forest may be killed outright as the result of insect attacks. In the case of an extensive tract treated in this fashion, the death of the trees will lead to the migration of a certain part of the fauna. This is commoner and occurs over wider areas in the case of coniferous forests.

M. E. Stebbing, photo

ON THE JUMNA RIVER, WHERE IT LEAVES THE HIMALAYA IN THE WESTERN SIWALIKS. A FAVOURITE FISHING SPOT

Sir J. P. Hewett, photo.

PAD ELEPHANT PROCEEDING THROUGH DENSE TREE FOREST IN THE TERAI, UNITED PROVINCES

There are other insects which may cause one discomfort or even worse by their undesired attentions if by accident they are unwittingly disturbed. One of the best known to sportsmen in parts of India is the big bee (*Apis dorsata*). This bee has a vicious sting, particularly virulent in the hot weather, at which period its temper appears to be at its shortest. The bee builds large, semi-cylindrical nests which may be several feet in length, attached to the underside of branches of tall trees, e.g., the cotton tree (Bombax), in some forests of India, in the Central Provinces for instance. Or it builds in rocks, as in the case of the famous Marble Rocks on the Nerbudda River near Jubbulpore, and in the caves of Ajanta on the Bombay side.

In the hot weather the fact that the nests may be fifty to sixty feet up on the branch of a lofty tree, is no absolute safeguard against attack. Smoking a pipe at the foot of a tree bearing several of the nests on its branches will bring the bees down upon one as I discovered once to my cost ; and lighting a fire will of certainty draw them.

A Kol shikari (Bishu) of mine opened my eyes to one way of escape on the occasion above alluded to when I formed one of a party upon whom the bees descended. We all bolted for the open country about one and a quarter miles ahead, pursued by the infuriated bees. Bishu quietly stepped off the road behind a tree and let the routed and their pursuers storm through the forest. He turned up later without a sting ! The routed had had quite a bad time of it. Europeans attacked and badly stung by this bee in the hot weather have died from the effects.

In Northern Indian jungles the nest is more commonly attached to a low bough in a thorny thicket, and it is in such cases that the sportsman runs the greatest risk of rousing the bees. The elephant on which he is sitting may inadvertently push through such a place, the mahout not having spotted the nest, and brush or blunder on to it. The bees at once sally out to the attack. The only safety for the riders on the elephant is to at once get under cover themselves, and for this purpose a blanket or two is always carried in the howdah or on the pad. The mahout sits on his. The elephant shuffles away from the neighbourhood as quickly as he can, his human freight remaining *perdu* under the blankets till the bees have given up the pursuit.

Another insect to beware of is the red ant—a most pestilential inhabitant of the forests of the country. This ubiquitous insect bites with a most vicious nip and the acid injected irritates and invites scratching which may result in festering sores. The red ant lives in the trees and builds nests of the leaves. Such nests are a common sight in the sál forests. The nests are constructed in an ingenious manner, the edges of the green leaves being gummed together. The mature ant does not possess any material with which to perform this work. His gum bottle he finds in the immature ant which has glands secreting a sticky substance. Several of the adult ants hold the leaves together whilst another seizes a youngster between its mandibles and uses him as the brush of the gum bottle. It shows either a high form of civilization or a low form of sweating to thus make the children share in the labour of house-building !

The fact that these ants live in trees is very soon made evident to the shikari man, whether on foot, in the machan, on the elephant, or modestly consuming his simple lunch on the ground in the shade of a tree. The ants are everywhere and ready to dispute for place and meal, and nip if one objects. Until one becomes careful and knowledgeable in their ways they will get down the neck, up the sleeves, through puttees or 'stockings, and nip fiercely when in endeavouring to eject them one incommodes or wounds them. The elephant occasionally blunders into a nest, the act resulting in a perfect cataract of ants which may penetrate into the recesses of the clothing before one is aware of their presence. Nothing but a hurried strip in such a case will get rid of them.

Trouble may be experienced with this ant when sitting up in machans, should the latter have been placed in a tree occupied by nests. In such cases the ants often attack the intruder, and the position may be rendered so untenable that there is nothing left for it but to beat a hurried retreat. I have heard of cases when during a tiger beat the occupants of one or more machans had to vacate their posts and take up positions at the foot of the trees, being routed by the red ants. The unknown possibilities down below being preferable to the living torture up above.

I drew up the following cautions with reference to this insect a few years ago. Here they are :—

Don't lay out lunch or sit down to it in the close neighbourhood of this ant.

Don't run into his nest when out on an elephant in the forests on shikar or any other purpose.

Don't have a machan built in a tree infested with the red ant nests.

Don't, when waiting for a beat, admiring a view, or merely taking a rest, lean against a tree-trunk without first carefully scrutinizing it to see whether or no a column or two of these vicious insects are ascending or descending from a nest in its branches.

Even this ant has its uses. In Kanara and some other parts of India and throughout Burma and Siam a paste is made of him which is eaten as a condiment with curry !

There are some groups of minute wood and bamboo " shot-hole " borers in India, so-called because timber and bamboos infested with them have the appearance of having been fired into with a charge of anything from No. 4 to No. 9 shot. These beetles belong chiefly to families known as the *Bostrychidæ, Scolytidæ* and *Platypodidæ.* In bungalows with wooden roofs, if unprovided with ceiling cloths, one is annoyed by the operations of these little borers, owing to the fact that tables, chairs and floors become covered with the sawdust particles ejected under their operations. This is a common experience in many of the forest rest-houses out in the jungles of India.

The *Bostrychidæ* are the chief culprits in the case of bamboos. Bamboo roofing and bamboo furniture and chairs and tent poles become so pitted by these insects, who tunnel out the interior structure, that under the attacks they one day suddenly collapse. The infestation can be prevented or stopped by soaking the bamboo in crude Rangoon oil. As a result of investigation work which I carried out in the Indian Museum at Calcutta, the bamboo telephone posts which went up with the Thibet Expedition (1903–5) were so treated. They remained unattacked throughout. They were as sound as ever when I inspected them three years later, after they had been returned to store in Calcutta. Had they not been so treated they would have been infested by the beetles before they reached the foot of the Himalaya on their way up, and have become useless for the purpose required. Wooden poles would have been too heavy to carry up ; for the precipitous slopes up to

the Thibetan plateau, fifteen thousand feet in elevation, are, as a Tommy put it, " like going up a —— ladder."

Some allusion must also be made to flies and the mosquito. The common house fly is extremely abundant in the jungles in the hot-weather season. He is an unmitigated curse at this period, but in the absence of a remedy has to be put up with and endured with as much patience as one is capable of.

The horse flies in some jungles also become a serious pest at this season. In fact in some areas the ponies are so badly bitten that one has to send them out of the jungle into the open country and, in the absence of an elephant, do one's shikaring or work afoot. Even the elephant gets severely worried by these insects, and the wild ones ascend into the hills or climb up several thousands of feet into the Himalaya to get beyond their zone.

The little " eye-flies " are also a great nuisance out shooting in some localities. They have a habit of hovering just in front of and quite close to the eyeball and may thus spoil one's aim at the critical moment. Ordinary sun-glasses should be worn to defeat this annoyance. These glasses should also be put on during the hot weather as a protection against the bright glaring light in the open country, in open forest, and when travelling in river steamers or otherwise on rivers and lakes. It is also advisable to wear them when fishing in the hot weather. A youngster does not like to wear glasses—I was obstinate in the matter myself. But experience of their comfort and value led me to regret that I did not get over my prejudice and wear them sooner.

The mosquito and its malaria-giving proclivities is too well known to require comment here. Always sleep under mosquito curtains when in the jungles, no matter how hot and uncomfortable they may make you. One soon becomes accustomed to the curtain, and it saves many a go of malaria which would otherwise incapacitate one and interfere with, if not put an end altogether to a well-planned sporting trip. In connexion with jungle malaria, some forms of it, it is not only from the mosquito that one gets it. Drinking water and bathing in the streams, no matter how clear and pellucid they may appear, is a sure way to get a bad go of jungle malaria. This assertion is made from my own personal practical experience. Do not drink the water unfiltered and unboiled, and do not bathe in the streams. A

hot tub on return to camp is the best bath in the Indian jungle if one wants to keep fit. This experience applies to the Central Provinces and Bengal. Before I went to other parts of India I had learnt neither to drink their water nor bathe in their streams.

A great deal could be written about the forest lore of the insect world in India, on which subject we are only at the commencement of our study. I have written upon it elsewhere and it does not fall within the purview of the present consideration of jungle life. But to those who dip into the study I can confidently promise a fascinating pursuit. For mammal and bird form but a fraction of the teeming life of the Indian forests. Hidden beneath the bark and in the wood of dead and dying trees, feeding on the leaves and in the fruits and seeds of healthy living trees, or living in the humus of the forest floor, a vast concourse of insect life is to be found, a considerable proportion of which is probably unknown to science, whose habits and modes of existence are so infinitely varied and marvellous as to take one into a veritable Wonderland. And but the fringe of the veil which enshrouds them has as yet been lifted. And here you meet again the inexorable rule of the jungle of the oppressor and the oppressed. For there are an infinite variety of insects which prey upon their fellows.

In conclusion I will mention one other insect occupant of the forest which will be commonly known to the shikari man as it is known to the dweller in the Stations throughout the plains of India—I allude to the termite or white ant. Its great pyramidal earthen heaps form one of the commonest sights of the forest. The termite is not a true ant, though it has the appearance of one and possesses many of its habits. They are wonderful erections, these ant heaps, six or more feet in height and extending in ramifying tunnels and chambers deep into the soil. The termite does not live in daylight. Wherever it goes it builds an earth tunnel to keep out the light. The bark of the great trees may often be seen coated with these tunnels, carried up by the ants to reach some great dead bough many feet overhead. This bough they will hollow out completely, leaving only just sufficient supports here and there to prevent the superstructure caving in on top of them, the wood material taken out being replaced by earth. This action on the part of the

termites often completely alters the aspect of the forest, all the trunks of the big trees being coated with the soil of the locality. For instance, in parts of Chota Nagpur where the soil is a deep red, the prevailing colour of the bark of the sál trees was red. One came to associate this colour with the stem of the tree, and a transfer to another part of India, where the trees were grey, or higher up in the foothills their own natural colour, came as something of a shock. The termite has its uses in the Indian forest, for it rapidly disposes of the vast amount of refuse branches and dead fallen stems which without its aid would accumulate on the forest floor and greatly add to the risk of fires and increase their intensity when they took place, in addition to making progression impossible for man or beast.

The bear is very fond of the termites, breaking down the heaps, inserting his nose and snuffing up and devouring hundreds of the little insects at a gulp.

And to the sportsman the ant heap has its uses. For it affords an excellent shelter behind which to take cover when a badly placed shot at one of the dangerous animals results in a vicious charge. For the character and density of the jungle one is in must of necessity determine the target afforded, and one's luck is so often " out " in this respect. I have, perhaps, an especial affection for the domain of the white ant, as one of the erections saved me from a charge of an infuriated bison on an occasion when fortune went against me at the first encounter. My subsequent strategy and tactics, ending in the death of the bull, were based upon and continued round several of these architectural structures.

With this end in view I recommend them to the sportsman.

CHAPTER XIX

A REAL TIGER STORY

Told round the camp fire—The camp in the forest—Feeding the elephants—A tiger shooting party in May—Tigers very numerous in old days—Scarcer now and will require protection—Blank days—A day with tigers—The morning start—Tigers break out—Crusty sportsmen—Advice to youngsters—Plan of campaign changed—Placing the howdah elephants—The beat commences—A tiger's head appears—Fire at tiger—An excited elephant—A second tiger's head appears—Grass—A shot at the tiger—Tiger reappears and charges elephant—Gets on to elephant's head—Exciting moments—Death of the tiger—Elephant takes charge—A hot time—The Collector's luck.

"IT was a blazing hot day in May several years ago, that I had the best fun I have yet had with tigers," said a friend one evening, as we sat round the camp fire in front of the tents. "You have often heard me mention that day, and I have promised to tell you the story. So here goes for the yarn."

The Collector of the District, a fine sportsman, lay back in his deck-chair, took a pull at his cigar, and became reflective for a space.

Night had fallen, the camp was pitched near a small forest bungalow in a clearing in the forest. As the firelight danced and flickered, the trunks of the nearmost trees stood out straight and columnar, and the grass heads gleamed white on their greenish-yellow stalks against the dark depths of the forest behind, whilst overhead the heavens were lit with a brilliant scintillating mass of stars. Now and then a dull rumble, as of thunder, came from the quarter in which the elephants were picketed. The great animals were contentedly chewing their evening forage; a great mass of green boughs of the pipul tree, having been brought in earlier in the day by one of their number for the night's meal; for the elephant sleeps and eats alternately throughout the night. At sundown his

mahout gives him his chief meal, a round number of pounds of grain. This has to be fed to him, for if left to himself he will scatter it about and lose half, for the animal is a wasteful and improvident feeder. To prevent this, the mahout binds up a wisp of straw into a mass like a bird's nest, about a foot across, fills this with the grain and places it in the elephant's mouth, the latter advancing a step or two and bringing down its head to receive it from the mahout, who is squatting on the ground the whole time and does not trouble to move. As soon as the mass is placed inside his mouth, the elephant backs a step or two and slowly chews it, straw and grain together. This nightly operation is usually carried out in front of the tents, so that a watch may be kept on the mahouts; otherwise the men consider they are within their rights in feeding the whole of their family and relations out of the grain provided for the elephants, and the latter suffer a shortage in their daily meal. And the elephant is perfectly aware of the shortage and pilfering, and is in his way grateful for the sahib's care. For the elephant is one of the most intelligent of beasts, and rarely forgets a kind act done to him.

At the opposite side of the camp to that where the elephants are situated, is the horses' encampment. Here are to be found the horses' attendants, a man and a boy to each animal, with two or three small single-fly tents, the horses picketed out with heel ropes to prevent them stampeding when a leopard prowls round the camp, or wandering or engaging in playful kicking matches, a game at which some ponies are past-masters. Earlier in the evening I had myself personally inspected this camp, to see that my favourites had been properly fed and groomed: for a perfect understanding should exist between the master and his four-footed friends.

Hard by is the small camp, in which the havildah and the shikari reign supreme over a swarm of lesser camp attend-

ants. The two great men sleep in tents, but the satellites have to be content with the camp fire for their shelter and warmth. To one side, and in the rear of the main tents, are a couple of police tents, for the police guard which always accompanies the Collector on tour. But a short distance from these, and exactly behind the mess tent, the cook and house servants have their headquarters. It is here that the appetising dishes the Indian cook can turn out in the face of difficulties, which none of his European confrères would dream of facing, are prepared. With several holes in the ground, flanked by large stones and filled with burning sticks, and a charcoal brazier or two, the Indian *chef* will prepare culinary marvels which would not disgrace a first-class London hotel.

A hum of conversation arises on the night air from these different encampments, at all of which, with the exception of the cook's, the evening meal of the men is in course of preparation, chaff is being exchanged, and the incidents of the past day—and there are always incidents, amusing and otherwise, in camp life—are discussed.

As I sat and took in the familiar scene, so well known, but one which never lost its fascination, my friend continued :

" You know the —— Jungles ; you were there last year for a day or two, if I remember rightly. Well, it was in that neighbourhood that I had the best and most exciting time of my life. It was in May, one of those real scorching days, that the incidents I am going to relate occurred. We were a party of four rifles, and had already had fair sport. For tigers were far more numerous then than they are now, and there will be precious few left for generations to come, unless some form of protection is extended to them, or to those of the species who are game-killers pure and simple. No one wants to protect a man-eater, of course ; he is a pest to be stamped out as early as possible. Nor should the cattle-lifter, the animal who confines his attention to the cattle of the villagers and makes them his chief food supply, receive any countenance from sportsmen. But the pure game-killer, i.e. wild animal killer, falls within a different category, or so you yourself and I and others who have studied the question think, and he might well receive such protection as would be afforded him by closing some of the blocks of heavy jungle for a few seasons at a time.

But I know you agree with my views on this game protection question, so I'll get on with my story.

"As I have said, we had had fair luck and had bagged some dozen tigers and four or five leopards by the day I am speaking of. We had, however, had several blank days just previously, and though the khubbar was good, we were not over sanguine as the party left camp about nine o'clock in the morning. We had a ride of five miles in front of us, and accomplished this on a couple of pad elephants, the howdah elephants having, of course, been sent on ahead. Part of the ride was up the hard bed of the —— River, and we were pretty well roasted by the time we reached the rendezvous.

"The plan of campaign for the day included four beats, two in the morning and two in the afternoon. You know the big block of sál forest, with open patches of tall grass that runs alongside the —— Forest Road. It is intersected by a rather deep ravine, filled for the most part with tiger grass, and a few scattered copses of the sissu and khair trees. The idea was to beat the two blocks of jungle in two separate beats, each towards the ravine, the first beat to come out in the upper part of the ravine, the second in the lower and towards the road. Jitman knew the country perfectly, as, in fact, did another man and myself, and we had the stops, consisting of elephants and also some men posted in trees, placed at the points where a tiger would be likely to try and quietly leave the beat.

"During the first drive the four howdah elephants were placed in the ravine, and none of us had a very nice stand. The grass was too high and thick. The winter had been a wet one, and rain had fallen in the hot weather, with the consequence that the grass had not died down or opened out to anything like the usual extent. Also we feared we had scarcely enough beating elephants to make success certain, for the area to be driven was a large and difficult one. As it turned out, we were right. Certainly one tiger was afoot in the first beat, but he got past us in the long grass. The same thing occurred in the next, and we were pretty savage, all of us, by the time we reached the lunch rendezvous. Two of the men turned rather crusty, in fact, lost their tempers, and began to swear at the shikaris and mahouts."

There is one piece of advice I would offer to a youngster commencing his career in India, or anywhere else for that

THE LINE OF ELEPHANTS CROSSING A RIVER *EN ROUTE* TO THE TIGER JUNGLES IN THE UNITED PROVINCES TERAI

Sir J. P. Hewett, photo

HOWDAH ELEPHANTS LINED UP FOR INSPECTION BEFORE THE START FOR A DAY'S TIGER SHOOTING

matter. Never lose your temper if you can help it, especially when out with a party. There are bound to be contretemps. Mistakes will be made, and you may be the sufferer. But, save in flagrant cases of disobedience, never swear at your men. Bear in mind the fact that they know infinitely more about the jungle lore of the forest than you do. Very often they will carry out your orders about the direction a beat should be taken, or as to beating a certain jungle, when they know beforehand that the result will be failure, or that there is nothing in the jungle to come out. This being so, you cut a rather sorry figure in their eyes, and also lose their respect, if you swear and browbeat men who could have foretold the result before the beat started; besides displaying your great ignorance of the habits of the animals you are out to shoot, and of perhaps the commonest rudiments of jungle lore as known to the local men. The Collector's story illustrates this point to perfection.

"Lunch," he continued, "was a poor affair that day, made uncomfortable solely by the ignorance of two of the party. And you don't want displays of petty temper when the thermometer is standing in the neighbourhood of 110 degrees in the shade and the hot wind is blowing with a furnace heat.

"The first beat after lunch was about a couple of miles from those of the morning. The plan of campaign necessitated the four rifles on the howdah elephants taking up positions so as to command a small ravine and narrow path right at the foot of the outermost of the foothills, for which a tiger, on being disturbed, would assuredly make. A strip of sál forest, and a considerable patch of grass, with two small areas of sissu copse, through which ran the small stream of water which formed the whole 'river' at this season—the greater part of the great river-bed being a waste of shingle and grass—formed the country to be beaten. As the beat had been arranged, the ravine and path could just be covered by four rifles. When this disposition was explained, however, the two men who had fallen foul of the shikaris before lunch, asked to be allowed to go in the line of beating elephants, as 'they might then see something of a tiger, if one was afoot,' which was their method of expressing that they did not think much of the way the beat had been arranged. To avoid disagreements,

this was assented to, and my friend and myself proceeded to decide how we should station ourselves, in order to command as much as possible of the ravine. Having settled this, we tossed for positions, and to me fell the nearest one, the other man commanding a part of the ravine and the path. My position was an ideal one, provided a tiger broke my way. A narrow offshoot nullah ran down between steep sál-covered hills, which dropped abruptly into the ravine on either side. The offshoot nullah formed the chief, and, in fact, only easy passage into the hills from the ravine. I had only to command it, and this I did. Instead, however, of placing my elephant in the ravine itself, I elected to take up a position a few yards up the offshoot nullah. By this means I not only blocked it, but commanded a wider range of the ravine itself, and had a larger outlook over the tangle of tall grass which here separated the ravine from the wide river-bed.

" So far as I could see, the matter resolved itself into this : If a tiger was in the big sál forest, one or other of the rifles with the beaters might get a chance at and bag him. They were both good shots. If he was lying up for the day in the sissu copses near the water, as was more likely, we stood the best chance of seeing him, as he would probably leave before the beating elephants got up to him.

" The beat began, and indistinct sounds and noises came to us very faintly, too faint to be able to distinguish anything. I was on a fine staunch tusker, not unlike our friend Jung Bahadur over there. He was an old campaigner at his business, and had certainly been in at the death of over one hundred tigers. A magnificent beast he was, with his forehead painted in fantastic white designs, and his great tusks cut down to half their length and tipped with massive, engraved silver knobs. He had been lent to me by a Raja friend of mine, and a rare good sportsman himself. Many a jolly day had we spent together ; for as you know there are no finer gentlemen nor greater sportsmen than some of the old Indian families of Northern India can show.

" Well, the great elephant stood like a rock. He and his mahout below me were two living statues, and only by their eyes could you have known that they were alive. My orderly, just as keen, was sitting in the seat behind me, also motionless.

" What thrilling minutes those are spent in the howdah

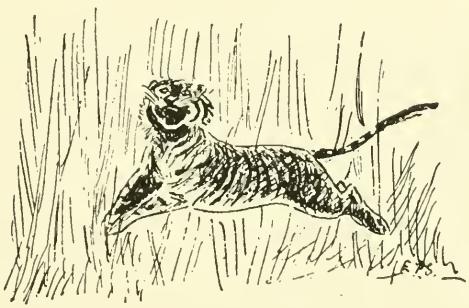
during a beat for tiger. The terrific heat is unnoticed. For to the real sportsman there is so much to study during the wait whilst the beating elephants are still distant. I was very interested, I remember, in the movements of some tiny tree creepers in the grass below me. Tiny little birds, as you know, their movements are extremely fascinating to watch. As they climb up the stems of the great grasses, prying their beaks into the sheaths, one wonders whether a tithe of the insects they make their daily meal off are known to science. The little beggars were searching systematically the various parts of the stems and flowers and seeds of the tall elephant grass—the tiger grass, as I like to call it—for to my mind there is no fairer sight than to see a tiger coming open-mouthed and roaring at you through it.

" Meditating on these things, my attention was suddenly attracted by a slight rustle in the grass on the other side of the ravine ; or I thought it was a rustle different from that of the wind in the grass, from which we were somewhat protected here. I concentrated my attention on the spot, and held my breath, my whole body stiff and motionless. Suddenly, without a sound, a tiger looked out of the edge of the grass, just where it dipped somewhat into the ravine. Only his head appeared, the head of a fine, nearly full grown male tiger, framed in the long grass. He must have been on higher ground, or up on a stone, for he was far higher than I had expected to see an animal appear; in fact, for a moment the thought crossed my mind that he was climbing up the grass stems. This notion was, of course, only momentary, and was replaced at once by my surmise of higher ground. As I recovered from my surprise, the head disappeared and silence reigned. None of us had budged an inch. The elephant very quietly coiled up his

trunk as soon as the tiger disappeared, or may have rolled it up before, as he was probably aware that a tiger was afoot long before it actually appeared. I had time to feel annoyed at being taken by surprise in such a manner, though anyway I should have had no more than a snap shot at the brute. We kept a close watch on the grass, but not a sound or movement betrayed the direction or position of the tiger. Suddenly a rifle snapped out on the right. I muttered something below my breath, in vexation, and at the same moment we heard the grass swishing violently. Something was approaching in our direction. Instinctively I brought my rifle to the shoulder, and at the same moment a tiger appeared bounding towards us. He did not see us at first, and made straight for the offshoot nullah, which we blocked. As he headed towards it, on the instant he caught sight of the elephant, bared his fangs in a snarl and then charged with a roar. I fired. He came on unharmed with a second savage roar, and leapt for the elephant's head, and dropped backwards with a heavy bullet through the brain. So close was he, that as he fell the tusker lifted one of his forelegs, and the tiger, falling against the knee, shot off it and rolled over and over into the ravine, where he lay still. Silence reigned and I reloaded. The encounter had roused us all, and from the quiet movements of the mahout I understood that the tusker was in a royal rage and wished to go in and have another turn with the tiger. He pacified him by degrees and we waited. The beating elephants were now out in the big river-bed, advancing through the patches of long grass and sissu copses. The shots had driven the mahouts and elephant boys crazy with excitement, and we could hear the voices raised in curses, objurgations and endearments to their respective elephants ; the most frightened, both man and elephant, making most noise, the latter trumpeting shrilly in alarm or indignation or pain, as they felt the goad battered down on their heads, giving off a dull, drum-like sound, or as its sharp point pierced through the skin behind the ear. The infernal pandemonium which always arises near the end of a beat, especially if it is known that one or more tigers are afoot, sets the blood dancing through one's veins, and makes it hard to keep the muscles tensely braced and the nerves quiet. I could see one of the howdah elephants on the wing coming through the tall

grass, the man in the howdah bending over now and then and looking downward into the long grass, his rifle half up to his shoulder ready for a snap shot. I began to think that it was all over, as I felt confident that no tiger could have remained out there so long, with that din on top of it.

"Again the grass on the far side of the nullah swayed slightly, and from almost the exact spot at which the tiger had looked out shortly before, another and very large tiger's head appeared. I could not have put my feelings of absolute astonishment into words, had I tried. But it is ever the unexpected that happens in sport. For an instant the big tiger stood at gaze and then came out of the grass and disappeared. There was a drop there, and I now understood the configuration of the ground. He had sprung down this and was in the long grass of the ravine. Whether he had seen the elephant or not I could not say. We were in shadow, so I think not. We traced his stealthy approach by the waving grass heads. Suddenly I saw a patch of him, and fired on the instant. A roar answered my shot, and I saw a bounding streak of yellow, at which I fired again, and it seemed to disappear. Before I had time to make up my mind as to what had happened, however, a second roar sounded on my ears. I hurriedly dropped the empty rifle and seized hold of my second in the rack. As my hand felt and grasped it, an undulating yellow streak came out of the grass and flung itself at the tusker's head with a blood-curdling roar. The elephant never moved, but raised up his head to endeavour to get the tigress, for she it was, on to his tusks. The movement unsteadied me, and I gripped the railing of the howdah with one hand to get my feet again, whilst I lifted up the rifle with the other hand. The tigress was now on the base of the elephant's trunk, endeavouring to make good a purchase, and the tusker was shaking himself in the endeavour to get rid of her. Only those who have been on an elephant in a howdah when the



beast is engaged in this performance can have the faintest notion of what it is like. At the first shake I was as nearly as anything shot out of the howdah like a parched pea. Desperately I clung to the rail and tried to get the muzzle of the rifle on to it. At last I got my feet wedged into either side of the howdah, and pressing my knees against the front, I gripped the rifle with both hands and cocked it. As I did so, I was again nearly flung out by a terrible shake, and at the same instant the tigress was sent flying into the ravine. I recovered myself, and was foolish enough to take a snap shot at her. As it happened, I hit her far back, and this only maddened her still further. Again she came for us, and this time the elephant gave a step or two, preventing me firing until the tigress was about to spring a second time for his head. This time, however, my bullet found its billet behind the neck, severing the spinal cord, and she dropped like a stone, as fine a fighting tigress as I had ever encountered.

" By this time I was bathed in perspiration, could hardly see out of my eyes for it, and was feeling pretty sore from the struggles I had made to retain my footing. But the tusker had now to be reckoned with. He was fairly roused, and to use a vulgar expression, was seeing red. Scarcely had the tigress dropped in a heap on the ground, when he rushed towards her, kicked her some yards with his fore feet, luckily not in the direction of my first tiger, then knelt on her and flattened her out of all recognition. Standing up, he got her between his feet and played pitch-and-toss with her between them, sending her backwards and forwards until she was a jelly. Then he varied his performance by dancing on her, until by degrees his ardour cooled, and the mahout's persuasions finally reduced him to something like sanity, although he remained a very vain, victorious, and exceedingly touchy elephant for a couple of days. The mahout had at first tried to keep him in hand and save the skin, but had then given up, recognizing that it would be as well to let him have his way and feel that he had come out the conqueror over the tigress ; for otherwise he might have been spoilt as a tiger elephant. As a matter of fact, he remained as good as ever, if anything more contemptuous of tigers than before.

" By the time the tusker had been brought to a fairly reasonable frame of mind, I was reduced to a state of total

exhaustion. To be played battledore and shuttlecock with in a hard-sided howdah, with the thermometer over 100 degrees in the shade, and that immediately after being charged twice by two different tigers, was an experience it is not given to many to go through. With difficulty I retrieved the rifles and put one of them to safety. Why that rifle had not gone off when it had been tossed about at full cock in the howdah is one of the mysteries I shall never be able to solve.

"As soon as I was capable of understanding anything, and that was not until I had had a long and exceedingly nasty hot drink—for it was before the days of the thermos bottle—I heard from my friend, who had come up, that two tigers had been found dead in addition to the mass of pulp which was all that the tusker had left of the tigress. An examination of the second tiger I had fired at, and which I had thought at the time had dropped in the grass to my second shot, showed it to be the fine big male, and this solved the riddle. As he dropped, the tigress, who must have been just behind him in the grass on the far side of the ravine, maddened at his death and at finding her retreat barred, came out bald-headed at us, and very nearly had her revenge for the loss of husband and son. They all came out at the same place, and were evidently using a well-known and familiar line of retreat to the hills.

"But for all that, it was the most wonderful piece of luck man has ever had, to have them all three at once and to get them all charging.

"The congratulations I received were hearty and sincere, as you may guess, and the skins of those two tigers, with the tail of the tigress, are amongst my most treasured sporting trophies."

PART II

GAME PROTECTION AND THE PROVISION OF SANCTUARIES FOR THE PRESERVATION OF THE INDIAN FAUNA

CHAPTER XX

THE INDIAN POACHER AND HIS WAYS

The Indian poacher without firearms—Decrease of animals owing to his methods—Elephant pitfalls—Bison, deer and other animals caught by pitfalls—Sambhar nooses—Light and ring method of trapping chital—Black buck nooses and fish-hook method—Netting pig—Use of poisoned bows and arrows—Light and bell method for hare—Netting hare—Trap-door cage for porcupine—Bow and arrow method for tiger—Trap-door cage and goat for leopard—Gun trap for leopard—Cage for jackal—Call method for jackal—"Flying-fox" netting—The snaring of birds—Liming for insectivorous birds—The peacock tail screen for pea-fowl—Nooses for pea-fowl—And hook and line—Call birds and nooses for partridge—The line of nooses—Netting—Methods of netting for quail—The basket trap for quail—Noosing pigeon—Nooses for duck—Bird-liming—Snaring the kingfisher—Egret killing.

BEFORE treating of the question of Game Sanctuaries and the Protection of the Fauna generally I propose to give a brief description here of a few of the methods employed by the Indian poacher without firearms to capture some of the mammals and birds to which protection is supposed to have been given in the past by the Game Act and Rules.

A great deal of discussion has taken place in India during the past couple of decades on the subject of the decrease of game animals in the country and their future preservation by the formation of Sanctuaries. The decrease has usually been attributed to the inadequacy of the Game Act and Rules made under it ; to the increase in the use, effectiveness and cheapness of firearms, and the ease with which the community, including the villager, can secure them, owing to the slackness with which permits for the possession and use of firearms are issued to all and sundry on the easily preferred pretext that they are required for the protection of crops from the depredations of animals ; to the former laxity in supervision over the sale of powder and shot ; and, finally,

to the decrease in the areas of jungle capable of affording asylum to some of the larger animals owing to the extension of agricultural lands, the development of the mineral wealth of the country, the building of railways and roads, and to the conservancy operations of the Forest Department through which the jungles are constantly disturbed.

All of these are, it may be admitted, factors leading to a decrease in the fauna and especially in the game fauna of the country and will be treated of in a subsequent chapter. But as important a factor, perhaps a more important one in its effects on the great decrease which is imperilling some of the species in the country, is to be found in the operations of the Indian poacher. The poacher has remained outside the notice of the Government and has had a free hand to perpetrate his nefarious practices. I propose to deal briefly with some of the methods by which this inhuman class of slayers carry out their operations. They will speak for themselves. Considerable ingenuity is displayed in many of the methods employed by the poaching fraternity. But any admiration one may feel for the cleverness is overwhelmed by horror as one realizes that both animals and birds are often done to death by methods the brutal callousness of which has to be witnessed in order to be credited.

A few of the common practices in force are enumerated below. Some of them I have myself seen and investigated personally. For others I am indebted to Messrs. Douglas Dewar and P. Wyndham, both of the Indian Civil Service ; and to Messrs. P. H. Clutterbuck, C.I.E., and W. F. Perrée, C.I.E., of the Forest Service, all well-known authorities who have studied this game- and animal-protection question.

Some Indian Poaching Methods of Trapping and Securing Animals and Birds

I. ANIMALS

Elephants

Pitfalls.—A barbarous method of catching elephants used to be commonly in force, and still is in parts of the country. Pitfalls are dug on the elephant tracks in all sorts of ground and carefully concealed. In spite of this animal's

great sagacity and caution it falls into them readily. The pits are dug—

(1) In a confined area such as a narrow pass over a range of hills, the pit being dug at a season when the elephants are absent from the area.

(2) Under certain trees which elephants are known to visit to eat the leaves or fruit.

(3) In groups in areas frequented by elephants.

The arrangement of these pits is very skilful. An open one is often left exposed whilst one or two others, dug close by, are carefully covered up with a light branchwood lattice-work which is overlaid with earth, twigs and leaves, so as to closely resemble the rest of the forest floor in the neighbourhood. In avoiding the open pit the elephant falls into one of the concealed ones. Or, again, a group of pits are dug at varying intervals in a comparatively small area. When an elephant falls into one of these some of the rest of the herd, in scattering panic-stricken, fall into neighbouring ones.

Or, again, the pit may be dug at the end of a large fallen tree. The elephant in going round the tree falls into the pit.

In Mysore the pits dug by the natives are ten and a half feet long by seven and a half feet broad and fifteen feet deep. This space by no means gives too much room to the elephant falling in, especially if it is a large one. The reason for keeping the pits small is to obviate the risk of the tuskers being able to use their tusks to dig themselves out by scraping down the sides of the pits. If left undisturbed for a couple of days after falling into a pit, male tuskers are said to be usually able to perform this operation and so escape. To prevent the animal sustaining injury in the fall either through broken limbs or internal injury due to the great drop to the bottom of the pit or to minimise this danger so far as possible, a strong bar is fixed across the mouth of the pit, about the centre, upon which the neck of the elephant usually strikes. The bar generally breaks under the great weight or at least bends, but its presence causes the animal to fall more or less horizontally on its feet. The shock of the fall could also be reduced by means of a thick cushion of branches placed at the bottom, but the natives digging the pit rarely bother to take this precaution owing to the extra labour involved.

Both in Mysore and in Madras in former times a large

number of elephant pits used to be kept up, in which many of the animals were caught annually. A very high percentage of the elephants so trapped died as a result of this barbarous method of securing them. In fact it may be said that as a general rule only the smaller animals on whom the shock of the fall was not so severe survived. Another cause of the high mortality was due to the inefficient supervision maintained over the pits by the jungle-men who were responsible for watching them and carrying information to the elephant-men. Owing to this carelessness many of the elephants so trapped died of starvation.

Both the Commissariat and Forest Departments in former days used the pit method to trap elephants, with the indifferent success which might be expected from such a practice when the great weight of the animal it was sought to trap is taken into consideration. The method has been given up, but in Mysore and Travancore Native States it was in force till lately, if it is not still in use.

In Mysore, for the sake of catching a few elephants annually to be utilized for State purposes, scores of animals are, or were, killed by this most cruel and barbarous plan.

Bison

Pitfalls.—Many other animals besides elephants fall into the pits which are primarily dug to secure the larger animal. Bison, boars, sambhar and other deer, are often the victims of the pitfall system. These animals, when found in the pits, are killed and eaten by the jungle-men. In fact it is the hope of obtaining the flesh of these animals incarcerated by bad fortune in the pits which forms the strongest inducement to the jungle-men to maintain an efficient watch over their charge. I have heard it said on good authority that in the past considerable numbers of bison were annually killed through falling into elephant pits and that these latter alone have led to a decrease in the numbers of this fine animal. In the interests of the preservation of this species, if we omit the question of cruelty, the pitfall system should be rigidly put down throughout India.

Cattle grazing in the forests also fall into the pits, sustaining broken limbs or backs.

Sambhar

Pitfalls.—Pitfalls are also specially dug in some parts of

the country, particularly in the south, to catch sambhar and other deer. The spots chosen for the pits are often on the edge of the cultivated tracts in the neighbourhood of the forest boundary. The pits are usually about four feet deep, narrower at the bottom than the top, with a stout sharp-pointed stake driven firmly into the soil at the bottom, its sharp end projecting upwards.

Sambhar come out at night to feed on the crops in the fields, retiring to the forests at dawn by one of their accustomed "runs." The animals fall into the prepared pits, becoming impaled on the stake where they remain in agony until the arrival of the inhuman beings who have prepared the trap.

The Noose.—In the United Provinces large grass nooses are placed in holes in fences in order to catch sambhar as they go in and out when making their nightly foray on the crops. Mr. P. Wyndham records this method and I have seen it practised in other parts of the country.

The above methods, it will become apparent, have no regard for the sex or age of the animal taken, nor for the season at which it is slaughtered. The Indian poacher counts these points as nothing in spite of the rules in force.

Spotted Deer or Chital

Pitfalls.—The pitfall system as described under sambhar is also used to catch the graceful spotted deer.

The Light and Rings.—The curiosity of the deer tribe is proverbial and advantage of this trait is taken by the native to kill the chital. This beautiful little deer is found in the more open parts of forest lands, as also in the dense jungles in many parts of India. The following methods are in force for trapping it.

Two men go out at night armed with the following apparatus: a lighted bull's-eye lantern and a bamboo some eighteen inches in length on to which two iron rods, bent to form arcs, are fixed. Six or seven iron rings are slipped on to each rod before it is fixed to the bamboo.

The men go out at night into an area frequented by chital, and, taking up their position, display the lighted bull's-eye and swing the bamboo gently, causing the rings to run up and down the rods. A curious grating noise is thus produced.

The curiosity of the deer is excited by the light and the unusual sounds and they come up to investigate the strange phenomenon, when they are promptly clubbed to death or shot without reference to age or sex.

Black Buck

The Noose Snare.—The black buck is a dainty little antelope inhabiting the plains of India, and frequenting the cultivated country. The natives have various methods of trapping this beautiful little beast.

A common method is to tether on the ground a system of nooses. A large number of pegs, to each of which a noose made of gut is attached, are fixed to a line which may be two hundred yards in length. The line of nooses is pegged out some hundred yards from where a herd of buck are feeding. The men then make a detour so as to get the animals between themselves and the nooses. The buck are then driven on to the nooses in which some of them get their feet entangled. The snarers then run up and knock the struggling animals on the head.

The Fish-hook.—A common device employed in the Pilibhit district and elsewhere is infinitely more diabolical and displays a fiendish cruelty. The apparatus is simple and consists of a strong fish-hook baited with the bael fruit. The hook is attached by a small piece of strong string, about eighteen inches in length, to the middle of a small piece of wood similar to that used by boys in England for playing tip-cat. A number of these baited hooks are prepared and scattered about in areas in which black buck are known to feed.

The little antelope is very partial to the bael fruit and takes the bait greedily. The strong hook gets firmly caught in the side of the mouth. To get rid of it the wretched animal makes frantic efforts, pawing at the place with his forefeet. This action sooner or later results in the string attached to the hook slipping into and up the cleft of the hoof, the piece of wood eventually stopping its further progress. The impact of the wood against the hoof drives the hook deeper into the flesh, at the same time causing the tortured animal to fall to the ground where it lies struggling convulsively until the fiends who are practising this devilish form of hunting run up and club it to death.

Pig

Pitfalls.—Pig, the wild boar and his female companions, commit serious depredations in the villagers' crops and our sympathies are with the latter in their efforts to stop the damage. But no countenance should be given to methods which result in torture or a lingering death.

The pitfall system, as practised for sambhar and spotted deer, is also used to trap pig.

Nets.—Pigs are also snared by being driven into a system of nets erected on the line of route they will take on returning to the forest after their foray into the fields. The nets are stout ones with a mesh of four inches by four inches. The nets erected, the men go round and stampede the pigs who bolt blindly for the forest and get enmeshed, when they are speared, knifed or shot. The flesh is eaten or sold in the bazaar.

This trapping of animals into nets with the object of obtaining the flesh, hides and horns, is very commonly practised in India, especially at seasons when the animals are collected together in numbers in a tract of jungle, e.g., during the hot season, near the only available water or in the monsoon when large tracts of country are inundated. Great drives are undertaken in which animals of both sexes and all ages are slaughtered in large numbers.

In Assam at certain seasons such drives are carried out, and great skill is exhibited in driving the animals into the nets placed on the outskirts of some thick patches of jungle. The animals stampede and get entangled in the nets in a frightened, struggling mass, and are then knocked on the head in a barbarous fashion.

Bows and Poisoned Arrows.—In some parts of India, more especially amongst the jungle tribes, trapping is not much resorted to but poisoned arrows are used for killing deer and pig, and even larger animals such as bison. The poison used is either decocted from some poisonous plant or shrub or rotten meat.

Hare

The native exhibits both ingenuity and his knowledge of the habits and idiosyncrasies of the animals he pursues in his methods of killing hares.

The Light and Bell.—The hare in Pilibhit is trapped in a

manner somewhat similar to the method employed for chital, advantage being taken of its bump of curiosity.

The apparatus employed consists of a bull's-eye lantern, a rug, a bell, and a stout club (lathi).

Two men go out at night. On arriving at a suitable locality they take up a position in Indian file, bend down and throw the rug over them so as to simulate a horse moving slowly along. The first man has the lighted bull's-eye and the bell, the second the club. The light and the bell excite the curiosity of the hare who approaches to investigate and is promptly clubbed to death by the rear man.

A modification of the above is to carry the light and bell, or a jingling apparatus, on what is known in India as a banghi—a long stout stick carried across the shoulder. The light hangs from one end and the bell or other jingling apparatus is suspended from the other. The man carrying the banghi walks ahead and the second, armed with a thick stick or club and a clap net, behind. The hare, attracted by the light and jangling, approaches and sits up to investigate. The second man claps the landing net over him, or clubs him, whichever is easiest of accomplishment.

Nets.—Clap nets are also erected at the corners of fields to catch hares, the net being placed on the run.

Porcupine

Trap-door Cage.—The trap-door cage in common use against panthers is also used to secure porcupines. It is described under panther below.

Tiger

Bow and Arrow.—In Chota Nagpur and the Central Provinces, and perhaps elsewhere, the jungle-men occasionally kill tiger with a large powerful bow. The arrow has an iron tip which is dipped in a deadly poison. The bow is fixed horizontally, at the height of a tiger's shoulder when he is walking, at a few yards to the side of a path the animal is known to use. The arrow is placed in the bow, the latter drawn to its full compass, and the whole fixed in an ingenious manner, so that a slight jar will set free the arrow. This jar is given by the tiger unwarily touching a fine line which is stretched across the path, being attached to the springing apparatus on the bow on the one side and to the base of a tree-stem on the other. The tiger springs the trap and the

arrow is shot into its side, with the result that its death is certain provided the poison is virulent enough. The bows used are of tremendous strength and size, and success is achieved on occasions, but the trap is by no means a certainty. The tiger sometimes becomes suspicious and quits the path before reaching the stretched line, or may even have the luck to walk over it without springing the arrow. The plan is more especially employed to endeavour to get rid of a man-eater or a cattle-lifter who has taken a higher percentage of the cattle than even the lazy jungle folk can suffer with equanimity. Ordinarily these men are far too lazy to take the trouble to set traps to kill tiger. This form of snare is very dangerous. Of course all the villagers in the vicinity are aware that it has been set but this does not apply to the casual passer-by. The villagers may forget to warn him or may not know of his presence, a stranger being a rarity perhaps in such remote parts. I believe this form of trap has, in fact, been prohibited, though it was in use when I first went to Chota Nagpur.

Leopard or Panther

The Trap-door Cage.—The panther is amongst the wariest and cutest of the jungle animals—so wary and so cute that the possibility of its being practicable to catch him in a cage would appear to be remote to those acquainted with one side of his character only. But the native of India alongside of whom he lives, and of whose stock in goats and dogs he is inordinately fond, is also possessed of very considerable ingenuity and the feud between the two is now several thousand years old. The leopard's great partiality for the goat is well known to the villager and affords the latter the chance of getting even with the animal. He builds a stout cage with a trap-door provided with stout iron bars and worked by a spring. The cage is set up in a suitable locality in the neighbourhood and a goat tied inside. The trap is in the nature of a sacrifice of old, for the goat is the propitiatory offering to be sacrificed. The apparatus being set the men retire and the goat left alone commences to bleat. The sound attracts the leopard but does not always result in his capture. This latter depends on how hungry he may be and whether hunger or greed will ultimately overcome his excessive bump of cautiousness and cuteness. If the former gets uppermost he enters the cage

and seizes the goat. The action releases the trap-door, which clangs down and the animal is a prisoner. His ultimate fate will then depend upon whether he is more valuable dead or alive. If he can be sold to a neighbouring Raja, many of whom keep menageries, his life will be spared ; otherwise his death follows on capture. I have seen leopards caught in this manner. It is common. The expression on the trapped animal's face is usually more of baffled rage mingled with shamefacedness that he should have been outdone in cunning by man, than of fear.

A simpler contrivance is a stone or log, so placed that a goat can be tethered under it. The least attempt to pull at the goat results in the stone crashing down and killing the leopard. This method is very commonly practised. Mr. Wyndham tells me that a man in Kumaon recently brought him in three leopards he had killed by this means.

The Loaded Gun Trap.—Sir S. Eardley Wilmot mentions this trap as in use in the United Provinces. The leopard's kill is placed in a zareba of thorns. Across the opening a gun loaded with buckshot is placed in position and sighted. To the trigger a long silken thread is fixed and stretched across the front of the zareba at the height of the animal's chest, the other end being tied to a tree or other convenient purchase. As the leopard comes up to the kill the pressure of his chest against the thread fires the gun and the charge is sent into the animal's side. If the leopard has achieved the reputation of being almost superhumanly cunning, instead of the thread a weight may be arranged to fall at the least touch on to a tight cord attached to the trigger.

Jackals

The Trap-door Cage.—Jackals are trapped by the trap-door cage method already described under the leopard.

The Call Method.—In the United Provinces a practice in vogue amongst the Kanjars and others for killing jackals is by calling them up. A native takes up his position outside a cane field armed with a branch of a tree, a call, and a couple of dogs whom he hides. He then starts calling to the jack, waving the branch in front of his mouth. This latter action breaks the sound of the call and renders it more natural. As soon as the jack comes close enough the dogs are set loose at him.

The "Flying-fox" or Fruit-eating Bat

Mr. Douglas Dewar has given me the following note on the method of trapping that loathsome mammal, the fruit-eating bat, which Europeans in India commonly call the "Flying-fox."

"Certain natives of India consider that Flying-foxes are good to eat; while the fat is said to be a remedy for rheumatism and impotency. As everyone knows, these creatures feed at night on whatever fruit happens to be ripe. Selecting a tree which from observation the men know will be visited after sunset by a colony of flying-foxes, they proceed to rig up a net in front of it, in the direction from which they know the bats will come. In order to put up the net it is necessary that there should be two trees taller than and on either side of the fruit tree the bats will visit; over one of the higher branches of each of these trees a long rope is thrown. Care is taken that neither rope becomes entangled in any twigs. It is essential that both may be readily pulled backwards and forwards. A net is then attached to one of the ropes and the two latter are tied together so that there is now but one length of rope that runs over both trees with a net in the middle. If a man goes to each of the loose ends of what is now one rope, and pulls them, the net is raised and hangs in front of the fruit tree. The net is thus raised just before the bats are timed to appear and is held in position until the first of these arrives. It is caught in the net. The men holding the sides of the rope let them run through their fingers so that the net with the entangled flying-fox falls to the ground. A third man secures the bat and as soon as it is removed the net is again pulled up in readiness for the next victim."

A very similar method was practised by the men who had to protect the crop of lichis and mangoes in the large compound of the house I occupied at Dehra. The bats used to arrive in flocks when the fruit of these trees was ripening, and were a great nuisance.

II. BIRDS

A large number of birds are destroyed annually by the natives without discrimination of species, season or close time, or the fact that the destruction of the parents in the

breeding season results in the young ones perishing in the nest. The damage resulting is of varying importance. The common practice of bird-liming by the "chirya walla" might almost be looked upon as an occupation or trade. Hundreds of thousands of useful insectivorous birds of the highest economic importance to the agriculturist must be destroyed yearly by this class of bird poacher. Other birds are snared for their plumage or for sale for food purposes. The methods commonly employed are those of the poacher pure and simple. In England such methods are met by prosecution and punishment. It is high time that many of the practices in force against bird life in India should be dealt with in the same way. The following are but a few of the methods in force.

Pea-fowl

The Peacock-tail Screen.—The man who thought of this was an ingenious dog. It depends, as in so many other instances in India, upon the natural pugnacity and fighting proclivities of the cocks and a knowledge of how to turn this trait to advantage. A screen or shield is made of the head and tail feathers of the peacock. With this screen and a stout heavy stick the man repairs to a spot in the neighbourhood in which he knows pea-fowl abound. As he approaches the locality he holds the shield in front of him with one hand, grasping the stick in the other. The man dances the screen, which completely hides him, up and down, thus making it look like a live cock bird full of fight and ready to take on all comers. The challenge is soon taken up by a wild bird who advances in battle order to fight and when within distance is knocked over by the man.

The Line of Nooses.—To a long line, which may be as much as two hundred yards in length, wooden pegs are attached at intervals. To each peg is tied a noose of twisted horsehair—the sinews of black buck are also used for the nooses—sixteen inches in diameter. The snarer proceeds with a pony to a spot which he knows to be frequented by pea-fowl. As soon as he sees a cluster of the birds feeding he crouches down behind his pony which continues to walk forward, and pays out his line of nooses, which is carried on the wrist. Each peg is stuck into the ground, the stiff noose projecting vertically upwards. When all the line has been paid out it stretches more or less tautly in a straight

line along the ground, the nooses at the end of their pegs projecting vertically from the ground surface. The man then continues on with the pony until sufficiently far away from the fowl to be able to make a detour, when he reappears on the far side and drives the birds on to the nooses. With luck he makes a good haul in this fashion.

Hook and Line.—Another method employed is to "fish" for the birds with a hook, baited with fruit, fixed to a long length of line.

Partridge

Call Bird and Nooses.—A tame partridge is placed in a wicker cage to which three or four double horsehair nooses are attached. The cage is set down in a locality known to be frequented by the birds and a network of similar nooses is pegged out all round the cage. The man then hides himself close by. The partridge is a pugnacious bird, always ready for a scrap. The bird in the cage commences calling and soon attracts a bird who considers the ground belongs to him. He commences attacking the caged bird unless previously snared, and soon gets caught in a noose. Others come up to join in the fray and the snarer is often rewarded by a good catch. As previously mentioned, and the point bears insisting upon, no respect is paid to season or sex by the men who ply this business.

The Line of Nooses.—This has already been described under pea-fowl. Crows are also trapped in this way.

Netting.—Clap nets are also set up at the corners and edges of fields with the object of taking partridges.

Quail

Netting.—Quail are probably more poached by netting than almost any other bird in India. Call birds are commonly used, the part of the field in the neighbourhood being netted. Another method is to draw a rope, held at each end by a man, through the standing crop (dál), the birds running before it being netted at the other end.

In a kodo field the net is drawn over the crop till the end of the field has been nearly reached. The net is then stopped suddenly and held down and the birds beneath it caught.

In the Central Provinces, according to Mr. Clutterbuck, the following method is employed, and I think in parts of Bengal also.

The Cul-de-sac Net.—The term best describes this

ingenious method of snaring quail. Two lengths of net, each about thirty feet in length and four and a half inches in height, are pegged out on the ground at an angle of about 130 degrees, a small opening being left between the two interior edges of the nets. A covered net about six feet in length is then pegged out, the opening ends joined on to the interior edges of the long nets, the rest of the net being stretched backwards from the latter so as to form an elongate conical channel, joined at the top and upper end, forming a *cul-de-sac*. The man commences operations by imitating the quail call and as soon as he gets a number of answers and hears the birds coming up, he pegs out his nets and then makes a detour so as to get the quail between himself and the nets. He then walks forward slowly in a zigzag manner towards the nets and when near enough drives the quail on to the nets. On reaching the two long nets the birds run along, seeking an opening instead of hopping over. Those that turn inwards, and they preferably run along the outward slope, eventually reach the opening into the *cul-de-sac*, into which they run and are thus trapped.

The Basket Trap.—The basket trap is another method made use of. An elongate basket with a hole at the top through which the hand can be inserted is used. The man ascertains, by careful observation and search, the bushes under which quail roost on the ground at night. This is determined by their droppings. He proceeds in the evening towards the spot marked down and as soon as the quail are asleep, a little after sunset, he approaches and drops the basket over the bush. He then inserts his hand and with luck will have the lot.

Pigeon

Noose.—A common method is to catch the pigeon round the leg whilst sitting on a tree, by means of a fine horsehair noose affixed to the end of a long thin rod like a fishing-rod.

Duck

Noose.—Strong bamboo uprights are pushed firmly into the bottom of a jhil (lake). These bamboos project some six feet above the water. They are connected together by a strong line tied to them about four or five feet above the surface of the water. From this horizontal line a row of nooses is suspended, about two feet apart, the noose being

about ten by seven inches. When the duck are flighting in the evening or early morning those passing just above the water in the direction of the snare are, unless they spot it in time and rise over it, caught by the neck and hang in this position until the snarer comes to fetch them. The method is successful, since it is not easy to see the line in the gloaming until the birds are up to it and almost impossible to perceive the much finer nooses.

Another method is to peg down a line, or lines, of horsehair nooses on the edge of a jhil and place a little rice in each snare, the snares being of course on the ground. The lines of nooses are all attached to a strong main line. This method does not appear to be quite as successful in its results as the former since it is common to find many more coots in the snares than duck.

Kingfisher

Liming.—I have already mentioned the bird-man (chirya walla) whose occupation is catching birds by liming. He is a common sight. He uses a long pole which can be extended to a considerable length by jointed pieces. It would be of very considerable interest, as it is of importance, to know the number of useful birds which this professional bird-catcher secures in the year.

He catches the large kingfisher by staking out a captured bird near the water and placing sticks of bird-lime close by. The free bird comes down to fight the staked one and is bird-limed and taken.

Egret

Net.—Some species of egret are of value for their plumage. A merciless war has been waged upon them and there is every danger that the species will become extinct. Since the plumage is borne in the breeding season the indiscriminate destruction of the birds by netting, shooting and so forth results in the young nestlings who have lost their parents inevitably dying. No species, however abundant and prolific, can stand this sort of merciless warfare waged on it without disappearing. If the plumage sellers are really concerned in maintaining the supply of articles of this nature for their commercial operations, it is time they asked the various Governments in the countries from which they draw them, to institute such methods of collection as shall ensure the proper preservation of the species.

CHAPTER XXI

GAME SANCTUARIES AND GAME PROTECTION IN INDIA

Necessity for the protection of the game and fauna generally—Abundance of game in former times—Causes of decrease of game—Opening up of the country—The sportsman—The native shikari—The unarmed poacher—Attitude of Supreme and Local Governments in former times to game preservation—Present attitude—Government of India the owner of the game—Attitude of villager in matter—The Game Sanctuary—Description of types of Game Sanctuaries—Game protection in the Central Provinces—Policing of Sanctuary—The New Indian Game Act—Some reflections on the Act—The outside sportsman in the district.

IN this chapter I propose to treat of the question of Game Sanctuaries and Game Protection ; whilst in the succeeding ones the matter will be regarded from the economic point of view and the wider aspect of the protection of the fauna of the country generally. All sportsmen who have studied the question at all closely will readily agree that it is not possible for a country, for any of the countries of the world, to continue indefinitely to provide either sport or commercial products unless some measure of protection is extended to the animals which yield them. Our own islands form an apt illustration. Had not a vigorous protection been afforded to the animals combined with the formation of extensive sanctuaries—the New Forest and Forest of Dean were Royal Sanctuaries in olden times—some of our formerly existing wild animals would have been exterminated at a far earlier date than was the case ; and nowadays all sport necessitates the closest protection, combined with artificial rearing, to maintain the required head per area. And the bulk of the animal life so reared and protected, deer, birds and fish, is sold for human consumption after it has been shot or captured.

BEATING ELEPHANTS IN THE BEAUTIFUL DENSE JUNGLES OF THE NEPAL TERAI—AN IDEAL GAME SANCTUARY

Sir F. P. Hewett, photo

TREE FOREST AND OLD RIVER BED ON THE RAMGANGA IN THE TERAI, UNITED PROVINCES

It might have been thought that a country so extensive as India would not have required that protection should be extended to its fauna for many a long year to come. Yet a perusal of the incidents and deductions contained in the previous pages will, I think, prove that this is by no means the case.

I propose, therefore, to lay down the rifle and consider the beautiful jungles of India from the point of view of the steps which appear necessary to ensure the maintenance of the game and fauna generally, in the threefold interests of its health-giving capacity and enjoyment to the hard-worked Anglo-Indian, in the interests of its revenue-producing possibilities, and in those of zoological science.

During the past decade or so it has become increasingly evident to the keen sportsman in India, to the man who is not alone animated by the mere desire to kill, that the game of the country is in many parts in serious danger of disappearing owing amongst other causes to the extraordinary developments in modern sporting rifles, to the greater facilities in communications and to the increasing numbers of those out to kill. With many others—it would be invidious to mention names since there must be many with whom I am unacquainted—I have given this question careful study for some years. As a result of observations carried out personally, and enquiries made in many parts of India, I have been gradually led to the conclusion that it is not only the game animals that are in jeopardy, but the fauna as a whole and especially that very interesting portion of it which has its home in the jungles and great forests. Under the orderly and systematic conservation of the forests by the Forest Department it has become evident that a proportion of the shier members of the fauna, those who require large areas of *untouched* primeval forest to dwell in, must without adequate protection inevitably disappear. Now this is an important matter, and admittedly opens out a very large question ; but it is one, I think, which is not beyond the scope and power of the Government of India to grapple with aided by the advice of its scientific experts, combined with the help which the true sportsmen in the country will be only too ready to offer. And it has its economic side, a not unimportant one. This aspect of the question, which it is probable will require similar consideration and treatment in America, Africa and

elsewhere, will be considered later. We will at present confine ourselves to the protection of game animals.

The most natural way to afford an asylum to animals which are in danger of extinction from overshooting, is by the closure of tracts of country of varying size to all shooting in order to allow them unrestricted rest to breed and increase in numbers. In this manner the recognized Game Sanctuary came into being and such exist in India, America, Africa and elsewhere.

In India we are only in the initial stages of this form of protection, and much yet remains to be done. By the placing on the statutes of the "Wild Birds and Animals Protection Act of 1912," to be dealt with shortly, the Government of India practically placed the whole responsibility for the protection of the game in the country in the hands of the Local Governments.

On October 24th, 1911, I read a paper before the Zoological Society of London[1] entitled "Game Sanctuaries and Game Protection in India." Dr. P. Chalmers Mitchell, C.B.E., F.R.S., Secretary of the Society, took this paper as the basis of portions of his Presidential Address before the Zoological Section of the British Association at Dundee in the following year. I shall refer to this Address later.

My paper dealt with the subject under various sections, portions of which I propose to briefly deal with here. The New Act of the Government of India received the assent of the Governor-General in Council in September, 1912. My paper only dealt with the draft Act which has little affinity with the measure actually passed into law.

If it is desired to obtain some idea of the abundance of game animals in India in the past, one has only to read some of the sporting chronicles of old-time shikaris. What a glorious shikar country it was in the days of yore, and what a royal time our fathers and grandfathers had of it !

To mention but a few of these classic volumes: Forsyth's *Highlands of Central India,* Sterndale's *Seonee or Camp Life in the Satpuras,* Sanderson's *Thirteen Years' Sport among the Wild Beasts of India,* Simson's *Sport in Eastern Bengal,* Kinloch's *Large Game Shooting in Thibet, the Himalaya, and*

[1] Published in *Proceedings Zool. Soc. Lond.*, p. 23. March, 1912.

Central India, Colonel Fife Cookson's *Tiger Shooting in the Dun and Alwar*, Baker's *Wild Beasts and their Ways*, Pollok's *Sport in British Burma*, Pollok and Thom's *Wild Sports of Burma and Assam*, Pollok's *Sporting Days in Southern India*, etc., and, a more recent and admirable volume, Eardley Wilmot's *Forest Life and Sport in India*. One and all of these stirring reminiscences convey in language which there is no mistaking that up to a score or so of years ago India was a paradise *par excellence* for the sportsman. What then, when we contrast present conditions, do these fascinating volumes teach us—inevitably tell us? That the game of India is on the decrease, on a very rapid decrease, and that the good old days of yore are gone never to return.

That the modern rifle has to some extent been responsible for the present state of affairs is beyond cavil—its accuracy and also the cheapness with which the more roughly made forms can be purchased. The native shikari has now to some extent replaced the old blunderbuss of his father's days by a breech-loader, and when possessed of such kills an infinitely larger head of game in the year as a consequence. The weapon itself costs 45 rupees only, but it is doubtless the price of cartridges which mercifully prevents the breech-loader from coming into as general use amongst this class of men as would otherwise be the case.

But the startling decrease which the head of game existing in India has undergone during the last two or three decades cannot be attributed only to the improved accuracy of the weapons with which the modern-day sportsman is armed. The opening out of the country and the consequent restriction of the animals is also largely responsible. It is now some years since the buffalo disappeared from the United Provinces forests—about the nineties of last century or thereabouts. Bengal and Assam, e.g., the Western Duars, no longer contain sufficiently extensive jungles to harbour rhinoceros and buffalo. The great increase in the number of sportsmen who visit the jungles annually on sport intent, an increase brought about chiefly by the greatly improved communications owing to railway and road development, has also been a great factor in the case, and motor-cars will intensify it. The two other important factors are the native armed shikari and that curse of the country the unarmed poacher. It is probable that there are—because the trade is now a more paying one—an infinitely greater number of competent

native shikaris in existence ; I write " competent " in the sense merely to express their power to *kill* game. The vast majority of these men are poachers pure and simple, as were their fathers and fathers' fathers before them. Formerly, however, owing to their antiquated low-power weapons, the damage they were capable of doing was of a negligible quantity : nowadays it is far otherwise, and the methods to be put in force to deal with them form one of the most difficult problems those responsible for the upkeep of the game in the forests, and country generally, have to solve.

The plea ever placed in the forefront by such men is that the guns are required to protect the villagers' crops, and this plausible excuse has been accepted in the past by Local Government after Local Government ; and we can quite see the difficulties that have confronted the latter, and still do so, in a settlement of the question. It cannot, however, be said to have been ever satisfactorily or fairly faced, and this inaction on the part of the central authority has checkmated the efforts of many a Collector and Forest Officer in his attempts to keep down the number of (poaching) guns in a district. A sympathetic Government was always too eager to listen to the tales of destruction of crops, and the District Officer, without local knowledge, preferred to err on the side of liberality, and so readily granted licences to applicants.

We all know the way these licensed gun-holders go to work. A machan (platform) is built on a known deer-run on the edge of the forest and just without its boundary, if not inside, with the connivance of the Forest Guard. The shikari occupies his post in the late afternoon—he is no respecter of a close season or of sex or age—and by sunrise next day several bucks and hinds may be lying round the machan ; the skins, horns, should there be any of the latter, and the flesh are taken off to the bazaar, where a ready sale is found for them throughout the country. The meat is sold locally, the skins and horns being bought by middlemen for export. It was a common thing to see on the platform at wayside stations near forest areas piles of skins and horns booked, and openly booked, in defiance of all rules and regulations, to some large centre.

I would not be understood to say that it is the native shikari alone who acts in this way. It is an open secret

that the native soldier of shikar-loving propensities, as also his British brother, will act in an exactly similar manner when occasion offers. Once, however, this matter is properly faced, the latter class of offenders can easily be coped with. For the non-military native offender a licence to protect his crops should be given only after careful personal enquiry on the ground by the District Officer. Also the sale of venison in the open market should be made a criminal offence.

The whole crux of the position is, of course, the necessity for regulating the number of animals killed, so as to prevent deterioration or extermination of the game. The European has generally been considered to be more destructive than the native of the larger animals, gaur, rhinoceros, buffalo. But even this is doubtful, when the poaching proclivities of the native are taken into account. In any event rules and the proper control and management of shooting-grounds can control the European. The native is, however, not so easily dealt with. In order, therefore, to arrest the slaughter which takes place ostensibly to protect crops, some special measures are necessary. Wherever it can be proved that game is no longer destructive, the licences should be cancelled and the weapons called in. In other cases where destruction is still being done the guns must be retained. Since, however, these weapons are given merely for the protection of the crops, they should be restricted to that purpose and be rendered unfit for any other. This can be easily done by cutting down the gun-barrel to eighteen inches or two feet.

There remains the unarmed poacher. To date this man and his methods appear to have escaped all notice. And yet the part he has played in the past and is playing at present is bringing about a serious decrease in the game —and other animals—which is at least as great if not greater than the rest of the above-mentioned causes put together. The Government to date has never considered this side of the question. And yet this is the conviction held, I believe, by many well-known authorities, such as, e.g., Mr. Douglas Dewar, I.C.S., P. Wyndham, I.C.S., P. H. Clutterbuck, I.F.S., and W. F. Perrée, I.F.S. I have detailed in the previous chapter some of the poachers' methods, the diabolic barbarity and inhuman cruelty of which is beyond credence. There can be little doubt that with this record before one, and but a

tithe of the practices in force throughout the country have been mentioned, the poacher must be put down if game animals are to be afforded adequate protection.

It may be admitted, so far as the sportsman is concerned, that the steps taken to protect game have considerably improved the position. Local Governments throughout the country have revised their Game Rules, and in some cases have ordered the formation of Game Sanctuaries in addition to limiting the number of head of game to be shot in a district or block of forest to a definite number per year. Further, in certain provinces sportsmen are only allowed to kill individually a certain head of each different species of animal, thus eliminating the worst feature of the old-time sportsmen—the butcher, whose boast was not the size of the trophies he obtained so much as the *number* of animals he had killed. For the departures thus made throughout the country I think a due meed of credit should be accorded to the Nilgiri Game Association. Inaugurated about 1885, this Association has now for years not only protected the game of the Plateau which the sportsmen and the Todas between them were surely exterminating, but has enabled an increase to be maintained and recorded. The annual reports of the Association point to a satisfactory increase in the head of ibex or saddlebacks (*Hemitragus hylocrius*) and the sambhar (*Cervus unicolor*). For some years past the number of such to be shot by each sportsman has been regulated under the authority of the Association, directly supported by Government. The departure thus initiated in the distant Southern Plateau was followed in the far North when the game of Kashmir was threatened with extinction owing to the annually recurring large influx of sportsmen who visited the Fair Vale. Game Protection in Kashmir now forms a separate Department of the State, and one which has fully achieved under its able head the objects anticipated from its inauguration. The late enlightened ruler of Chamba State also took up the question, and prohibited all shooting except on passes issued on his own authority.

Whilst such laudable commencements were thus made to preserve the game of areas which, owing to their peculiarly favourable climatic conditions for the European sportsman, were threatened with extinction, the Local Governments in India for long remained apathetic in the matter. Game

Rules were in existence for the Forest Reserves of the country, but they related chiefly to a close season, the latter in some cases only applicable to the females, and the same was the case for the open country, where the rules usually related to birds only. These regulations were, however, openly broken, and the penalties in existence were practically rarely put into force, except by some exceptionally energetic officer; and even then an appeal was often upheld and the orders passed reversed.

At length, however, the apathy that hung over this question gave place to some show of interest, which was followed by activity on the part of the Government of India, galvanized into activity by the outcry, increasing in intensity each year, that the game of the country was doomed and that but a few years separated it from extinction. Local Administrations were addressed on the subject of the Rules and Regulations in force in their Presidencies and Provinces under the Forest and other Acts, and as to the steps necessary to be taken to prevent the extinction of the several heads of game, excluding carnivora. This led to many separate enquiries being undertaken throughout the country, to a prolific correspondence in the Press, of which desultory rumblings are still heard, and to many improvements being initiated in the Shooting and Game Rules throughout India. I am aware that I am laying myself open to serious attack in thus stating the case, but it is maintained that any and every rule that is made with the idea of *protecting* the game of a country is a step in the right direction, and therefore advantageous both to the sportsman and the game itself, however hard it may seem to fall on a particular body of individuals or on a particular individual.

What was required was to fix the close seasons definitely, and the Government of India have now, as we shall see, promulgated an Act to give power to fix a close season for different kinds of animals.

It must be remembered that the old-time rulers in India were the *de facto* owners of all the forests and waste lands of the country, including all the animal inhabitants thereof. The Government of India are the present owners, and have, therefore, every right to safeguard this valuable property. They have done so in the case of the forests. But they have been slow to realize the value of the animals and the

fact that a very reasonable profit can be made out of this valuable asset.

The native of India has never made any claim to the ownership of game animals (mammals) or birds, since he has never possessed it. He only asks that his crops should be protected against their depredations, and legislation which will do this will never be resented.

That steps have been taken in the right direction is all to the credit of the Administration, but a study of the present position renders it obvious that many of the difficulties have not as yet been faced by the authorities. I propose to allude to these in the succeeding sections. It will first, however, be necessary to consider what the Game Sanctuary really is and what its formation aims at.

The Game Sanctuary[1]

The idea of the Game Sanctuary was a natural outcome of the indiscriminate slaughter to which wild animals have at all times and in all countries been subjected by man. So long as it was man imperfectly armed against the animal with its natural sagacity or fierceness to protect it, conditions were equal, or in favour of the animal, and there was no reason for intervention. From the day, however, of the introduction of the breech-loader and the repeater and a whole host of perfectly built weapons of every kind, enabling man to kill with comparative ease and certainty, the odds were against the animal and the question of affording some degree of protection to the game of a country became of paramount importance ; and, curiously enough, the question became most vital in the more uncivilized, uninhabited, and wilder portions of the globe. Such shooting grounds were open to one and all, just as for centuries the shooting in India had been open, with the result that the modern rifle soon threatened the extinction of all game. That modern conditions have rendered this quite feasible the two well-known and oft-quoted instances afforded by the practically extinct American bison and the extinct quagga of South Africa sufficiently illustrate.

In India we have come within measurable distance of

[1] For a list of the Game Sanctuaries of the country, both in British India and the Native States at that time, see my paper on "Game Sanctuaries, etc.," *Proc. Zool. Soc. Lond.*, pp. 33–46 (1912).

THE LUNCHEON DURING A TIGER SHOOT IN THE HOT WEATHER IN THE TIRAI JUNGLES

Sir J. I. Hewett, photo

STARTING OUT FOR THE FIRST BEAT AFTER LUNCHEON, A CHARACTERISTIC SCENE OF THE MEDLEY OF HOWDAH AND BEATING ELEPHANTS

exterminating the rhinoceros (*Rhinoceros unicornis*), which, together with the elephant and the gaur or Indian bison (*Bos gaurus*), would without protection probably soon disappear from the jungles which have known them for so long.

With a view to affording a certain protection to animals of this kind and of giving a rest to species which have been heavily thinned in a district by indiscriminate shooting in the past or by anthrax, drought, etc., the idea of the Game Sanctuary was introduced into India (and in other parts of the world) and has been accepted in many parts of the country. The Sanctuary consists of a block of country, either of forest or grassland, etc., depending upon the nature of the animal to which Sanctuary is required to be given ; the area has rough boundaries such as roads, fire lines, nullahs, etc., assigned to it, and no shooting of any kind is allowed in it if it is a Sanctuary pure and simple ; or the shooting of carnivora may be permitted, or of these and of everything else save certain specified animals.

Sanctuaries may be formed in two ways :

I. *The area is automatically closed and reopened for certain definite periods of years.*

II. *The area is closed until the head of game has become satisfactory, and the shooting on the area is then regulated, no further closing taking place, save in exceptional circumstances.*

I. *The Sanctuary is automatically closed and reopened for a definite period of years.* The Sanctuary is notified for a period of years : this period would naturally be variable, but it is of importance, I think, that it should not be placed at too great a length, or the animals in the Sanctuary, so long immune from danger, would on the reopening of the area be so unused to the sportsman that they would be shot down in a very short space of time. Probably the period during which a block of forest is closed to all shooting should never exceed, at the most, three years. Sir John Hewett, when Lieut.-Governor of the United Provinces, held the opinion that a period of five years for a Sanctuary was too long. He thought that the ground of the Sanctuary should be changed every two or three years, probably the former, and that the animals would soon learn where the Sanctuary was. He also agreed that before opening a Sanctuary to sportsmen the area should be *beaten* through so as to distribute and disperse the game, and not have them

collected together Noah's-ark-fashion on a large scale for the first permit-holder who enters to shoot down with ease.

Whilst, however, this system of opening and closing areas to shooting is best adapted to some localities and to certain classes of game, it is quite inadequate for the satisfactory protection of others. In many parts of India I would favour the second suggestion as being by far the most satisfactory in the long run and in some cases essential.

II. *The area is closed until the head of game has become satisfactory, and the shooting on the area is then definitely regulated, no further periods of closure being enforced save in exceptional circumstances.*

The length of time a Sanctuary should be in existence is of very considerable importance, and to a certain extent is intimately dependent upon a knowledge of the habits of the animals for which the Sanctuary is formed. The period of closure to be effective must depend :

(1) On the condition of the head of game of the area when the Sanctuary is first formed.

(2) *On the nature of the animal*, e.g., the rhinoceros, with a period of gestation of two years and a period of fifteen years before it reaches maturity, would require practically permanent closure of its haunts to produce any appreciable result, as has, in effect, been carried out in Goalpara in Assam.

The procedure followed should usually be determined by the condition of the head of game on an area. There would be no question of fixing a definite period for the Sanctuary in the first instance. When the requisite effect on the game had resulted from its formation, careful and efficient rules and management should be sufficient to keep up the head of game, and it would not be necessary to continue the rigid exclusion of sportsmen. It would be sufficient to limit *the number of each species* to be shot *each year*, as is done in many parts of the Central Provinces. When the limit had been reached the shooting of the species in that locality would cease for the year.

Once a sufficient head of game has been established in a locality, it is questionable whether regulated shooting each year would not have a better effect than the alternative proposal of closure for a term followed by a period of unrestricted shooting. It would certainly minimize the chance of the animals becoming too tame.

It may be of interest to give as an instance the procedure in the Central Provinces.

As a whole, the Central Provinces may be considered to be one of the most advanced regions so far as game protection is concerned. The shooting regulations provide that areas or blocks of forests may be closed to shooting *absolutely* for purposes of forest management or as *sanctuaries* for the protection of game, other than carnivora, for the destruction of which special permits may be issued. The list of closed forests or blocks is prepared each year in October by the Conservators and is published in the Central Provinces Gazette, and copies are hung up in the offices of the Deputy Commissioner and Forest Officer.

It will thus be obvious that the Game Sanctuaries in the Central Provinces are formed automatically by the closing alternately of different forests or blocks of forest yearly. As a matter of fact, however, most of the present Sanctuaries, though in many instances reduced in size, have been Game Sanctuaries since 1902, though a few others have been added later. It would be better if these areas were closed for periods of not more or less than three years. Of course, in the case of areas reserved for purposes of forest management it is possible that they are closed for a considerable period of years, but nothing is said on this score in the rules nor as to the length of time blocks are closed for purely sanctuary purposes.

In addition to the automatic closure and opening of blocks there are other most valuable restrictions for the preservation of game, and I believe that I am correct in stating that this procedure is now applied to most of the blocks, instead of automatically closing and opening them. In any particular block or series of blocks only a certain head of any particular species may be shot. As soon as this number has been reached, that species is closed to shooting for the year. This rule might well be introduced elsewhere in the country. The permit of each sportsman is endorsed with the number of head he may shoot, e.g., one bison, one sambhar, two chital, four other deer, and carnivora *ad. lib., provided the maximum number of head of the species allowable to be shot in the year has not been already reached.* This latter information is supplied to the sportsman either by the divisional officer or by the Range officers in the areas for which his permit is made out. Were not this latter pro-

vision in force, one sportsman might shoot the whole number of, say, barasingha (*Cervus duvauceli*) permissible for the year and thus close this particular animal to succeeding rifles for the rest of the season—a somewhat unfair and onerous restriction.

The size of a Sanctuary must, of course, entirely depend on local conditions and on the nature of the animals to be protected. Such animals as the rhinoceros or gaur, which are of an extremely shy disposition and are given to roaming considerable distances, would require an area of considerable dimensions, whereas chital (*Cervus axis*) and hogdeer (*Cervus porcinus*) would require a comparatively small one.

Pheasants, again, would not require large areas, and the same applies to the hill sheep and goats—a nullah or certain nullahs being proscribed as closed to shooting, as, in fact, is done in Kashmir.

Game Sanctuaries may then be of several kinds :

1. Entirely closed to all shooting.
2. Closed to beating only.
3. Closed to the shooting of certain species of game.
4. Closed to shooting of all game, save noxious ones, carnivora, pig, etc.

The question of enforcing the Sanctuary law against shooting is one of some difficulty. In Reserved Forests it is comparatively easy, since all shooting without special passes in such areas is forbidden and the granting of these would be stopped for Sanctuaries. Outside, however, the matter is by no means so simple, and the people of the country, particularly the shooting element, will require a careful education if they are to understand and respect the Sanctuary, should it be formed in Government Waste Land. It will be necessary to fully explain the uses of Sanctuaries, and the reason for closing the areas as soon as attempts have been made to form them.

At present anyone may enter on land, which is not reserved forest, and shoot. To alter this would at once curtail what is a prescriptive right, and this is the main obstacle to the introduction of a Game Law. Rich and poor alike enjoy this privilege, and although the occupier may in time come to learn that shooting rents can add to his income, or reserve his waste land for his own shooting and close it to the general public, as is done in some cases in the Dun below the Mussoorie Hills, it will be difficult to introduce restrictions

on areas in which shooting is practically a right in all but name.

It is, we fear, hardly to be expected that the question of the formation of Sanctuaries and their closing will be received without opposition throughout the country, even amongst the Europeans, but I am of opinion that the matter is one of such great importance that the outcry of the few interested people opposed from personal motives to their formation on Government Land, both Reserve Forest and Waste Land, should not be allowed to blind the public generally to their immense value. It is conceivable that the Zemindar and large landed private proprietors would in course of time follow an example so set when its value had made itself apparent to them.

The policing of the Sanctuary is a matter requiring some consideration. It may prove comparatively easy to check illicit shooting both on the part of the European and native, although even this is not a facile matter in the case of Sanctuaries of large size in remote localities. The question of dealing with the poacher pure and simple who goes to work without firearms is even a more difficult problem, whose importance, as we have seen, has as yet been scarcely realized by either the Supreme or Local Governments.

The Indian Wild Birds and Animals Protection Act of 1912

This Act was passed on 18th September, 1912. It is entitled—" An Act to make better provision for the protection and preservation of certain Wild Birds and Animals."

Its clauses are as follows :—

Short title and extent.—1. (1) This Act may be called the Wild Birds and Animals Protection Act, 1912 ; and

(2) It extends to the whole of British India, including British Baluchistan, the Sonthal Parganas, and the Pargana of Spiti.

Application of Act.—2. (1) This Act applies, in the first instance, to the birds and animals specified in the Schedule, when in their wild state.

(2) The Local Government may, by notification in the local official Gazette, apply the provisions of this Act to any kind of wild bird or animal, other than those specified in the Schedule, which, in its opinion, it is desirable to protect or preserve.

3. *Close time.*—The Local Government may, by notification in the local Gazette, declare the whole year or any part thereof to be a close time throughout the whole or any part of its territories for any kind of wild bird or animal to which this Act applies, or for female or immature wild birds or animals of such kind ; and, subject to the provisions hereinafter contained, during such close time, and within the areas specified in such notification, it shall be unlawful—

(*a*) To capture any such bird or animal, or to kill any such bird or animal which has not been captured before the commencement of such close time ;

(*b*) To sell or buy, or offer to sell or buy or to possess, any such bird or animal which has not been captured or killed before the commencement of such close time, or the flesh thereof ;

(*c*) If any plumage has been taken from any such bird captured or killed during such close time, to sell or buy, or to offer to sell or buy, or to possess, such plumage.

Penalties.—4. (1) Whoever does, or attempts to do, any act in contravention of Section 3, shall be punishable with fine which may extend to fifty rupees.

(2) Whoever, having already been convicted of an offence under this Section, is again convicted thereunder shall, on every subsequent conviction, be punishable with imprisonment for a term which may extend to one month, or with fine, which may extend to one hundred rupees, or with both.

Confiscation.—5. (1) When any person is convicted of an offence punishable under this Act, the convicting Magistrate may direct that any bird or animal in respect of which such offence has been committed, or the flesh or any other part of such bird or animal, shall be confiscated.

(2) Such confiscation may be in addition to the other punishment provided by Section 4 for such offence.

Cognizance of offences.—6. No Court inferior to that of a Presidency Magistrate or a Magistrate of the second class shall try any offence against this Act.

Power to grant exemption.—7. Where the Local Government is of opinion that, in the interests of scientific research, such a course is desirable, it may grant to any person a licence, subject to such restrictions and conditions as it may impose, entitling the holder thereof to do any act which is by Section 3 declared to be unlawful.

Savings.—8. Nothing in this Act shall be deemed to apply to the capture or killing of a wild animal by any person in defence of himself or any other person, or to the capture or killing of any wild bird or animal in *bona fide* defence of property.

Repeal of Act of 1887.—9. The Wild Birds Protection Act, 1887, is hereby repealed.

The Schedule

(i) Bustards, ducks, floricans, jungle fowl, partridges, pea-fowl, pheasants, pigeons, quail, sand-grouse, painted snipe, spur-fowl, woodcock, herons, egrets, rollers and kingfishers.

(ii) Antelopes, asses, bison, buffaloes, deer, gazelles, goats, hares, oxen, rhinoceroses and sheep.

Some Reflections on the Act

It will be of interest to consider in some slight detail several of the provisions of this Act. The Provincial Rules in force when it was passed comprised the Arms Act, Forest Act and Fisheries Act. The new Act extends to all India with the exception of Burma, and, of course, the Native States. Some of these latter are, however, already doing excellent work in Game Protection and others will doubtless follow any firm lead set them by the Imperial Government.

In many respects the present Act is a great improvement on the draft one. Instead of being confined to "game" animals and then endeavouring to define "game," "large" animal, and "specified kind" of animal it contents itself with the title "Wild Birds and Animals Act." The title, zoologically, is unfortunate, since the word "animal" comprises the whole of the fauna. If only birds and beasts are understood the title should have been "birds and mammals." I use the word "animal" to include the fauna as a whole. Section 2 (1) of the Act makes it applicable to certain classes of animals and birds specified in the Schedule, but with the saving clause, 2 (2) that the Local Government may by notification in the local Gazette apply the provisions of the Act to any kind of Wild Bird or Animal, other than those specified in the Schedule which, in its opinion, it is desirable to preserve. Thus in this respect the onus is put upon the shoulders of the Local Government. This is also the case with reference to the "close seasons." The responsibility of declaring a close season either for a part or the whole of the year for any species—"Kind of wild bird or animal," as the Act puts it—to which the Act applies is laid on the Local Authority.

The Schedule is the weak part of section 2 (1). It would have been far better either to have drawn it out in a more detailed form or to have omitted it altogether, the Local

Government being empowered in clause 2 (2) to enumerate a list of birds and animals which might be exempted from the protection of the Act from time to time, when their numbers had become excessive or for other specified reason. The periods of such exemption to be limited to a certain maximum, an extension of which period would require the sanction of the Government of India.

But even better than this would, I think, have been the preparation of a list of the fauna by groups and its inclusion in the Act. This, of course, can be done by Local Governments and it is a step which, I believe, is being undertaken in some Provinces. On this question I made the following remarks in my paper read in 1911 :—

" If the drafters of the Act were to apply to any Zoologist in the country who has a practical working and sporting knowledge of the game life of India they could be furnished with detailed lists of animals both large and small ; and by ' animals ' I here mean ' mammals ' classified, say, into some such groups as, e.g.—

" (*a*) *Carnivora.* Each species in the country to be quoted.

" (*b*) *Herbivora.* Each species in the country to be quoted.

" The various deer, antelope, goats and sheep are all perfectly well known, and the preparation of lists detailing each animal by name is an absolutely easy matter.

" (*c*) *Rodentia.* Including the hares, porcupines, etc., the total extinction of which from a sporting point of view is far from desirable.

" (*d*) A *General Group* which may be made to include the rest of the *Mammalia.* This would allow protection to be extended, should it be deemed necessary from the point of view *of the preservation of the species* in the case of rare species now perhaps being exterminated for the value of their fur or for other reasons, to animals not at present included in the sportsman's category of Game.

" Turning to the Birds. There is no distinction made between migratory birds and non-migratory birds, and no mention made at all of *Insectivorous* Birds, and yet the distinction is one of enormous value in a great agricultural country like India, where the benefit the cultivators must derive annually from insectivorous birds is quite incalculable.

" I suggest that the Birds be sharply defined into groups and the names of all the game birds and of all the chief insectivorous birds be definitely given in the Act. This like-

wise is a matter of the greatest simplicity, since there would be no difficulty in drawing up such lists."

Similarly in section 3 it would have been preferable had the Act definitely laid down with the authority of the Supreme Government behind it that the breeding seasons for all animals and birds should be a *close time* and have made Local Governments responsible that the breeding seasons for each species were definitely ascertained in their several jurisdictions and notified in their Gazettes. Not only would this have been more satisfactory in the interests of the preservation of all game animals, but it would have been a valuable aid to an extension of our knowledge of the life histories of many of the rarer animals and birds, since in order to render possible the working of the Act it would have been necessary to undertake such investigations throughout the country. Also it would have afforded certain protection to animals and birds other than " game " ones which run the chance of being neglected under present conditions.

The extension of this close or breeding season to a longer period for specified reasons could have then been safely left in the hands of the Local Authority. From the zoological and scientific point of view the Act of 1912 fails in not having officially and authoritatively recognized the breeding season in the interests of the fauna as a whole as a close time, power being given to the Local Government to proscribe within a certain defined area and for a certain definite period any species which was becoming noxious to the community.

Further, it would have been better had the Act (sec. 3) distinctly prohibited the killing of immature animals and birds, empowering Local Governments to notify exceptions in the case of dangerous carnivora, etc., when and only when considered necessary. If the Act is really intended, as we have no doubt that it is, to ensure the preservation of the fauna as a whole throughout the country certain definite prohibitory clauses laid down in the Act with the Authority of the Governor-General in Council behind them would surely be more likely to achieve the object arrived at than by placing the onus of enacting such clauses on the respective Local Administrations.

In sub-sections 3 (*b*) and (*c*) which concern themselves with the sale of animals and birds or parts of them killed in the close season, we should have liked to see skins and

horns especially enumerated. This would have checked their sale in the close seasons ; for the local officers would be acquainted with these seasons for the fauna of their own Province and Districts, and would be responsible for seeing the Act obeyed.

It is true that Local Governments have now framed Rules under sections 2 and 3, but this does not necessarily ensure such continuity of action as would have been secured had the Government of India taken the responsibility upon themselves.

There remains the poacher who without possessing firearms certainly outrivals in his power for cold-blooded slaughter the whole of the armed community. Neither the Government of India nor the Local Governments have yet attempted to deal with him. Clauses 2 and 3 do not really touch him. As the chapter on poaching shows to some slight extent his operations can only be described as devilish in their inhuman ingenuity. To the average officer, whether magistrate or forest, they are unknown. Even if a District official has some cursory knowledge that the native is a skilled poacher he in most instances has no specific acquaintance with the methods, the common methods, in force in his district and he will never have seen them put in force practically. The Government of India and the various Local Governments are, we may feel sure, unaware of their existence, or surely some effort would have been made to put an end to practices which involve appalling torture to the wretched animals thus done to death.

It may be suggested that what is required is the preparation of a schedule for each Province, detailing the various poaching contrivances in force in the Province, drawn up district by district. The schedule should be hung up in the offices of the Magistrates and Forest Officers and their subordinates, and a thorough acquaintance with it be exacted from all officers. Further, an annual return should be called for detailing the number of offences under each of the various poaching methods in force prosecuted in each district and the sentences imposed in each case.

The preparation of such schedules should present no difficulties. Some of the European officers of the Local Governments and many of the native officials would be able to give such information. By whatever means they are drawn up there can be little doubt of their urgent need.

In this connexion the 1912 Act would appear to require amendment, and severe penalties be enacted on the perpetrators of the cold-blooded and diabolical butchery of inoffensive animals which annually takes place throughout the country all the year round. For these men are no respecters of seasons nor of age or sex. Male and female, old and young, all are treated with the same terrible callousness. A man working a lame horse is taken up by the police in England and fined by a magistrate. And rightly so. And yet far greater barbarities are perpetrated daily in India without notice.

It is very necessary to stop the slaughter at present carried out by the native shikari, soldier and poacher during the close seasons, the proceeds of which slaughter in flesh, skins and horns finds a ready sale in the bazaars. Stop this traffic and you bring to an end one of the great incentives to kill.

Sub-sections 4 (1) and (2) deal with penalties. In a country like India it has always seemed to me that there should be two scales of fines. Fifty or a hundred rupees should be a sufficient deterrent to the poaching native shikari. But would it stop the more wealthy European shikari who, for instance, wanted to be able to say that he had shot a bison and sooner than go back empty-handed would risk the penalty and shoot a female? I had an instance of this kind of thing in Chota Nagpur myself. A wealthy so-called sportsman came up with a permit to shoot and seated in a machan had the animals in the forest driven past him and shot a cow bison and a three-week-old calf! The penalty did not stop him and he hoped by bluffing to be allowed to keep his spoils even if he had to pay the, to him, small fine.

Section 5 empowers the magistrate to confiscate all illicit spoils captured and should be fearlessly and unwaveringly put in force.

Section 7 empowers a Local Government to permit in the interests of scientific research a departure from the rules in force both in and out of the close season for any specified animal or bird or classes of such. A short decade ago this would have been hailed, and rightly hailed, as an example of broad-minded statesmanship. Now, however, the permission will require to be jealously watched; for the last few years have witnessed startling developments as a result

of the grant of such permissions. In fact so delicate has this question become that we would rather that the Supreme Government had kept this power in their own hands. Latter-day so-called scientific expeditions for the purpose of adding specimens to great Museums, to provide cinematograph films for alleged educational purposes, and so forth, have entirely altered the aspect of this question. For in some instances these so-called scientific missions have simply become glorified slaughter and butcher expeditions financed by a wealthy man in the name of science. The old-time butcher has not disappeared. He still exists, and with modern rifles his power for slaughter as we have seen is infinitely more terrible. But he is held in check by modern restrictions. He is unable to kill indiscriminately as he wants to. If he is wealthy he endeavours to get over the difficulty by fitting out a scientific (*sic*) expedition and so evades the law. Events move so fast nowadays that what would have been a perfectly safe clause a score of years ago, in fact a clause marking a distinct progress by the Supreme Government in its recognition of the claims of science, has now become a danger to the very aims and objects of the Act. Such a permit should never be allowed to take effect in any Game Sanctuary and the permission to kill in the name of Science should be retained by the Supreme Government. Glorified slaughter is not scientific research nor is it so considered by the great Museums in whose name it is sometimes carried out. If such expeditions are necessary it should always be possible to lay down definitely the number of head of each species which may be shot or trapped, specifying age, sex, etc. Every museum will agree to such a restriction, and the wealthy butcher, whose chief aim is to have a free hand in the forests, to remain unhampered by restrictions and to kill everything that gets up, would be kept in check.

Further, in the case of cinema films, the cold-blooded cruelty to trapped animals one sees depicted in these films—baiting the poor beasts to make them show their " points," trussing them up in most diabolical ways, etc.,—should be absolutely prohibited and met by severe punishment.

Section 8 deals with the old question of granting licences to protect crops. The making of rules in this respect must, of course, be left to Local Governments. This is obvious. The question is now, I understand, being treated with a

more enlightened knowledge than has been displayed in the past. In the interests of the hard-working ryot, a man of few joys, all that can possibly be done for his protection should be carried out. But the village shikari who lives by his gun should be discouraged. And the poacher should be put down with a firm hand.

The 1912 Act makes no mention of the granting of rewards for the slaughter of noxious animals or birds. This is a departure in the right direction. The matter can be safely left in the hands of the Local Governments and such grants should be made with discrimination and discretion. In my paper already alluded to I made the following remarks on this subject :—

" I am of opinion that Game rewards in general should be abolished and that no provision on the subject should be included in the Game Act.

" It would be quite within the power of the Local Government to issue rewards for the destruction of a particular species which is on the increase and becoming a danger either to public life or property or to the sporting interests of a particular area of country.

" Also, save in exceptional cases, e.g., rogue elephants and man-eaters, I would abolish the giving of a reward for *every* tiger, leopard, wild dog or wolf slain.

" Where any of these animals were becoming a pest or scourge to the community or endangering the head of game of other species in any locality, the Local Government should notify or empower its officers to notify a reward or scale of rewards to remain in force until the danger is past and the balance of power between man and animal or animal and animal is once more normal. The rewards on the proscribed animals should then be taken off.

" Every shooting season nowadays sees an army of eager sportsmen competing for blocks and shooting-permits, and surely the giving of the old-time reward for a tiger is quite unnecessary. I would leave the grant of rewards or offer of rewards to the discretion of the District Officer or Forest Officer. They would when necessary proclaim such and such an animal to be a man-eater or cattle-lifter of notoriety and would fix a reward upon the animal, procuring, if considered necessary, the sanction of the Commissioner or Conservator to their doing so. Why Government should nowadays pay a reward of from Rupees 20 to R. 50 for a tiger which may

be a pure game-eater and rarely if ever touches a cow (and there are numbers of such) is beyond comprehension. Sportsmen will not slack off if the rewards are withdrawn. Many a District official would be only too delighted if they would! Once a man-eater or a noted cattle-lifter is proclaimed, then make it worth the sportsmen's while to collect to tackle him by giving straight off a large reward commencing at R. 200 and going rapidly up to R. 500. It would be a far more satisfactory way of working the reward system both from the point of view of the cultivator, the man who lives on the soil, and that of the sportsman; and, I think, would probably be less costly to Government.

" Or rewards might be offered only for tigers in a district or parts of a district where a noted man-eater or cattle-lifter has made his home. For every tiger killed in this area a suitable reward might be given, say, R. 50, with the larger reward to be paid to the sportsman who bagged the particular man-eater or cattle-lifter proscribed. This would probably be the best method, since it would tempt sportsmen to have a try for the man-eater, knowing that they would receive a certain reward for each tiger killed, even if they should not be lucky enough to kill the proscribed beast."

Lastly, the New Act omits all special mention of separate rules with respect to the pursuit, killing or capture of game by non-commissioned officers or soldiers of the Army. Only the Supreme Government possesses the necessary authority and power to grapple with such a question. No Local Administration has power to override military regulations or permits granted to the Military by the Supreme Government, nor can such non-commissioned officers and men be brought within the jurisdiction of the civil courts as long as they are in the enjoyment of special privileges, such, e.g., as those enjoyed by the Gurkha Regiments. True the Act section 4 (1) applies the penalties to everyone, but in the absence of any direct clause this cannot obviously be made to apply to military individuals safeguarded by special privileges. How are such privileges to be reconciled with the 1912 Act ? On this subject I made the following remarks in my paper and they appear to be still applicable :—

" Allowing that it is necessary to make separate rules for the Army (' this was the case in the draft Act ; the Act as passed omitted all mention of such rules ') I think that

the Act should specifically lay down that permits may not be given for parties of more than, say, four to six men from a cantonment to go out *together* to shoot in any area. At present it is well known that at times parties of from fifteen to twenty or more men go out into a block of forest and drive the game systematically into a *cul-de-sac* and then slaughter the animals in numbers. The Gurkha is particularly addicted to this form of ' sport ' during the rainy season, when in the parts of the country where they are cantoned it is generally impossible for the European to go near the Terai forest owing to its great unhealthiness. Parties of military men should be small and the number of head they may shoot should be distinctly laid down on the permit, and penalties be enforced if this number is exceeded.

" I think the Game Act might embody some such definite ruling for the whole country."

In past years but scant attention has been paid to the severe attacks of a disease having kindred affinities to anthrax which appears at intervals and takes a heavy toll of the head of game (such as bison (gaur), buffalo, sambhar, etc.) on the area it affects.

Further, in years of severe drought the mortality amongst the wild animals of the country affected is often very heavy, and in the past this factor has received no consideration from the authorities in the interests of the wild game.

It may be suggested that in the wake of such calamities a very careful and detailed inspection of the area or areas affected should be undertaken, with the object of ascertaining which species have suffered and to what extent. Until such survey has been carried out, no shooting-permits should be issued for the area or areas. After the survey the species which have suffered severely should be notified, as also the area affected, and this area should be entirely closed to the shooting of those particular species for such period as will ensure their multiplication to the number of head it is required to maintain on the area. In closing such area the notification should distinctly state the reason for the closure. No true sportsman would be found to cavil at such a procedure.

And now to turn for a moment, in conclusion, to the question of the sportsman—the outside sportsman, not the

District official—and the rules under which he can enjoy sport in a District.

The rules under which the District official enjoys sport in his District are, it would appear, quite fair in most if not all Provinces.

I think, however, that the outside sportsman has often a justifiable complaint, though more often than not he goes the wrong way to work in making it, and so puts himself out of court.

The whole matter really turns, and must always turn, on the number of individuals of a particular species it is permissible to shoot in a given area. This number can only be fixed by the District Officers on the spot. There can be no cavil against this, as they are, or ought to be, the best judges on the question.

In fact, as matters in game protection at present stand, and in the absence of a separate Game Protection establishment, there can be no appeal from their decision.

Probably the best and most elastic method for the outside sportsman is to give him a block or blocks, depending on what is available on receipt of his application, and to enter on his permit the number of individuals of any one species he may shoot and the number of different species. This number would, of course, vary according to the length of time for which the permit was issued, but would never exceed a fixed maximum for each species. So far so good.

But it will doubtless soon be found necessary to definitely limit the number of head of a species to be shot in any one area in a year, as is done, in fact, in the Central Provinces. It is in this limitation that complaints arise and causes for friction come in.

For instance, supposing twelve sambhar may be shot in any particular block. A military man, whose leave season will not open before the 15th April, applies for and is allotted a block. He arrives to find the maximum annual number of the animal it is permitted to kill already reached and is debarred from shooting that particular species. It is quite conceivable that he might find more than one species in the same condition. In fact, the total number of head of a particular species might be easily shot off by the civilian element in the first couple of months of the open season, the animal becoming then *de facto* closed to shooting for the rest of the open season.

This is where the shoe pinches the heel of the military man very hard, as also, of course, that of his civil brother when shooting on areas outside of his own jurisdiction. To remedy a state of affairs which is undoubtedly a real grievance, it may be suggested that the number of individuals to be shot in a particular block or area in any one year should be allotted in a fixed proportion *throughout each month of the open or shooting season* for that animal, say, two or three or four per month, according to the total number notified as shootable during the season, any balance remaining from any one or more months being, of course, carried forward and distributed throughout the remaining months of that shooting season.

This would give the hot-weather sportsmen, both military and civil, who in pursuit of their favourite pastime are ready to put up with many and decided discomforts, an equal chance with their civil brother who is not so tied during the cold weather. The suggestion is made simply with the idea of giving a fair chance to all.

But I would suggest a further step. I would allot a certain proportion of the head of a particular species to be shot in an area to the local District officials, the balance going to the outside sportsman. The District officials could be left to make their own arrangements as to when their proportion of head was to be shot, but I think that in the case of the outside sportsman the number to be shot should be allotted throughout the shooting months, so as to give an equal chance to all the block-holders.

No reflection is intended on the District officials by any of these suggestions. They are made only in the interests of that particular quality all Englishmen pride themselves in possessing—Fair Play.

CHAPTER XXII

THE ECONOMIC VALUE OF THE FAUNA

The Government of India have proprietary rights to fauna—Economic value of fauna—Preservation of this value—The professional bird-snarer and poacher—Animals of commercial value in danger of extermination—Supervision required—Economic products of fauna to be treated on similar lines to minor products of forests—Forest Officer as gamekeeper—Licences required for all killers of animals—Royalty to be paid on products secured—Advisory Officers—Bird-farming—Inland fishery industry.

IT has been previously mentioned that the Government of India, as the successors to the former rulers of the country, became the owners of the fauna of the forests and waste lands. This fauna has a very considerable economic value, the realization of which has so far not been apparent. Practically the only pecuniary return as yet achieved has been from the sale of shooting licences to sportsmen. And yet the value of the flesh, horns and skins of the mammals annually killed throughout the country must be very considerable. That there is a ready market has been mentioned and is well known to many. The economic value of these products in all probability runs into many lacs of rupees annually. No steps appear to have been yet taken to tap this source of revenue. And it cannot be tapped until the matter is approached from the proper view-point. The mere passing of an Act, and the notification of Regulations under the Act by Local Governments, will not be sufficient to deal adequately with the question.

The effective preservation of the mammals, birds and fish of a country as large as India is a matter requiring constant and unremitting attention if they are to be safeguarded. That this matter has not been envisaged from the correct point of view to date is perhaps not surprising. To the old-time sportsman it did not occur. Why should it ?

The game animals and animals of economic value were in such abundance in the country that the chances of a species becoming exterminated must have appeared remote. The position, as has been shown, is now very different. But I think it can only be truly appreciated by the class of sportsman whose love of the jungles and of natural history has led him to spend much of his time in a study of the animal life and to draw deductions as the result of a number of years passed in this way. There are men in India at the present day who have made this study, and I have little doubt that they would support the view that solely from the economic standpoint the Government have a real interest in the preservation of the fauna.

The sportsman pays for his licence to kill game and the laws of the Province are made to see that he only kills that for which he has paid and does no harm to the area whilst engaged on his quest. But what do the professional shikari, the professional bird-snarer, and the poacher pay? These classes exist by the thousand throughout the country and their depredations go unchecked. Have the ways of these men been considered by the Government or are they unknown to them? The Act does not show. One can only conclude that they are unknown and, therefore, the economic value of the animals annually killed by them is not realized. It is not merely the actual annual pecuniary value of the animals secured by these men which is in question. As they are no respecters of season, age or sex, their actions are resulting in depreciating to an enormous extent the potential economic value of the fauna, since the destruction of females of all ages brings about a constant decrease in the numbers annually reared of each species, i.e., in a depreciation in the economic value of the stock year by year owing to the decrease in the number of the head left to breed.

It is known for a fact that mammals yielding skins of a high commercial value and birds producing plumes are in danger of extinction throughout the world, owing to the cupidity of the commercial firms dealing in such produce. The valuable egret plumes of India are a case in point, the musk deer of the Himalaya, and so forth. The trader is no respecter of sex or season if he has a valuable market.

Where possible, there is no reason why the trade of a country in this respect should not be maintained. But a

trade whose existence depends on the slaughter of animals should be a regulated one. It requires to be under supervision in order that a proper meed of protection may be accorded to the animal. Such supervision in India can only be effectually given by the Supreme Government.

It is difficult to understand why the economic value of the fauna of the country as a whole has not been realized. Most people are aware that the flora contains many species of high economic value, whether as timber, food and medicinal products, or other commercial articles, such as dyes, tannins, grasses, and so forth. Many of these come from the forests. The Forest Officer, for instance, is well aware that timber by no means constitutes the only commercial article which the forest produces. In fact he may be in charge of areas which produce no timber of commercial size at all. His trees may only grow to a size which yields fuel, such as in some of the Punjab plains forests. But in most cases the fuel is by no means the only saleable article the forests contain. There will be usually what the forester collectively designates "Minor products." The Indian forests contain a very large number of these minor products, varying with the variations in the flora and climate. Lac, for instance, is the product of an insect which is now carefully cultivated in blocks of forest in the Central Provinces and elsewhere and yields a handsome revenue in the parts of the country where it thrives. Bamboos are a minor product which the future may see largely used for the production of paper pulp; for it has been commercially proved that they can be used in the production of classes of this commodity, the demand for which is ever increasing. Other products are grasses, also used in the manufacture of paper and for thatching purposes; canes, dyes, tannins, resin, gums, wax, and so forth, are all minor products, the collection of which in the forest is well understood and the sale of which forms a very handsome proportion of the annual sum realized from the Indian forests. These are derivable, all but lac and wax, from the flora of the country. Why has not equal attention been paid to the products which are obtainable from the fauna? Horns, hides, furs, plumes and feathers, and flesh and the fish of the rivers and streams. There is a good source of revenue here.

The horns shed annually by the deer (*Cervidæ*) in the forests throughout the country must represent many

thousand tons in weight. It is, however, unusual to find more than a stray horn here and there in jungles where deer are numerous. They are systematically searched for and collected by the neighbouring villagers and sold in the bazaars. Government realizes but little revenue under this head. And yet it is a minor product of the forest and waste lands.

The Forest Officer has had the duties of gamekeeper added to his other arduous ones in the forest. He issues the permits for shooting; allocates the blocks between the various permit-holders, possibly finding when this distribution has been made that there will be but a small area left in which he may fire a rifle himself. The revenue from the permits goes to Government. But it is a small return for the value of the large number of mammals, birds and fish killed and sold annually on their property. It has been recognized that the products of the flora belong to the Government and they are collected and sold in the interests of the revenue. The same policy should be extended to cover the products of the fauna.

It may be suggested that this could be done by setting up a staff who should have the charge of advising on the best means of collecting the revenue derivable from the fauna as a whole. That, in fact, the fauna should be treated as one of the economic products of the country and that mammals, birds and fishes should only be killed on licence. The case of the sportsman has already been dealt with. His object is to secure pleasure combined with such trophies of the chase as good fortune and his own skill will win by well-understood sporting methods. But the far larger body of individuals interested in the destruction of the fauna of the country are professionals. They kill to sell and their operations should be controlled by the issue of a licence permitting them to kill a certain number of head of the animal named in the permit and by the payment of a royalty on the animals so killed, before they are taken out of the area in which they are secured.

In fact they should be treated on similar lines to those employed in the collection of minor produce from the forests. In the case of the forests the licences would be issued and the royalties collected by the Forest Staff in a manner similar to other forest produce. It would be essential, for the orderly management of these forests under the existing working plans in force, plans which

have received the sanction of the Local Governments, that all licences covering operations within the Government forest area should be issued, the licences controlled, and the revenue collected by the Forest Officer. In the case of the areas lying outside the forests in each District the licences would be issued and controlled by the Collector The introduction of the universal licence would, moreover, place the Collector in an easier position with reference to the vexed question of the gun licences for the protection of crops. If animals were shot in the crops the village shikari or villager would have to pay the royalty on the horns, skins and flesh of the animals shot, and the sex and age of these animals would be recorded. An effective check would therefore be set up, for strict investigation could be carried out in cases where the records showed an undue number of animals shot on this pretext in any locality or the neighbourhood of any village—a check which heretofore has been non-existent. An efficient scheme might well be worked out by the Advisory Officer in the District for the protection of crops which would eliminate once and for all the poaching shikari and villager.

If some simple procedure as the one here sketched were brought into force it would be unnecessary to set up a separate department to deal with the protection of the fauna and to obtain from it the revenue which it should certainly yield. The strengthening of the staffs in some cases might be necessary and officers who are known to have made a close practical study of the fauna of their Province (they would be sportsmen and naturalists and in their own Province would be well known) could be chosen and attached to the various Districts and forest divisions for the purpose of advising and bringing into force the new régime. Where a number of adjoining Districts or forest divisions in a Province have a similar fauna and methods of shooting and poaching, one officer would suffice to deal with the whole area, the revenue derivable being paid into the district or forest division concerned.

In every case it should be within the power of the Collector or Forest Officer to refuse, or to recommend to a higher authority the refusal, of all licences to kill any mammal, bird or fish whose numbers from whatever cause had so seriously diminished as to lead to the fear that the species might deteriorate or become extinct within the area

Other work of importance which the Advisory Officers might undertake would be the introduction of species into the district which investigation showed might prove profitable. I am fully in sympathy with Mr. Douglas Dewar's opinion on the feasibility and economic value of such a departure. Also his suggestion that egret rookeries should be leased under proper supervision; that pea-fowl and monal pheasant areas might be leased in a similar fashion and worked on commercial lines. The introduction of bird-farming on a large scale, in fact, should be quite feasible in the case of those birds which have a commercially valuable plumage, or table value as, e.g., the quail.

As a further direct deterrent to the present activities of the Indian poacher and in the interests of the future, an export duty should be maintained on horns and skins of wild animals, and a smaller duty on all skins and heads of animals cured in India and subsequently taken out of the country.

Fish in the inland waters should be treated on similar lines to mammals and birds. Poaching should be firmly put down. The use of the dynamite charge has resulted in far larger numbers of fish being killed than was possible in former times, with much less trouble to the poacher. All professional fishermen should be made to take out licences permitting them to ply their vocation and should pay a royalty on the catch.

It is believed that the proper realization of the economic value of the fauna of India and its exploitation under proper regulations would result in a considerable revenue being derived.

CHAPTER XXIII

THE PRESERVATION OF THE INDIAN LAND FAUNA AS A WHOLE. THE PERMANENT SANCTUARY

The Sanctuary for the preservation of the fauna generally—The permanent Sanctuary—Permanent Sanctuaries will differ in constitution—Dr. Chalmers Mitchell on the question of the Permanent Sanctuary—The question of the permanent protection of the fauna by Sanctuaries throughout the world—The formation of such in primeval forest lands—Shier members of fauna will only live in such—Numerous species as yet unclassified—The National Parks of the New World and Australasia—The necessity for the formation of permanent Sanctuaries in areas of primeval forest in India.

IN a preceding chapter we have discussed the Game Sanctuary from the point of view of the preservation of animals of sporting interest, i.e., of those usually termed Game Animals. I now propose to deal briefly with the Sanctuary regarded from the aspect of the preservation of the fauna of a particular area or country as a whole. A Sanctuary formed for such a purpose requires to have a permanent character. In other words, the area should be permanently closed to shooting and to all and every interruption to the ordinary habits of life of the species to be preserved.

It will be obvious at once that Sanctuaries of this nature and their management will differ widely in different parts of the world. In some cases the only prescriptions would probably relate to shooting, poaching, egg collection, and so forth. It would be unnecessary to close the areas entirely to man. In others, however, it is certain that some of the larger and shier animals and birds, and, I believe, certain classes of insects and so forth, can only be preserved from inevitable extinction if Permanent Sanctuaries of considerable extent are maintained, solely with the object of safeguarding the species for which they are created. In Sanctuaries of this class it will not be merely sufficient to forbid shooting. It

will be necessary to close them to man altogether, to leave them, in other words, in their primeval condition, to forbid the building of roads or railways through their fastnesses, to prevent the Forest Department from converting the areas into well-ordered blocks of forest managed for commercial purposes; in fact to prevent in them all and every act of man. In every case throughout the world such Sanctuaries will require to be under supervision, but such supervision should be entirely confined to a police supervision to prevent poaching, collecting, and any entrance by man into the area.

In a previous chapter I alluded to the Presidential Address delivered by Dr. P. Chalmers Mitchell, F.R.S., Secretary of the Zoological Society, in London, before the British Association at Dundee in 1912.

Dr. Chalmers Mitchell was the first, I believe, to enunciate this theory of a Sanctuary for the preservation, not merely of animals whose protection from extinction was considered necessary either from their sporting or economic value, but of the fauna as a whole.

He quite correctly pointed out that my paper, read before the Zoological Society in November, 1911, only dealt with the former aspects of the question.

After discussing the position of Europe in respect of the diminution or extinction of animals which were abundant in the past the author comes to India.

" India contains," he says, " the richest, the most varied, and, from many points of view, the most interesting part of the Asiatic fauna. Notwithstanding the teeming human population it has supported from time immemorial, the extent of its area, its dense forests and jungles, its magnificent series of river valleys, mountains, and hills have preserved until recent times a fauna rich in individuals and species."

After pointing out that the books of sportsmen show how abundant game animals were forty years ago, he continues :

" The one-horned rhinoceros has been nearly exterminated in Northern India and Assam. The magnificent gaur, one of the most splendid of living creatures, has been almost killed off throughout the limits of its range—Southern India and the Malay Peninsula. Bears and wolves, wild dogs and leopards are persecuted remorselessly. Deer and antelope have been reduced to numbers that alarm even the most

thoughtless sportsmen, and wild sheep and goats are being driven to the utmost limits of their range."

After alluding to the diminution of animals in other countries, and especially game animals and those killed for economic reasons, the author continues:

"And to us who are Zoologists, the vast destruction of invertebrate life, the sweeping out, as forests are cleared and the soil tilled, of innumerable species that are not even named or described is a real calamity. I do not wish to appeal to sentiment. Man is worth many sparrows; he is worth all the animal population of the globe, and if there were not room for both, the animals must go. I will pass no judgment on those who find the keenest pleasure of life in gratifying the primeval instinct of sport. I will admit that there is no better destiny for the lovely plumes of a rare bird than to enhance the beauty of a beautiful woman. . . . But I do not admit the right of the present generation to careless indifference or to wanton destruction. Each generation is the guardian of the existing resources of the world; it has come into a great inheritance, but only as a trustee. We are learning to preserve the relics of early civilizations, and the rude remains of man's primitive arts and crafts. Every civilized nation spends great sums on painting and sculpture, on libraries and museums. Living animals are of older lineage, more perfect craftsmanship, and greater beauty than any of the creations of man. And although we value the work of our forefathers, we do not doubt but that the generations yet unborn will produce their own artists and writers, who may equal or surpass the artists and writers of the past. But there is no resurrection or recovery of an extinct species, and it is not merely that here and there one species out of many is threatened, but that whole genera, families, and orders are in danger."

The late Lord Salisbury was one of the first British statesmen to take up the question of the preservation of wild animals. Lord Salisbury had been a former President of the British Association. In 1889 he arranged for a convention of the Great Powers interested in Africa to consider the question of the protection to be afforded to what some unscientific members of the Civil Service designated as the "Wild Animals, Birds and Fish" (a nomenclature which has been continued in subsequent Game Acts) of Africa. This convention did some good pioneer work, but

its deliberations were confined to the preservation of animals of sporting and economic value only. And this rather narrow outlook has governed the operations of the Great Powers and local administrators in the wilder and tropical portions of the globe to the present day. The preservation of game has always been the main factor underlying the action taken. The economic value of the fauna has only received a cursory attention; and the question of the preservation of the fauna as a whole has scarcely received any countenance. It may be admitted, however, that the pioneer work done has been of the highest value.

In alluding to the work in this connection which has been done by the Government in India Dr. Chalmers Mitchell added: "The fact remains that India, a country which still contains a considerable remnant of one of the richest faunas of the world, and which also is probably more efficiently under the control of a highly educated body of permanent officials, central and local, than any other country in the world, has no provision for the protection of its fauna simply as animals."

In 1909 Lord Crewe, then Secretary of State for the Colonies, received a deputation arranged by the Society for the Preservation of the Wild Fauna of the Empire. One of the questions discussed was that of changes in the locality of reserves. Such changes were, I think, made or became necessary owing to the opening-up of the country by railways, extension of agriculture, and so forth.

It was pointed out, by Dr. Mitchell I think, that a change of one piece of land for another, even if both were of equal area, might be satisfactory in affording the protection desired for certain animals, either of sporting or economic value, but from a zoological point of view, in the interests of the preservation of the fauna as a whole of the locality, might prove the reverse of satisfactory. This is a view I have long held. Primeval forests and lands which have never been interfered with by man may contain, undoubtedly do contain, many small forms of animal life which can only live under such conditions. Alter these conditions and they will be exterminated once and for all. This is necessarily a point upon which the trained zoologist alone can speak with any certainty; but if that zoologist has had the good fortune to spend a number of years studying the tropical

and semi-tropical forests and lands on the ground his opinion is at least worthy of careful consideration.

There still remains, then, the problem of carrying the preservation of animals the one stage further to include the whole fauna—in a word, the formation of Fauna Sanctuaries. Their creation so as to include some of the most interesting of the fauna is still possible in India, e.g., in that fascinating tract stretching from Assam down into Burma.

I am so entirely in sympathy with Dr. Mitchell's opinions on this question that I will quote his concluding remarks before the Association.

" There are in all the great continents large tracts almost empty of resident population, which still contain vegetation almost undisturbed by the ravages of man and which still harbour a multitude of small animals, and could afford space for the larger and better-known animals. These tracts have not yet been brought under cultivation, and are rarely traversed except by the sportsman, the explorer, and the prospector. On these there should be established, in all the characteristic faunistic areas, reservations which should not be merely temporary recuperating grounds for harassed game, but absolute Sanctuaries. Under no condition should they be opened to the sportsman. No gun should be fired, no animal slaughtered or captured save by the direct authority of the wardens of the Sanctuaries, for the removal of noxious individuals, the controlling of species that were increasing beyond reason, the extirpation of diseased or unhealthy animals. The obvious examples are not the game reserves of the Old World, but the National Parks of the New World and of Australasia. In the United States, for instance, there are now the Yellowstone National Park with over two million acres, the Yosemite in California with nearly a million acres, the Grand Cañon Game Preserve, with two million acres, the Mount Olympus National Monument in Washington with over half a million acres, as well as a number of smaller reserves for special purposes, and a chain of coastal areas all round the shores for the preservation of birds. In Canada, in Alberta, there are the Rocky Mountains Park, the Yoho Park, Glacier Park, and Jasper Park, together extending to over nine million acres, whilst in British Columbia there are smaller Sanctuaries. These, so far as laws can make them, are inalienable and inviolable Sanctuaries for wild animals. We ought to have similar

Sanctuaries in every country of the world, national parks secured for all time against all the changes and chances of the nations by international agreement. In the older and more settled countries the areas selected unfortunately must be determined by various considerations, of which faunistic value cannot be the most important. But certainly in Africa and in large parts of Asia, it would still be possible that they should be selected in the first place for their faunistic value. The scheme for them should be drawn up by an international commission of experts in the geographical distribution of animals, and the winter and summer haunts of migratory birds should be taken into consideration. It is for zoologists to lead the way, by laying down what is required to preserve for all time the most representative and most complete series of surviving species without any reference to the extrinsic value of the animals. And it then will be the duty of the nations, jointly and severally, to arrange that the requirements laid down by the experts shall be complied with."

To the thoughtful man this lucid exposition of the case places the whole problem in a nutshell.

I think the concluding extract from Dr. Chalmers Mitchell's paper is one of the highest importance both in its wider sense and in the more confined one as regards India.

Sanctuaries such as above sketched are the only possible method of saving from extinction the rhinoceros, bison or gaur, and buffalo, to take three of the best-known of the big game animals requiring protection in India. But these Sanctuaries require to be left in their state of primeval forest. They cannot be treated as commercial forests managed from a revenue-making point of view by the Forest Department. The most scientific arrangements for opening and closing the blocks of forest as they come up in rotation for felling and other operations will not avail to make such areas true Sanctuaries. I have an idea that some of the areas in America and Canada alluded to above by Dr. Chalmers Mitchell are Sanctuaries which it is proposed to treat as revenue-giving forests. If this is the case they will not remain Sanctuaries for a certain proportion of the fauna they at present contain.

There can be little doubt that as it is with some of the shier mammals so must it be with a proportion of other forms of animal life living in the forests.

They can be preserved from extinction in an area of primeval forest left untouched by man and maintained in its *original condition.* Amongst insects it is, I think, probable that some of the forest members of the longicorn, buprestid, brenthid and bark-boring beetles (*Scolytidæ*), to mention but four families, many species of which are still probably unknown to science, will disappear with the cleaning up of the forests and their systematic management by the Forest Department.

My point is that I am in complete agreement with Dr. Mitchell in his contention that the Sanctuary, the large, permanent Sanctuary, should not be regarded merely as a harbour for animals of game or economic interest, but that it should be formed in the interests of the fauna as a whole. I would, however, add to this the rider that in the case of the large Sanctuaries required to preserve from extinction animals either of a naturally roving disposition or of very shy habits the prohibition to entry should not be confined to the sportsman alone or to man generally outside the officials connected with the area. But further, that it should be recognized that in order to realize the objects aimed at it should be rigidly laid down that no working of any kind can take place within the Permanent Sanctuary. That in other words a Permanent Sanctuary does not fall within the boundaries of any area worked by Government officials, either for profit or other reasons, on behalf of the Government. Officials would be appointed to supervise the Sanctuary, but their duties would be confined to policing the area in order that the objects for which it was created might be realized to the full.

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