A MANUAL

OF

INDIAN SPORT.

BIG GAME.

BY

G. R. ABERIGH-MACKAY.

(Re-printed from the TIMES OF INDIA.)

SECOND EDITION.

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INTRODUCTION.

I HOPE that this little work will prove a useful *vade-mecum* for sportsmen in the jungle. In it I have attempted to collect, in a conveniently concise form, the lessons learned by many a mighty 'Forest Ranger' and 'Old Shikarry' in 'the Forest and the Field.' Johnson, Williamson, Elliot, Campbell, Shakespear, Wilson, Markham, Newall, Rice, Forsyth, Cumming, Fayrer, Kinloch and many others contribute their varied experiences of Indian sport. As I only compile, I have used whatever I have found to the purpose, either paraphrasing, or reproducing literally, as seemed best. Ample acknowledgments justify this.

G. R. A-M.,

Indore, Central India.

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PERIODICALS, &c.

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Calcutta Journal of Natural History.

Indian Magazine of Natural History.

Indian Sporting Review (James Hume's)

Oriental Sporting Magazine. (A set of O. S. M.'s from 1828 to 1833, in two vols., has been published by Messrs. King & Co.)

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MANUAL OF INDIAN SPORT.

THE TIGER* (Felis Tigris).

(*Hind.*—SHER, BAGH, NAHAR.)

CHAPTER I.

DESCRIPTION. Blyth.

THE striped skin of the tiger at once distinguishes it from every other feline animal, and equally so does the intensity of the bright rufous ground hue,

* Fayrer's *Royal Tiger of Bengal*, p. 11— "Contrary to custom, I propose to give him precedence of the lion. He is generally described as inferior, though nearly equal to the so-called king of beasts; but in size, strength, activity, and beauty he really surpasses him, and therefore, though he may be neither so courageous nor so dignified, he is entitled to the first place—at all events in India." The Tiger: see Rice's *Tiger-shooting in India*; Fayrer's *Royal Tiger of Bengal*; Shakespear's *Wild Sports of India*, p. 51; Campbell's *Forest Ranger*, p. 348; Cumming's *Wild Men and Wild Beasts*, p. 164; The 'Old Shikarry's' *Hunting Grounds of the Old World*, p. 200; Campbell's *Indian Journal*, pp. 69, 78, 162-185; Forsyth's *Highlands of Central India*, pp. 252-313; *Oriental Memoirs*, vol. ii., p. 489; *Indian Sporting Review*, vol. iii., 1857, p 7; Edward Brown's *Adventures in Cochin-China, Amoy, and China*; Johnson's *Field Sports of India*; Williamson's *Oriental Field Sports*, vol. ii., p. 15.

so exquisitely set off with white about the head.

Fayrer. The general colour, indeed, of a full-grown tiger in good health is exceedingly beautiful. The ground is of a rufous or tawny yellow, shaded into white on the ventral surface. This is varied with vertical black stripes, or elongated ovals and brindlings. The depth of shade of the ground colour, and the intensity of the black markings, vary according to the age and condition of the animal: in old tigers the ground becomes more tawny, of a lighter shade, and the black markings better defined; the young are more dusky in the ground colouring than the middle-aged or old tigers. Locality and climate also affect the depth of colour: those found in the deepest jungle have often an intenser hue than those found in more open country. A young tiger, taken from a tract of forest on the banks of the Nerbudda, is sitting on the compiler's table. The depth of its markings confirm the above remarks. Tigers found in the more northern latitudes are almost white. The tigress differs from the tiger: the head as well as the whole body is

Fayrer. smaller and narrower. The neck is lighter, and is devoid of the crest which exists in large and old males. The tigress is more lithe and active, and, upon the whole, more fierce and formidable. The figure of the tiger denotes a combination of great strength, suppleness, and agility: the elongated, lithe, and, at the same time, deep and compressed body;

the comparatively short but vigorous limbs, with their elastic, cushioned, and digitigrade feet, retractile claws, and powerful muscles, which attain their greatest development in the region of the jaw, neck, shoulder, and fore-arm ; and the formidable fangs—all proclaim a creature armed and fitted for war and supremacy.

The dimensions of the tiger supply a fertile source of discussion to the sportsman. Jerdon says that the average size of a full-grown male tiger is from 9 to 9½ feet in length, and he has not seen any authentic account of a tiger that measured more than 10 feet and 2 or 3 inches. Fayrer is of opinion that a skin, after it is stretched, may be 10 or 12 inches longer than before removal from the body. The tiger, he adds, should be measured from the nose, along the spine, to the tip of the tail, as he lies dead on the spot where he fell, before the skin is removed. One that is 10 feet by this measurement is large : and a full-grown male does not often exceed this, though, no doubt, larger males are occasionally seen, and Indian sportsmen of reliability have stated that they have seen and killed tigers over 12 feet in length. The full-grown male Indian tiger, therefore, may be said to be from 9 to 12 feet or 12 feet 2 inches ; the tigress from 8 to 10 feet, or perhaps, in very rare instances, 11 feet in length, the height being from 3 to 3½, or very rarely 4 feet, at the shoulder.

SIZE. Jerdon. Fayrer.

Colonel Campbell, who says that he never could obtain any trustworthy account of a tiger exceeding
Campbell. 11 feet in length, gives the following dimensions of one killed by him in company with Sir Walter Elliot:—

	ft.	in.
Length from point of nose to point of tail	9	5
Length of tail	2	10
Height from heel to shoulder	3	2
Length from shoulder to point of toe	3	11
From elbow to point of toe	2	0
Girth of body, immediately behind shoulder	5	3
Girth of fore-arm	2	7
Girth of neck	3	0
Girth of head	3	3

With regard to this particular tiger, Elliot says —A tiger 9 feet 5 inches may be pronounced by
Elliot. some sportsmen, accustomed to hear of tigers of 12, and even 14 feet, in length, to be a small specimen. But such was by no means the case. This animal was a full-sized specimen, of very thick, robust shape, and was measured with scrupulous accuracy. There are various ways in which measurements of large game are taken. Most men content themselves with taking the length of the skin when pegged out to dry, after the beast has been flayed. It is thus that the 12 and 14 feet measurements are obtained. From the examination of a great number of individuals, not less than from 200 to 300, carefully measured, Elliot was satisfied that few tigers

exceed 10 feet in length, and that the majority fall short of that limit. There is a great diversity in the length of the tail, which is always taken into the notation of the length.

Lieutenant Rice, in his work on tiger-shooting, mentions several tigers of 11 feet 6 inches, and one of 12 feet 7½ inches. Major Shakespear speaks of a tiger he shot measuring about 11 feet, and another 10 feet 8 inches: of the latter he adds—"His tail was only 3 feet 3 inches—an extraordinary short tail." The same writer records the death of a tigress measuring 10 feet 6 inches. Rice. Shakespear

Captain Forsyth, in his *Highlands of Central India*, has the following regarding the size of tigers:—I have said that 10 feet 1 inch is the length of an unusually large tiger. The average length from nose to tip of tail is only 9 feet 6 inches for a full-grown male; and for a tigress, about 8 feet 4 inches. The experience of all sportsmen I have met with, whose accuracy I can rely on, is the same; and it will certainly be found that, when much greater measurements than this are recorded, they have either been taken from stretched skins, or else in a very careless fashion. The skin of a 10-foot tiger will easily stretch to 13 or 14 feet, if required. Forsyth.

Among apocryphal tigers may be mentioned one spoken of by Buffon as 15 feet in length; and it has been stated that Haider Ali presented a tiger to

the Nawab of Arcot that measured 18 feet. Campbell, in his *Forest Ranger*, says that he has seen an account of a tiger that measured 24 feet! To this heading we must also refer the tiger that graces the frontispiece of Fayrer's *Royal Tiger*. This monster—for whose proportions Colonel Boileau is responsible—measured 12 feet as he lay, and 13 feet 5 inches when pegged out!

Cumming. Colonel Gordon-Cumming speaks of tigers 9 feet 4 inches and 9 feet 10 inches, and a tigress 8 feet 7 inches that he shot in Central India. Many men, he says, have talked to him of tigers 12 and 11 feet long, and in some countries they may attain that size; but, speaking from his own experience, he can only say that he has not fallen in with them in Malwa or Nimar. He has seen tigers nearly 10 feet long, whose skins could easily have been stretched, when fresh, to 11 or more feet; but the breadth would have been greatly diminished, and the beauty of the skin impaired.

Wood. The Rev. J. G. Wood, in his *Natural History*, speaks of a tiger brought to England from the collection of the late King of Oude, as being 13 feet 6 inches in length, and 4 feet 8 inches in girth. He quotes the keeper as his authority.

'Zoophilus.' In the *Indian Sporting Review* for February 1857, 'Zoophilus' writes—"The tiger not unfrequently reaches 10½ feet in actual length, fair measurement, sometimes more."

In a *Bengal Sporting Magazine* of 1834, the reader is instructed how to stretch a tiger-skin of 10½ feet to 12 feet! *Bengal Sporting Magazine.*

A tigress killed on Christmas Day, 1875, weighed 253 lbs.,* and measured from nose to tip of tail 8 feet 5 inches. She is now 9 feet 11 inches. I guessed her weight within 7 lbs., and her measurement by 1 inch. Head measured 1 foot 5 inches, neck to insertion of tail, 4 feet 3 inches; height, 3 feet 3 inches; tail, 2 feet 9 inches.—DECCAN RANGER.

The following measurements were taken by the undersigned:—

	Feet.	Inches.
From tip of nose to tip of tail	9	0
„ root of tail	6	0
From top of fore-shoulder in a line to the foot.	3	9
Girth behind fore-shoulder	4	3½
Spread of fore-paws	1	1
Immediately above fore-paws	0	11½
Girth of head behind ears	2	8
Girth at root of neck	2	8
From tip of ears to tip of nose	1	1
Greatest length of claws	0	3

M. M. MACKENZIE, Superintendent.

Mahableshwur, October 17, 1875.

The following animals were shot during the last ten years in the Central and North-West Provinces;

* An ordinary tiger weighs from 450 to 500 lbs.: a fat cow-killer will weigh 700 lbs.

the measurements were made by laying the carcases on their sides, and stretching a tape tightly between the end of the nose and the tip of the tail. Nearly all the tigers measuring over 9 feet 4 inches had longer tails, in comparison to their lengths, than the shorter animals possessed. One which measured 8 feet 8 inches was certainly as heavy as most of the others. The tigress which measured 7 feet 8 inches was accompanied by cubs, so must have been full-grown.

Tigers.

No.			Length. Ft.	In.	No.			Length. Ft.	In.
1	measured	.....	10	2	2	measured	.....	9	8
2	„	.....	10	1	5	„	.....	9	2
1	„	.....	9	10	4	„	.....	9	0
3	„	.....	9	8	2	„	.....	8	10
3	„	.....	9	7	1	„	.....	8	8
2	„	.....	9	6	2	„	....	8	7
5	„	.....	9	4	1	„	.....	8	6

Mean length obtained from 34 animals is 9 feet 3 inches.

Tigresses.

No.			Length. Ft.	In.	No.			Length. Ft.	In.
1	measured	.....	9	0	4	measured	.....	8	3
1	„	.....	8	10	2	„	.....	7	11
1	„	.....	8	8	1	„	.....	7	10
3	„	.....	8	6	1	„	.....	7	8
1	„	.....	8	5	1	„	.....	7	7

Mean length obtained from 16 animals is 8 feet 3 inches.

The tiger is found in Georgia, Bukhara, Persia, the Elburz mountains, on the shores of the Aral, on the banks of the Obi, among the deserts that separate China from Siberia, in Amur-land, China, and Siam. It is absent from Ceylon and Borneo, but found in Burma and the Malayan Peninsula as far as Singapore, Java, and Sumatra. The tiger is found throughout India from Cape Comorin to the Himalayas, ascending the hills occasionally to a height of 8,000 feet. It is found in all the forests and jungles of the peninsula, occasionally visiting the more open and cultivated parts of the country, and harbouring in thickets, long grass, in brush-wood, on river-banks, and on shallows covered with tamarisk. Rocks, caves, and ravines with water are favourite spots, and the thick shade of willows and cypress in partially dried-up river-beds.

DISTRIBUTION. Fayrer. Jerdon. *Habitat.* Cumming.

The chief prey of the tiger is cattle, but it also catches the wild hog, sambhar, and more rarely the spotted deer. It is by nature a coward, and always retreats from opposition until wounded or provoked. Although the wild hog sometimes becomes its prey, the tiger sometimes falls the victim. Sir W. Elliot once saw a full-grown tiger newly killed by what was evidently the rip of a boar's tusk. It is generally believed that a tiger will not eat carrion; but Elliot on one occasion witnessed a tigress and two full-sized cubs eating a bullock that had died of disease. Major Sherwill gave some interesting

CHARACTERISTICS. Elliot. Sherwill.

particulars regarding tigers to Dr. Jerdon, from which we glean the following. Generally speaking, the Bengal tiger is a harmless, timid animal; but, when wounded, he becomes ferocious and dangerous. Except in the vicinity of the Sunderbans, man-eaters are very rare in the Lower Provinces. Young tigers remain with their mother until they are able to kill for themselves. When they first acquire this power, they are far more mischievous than their parents, occasionally killing as many as four or five cows at once; whilst an old one seldom kills more than it requires for food. An old tiger will kill a cow about once a week, and, for this purpose, will quit its place of retreat in the dense jungle, proceed to the vicinity of a village, and kill a bullock or cow. It will remain near the "kill" for two or three days, and sometimes longer, gnawing the bones before retreating to deep cover. The regular game-killing tiger is retired in his habits, living chiefly among the hills, retreating readily from man. His hot-weather haunt is usually some rocky ravine, where pools of water remain, and shelving rocks or overhanging trees afford him shelter from the sun. He is a light-made beast, very active and enduring, and from this, as well as his shyness, difficult to bag. The hog deer, the spotted deer, the swamp deer, the *nilgai*, the wild hog, an occasional monkey, and peafowl, form his staple-food. Fayrer tells

Forsyth.

The Game-killer.

us that, in times of want, frogs and other small animals are not despised, and a tiger has been killed with a porcupine-quill sticking in his throat. When in distress for food, both tiger and tigress will devour their young. The cattle-lifter, on the other hand, is usually an older and heavier animal, very fleshy, and indisposed to severe exertion. In the cool season, he follows the herds of cattle wherever they go to graze; and then, probably in the long damp grass, he occasionally surprises deer. In the hot weather, however, the openness of the forest, and the numerous fallen leaves, preclude a lazy monster of this sort from getting game: and he then places himself in some strong cover, close to water, where cattle come to drink, and graze upon the greener herbage found by the sides of streams.*

The Cattle-lifter.

The man-eater is usually a solitary old tigress, whose teeth and claws no longer permit her to seize either cattle or game. She lies close in some deep thicket near a village; and, when an attempt is made to drive her, either refuses to move, or skulks secretly away; but when a solitary footstep is heard, out she flings her mangy old body, and seizes her victim with a hoarse, coughing roar.

The Man-eater.

* *Hunting Grounds of the Old World*, p. 59; *Wild Sports of India*, p. 51; *The Old Forest Ranger*, p. 204; *Royal Tiger of Bengal*, p. 82; Markham's *Moral and Material Progress of India*, 1872-73, note, p. 14.

THE TIGRESS. Fayrer. The tigress breeds at no particular season. She gives birth to from two to five, even six cubs. Three is a frequent number. Her period of gestation is said to be from fourteen to fifteen weeks. She is a most affectionate and attached mother; and generally guards and trains her young with the most watchful solicitude. They remain with her until nearly full grown, or about the second year, when they are able to kill for themselves, and begin life on their own account. Whilst they remain with her, she is peculiarly vicious and aggressive, defending them with the greatest courage and energy. When robbed of them, she is terrible in her rage; yet she has been known to desert them when pressed, and even to eat them when starved. As soon as they begin to require other food than her milk, she kills for them, teaches them to do so for themselves by practising on small animals, such as deer and young calves or pigs. At these times she is wanton and extravagant in her cruelty, killing apparently for the gratification of her ferocious and bloodthirsty nature, and perhaps to excite and instruct her young; and it is not until they are thoroughly capable of killing their own food that she separates from them.

THE KILL. The attack of the tiger is generally, though not always, made at night. He watches the cattle, creeps stealthily out until within springing, or rather

bounding, distance, then, with a rush or bound, and a roar or deep growl, he seizes it by the throat, and drags or strikes it to the ground with his formidable arm, fixes his fangs to the throat, his powerful fore-claws in the trunk or neck, and holds it there until it is nearly or quite dead, when he drags it off to the jungle to be devoured at leisure. The first morsels are generally torn from the flank or hind-quarter. Near the "kill" is the lair, a small space where the grass is trodden down, something like a hare's form. From this he proceeds to the "kill" night after night until it is eaten, and even the bones gnawed. When gorged with his first meal, the tiger is sluggish and drowsy. He dislikes being disturbed, and is not easily roused; and in this state, being far less formidable and disposed to fight than a lean and hungry tigress, he is frequently surprised and slain.

Cumming, p. 12. Fayrer.

The tiger is a shy, morose, unsociable brute, and is often found quite alone, though at certain seasons his mate, if not present, is probably not far away. Four or even five* tigers have been seen basking in the sun together, amid ruins; but the party generally consists of the members of a nearly grown-up family.

* Colonel Gordon-Cumming and a friend found and killed five tigers together in Central India some years ago. They were a mother and four full-grown young ones (*vide Wild Men and Wild Beasts*, p. 272).

Takes to water. The tiger takes most kindly to water.* In the heat of the Indian summer day, it is frequently found standing, and even lying or rolling, in pools of water. Colonel Cumming speaks of a tame tiger whose favourite pastime was to swim about in a lake with its master's dogs. A tiger, which the compiler recently helped to kill, was beaten out of a pool in a deep ravine in which it appeared, from the heights above, to be swimming about. Tigers kept in confinement in India will often sit during the heat of the day in their tubs, if these are placed in a dark corner of the cage. The tiger swims well.

Dr. Oxley. Dr. Oxley, in writing of the tigers of Singapore, states that, at a recent period, these animals, which are now so abundant, made their first appearance in the island, having swam over from the neighbouring continent; and, to our own knowledge, tigers have frequently crossed the channel that separates Penang from Province Wellesley, a distance of two miles. The Saugor Island and Sunderban tigers continually swim from one island to another to change their hunting-grounds for deer. Fayrer has traced them across the Ganges, following their *pugs* to one bank and taking them up on the other. Ships lying near the mouth of the Hooghly, moreover, have several times been boarded by tigers exhausted in their efforts to gain the opposite bank

* *Royal Tiger of Bengal*, p. 49.

from the Sunderbans. Cumming, in describing the pursuit of a tiger, says that, when the sun becomes powerful, it will probably come out of its lair to drink and roll in some convenient pool of water. Cumming.

Jumping & Climbing.

The jumping and climbing powers of a tiger are not so great as might be expected from the structure of his limbs, and the analogous structure of other feline animals with these capabilities highly developed. Colonel Gordon-Cumming witnessed a tiger spring up and take a man out of a tree at a height of eight feet from the ground; and Sir J. Fayrer tells us of a tigress bounding on an elephant in the Oudh Terai, so that her hind-feet rested on the animal's head, and her fore-feet on the rail of the howdah; although mortally wounded, as she was, in the act of springing, she seized the occupant of the howdah and dragged him to the ground. He was severely mauled; but recovered. A similar case* is related in the *Bengal Sporting Magazine*, vol. i. of 1834, p. 350; but that it is a very unusual occurrence, every one acquainted with the Indian tiger will admit. When a tiger attacks an elephant,† his hind-feet usually remain on the ground, and, if he gains a higher position, it is only by momentarily supporting his hind-feet on one of

Cumming. Fayrer. *Bengal Sporting Magazine.*

* *Cf. Bengal Sporting Magazine*, 1841, i., 384; vol. ii., p. 228, *Indian Sporting Review.*

† *Royal Tiger of Bengal*, p. 46.

the elephant's legs. It must be remembered that, when a tiger stands on his hind-feet, his fore-paws reach from 9 to 12 feet high, and this brings him well up to the head, hind-quarters, or pad of an elephant. Fayrer once saw a tigress pull a large elephant down, till its head almost rested on the ground from the intense pain caused by the implanted fore-claws. An admirable illustration of the most characteristic manner in which a tiger attacks an elephant, will be found facing page 242 of *Wild Men and Wild Beasts.* I extract the following from the interesting notes appended to the *Old Forest Ranger*, p. 351:—It is a curious fact that tigers never attempt to climb, although their form appears peculiarly adapted for doing so. Their great weight may perhaps prevent them; but, more probably, the nature of the animals on which they prey, precluding the necessity of resorting to this means for seizing them, they do not employ the power which they possess. One *shikarry*, whom I knew, was pulled down from a tree by a tigress, and killed; but he was not at a sufficient height from the ground to require any great exertion to reach him, and I believe that, had he been two feet higher, he would have been quite safe. I have frequently shot very savage tigers from trees, at an elevation of not more than nine feet from the ground; but never saw any attempt to climb, although they saw plainly from

Campbell.

whence the shot was fired. Sir Joseph Fayrer writes as follows :—A friend, one of the most experienced tiger-shots in India, relates an instance where a tigress having been fired at from a tree, or some other concealed place, sprang into a *machan* (platform) in a field, at least ten or twelve feet from the ground, thinking the shot came from there, and, by her weight and the force of her spring, brought it all to the ground. In another place Dr. Fayrer tells us that tigers do not, as a general rule, climb trees ; but that, when pressed by fear, as during an inundation, or when no other way of escape offers from real or imaginary danger, they have been known to do so. They are not wont, he adds, to spring to any great height from the ground ; though an instance occurred recently, related by an eye-witness, where a tiger pulled a native, in one spring, out of a tree at a height of eighteen feet from the ground. Fayrer.

TIGER-NOISES.

The purr of the tiger is something of a snuffle. The usual cry is a tremendous roaring *meu, aou—öö*, with vehement stress on the last sound. This is the call of one to another, and is altogether different from the grunting roar of menace, made when rushing to a charge. Fayrer speaks of the latter as a series of short, deep growls or roars ; and adds that, in the dead of night, the prolonged, deep, wailing howl of the tiger and tigress calling to each other, is often *Indian Sporting Review.* Fayrer.

heard in the Indian jungle. The same writer says that when roused, attacked, or wounded, and also when he charges, the tiger generally makes a few short grunts or barks, or savage growls. Cumming writes—

Cumming.

A tiger, when lying wounded in a thicket, will sometimes growl, but, when he charges, his cry is more of a deep cavernous grunt. On one or two occasions Cumming has heard a tiger roar, but this he believes is not his war-cry. Sometimes the tiger dies in almost perfect silence. We ourselves lately hunted a large tigress that moved about sorely wounded, and never uttered but one low, almost inaudible, growl, till she died. Yet the 'Old Shikarry,' Rice, Campbell, and Shakespear, all speak of tigers charging with a *roar*. Shakespear says they roar to intimidate their prey.

Compiler.

DESTRUCTIVENESS.

The appalling loss of life and property attributable to tigers, gives a decided dignity and importance to their pursuit and destruction. It is an undeniable fact that, in the Central Provinces, some 500 persons are annually killed by wild animals, and that a very large proportion of this mortality must be referred to tigers. We read in Malcolm's *Central India*[*] that, in the year 1818, 150 persons were killed by tigers from among the population of one group of five villages. Among the notes appended to the *Old Forest Ranger*, the

Campbell.

[*] 3rd Ed. (1832), vol. ii., p. 282.

following passage occurs :—Some idea may be formed of the havoc committed by tigers when it is stated, from returns made to Government, that, in one district, 300 men and 5,000 head of cattle were destroyed during three years.

Whilst confined to the forest, the tiger is comparatively harmless. There, feeding principally on deer, he rarely encounters man, and when the solitary hunter does meet the grim tyrant of the woods, instinctive fear of the human race makes the striped monster avoid him. But in the open country he becomes dangerous. Pressed by hunger, he seeks his prey in the neighbourhood of villages, and carries off cattle before the herdsman's eyes. Still he rarely ventures to attack man, unless provoked or urged to desperation. But under whatever circumstances human blood is once tasted, the spell of fear is for ever broken; the tiger's nature is changed; he deserts the jungle and haunts the very doors of his victims; cattle pass unheeded, but their herdsman is carried off; and from that time the tiger becomes a man-eater.

General Briggs stated, before a parliamentary commission on the growth of cotton in India, that, during the four years he was in Khandeish, he believed there were 350 men carried off by tigers, and 24,000 head of cattle destroyed. In Mr. Markham's *Moral and Material Progress of India*, 1872-73, we find the Markham.

following:—The inhabitants of the border-lands between jungle and cultivation are killed and eaten by tigers in such numbers as to require the immediate and serious attention of Government. A man-eater, still in the Nallai Mallai forest, is said to have destroyed 100 people. Jerdon says* that in the Mudlah district of Central India, near Jubbulpore, in 1856 and previous years, an average of between 200 and 300 villagers were yearly killed by tigers.

Jerdon.

The following statement is taken from a Government Report:—In one instance, in the Central Provinces, a single tigress caused the desertion of thirteen villages, and 250 square miles of country were thrown out of cultivation. It was reported to Government that, in 1869, one tigress killed 127 people, and rendered unsafe a public road for many weeks. Captain Rogers, who has made a special study of the subject, and who has reported on it at length to the Government of India, states that the loss of property entailed by the ravages of carnivora amounts annually to ten million pounds. During the six years ending in 1866, 4,287 persons were killed by tigers in Lower Bengal. The Chief Commissioner's reports of the Central Provinces show that, in 1866-67, 372 persons were killed by tigers; in 1867-68, 289; and in 1868-69, 285. Once it killed a father, mother, and three children. At Naini Tal, in 1856-57 and 1858, a

Govt. Report.

Rogers.

Fayrer.

* *Fayrer*, pp. 32 and 42.

tiger that prowled about within a circle, say, of twenty miles, killed on an average about 80 men per annum. The *Madras Athenæum* of December 6th, 1856,* states that, on the 26th of July, Mr. Russel, Officiating Agent to the Governor in Karnal, wrote to the Board of Revenue informing them that a tiger had taken up his abode in some villages of Cuddapah for the last two years, during which time he had carried off some 60 people.

Madras Athenæum.

There are three recognised modes of shooting tigers, *viz.*—on foot, from elephants, and from some place of ambush, a *machan*, or branch in some leafy tree. In Madras, Bombay, parts of Central India, the Central Provinces, and Rajputana, the sportsman, attended by a crowd of beaters, with drums, old firelocks, and other instruments of noise, assails the tiger *on foot*, searching him out in the dense jungle where he makes his mid-day lair. It is of such sport that Lieutenant Rice speaks in his book, and of which Colonel Campbell, Major Shakespear, and the 'Old Shikarry' give such graphic descriptions. This is the only mode of hunting that, in our opinion, is attended with serious danger. In the jungles of the Terai, and generally in Northern India, the tiger is attacked from elephants. The Collectors of districts, and other local magnates, make up large parties, borrow twenty or thirty elephants from the

THREE MODES OF TIGER-SHOOTING.

On Foot.

From Elephants.

* *Vide Indian Sporting Review*, vol. iii., Jan. 1857, p. 10, for a full account of this tiger.

Commissariat and Canal Departments and from native gentlemen, and with one or two trained *shikari* elephants* of their own,—perhaps worth from two to four hundred pounds each—sally forth to some central point in the jungle, whence, for one or two weeks, they make daily excursions to likely spots. Ladies frequently accompany these parties; and, perched aloft on a good steady elephant, the danger is extremely little and the glory great. The third *modus operandi* is to erect a *machan*, or platform, amid the dense foliage of some great tree, or to perch on some convenient bough either near water frequented by tigers, or at some spot to which they can be driven. Here the danger is reduced to a minimum, and ladies have frequently witnessed and partaken of this sport. Often, no doubt, those who nominally shoot on foot take advantage of a commanding tree or projecting rock; and South India hunters often tie up a young buffalo as a bait, and watch for the great cat from a convenient and safe branch overhead; but a direct assault in the jungle, on foot, is more common in those parts, and perhaps more sportsmanlike. Let us hear, however, what Captain Forsyth has to say on this head:—Some

From Ambush.

Forsyth.

* Some capital advice on the purchase, selection, and care of elephants is given as an appendix to Captain Forsyth's book—one of the most useful books on Indian sport that has ever been written.

people, he writes, affect to despise the practice of using elephants in following tigers, and talk a good deal about shooting them on foot. As regards danger to the sportsman, nine-tenths of the tigers said to be shot on foot are really killed from trees or rocks, where the sportsman is quite secure. In this method of hunting, many more tigers are wounded than are finally secured, the only danger lying in following up a wounded animal, which is usually avoided ; and thus an innocuous animal is often converted into a scourge of the country-side. A very few sportsmen do, for a short period of their lives, make a practice of hunting and shooting tigers really on foot ; but they are seldom very successful, and sooner or later get killed, or have such narrow escapes as to cure them of such silly folly for the remainder of their days. A man on foot has no chance whatever in a thick jungle with a tiger that is bent on killing him. Even on the elephant all is not perfect safety, instances being not rare of elephants being completely pulled down by tigers ; while accidents from the running away of elephants in tree-jungle are still more common. *On Foot.*

We will now quote from Fayrer's book on the tiger.—There are several ways of compassing the tiger's death resorted to by sportsmen, and they are practised according to circumstances, the nature of the country, and the opportunities at com- Fayrer.

mand. In Bengal, Central India, the North-West, and the Terai, where he is found chiefly in jungle and grass or swamps, and where he would generally be perfectly inaccessible on foot, the tiger is hunted from elephants ; or he is driven from his forest or grassy retreat towards trees or other elevated spots, in which *machans* are placed, from which the sportsman aims in tolerable safety. In Madras, Bombay, some parts of Bengal, Central India, and the Central Provinces, the tiger is often hunted on foot, and it is in this dangerous sport that fatal and serious accidents are liable to happen, for no accuracy of aim or steadiness of nerve can always guard against the rush of even a mortally wounded tiger, that in his very death-throes may inflict a dangerous or fatal injury. This exciting and dangerous sport is sometimes, from the nature of the ground, as safe as from the *howdah*, but it is generally dangerous when the wounded tiger is followed on foot into the cover where he has taken refuge, and it may be truly said *le jeu ne vaut pas la chandelle*. Tiger-shooting from elephants certainly combines sufficient of excitement with personal danger to make it interesting. On foot it entails an amount of danger and risk of life, which Fayrer thinks is hardly justifiable in a mere amusement.*

* It seems not a little absurd to speak of the destruction of such a fearful scourge as "a *mere* amusement."—*Compiler*.

The best season for shooting is the hot season before the rains. In April, May, and the early part of June, most of the high jungle has been burned down or withered up, and the fierce sun and absence of rain has contracted the supply of water to certain pools in the forest and the neighbourhood of the great rivers. This water the tigers of the district must daily visit, and near it they will almost certainly make their lair. It becomes their head-quarters, their basis of operations, and from it they sally forth to hunt. The *shikarry*, or native game-keeper, who is a *sine quâ non*, has thus a clue to the whereabouts of game. He knows where to look for *pugs* or foot-prints: he knows where to place a bait. The best and most convenient bait is a young buffalo. It costs from three to six rupees. Cumming* recommends that these should be tied up in the afternoon at the meeting of paths or ravines, and near pools, which the tigers frequent, being attracted both by the water and the herds of deer and sounders of pig that this brings down. They should be tied in an open space so as to be seen. When the tiger kills the buffalo, he will generally, if the rope that has fastened it be not very strong, drag off the carcass to some covert. He will then eat to satiety, and

HINTS ON TIGER-SHOOTING

Water.

The Bait.

Cumming.

The Kill.

* *Vide Wild Men and Wild Beasts*, p. 12. We have here made a long extract from this admirable work.

lie up gorged in some place near where he can get good shade, or shade and water combined. At the first streak of dawn, the *shikaries* will be out examining the country and looking after the baits. All the buffaloes found alive should be taken to a cool spot for the day, and should be well watered and fed. If one has been killed, the *shikaries* will quietly approach the spot, and endeavour to find out where the foot-prints lead. Especial care is requisite at this early hour, as, in the cool of the morning, the tiger, unless very lazy and much gorged, is apt to move if disturbed, and there may be great difficulty in again marking him down that day. Towards seven or eight o'clock the sun will be powerful, and the *shikaries* may advance nearer. Should the tracks lead into a thick covert or mass of rocks, or other spot where the tiger may be supposed to have lain up, the *shikaries* will proceed to ring the game by care-

The Quest. fully examining the ground for foot-prints, at some distance all round the covert. If no foot-prints are to be seen, and the place is, in their opinion, a good one, they will quietly mount trees commanding a good view of the ground. The tiger will now probably change his position, and, if there be a pool of water, will come out to drink and roll in it; or some inquisitive crow will perch over him, and, drawing attention by cawing, will

The Find. indicate his position to the *shikaries*, who,

on being certain of his presence, will send off one of their number to camp to bring up the hunters.

Though the tiger frequently does not succumb until he has received many wounds, and will continue fighting to the last, even when desperately injured—sometimes even springing up and seizing the elephant, or man, approaching his apparently lifeless body, and perhaps falling dead in his last efforts to charge—he not unfrequently falls to a single shot. Fayrer has seen this on several occasions, and on four or five has had the satisfaction of bagging the game with a single bullet from a smooth-bore or rifle. A ball through the neck, if it cut the spinal cord, is instantly fatal, and the tiger turns a somersault and lies dead in his tracks. A ball through the lungs, or heart, behind the shoulder or through the abdomen near the spine, by cutting the aorta, will cause rapid death, and the tiger is found dead within a few yards of where he was struck. But it is remarkable how many bullets they will take in the head if the brain escape, as it often does owing to the comparatively small size of the brain cavity, or in the abdomen, trunk, or limbs, without being disabled. Though mortally wounded, they may do much damage, or even effect their escape. All the cat tribe are remarkable for their tenacity of life, and this alone is sufficient to render tiger-

Fayrer.

Vital Spot.

Campbell.

shooting on foot a most hazardous attempt. Allowing that a man has sufficient confidence in his own nerve to permit a tiger to approach quite close, in the certainty of hitting him between the eyes, he is still far from safe. Any old sportsman can assure him that a ball through the head is not certain to stop a tiger. Fayrer has seen two run a considerable distance, and even charge an elephant, after receiving a ball in the forehead. A tigress was wounded by Shakespear in the inner corner of the right eye: the ball passed through her brain, crushing to pieces the bones at the back of the skull, and coming out below her chest. She, nevertheless, continued to move with undiminished speed for a space of forty yards. The 'Old Shikarry'* gives the following evidence as to the amount of lead a tiger will carry away. On examination, he writes, I found the whole of the upper part of the face was blown to pieces, and both eyes destroyed with the effect of my first shots (a right and left of No. 4 shot from a smooth-bore); indeed, the head was a mass of congealed blood, none of the features being distinguishable: however, such is the tenacity of life in the feline race, that he managed, even in this condition, to make his way for upwards of half a mile, though totally blind.

Shakespear

'Old Shikarry.'

* *Hunting Grounds of the Old World*, p. 201.

PRESERVATION OF TIGER TROPHIES.

No time should be lost, when a tiger has been secured, in removing his skin, else the hair will begin to drop out.* Throwing him on his back, make a cut from one corner of the mouth, down the medial throat and belly, to the root of the tail. From this cut, four lateral incisions must diverge to the extremities of the limbs. The last metacarpal and metatarsal bones should be left in the skin. For the fore-legs cut from the edge of the central incision through the armpit, along the inner side of the limb, the line of incision inclining slightly to the outward portion, in order that the seam may be less perceptible when the perfect specimen is mounted. A like process through the groin is necessary for the hind-legs. These incisions, thus made, leave the skin in the form of tongue pieces over the breast. First apply the knife to these points, and detach the skin round to the spine and along the tail. In doing so, it is necessary to clear the limbs, and great care must be taken to leave intact the natural features of the foot. Now turn over the carcass, and draw back the whole skin over the head, exercising particular care in separating the ears and the eyes from the skull. Similar care must be taken as to the lips. The ears should be

Ward and Galton.

* *Knapsack Manual for Sportsmen in the Field*, p. 28; Galton's *Art of Travel*, p. 180, 3rd edn.

parted from the skull close to the bone, or the lower structure of them will present too large an aperture. The lips must be cut off close to the gums. Having thus taken off the skin, it must be cleared of all flesh and fat. The cartilaginous portion of the ear must be turned through. The lips must be treated thus: pass the knife between the mucous lining and the outer skin, all round the mouth, so as to admit of the preservative completely penetrating this thick portion of the specimen. The eyelids and the feet must each be treated in a similar manner for the same reason. Now spread the skin, fur downwards, over a clean place, and anoint it thoroughly with arsenical soap; and at the same time use freely a sufficient quantity of powdered alum, especially on the lips, eyelids, ears, feet, and all other fleshy parts. Spirit of turpentine should also be freely poured over both sides of the skin. When the skin is sufficiently dried, it can be folded with the hair inwards. It is well, when convenient, to put some dry material in the folds, to prevent contact between the inside of the skin and the fur; and occasionally the skin should be unfolded and inspected, and more turpentine or preservative applied to parts, if necessary.

Simpler method. Another and simpler method is the following:—The skin having been removed from the carcass, and cleaned, instead of being laid out to dry, should

be thickly covered over the flesh side with powdered alum, especially the lips, eyelids, feet, &c.; then, folded, it should be immersed in a barrel of brine (6 lbs. of alum and 3 lbs. of salt dissolved in water).*

In pages 20 and 21 of *Wild Men and Wild Beasts*, some useful hints on this subject will be found. Cumming.

Skulls.

The skull may be cleaned by boiling after the fleshy parts have been removed with a knife. As soon as the skull is cleaned, the whole of the teeth should be covered with a coating of beeswax, a quarter of an inch in thickness, so as to completely exclude the hot air, else the teeth† will splinter like dry wood. Cumming.

Moustaches and Claws.

Care must be taken during these operations that the natives do not steal the moustaches and the claws, which, together with the clavicles of the shoulder, they highly value as charms. The fat of the tiger they consider an infallible cure for rheumatism, moreover. Compiler.

Setting-up.

Instructions for setting up a stuffed tiger will be found on pages 38 and 39 of Ward's *Knapsack Manual for Sportsmen.*

TIGER WOUNDS.

It is a popular belief, and by no means confined to the ignorant, that the wounds inflicted by Fayrer, p. 47.

* Dissolve both in a small quantity of hot water, and let the liquid cool before immersion.

† Dentition of Tiger—Incisors $\frac{3}{3}:\frac{3}{3}$, canines $\frac{1}{1}:\frac{1}{1}$, premolars $\frac{3}{3}:\frac{3}{3}$, molars $\frac{1}{1}:\frac{1}{1}$—total 30.

the fangs and claws of the tiger are very dangerous and of a specific nature. This, however, is a mistake. It is certainly possible that the teeth and claws may occasionally be contaminated with septic matter from the decomposing flesh of his prey; but this is probably rare, as any one would say who saw these weapons, and knew the careful way in which they are kept polished and clean. The fact is, the wounds owe their dangerous condition to the fact of their being deeply punctured or lacerated: otherwise they have no peculiarity, and they not unfrequently heal very readily, though they are occasionally followed by profuse suppuration, which, as in similar wounds, may induce blood-poisoning. Sir Joseph Fayrer has seen the severest injuries recovered from rapidly, others after profuse suppuration and sloughing of the torn and stretched tissues.

THE LION* (Felis Leo).

(*Hind.*—BAGH, UNTIA-BAGH, SHER.)

CHAPTER II.

IT is too often assumed that the absence of a mane is the special characteristic of the Indian lion. The lion of Guzerat is indeed usually termed the *maneless lion ;* and individuals with this superb ornament imperfectly developed are undoubtedly often met with. In Bennett's *Tower Menagerie* will be found a cut of "the old lion," a grand

THE MANE

Bennett.

* *Cf. Bengal Sporting Magazine* (1841). Pliny accounts for the maneless lion thus :—Leoni praecipua generositas, tunc cum colla armosque vestiunt jubæ. Id enim ætate contingit e leone conceptis. Quos vero pardi generavere insigni hoc carent.—viii, 6. For further information regarding the Indian lion, consult *Indian Sporting Review*, February 1857, p. 1 ; *Bengal Sporting Magazine*, 1833 (i., 557) ; Tennant's *Hindustan*, vol. i., p. 78 ; Postan's *Western India*, vol. ii., p. 158 ; Balfour's *Encyclopædia*, 2nd edition, vol. iii., p. 482 ; *Calcutta Review*, No. 2, 1860, December 20 ; Spry's *Modern India*, vol. i., p. 84 (1837), and vol. ii., p. 233 ; *Times of India Handbook of Hindustan*, p. 89 ; Heber's Journal, vol. ii., p. 149 ; *Zool. Proc.*, 1833 ; *Zool. Trans.*, vol. i. ; Bennett's *Tower Menagerie* ; Jardine's *Naturalist's Library, Mammalia*, vol. ii., Felinæ, 1834 ; Temminck's *Monograph of the Genus Felis and Tableau Methodique* (1827) ; Swanson's *Animals in Menageries* ; Aelian, xvii., 26 ; Pliny, viii., 6 ; Oliver's *Voyage dans l'Empire Othoman*, &c., tom. iv.

animal with an enormous mane. This was an Indian lion, as was also the famous 'King George,' whose mane was of the most exuberant growth. Some have supposed, however, that there are two distinct types of the Indian lion, *viz.*, that of Guzerat, and that of Eastern India; and that the absence of a mane is the characteristic feature of the former. This theory has not sufficient foundation, we think. Individual lions with imperfect manes are found everywhere; and the defect is probably due to local causes. The lion of the dense and thorny Indian jungle cannot be expected to preserve his flowing locks like his congener of the desert. It is said to be from a specimen of the Indian variety that the lion in the royal arms of England was originally copied. An experienced sportsman, writing in the *Bombay Times* of February 12th, 1856, almost settles this moot point in the following passage:—I have shot more lions he says, in Kattywar than any other man alive, and totally disbelieve in any of them being maneless, save females and young males. Captain Smee, however, in confirmation of his own experience, quotes Colonel Sykes as being aware of the existence of maneless lions in Guzerat. Sir C. Malet speaks of seeing lions on the banks of the Sombermatti, but say nothing of their being maneless. Colonel LeGrand Jacob used to shoot lions in Kattywar, and speaks of the males as being maneless. Major

Bombay Times.

Smee.

S. W. Cornwallis Harris had no faith in the existence of an Asiatic race of maneless or scantily-maned lions; and he was as familiar with the lion of Guzerat as with that of South Africa. In the text accompanying his *Portraits of the Game and Wild Animals of South Africa*, he says:—In point of size and complexion, the South African lion differs in no respect from that found in Guzerat. It varies in hue between ash-colour and tawny-dun; but generally possesses a more elaborate and matted mane, which peculiarity is attributable in great measure to the less jungly character of the country that it infests, and to the more advanced age to which, from the smaller number of its foes, it is permitted to attain. In India the lion is often obliged to establish itself in heavy jungles, which comb out a great portion of the loose, silky hairs about its head and neck. That which is designated the maneless lion of Guzerat is nothing more than a young lion whose mane has not grown. W.C. Harris.

DESCRIPTION.

Colour.

The lion is subject to considerable variations in the intensity of its colouring. The general colour is fulvous, and when this hue is dark, there occurs a tinge of red occasionally (Aelian [xvii., 26] states that the skin of the Indian lion is distinguished by its black colour). The middle of the back is the most deeply-coloured part, and the under-surface is much paler—indeed, almost white. Of the Guzerat lions, Captain Smee remarks that the oldest indivi- Smee

dual is the lightest in colour. The tail becomes gradually paler towards its extremity, passing into greyish white; its terminal brush consisting of black hairs slightly tinged with brown. The Indian lion is perhaps more rounded and bulky in its body than the African, and has shorter limbs. Its head is shorter, and has less of the square form which distinguishes the open face of the male African lion.* The lion is shorter in the vertebral column, and much deeper in the chest, than the tiger, indicative of its capacity of running in pursuit, which the tiger never does. A male maneless lion killed by Captain Smee measured, from tip of nose to extremity of tail, 8 feet 9½ inches; and weighed, exclusive of the entrails, 35 stone. The impression of its paw on the sand measured 6½ inches across, and its height was 3 feet 6 inches. A female killed at the same time was 8 feet 7 inches long and 3 feet 4 inches high. A writer who has bagged fifty lions in Kattywar, writes as follows:—Out of all the lions I have killed, 9 feet 2 inches is the longest I have seen before taking the skins off for curing; they are stretched to 11 feet frequently. In the

Form.

Size.

Bengal Sporting Magazine, 1841.

* The only distinction between the skulls of the lion and tiger is this—the nasal bones of the tiger pass beyond the maxillaries, and those of the lion fall short of the maxillary suture. The affinity of the two species is proved by their being able to interbreed. In Knight's *Cyclopædia* there is a cut of a hybrid.

Bombay Sporting Magazine for 1833, we find the measurement of a nearly full-grown male (Kattywar) put down at 3 feet in height, 9 feet in length, with a mane 9 inches long. *Bombay Sporting Magazine* 1833.

The natural period of a lion's life is supposed to be 20 or 22 years. Such is Buffon's limitation, but they often live much longer. 'Pompey,' the great lion which died in 1760, was said to have been in the Tower above 70 years; and one from the river Gambia was said to have died there at the age of 63. *Age.*

The lioness goes with young five months, and produces generally from two to four at a litter, which are born blind. Two males and a female were whelped, at a birth, in the Tower, on the 20th of October 1827. The most common litter is two. The young are at first obscurely striped or brindled, and somewhat tiger-like in the coat. There is generally a blackish stripe extending along the back, from which numerous other stripes of the same colour branch off nearly parallel to each other on the sides and tail. The head and limbs are generally obscurely spotted. When young, they mew like cats; as they mature, the uniform colour is gradually assumed, and when ten or twelve months old, the mane begins to appear in the males; at the age of eighteen* months it is considerably developed, and they begin to roar. At five years of *Gestation.* THE YOUNG.

* Cuvier states that it is near the third year before the mane and the tuft on the tail appear.

Bennett. age, a Bengal lion figured by Mr. Bennett was magnificently maned.

DISTRIBUTION. The Indian lion is found in Guzerat, Kattywar, the Runn of Cutch, Rajputana, Gwalior, and Goonah. Lions have been killed within twenty

THE HURRIANA. miles of Saugor. In former days, Hurriana* was infested with lions, but they have now not only disappeared from there, but there exists no tradition concerning them among the people of that district. Writing in the *Bengal Sporting Magazine* of 1837, Major Brown ('Gunga') remarks that only twenty-three years elapsed from the occupation of the country, when the lions, which were at one time in the dry and sandy deserts of the Hurriana, became extinct south of the Cugar. Having no secluded dens to retire to during the hot weather, the lions from necessity took up their abode where water could be found; and as places of this description were rare, and generally near villages, their retreat was easily beaten up and their entire destruction speedily effected. In the month of May a shooting party had only to ask where water was to be found to make sure of sport. We have the evidence of Jehangir and the Rev.

Bengal Sporting Magazine.

MALWA. E. Terry that, in their time, the province of Malwa

* Perhaps the largest lion ever seen in England was one caught when very young in Hurriana by General Watson and presented to George IV. This was the 'King George' of the Tower collection. Its mane was superbly developed.

abounded with lions. Jehangir himself killed several; and Terry stated that he had been frequently terrified by them in his travels through the vast jungles of that country. Lions are still found in the Geer jungles. Colonel LeGrand Jacob killed a lion and a lioness in one day in the Geer jungle valley, in the south of Kattywar. The *Times of India* says that an officer of the 56th Regiment shot three lions in one year while stationed at Deesa. In 1832-33 the officers of the 3rd Bombay Cavalry, stationed at Rajkote, used to shoot lions from horseback. Major Benbow, of the Bombay Army—a mighty hunter—and some congenial spirits, used to hunt lions in the Runn of Cutch on horseback, by galloping fiercely at them and firing; but continuing to gallop, without pausing to see the effect of the shot: the others of the party following up with the same manœuvre. Captain Smee gives us the following account of the Indian lion:—Lions, he writes, are found in Guzerat along the banks of the Sombermatti, near Ahmedabad. During the hot months they inhabit the low, bushy wooded plains that skirt the Bhardar and Sombermatti from Ahmedabad to the borders of Cutch, being driven out of the large adjoining tracts of high-grass jungle (*bhir*) by the practice, annually resorted to among the natives, of setting fire to the grass, in order to clear it, and ensure a succession of young shoots for the cattle on the first fall of

Times of India.

Smee.

Habitat.

the rains. They extend through a range of country about forty miles in length. They were so common formerly that Smee killed no fewer than eleven in a residence of about a month. They are very destructive to cattle and donkeys. (Lions everywhere have a peculiar penchant for donkeys.)

DESTRUCTIVENESS.

When struck by a ball, the Indian lion usually turns round on the aggressor; and if in jungle, will come out into the open and show fight. After a prolonged angry gaze, however, he usually retreats slowly, in silence and anger; unlike the tiger, which, under similar circumstances, retires springing and snarling. A correspondent of the *Indian Sporting Review* writes thus:—Lions do not always fight; but generally slink away. When they do fight, however, they take to the open plain, and it is extremely difficult to get an elephant to face them, and few, if any, would stand their charge. They charge with mane and tail erect. An account of a lion hunt is given in the *Bengal Sporting Magazine* for 1833 (i., 557); we extract a few lines from it:—Immediately on our coming out of the jungle, and while within one hundred yards of him, down came the lion, lashing his sides with his tail, his mane erect, and roaring dreadfully. Every one of the elephants took to their heels, whereupon the lion returned to his position on a high knoll and gazed on us. His position rendered him conspicuous, and he was ultimately bagged.

Indian Sporting Review.

THE CHARGE.

Bengal Sporting Magazine.

THE PANTHER (Felis Pardus).

(*Hind.*—TIMRI, TENDUA.)

CHAPTER III.

THE panther, which is found all over India, is more powerful and heavier than the Indian leopard (*felis jubata*). Its tail* is longer, in proportion to its body. Its claws are perfectly retractile. The general colour of its fur is darker, and the spots are rose-shaped or ringed, the yellowish fulvous ground colour being visible in the centre of the black. These marks only become perfect spots towards the extremities of the animal and on his back. While

DESCRIPTION.

Panth and L pard.

* The tail of the leopard is commonly said to be as long as its body; while the tail of the panther, which has 28 caudal vertebræ, is as long as the body and the head.—*Vide* Temminck, *Zoological Journal*, vol. ii., 1826. The skeleton of the panther in the Calcutta Museum has only 24 caudal vertebræ. Knight's *Cyclopædia; Natural History; Indian Sporting Review*, p. 13, February 1857; *Wild Sports of India*, p. 100; Tennent's *Ceylon*, vol. i., p. 140; Baker's *Eight Years' Wanderings in Ceylon*, 1855, p. 114; Cumming's *Wild Men and Wild Beasts*, chap. i.; *Old Forest Ranger*, p. 334; Pennant's *History of Quadrupeds* (1793); Wood's *Zoography*.

the leopard is a lanky, lissom beast, drawn up at the loins, with light limbs, the panther is a stoutly-built animal with broad and powerful limbs, approaching in its form more nearly to the tiger. Their habits are also different; for while the leopard depends for its livelihood upon its speed, the force with which it strikes, and the suddenness and unexpectedness of its attack, the panther more boldly attacks his prey with the confidence of great power of limb, neck, and jaw. The panther is far more agile and active than the tiger, and is also more silent and more stealthy. The panther climbs better, jumps better, and stalks better than the tiger. The characteristic feline dread of wet, which is absent in the latter, is conspicuously present in the former. In captivity it will be observed that the panther avoids a damp spot in his cage, and only uses his tub for drinking purposes.

Panther and Tiger.

CHARACTERISTICS.

The panther is more destructive, in proportion to his size, than the tiger, for, under favourable circumstances, it will kill numerous victims in succession, to suck their blood only. At night they often climb the *machans* and pick off the cultivators who are watching their crops. Baker, in his *Rifle and Hound* in Ceylon, speaking of the great power of the panther, says that the tremendous effect of this animal's spring is not merely due to its blow, but to its combined weight, power, and momentum. The immense power of muscle is displayed in the con-

Sporting Review.

Baker.

centrated energy of the spring. He flies through the air and settles on the throat, usually throwing his own body over the selected victim, while his teeth and claws are fixed on the neck : the spine is thus often broken, and the panther quietly proceeds with his meal. Nevertheless, a blow from the paw, without any spring, is often most effective, and will often rip open a bullock like a knife. *The Attack*

Baker tells us that the after-effects of the wound are still more to be dreaded than the force of the blow.* There is a peculiar poison in the claw which is highly dangerous. This is caused by the putrid flesh which they are constantly tearing, and which is apt to cause gangrene by inoculation. Shakespear, speaking of the panther's stroke, says :—My favourite dog came up to the bush, and the panther, without exposing more than his foreleg, knocked him over with a blow which opened his shoulder and laid bare the bone of his foreleg down to the toes. *The Septi Claw.* Shakespea

Of the ferocity† of the panther, Cumming writes:— Panthers are most savage and dangerous animals, and too much precaution cannot be taken in hunting them. They can conceal themselves anywhere, and, when attacked, will charge repeatedly and in the most determined manner. Shakespear testifies to the dangerous character of this animal. He writes—The panther is a most formidable animal, though not nearly so FEROCITY Cumming. Shakespea

* *Cf.* what Fayrer says of this in our chapter on the Tiger.

† *Vide Bengal Sporting Magazine*, vol. xx. (1242), 5.

big as, nor above one-third the weight of, the tiger. He constantly attacks men unprovoked, and kills them in the jungle, and he comes into the villages, and even into the houses, and carries away dogs, sheep, and even, in some cases, children. Panthers have perhaps a less instinctive dread of man than tigers, and sometimes they will be found in the large drains of cantonments in the neighbourhood of jungles, and they have been known to carry off dogs from the verandahs of houses in Simla, Mussoorie, and other hill-stations. A panther pulled a man off his horse on the Meerut Mall some years ago. Shakespear killed two panthers in some gardens in the middle of the station of Bolarum, near Hyderabad. They had been washed out of a large drain. He also killed five panthers within six miles of the cantonments of Mominabad, in a short period of residence there. The compiler killed a large panther a few weeks ago within a stone's throw of a much-frequented public road. The *Old Forest Ranger*, in his notes, page 334, speaks of a panther killed in a garden. Panthers have sometimes been speared in India. Shakespear says—It is rare to find the panther in ground where you can spear him from horseback ; and it should not be attempted unless the rider is mounted on a very active and courageous horse. The panther's skin is very loose, and it is difficult, except at full speed and with a finely-pointed spear, to run him through.

PANTHERS NEAR STATIONS.

Campbell.

SPEARING PANTHERS.

The skin gives so much to the weapon that the point is apt to run round the body between the skin and the flesh, and the panther will then make good his spring. In riding him, you must be prepared for his suddenly stopping and crouching as the horse comes up to him. If you then fail to spear him through, in all probability he will bound on you when you have passed. The *Old Forest Ranger* says (notes, page 334) that panthers have on several occasions been speared from horseback, but that the great danger involved has prevented its becoming a general practice, even among the most daring. Panthers measure from 7 to 8 feet in length.* Natives calculate the age of the panther by the number of lobes of the liver. Their characteristic cry is a low grating roar.

Size and Age.

* Baker says that the panther sometimes attains to 10 feet in length, and weighs from 170 to 176 lbs.

THE LEOPARD (Felis Jubata).

(*Hind.*—CHITA.)

CHAPTER IV.

INTRODUCTORY.

IN this chapter we propose to give an account of leopards hunting, and not of leopards hunted. Shooting leopards cannot be regarded as a characteristic Indian sport, distinct from tiger and panther shooting. Leopards are, of course, shot everywhere throughout India, but the sport is merely incidental to tiger-shooting, or so similar to the pursuit of the panther as not to merit a separate chapter.

Sporting Review.

DESCRIPTION. *Form.*

The Indian crested leopard differs from all other cats by having the claws imperfectly retractile. Its general figure, moreover, is exceedingly unlike that of any other species. It stands higher than the panther, and has much more slender limbs : its chest is remarkably deep : its body is attenuated at the flanks : and its head is remarkably small. The neck and shoulders are surmounted by a mass of lengthened hair ; and the tail, which is as long as the body, instead of tapering gradually, thickens

* February 1857, p. 16.

towards the end, having its terminal fourth, or so much compressed, or higher than broad. Its average length is about 6¾ feet (body 4¼, tail 2½). *Size.* Its general colour* is fulvescent cream, or bright *Colour.* *nankin*, more or less deep, and dotted over with numerous round black spots, which do not group into rosettes, but have smaller spots interspersed among them; the lower parts are of a subdued white, and the face has a conspicuous black streak passing down obliquely from the corner of each eye: the temples are spotless, and the crown and cheeks are somewhat obscurely speckled: the ears short, round, black at the base externally, the rest whitish; the limbs spotted like the body: the tail with three or four black rings at tip, and the extremity always white. The compressed portion of the tail has a series of transversely oblong spots on each side, leaving the middle line clear of spots above. The tail is white underneath. The hair of the belly is lengthened, with a shaggy, fringe-like appearance. The fur is coarser and crisper than that of most of the felidæ. The nozzle is black (that of the tiger is pink). The pupil of the eye contracts circularly. Although the *chita* in some respects seems to approximate the canine

* In distinguishing the panther from the leopard, Baker writes as follows:—The *chita* is much smaller than the panther, seldom exceeding 7 feet in length. His body is covered with round black *spots* the size of a shilling (not *rings*), and his weight rarely exceeds 90 lbs.—*Vide* Bennett's *Tower Menagerie.*

species, Owen (*Zool. Proc.*, 1833) says that in the circulatory, respiratory, digestive, and generative systems the *chita* conforms to the typical structure of the genus felis.

DISTRIBUTION. The leopard inhabits all Africa, besides Syria and Arabia, where it is much more common than in India. Chesney, in his *Journal of the Euphrates Expedition*,* says it is more numerous in Asia Minor than in Persia and Mesopotamia: he also notices its occurrence in Arabia, and in the vicinity of Aleppo. Pallas traces it as far north as the Caspian Sea and the deserts of the Kirghiz. In India, save as a trained animal, it is little generally known; yet all we see are captured in the country and taken when adult. The trainers say that the cubs are useless for their purpose, at least until they have become accustomed to seize their own prey. In Upper India the chief supply of these animals comes from Jeypore; and in Southern and Western India from Hyderabad. It is found in holes among the rocks of hilly tracts, or among rocks near grassy plains frequented by antelopes. Sheep, goats, antelope, and gazelle form its chief prey.

Chesney.

Indian Sporting Review.

Habitat.

CHITA HUNTING. Hamilton. The following account of a *chita* hunt is from the pen of Buchanan Hamilton:—On a hunting party the *chita* is carried on a cart, hooded; and when the game is roused, the hood is taken off.

* Vol. i., pp. 363, 442, 521.

The *chita* then leaps down (sometimes on the opposite side to its prey), and pursues the antelope. If the latter are near the cart, the *chita* springs forward with a surprising velocity,* perhaps exceeding that which any other quadruped possesses. This great velocity is not unlike the sudden spring by which the tiger seizes its prey, but is often continued for three or four hundred yards. If, within this distance, the *chita* does not seize his prey, he stops ; but apparently more from anger and disappointment than fatigue, for his attitude is fierce, and he has been known immediately afterwards to pursue with equal rapidity another antelope that happened to be passing.—The compiler can corroborate the above from a recent experience. While hunting in the Maharajah Holkar's preserve, near Indore, a *chita* was slipped at a herd of antelope grazing within some ninety yards. The *chita* began at a walk, the antelope raised their heads, he trotted, they began to wheel slowly about ; they then made off, and in a series of prodigious bounds the leopard got within a few yards of a doe; he was gaining on her at every moment, but

Compiler

* The Bible, Habbakuk, chap. i., v. 8.—" Their horses are swifter than the leopards." Harmer says that the figures here employed may have been more striking to the people from their having witnessed the prodigious feats of *chitas* used in the royal chase.—Swainson's *Classification of Quadrupeds and Animals in Menageries;* Bennett's *Gardens and Menageries of the Zool. Soc.* (1830).

all at once, to our great surprise, his pace slackened to a walk, and he moved sulkily away in another direction. This was a hungry *chita*, in perfect hunting trim, for he killed another antelope in less than an hour, with ease.—If the game is at a great distance, when the *chita's* eyes are uncovered, he in general gallops after it, until he approaches so near that he can seize it by a rapid spring. This gallop is as quick as the course of a well-mounted horseman. Sometimes, but rarely, the *chita* endeavours to approach the game by stealth, and goes round a hill or rock until he can come upon it unawares.—The above account of *chita*-hunting has a peculiar interest, as Hamilton gleaned it from the conversation of the Duke of Wellington, then the Hon'ble Sir Arthur Wellesley, commanding at Seringapatam. Sir Arthur used to keep five *chitas* that had formerly belonged to Tippoo Sultan. With these five the General in one day's sport would kill ten or eleven antelopes.

Hamilton.

Vigne gives the following account of *chita*-hunting :—It requires strong epithets to give an idea of this creature's speed. When slipped from the cart, he first walks towards the antelope with his tail straightened and slightly raised, the hackle on his shoulder erect, his head depressed, and his eyes intently fixed upon the poor animal who does not, as yet, perceive him. As the antelope moves, he does the same, first trotting, then cantering after him ;

Vigne.

and when the prey starts off, the *chita* makes a rush to which the speed of a race-horse is for the moment much inferior. The *chitas* that bound or spring upon their prey are not much esteemed. The good ones run it fairly down. When we consider that no English greyhound ever yet ran fairly into a doe antelope, which is faster than the buck, some idea may be formed of the strides and velocity of an animal who usually closes up with her immediately. The *chita* fortunately cannot draw a second breath, and, consequently, unless he strike the antelope down at once, is instantly obliged to stop and give up the chase. He then walks about for three or four minutes in a towering passion, after which he again submits to be placed on the cart. Gordon-Cumming* gives the following account of some *chita*-hunting he had near Indore :—A *chita* was now unhooded, and, on seeing the deer, he at once glided from the cart, and, taking advantage of every tuft of grass and inequality in the ground, he crept towards his prey. The deer were in the meanwhile lazily watching us as we went on without halting, and the poor beasts were only aware of their danger when the leopard made his rush. There was a wild scurry, but the *chita* was among them, and as the herd cleared off, we saw him lying with his teeth in the throat of a goodly buck. Our

Cumming.

* See *Wild Men and Wild Beasts*, pp. 170 178.

Handbook of Hindustan.

next account of this sport is extracted from the *Times of India Handbook of Hindustan** :—*Chita*-hunting is indulged in by native chiefs all over India, but on the Bombay side it is enjoyed in its greatest perfection at Baroda. Invitations are issued by the Gaekwar, and at dawn the guests assemble at a spot about three miles from the city. The *chitas* are already there on light carts drawn by bullocks. They are fastened by a rope round the neck, and a leathern hood, descending over the eyes, keeps them in darkness, and in ignorance of the vicinity of animals not to be sprung upon. The sportsmen get into bullock-carts knee-deep in hay, which serves in place of patent springs. No sportsman goes on horseback, for the object is to give a rural and unsuspicious appearance to the caravan. The bullock-carts set out across the country in single file, traversing cotton-fields, ditches, holes, plains, at the rate of about four miles an hour. The jolting, in spite of the hay, is frightful, and those are happy who reach the great antelope preserve—six or seven miles off—without having been shaken into little pieces. Suddenly the line of carts debouches on a vast plain, on which may be seen thousands of deer browsing peacefully in vast herds. They move along slowly, much like regiments in column, the older bucks leading, and the younger ones

CHITA-HUNTING AT BARODA

* Page 105.

stationed on the flanks. They eat as they go, and take no notice of the country carts that edge slowly down towards them. When the carts get within a distance of eighty or a hundred yards, they stop. The deer take no thought of the circumstance : they eat and move, and move and eat, all the while presenting their long and exposed flank to the treacherous enemy. The hood is lifted from the *chita's* eyes, and his head is turned by the hand of his keeper in the direction of the column of deer. The rope is slipped from his neck, and he is free. The deliberation of his movements is remarkable. He quietly glides down from the cart, and walks very slowly towards the herd ; and if there be grass of any height on the way, he moves through it by preference ; the deer do not see him, and he does nothing to make himself vulgarly conspicuous. When he gets within fifty yards, he quickens his pace to a trot : at thirty he canters : at twenty he has fixed his hungry eye on a particular deer, and, throwing aside all reserve, dashes boldly at it in a series of magnificent bounds. The herd sees him, and could still get off without the loss of a deer, if it only made a dash for it *away* from the foe. But, as we have said, it is moving in column, and nothing will induce it to break that formation. It goes straightforward, presenting its long flank to the *chita* coming against it at right-angles. Consequently,

if the first deer singled out escape by a bound, another following it falls beneath his attack. When the kill has been made, the keeper comes up with a wooden ladle and a knife, and cutting the deer's throat, catches the blood in the spoon. The *chita*, after a little coaxing, is induced to leave the antelope and put his nose in the warm blood. While he is lapping this, the hood is slipped over his eyes and he is replaced on the cart.

Mrs. Parks. In Mrs. Park's *Wanderings of a Pilgrim in the East*, the following amusing account of a *chita*-hunt will be found:—We arrived at the estate of a native gentleman called Petumber, where, on the plain, we saw a herd of about three hundred antelopes, bounding, running, and playing in the sunshine; and a severe sun it was, enough to give one a brain fever, in spite of the leather hood of the buggy. The antelopes are so timid, they will not allow a buggy to come very near the herd; therefore, being determined to see the hunt, we got out of the carriage, and mounted upon the hackery (cart) on which the *chita* was carried, without even an umbrella, lest it should frighten the deer. The *chita* had a hood over his eyes, and a rope round his loins, and two natives, his keepers, were with him. I sat down by accident on the animal's tail:—'O-o-o-wh,' growled the *chita*. I did not wait for

another growl, but released his tail instantly. The bullock hackery was driven into the midst of the herd. The bandage was removed from the eyes of the *chita*, and the cord from his body: he dropped from the cart and bounded, with the most surprising bounds, towards an immense black buck, seized him by the throat, flung him on the ground, and held him there. The keepers went up, they cut the buck's throat, and then they cut off the haunch of the hind leg, and, dipping a wooden spoon into the cavity, offered it full of blood to the *chita*. Nothing but this would have induced the *chita* to quit the throat of the buck. He followed the men to the cart, jumped upon it, drank the blood, and the men then put his bandage over his eyes. The haunch was put into the back of the cart, the reward for the animal when the hunting was over. The herd had passed on. We followed, taking care the wind did not betray our approach. The *chita* was leaning against me in the hackery, and we proceeded very sociably. Another herd of antelopes went bounding near us, the *chita's* eyes were unbound again, and the rope removed from his loins; a fine buck passed; we expected he would instantly pursue it as usual, but the animal turned sulky, and, instead of dropping down from the hackery, he put his both fore-paws on my lap, and stood there two or three seconds with his face and whiskers touching my cheek. 'O-o-o-wh—O-o-o-wh,' growled the *chita!*

—My heart beat faster, but I sat perfectly quiet, as you may well imagine, whilst I thought to myself, 'If he seize my throat, he will never leave it, until they cut off my hind-quarter and give him a bowl of blood!' His paws were as light on my lap as those of a cat. How long the few seconds appeared whilst I eyed him askance! Nor was I slightly glad when the *chita* dropped to the ground, where he crouched down sulkily and would not hunt. He was a very fine-tempered animal, but they are all uncertain. I did not like his being quite so near when he was unfastened and *sulky*. The next time I took care to get off the cart before the creature was freed from restraint.

Indian Sporting Review.

From the *Indian Sporting Review* we take the following passage :—When the *chita* seizes its prey, which is always by the throat, it would hold on and suck the blood ; but the keeper soon runs up, throws the hood over the animal's eyes, and drags it off, growling ; while another man usually collects some of the blood in a wooden ladle and thrusts it under the *chita's* nose. From this ladle, too, they are generally fed. The keeper has some meat in a bag, a ball of which he throws into this wooden spoon, and the *chita* takes it and immediately looks up with singularly intense earnestness in the man's face for more. When hungry, they have a peculiar bleat-like mew ; and they purr like the domestic cat when pleased. They are often

reduced to perfect tameness ; so that any stranger may handle them with impunity : others are only safe to their keepers.

NOTES.—The *felis jubata* of Schreber and the *felis venatica* of H. Smith are identical.

The graceful attitudes of the *chita* are characteristic figures on ancient Egyptian monuments.

Emerson Tennent would seem to be mistaken when he says in his *Ceylon*, vol. 1, p. 140, that " the hunting leopard of India does not exist in Ceylon." *Vide* Baker's *Eight Years' Wandering in Ceylon* (1855, p. 114) for evidence of the *chita* proper.

THE OUNCE (Felis Oncia).

(*Hind.*—THURWAG, BURREL HAY).

CHAPTER V.

DESCRIPTION. THE ounce, snow leopard, or white leopard, is an animal which has interested every Himalayan sportsman. The beauty of its fur, its rarity, and its secluded habits, all contribute to enhance its value to the hunter. Its form is much the same as that of the panther. The tail is clavate, of extraordinary thickness, enlarging towards the tip. The fur is dense and glossless, sinuous and floccose. or tending to adhere in locks. The pile attains a length of from 1 to 1¼ inch, and measures towards the end of the tail fully 2¼ inches. The colour is a pale whitish-isabelline, tending to a whitish or yellowish hue underneath; and it is somewhat obscurely spotted over with dusky rosettes or rings, placed more distantly apart than those of the panther. On the crown, and between the shoulders, the spots are smaller, closer, and blacker: on the limbs they are large, round, and distinct: and a few are thinly scattered over the belly: on the tail the spots are tolerably distinct, and tend to form two or three encircling rings at tip; but the under-

Indian Sporting Review.

surface of the tail is white and almost spotless: on the croup, reaching to the base of the tail, is a medial black line, with a traceable row of squarish rosettes on either side of it, bordered again by a line of the pale ground hue. The ears are small, whitish, with black base and border. There is an irregular black line passing from below the eye round to the throat. Length about 6¼ feet (head and body 3½, tail 2¾). *Size.*

This well-distinguished species was long ago figured and accurately described by Buffon; but its very existence was subsequently called in question; and M. Temminck denied its existence. Of late years, however, many excellent specimens of the skins have been brought to India and Europe. M.M. Humboldt and Ehrenberg met with it on the Great Altai, and named it "The Altaic Panther" (*Felis irbis*).* They speak of it as Humboldt

* *F. irbis*, Ehrenburg; *F. tulliana*, Valenciennes; *Uncia irbis*, Gray. M. Valenciennes gives the following description of his Smyrna *F. tulliana*:—En le comparant à notre Panthères Algerienne (felis pardus) nous lui avons trouvé des caractéres très-distinctifs. L'animal, aussi grand que nos plus grandes Panthéres Africaines, à le pelage cendré au gris legèrement roussâtre, peu chargé de taches en larges roses ou cercles mal fermés sur les flancs; sur les épaules et sur les cuisses elles sont un peu plus petites; à partir du poignet ou du tarse, les taches deviennent des gros points noirs, que l'on retrouve sur la tête et un peu sur le cou. Les taches en roses arrondies se continuent sur le dos de la queue.—Comptes Rendues, 1856, p. 1087.

DESCRIPTION. preying upon the rein-deer. The ounce probably inhabits the great mountain systems of Asia generally, where its abode would appear to be constantly near the snow. 'Mountaineer' tells us that the ounce is found in the snowy ranges, on the grassy slopes below the snow, and in the higher forests of the valleys; and that it preys chiefly on bharal and musk deer. It seldom approaches the villages, or preys on the cattle, except when the flocks are taken on to the distant hills for the summer season, when it occasionally kills a few sheep or goats.

Wilson.

Habitat.

He is fortunate indeed who, during months of shooting on the snowy ranges, gets even a sight of white leopard. During several years, the summers and autumns of which Wilson spent among the haunts of the ounce, he only met it three or four times, and only shot one—a half-grown cub. As it roams about apparently as much by day as by night, it is surprising and unaccountable how it evades and escapes observation, the more so as its principal resorts are on the slopes above the limits of forest, where there is little or nothing, one would imagine, that could conceal it from sight: even the shepherds, who pass the whole of the summer months, year after year, in the region it inhabits, but seldom see one; and Wilson says that, while hunting in the forest below Gungutri and in the grassy slopes above, although he met

Secluded Habits.

with its tracks every day, he never saw one. He adds:—On the sands, a few miles below the glacier from which the river flows, their traces were always very numerous, so much so that one would imagine they traversed them almost daily; and musk deer or bharal, shot in remote places, if not eaten by vultures, were almost sure to be found and devoured by ounces. Everywhere their traces were to be found, often as if one had passed only a few hours before; but still the animals were invisible. 'Mountaineer' imagines that this species is more common on the northern slopes of the Himalayas, where the hills descend from the snow to the plain or valley of the Sutlej. Markham writes:— We were lucky enough this day to see a white leopard, which galloped across the open. This is the only one I ever saw, though I have seen their fresh-made tracks day after day. The 'Old Shikarry' writes in the *Forest and the Field* (2nd ed., p. 156): —I also succeeded in stalking a snow-leopard, which had evidently been following the bharal, and knocked him by a lucky shot through the head, as he was stealing away over some craggy ground, about two hundred yards distant. He proved a beautiful specimen, the fur being very soft and close, having a whitish ground with dark spots. These animals are very cunning, and, notwithstanding that their traces are often seen on the snowy ranges, comparatively few are bagged.

Markham.

'Old Shikarry.'

THE INDIAN BLACK BEAR* (Ursus Labiatus).

(*Hind.*—BHALU, RICH.)

CHAPTER VI.

DESCRIPTION.

THE long-lipped 'sloth' bear of the Indian plains is sufficiently formidable and difficult of access to afford excellent sport. His long, shaggy coat, white V-like mark on the chest, and protrusile lips, are familiar to every one in India from the unhappy animals that are led about the country to amuse children with their uncouth dances and gestures. The hair of the Indian bear is of a glossy black and of unusual length. The forearms and chest are bulky and powerful, but the hind-quarters droop. The claws of the fore-paws are powerful weapons, being hooked and some three inches in length. His

* *Old Forest Ranger* [1853], pp. 97 and 339; Rice's *Tiger Hunting*, pp. 4 and 118; *Wild Men and Wild Beasts*, pp. 16, 65, 191; *Wild Sports of India*, p. 127; *Indian Sporting Review*, 1857, vol. iii., p. 199; *Hunting Grounds of the Old World* [2nd ed.], p. 170; *Shooting in the Himalayas* [1854], p. 251; Tennent's *Ceylon* [1859], *Ursus labiatus*, p. 137.

scent is keen, as may be seen from the large, open nostrils always in motion. His sight is somewhat defective in bright light, and his hearing is not very perfect.

The average height of this bear to the shoulder is perhaps 3 feet, and length 5½ to the end of his tail. Shakespear shot one 6 feet 4½ inches long. The tail is only 3 or 4 inches in length. When, therefore, a bear raises himself to his full length upon his hind-legs, which he often does to intimidate the hunter, he stands between 7 and 8 feet high. Their mode of fighting among themselves is wrestling, hugging, and throwing. *Size.*

A quickly repeated grunt when angry or alarmed, and a curious drumming noise made while sucking the paws in a pleased temper, are their most characteristic sounds. Although evidently intended by nature to be omnivorous, the bear rarely eats "butcher's meat." Ants, beetles, slugs, grubs, fruits, roots, berries—especially the *mahua*—honey, and sugarcane are the favourite rations of this dainty robber. *Noises.* *Food.*

The females usually bring forth their young in some cave or rocky ravine; and as soon as they can run about, the young bears travel over the country on the backs of their mothers, burying themselves in the long hair, to which they cling with the greatest tenacity, holding their position at any speed, and over the roughest ground. While feeding or undis- Cumming. *The Young*

turbed, they dismount and run about, scrambling up again with great celerity on the least alarm.

Haunts. Bears are generally found among large stones, rocks, or in caves half hidden in brushwood on the sides of ravines ; but Cumming says he has found them in long grass, where they had lain throughout the day, exposed to all the power of the Indian summer sun. Most usually, however, except in the rains and in very thick and shady jungles, they will be found during the day in the dark and cold recesses of some cave, or under
Shakespear the shade of great shelving rocks in remote and deep ravines.

Tenacious of life. Although very tenacious of life, from the cool and wholesome diet in which he indulges, the bear is the softest old thing in the world, and will howl and roar extravagantly on receiving the slightest wound: but at the same time he will not hesitate to charge the aggressor, and the extraordinary rapidity with which he can scramble over the worst ground should make even the experienced sportsman careful.

Fatal spot. The most fatal spot to lodge a bullet is in the centre of the white V mark on the chest. This will penetrate the lungs and cause almost instantaneous death.

Bear-spearing. Bears have been speared from horseback. Shakespear killed two in this way, and relates that a
Shakespear friend of his in the Deccan had speared many. The

spear must be of a stouter make than that used for hog. The shaft should not measure more than 6½ or 7 feet.

Bears' grease.

Rice gives the following instructions for securing the much-prized grease* :—Cut off the fat in long strips, and, with sticks, poke these into empty bottles; when filled, cork down the bottles, and place them all day in the sun. The fat soon melts, and now looks like oil; but when it cools again at night, it becomes quite firm and white, without any offensive smell. It is capital stuff for cleaning guns. For the purposes of the hair-dresser, however, only the external grease cut off the loins and hams is of any use. Cumming, speaking of a bear he had just killed, says—After skinning her, we cut off all the fat, which we *boiled down* and bottled off for our lady-friends. Rice. Cumming.

The Indian bear is not by any means bad eating. It feeds delicately as a rule; and, though tough, its flesh, therefore, is not rank or coarsely flavoured.

* Natives consider tiger's fat an infallible cure for rheumatism.

THE BROWN BEAR* (Ursus Isabellinus).

(*Hind.*—Barf ka Rich, Bhalu, Harput.)

CHAPTER VII.

Description. Markham.

In spring, the fur of the brown bear is long and shaggy, of various shades, of a yellowish brown, in some approaching to a silvery gray, and in others deepening to a reddish brown. In summer the long yellow fur falls off, and is replaced by a much shorter and darker-colored coat, which gradually grows longer and lighter as winter draws nigh. The females are generally the lightest coloured, and the cubs have a broad circle of white round the neck, which becomes smaller as they increase in size, and in very old animals is quite obliterated. The average length is about 7 feet,

* Markham's *Shooting in the Himalayas* (1854), p. 129; *The Forest and the Field* [2nd ed.], p. 133; *The Rifle in Cashmere* (1862), p. 61; *Calcutta Journal of Natural History*, iii., 268; Kinloch's *Large Game of Thibet*, &c.

and the height to the top of the shoulder 3 feet. Brinckman says that the largest brown bear he ever shot measured 6 feet 10 inches long. This was in Cashmere.

Habits. Markham.

In winter* these bears remain concealed in caves in a torpid state, and make their first appearance for the year when the snow begins to melt in March or April. In spring and summer they frequent the borders of the forest, selecting green spots where fresh grass has sprung up, and places where flocks of sheep have been kept when on the summer pasture-grounds. At this time their food consists chiefly of grass and roots; but scorpions and other insects form a part, in search of which they turn over stones of immense size. The hunter will meet them at daybreak shuffling home from their feeding-places, and turning over every flat stone they meet. In autumn they keep more in the forest, feeding on various fruits, seeds, and berries, of which the hips of the common wild-rose form a considerable share: as these begin to get scarce, they return to roots and insects. In the summer they often visit the neighbourhood of villages for apricots, and in autumn they sometimes come for the buck-wheat and other grains. The

Food.

* The brown bear invariably hybernates; but the black Himalayan bear, especially after a good acorn season, may be found roaming about at all seasons, sometimes two or three together,—*saevis inter se convenit ursis.*—Liv. Sat. xv.

mischief done in the hills to the crops and gardens by bears is very great, and in most parts *machans* are constructed from which at night watchmen await the depredators with their long firelocks.

According to Markham, bears in the hills will eat flesh when they can get it, whether it be fresh or putrid. In the higher pastures they often kill sheep and goats, sometimes in mere wantonness, destroying several in a few minutes.

Habitat. The brown bear is only found in the high and cold regions near the snow, never descending to the lower ranges. Here, in the haunts of the ibex and markhor, amid the tremendous solitudes of the loftiest and remotest Himalayas, the hunter will meet it at sunrise or sunset, scrambling along, half running and half walking, grumbling to itself, and stopping from time to time to peer into some hole or turn over a stone. Its sight and hearing

Kinloch. are extremely defective; but its scent is good, and, accordingly, if care be taken to avoid giving it the wind, it is easily stalked.

In March and April, when they emerge from their caves after hybernating, they are very lean and wretched-looking; but their coats are in fine condition: later in the season, when the hair begins to fall out, they are hardly worth shooting. Both Kinloch and Brinckman agree in considering brown bear stalking in the hills very poor sport indeed, in consideration of

the blindness and deafness of the animal, and the ease with which it is circumvented. The latter of these writers* says that a man who really cares for stalking will despise bear-killing, and will never shoot one if there is a chance of anything else. If a man, he adds, were to hunt for nothing but bears, and kill a hundred in his six months' leave, he would not have enjoyed such real sport as if he had killed ten buck ibex or markhor. Brinckm

* Page 74.

THE HIMALAYAN BLACK BEAR
(Ursus Tibetanus).

(*Hind.*—Rich, Bhalu.)

CHAPTER VIII.

Distribution. Markham.

This common black bear of the hills (in appearance like a small edition of his congener of the plains) is more frequently met with, and is distributed far more generally over the Himalayas, than the brown bear. It is found both in the higher and lower ranges. Occupying the more inhabited districts, it is a frequent and unwelcome visitor to the fields and orchards, when tired of its spring diet of roots, grass, scorpions, and snails. In remote places it is found long before dark and after daylight committing great ravages in the green barley and buck-wheat—wheat it will not touch. It is seen in the greatest numbers in autumn, when acorns are plentiful. Then, from October to December, it collects in the oak forests, and, when passing through a district studded with oak, the trees will be seen with the branches torn and broken, and

Food.

The Oak Forests.

either collected into heaps in the tree, like huge rook-nests, or hanging loosely about. Morning or evening is the time to catch the bears at their plunder. During the day they find shelter in the same forest, or in its immediate vicinity, in patches of thick jungle, or amidst rocks and broken ground, often making a kind of cover for themselves by bending slender reeds or bushes towards each other and intertwining and fastening the ends. When food is scarce, they will often pay regular visits to the village mills, turning over the millstone, and licking up the remnants of the flour left in grinding. Cucumbers and pumpkins disappear from the gardens, and bee-hives are frequently destroyed and plundered, although fixed in the walls of houses in which the inmates are sleeping. *Flesh-eating.* Their carnivorous propensities are the same as those of the brown bear: they like sheep and goats occasionally, but are not at all particular as to the freshness of the meat, for they are often caught in the same trap and with the same baits as the leopard. Kinlooh says that occasionally an old *Kinloch* male takes regularly to feeding on sheep, cattle, or ponies, and commits great devastations till killed. They are often very ferocious, and in every hill-village some one may be seen dreadfully disfigured and mauled. They almost invariably attack the face.

This bear attains a length of about 5 feet, and a *Size.*

Markham. height of 2 feet 9 inches. While feeding* on acorns, it grows prodigiously fat. Wilson, the famous shikarry of the hills, once loaded four men with the fat alone of a single bear which eight or ten stout hill-men could not lift from the ground.

Habitat. Jerdon. In summer it is found at an elevation of from 9,000 to 12,000 feet, and often close to the snows. In winter it descends to the lower levels—5,000 or thereabouts. It does not hybernate completely, and may be met with at all times.

Kinloch. Kinloch gives the following advice about shooting this bear :—Beat the wooded ravines, in the vicinity of the fields or fruit-trees in which they are known to feed ; or send men out at daybreak as they return to the ravines. Early in winter they may be found on the oak-trees greedily eating the acorns, and, being unconscious of all else, they may be easily potted as they sit.

Brinckman Brinckman writes :—The black bear in Cashmere affords no sport at all. During the summer and autumn they are all down among the villages, climbing the trees for mulberries or walnuts. You have only to walk to the tree, and fire, and Bruin falls dead, or scuttles off to the jungle. Early in the morning, or twilight, is the best time to seek for them ; and also, if you like, by moonlight. Occasionally they seem startled at smelling you,

* Page 186.

but generally do not, because they are accustomed to see the villagers about them all day. Of a night if a bear is up a tree, go underneath with a lighted torch; the natives say that if you kindle a fire, the bear will remain up the tree till daylight. They must be fools to do so; but they will remain long enough to let you shoot them if you take a lantern under a cloth, and suddenly show it when beneath the tree. The black bear, when hit, gives several angry growls, as if swearing at you; the brown bear only gives one, a complaint of the pain.

THE BISON* (Gavaeus Gaurus, or Bos Gaurus).

(*Hind.*—GAURI GAI, KULGHA, ARNA, KATI, BAN-BODA.)

CHAPTER IX.

DESCRIPTION. Campbell.

THE head of the Indian bison is more square and shorter in proportion than that of the common ox, and the nose, particularly in the male animal, is considerably arched, like that of a ram. The forehead is broad, the frontal bone slightly concave, and surmounted by a thick arched ridge of solid

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* *Hunting Grounds of the Old World* [2nd ed.], p. 337; *Wild Sports of India* (1860), p. 189; *Highlands of Central India* (1871), pp. 103 and 409; *Wild Men and Wild Beasts*, p. 44; *Old Forest Ranger* (1858), p. 84, and Notes p. 385; *Zoological Journal*, vol. iii., Hardwicke on the Bison; *Edinburgh Phil. Journal*, vol. xi.; *Asiatic Researches*, vol. viii., Colebrooke on the Gayal; Griffiths' Notes to English edition of Cuvier's *Animal Kingdom*. Our description is extracted from the excellent notes appended to the *Old Forest Ranger*.

bone, which is sufficient of itself to distinguish the skull of the Indian bison from that of any other animal of the same genus. The horns turn slightly backwards and upwards, with a sweep in continuation of the arched bony ridge. They are of a light-gray colour, tipped with black, rather short, and exceedingly thick at the base. The forehead, above the eyes, is covered with a thick coat of short close hair, of a light dun colour, which, below the eyes, runs into a dark-brown approaching to black. The muzzle is large and full. Eye rather small, with a large pupil of a light blue colour, which gives the animal a very remarkable appearance. The tongue is extremely rough, and covered with sharp *papillæ*, which turn backwards. The palate, which is white, is also armed with *papillæ*. The neck is short, thick, and heavy, and, in the male, is covered with large folds of skin. The skin on the neck, shoulders, and thighs is nearly two inches thick, and is much prized by the natives for shields. The dewlap is very small. The shoulder is very deep and muscular; chest broad; forelegs short; joints remarkably powerful. Forearm extremely large and muscular, but the leg, below the knee, fine, like that of a deer. Hoofs small, black, and finely formed. Forsyth draws attention to the difference between the wonderfully small, neat, and gamelike hoof of the bison, hardly larger than that of the sambhar, adapted for rocky ground, and the broad, Forsyth.

platter-like foot of the buffalo suited to wet and
Traill. marshy localities. Dr. Traill says that the limbs of the bison have more of the form of the deer than those of any other of the bovine genus. Behind the neck, and immediately above the shoulder, rises a thick fleshy hump, like that of the zebu, and from this commences the dorsal ridge, which forms the most striking feature of the animal. This ridge is about two inches thick, and of a firm, grisly texture. It is about six inches in height at its junction with the hump, and gradually diminishes to the height of three inches, at the point where it terminates abruptly, a little beyond the centre of the back. The hind-quarters droop, and the tail is short, the tuft of hair at the end not reaching below the hocks. The young animals are covered with a short thick coat of woolly hair, which becomes more scanty with age; and, in very old animals, the back and sides are nearly bare, showing a dark shiny skin, like that of the buffalo. The
Colour. colour of the animal is a dark chesnut or coffee brown, which becomes gradually lighter, till it terminates in an ochrey yellow on the belly and inside the thigh. The legs below the knee, and the forehead above the eyes, are dirty white, or rather a light dun colour. Forsyth says the mature bulls are almost black on the back and sides. The characteristic white stockings become dingier with advancing age.

The following measurements of a bull and cow are given by Campbell :— *Size.* Campbell.

	Bull. Ft.	in.	Cow. Ft.	in.
Height at the shoulder	6	1	5	5
Height to top of dorsal ridge	6	5	5	10
Length from nose to insertion of tail	9	0	8	5
Girth of body behind shoulder	8	0		
Girth of foreleg, above the knee	2	6	2	0
Girth of neck	4	3		
Breadth of forehead	1	3½		

Traill gives the dimensions of one that measured, before it was fully grown, from tip of nose to end of tail 11 feet 11¾ inches; from hoof to withers 5 feet 11¾ inches; and from withers to sternum 3 feet 6 inches. Traill. Gordon-Cumming, measuring roughly in the jungle, made a bull he shot seventeen hands high. Cumming. A bull shot by Forsyth measured 5 feet 11 inches at the shoulder, and he speaks of horns 25½ inches round the curve, and 15½ inches circumference. Forsyth. The 'Old Shikarry'* gives the following dimensions of a bull he shot :— 'Old Shikarry.'

	Ft.	in.
Perpendicular height from bottom of hoof to top of shoulder (not following curve of body)	6	4
Height, to the top of hump	6	9
Length, from nose to insertion of tail	11	4
Length of tail	3	4
Girth of body	9	3
Girth of forearm	2	10
Girth of neck	4	10
Breadth of forehead	2	5
Circumference of base of horns	1	9
Length of horns	1	4

* *Hunting Grounds*, &c. [2nd ed], p. 387; *Wild Men and Wild Beasts*, p. 45.

Shakespear. Shakespear's largest bison measured six feet at the shoulder.

Habitat. Campbell. The bison inhabits the heavy forest jungle along the whole line of the western coast of India. It is often said that there are no bison to the north of the Nerbudda, and no buffalo to the south: but Forsyth. Forsyth disputes this.—The bison, says Forsyth, inhabits every part of India where he can find suitable conditions. These appear to be, firstly, the close proximity of hills (his short legs, and small, gamelike hoofs, the enormous power of the muscles of the shoulder, with their high dorsal attachment, and the preponderance of weight in the fore-part of the body, all eminently qualify him for the ascent of steep and rocky hills, to which he always retreats when disturbed); extensive ranges of forest little disturbed by man or tame cattle; a plentiful supply of water and green herbage; and the presence of the bamboo, on which he constantly browses. In the Mahadeo Hills he is completely at home. There he is found, as a general rule, to frequent the highest elevation at which food and water are to be found.

Bison generally pass the day on the tops of the plateaux, lying down in secure positions in the wind, under the shade of small trees, where they chew the cud and sleep. Single animals lie looking down the wind, leaving the opposite direction to be guarded by their keen sense of smell. They

generally go in herds of from ten to fifteen, but sometimes as many as thirty or forty are seen together, and are found in the morning and evening in the small open glades of the forest, where they feed during the night on the rich grass and tender shoots of the bamboo, which spring up in these spots after the monsoon. They retire for shelter, during the heat of the day, to the thickest recesses of the forest, where it is very difficult to find them.

Rogers.

The bison, according to Captain Rogers, is found in great numbers on Main Pat, a high insulated mountain with a tabular summit, in the district of Serguja, South Behar. This table-land is about 36 miles in length by 24 or 25 in medial breadth, and rises about 2,000 feet above the neighbouring plains. The sides of the mountain slope with considerable steepness, and are furrowed by streams that water narrow valleys, the verdant banks of which are the favourite haunts of the bison. On being disturbed, they retreat into the thick *sal* jungles which cover the sides of the whole range. The south-east side presents an extensive mural precipice, from 20 to 40 feet high. The rugged slopes at its foot are covered by impenetrable green jungle, and abound with dens that form the retreat of numerous wild animals, among which the bison holds his own.

A short bellow or grunting 'ugh-ugh' is the only

sound, except a stamping of the feet when alarmed, which is made by bison.

Their period of gestation is about nine months, and the cow drops her calf in November. In the month of May the old bulls are generally found roaming about alone. The bison is naturally a fierce animal, and particularly so when wounded. If not brought down or disabled by the first shot, he almost invariably charges. In some instances he has been known to commence hostilities. Native *shikaries* are extremely afraid of him. Nevertheless, he is very shy, disliking intrusion, and, although savage when disturbed, will almost always avoid the disturbers. Forsyth says he believes that the bison is much less dangerous than the wild buffalo, on account of its being more retiring.

CHARACTER.

Forsyth.

Like those of the buffalo, the lungs are very large, and the fatal shot is that behind the shoulder, between the top of the withers and the bottom of the girth. Shakespear* writes—The bison differs from the buffalo in being more shy and afraid of man. His scent is very keen, and it requires all a hunter's cunning and knowledge of woodcraft to get near a herd, in jungles where they have been fired at, unless they are lying down, they are so very wary.

Shakespear

GAYAL. The *Gayal*, or *Bos Frontalis* of Lambert, is a

* *Wild Sports of India*, p. 189.

variety of the Indian bison. It is found in the mountains to the east of Sylhet and Chittagong. An interesting paper on it by Mr. Colebrooke will be found in vol. viii. of the *Asiatic Researches*. It is described as being a forest animal, and preferring the tender shoots and leaves of shrubs to grass; as not wallowing in mud, like the buffalo; as resembling the buffalo, however, in its lowing; as being of a dark-brown colour, with white legs and face; and as having a short tail. Of this animal the natives recognise two varieties: the one mentioned above which they regard as a species of cow, and will not kill; and one they call the *asl* (true) *Gayal*, which, looking upon it as a buffalo, they do not hesitate to hunt. Of this latter animal Lambert gives the following dimensions:— Colebrooke. Lambert.

	Ft.	in.
From tip of nose to end of tail	9	2
From bottom of hoop to top of withers.....	4	1¼

Both varieties are frequently domesticated.

Gordon-Cumming says that the best way to preserve the skulls of bison is to bury them up to the horns in earth for three or four days, after as much of the skin and flesh as can be got at with a knife has been removed. At the end of that time, the horns may be pulled off after a few blows from a tent peg. Then dig up the skull, fasten a rope to it, drop it into a river, and the fish will complete the cleaning process. Cumming.

THE BUFFALO* (Bubalus Arni).

(*Hind.*—ARNI, JANGLI BHAINSA.)

CHAPTER X.

DESCRIPTION.

Shakespear

THE wild buffalo resembles the tame variety in form, but is vastly superior in size and strength. Its limbs are short and powerful. The pastern bones measure scarcely four inches, the cannon bone of the foreleg is hardly more than seven inches long, and the forearm, from knee to elbow-joint, about fourteen inches; consequently, the buffalo is often deeper from his withers to below his heart, than from that to the ground. Shakespear believes that it seldom stands higher than fifteen hands, with a girth of perhaps 8½ feet. Hodgson says the wild buffalo is fully one-third larger than the largest tame breeds, measuring 6 or 6½ feet high at the shoulder, and 10½ feet from muzzle to insertion of tail. Forsyth tells us that he has never seen a wild buffalo exceed sixteen hands. The same writer declares

Size.

Hodgson.

Forsyth.

* Two varieties are recognized in India, *B. Macroceros* (Hodgson) and *B. Speirocerus*. The horns of the former are comparatively long, straight, and slender; of the latter, short, thick, and curved.

that 3 feet 10 inches is the greatest length the horns ever attain in the Central Provinces; while Shakespear, speaking of the same part of India, puts the horns of a fair-sized bull at from 5 to 5½ feet long. There is a specimen of the horns of the Indian buffalo in the British Museum that measures 12 feet 2 inches round both horns above the forehead. According to Forsyth,* the buffalo, though standing on shorter legs than the bison, is a more heavily-built animal, and is greater, upon the whole, in bulk and weight. They never interfere with each other: the bison adhering to the hilly tracts, while the buffalo is essentially a lover of plains and level plateaux, where the extensive swamps he delights in can be found. The buffalo, moreover, is much less intolerant of man and his works than the bison, invading the rice-cultivation, and often defying all attempts to drive him from the neighbourhood of villages. He is altogether very defiant of man, and, unlike the bison, will generally permit a close approach without any concealment where he has not been much molested, trusting, apparently, to his formidable aspect to secure the retreat of the invader;—and this indeed is usually sufficient. If the attack be followed up, however, they almost always make off at last, and are then not so easily got at again.

Length of Horns. Shakespear. Forsyth. HABITS.

* *Highlands of Central India*, p. 399.

SHOOTING BUFFALOES.

The favourite resorts of the buffalo, in the Central Provinces of India, are on the skirts of the lower *sal* forests, where they run out into the open plain, and between them and the rice-cultivation of these regions, in the great open swampy plains, where long, rank grass affords the sort of cover they like. The skin of the buffalo is of great thickness, and especially where it lies loose over the neck and shoulders, does it offer a considerable protection against the sportsman's bullets. The buffalo is a very active and swift animal, and Shakespear declares that few horses can follow him on his own ground. On one occasion this hunter galloped after a bull for three miles in hopes of inducing him to stop; but he could not get ahead of him. Forsyth, however, gives a spirited account of the successful pursuit of buffaloes on horseback; and a capital illustration at the commencement of his book gives a vivid idea of the exciting and perilous nature of this sport.

THE YAK* (Bos Grunniens).

(*Hind.*—SARLIK, DONKH, CHAURI GAI.)

CHAPTER XI.

DISTRIBUTION.

As early as the thirteenth century, the yak was minutely described by William de Rubruquis, a Franciscan monk. Hodgson tells us that it inhabits all the loftiest plateaux of high Asia, between the Altai and the Himalaya, the Belur Tagh and the Peling mountains. In domestication it is highly useful as a beast of burthen, moving with ease over the most difficult and precipitous rocky ground. As a wild animal, its shyness and wariness render its stalking excellent sport. The numerous works recently published on Eastern Turkistan must have rendered its general appearance and character familiar to the general reader. It is a species of bison, and is clothed in a hairy coat, which terminates in the bushy tail or *chauri* used by Anglo-Indians and their servants to flick

Hodgson.

* Hoffmeister's *Travels in Ceylon*, &c., p. 441; Brinckman's *Rifle in Cashmere*, p. 47; *A Summer Ramble in the Himalayas*; Gordon's *Roof of the World*; Kinloch's *Large Game of Thibet*.

away the troublesome fly; and when dyed red by the Chinese, as an ornament to surmount their head-dresses. In the catalogue of the British Museum the following notice of the yak is given:—The yaks dislike the warmth of summer, and hide themselves in the shade and water; they swim well; both sexes grunt like pigs. The calves are covered with rough, black curled hair, like hairy dogs. When of three months, they obtain the long hair on the body and tail.

HABITAT. According to Brinckman, Chang Chenmu and the adjacent country is a good locality for yak-shooting, and a good many Englishmen go there every year for this purpose. The shooting-ground is some sixty miles to the east of Leh. The high road from India to Eastern Turkistan skirts it. The entire region is a vast and elevated wilderness, interspersed with tremendous snowy peaks supporting glaciers, and giving birth to streams that lose themselves in the desert, or run to more favoured regions. On the banks of these streams a scanty vegetation supports the wild yak, the ovis ammon, and other hardy denizens of these howling wastes. November is the best time for the yak. It is then in prime condition. If shot when out of condition, the skins are unfit for preservation. Brinckman says that he found them in ravines, and saw them gallop over places where no horse could have followed them. Their

organs of smell are very powerful; but their sight is said not to be of the keenest.

According to Captain Wood, whose journey to the source of the Oxus is a great classic among books of Eastern travel, the yak usually stands about 42 inches high. Its belly, however, is not above six inches from the ground, which is swept by its bushy tail, and the long hair that streams from its dewlap and fore-legs. In Badakshan it is known as the Kashgau. It is as sagacious as the elephant, perfectly sure-footed, and fond of extreme cold. In summer time they ascend to the line of perpetual snow, but in winter come down to their calves, which are left below. They go in great herds, which will keep at bay a whole pack of wolves. Its mode of grazing is peculiar. It eats upwards from a lower level to a higher, furrowing through the snow with its nose to get at the short grass beneath. Wood.

Note.—In the travels of Polo, Wood, Vigne, Moorcroft, Hugel, Cunningham, Shaw, Henderson, Bellew, and Gordon, much has been written of the yak.

THE OVIS POLI.*

(*Hind.*—KUTCHKAR, RASS.)

CHAPTER XII.

DESCRIPTION. *Male in Winter dress.* Stoliczka.

GENERAL colour above hoary brown, distinctly rufescent or fawn on the upper hind neck and above the shoulders, darker on the loins, with a dark line extending along the ridge of the tail to the tip. Head above and at the sides a greyish-brown, darkest on the hind head, where the central hairs are from four to five inches long, while between the shoulders somewhat elongated hairs indicate a short mane. Middle of upper neck hoary white, generally tinged with fawn; sides of body and the upper parts of the limbs shading from brown to white, the hair becoming more and more tipped with the latter colour. Face, all the lower parts, limbs, tail, and all the hinder parts, extending well above towards the loins, pure white. The hairs on the lower neck are very much lengthened, being from five to six inches long.

* This account of the Ovis Poli was written by the late Dr. Stoliczka; and has been published in Gordon's *Roof of the World*. It is a description of a specimen sent to the Geological Society by Sir D. Forsyth.

Ears hoary brown externally, almost white internally. Pits in front of the eye distinct, of moderate size and depth, and the hair round them generally somewhat darker brown than the rest of the sides of the head. The nose is slightly arched, and the muzzle sloping. The hair is strong, wiry, and very thickly set, and at the base intermixed with scanty, very fine fleece : the average length of the hairs on the back is from 2 to 2½ inches. The iris is brown. The horns are sub-triangular, touching each other at the base, curving gradually with a long sweep backwards and outwards ; and, after completing a full circle, the compressed points again curve backwards and outwards ; their surface is more or less closely and transversely ridged.

Size.

The following measurements of a full-grown, though not large, male, suffice to indicate the proportions :—

	Inches.
Total length from between horns to tip of tail ...	62
Length of head ...	13·25
Tail, including hair at tip...	5·5
Height to top of shoulder ...	44
Girth round the breast ...	51·5
Length of one horn along the periphery ...	48
Circumference of one horn at base ...	15
Distance between the tips...	88

The horns* of another and larger specimen mea-

* Marco Polo tells us that fences round the sheepfolds are made of these horns to protect the flocks from the wolves. Burnes was told that foxes bred in them ; and other travellers say that the Kirghiz make horse-shoes out of them.

sured 56 inches along the periphery ; and the circumference of one horn at the base was 18½ inches.

FEMALES. The colour of full-grown females does not differ essentially from that of the males, except that the former have much less white on the middle of the upper neck. The snout is sometimes brown, sometimes almost entirely white, the dark eyepits becoming then particularly conspicuous. The dark ridge along the tail is also scarcely traceable. In size both sexes appear to be very nearly equal ; but the head of the female is less massive, and the horns, as in allied species, are comparatively small.

The horns of the specimen sent by Wood to the Asiatic Society measured as follows :—

	Inches.
Length round periphery	56
Circumference at base	14·25
Distance of tips, apart	45

Gordon. Colonel Gordon has presented a pair of horns each measuring round the curve 65½ inches, 53 inches from tip to tip, and 16 inches round the base.

The Kutchkar. Wood. Wood also speaks of "another sheep" as inhabiting the Pamir, the *kutchkar*. He tells us that it is reported to stand as high as a two-year-old colt, to have a venerable beard and splendid curling horns, which, with the head, give a man enough to do to lift. The flesh of this animal is said to be tough and ill-flavoured in winter, but delicious in autumn, and

regarded then by the Kirghiz as a great dainty. This is clearly the *ovis poli* under a different name. Gordon says the ovis poli he tasted was good and pleasant to the taste, with a slight flavour of venison.

Wolves* and leopards prey upon the ovis poli, and the Kirghiz shoot them with their bows and arrows. *Preyed upon.*

Note.—The *Ovis Karelini*, or Thian Shan wild sheep, is smaller than the true ovis poli inhabiting the Pamirs.—Paper read by Sir V. Brooke before the Zoological Society, June 15th, 1875.

* *Indian Sporting Review*, vol. iii., 1857, p. 202.

THE OVIS AMMON.*

(ARGALI, MENG.)

CHAPTER XIII.

HABITAT. ALL the high table-lands and hills in the east of Ladakh, the neighbourhood of the Salt Lake, on the north-western side of the Pangong Lake at Chushul, and the neighbourhood of Hanlé, and the valley of the Sutlej beyond the Niti Pass, are among the more accessible haunts of this rare and magnificent animal.

DESCRIPTION. Jerdon speaks of an ovis ammon 3½ feet high, 6 feet 2 inches long, horns along the curve 40 inches, with a circumference at base of 17 inches. Markham says he has known horns 24 inches in circumference, and that the skull and horns of one, when dried, weighed 40 lbs. A female measured by this sportsman stood 13 hands high at the shoulder. The 'Old Shikarry' speaks of a fine specimen of the ovis ammon being as large as an ordinary bullock

Size.

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* *Shooting in the Himalayas*, p. 336; Jerdon's Mammals; Hooker's Journal, vol. i., p. 244; *Indian Sporting Review*, vol. iii., 1857, p. 202; *The Rifle in Cashmere*, p. 50; *Large Game of Thibet*; Dunlop's *Hunting in the Himalayas*.

of the plain. The dimensions of a pair of horns given by him are 16 inches in circumference at the base, and 46 inches round the curve. The largest head bagged by Brinckman had horns 41 inches in length and 18½ in circumference. Those of the female are not more than 18 inches in length, and have only a slight curve. The horns of Jerdon. the male are deeply wrinkled, massive, trigonal, and deeper than broad at the base. They run backwards and outwards with a bold circular sweep. The vesture is close and thick, consisting of more or less porrect piles, concealing a scanty fleece. The colour is a brownish-grey, the sides mixed hoary and slatey grey-brown. The throat, neck, and breast are white, with long hair, and the rest of the lower parts are dirty white. The legs are long, but rather light in the bone, and not made for rocky bad ground like the bharal.

It is never seen in summer lower than 15,000 feet, CHARACTER. and is often found much higher in the midst of the snows. It lives in flocks, the males and females generally apart. Dr. Jerdon says that it is the shyest and wildest of all animals ; and all sportsmen concur in regarding it as one of the most difficult animals in the world to get a shot at. To shoot, says Jerdon, the ovis ammon is the greatest ambition of the sportsman in the Himalayas. Jerdon. Mr. Kinloch, who succeeded in getting some fine Kinloch. specimens of this sheep, has the following :—In

winter, the ovis ammon inhabits the lower and more sheltered valleys where the snow does not lie in any great quantity: as summer advances, the males separate from the females, and betake themselves to higher and more secluded places. They appear to be particular in their choice of a locality, repairing year after year to the same places, where they may always be found, and entirely neglecting other hills, which apparently possess equal advantages as regards pasturage and water. No animal is more wary than the ovis ammon, and this, combined with the open nature of the ground which it usually inhabits, renders it perhaps the most difficult of all beasts to approach.

Markham. General Markham writes thus of the ovis ammon:—They are the wildest and shyest of all animals, quick both of sight and smell to an extraordinary degree, and, from the open character of the country where they are found, exceedingly difficult to stalk. The most persevering sportsman might pursue them for days, find one or more flocks each day, and yet never succeed in getting within shot. Instead of stalking them indeed, the sportsman should

Driving. rather try driving. Let him post himself where they are likely to pass, and then send men round to show themselves in the opposite direction. When disturbed, they will sometimes stop after going a mile or so, but generally, and particularly when fired at, they go at a slashing pace across the hills,

and though they may occasionally turn for a moment to gaze about, several ridges and valleys will be crossed before they seem to think themselves far enough from danger. Of all the hill animals Markham had to deal with, the ovis ammon he found the hardest to kill, moreover ; for, unless hit in a vital spot, they got away.

Brinckman *Stalking.*

Mr. Brinckman did not consider the ovis ammon so difficult to stalk as General Markham would have us think. He writes as follows :—In my opinion, if the shooter will only use his brains, not be in a hurry, and move slowly, they will not be found more difficult to approach than any other animal. If they are feeding on flat ground, leave them alone till they feed on to good ground. I never had a stalk fail after ovis ammon. I always got within a hundred yards, sometimes within ten. Ovis ammon, like most game, generally stand and give you a second chance ; and sometimes they come back to look for their comrade whom you have shot ; but they take care to look from a distance. I was rather disappointed in ovis ammon ; they only seemed to be gigantic uriar.

THE BHARAL* (Ovis Nahura).

(*Hind.*—BHARAL, SNA or NAPU in Thibet.)

CHAPTER XIV.

Bharal good sport. Markham.

GENERAL MARKHAM writes of the bharal as follows:—The bharal is the only variety of the wild sheep found on this side of the snow, and is, of all animals of the ruminating class, the most worthy of notice. It is not rare, but from the toil and fatigue attendant upon its pursuit, it is generally considered as the first of Himalayan game animals, and the killing of it the *ne plus ultra* of Himalayan shooting. The full-grown male is nearly twice the size of a common English ram, and generally weighs upwards of 200 lbs.; the females are about one-half the size of the males. They stand from 30 to 36 inches high, and are from 54 to 60 inches in length. The horns are from 24 inches and

Size.

* *Shooting in the Himalayas*, p. 60; *The Forest and the Field*, p. 128; *The Rifle in Cashmere*, p. 43; *Beng. As. Soc. Jour*, No. clxxvii., April 1847; Vigne's *Cashmere; Jour. As. Soc.*, xi. 288, and xv. 342; *Indian Sporting Review*, iii., 208.

upwards round the curve, and from 12 to 13 inches in circumference at the base. The coat is very closely set, the individual hairs thick, and of a very fragile texture. The general colour of the upper parts is a light ash, and the under parts white. The breast in old males is black, with a narrow stripe along each side, separating the ash of the upper parts from the white of the belly. Another narrow stripe runs down each leg. In young animals the breast is only partially black. These black marks are most observable immediately after the animal changes its coat, which happens in July: they gradually get mixed with the lighter colours as the time for changing again draws on. The female has none of these black marks. The males appear to be several years of age before they attain to their full size. *Vesture.*

The bharal is exclusively confined to the snowy ranges, or the large spurs jutting from them, its favourite resorts being between the verge of forests and the extreme limits of vegetation. Straggling parties are, however, often met with in the scattered forests which clothe some of the hills they inhabit, a little distance upwards from their base, where of an open character, or with open spots or rocks intermingled. During the summer months they keep near the tops of the hills or in the ravines near the sources of large streams which rise from the snow, only occasion- *Habitat.*

ally descending in any numbers to the lower parts, and frequently climbing amongst the glaciers and barren rocks, far above the limits of any vegetation. In autumn, as the scanty herbage in those elevated regions is dried up, they gradually descend, and keep more to the middle and lower parts of the hill; and, as winter comes on, many even approach some of the loftier situated villages and the rocky hill-sides near them; but the greater body still remain throughout the severest winters on the hills above the limits of forest, browsing on the exposed ridges, where the wind soon drifts away the snow sufficiently to allow them to graze.

Shyness. In general, the bharal is considered a shy and wary animal, difficult in the extreme to approach, and taking the alarm at the least appearance of man, even when at an immense distance. Where frequently hunted, or on hills near the villages, it certainly deserves this character; but in retired and solitary spots, where the appearance of a human form is of rare occurrence, and the report of a gun still more rare, it is not nearly so wild or timid; indeed, it often seems to look upon the intruder as an object more to be wondered at than avoided. They keep together in compact flocks of from four or five to forty or fifty, and sometimes upwards of a hundred. Occasionally a solitary individual is met with; but they seem to have great aversion to being left alone; for, if

one is separated from its fellows, it wanders about till it meets others, which it joins. When a flock is feeding sentinels are always posted, who sound the alarm of danger by a shrill whistle. Unlike most other wary animals, they seem at first to be no more alarmed when the sportsman appears quite close than when at a great distance. Their pace in retiring is equally slow often. The flocks are generally led by a ewe or lamb. The males and females associate all the year round, but large flocks of each sex are often met with, especially in summer. We learn from Kinloch that old males are found only on grassy slopes in the immediate vicinity of tremendous precipices, to which they fearlessly betake themselves on the slightest alarm ; and he who would expect to get good heads must be able to climb cliffs such as would surprise the chamois-hunter of the Alps. The mountains separating India from Thibet, between the Sutlej and Nepal, are its home. Favourite resorts are the valley of Leptel beyond the Millam Pass, the valley of Spiti between the Manerang and Parangla Passes, and the Baspa valley near the source of the Ganges. In Kinloch's opinion, the flesh of the bharal surpasses the best mutton, and has the advantage of being generally tender soon after the animal is killed. Brinckman rather throws cold water on bharal-shooting. He writes :—I think them very stupid, uninteresting animals. They are very easy

In retreat.

Kinloch.

Resorts.

Brinckman

A different opinion.

H. A. L. to stalk ; if you keep still, you may empty all your barrels at them ; then follow again, and kill some more out of the same flock. They are not nearly such fine animals as *uriars*. The 'Old Shikarry'* gave it as his opinion that, except where often disturbed, they were not difficult to stalk. They are generally found, he says, on the grassy slopes between the limits of the forest and the snow line, and there, in unfrequented regions, they may often be seen, several scores together, browsing like tame sheep.

Note.—There are doubtless two species of bharal, though none of the writers, from whose works we have compiled the above, seem to have recognised the fact. They have been distinguished as the O. Bharal and the O. Nahura. Both species are said to inhabit the country around Jamnutri, keeping in separate flocks however, and never seen on the same feeding-ground. The O. Bharal are said never to ascend higher than 16,000 feet, whereas the O. Nahura go much higher. Both bleat like domestic sheep. Near the Burendu Pass the bharal is the more numerous, though the Nahura is more extensively diffused over the Himalayas generally. At the close of summer, when the snow is nearly melted away, a very nutritious lichen grows under a thin covering of snow, and both species become excessively fat upon it, in August, September, and October. So fat do they become as to run with difficulty, though still being far from easy of approach. In winter, it is said, they browse the hair off each others' bellies, many together having retired under the shelter of some overhanging rock, from which they come out wretchedly poor.

* *The Forest and the Field*, p. 124.

URIAL* (Ovis Cycloceros, Ovis Vignei).

(URIAL, SHAPU, SHALMAR.)

CHAPTER XV.

THIS fine sheep is comparatively rare in the Himalayas, being confined to the belt of country between the Cashmere and Indus valleys. It is numerous in the Salt Range of the Punjab, in the Jhelum and Rawul Pindi districts, and also in

HABITAT.

* *The Rifle in Cashmere*, p. 26 ; *Large Game of Thibet ; Shooting in the Himalayas* (Shalmar), p. 343 ; *Indian Sporting Review*, vol. iii, p. 204. *Note.*—The urial is frequently represented in the old Assyrian monuments. In modern times it was first noticed by Tennant, who described a skin of it as the bearded sheep ; but confounded it with the O. Tragelaphus of North Africa : and there is a brief notice and very fair figure of the species taken from an animal killed in the vicinity of Persepolis, in Lieutenant Alexander's *Travels from India to England*, &c. (1827). It again appears as the wild sheep of the Hindu Kush described by Captain Hay (*Jour. As. Soc*, ix., 440) ; and as *Ovis Cycloceros*, Hutton, in the *Calcutta Journal of Natural History*, ii., 514, and pl. xii. :—It is the *O. Montana* of Cunningham's Ladakh, the name of the American argali. It appertains to the *Moufflon* group of wild sheep ; as *O. Ammon* and its congeners do to the *argali* group.—See Z in the *I. S. R.* ; Markham, pp. 338, 343, 358 ; McNeill, Pro. Zool. Soc., 1840, p. 70.

the neighbourhood of Attock, Peshawur, and Kohat. It is found in the Suleimani and Hazara ranges also. Choi Kaladil and Jabbi are the favourite resorts of sportsmen who hunt for them near Attock.

DESCRIPTION. The head of this species is more like that of the ovis ammon than the bharal, having the same kind of ribbed horns. The male is about 5 feet long and 3 feet high. The horns are about 30 inches round the curve, and 12 inches in circumference at the base. They delight in bare rocky ground : but, when they get a chance, they will enter the fields at night and do a great deal of harm. Markham, speaking of them under the name Shalmar, says they resemble the ovis ammon in their habits also, although not nearly so wild or shy. During the day they usually seclude themselves, except in remote districts where they have never been hunted, where they sometimes may be found feeding with domestic sheep and cattle. The sportsman should be on the hills by daylight, and, having got within shot and fired, he should remain motionless as a statue, for the uriar will run a few yards and then stop and stare. They will carry away much lead.

CHARACTER. Markham.

Mode of shooting.

THE SASIN ANTELOPE (Antilope Cervicapra. · A. Bezoartica).

(*Hind.*—HIRAN, KALA HIRAN.)

CHAPTER XVI.

THE common antelope, the black buck of the Indian sportsman, is remarkable for the form and beauty of its horns, which compose a spiral of two or more turns, according to the age of the animal. When full grown, it attains a length of about 4 feet, and 2½ feet high at the shoulder. The head, measured from the nose to the root of the horns, is about 7 inches long. The spiral and annulated horns are occasionally as much as 26 inches in length, but this is unusual. The longest pair in the Calcutta Museum measure barely 25 inches. An average-sized buck weighs about 90 lbs., and a doe about 75 lbs. The does* and young bucks, for the first three years of their age, are of a uniform tawny-brown on all the upper parts of the body,

Size.

DESCRIPTION.

* Knight's Encyclopædia; Williamson's *Wild Sports of the East; The Forest Ranger;* Shakespear's *Wild Sports of India;* Cumming's *Wild Men and Wild Beasts;* *Indian Sporting Reviews.*

with a light silvery band passing longitudinally from the shoulder to the hips, about six inches below the spine, on either side ; the breast, belly, and interior of the forearms and thighs, are white ; as is likewise the under-surface of the tail, which is broad, and furnished at the extremity with a long tuft of black hair. After their third year, the males begin to assume their adult colours, and gradually darken on all the upper part of their body, till they finally become almost entirely black above and white beneath. The nose, lips, and a large circle round each eye are also white ; but the light bands of the sides become completely obliterated.

HABITAT. This beautiful antelope is found on the plains throughout India. It is very abundant in the North-Western Provinces, especially in the district of Aligarh. It is most often found close to, or in the midst of cultivation, and it does incredible damage to the crops. It moves about in herds of from ten to fifteen individuals ; and these herds often congregate together, and form assemblages numbering sometimes as many as a hundred animals. In the *Old Forest Ranger* we read (p. 353) of 120 does and 20 bucks, besides fawns, being seen together. Their speed is extraordinary. The swiftest greyhound cannot overtake an adult doe ; the buck is heavier and slower. They take a peculiar delight in exercising their powers of

Herds.

Campbell.

leaping. In moving quietly along to their feeding-grounds, one will suddenly begin to jump, springing into the air like an india-rubber ball; the others will follow suit, and the whole herd will move along in a series of prodigious bounds. When alarmed moreover, and in full flight, individuals will spring into the air from time to time. The hunter, who has failed in his stalk, will sometimes see a herd move away in a cloud of dust, out of which every moment some individual will bound up into view. Williamson, in his *Wild Sports of the East*, says that he has seen a buck lead a herd over a net at least 11 feet high, and that they bound to a height of from 12 to 13 feet, and pass over 10 or 12 yards at a single bound. Their extreme wariness, and the open nature of the country they frequent, render it difficult to stalk them. Some *ruse* must be practised. The sportsman must move along in or under cover of a country cart, or, putting the brown blanket of the country over his head, he must walk beside a buffalo after the manner of the harmless villager, or he may travel *incognito* on a camel from which bells and all bright saddlery have been carefully removed. Of this sport, Shakespear writes as follows:—"Antelope-shooting requires much patience and good shooting. If you shoot with heavy rifles, you will find it advisable to have a tripod rest with you. When antelope are much fired at, they will

Williamson

Stalking.

Shakespear

not let the hunter come within 180 or 200 yards; and though the mark is not very small, the walking in the sun, and stalking and stooping, make one unsteady. The secret of following antelope is to move towards the head of the herd, which in this way continually circles round you. By degrees you get nearer and nearer. The flesh is good if kept a couple of days or more, which can be easily done at all seasons but the hottest." Cumming gives minute directions (p. 6) for shooting from carts. From an old number of the *Indian Sporting Review*, we make the following extract:—In the Upper Provinces I have on several occasions shot antelope when jumping out of a field of sugarcane, of which they are inordinately fond. The farmers put up thorn hedges to keep them out; for though so splendid a jumper, a buck, when pressed, is very unwilling to leap; and if, when well mounted, you can get him into a thickly-enclosed country and force him at the jumps, he will shut up. Good runs may often be had with a wounded antelope; a short hog-spear should be used to give the *coup de grace*.

Cumming.

Albinos are not uncommon. They are pure white, with white horns and hoof, and red eyes.

Albinos.

THE NILGAI* (Portax Tragocamelus, Antilope Picta).

CHAPTER XVII.

DESCRIPTION.

THE curious nilgai is one of the finest and largest of the antelopes, being upwards of 4 feet high at the shoulder. It is found on the lands intermediate between jungle and cultivation. The face is long and narrow, the muzzle large and naked ; the horns about 7 inches long, small, round and black, rather distant at the base, and nearly parallel throughout their whole length ; smooth, pointed, and slightly curved forward. The lachrymal sinuses are large ; the ears are broad and rounded, like those of an ox. The neck is deep and compressed, like that of the horse ; not rounded, as is the case with most antelopes. The tail is broad and descends to the hocks. The body is smooth, except on the neck, shoulder, and in the middle of the throat, where long stiff hair grows, forming a kind of mane above and beard below. The

* Rice's *Tiger Shooting* p. 33 ; Knight's Cyclopædia ; Johnson's *Indian Field Sports* ; Williamson's *Oriental Field Sports* ; *Wild Sports of India*, p. 198.

general colour is a uniform slatey blue on the upper parts of the male, and a tawny red in the female; on the under parts the colour is a uniform white in both sexes. The period of gestation lasts eight months, and two young are commonly produced at a birth. At first the young males are of the same colour as the females, and it is in their second or third year, when they have attained their full development, that they acquire their blue colour.

CHARACTER. Although sometimes exhibiting power and resolution when attacked, the nilgai generally falls an easy victim either to the rifle or spear of the hunter. The plan is, if trying to spear them, to go as hard as your horse can lay legs to the ground, to blow them in the first half mile. Their long swinging canter carries them along at an astonishing pace; but a horse will overtake them in time. They have a peculiar mode of attack, dropping on their knees before charging, and darting forward from this attitude with remarkable velocity, and with the impetus of a powerful and heavily-built animal.

Mode of attack.

Marrow-bones. The marrow-bones are much relished in hunting-camps, and the hump and tongue can be eaten; but the rest of the flesh of the adult animal is coarse and tasteless. Up to two or three years the young animals afford a capital steak.

The natives make shields of the stouter portions

of the hide. Cumming says that the nature of the nilgai varies much according to the locality in which he is found. In some of the more cultivated parts they are as tame as cattle; but in the big jungles they become very wary, and nearly as difficult of approach as the sambhar. Forsyth says that the nilgai has a remarkable power of enduring thirst, passing many days without drinking. It certainly is found in the driest regions of the forests of the Central Provinces.

Cumming.

Forsyth.

THE GAZELLE* (Gazella Bennetti).

(*Hind.*— CHINKARA.)

CHAPTER XVIII.

THE RAVINE DEER Forsyth.

THIS antelope is often called the *ravine deer*, or goat antelope, by Indian sportsmen. The first part of the former of these names is appropriate : the favorite haunts of the gazelle are the banks of the shallow ravines that often intersect the plain country in the neighbourhood of rivers, and in Central India the ravines scoring the slopes of the higher eminences rising from the great table-land. These are generally thinly-clothed with low, thorny bushes, on the young shoots and pods of which it browses, like the domestic goat. To call it a deer, however, is of course wrong, the term "deer" belonging to the solid-horned cervidæ. The gazelle differs in character as well as in size from its black congener. It prefers low jungle to the open plain ; and trusts more to its watchfulness and activity than to its speed, which, however, it also possesses in a high degree. The male has horns averaging 9 inches in length, curved back and annulated to within 1½ inch of the tips. The

HABITAT.

* *Highlands of Central India*, p. 64.

move about in herds of six and seven usually, though sometimes only pairs are met with. It is very rare to catch a gazelle off its guard. The way in which a herd of these little creatures manages to disappear suddenly is quite marvellous. They have probably just hopped into the bottom of a ravine, sped along it like lightning for about a hundred yards, and are gazing at you, intent and motionless, from behind the straggling bushes on the next rising ground. Should you follow them up, they will probably repeat the same manœuvre, but this time, instead of one, putting several ravines between you and them. They occasionally resort to cultivation to graze, and in the morning may be found picking their way back to the network of ravines, where they stay during the heat of the day. The depth of their slender bodies is so small, that, to make sure of stopping them, a bullet must be planted in a space little more than a hand's breadth. Shots are generally got at a distance of from 100 to 150 yards. The difficulty of such fine shooting, and the remarkable manner in which they elude observation, renders it by no means an easy matter to stalk them, and Forsyth considers this sport more interesting than the pursuit of the black buck. Their sense of smell is very keen, and they not unfrequently make one acquainted with their whereabouts by the *pish* they give when they scent a stranger.

Stalking.

THE SAMBHAR* (Rusa Aristotelis).

CHAPTER XIX.

THIS magnificent deer is found throughout India, from the extreme south to the Himalayas, ascending to a height of from 9,000 to 10,000 feet.

Size. It stands from 13 to 14 hands at the shoulder, attains a length of from 6 to 7 feet, and the stag carries antlers often growing to a length of about

Shakespear 36 inches. Shakespear says that the horns of the old stags grow to at least 48 inches in length and 2½ in diameter. We think, however, that this is unusual. Close to the base there is one branch, and then the horn divides into two equal branches, within a foot or so of the tips : it is very massive and powerful. The hair of the body is of a coarse brown colour, the ears are large and broad, and the tail short and well furnished with hair. The does herd together, and are usually found in mountainous and rocky jungle. In the hot weather the male almost always lies up in very high ground.

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* *Wild Sports of India*, p. 195; *Highlands of Central India*, p. 218. We have made a long extract from Captain Forsyth's admirable work.

No animal, says Forsyth, changes its location so often, according to the season of the year and abundance of food. Wherever the bison is found the sambhar is also procurable; but his range is not so confined as the bison's, being much more tolerant of the propinquity of man and of domestic cattle. In the Central Provinces, while the crops of the table-land and lower plains are green, the herds of sambhar come out to feed on them at night, remaining during the day near the edge of the jungle, unless disturbed and driven into the depths of the forest by man. They also feed on a great variety of jungle produce, and move about in apparently the most capricious way in search of it. The short green grass that clothes the banks of the pools and springs, and the tender shoots of young trees and bushes, may be said to be at all times the foundation of their fare, and during the rainy season almost their only resource. Late in autumn, the young wheat and grain crops of the neighbouring clearances are made to pay heavy toll; and with the commencement of the hot season comes a great variety of wild fruits, all highly relished by the deer. In March and April the luscious *mahua* attracts it; as do also the *tendu*, the *chironji*, the *aola*, and the *bher*. A little the pods of different species of acacia (the *a. Arabica*, the *a. lucophlœa*, and the *a. catechu*), and of the tamarinds which have overgrown many deserted

Forsyth.

Habitat.

Food.

village sites, and the fruit of the *ficus Indica*, the *f. religiosa*, and the *f. guleria*, amply support the sambhar throughout the warm season. Wherever any of these are plentiful, there the marks of nightly visits by our Indian red deers will be found in the morning. But by the earliest break of day the animals will have disappeared; and having drunk well at some neighbouring water, will be well on their way to their resting-place for the day.

Wary. No deer is more wary than the sambhar. It is the last to come and drink in the evening, and the first to retire into the recesses of the forest in the morning. For the first hour or two after daybreak they are to be found at a few miles distant from their drinking-place, apparently loitering about, but all the time slowly making their way in a certain direction, higher up the hills and towards denser cover, and keeping the most scrupulous watch for all possible pursuers. As they penetrate deeper into the waste country, their watchfulness diminishes, but they generally take a long and keen survey of all their surroundings before lying down for the day. At all times but the rutting season (October and November) the heavy old stags remain mostly solitary, a few young animals remaining with the herd, which consists of from ten to fifteen individuals. The old stags usually travel deeper into the forest and

The Form. higher up the hills before lying down. In all

cases a patch of longish grass is selected, and a regular form, like that of a hare, is made by each individual. Each form is usually made in the shade of a small tree, on the side or top of the hill. Places where the grass is long, but where the trees are neither numerous nor thick, are preferred to the dense thickets ; and it is curious to note with what foresight this spot is selected, so that the deepest shade shall fall on the form about three o'clock in the afternoon, the hottest portion of the day. The large stags do not seem to care so much about shade, and generally lie on the side of some small depression on a hill top, sheltered only by long grass. Their forms can be readily distinguished by their superior size. These forms are usually made when the grass is green, and are occupied at intervals throughout the year. It is not generally common to find more than one herd and a few solitary stags in the same tract of country ; but, in the rutting season, they collect together in much larger numbers on the tops of the high plateaux ; and the hoarse roar of the stags may be heard echoing far and wide in the silent night. When lying down for the day, sambhar, especially solitary stags, will frequently allow one to approach and pass them quite close without getting up, trusting to concealment in the grass : and it is really almost impossible in many places for the sportsman on foot to see them unless he actually

The Herd.

Shooting. stumbles on their forms. Forsyth says that if you intend shooting sambhar from an elephant, you should start about eleven o'clock and hunt till sundown, proceeding as silently as possible through the longest patches of grass, with rifle on full-cock. The commonest method of getting at sambhar is driving with a long line of beaters.

Shakespear Shakespear tells us that he has never known a sambhar stag to charge, either before or after being wounded; but he was told that occasionally they did so. Their pace is not great, and, if the sportsman finds them on the plain with a good horse, he

Spearing. might overtake them. Shakespear speared some in broken ground that had only been slightly wounded with his rifle.

THE BARASINGHA* (Cervus Wallichii).

(*Hind.*—HANGAL, BARASINGHA.)

CHAPTER XX.

THIS noble deer, which stands from 13 to 14 hands at the shoulder, and is from 6 to 7 feet long, is supposed by some to be identical with the red deer of the Scotch Highlands; its antlers, however, attain a greater size, and, if the same species, it is certainly a variety. It is most plentiful in the northern ranges of Cashmere, inhabiting the forest-clad mountains at an elevation of 9,000 or 10,000 feet. They are found from beyond Gurys right round to Traal. The Wardwan and Sind valleys, and the country round the Adjas side of the Wuller Lake, the Lah and Quihama districts, are among the best hunting-grounds. The big stags shed their horns towards the end of March, a

HABITAT.

Brinckman

* *Large Game Shooting in Thibet; The Rifle in Cashmere; A Summer Ramble in the Himalayas;* Drew's *Cashmere; Shooting in the Himalayas.*

few keep them till about the 10th of April, and some of the little fellows do not shed them till much later. Their horns do not become perfect till about the 8th of September. They rut in October, and may then be heard all day long bellowing in the forests, when, being excited, they may easily be stalked. In April and May, both stags and hinds may be seen on the open grassy slopes, not far from the snows. In June and July the does are a bright red, and their skins are really worth having. Soon after this, all the stags migrate to the higher ranges towards Thibet. The antlers attain a length of about 40 inches. There are usually eleven points; but twelve and fourteen tines are sometimes met with.

Antlers.

When a stag is bellowing, he generally stands near a tree, and, as soon as his call is ended, he knocks his antlers frantically about the tree, causing it to shake, and thus giving a hunter on higher ground a clue to his whereabouts. If lying down when you see him, watch his antlers carefully. Before rising he will shake his head gently from side to side.

Stalking.

Note.—As the pursuit of the spotted deer, the hog deer, the barking deer, the musk deer, and other members of this family is merely incidental to other sport, we cannot give it a place here.

PIG-STICKING.*

CHAPTER XXI.

On his bow-back he hath a battle set
  Of bristly pikes, that ever threat his foes;
His eyes like glow-worms shine when he doth fret;
  His snout digs sepulchres where'er he goes;
Being moved, he strikes whate'er is in his way,
And whom he strikes, his cruel tushes slay.

His brawny sides with hairy bristles armed,
  Are better proof than thy spear's point can enter;
His short. thick neck cannot be easily harmed;
  Being ireful, on the lion he will venture;
The thorny brambles and embracing bushes,
As fearful of him part, through whom he rushes.—

Venus and Adonis.

PIG-STICKING, or boar-spearing, is, in our opinion, the grandest sport that India or any country

GRAND SPORT.

* In this account of pig-sticking we are much indebted to the *Times of India Handbook of Hindustan*, and an article that appeared in the *Saturday Review* before the Prince of Wales visited India,—we have lost the exact date. The following works are also referred to:—Newall's *Hog-hunting in the East*, passim; *Wild Sports of India*, p. 11; *Wild Men and Wild Beasts*, p. 133; *Hunting Grounds of the Old World*, p. 23; *The Old Forest Ranger*, pp. 183, 342; *Large Game Shooting in Thibet* (contains some excellent pages on pig-sticking); *Roof of the World* (Pig-sticking in E. Turkistan), p. 85; *Oriental Field Sports*, vol. i., p. 28; *Indian Field Sports*, p. 258; *Sporting Magazine*, July 1827.

affords. It combines steeple-chasing and fighting with hunting, and demands every instinct of the hunter, with the dash and courage of the soldier. The pig-sticker must be, above all things, an expert horseman. He will have to gallop at the highest speed over stony and broken ground intersected by ravines, and covered with dense brushwood and grass that conceals every danger. His horse, greatly excited—a hot Arab, or powerful waler—must be kept under perfect control by the pressure of the legs, and the influence of the bridle-hand, the other being occupied with a spear. The charge of the wild boar, moreover, frantic with rage and fear, has often to be received on a horse either plunging, or trying to bolt; and it must be remembered that the pig rushes at his foe, and, with a twist of his snout, inflicts his terrible wound like a flash of lightning. The hunter loses his seat at the peril of his life, while he misses to catch the boar on his spear at the price of his horse, or, perhaps, his own leg.

Handbook of Hindustan.

Horsemanship demanded.

Saturday Review.

Though it is not often necessary to leap a fence, there are ugly *nullahs* brimful of water, or dry and with precipitous banks, to be got over. The ground is hard, honeycombed with cracks, and with the holes of foxes and jackals, and horse and rider may come down headlong when going at racing speed. Sometimes the boar has the best of it in a charge, or the horse swerves and deposits his rider

on the hog's back, just as he is bending forward to deliver the spear ; or an incautious youth throws the spear, *telum imbelle*, like a dart, in which case it has been known to turn right over, like the caber in Highland sports, and to strike the next horse full in the chest, the point coming out under the poor steed's tail. A writer in the *Sporting Magazine* for July 1827 says :—The best pig-sticking ground tries the nerves of people just arrived in India : and what is reckoned good ground on which no boar should escape, is ten thousand times more dangerous than any ground ridden over with hounds in the north of England or Ireland, being covered with deep cracks, which are often concealed by grass six feet high. *Sporting Review.*

Again, the course of true hog-hunting is not always more smooth than that of love. Sometimes the ground is clay, trodden by cattle, unevenly when wet, and then hardened into the consistency of iron. Sometimes the boar skirts the edge of a marsh or swims a deep river, or takes to a line of gardens and orchards, in the midst of which lie buried the houses of the Bengali peasant, where the hunter gets bewildered amongst shady and narrow paths crossing each other at right-angles, and may either lose the chase altogether, or be suddenly charged by an enraged tusker where there is no room for him to practice the least cavalry manœuvre. An enthusiastic pig-sticker

has given vent to his feelings on this head in the following imperishable verse :—

> Youth's daring spirit, manhood's fire,
> Firm seat and eagle eye,
> Do they require who dare aspire
> To see the wild boar die.

THE BOAR, THE BOAR, THE MIGHTY BOAR. *Handbook of Hindustan.*

The Indian wild hog stands a little over 30 inches high at the shoulder, and from the tip of its snout to the root of its tail it measures some 5 feet. The boar's mouth is adorned with tushes from 5 to 7* inches in length—nearly two-thirds being buried in the jaw. Everywhere in India, from the level of the sea to an elevation of 12,000 feet, it is found. It usually associates in herds, known to the sportsman as *sounders*. When sheltering in long grass, it cuts some sheaves, spreads them carefully out, and creeps underneath, thus thatching itself against the heat of day. It feeds at night, and it is early in the morning, when returning to its mid-day lair, that the hunter most easily finds it. Once settled down for the day, it lies very close, sometimes waiting till the horses threaten to trample on it. It is nearly always found close to water, in the jungles skirting great rivers, and high grass round pools of water or abandoned tanks. Sugarcane is also a favorite haunt. Here it does incredible damage, and the

* Newall speaks of tushes 9 inches in length, each forming a perfect semi-circle.

cultivators are always delighted to see the pig-stickers when their crops are off the ground. Pigs fed upon sugarcane soon become too fat to run far; but the boars charge famously; yet the best for wind and endurance are those fed on the hills. They are kept in training by the great distances they have to travel for their food.

General Sir Walter Gilbert declared that nothing, for size and ferocity, could surpass, if it could equal, the pure Bengali breed: other hunters, however, declare the Deckanny pig to be unrivalled for its speed and ferocity. Hog-hunting, like sport of many kinds in the East, is not now what it was. Select hunting-grounds, which forty or sixty years ago had furnished hogs sufficient to exhaust a whole stud of Arabs in two or three days' hunting, are now converted into villages, and even bazars, teeming with population; or if the jungle, favored by epidemics, inundations, and the tyranny and incapacity of a native landlord, has been too strong for the plough and the hoe, six head would now be accounted for instead of thirty. But there are still places which will never be fit for anything but temporary occupation, and which can only yield one crop a year. Far away in Eastern Bengal, on the alluvial flats of some river named after a Hindu divinity, a good line of elephants will now and then turn out quantities of pigs of all sizes, sows with litters, lanky boars and monsters with tusks, in the

Gilbert.

proportion shown by hares and rabbits during a Norfolk battue.

HUNTING THE BOAR. *Handbook of Hindustan.*

Having said so much about the boar, we must now proceed to give some account of the manner in which he is hunted. In the south of India and Bombay, long spears are used lance-wise ; whereas, on the Bengal side, shorter and heavier spears are jobbed. The shaft of the spear is a male bamboo. Those with the closest joints are the strongest. The best spearheads are manufactured at Salem in the Madras Presidency ; shank included, they measure about six or eight inches in length. In selecting them, care must be taken that they have not a shoulder, which will render their withdrawal difficult ; and they should be so attached to the shaft as to leave no projecting edge. The Bombay and Deckan spear-shaft is often ten feet and upwards in length ; while that of Bengal does not exceed eight feet. They are both, usually, shod with lead, to correct the balance and give them weight. The object of the hunter's ambition is not to slay the boar, but to draw first blood. He who achieves this is said to have taken "first spear," and receives the tushes as the trophy. It is necessary, of course, to kill the pig ; but that is a subsequent consideration.

THE SPEAR.

First Spear.

Delivering the Spear.

If riding Bombay fashion, as you approach the object of your pursuit, lean slightly forward in your saddle, hold your spear firm, and direct it behind

the shoulder; do not push, but ride it in. Then, instantaneously withdrawing it, wheel off your horse, and prepare to receive a charge; or, if well backed up, let the others go in at the pig, until you are ready to return to the action. If you are charged, receive the enemy just where his thick neck buries itself in the shoulder, taking care to get inside the shoulder-blade. If you are riding with the short Bengal spear, wait till the boar's shoulder is parallel with your stirrup, then drop in high, behind his withers. One maxim, approved by all hog-hunters of every degree, is that the charge must be met, and not awaited. To stand spear in hand while the boar comes down on you, is to expose yourself and your Arab to be upset, cut and slashed, and ruined for life. A great deal now depends on correctness of aim and lightness of touch. A practised rider puts his horse into a smart canter, bends slightly forward over its right shoulder, and plants the spear as near the spine as possible, before the tusks of his adversary can rip up the forearm or the belly. With a jerk, to which the instincts of the horse respond, he wheels rapidly round to the left, withdrawing his spear if the wound be slight, and leaving it sticking if deep, while the enraged animal is just too late even to graze the horse's hocks. Then, from a determined boar, there may ensue a series of these attacks. The wounded hog sets its back to a bush and rushes out upon one man after another. As

The Charge.

Saturday Review.

many as three spears have been seen lodged in the flanks or ribs, quivering as the hog staggers away under them, until at last it sinks from hæmorrhage, or a fourth spear settles the business. At other times, the boar from the very first "jinks," as it is technically termed, crosses from right to left under the horse's forelegs, turns "dung-hill," refuses to charge, and repeats his tactics so cleverly that the best mounted and most skilled riders are thrown out, and the honour of drawing first blood falls to some second-rate man with a third-rate country-bred horse, who comes up and "cuts in" just at the very right time. Very rarely a hog has been heard to squeal as the hunter's spear is just about to be delivered, but in such a case it is reasonable to conclude that the fiery blood of the jungle race has been impoverished by connexion with the domestic species; and, on the other hand, a fine specimen of a boar forty inches high, with tusks polished by constant combats or rubbing against trees, refuses to run after less than three hundred yards, turns sharply on the delighted sportsman, gashes one horse, sends another to the rightabout, and, when pierced through and through, dies in silence, biting hard at the spear-shaft or at anything, animate or inanimate, that comes within its reach.

Johnson. In Johnson's *Indian Field Sports*, p. 258, there is an animated description of pig-sticking. It is

difficult, he writes, to imagine or express the anxiety a keen sportsman feels, when sitting on his horse near sugarcane, hearing the beaters calling out "*Sahib, Sahib, ek burra suar hai!*" ('Sir, sir, a big boar!'), and perhaps at the same instant hearing his grunt, and the crashing of the cane as he dashes on before them. When the boar breaks cover, give him a moment's grace (not so much from generosity as to prevent his turning tail into cover again), and then go after him as fast as your horse can lay legs to the ground. If he slacken his pace suddenly, know that he intends to charge. Mr. Johnson holds that, if the boar be in wind, the hunter, avoiding a charge, should also slacken his speed, when the pig will probably think better of it and leg on again. On overtaking him, this writer goes on to say, when galloping at the hardest, the hunter should deliver his spear; and, having done so, turn his horse instantly off to the left. The following account of this sport is from that grand old book of Williamson's *Oriental Field Sports*.* The beaters should not be more than five or six feet distant from one another when cane is being beaten, else the hogs will frequently turn back and rush through the intervals: sometimes, too, they will squat and suffer the beaters to pass them. Each beater

Williamson

Beating.

* Vol. 1, p. 28.

should be supplied with a stout bamboo. The hunters should remain at the several corners* of the cane. All being arranged, a signal should be given, and all the beat starts off together with as much clamour as it can muster. It sometimes happens that the game bolt instantly, or, at least, proceed to the verge and peep out to see if the coast be clear, when, if any suspicious object appear, they will instantly return, and only be expelled after infinite trouble. The most arduous sport occurs where much heavy cover happens to be contiguous. On such occasions, one or two of the party should hide behind any patch of cover that may stand between the fields of cane, and, on the hog emerging, surprise and attack them. Even if they do succeed in reaching the next field, they will now probably dash through it and give a run. Both Williamson and Johnson give much good advice on the art of spearing. Old boars, writes Cumming,† are often very cunning, and will

Old Boars Cumming.

* A man with a flag ought to be posted on a *machan* or convenient tree, and, as soon as the pig breaks, he should wave his flag in their direction, and thus give information to the waiting hunters from whom the cane may conceal the state of affairs.

† Cumming speaks of a good bag of three hogs; the compiler has seen five speared in a morning: but anything over two boars is good, and he who gets three may say with Pliny—Rides *et-licet* rideas; occidi tres apros nuper, et pulcherrimos quidem.

hang back in a thicket when the rest of the sounder breaks, stealing quietly off when the field is in full pursuit of some of the smaller pigs. As a rule, they do not give so fast a run as a young boar or a long-legged sow, but, when brought to bay, they are awkward customers. The cut of a boar's tusk is peculiar, generally assuming the form of the letter L, like a tear in woollen cloth. Although they grunt when charging, they seldom cry out when speared. A pig that dies with a squeal is considered an ignoble beast. Shakespeare, in his *Wild Sports of India*, writes as follows :—No one but he who has seen it would believe that the wild hog of India can on his own ground outpace, at his first burst, and run away from the fastest Arab race-horse ; but such is the fact. Let the hog be mountain born and bred, having to travel, in certain seasons of the year, forty or fifty miles every night for his food, then try him on his own hillside, or over the rock and bush of the Deckan, and I will back the hog against the hunter. * * * * * No man who has not been an eye-witness of the desperate courage of the wild hog would believe in his utter recklessness of life, or in the fierceness that will make him run up the hunter's spear, which has passed through his vitals, until he buries his tusk in the body of the horse, or, it may be, in the leg of the rider. The native *shikarry* affirms that the wild boar will quench

Shakespeare's Pace.

Ferocity.

his thirst at the river between two tigers, and I believe this to be strictly the truth. The tiger and the boar have been heard fighting in the jungle at night, and both have been found dead alongside of

Newall. one another in the morning. Captain Newall, the author of the *Eastern Hunters*, has a volume of 465 pages (large 8vo.) on *Hog Hunting in the East;* but it is chiefly narrative, and hardly gives that amount of precise information which one would expect to derive from so wide an experience as the author possessed. Mr. Kinloch says of the pig :—No animal exceeds the pig in ferocity,* or equals him in courage and determination. Once roused, nothing will stop him: he will boldly charge the largest elephant who may have disturbed him, without further provocation; and in no other species of hunting is the animal pursued treated with such fairness. With two or three horsemen after him, an old boar can, and often does, make a good fight of it, and the wounds are not always all his. In pig-sticking many sports are combined —racing, steeple-chasing, hunting, and fighting. Again, speaking of the hunting-ground on the

Kinloch. banks of the Ganges, Mr. Kinloch says—It consists of level plains covered with grass, and inter-

* Mr. Kinloch ought to know, for on one occasion, when hunting with the Meerut Tent Club, his horse was ripped, himself thrown, and wounded by a boar in more than *fifty* places!

aected with deep ravines—some dry, others full of water—with deep but invisible ditches, holes varying in size from pits large enough to swallow up horse and rider, to others just big enough to admit a horse's leg, hidden stumps and tangled bushes—and over this one has to gallop at racing pace. Colonel Campbell writes—Hog-hunting is, in my opinion, the most exciting sport in India. As for the pace, there is but one—the very best your horse can muster, be the ground what it may. A lanky, outlying boar can beat a good horse in a spurt of half a mile over the best ground. What, then, must such an animal do over a country covered with loose stones, and cut up by ravines? A hog usually selects the very worst ground he can find. Going slowly at a boar is very dangerous; for not only may a miss occasion an accident, but even if you spear him through, he can run up the shaft, and rip the horse's entrails out before he has time to turn. Campbell.

A small, light Arab, of from 14 to 14-3, is the best horse you can ride. He is plucky, handy, and, when galloping, sure-footed on the worst ground; moreover, he can scramble, climb banks, and take high drops, and is high-hearted, entering into the sport with great spirit. Such a horse costs in India from £80 to £200, according to his breeding and age. A thorough-bred waler (S. Australian horse) is the next best horse. He costs THE HORSE. *Handbook of Hindustan.*

from £40 to £100. His faults, however, are that he requires more room and time to wheel and dodge about, and that he does not stand the heat so well —an important consideration when it is remembered that the hot weeks immediately before the rains are the height of the pig-sticking season. The best class of light country-breds are extremely active and handy; but want bottom, and are soft-hearted. The Cabuli is a pig-headed, awkward brute usually; but sometimes, especially when he has a dash of Arab blood, he will do for pig-sticking. Let us hear what the *Saturday Review* has to say on this head. As a general rule, no mount, for a man under twelve stone, surpasses the Arab horse. Australians, English hunters, horses from the Cape of Good Hope, have been entered at this sport and have answered fairly. But the Cape horse is very soon knocked up; the English hunter, three parts bred, is superior in stride, but cannot wheel to the right or left with the necessary rapidity; Australians or Walers are apt to be uncertain in their disposition, and are given to "buck-jumping." For temper, for exquisite beauty combined with bone and sinew, for certainty of rapid evolution, for coolness in meeting the angry and bristling foe, for obedience to the touch of spur or rein, and, we may almost say, for sympathetic enjoyment of the sport, the Arab horse is pre-eminent. Cumming says that although in hog-hunting it is

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advantageous to be well mounted, yet many spears are taken by men on steady old horses held well in hand. Young, high-couraged horses are often hard to hold, and, to enable the rider to work his spear properly, the right hand should be free. Cumming has seen the spear taken, from a field mounted on high-priced horses, by an old stager riding a steady screw that would not fetch £10. One member of our hunt, adds this writer, often rode a small dark chesnut pony, about thirteen hands high. The man was over six feet in height, and it seemed incredible that the rat he bestrode could carry his weight. This was indeed a game little beast, and it was a rare sight to see him and his rider hurl themselves at a ten-foot hedge and kick and struggle till they forced a passage. The compiler rode for a whole season, with a well-mounted field, on a small galloway, that also distinguished itself on the polo ground; and on this galloway he has taken first spear off a fast but sinking boar, and with many another boar has been well up at the death.

Hunting Quarters.

In Upper India, Meerut, Delhi, Cawnpore, and Allahabad are great head-quarters of pig-sticking. In Lower Bengal, the grass jungles of Nuddea, Pubna, and Dacca, and the banks of the Goria, Jallinghi, and Megna, are well stocked with pig. The wild boar is found in nearly every part of the *khadar*, and Poddha of the Ganges and the Jumna.

Pleasant Accessories.

The black soil of Central India renders riding to pig almost impossible; but all along the Western Ghats, and in Guzerat and Cutch, excellent sport is to be had. It is not only the excellence of the sport itself that makes pig-sticking such capital fun, but the jovial meetings in the jungle, which are incidental to it, lend it an additional charm. A party of from four to nine hunters encamped under some spreading tree, away from bugle-call and the clamour of cutcherry, can hardly fail to enjoy themselves. Hunting generally commences at daybreak, and is over by ten or eleven; then a refreshing bath, a hearty breakfast to the great effusion of claret cup; a sleep, and in the cool of the evening a stroll after partridge or quail; and back again to a merry hunter's dinner, when bumpers are filled to the jolly old soors, and the song of "The Boar" is heard:—

So when in after days we boast
Of many wild boars slain,
We'll not forget our runs to toast,
Or run them o'er again.
And when our memory's mirror true
Reflects the scenes of yore,
We'll think on friends it brings to view,
Who loved to hunt the boar.

THE IBEX* (Capra Sibirica, Capra Himalayana).

(*Native name*—SKHIN, KHEYL.)

CHAPTER XXII.

THIS noble goat affords the Himalayan sportsman an opportunity of exhibiting the highest qualifications and most genuine instincts of the hunter. It calls into play the discretion, tact, and patience of the stalker; the courage, steadiness, and endurance of the mountaineer; and all the skill and coolness of the marksman. The ibex is found only in the most elevated regions of the Himalayas, where appalling precipices, grassy declivities, and treacherous snow-banks render its approach a most difficult, fatiguing, and dangerous task. It is found

GOOD SPORT.

Habitat. Markham.

* Jerdon's *Mammals*; Kinloch's *Large Game of Thibet*, p. 82; Markham's *Shooting in the Himalayas*, p. 155; Dunlop's *Hunting in the Himalayas*; Vigne's *Cashmere*; Cunningham's *Ladakh*; *Proc. Zool. Soc.*, 1840, p 80; The Ibex described by Vigne; Wilson's *Summer Rambles in the Himalayas.*

in Kunawar, Kulu, Lahoul, Spiti, Cashmere,* Baltistan, and various parts of Thibet. It is abundant in the Wardwan Valley.

Size. The male ibex stands about 44 inches at the shoulder, and his horns measure round the curve from 40 to 51 inches, being from 10 to 13 inches in circumference at the base. Brinckman would call 48 inches on the periphery a very large head, and anything above 40 inches a good ibex; 13 inches above the first knot is the thickest ibex horn this sportsman ever got. Kinloch would consider 48 inches medium size. Markham says that very few exceed 48 inches, but that he has heard of their being 51. The 'Old Shikarry' says that the horns range from 36 to 50 inches. The pair originally described and procured in Thibet by Vigne measured 51 inches.

Description. Except just after changing their coats, when they are of a greyish hue, the general colour of the ibex is a dirty yellowish white, tinged with brown. Sometimes, however, younger animals, both male and female, will be found with coats as red as those of deer in their red coats, but old males, shedding their coats later in the season, are not found of that colour. The hair is short, something in texture like that of the bharal and other wild sheep,

Vesture.

* Ibex are to be had from Astor, Gurys, Gungabul, Goond Suru, Wardwan right round to Pongo, and all along the road to Leh.—*Brinckman.*

and in the cold weather it is mixed with a very soft, downy wool, resembling the shawl wool of Thibet. This and the old hair is shed in May and June, and, in districts occupied by the flocks at that season, the bushes and sharp corners of rocks are covered with their cast-off winter coats. The striking appearance of the ibex is chiefly owing to the noble horns which nature has bestowed upon it. Their flowing beards, six or eight inches in length (which help to distinguish this variety from that of the Swiss Alps, in which this appendage is rudimentary), are of shaggy black hair. Those of the females, a light-greyish brown in colour, are of inferiôr length. The horns, moreover, of the female are round and tapering, and only from ten inches to a foot in length. *The Female.*

In summer the ibex resorts to the highest accessible places where food is obtainable. This is often a part of the country several marches distant from their winter haunts. This migration commences as soon as the snow begins to disappear, and is very gradually performed, the animals receding from hill to hill and remaining a few days upon each. At this season the males keep in large flocks, apart from the females. As many as a hundred may sometimes be seen together. *The migration.*

During the heat of the day the ibex rarely moves about, but rests and sleeps, either on beds of snow in the ravines, or on the rocks and shingly slopes *Habits.*

of the barren hillsides, above the limits of vegetation. Sometimes, but very rarely, they will lie down on the grassy spot where they have been feeding. Towards evening they begin to move and proceed to their grazing-grounds, which are often miles away. They set out walking slowly at first, but, if they have any considerable distance before them, soon break into a trot, and sometimes the whole flock will go as hard as they can lay legs to the ground. About October they begin to mix with the females and gradually descend to their winter resorts. The females do not wander so much or so far, many remaining on the same ground throughout the year, and those that do visit the distant hills are generally found lower down than the males, seldom ascending above the limits of vegetation. They bring forth their young in July, having often twins; and, like other gregarious animals, many are frequently found barren.

Going to feed.

Wary.

The ibex is a wary animal, gifted with sharp sight and an acute sense of smell. It is easily alarmed, and so wild, that a single shot fired at a flock is often sufficient to drive them away from the particular range of hills upon which they may happen to be browsing. Indeed, even if not fired at, the appearance of a human being near their haunts is not unfrequently attended with the same result. Their climbing and saltatory powers

are perfectly marvellous. Nothing seems to stop or impede their progress in the least. To see a flock, after being fired at, take a direct line across country over all sorts of seemingly impassable ground—now along the naked face of an almost perpendicular rock, then across a treacherous landslip, or a shifting and inclined plain of stones and sand that a touch threatens to set in motion above and below; diving into chasms from which there seems no possible outlet, but instantly reappearing on the opposite side; never deviating in the slightest from their course; and at the same time getting over the ground at the rate of something like fifteen miles an hour—is a sight not easily forgotten. Such is Markham's account of the ibex.—Now let us hear what another good sportsman has to say on the subject. The ibex, says Kinloch, inhabits the most precipitous ground in the highest parts of the ranges where it is found, keeping above the forest (where there is any), unless driven down by severe weather. In the daytime it generally betakes itself to the most inaccessible crags, where it may sleep and rest in undisturbed security, merely coming down to the grassy feeding-grounds in the morning and evening. Occasionally, in very remote and secluded places, the ibex will stay all day on their feeding-grounds; but this is not common. In summer, as the snow melts, the old males retire to the highest

Across country.

Habits. Kinloch.

and most unfrequented mountains, and it is then generally useless to hunt for them, as they have such a vast range, and can find food in places inaccessible to man. The females and young ones may be met with all the year round, and often at no very great elevation.

Approach from above.

Although they are very wary, a careful hunter can generally, if he be sufficiently bold and skilful a climber to attain a position well above the herd, get a shot at the ibex. Their vigilance is chiefly directed below. Where much disturbed, one or two of the herd usually keep a sharp look-out while the rest are feeding, and, on the slightest alarm, the sentries utter a loud whistle, which is a signal for a general rush to the nearest cliffs. Should, however, a sportsman have time to obtain a shot before being observed, he may follow it up with one or two others, sometimes ere the herd is out of range; as at first they seem quite stupefied by the noise, being unable to attribute it to any visible object. Mr. Kinloch states with enthusiasm that he considers ibex-shooting to be quite the finest sport in the Himalayas, and, except pig-sticking and elephant-shooting, unsurpassed by any in India. Vigne, in his work on Cashmere, states that one or two hundred ibex are annually killed in Balti in winter, when forced to descend into the valleys. In Ladakh they are snared at night, and shot in the grey dawn of the

The under-fleece.

morning, when they venture down to the streams to drink. They are killed for the sake of the soft under-fleece, which is used as a lining for shawls, stockings, gloves, and is woven into a fine cloth called *Tusi*. No wool is so rich, so soft, and so full. The hair itself is manufactured into coarse blanketing for tents, and twisted into ropes.

Stalking. Brinckman throws out the following suggestions in regard to ibex-shooting:—You ought to sleep near the hill where they are, and get to the top of it before daylight. The ibex is considered to be very knowing, but is as easy to stalk as any other game if hunted in the proper manner. By being up the hill before daylight, and getting above their feeding-ground, you will be able to stalk them with ease. If you go up the hill late, you stand more chance of being seen first by them, as an animal is twice as knowing lying down as when feeding; and they do not look up, moreover, for danger, but generally sit on the edge of a crag that commands a good view of the hillside below them. You should move very slowly, and your glass should be continually employed in looking among the rocks. Do not fire at the does or young males. The old bucks are always up higher. When you have got within shot, pick out the whitest: he is sure to be the biggest. Do not show yourself after firing. If you keep hid, you will, most likely, get another shot; and, in

Brinckman.

Choose the Whitest.

any case, they will not go so far away as if they had seen you. Sometimes you see ibex among rocks where they cannot go away fast, and you can empty all your barrels at them. From the 15th of May to the 15th of June is the best time for hunting ibex. A man who works hard ought to get three or four good bucks in a month. Always stalk ibex when feeding. When lying down they are not asleep, but staring about, some looking in one direction and some in another ; and if, as often happens, you should by chance displace a stone and make a noise, their attention will be at once attracted. When feeding, they think the noise was made by one of their flock, and, beyond a hasty glance, they may, perhaps, remain quite indifferent.

Stalk when feeding.

THE MARKHOR* (Capra Megaceros).

CHAPTER XXIII.

A Noble Goat.

The markhor is the beau-ideal of a wild-goat. Standing from ten to twelve hands high, his magnificent flowing beard reaching below his knees, and extending from between his forelegs to his chin, his grand spiral horns from 3 to 4 feet in length, and his bold carriage, contribute to give him a most venerable and dignified aspect.

Description.

The coat of the adult male markhor is long and shaggy, and of a dirty white colour, with a bluish tint. The females and young males are of a reddish-brown hue, with small black beards from the chin only; the edges of their tails are black; and they have a small white patch on the rump, forming a margin all round the black-edged tail. They have a peculiarly rank smell, stronger than that of the tahir or domestic goat.

Habitat.

The markhor is found on most of the hill-ranges

* The name is a Persian compound, signifying snake-eater. The natives believe that it devours serpents; and Mr. Kinloch, without giving us his reasons, says he believes there is some foundation for the story.—Adams' *Wanderings of a Naturalist.*

of the Punjab, including all the Pir Panjal west of the pass of that name; it inhabits the Kishengunga and Khajan valleys, and the greater part of Astor, Gilghit, and Swat. It is abundant in the Hazara hills, and the hills on the north of the Jhelum, and in the Wardwan hills separating the Jhelum from the Chenab river; not extending, it is said, farther east than the sources of the Bias.* As we have already said, this goat inhabits the most precipitous and difficult ground, where nearly perpendicular faces of rock alternate with steep and slippery grassy slopes, and patches of forest strewed with fir-pines, offering a most precarious footing. It

Habits. is extremely shy and secluded in its habits, remaining concealed in the densest thickets during the day-time, and only coming out to feed in the mornings and evenings. The pursuit of no animal leads the sportsman over such dangerous

Kinloch. ground.† Early in the season, the males and females may be found together on the open grassy patches and clear slopes among the forest; but, during the summer, the females generally betake themselves to the highest rocky ridges high above, while the males seclude themselves in the most remote and inaccessible ravines. A marked preference for the forest is a distinguishing charac-

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* Jerdon's *Mammals.*

† Kinloch's *Large Game of Thibet*, p. 88.

teristic of the markhor. They are always remarkably wary, and require the most patient and careful stalking. They congregate in small flocks. The ibex and the markhor are said to dispute each other's footing, and Adams doubts whether they are ever met with on the same ranges.

THE TAHIR* (Hemitragus Jemlaicus).

(*Ver.*—TAHIR, JULAR, JHARAL.)

CHAPTER XXIV.

DESCRIPTION. Markham.

SEEN from a distance, an old male tahir has more the appearance of a great wild hog than that of an animal of the goat kind ; but, on a nearer view, it is, perhaps, one of the noblest-looking animals of the hills. When in condition, before the rutting season, it will sometimes weigh nearly 300 lbs. The foreparts are of a light-ash, deepening to a dark-brown on the hind-quarters, legs, and belly. The head is dark-ash, but at a distance appears nearly black. The hair on the neck and shoulders and foreparts is long and shaggy, gradually growing shorter on the hind-quarters. The legs are rather short and very stout. The young male is more of a brownish colour throughout, and the hair is not so long or shaggy. There is perhaps no animal of which the female is so inferior in size and appearance to the male, as the tahir. Abso-

* *Shooting in the Himalayas*, p. 24 ; *Indian Sporting Review*, vol. iii., 1857, p. 202.

lutely the female is a fine-looking animal ; but compared with her mate she is insignificant. They are of an uniform drab or reddish brown above, and dirty white below : some are of a much lighter colour than others. The weight of a female is rarely more than a third of that of a male when in good condition. The horns in both sexes are short and curved slightly backwards. The flesh of the female is tolerable ; that of the male is scarcely eatable at any time, though much esteemed by the hillmen, who ascribe to it many medicinal qualities. A male tahir killed in August or September before joining the females is considered by them as the finest game in the hills. The horns of the male rarely exceed 18 inches in length, and cannot be described as handsome.

THE ELEPHANT* (Elephas Indicus).

(*Hind.*—HATHI.)

CHAPTER XXV.

Des
ti
Mar

"Nature's Great Masterpiece, an Elephant,
The only harmless great thing."—

DONNE.

African & Asiatic Types.

THE Asiatic elephant differs from the African species in its greater size, in the character of its teeth and skull, in the comparative smallness of its ears, in the paler brown colour of the skin, and in having four nails in the hind-feet instead of three.

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* Emerson Tennent's *Ceylon*, vol. ii. (3rd ed.), pp. 271, 401; Baker's *Rifle and Hound in Ceylon*; Baker's *Eight Years' Wanderings in Ceylon*; Knox's *Hist. Relation of Ceylon*; C. Wolf's *Life and Adventures in Ceylon*; Forsyth's *Highlands of Central India*, appendix A; The 'Old Shikarry's' *Hunting Grounds of the Old World*, 1st series, pp. 249, 261; Knight's *Cyclopædia of Natural History*; Burton's *Pilgrimage to Mecca*, vol. i., p. 275; Smith's *Nepal* and Hamilton's *Nepal*; Balfour's Encyclopædia, vol. ii., p. 84; Shakespeare's *Wild Sports of India*, p. 160; Hodgson's Paper on *Mammalia of Nepaul, Zool. Proc.* 1834; Corse's Paper on Elephants read before the Royal Society in 1799; *Indian Sporting Review*, vol. iii., 1857, pp. 294, 303; Strachan's paper on the taking of Elephants in Ceylon, Phil. Trans., 1701; also vol. xxiii., No. 227; Gordon-Cumming's *Hunter's*

The following is Corse's description of a "perfect" Asiatic elephant :—An elephant is said to be perfect when his ears are large and rounded, not ragged or indented at the margin ; his eyes of a dark hazel colour, free from specks ; the roof of his mouth and his tongue without dark or black spots of any considerable size ; his trunk large, and his tail long, with a tuft of hair reaching nearly to the ground. There must be five nails on each of his fore-feet, and four on each of the hind ones, making eighteen in all ; his head well set on and carried rather high ; the arch or curve of his back rising gradually from the shoulder to the middle, and thence descending to the insertion of the tail ; and all his joints firm and strong.

Corse. A pe Elepl

In the *Hastisilpe*, a Singhalese work which treats of the management of elephants, the marks of high-

Tenn *The I*

Life in South Africa, vol. ii ; Pringle's *Sketches of South Africa ;* Shaw's Zoology [1800-6], vol. i. ; Valentyn's *Oud en Nieuw oost Indien ;* Broderip's *Zoological Recreations ;* Le Brun's *Voyages*, tom. ii., c. lxiii., p. 331 ; Schlegel's *Essay on the Elephant, Classical Journal* No. lx. ; Armandi's *Hist. Milit. des Eléphants ;* Aelian's *Nat. Anim.*, lib. ii. and xvi. ; Aristotle's *De Animal*, lib. iv. ; Pliny's *Natural History ;* Phile's *Expositio de Elephante* and *De Animalium Proprietate ;* Arrian *Indike*, c. 13. [The earliest account in any European language of the capture of the elephant.] The *Hastisilpe* is a Singhalese work, which treats of "The science of elephants." A graphic account of elephant-shooting will be found in Hoffmeister's *Travels in Ceylon and India.*

breeding are said to be—softness of the skin, red colour of mouth and tongue, forehead expanded and hollow, ears large and rectangular, trunk broad at the root and blotched with pink in front, eyes bright and kindly, cheeks large, neck full, back level, chest square, fore-legs short and convex in front, hind-quarter plump, five nails on each foot, all smooth, polished, and round. The natives of Ceylon also consider a long tail as an essential point.

The following are the measurements of an elephant at different ages as recorded by Mr. Corse :—

At birth 2 feet 11 inches.

In one year he grew	11	in., and was then	3	ft.	10	in.
„ second year	8	„	„	4	„	6	„
„ third „	6	„	„	5	„	0	„
„ fourth „	5	„	„	5	„	5	„
„ fifth „	5	„	„	5	„	10	„
„ sixth „	3½	„	„	6	„	1½	„
„ seventh „	2½	„	„	6	„	4	„

A female elephant, believed by Mr. Corse to be eleven years old, measured 6 feet 9 inches. During the next five years, before she was covered, she grew only six inches, but, while pregnant, she grew five inches in twenty-one months ; in the following seventeen months, though again pregnant, she grew only half an inch. When her young one was 20 months old, he was 4 feet 5½ inches high, having grown 18 inches since his birth.

Mr. Corse conjectures that elephants attain their full growth between the ages of 18 and 24. Forsyth says that an elephant attains its full size and development between 35 and 40 years of age; and that from that age to about 60 is in its prime of life. In Corse's time the E. I. Company's standard for serviceable elephants was 7 feet and upwards, measured at the shoulder, as horses are. At the middle of the back they are considerably higher. During the war with Tippu Sultan, out of 150 elephants under the management of Captain Sandys, not one was 10 feet high, and only a few males 9½ feet. The only elephant ever heard of by Mr. Corse exceeding 10 feet in height belonged to Asaph-ul-Daula, formerly Vizier of Oudh. The following were his dimensions :—

	Ft.	In.
From the tip of the shoulder perpendicularly ...	10	6
From front of face to insertion of tail.....	15	11

In Ward's *Knapsack Manual* we find the following measurements given of an elephant shot by the Duke of Edinburgh :—Height at withers 10 feet, from tip of trunk to tip of tail 23 feet 5 inches, girth 16 feet 6 inches, from top of head to end of trunk 11 feet 3 inches. This elephant weighed 4 tons 8 cwt. 4 lbs. The skull and tusks weighed more than 3 cwt.

*Height exaggerated.** At Dacca Mr. Corse heard, from several gentlemen, that the Nawab had an elephant of about 14 feet high. The mahout assured him that it was from 15 to 18 feet high. He measured it and found that it did not exceed 10 feet. Tennent (p. 291, 2nd vol.) says the Ceylon elephant seldom exceeds the height of 9 feet. This writer confirms the truth of the common saying that twice the circumference of an elephant's fore-foot is exactly his height to the top of the shoulder. Forsyth talks of "a full-sized" elephant of about 8½ feet high. The tusks† of the Indian elephant perhaps never exceed 72 lbs. in weight.

DISTRIBUTION. The Asiatic elephant inhabits the greater part of the warm countries of Asia, and the large islands of the Indian Archipelago. It is found in India, throughout the Terai, at the foot of the Himalayas, from Bhutan to Dehra and the Kiarda Dhun. It is abundant in Chittagong and Tippera. Central India claims it, from Midnapore to Mundla, and south nearly to the Godavery. It frequents the

* The skeleton of an elephant in the Museum at St. Petersburgh, sent to Peter the Great by the Shah of Persia, is said to measure 16½ feet in height.

† Tusks rarely indeed exceed 60 lbs. There are tusks in London, probably from Pegu, weighing 150 lbs., and Cuvier, on the authority of Camper, records a tusk of 350 lbs. sold at Amsterdam. The largest in the Paris Museum is nearly 7 feet long and about 5½ feet in diameter at the large end.

Western Ghats as far south as Travancore, the Arnimalli Hills, the Coimbatore range, the Wynaad, the Neilghiris, Curg, parts of Maisur and Canara, and the Shervaroys and Culmallies afford it shelter.

Elephants are usually found in the profoundest jungles, where the dense, thorny, and tangled brushwood affords them the silence, the immunity from intrusion, and the absolute seclusion from the rest of animated nature, which they seem to love. No altitude, says Tennent, seems too great or too chill for the elephant, provided it affords the luxury of water in abundance. In Ceylon they are found in herds at a height of upwards of 8,000 feet. They are impatient of the glare of the sun, and spend the day in the thickest depth of the forest, devoting the night to excursions and to the luxury of the bath, in which they also indulge occasionally by day. Their love of coolness, their love of solitude, and their circumscribed range of vision combine to strengthen their preference for the still glooms of the forest.

Habitat. Compiler. Tennent.

The sense of smell is very highly developed in elephants, so much so, indeed, as almost to compensate for the imperfection of their powers of vision. The herd are not only, by this means, apprised of the approach of danger, but, when scattered in the forest and dispersed out of range of sight, they are enabled by it to re-assemble with rapidity and

Sense of smell.

adopt precautions for their common safety. A peculiar searching of the ground with the trunk, and the movement of that member to the mouth, indicate, an intelligent mahout has assured the compiler, the proximity of some of the larger felidae: and the compiler is able, from his own experience, to confirm the mahout's observation. This gesture is sometimes accompanied by a stamping with the fore-feet. The same necessity involves a delicate sense of hearing, and the use of a variety of noises or calls by which they can communicate with one another upon all emergencies.

ELEPHANT-SHOOTING.

Tennent. Of this sport Sir James Emerson Tennent says:—Whatever endurance and adroitness elephant-shooting may display in other respects, it requires the smallest possible skill as a marksman. The great numbers which have thus been slain testify to this.

Bags. Major Rogers killed upwards of *twelve hundred* elephants in Ceylon, purchasing, with the value of the ivory thus obtained, his successive steps in the army from ensign to major. A Captain Gallwey bagged more than *six hundred,* and Major Skinner

Vital spots. nearly as many. The sportsman acts most prudently in aiming at the head. He should boldly face the animal, advance to within fifteen or twenty paces, and lodge a bullet either in the temple, or in

the hollow over the eye, or in the well-known spot immediately above the trunk, where the weaker structure of the skull affords an easy access to the brain.* The region of the ear is also resorted to, and presents a vital point. Dr. Hoffmeister writes of an elephant hunt in Ceylon :—Just then Major Rogers, the most expert marksman of the hunt, was close to us. He sprang in among the elephants, and advancing towards the one nearest him on the right, to within the length of its trunk, he fired a shot into its ear; then, turning with lightning speed to the one on the left, he discharged the contents of the other barrel into its temple. Both fell with a hollow groan, as if blown down by a sudden whirlwind. It must be borne in mind that the fatal spot on the forehead is only accessible when the animal is charging down on the sportsman,† and, moreover, that an ordinary lead bullet, unhardened by zinc, type-metal, or other dense substance, will often fail to penetrate the cranium even here. Generally speaking, says Tennent, a single ball, planted in the forehead, ends the existence of the noble creature Tennent.

* Pliny knew of this spot. Describing a combat of elephants in the amphitheatre at Rome, he says that one was slain by a single blow :—"Pilum sub oculo adactum, in vitalia capitis venerat."—Lib. viii., c. 7.

† The section of the skull of an elephant figured in Knight's Cyclopædia will explain this.

instantaneously: and expert sportsmen have been known to kill, right and left, one with each barrel; but occasionally an elephant will not fall before several shots have been lodged in his head. Shakespear recommends the sportsman, when shooting transversely, to aim over the eye. This writer says that when the trunk is raised, it is of no use aiming at the head from the front, unless to turn a charging elephant by a painful though not fatal wound.* A mighty hunter of South Africa seems to have aimed at his elephants quite regardless of their anatomical structure; and, consequently, he occasionally implanted as many as *forty* bullets in his suffering victims before putting an end to their agonies. Nothing can well be more disgusting or brutalising, as the case may be, than reading the history of such unsportsmanlike bloodshed. Elephants are bolder in open ground than in cover; but, if bold, more dangerous in cover than in open ground.

THE CHARGE.

They never charge in herds. Only individuals charge; and this onset is more appalling than dangerous, for the ponderous beast, with his unwieldy person and defective vision, may be eluded by activity if not destroyed by coolness and steadiness of aim. Amongst full-grown timber, a skilful runner can well escape from an elephant by dodging

* *A Hunter's Life in South Africa*, Gordon-Cumming, vol. ii., p. 10; vol. ii., pp. 4 and 5.

round the trees; but, in cleared land and low jungle, the difficulty is much greater, as the brushwood which obstructs the movements of man presents no obstacle to those of the elephant. On the other hand, on level and open ground the chances are rather in favour of the elephant, as his pace is far superior to that of man, though by no means equal to that of a horse, as has been erroneously asserted. For narratives of elephant hunting in India the reader should consult the works mentioned in our note.* Those of Shakespear and Forsyth are the most intelligently written.

TAME ELEPHANTS.

In all shooting in the jungles of the plains, the elephant is a most important ally; and as mahouts are, as a class, the most ignorant† impostors, every

* Forsyth's *Highlands of Central India*, p. 420; *Hunting Grounds of the Old World*, pp. 249-261 (1st series); *Indian Sporting Review*, 1857, vol. iii., p. 294; Shakespear's *Wild Sports of India* (1860), p. 160.

† The childish credulity, the ignorance, and the inhuman brutality of the lower classes of natives of this country, are nowhere so clearly exemplified as in their treatment of animals. In order to make an elephant see well at night, the mahout will sometimes thrust down its throat the great yellow eyes of the brown horned owl, torn fresh from the living bird! To a fresh tiger wound on an elephant the mahout will apply burning hot dung! and to give a timid elephant courage, it will be made to swallow a tiger's liver!

Indian sportsman should himself understand something of the selection and treatment of elephants. We propose, then, to extract what we consider the most important passages from appendix A of Forsyth. Captain Forsyth's admirable work on the *Highlands of Central India*, relating to the treatment of hunting elephants. The usual food of elephants in *Food of elephants.* Upper and Central India consists of cakes of wheaten flour, baked without leaven, to a weight of about 2 lbs. each, and given with a slight spreading of clarified butter. In the south and east, where *Rations.* wheat is scarce, plain uncooked rice is given instead. The daily ration of a full-sized animal is 24 lbs. of flour, or 32 lbs. of rice. When one diet is substituted for another, it should be done gradually, and when rice is first given, it should be boiled for some weeks. The above rations are for an animal in hard work. In the Government Commissariat Department, where great numbers of animals are kept in idleness for most part of the year, lower rations are given. About half a pound of clarified butter and the same amount of salt should be daily mixed with the food; and spice balls ought to be administered about once a week. Besides these rations, an elephant *Fodder.* devours an enormous quantity of fodder. The principal substances given him are the branches of various trees of the fig tribe, banyan, pipal, and gular. The leaves of the pipal are eaten, but should

be avoided in the hot season, as they are heating, and often produce an affection of the eye. Of the banyan and gular, the inner bark of the large branches, and the whole substance of the smaller twigs, alone are eaten. It is astonishing to observe the adroitness with which the elephant peels off the delicate inner bark in long strips, and rejects the rest. This fastidiousness necessitates the supply of an enormous number of branches every day; and the elephant always goes out with his keeper to bring home as much fodder as he can carry on his back, or buffaloes are employed to do him this service. The bamboo is also eaten, but will not be accepted very long at a time. A long species of grass (*typha elephantina*), which grows in many tanks and rivers during the rainy season, forms excellent fodder for elephants. In the absence of the above descriptions of fodder, the stalks of millet (Hind., *kirbi*), or even dry grass, may be given, but will not satisfy them long without a mixture of green food. Sugarcane is a great treat, and in moderate quantities is good for them, particularly if in poor condition. They should be allowed to drink as much water as they like. They are very nice about it, and will reject what is stagnant or impure. Elephants should be picketed on dry ground; standing in damp being a great cause

Picketing.

of diseased feet. They do not require any protection from the weather but the shade of a tree, and a cloth of string or felt (Hind.—*jhul*, or *numda*) thrown over them on cold nights.

Bathing. Elephants require frequent bathing.* After the bath, a small quantity of clarified butter should be rubbed over their foreheads, ears, chests, and such parts as are liable to crack, or suffer from the rubbing of the harness, or from the heat of the sun.

Harness. The pad should be of a large size and well stuffed with straw. The felt cloth that goes under the pad should be kept in repair, or a sore back will certainly ensue. Both these articles require to be renewed about once a year, if a whole season's work has been done. The smaller felted cloth, on which the driver sits, should project a little over the elephant's forehead, so as to protect him from a vertical sun. It is not the nature of the animal to remain out in the open during the heat of the day; and he certainly suffers from it if made to do so unprotected. If not allowed a tree to stand under during the heat of the day, an elephant

* A tame elephant, when having his bath, and when the keepers are scraping and rubbing his skin, lies down on his side; and often presses his head to the bottom under water, merely protruding the top of his trunk for breath.

always heaps all the straw and leaves he can find on his back and head: this betrays his native instinct.

After much marching on stony ground, the feet are apt to get tender from undue wearing of the horny soles. This is to be remedied by the process called *chobing*, which consists in the application of a boiling hot mixture of a good many ingredients, generally resembling coal-tar. Every mahout has his own compound, and most of them will effect a cure. Its principal component is the gum-resin of the *sal* tree. Every mahout can prepare and apply the compound; and a footsore elephant may be expected to get round in about a week. If worked regularly on hard ground, this process will be required about twice a year. *Sore feet.*

A sore back* is the most common and troublesome of all elephant affections. It must not be allowed to heal superficially, but must be kept open till all the matter escapes. It must be frequently cleansed; and the opening should be filled with two parts of *nim* leaves and one part of common salt, well pounded together. It may be washed out with a solution of alum. The cleaning and dressing should be repeated at least twice a day. *Sore backs.*

The *howdah* used by Indian sportsmen is usually a THE HOWDAH.

* A highly-arched back is the most liable to get galled; and, moreover, a flat back carries a howdah more steadily.

high sledge, having an iron framework filled in with cane and fixed on stout wooden runners, which rest on either side of the thick pad that is thrown across the elevated ridge of the elephant's back. It has two seats—a higher one in front for the sportsman, and a lower one behind for a servant or *shikarry*. The front rail has usually four depressions opposite corresponding resting-places for the stocks of four guns. What is analogous to the splash-board of a carriage is here a perpendicular side of iron and canework, fitted with bags and trays for cartridges, &c. It is bound on to the elephant by a crupper, and a chain and several rope girths. The *mahout** sits on the depressed neck in front. His legs are protected by the elephant's ears, but the upper part of his body is entirely exposed; and when a tiger charges boldly at the elephant's head, the *mahout* occupies a most unenviable position.

THE MAHOUT.

Cost.

A *shikarry* elephant costs from two to four thousand rupees, according to his age and caste. His food costs about one rupee a day. A head *mahout* will expect Rs. 25 a month, with one or two assistants on Rs. 8 and Rs. 6. In a native establishment, some five or six servants are usually

* The *mahout* is also called the *fowjdar* and *filband*, according as the speaker may desire to exhibit his respect for the driver, or his knowledge of Persian.

retained for the elephant, and two or three buffaloes and a pony to fetch his fodder.

Note.—The iron goad used by mahouts has preserved its present form from the remotest antiquity, and is exactly figured in the medals of Caracalla. The Greeks called it *harpe*, the Romans *cuspis*, the Singalese call it *hendu*, and the Indians *ankus*. Elephants are bred at Punnah in Bundelcand. Directions for the preservation of elephant skins and skulls will be found in Mr. Ward's *Knapsack Manual* p. 29.

THE RHINOCEROS (Rhinoceros Indicus *and* Rhinoceros Sondaicus).

(*Hind.*—GENDA.)

CHAPTER XXVI.

THERE are two well-distinguished varieties of the rhinoceros in India, *viz.*, the greater and the less rhinoceros. The Indian rhinoceros has one horn, which is situated on its nose. Its skin is very thick, of a dull, deep purplish gray, marked with sub-elevated, rounded, and other inequalities, and remarkable for the deep folds which it forms behind and across the shoulders, and before and across the thighs. There are a few stout and stiff hairs on the tail and on the ears. The former inhabits the Eastern Terai, Assam, and the Bhutan Duars; the latter is found in the Bengal Sunderbans.

Size. The great rhinoceros attains a height of from 4½ to 5 feet, and is from 9 to 10 feet long. The horn measures occasionally as much as 2 feet in length. The small rhinoceros is only from 3½ to 3¾ feet in height, and about 7 or 8 feet long. His horn

Habitat. seldom exceeds 1 foot. These curious animals fre-

quent the swampy ground on the low margins of rivers, and reedy tracts on the borders of sluggish streams. They are found, too, at times in the dense shade of the forest in the neighbourhood of rivers. Their ordinary food consists of herbage and the branches of trees. Tennent is of opinion that this species is the unicorn of Scripture and the Indian ass* of Aristotle. He says that it loves the shady forests, the neighbourhood of rivers, and marshy places; that it brings forth one young at a time, and is very solicitous about it; that it is usually quiet and inoffensive; but, when attacked, furious, very swift, and dangerous. The hide of the rhinoceros is perhaps thicker than that of any other pachydermatous animal. The horns consist of congregated parallel horny fibres. Shields are often made of the hide, and drinking-cups of the horn. The vital point of the rhinoceros is the neighbourhood of the eye. The neck and the regions behind the ear and behind the shoulder are protected by great folds of the skin.

Food.
Tennent.

* Aristotle, lib. ii., c. i., says that some animals are monoceratous and solidungulous, such as the *Indikos onos monokeros*. Strabo, lib. xvi., p. 774, gives a clear description of a rhinoceros seen by himself.

APPENDICES.

NOTES ON THE TIGER.

THE word tigris, or tiger, is usually referred to the Persian *tir*, an arrow :—the tiger *darts* on his prey. The words *sher* and *sherni* for the tiger and tigress, respectively, are commonly employed in Hindustan. Occasionally the word *sher* is applied with some laxity (instead of *timri* or *tendua*) to the panther, so when the tiger is really intended the adjective *soneri* (golden) is sometimes prefixed. The terms *bagh* and *baghni* are also common. *In Bengal *sela-bagh* and *go-bagh* are words used ; in Central India, *nahar ;* by the Sonthals, *tut ;* by other hill people of Bengal, *pulung ;* in Gorakhpur the tiger is known as the *nungya-char ;* in Tamil and Teluga he is called *pali-reddapuli ;* in Malabar, *parampuli ;* by the Canarese, *huli ;* in Thibet, *tagh ;* in the Lepcha country, *sahtong ;* in Bhotan, *tukt ;* in Burmah, *kya ;* and in China, *lau-chu* or *lau-hu*. *Names.*

One of the first tigers ever seen in Europe was one sent to Athens by Seleucus. The first that reached *Tigers Exhibited.*

* Fayrer.

Rome was exhibited at the dedication of the theatre of Marcellus (a. u. c. 743). Claudius afterwards showed four together. Pliny says that while panthers were brought to Rome in hundreds a single tiger was considered an extraordinary sight (Hist. Nat. lib. viii., c. 17) Varro (de Ling. Lat.) said that tigers were never taken alive. Tigris vivus capi non potuit : and not only was it very rare, but it was deemed exceedingly beautiful ;—"Tantum autem praestat pulchritudine tigris inter alias feras quantum inter volucres pavo." The Emperor Philip on one occasion exhibited ten tigers together with other wild animals. It is not unlikely that the tigers exhibited at Rome came from the Elburz mountains, the ancient Hyrcania.

> "Duris genuit te Cautibus horrens
> Caucasus, Hyrcanaeque admôrunt ubera tigres."

In the East tigers have been exhibited in the gardens of princes and rich men from immemorial times, as they are now. Every Raja has a mangy old tiger in a wooden cage somewhere about his premises. When Nawab Wajid Ali of Oudh was deposed, a dozen tigers were sold to the highest bidder at ten rupees each.

Colour. The colour of tigers differs in different localities, and animals with exceptional colouring are met with from time to time. Baldwin says "I have seen skins of every shade ; some light yellow with numerous and narrow stripes, others very dark yellow or rufous with broad transverse bars of black. Some have a kind of

double row of stripes, and some have small yellow spots in addition to the stripes, and I have seen a white tiger."

Size.

A great diversity of opinion exists as to the size of tigers. Measurements are carelessly taken in the jungle. One man measures with a string, another with his pocket handkerchief, and a third with his outstretched fingers. Equally positive, though less precise sportsmen, estimate the dimensions of a tiger in a few triumphant glances as he lies vanquished before them, and put him down as ten or eleven feet long according to the degree of elation they experience at his death. Some sportsmen, moreover, measure their tigers before, while others measure them after they are skinned and pegged out. I need hardly say that the former is the correct method. *A tiger killed by "Deccan Ranger" measured as follows before being skinned ;—head to occiput, 1 feet, 8 ; occiput to insertion of tail, 4 feet, 8 ; tail, 3 feet, 2—total 9 feet 6. The skin on being removed from the body and pegged out came to 12 feet 2. This tiger stood 3 feet, 9 in height at his shoulder, and weighed 447 lbs. We occasionally hear of varieties of the tiger of different proportions. A sportsman in the *Oriental Sporting Magazine*, September 1872, writes thus :—"I think the measure of a full-grown male tiger in Lower Bengal

* *Oriental Mag.*, August 1876.

is from 9 to 10½ feet; and of a tigress from 8 to 9½; but all my experience has been of heavy, short-tailed tigers. I have never seen the lighter, longer beast." Baldwin (Large and Small Game of Bengal) says that though there is much diversity in the colour, shade, size, and general appearance of tigers, they all belong to the same species. Of many large tigers this sportsman has seen measured fairly from the tip of the nose down the centre of the head and back to the tip of the tail only one exceeded 10 feet in length; —and that one only measured 10 feet 2. He adds that a skin freshly taken off will often stretch a foot and more, if pegged out tight.

Noises. The ancients said,—tigrides indomitæ rancant, rugiuntque leones *

Dunlop (Hunting in the Himalayas) speaks of the tiger's charge as being accompanied by "a succession of rapid, startling, coughing growls." Captain Baldwin has often heard tigers when going their rounds at night make "a low, yawning whine, ending with a kind of subdued grunt not unlike distant thunder." Colonel Macmaster (in his admirable Notes on Jerdon's Mammals) describes the call of one tiger to another at night as resembling the faint, grunting low of a cow buffalo to herself,—"yet so distinct, not to say awful, that it is not to be mistaken."

* Auct. Carm. Philom. 49.

Some sportsmen assert that, after a heavy meal, the joints of a tiger make a cracking noise as he stalks lazily along. (*Vide* Past Days in India, by a late Customs' Officer, p. 279).

Climbing.

A writer in the *Indian Sporting Review*, vol. i., No. 3, new series, records two instances of tigers ascending trees. One climbed up a pipal tree to a height of 25 feet, another ascended 19 feet. In Mrs. C. Mackenzie's *Life in the Mission Camp*, vol. ii., p. 161, there is a similar account of a tigress climbing a tree. In Shakespear's *Wild Sports of India*, p. 115, we read of a tiger shot in a tree. The ascent is probably made by a spring from the ground; for, as Captain Baldwin observes, owing to the comparative weakness of a tiger's loins and hind quarters he cannot clamber up a tree like a leopard or a bear.

Takes to water.

A few years ago Captain F. W. Bennet, R.N., harpooned a tiger off Singapore that had swam over from Sumatra. An account of the adventure, which is well remembered in the Straits, appeared in *Baily's Magazine*, and was subsequently reproduced in the *Oriental Sporting Magazine*, September 1873.

The following is extracted from Shakespear's *Wild Sports of India*, p. 265 :—"In the very hot weather the wild animals by evening time become very thirsty. The tiger, hot-blooded animal as he is, rushes into the water, and throws himself along the surface in the shallow at full length—he is in ecstasy."

Tree-scratching. Sportsmen see the trunks of trees in the jungle torn and scored by tigers. This is apparently done, not merely by rearing up and clawing the bark, but often by running up the tree until a good firm hold is obtained with the claws. What is the object of this? Is it to sharpen, or clean the claws?

Habitat. Tigers are very partial to particular localities. Year after year a tiger will be found and shot in the same ravine. As soon as one vacates his shady corinda bush and deep pool in the river bed another steps in to take his place. Tigers are very partial to ruins. Two or three at a time may be seen lying stretched out on the top of an old wall, or crouching amid the *débris* of some long-abandoned temple. Sir John Malcolm was obliged to turn out a tigress and her cubs from one of the old palaces at Mandu before taking up his abode in it (vol. i., p. 32, *Malcolm's Central India*).

"Now the fell tigress stains with dripping grove,
"Of kids just slaughtered that neglected floor."

The Ramayana.

Food. Colonel D. Hamilton, of the Madras Army, in a letter published in the *Times* in 1873, asserted that tigers always preferred putrid to fresh meat. "I have often," he writes, "killed a bison and left him untouched in the jungle, and as long as he was fresh the tigers, although they would come and walk

round, would never touch him. The moment the bison became putrid the tigers would gorge themselves and never leave off eating, if undisturbed, until the whole was consumed." Before a "kill" is completely devoured it is often far advanced in decomposition.

Tiger fat is first-rate stuff for oiling guns. Shakespear got thirteen quarts of fat from one tiger (p. 85). *Tiger fat.*

In the *Oriental Sporting Magazine* for September 1872, some useful hints are given on preserving skins in the jungle. The following preparation, which will keep fresh for a long time, may be used in default of other arsenical soap. Take a seer and a half of country soap; cut it into thin slices; put it into a pot, over a gentle fire, mixed with a little water; stir it with a "spirtle," and as soon as it is dissolved, add six chittaks of potash (*suji matti*) and two chittaks of chalk (*khari matti*) pounded, stirring all together. Then take the pot off the fire and add one seer of arsenic (*hurtal*), well pounded and half a seer of burnt alum (*phitkiri*) also pounded: lastly add three chittaks of camphor (*katur*) dissolved in spirits. *Skins.*

In the *Ayin-i-Akbari* there are some very curious accounts of native methods of destroying tigers practised in the time of the Great Emperor, *e.g.*—

1. The cage-trap, with kid bait.
2. Poisoned arrow in a bow ingeniously arranged in tree.

3. Glue spread on leaves and grass around bait: tiger rubs his head in it and his eyes get closed up until he becomes helpless and frantic.
4. A trained buffalo is ridden at the tiger, who charges and gets impaled on the horns!

—*Vide Oriental Magazine*, October 1876.

In the *Oriental Annual* for 1838, there is an account of a combat between a Curg and a tiger; ending up by the Curg "laying open the tiger's skull from ear to ear with his knife, which was something like the coulter of a plough, and two feet long. He then cooly wiped his knife on the animal's hide; made a dignified salaam to the Raja, and retired."

THE LION.

The Guzerat Lion.

THERE is a good sketch of the Guzerat lion in the Transactions of the Zoological Society for the year 1833.

Manes.

The following is from the Garden Guide of the Zoological Society:—The lion is subject to great individual variation both in size, colour, and expression; so that it is difficult to determine whether the lion of Asia really differs more from the lion of South Africa than the lion of South Africa from that of Ashantee, Barbary, or Nubia, or than individuals of any of these races

differ from each other. It was alleged some time since that the Asiatic lion was maneless. But the Guzerat lion presented by the Nawab of Junagar in Kattywar, through Sir Erskine Perry and Colonel Jacob, which lived in the Menagerie from 1845 to 1857, was as thoroughly maned as any African individual of the species. In colour lions vary from a deep red chestnut-brown to grey so silvery as to have given rise to the belief that a race of white lions exists in South Africa. The colour of the mane varies equally.

Landseer, who used to visit the gardens to sketch for his models of the lions at the foot of the Nelson monument, said that these Junagar lions were the finest specimens of the animal he had seen. For several years a couple of maned lion skins, shot by General Jacob in Guzerat, might have been seen on the walls of the museum of the Bombay Branch of the Royal Asiatic Society.

Lioness and Young.

The lioness, I believe, goes about 108 days with young. The young are born with open eyes; but are helpless for some weeks after birth. For some days the lioness never leaves them for a moment, allowing leaving her mate to provide for her wants; and it is not until they have attained the age of three months that she weans them. By that time the crisis of dentition is past, and she absents herself from the lair during several hours each day to supply them with the flesh of sheep, carefully divided into small

fragments. At the age of four or five months the cubs follow their mother at night to the confines of the jungle, where the lion brings them their food. At from eight to twelve months the cubs begin to attack sheep and goats, when two years old lions are capable of killing a horse or a camel. A lion lives from thirty to forty years, occasionally much longer.—Gerard.

Food. A lion will eat nearly the whole of a donkey, with many of the bones, in a night. In the Zoological Gardens, Regent's Park, 11 lbs. of meat a day is the allowance for a full-grown lion.

Sport. Captain Mundy, speaking of the lion in India, says that it is reputed to afford better sport than the tiger, its attack being more open and certain. Another sportsman, Mr. Boulderson, states that the lion is generally stronger and more courageous than the tiger. "When they see their enemies approaching, they spring out to meet them open-mouthed." Sterndale in his *Seonee* (p. 326) speaks of the lion's inferiority to the tiger in size, strength, and ferocity.

Lions Exhibited. Cornelius Scipio Nasica exhibited 63 lions, Scylla 100. At the opening of Pompey's Theatre 500 lions were slaughtered in five days; and on a subsequent occasion he caused 100 lions and 100 lionesses to be slain.

Lion Steak. Anderson, in his *River Okoango*, says that on one occasion he dined off lion, and found it very palatable and juicy; not unlike veal, and very white. But M.

Delegorgue says that when he thought of trying lion's flesh the odour was so rank and disgusting that he had not the courage to taste it.

In India we sometimes spear a panther who rashly intrudes on the dominions of the boar; but young Anchises of Troy, friend of our school days—used to make his lair of lion skins, the spoil of his lance.—Hom. Hymn. in vener. 160.

And Achilles, at six, leaving his top and marbles—

> "Aloof like wind his little javelin flew
> The *lion* and the brinded boar he slew."
>
> Cary.

This was all very well for young gentlemen; but the shepherds of those parts were not equal to David—

> "Thus the night-watching shepherds strive, but vainly, to repel
> The angry lion, whom the stings of want and rage impel."
>
> Chapman's Homer.

THE PANTHER.

Classical panthers.

In ancient times panthers seem to have been a drug on the market. Pompey exhibited five hundred and ten at Rome, and Augustus Cæsar five hundred and twenty.

Assam panthers.

Shillong was at one time a favorite sanitarium for panthers. In the course of a year a Major Montague

caught in one trap in his compound twelve panthers and one tiger.

A village panther. Standing on the platform from which the villagers draw water I shot a panther in a nullah a few months ago. It was lying in a shallow pool, within a stone's throw of the village.

Panther noise. Baldwin considers the characteristic cry of a panther to be a series of measured grunt or coughs, repeated four or five times.

THE LEOPARD (chita).

Chita noises. BLYTH speaks of the Chita's "bleating men"; and Jerdon says that a chita of his made a "plaintive cry" when away from his dogs, to whom it was much attached.

Jerdon's chita. This chita of Jerdon's used to follow its master when he went out on horseback just like a dog. Occasionally it would sit down to rest, and then come leaping along to catch up the horse.

Chita climbing. It would climb on any high object, the stump of a tree or a stack of hay and from this perch watch all around, as if looking for prey.

It is only recently that the chita has been accurately figured and described. Linnaeus was unacquainted with it. Buffon calls it the guepard, a name by which its skin was described in commerce with Senega

Bernier's tame leopard, "the Guz," Buffon's "guepard," Tavernier's "Ounce" and our "chita" are the same: as are the f. guttata of Herman, the f. jubata of Schreber, and the f. venatica of Smith.

"Lakshmi" a celebrated chita that belonged to N. Duli Khan of Naldrug, many years ago, and was afterwards presented to Mr. J. Farquharson, who handed it over to the Sholapore hunt, killed upwards of 150 antelope, chiefly bucks, in 12 months. She seldom failed to pick up the game in 400 or 500 yards.—*Oriental Sporting Magazine*, Oct. 1830.

THE OUNCE (Snow Leopard).

In former days Wilson rarely saw the Ounce; but lately he seems to have been more fortunate, for a correspondent, writing to the *Pioneer* of Feb. 26th, 1877, says:—A few days ago I saw with a man who cures skins at Rajpore half-a-dozen white-leopard skins. The animals were shot by Shikarry Wilson. In 1865, Wilson brought a live specimen to Missourie which he intended taking to England. Circumstances, however, prevented this and he afterwards passed into the hands of a well-known naturalist who kept him in a cage at Jerapim amongst his collection of Himalayan animals; but, though well-cared for, it died soon after the beginning of the hot weather.—Cf. Mountaineer's *Summer Ramble in the Himalayas*, p. 75.

THE RED LYNX* (Felis Caracal†).

(*Pers.*—SIAGOSH.)

Description. Jerdon.

GENERAL colour, unspotted vinous-brown, or bright fulvous brown, paler beneath, almost white in many; tail concolorous with the body, tapering, with the tip black; lower parts with some obscure spots, at times distinct, on the belly, flanks, and inside of limbs: ears black externally, white within, taper gradually to a fine tip, which is surmounted by a pencil of long black hair; a black spot where the moustaches grow, and another above the eye, also a line down each side of the nose.

Size.

Length, 26 to 30 inches, tail, 9; ear, 3; height, 16 to 18 inches.

Distribution.

Though everywhere rare, the lynx is found in many parts of India. It appears to be unknown in the Himalayas and Bengal: but occurs in Central India and in Khandeish, Guzerat and Cutch. The Maharaja Gaikwar keeps a pack of trained lynxes for hunting small game.

Compiler.

The lynx has been the subject of many fables among the older naturalists. It is the provider

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* Jerdon (1874), p. 113; Goldsmith's *History of Man and Quadrupeds*, (Smith Elder & Co.) 1838, vol. ii., p. 42.

† Caracal, Turk., black ear. Siagosh, Pers., black ear. The word ounce, applied both to felis jubata, and the snow leopard, is a corruption of the Greek lynx.

and messmate of the lion; imitating the royal voice, and escaping the royal wrath by climbing trees. It is the animal with the shortest memory of all other quadrupeds. It can see through walls and mountains. Its urine hardens and becomes a precious stone. It was harnessed to the car of Bacchus when he conquered India, Ariadne was borne to heaven by the lynx team of Bacchus, &c., &c.

BEARS.

ELLIOT (Cata. Mamm. S. Mahratta Country) says, that the Indian black bear's principal food seems to be black ants, termites, beetles, fruit, seeds of the cassia fistula and date and honey. Pliny considers the bear's love for honey to be mingled with a desire for phlebotomy at certain seasons. The bear after his winter sleep, finding his eyes dim and his head heavy, applies to the bees as to skilful oculists, that in revenge for robbing them of their honey, sting him angrily about the face, which by letting much blood relieves him at once from his opthalmia and his headache, (Nat. Hist. viii., 54). Aristotle (Hist. Anim. viii., 5), asserts that the bear spoils the bean-fields and devours every kind of pulse. Food.

Bears have been occasionally speared in India. It Bears speared.

on record that Col. Macmaster, the well-known sportsman and naturalist, speared one from horseback.

Grease. The hill bears carry much more grease than the bears of the plains. Baldwin has obtained as much as eleven bottles from a hill bear; but never more than four from the bear of the plains. The brown bear becomes very fat by the end of October. Then the grease is not only most abundant but in the best condition. Baldwin thinks that the best grease is that which lies so thick on the bowels: other writers prefer the fat on the back and outer parts, between the skin and the carcass.

A cricket-ball. Adams saw a little black bear in Cashmir, convert himself into a cricket ball:—"On firing the contents of my first barrel into his body, he gave a loud grunt, and unconscious of the direction from which the shot came, cantered to within a few yards of me, when a second bullet through his loins brought him up, and he stood hesitating for a moment, then coiling himself into a ball, he rolled down the hill-side, bounding from one prominence to another like a huge cricket ball, until his progress was arrested on a flat, when he uncoiled himself, ran to the next declivity and rolled to the bottom."

THE BISON (Gaur).

Bison runs.

THE bison occurs in the W. Ghats, Animalli hills, Nilgherries. the Wainaad, the Mahableshwar hills, the Palni hills, the Shandamungalam range, and the Shevaroys. It is found also in the upper valley of the Narbadda and on the banks of the Kanar river.

Height.

A writer in the *Oriental Magazine* for September 1876, states that in Burmah he has killed bison. "All but twenty-one hands high." In the neighbourhood of Vizianagram this sportsman found what he considered *a small breed* of the true *bos gaurus;* but a cow which he shot measured fifteen hands.

Food.

The chief food of the bison seems to be the various grasses, the castor-oil plant and a species of convolvulus, but he will eat almost any species of grain cultivated in the hills.—Jerdon.—Hodgson asserts that they never venture into the open to depredate the crops.

THE BUFFALO.

Valmiki on buffalo shooting.

IN the time of Rama sportsmen appear to have hunted in the rains. "Then at that charming season I, longing to breathe the air, went forth with bow and arrow in my hand to seek for game, if haply by the river side *a buffalo*, or elephant or other animal might cross at eve my path coming to drink." *The*

Ramayana, (trans. Monier Williams.) It would take a well-directed arrow to kill a buffalo.

It sometimes takes a good many bullets; and bullets have not infrequently been found flattered without penetrating the hide. Too little powder in these cases, I should say. Assam and the Central Provinces are the best and most accessible hunting grounds.

YAKS.

Mrigamanda.

To quote the Ramayana once more;—

"The bear, the yak, the mountain roe
Their birth to Mrigamanda owe."

Griffith.

The domestic yak.

A friend of mine, who has been a good deal among yaks, assures me that the domestic yak is shot extensively by the British subaltern out on the trail in Thibet. The villagers turn herds out to graze without any one to tend them. They become very wild; and are not readily distinguishable from their undomesticated brethren. The wild ones wander about singly or in small herds, preferring secluded valleys to open hill-sides, passing the day among the snow, where like hill deer and bears they may be seen at midday stretched out at full length asleep.

WILD SHEEP.

THE *ovis ammon*, says Hooker (vol. 1, p. 234) stands from four to five feet high, and measures seven feet from nose to tail; it is quite a Thibetan animal and is seldom seen below 14,000 feet, except when driven lower by snow. I have seen it as high as 18,000 feet. They are long-legged calfish-looking animals. Ovis ammon.

For an account of the urial see Adams's Art. in Pro. Zool. Soc., Lond. 1858. Urial.

The urial feeds chiefly at night, repairing at daybreak to the hill-sides and to inaccessible places under the rocks.

Baldwin declares the bharal, urial, ovis ammon, and other species of wild sheep to be the most shy, cunning and difficult to approach of all wild animals except the markhor and ibex. Difficult of access.

THE INDIAN (Sasin) ANTELOPE.

V. ARTS. by Hawkeye on antelope, &c. *South of India Observer*, 1870. *Ind. Sport. Rev.*, No. vii, September 1846 and 1847, pp. 17, 91 and 92. *Oriental Sport. Mag.*, August 1870, p. 1322, and October 1870, p. 1450. *Ind. Sport. Rev.*, No. xi., February 1831. Antelope. Antelope spearing.

Adams writes,—The black buck (Indian Antelope) rivals any of the deer tribe in grace and elegance as it does in swiftness of foot. On favourable ground it

may safely be said, in the face of the famous controversy that has been raging for the last thirty years, that no horse can run down a strong unwounded buck.

On the plains of India the antelope congregate in great herds. Jerdon has seen in the neighbourhood of Jalna in the Deckan, some thousands together; and round the Government Cattle Farm at Hissar, they have been observed in herds calculated at eight or ten thousand.

THE FOUR-HORNED ANTELOPE* (Tetraceros Quadricornis).

(*Hind.*—DODA CHAUKA AND CHAUSINGHA. *Mahr.*—BEKRA. *Canar.*—KOND-GURI. *Tel.*—KONDA-GURI).

Description. Jerdon.

HORNS in the male only, erect, slightly bent forwards at the tip, round, subulate, slightly ringed at the base, situated far back on the frontal bone; an additional pair of small horns situated between the orbits, short, conical, sometimes replaced by a mere bony knob; eye-pit moderate, linear; muffle large; feet pits in the hind feet only; canines in the males. Colour, uniform brownish bay above, lighter beneath,

* Jerdon (1874), p. 274; Baldwin's *Large and Small Game of Bengal*, p. 209; Kinloch's *Large Game of Thibet*, p. 54, (2nd series).

and whitish inside the limbs and in the middle of the belly; fore-legs dark, also the muzzle and edge of the ears, which are white within, with long hairs; fetlocks dark within, with more or less distinct whitish rings. The hoofs are long, slender and upright, and the animal walks as if on tiptoe. Kinloch.

Length from 40 to 42 inches; tail, 5; ear, 4¼; height at shoulder 24 to 26 inches; at the croup a little higher. Anterior horns up to 1½ inch; posterior horns 4 to 5 inches.

The four-horned antelope is found throughout India, to which it is exclusively confined. It frequents jungly hills and open forests in the plains, not occurring in the dense woods of Malabar, nor in Lower Bengal. It abounds in the hills of the Eastern Ghats from near Madras northwards, whence it extends over all the wooded parts of Central India; and on the west is found in parts of Mysore, and in the jungles that border the Western Ghats. It is unknown in the valley of the Ganges; but occurs at the foot of the Himalayas in the more open forests. It is said to occur rarely in the Western Panjab and Sindh. Distribution.

The four-horned antelope holds its head low, like the hog-deer and barking deer; and the pace, at starting, is like that of the musk deer, not a trot, but a bounding leap; and not very fast. They are usually found singly, or in pairs. They conceal themselves in long grass, or among low bushes and somewhat resemble Characteristics. Baldwin. Kinloch.

hares in their habits. They are seldom to be seen out feeding, but usually jump up at the feet of the hunters and bound away suddenly.

Compiler.

They are easily domesticated. I kept one that divided his time between the drawing-room and the stable, being equally familiar with my children and the horses.

THE SWAMP DEER* (Rucervus Duvaucellii).

(*Hind.*—BARASINGHA, GHOND. *Nepal Terai.* —BARAYA. *Terai.*—MAHA. *Kyarda Dhun.* —JHINKAR. *Central India.*—GAONI).

Description. Jerdon.

THE horns are not so dark, rough and knotted as the Sambhar's; but very large and curving well outwards, with basal antler and more or less branched summit, the lower branches sometimes simulating a median tine. The neck and fore-quarter lighter than those of the Sambhar; and the hair finer and more wooly. Colour in winter dull, yellowish brown, bright rufous or chestnut in summer, paler below and inside the limbs, white under the tail. The female is lighter, of a pale dun, or whity-brown colour. The young are spotted.

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* Jerdon (1874), p. 254; Baldwin's *Large and Small Game of Bengal*, Chap. xvii., p. 169; *Indian Sporting Review*, vol. xviii., p. 49.

Size. Length nearly 6 feet; tail, 8 to 9 inches; height, 11 to 11½ hands, (44 to 46 inches). The horns are generally under 3 feet in length.

Distribution. The swamp deer is found in the forest tract at the foot of the Himalayas from the Kyarda Dhun to Bhutan, and is very abundant in Assam, inhabiting the islands and sandbanks of the Brahmaputra, extending down to the eastern Sunderbans. It is also found in Central India.

Habitat. Hodgson says that it never enters the mountains of the Himalayas, nor even habitually frequents the depth of the forest; but has its lair on the skirts of great forests amidst swampy and grassy glades. Baldwin tells us that it never even inhabits the forest curved slopes of the lowest ranges, but keeps strictly to the grassy and marshy plains below.

Character. It is very gregarious, associating in large herds. A writer in the *Indian Sporting Review* thus describes a herd of swamp deer. The plain stretched away in gentle undulations towards the river, distant about a mile, and on it were three large herds of Barasingha (swamp deer) feeding at one time: the nearest was not more than 500 yards from where I stood: there must have been at least fifty of them, stags, hinds and fawns, feeding together in a lump, and outside the herd grazed three most enormous stags. Then the herd went off in earnest, showing a perfect forest of antlers, and the clatter of their

hoofs on the hard ground was like the sound of a squadron of cavalry going to water.

THE SPOTTED DEER* (Axis Maculatus).

(*Hind.*—CHITAL. *The Male.*—JHANK.)

Description. Jerdon. GENERAL colour yellow or rufous-fawn, with numerous white spots, and a dark dorsal streak from the nape to the tail; head brownish and the muzzle dark; chin, throat and neck in front white; lower parts and thighs internally whitish; ears brown externally, white within; tail longish, white beneath. The basal tine is directed forwards, and in old individuals has often one or two points near the base. The horns are thin, long and smooth, and exhibit great variety in shape, length and curve. Length, about 4½ to nearly 5 feet; height at shoulder 36 to 38 inches.

Size.

Distribution. This exceedingly beautiful deer is found in many of the forests and jungles of Central India, both on hill and plain. It is very abundant on both sides of the Narbadda in suitable localities. In the Western and Eastern Ghats and the Northern Circars we also find it. The lower and outer ranges of the Himalayas and the Sunderbans are also well stocked with it.

* Jerdon (1874), p. 260. Baldwin's *Large and Small Game of Bengal*, chap. xvii., p. 171; Kinloch's *Large Game of Thibet*, 2nd series, chap. ix., p. 28.

Habitat.

The spotted deer particularly delights in low hills intersected by water-courses. It is never found very far from water. In the hot weather it is often found in Central India in tiger cover deep in the jungle.

Chital and Fallow deer.

In general appearance the *chital* resembles our fallow deer; but the horns of the former terminate in sharp points, while those of the latter are palmated. Moreover, the colouring of the fallow deer is less brilliant.

Character. Kinloch.

The spotted deer is generally found in herds of considerable size. As many as a hundred have been observed together. It is a shy and retiring animal, lying quiet in the densest thickets during the heat of the day, and if disturbed generally attempting to elude observation by concealment or by trying to sneak quietly away. It might be expected that such a brightly-coloured animal would be very conspicuous in the forest; but this is far from being the case; unless it moves, few beasts are more difficult to see. The colour of its skin harmonizes with the dead leaves and grass, while the white spots are not distinguishable from the little flecks of light caused by sunshine passing through the leafy branches.

> "And a deer came down the pathway,
> Flecked with leafy light and shadow."
>
> Longfellow.

Bark. Kinloch.

On being disturbed, or on detecting the presence of a beast of prey, the *Chital* utters a sort of shrill

bark, that can be easily distinguished from any other noise in the jungle. The stag's cry is a peculiar moaning kind of bellow, usually heard at night.

The sportsman should seek the spotted deer early in the morning, then they may be found feeding in the open glades. Later on they retire to rest in shady and secluded spots. March, April and May are the best months for stalking in the lower ranges of the Himalayas. A good deal of grass has then been burnt, and the deer are easily found in the low hills near water.

Shedding Horns.

They appear to have no regular time for shedding their horns. Stags with hard horns, horns in velvet and no horns may be shot in the same week.

Herding. Campbell.

Campbell says that in the extensive jungles of the Deccan, watered by large rivers a wounded chital pursued on horseback will bring together five hundred others in a chase of a mile. The gallant Colonel is speaking here in round numbers; but it is really astonishing how chital roll together.

THE HOG DEER* (Axis Porcinus).

(*Hind.*—PARA. *Nepal Terai.*—KHAR LAGUNA).

Description. Jerdon.

GENERAL colour, a light chestnut, or olive-brown, with an eye-spot, the margin of the lips, the tail beneath, limbs within and abdomen white. In summer many assume a paler and more yellow tint, and get a few white spots; and the old buck assumes a dark slaty colour. The horns resemble those of a young spotted deer, with both the basal and upper tines very small, the former pointing directly upwards at a very acute angle, and the latter directed backwards and inwards, nearly at a right angle, occasionally pointing downwards. In winter when its coat is long it is much darker than in summer. Like the swamp deer the young of the para are spotted with white. Average length of a full grown buck from 42 to 44 inches from muzzle to root of tail; tail 8 inches height at shoulder 27 to 28 inches. Horns seldom exceed 18 inches.

Size.

* Jerdon's Manuals (1874), p. 262; *Indian Sporting Review*, No. vii., Sept. 1846, Index to the Principal Game Animals of the N. W. P.; *Bengal Sporting Magazine*, No. 26, vol. vii., Sept. 1836; *Oriental Sporting Magazine*, vol. iii., No. 31, p. 1261, July 1870; Baldwin's *Large and Small Game of Bengal*, chap. xix., p. 174.; Kinloch's *Large Game Shooting, &c.*, 2nd series, chap. x., p. 32; *Oriental Magazine*, June 1869; Cervine's *Group of the Sunderbans.*

Note.—Baldwin shot a hog deer, apparently in perfect health, whose body, on the skin being removed, proved to be one mass of maggots.

Distribution.

The buck drops his horns in April and ruts in September and October. The hog-deer is found throughout the Gangetic valley extending to the foot of the hills, and more rarely into Central India. It is also found in the Panjab and in Sindh, and is abundant in Assam, Sylhet and Burmah.

Habitat. Baldwin.

It is generally found in long grass and reeds on the edges of swamp and rivers; it is also found in thin forests when there is grass under the trees. Sandy island in large rivers, when covered with grass are also favorite resorts. It is rarely found far grown water, and when disturbed usually seeks shelter in the nearest swamp.

Characteristic.

The hog deer resembles the wild boar in colour, and runs with his head very low (hence the name) in a rather awkward manner, stopping suddenly from time to time. The bounding action which characterises most deer is conspicuously absent. Being generally found in long grass they are usually shot from an elephant.

Compiler.

They lie very close. I have shot a pair in the Terai right and left. They started almost from under my elephant.

They are not gregarious, being usually found singly or in pairs. February is the best time of year to shoot them in Upper India. By that time the long dry grass has been burnt, and only patches of cover are left, out of which the deer may be driven to be shot in the open. Their speed is not

Kinloch.

great and if they break cover into open ground, they

may be run down with dogs. Some have been speared from horse-back by the Mirat Tent Club, giving capital runs.

THE BARKING DEER* (Cervulus Aureus).

(*Hind.*—KAKAR. *Nepal.*—RATWA. *Bhot.*—KARSIAR. *Lepch.*—SIKKU. *Can.*—KAN-KURI. *Tel.*—KUKA-GORI. (*Perhaps the* MUNTJAC *of Java and Malayana.*) *The* JUNGLE SHEEP *of Madras Sportsmen*).

Description. Jerdon. Baldwin. Kinloch.

COLOUR, a bright rufous-bay; limbs internally, pubic region, and tail beneath, white; chin and lower jaw whitish; some white spots in front of the fetlocks of all four legs. Two facial creases in the form of a V give a curious troubled expression to its face. From the top of the head protrude two pedicles of bone covered with thick, bristly red hair, and about 3 inches long, on the summit of which the horns are situated. These horns fork near the top, the outer branches bending inwards. In adult specimen there is also a small tine near the base of the horns. The

* Jerdon (1874), p. 264; Baldwin's *Large and Small Game of Bengal*, p. 177; Kinloch's *Large Game of Thibet* (2nd series), p. 26; Hawkeye's *Description of the Muntjac.—South of India Observer*, 24th Sept. 1868.

horns are from 3 to 4 inches long, and the tips about 3 inches apart. Both male and female are furnished with two long and sharp canine teeth, with which they often inflict a severe wound. The female has no horns, but bristly, black tufts of hair on a knob in the spot where the horns of the buck are.

Average length of male, 42 inches; tail, 7 inches; height, 26 to 28 inches. The tongue, long and extensile.

Hodgson. Hodgson says of this curious little deer that it has no powers of sustained speed and extensive leap, but is unmatched for flexibility and power of creeping through tangled underwood. It has a weazel-like flexibility of spine and limbs, enabling it to pass with amazing rapidity through the low copse wood it frequents, and thus escape its great enemy the wild dog.

Jerdon. Jerdon has seen the kakar hunted with fox-hounds in the Nilgherries and easily run down, the ground being open. When it runs a curious rattling noise is heard like two pieces of loose bone being struck

Kinloch. sharply together. Kinloch believes that this is produced either by the jaws being closed with a clash, or by the tongue being struck against the roof of the mouth. The call of the kakar, from which it derives its name is only uttered when the animal is frightened or startled. It is rather difficult to convey a correct idea of it by words. Kinloch characterises it as a hoarse, resonant bark. The kakar is very impatient

of thirst, and is one of the first animals to be seen at the water's edge in the afternoon. When caught young it can be easily tamed, and makes a most interesting and affectionate pet. Kinloch speaks of one he domesticated. I myself kept a doe for more than a year, and she was greatly attached to our house and household and thoroughly at home. She would gallop into the house with her head low down, and then, after a few bounds and wriggles, dart out again to rush round and round the compound. The running with head carried low, the buck-jumping with arched back and wriggling of the spine are most characteristic movements. Compiler.

The barking deer, which seldom ascends to a greater height than 5,000 or 6,000 feet, is found all over the lower ranges of the Himalayas, and in the low hill ranges of the Central Provinces and Madras. It is quite a forest animal, and only comes to the skirts of the woods morning and evening to graze. Its habits are solitary; but occasionally two or more are seen together. Kinloch speaks of a sportsman shooting nine one morning in a small valley in Kumaon. It affords excellent venison. The skin which is tough and pliable is much prized by the natives for grain and other bags. Distribution. Habits.

THE MUSK DEER* (Moschus Moschiferus).

(*Hind.*—KASTURA. *Thib.*—LAWA. *Lad.*—REEB-JO).

Description. Jerdon. Baldwin.] COLOUR, usually dark fuscous-brown, paler beneath, the hairs being long and harsh, with hoary rings and a black tip; ears, internally and chin whitish; ears, large and erect; tail very short, hairy in females, almost naked with a tuft of hair at the end in males hair, exceedingly rough, long and bristly, it never lies smooth, but is in a semi-secret state always. Canines in both sexes, in the male they are about three inches long, and about as thick as a goose quill. They are slender, slightly curved and very sharp, and project downwards from the upper jaw. The musk is found in a praeputial bag at the end of the penis. It is about 1½ inch in diameter, and has a hole in the centre from which the secretion can be squeezed. A good musk pod is worth from Rs. 10 to Rs. 15. It is only after the cutting season that the pods are really

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* Jerdon (1874), p. 266; Baldwin's *Large and Small Game of Bengal*, p. 182; *The Forest and the Field* (Old Shikarry), p. 68; Markham's *Shooting in the Himalayas, passim*; Adams' *Wanderings of a Naturalist*, p. 96. For varieties of the musk deer see *Journ. As. Soc. Beng.*, vol. viii; Hooker's *Himalayan Journal*, vol. i., p. 250.—*Illustrated London News*, Sept. 6, 1862, p. 256.

musky and valuable. Length, 3 feet; height, 22 to 23 inches,—the smallest Indian ruminant.

Distribution. Jerdon. This little animal is found throughout the Himalayas, always at great elevations, in summer rarely below 8,000 feet (Baldwin has met it as high as 14,000), and as high as the stunted birch on the limits of arboreal vegetation and on the confines of the snow. It extends through the Himalayas to Central and Northern Asia, as far as Siberia. It is particularly hardy, and is little affected by the cutting blasts, bitter frosts and drifting snows of winter remaining on the higher grounds when the other animals have been forced below. Baldwin.

Habits. Hodgson. It lives in retired spots near rocks, or in the depth of forests. Winter is its rutting season. It gestates six months. Usually only one spotted fawn is produced in the cleft of a rock. In six weeks the young can shift for themselves and are driven off by the mother. It can procreate before it is a year old. It is easily tamed.

Characteristic. Markham. Col. Markham says that it is exclusively a forest animal, attached to particular localities, and making a form, like a hare, to lie in the sun on. It generally runs in bounds on all fours and often makes most surprising leaps, occasionally 60 feet on a gentle slope, several times successively jumping over considerable bushes each time. It is wonderfully sure-footed, and over rocky and precipitous ground is unsurpassed. It chiefly eats grasses and lichens. If twins are produced, they are kept apart, it being very solitary in

its habits even in infancy. The musk is milky for the first year or two, afterwards granular. The dung of the male smells of musk; but the body does not. The
Hooker. flesh is dark, red, and not musky. Dr. Hooker says, that the females and young are very good eating, much better than any Indian venison, he once tasted being sweet and tender. The musk deer on being started bounds away with a hiss like that of the gooral, bringing all four feet to the ground at once, and after proceeding a certain distance generally halts to look back, offering a fair, though small, mark. The animal will bound down the side of a precipice with extra-
Adams. ordinary ease. Far up near the extreme limits of vegetation, the musk deer has few enemies, and it accordingly remains in these solitudes until driven down by the actual approach of winter. Beneath the naked boughs and pale trunks of the birch it delights to dwell, nibbling a scanty fare from the moss-clad bank, or along the sward damp with snow water. Here the ounce is a rare visitor, and save the startling call of the cuckoo, there is nought in this bare inhospitable region to disquiet it.

THE SEROW* (Nemorhoedus Bubalina).

(*Nepal.*—THAR. *On the Satlej.*—EIMU. *Cashmir.*—RAMU).

"Natura il fece, e poi ruppa la stampa."

Description. Jerdon.

HORNS in both sexes, round, black and ringed; a small muffle; eye pits wanting, or small; large feet pits; no inguinal pits. Above black, more or less grizzled and mixed on the flanks with deep clay colour; a black dorsal stripe; fore-arms and thighs anteriorly reddish brown, the rest of the limbs hoary; beneath whitish. The hair is rather scanty, except on the neck, on which there is a thick mane, harsh and rough. The horns are seated posterior to the orbits, but below the crest of the frontals. They are annulated at the base and taper back to sharp points.

Size.

Length of male about 5 to 5½ feet; height at shoulder about 3 feet 2 inches, weight about 200 lbs. The horns which are present in both sexes vary from 10 to 15 inches in length, and 3 to 4 in circumference.

Characteristic. Markham. Kinloch.

This very curious and ungainly animal is described by Colonel Markham as combining the characteristics of a jackass and a tahir. Mr. Kinloch

* Jerdon (1874), p. 283. Kinloch's *Large Game of Thibet*, p. 18; Baldwin's *Large and Small Game of Bengal*, p 212; *The Forest and the Field*: Old Shikary, p. 70; Adams' *Wanderings of a Naturalist*, p. 220.

says that its habits and appearance comprise the peculiarities of the cow, the donkey, the pig and the goat.

Adams. Adams says that it has the legs of a goat, the horns of an antelope, and the bristles of a pig, while its general appearance is bovine. Its species really forms the link between the goat and the antelope.

Jerdon. The serow inhabits the precipitous wooded mountains of the central ranges of the Himalayas, from Kashmir to Sikhim. It is almost always found in the forests from 6,000 to 12,000 feet, and is solitary in its habits. It frequents steep slopes, where the cover is thick, especially in the neighbourhood of landslips. Although awkward in its gait; it rushes down the steepest declivities with fearful rapidity; but is, in general, not speedy and unable to jump well. It does not appear to be anywhere common, indeed Adams considers it the rarest of the wild ruminants.

It is very tenacious of life and bold; and it keeps

Kinloch. the wild dog at bay. Kinloch says, that though a fierce and dangerous animal when wounded, the serow is shy and difficult to find. When alarmed they utter a most singular sound something between a snort

Baldwin. and a screaming whistle. Owing to its unceasing vigilance, cunning and shyness very few serow are bagged. Through the day it remains hidden in almost inaccessible spots amidst the densest cover.

THE GURAL* (Nemorhoedus Goral).

(*Hind.*—GORAL. *Kasmir.*—PIJUR. *Satlej Valley.*—SAH).

Description, Jerdon.

COLOUR, dull rusty brown, paler beneath; a dark brown line from the vertex to the tail; chest and front of fore-legs deep brown; ears externally rusty brown; a large patch of pure white on the throat. The female is paler than the male, and the young are said to be redder in tint. Both sexes have short, black, annulated horns curving backwards.

Size.

Length about 50 inches; tail, 4; height at shoulder about 28 to 30 inches; horns, 8 inches.

The fur is somewhat rough, of two kinds of hair, and there is a short semi-erect mane in the male. It is very caprine in appearance; the back somewhat arched and the limbs stout and moderately long. It is well adapted for climbing and jumping.

Distribution.

It inhabits the whole range of the Himalayas, from Bhotan and Sikhim to Kashmir, at a height of from 3,000 to 8,000 feet.

It usually associate in small parties of from four to eight, or so; and frequents rugged, grassy hills, or

* Jerdon (1874), p. 285; Kinloch's (2nd series) *Large Game of Thibet*, p. 21; Baldwin's *Large and Small Game of Bengal*, p. 215; *The Forest and the Field*, p. 69; Adams' *Wanderings of a Naturalist*, p. 126.

rocky ground in the midst of forest. If cloudy, they feed at all hours, otherwise only morning and evening. When alarmed it gives a short, hissing snort answered by all within hearing. The female breeds in May and June, gestating for six months and bringing forth her young one usually, amid crags and rocky recesses. It is easily stalked, and procurable near most of our hill sanitaria. Baldwin says that, except the barking deer, the gural is the best known of any of our Himalayan quadrupeds. Kinloch thinks it affords an easy stalk on broken ground and a good school for the young sportsman. He characterises it as "miniature ibex shooting."

Baldwin.

Kinloch.

THE ELEPHANT.

NOTES.

"The beast who hath between his eyes
* A serpent for a hand."

Size. "THE stature of elephants, in general, may be rated between seven and nine feet, the former is the standard at which they are admitted upon the Company's establishment at the value of £65 each."—Williamson's, *E. I. Vade-mecum* (1810).

* The epithet anguimanus has been applied to the elephant. Lucr. 2,538, and 5, 1302.

The average height of 29 elephants put up to auction at Coimbatore, Madras, on June 7th 1876, was feet 7·69. The biggest was 9 feet, 5 inches; the smallest 4 feet, 2 inches

An elephant born in the Commissariat lines, Belgaum, in 1876 measured 3 feet 2 inches at its birth.

A large elephant will weigh from 6,000 to 7,000 lbs.

Birth in Captivity.

The following is an extract from the *Oriental Sporting Magazine* for April 1873, dated Dinagepur, March 16th.

† A somewhat unusual event in the life of an elephant, though not immediately connected with sport, may perhaps be deemed worthy of record. Some years ago the question of elephants breeding in a tame state was one not unfrequently discussed, and though it was generally admitted that they would breed in a state of captivity, the exception was, and I believe is, so rare that a really well authenticated case deserves to be put on record.

Of course elephants are occasionally born after the mother has been some time in captivity, and there are cases in which the paternity may be in doubt, but in this instance there can be no doubt at all, both the parents having been for many years in captivity and in the same hands. There is here a female elephant named Sundar, or the Beauty, and well named too,

† Elephants were bred and reared at Rome, Calumella, so highly thought of for his rural essays, says—"within our walls (Rome) we have seen elephants born."

for she is as good as she looks, and is as staunch with a fighting tiger in front of her as any one could wish. There is also a male elephant rejoicing in the name of Chogna, certainly not a beauty, and not of the most amiable disposition. These two animals were picketted under the same tree some two years ago in the month of Assin (15th September to 15th October about) when a party went out to Mangalbari for a day's shooting. During the night there was considerable uproar and these two elephants were supposed to be fighting and quarrelling with each other; the mahouts were of course asleep or too lazy to get up and see what was the matter, and as Chogna was supposed to be "must" there was nothing very unusual in a quarrel occurring, and nothing further was thought of the matter. Early in last September, however, Sundar became mysteriously ill and no one could tell what was the matter with her; all sorts of remedies were prescribed and tried; hot fomentations applied to reduce the swelling had no effect, and what was the nature of the malady was suspected by no one till one morning Sundar was found to be the happy mother of a little daughter. This unexpected event of course caused inquiries to be made, and then the night at Mangalbari was brought to mind, and there can be no doubt that on that occasion Chogna took advantage of his opportunity, and instead of quarrelling with, was making love to Sundar. The period of gestation in

this case appears to have been rather longer than usual. Twenty months and eighteen days is, I believe, the time usually allotted by the wise men of the East to elephants in an interesting condition, but in Sundar's case it was very close on two years before her baby was born. The infant was duly named Lakhipiari.

Williamson in his *E. I. Vade-mecum* (1810) says, that the period of gestation gives an average of about 22 months. The following are the remarks of the same writer on the defects of an elephant :— Gestation.

The principal blemishes in the eye of a native merchant are :—

1*st*.—A broken tail; or a deficiency of the forked hair at its termination. The former arises from the habit, elephants are in of laying hold of their opponents, tails with their trunks, and of twisting them so that, occasionally, they are absolutely snapped, or, perhaps, tumefy, and in the end sphacelate. The "points."

2*nd*.—An uneven number of claws to the feet: there should be five on each fore, and four on each hind foot.

3*rd*.—Bad tusks: that is such as are decayed, or, having been broken in contests, cannot be rendered ornamental. An elephant born with only one tusk is highly prized, as being sure to overwhelm its owner with good fortune.

4*th*.—Having a black, or spotted palate: either of

which is supposed to be an indication of bad health, as well as of misfortune.

5th.—Bad eyes; though sometimes we see very serviceable elephants totally deprived of sight, which travel admirably with burtherns. Blind elephants are peculiarly attentive to the words of command given by their mahouts.

6th.—The want of hair on the forehead, lean jaws, small, jagged ears, narrow feet, thin legs, short bodies, and a contracted barrel, are all objectionable, and become serious objects of attention in the purchase of this animal.

Load. An elephant ought to carry twenty-five maunds, or lbs. 2,000. The daily march should not exceed sixteen miles.

Price. In Williamson's time, an elephant of extraordinary bulk, and of remarkably fine points would sometimes fetch from eight to ten thousand rupees.

Keep. Williamson estimated the cost of keeping an elephant inclusive of servants' wages, at Rs. 40 a month.

Tennent tells us that, in Ceylon, exclusive of the salaries of higher officers attached to the Government establishments and other permanent charges, the expenses of an elephant looking only to the wages of his attendants and the cost of his food and medicines, varies from three to four shillings and six pence a day, according to his size and class.

The following details of an elephant's diet are extracted from Tennent's Great Work on Ceylon :—

An ordinary-sized elephant engrosses the undivided attention of *three* men. One, as his mahout or superintendent, and two as leaf-cutters, who bring him branches and grass for his daily supplies. One of larger growth would probably require a third leaf-cutter. The daily consumption is two cwt. of green food, with about half a bushel of grain. When in the vicinity of towns and villages, the attendants have no difficulty in procuring an abundant supply of the branches of the trees to which they are partial; and in journeys through the forest and unopened country, the leaf-cutters are sufficiently expert in the knowledge of those particular plants with which the elephant is satisfied. Those that would be likely to disagree with him he unerringly rejects. His favourites are the palms, especially the cluster of rich, unopened leaves, known as the "cabbage," of the cocoanut, and areca; the young trunks the palmyra and jaggery (*Caryota, urens*) are torn open in search of the farinaceous matter contained in the spongy pith. Next to these come the varieties of fig-trees, particularly the sacred *Bo* (F. religiosa)—the *pipal* of India—which is found near every temple, and the *na gaha* (*Messua ferrea*), with thick dark leaves and a scarlet flower. The leaves of the Jak-tree and bread fruit (*Artocarpus integrifolia* and *A. incisa*), the wood apple (*Ægle Marmelos*), Palu

(*Mimusops indica*), and a number of others well known to their attendants, are all consumed in turn. The stems of the plantain, the stalks of the sugar-cane and the feathery tops of the bamboos, are irresistible luxuries. Pine-apples, water melons, and fruits of every description, are voraciously devoured, and a cocoanut when found is first rolled under foot to detach it from the husk and fibre, and then raised in his trunk and crushed, almost without an effort of his ponderous jaws.

The grasses are not found in sufficient quantity to be an item of his daily fodder; the Mauritius or the Guinea grass is seized with avidity, lemon grass is rejected from its over-powering perfume, but rice in the straw, and every description of grain, whether growing or dry; grain (*Cicer arietinum*), Indian corn, and millet are his natural food. Of such of these as can be found, it is the duty of the leaf-cutters, when in the jungle and on march, to provide a daily supply.

Captain Hood writing in the *Oriental Sporting Mazagine* for July 1870, gives the following dietary for Bengal and Assam :—

Cold Weather.—Tarra, bamboo, pital, burgot, lahkar, pahkar, jangli dhumar, dhudea and sugar-cane.

Hot Weather.—Plantain trees, bamboo, pipal, &c.

Rains.—Kassaila grass, kattra grass, a few plantations, pipal and bamboo.

On this subject Captain Johnstone's admirable arti-

cles on elephant feeding in the April and May Numbers of the *Oriental Sporting Mayazine*, 1870, should be consulted.

After exposure to wet elephants should be allowed to eat freely of bamboo leaves. Exposure to wet.

The following *massala* is recommended under such circumstances :—*Mainsul*—a piece as big as a bean ; *bishnak*, one pice worth ; *askur karra*, one pice worth ; *bichora*, one pice worth ; *singrip*, one pice worth ; mix these ingredients with ¼ seer of *atta* and brandy, and make it up into small pills, one for a dose.

An elephant is in perfect health, if when smartly patted with the open hand, the hairs penetrate one's fingers, and make the flesh tingle. Continual movement is another sign of health. An elephant should always be flapping his ears, whisking his tail, coiling, uncoiling and swinging his trunk, shifting and swinging his feet. The skin should be a bluish black, and the spots on the face and trunk of a bright yellow ochre colour. The skin at the junction of the toenails and feet should always be moist, the eye bright and clear, the pupil, the size of a bead. For the diseases of elephants see an article in the *Oriental Sporting Magazine* for June, 1878, page 1238. Health. Forsyth.

The first elephant taken to England was received in 1255 by Henry III., as a present from the King of France. It was landed at Sandwich, and conveyed to Elephant taken to England.

the Tower of London, where it only lived about two years.

In ancient times performing elephants were exhibited as they are now.

Performing elephant.

Aelian describes the dances performed by the elephants of Germanicus, and the banquets they partook of reclining upon couches, and eating from vessels of gold and drinking from rich goblets with moderation and decorum. Pliny tells us of their rope dancing, four of them traversing a rope bearing a litter which contained one of their companions who feigned to be sick. Seneca speaks of an elephant who at a word from its African keeper would kneel down and move in that attitude along a rope. Suetonius says that an elephant in the presence of the Emperor Galba, climbed up an inclined rope to the roof of the theatre, bearing a rider. Arrian says that he saw an elephant playing upon cymbals while others danced around him. Busbequius, who was Ambassador from the Emperor of Germany to Constantinople in 1555, saw an elephant throwing up a ball with his trunk and catching it again. An elephant belonging to the Duke of Devonshire—which died at Chiswick in 1822—used to exhibit her adroitness by opening a bottle of soda water with her trunk, and drinking off the contents without spilling a drop.

Etymology.

The etymology of the word elephant is somewhat uncertain. The word *elephas* in Greek was originally

only applied to the tusks, and signified *ivory*. Homer, Hesiod and Pindar use it in this sense. Indeed at that early period the animal was unknown probably to Greek travellers. Homer brings false dreams through an ivory-gate *dia pristou elephantos*. *Eleph* in Hebrew means an *ox;* the Romans when they first caught sight of the elephant in Lucania, towering above the ranks of the army of Pyrrhus they called it the *Luca bos*. (Lucret. 5.1301.) The *antos*, however, remains unexplained; and Pott. (Etym. Forsch. 1 lxxxi.) conjectures it to be *hindi*—eleph-hindi=bos Indicus. Bochart refers the first two syllables to the Arabic article *al* and *fil* an *elephant*. But a Sanscrit name for the elephant is *ibha*, and the second syllable may be found here. Pictet derives the word from the Sanscrit *Airavauta*, *Son of the ocean*, in allusion to the animal's love of water.

PIG-STICKING.

THE following is extracted from the *Oriental Sporting Magazine* for November 1873 :—

Hints for the pig-sticker.

Whatever the strength of the party, not more than three riders should follow the same hog, as a larger number will interfere with good sport by being in each other's way, as well as by preventing the over-matched boar from showing his finest qualities as a

fighter; it is when opposed singly or by not more than two horsemen that these qualities are displayed pre-eminently. Another rule equally good is that when a hunter has the hog in his right front and within double spear's length, no other should attempt to come between them; and a third still more important is that under no provocation or temptation should a spear be thrown at the hog. The breach of these rules entails half of the accidents which happen to both rider and horse; while another source of wounds is the too great importance attached to the taking of the "first spear," which often renders horsemen too eager and reckless in the determination to draw first blood. It is well known that boars are far more savage and dangerous after feeling the first wound, and consequently more skill and daring are called for then than previously, when the principal object of the hunted beast has been to escape into some neighbouring covert; but while too great an eagerness for the coveted honor is to be avoided, that honor is well bestowed upon him who by his bold and skilful riding has first *not merely scratched* the wild hog's back, but buried deep in his side the glistening blade, since after such an injury the enraged animal seldom thinks more of escape, but only of revenge, and thus his death becomes a certainty if the first spear be ably seconded by his companions.

Spearing. When the horseman can deliver his thrust with

hand held low and rapidly dashed outwards from his side into the hog's ribs, the wound will not only prove mortal, but the spear can be easily withdrawn ; but this can only be effected when the horse is racing alongside the hog ; when the latter charges, the spear is usually driven deep down from his crest through his lungs or somewhat further back, in which case the weapon cannot be readily extracted, but is often left standing in the body of the hog, and it is no uncommon sight to see a large one with two, three, or even more spears standing deep buried in his body, and yet charging desperately all who approach him, till weak from loss of blood and feeling his strength gone, he gently subsides to the earth without a sigh or groan.

A touch on the spine with a keen spear will generally kill at once and require no second thrust ; the best places therefore to aim at are the ribs, the crest, and the centre of the back. Beginners, it is notorious, frequently miss the charging boar through their over-anxiety to inflict a severe wound, which induces them to raise too high the spear hand and so go over the animal's back ; whereas, in truth, all that is called for is a quick eye to direct to the fatal part, the spear held low in a firm and steady hand ; the speed of the steed and boar as they advance towards each other will do the rest. In the course of the chase when an encounter is not imminent, the spear is balanced easily across the body, the right hand which holds it

rests on the right thigh and its fingers can if necessary aid those of the left which guides the horse; but when the hunted hog may be expected momentarily to turn and charge, the hand is slightly raised and projected forward from the body, the point of the weapon being some three feet from the ground ready for the rush.

Habits. The wild hog of India is the first among wild animals to leave the coverts of an evening to wander in search of food, and the last to return there to the following morning. His favorite lairs are the banks of tanks, lakes and water-courses over-grown with grass, reeds or rushes, and shaded by over-hanging trees. There he will prepare himself a dainty and luxurious couch by cutting down and stamping upon a sufficient quantity of the softest grass and leaves, and then with his snout gently raising the mass and inserting his body until a perfect little hut has been formed impervious to sun and rain: in this with his face turned towards the outlet, he will lie snug and secure, making occasional forays upon the juicy sugar-cane and the ripening paddy, and waiting for the setting of the sun to emerge for more deliberate operations.

A sense of honor. The hog is essentially a gentleman of the old school, fond of society, grave and dignified, not prone to quarrel or to attack, but when insulted (and his feelings of honor are extremely acute) he extorts an apology in the hasty flight of his aggressor, or failing

that vents his injured feelings upon him in the most resolute and unflinching manner, no matter how strong or large that adversary may be; but having once prostrated him he disdains generally to mutilate his foe, but tossing up his snout he looks around to see whether there be any willing to take up the quarrel again, and if none appear trots off with a contented grunt and stiffly elevated tail.

Color. Hogs when very young are of a yellowish brown color, marked longitudinally with light greyish stripes which disappear after a few months, and leave them a dark brown up to two years of age or thereabouts; they then become black, and if in fine condition, "blue" black, and thus are heard stories of desperate fighting "blue boars," which are nothing more than hogs in their prime and full strength with an unusual amount of black bristles.

Height. With advancing age they become grey, and when very old are almost harmless. A well grown boar measures from 36 to 38 inches in height. Not one in a thousand exceeds, and comparatively few attain that size.

Cunning. The wild boar is most crafty. Sometimes, when the hunters are in full career after him, he will rouse out another porker, slip into his cosy nest and grunt with humorous satisfaction to find the chase transferred to his evicted brother.

Size. According to Blyth, there are two varieties of the wild hog in India; *viz.*, the *sus Bengaliensis* and the

sus Indicus; the former being larger with a narrower skull. The German wild boar has a stronger and heavier appearance, but Blyth considers the Indian boar to be only a variety of the European species.

In the *Oriental Sporting Magazine* for September 1870, p. 1389, a boar is recorded to have measured 38½ inches in height, and 60 inches in length, from root of tail to end of snout. It weighed lbs. 300. In the same *Magazine* for November 1870, p. 1527, a boar is stated to have measured 37 inches in height, and 69 inches from tip of snout to root of tail.

A member of the Nagpur Hunt, writing in 1870, records the following facts:—of the last 25 boars speared seventeen measured 31 inches and more; of these seventeen, one was 35½, one 34½, three 34 and five 33 and 33½. The largest boar on the books measured 36 inches at the shoulder, 76 inches in length *with tail*, and 54 inches in girth.

Tusks.

Shakespear (*Wild Sports of India*, p. 46) says that the biggest boar he ever killed, stood 39 inches high, and had tusk 9 inches long. A writer in the *Oriental Sporting Magazine* for September 1873, records a tusk measuring 13 inches in length and 2½ in circumference. The wound inflicted by the tusk is a clean cut that quickly heals. See the old rhyme,—

The wound inflicted by the tusk.

If thou be hurt with horn of Stag,
It brings thee to thy bier,
But barber's hand shall Boar's hurt heal,
Thereof have thou no fear.

In Macedonia the chase of the wild boar formed so important and honorable a task that a young man sat upright, and did not presume to recline at table among his father's guests until he had slain a boar. Cassander, son of Antipater, continued, it is said, up to his thirty-fifth year bolt upright at the regal board, because though a courageous, enthusiastic and skilful hunter, fortune had ever denied him the rapturous joy and glory of slaying a foaming boar.—Athen. I. 31.

In ancient days the hunters often encountered the boar with battle-axes (Iliad, 520); but boar spears were in use prior to the Trojan war, for Odysseus is represented going thus armed to the chase with the sons of Autolycos when he was wounded by the hog. With the same weapon we find Adrastos engaged in the same sport, when he slew the son of Croesos. (Herod. I., 43).—Sometimes it was hurled through the air—

> In Philyra's house a flaxen boy,
> Achilles, oft in rapturous joy
> His feats of strength essayed.
> Aloof like wind his little javelin flew,
> The lion and the brinded boar he slew.
>
> (St. John I., 211).

There was a time when our pig stickers used their spears in this fashion. The following passage occurs in the life of the Hon'ble R. Lindsay, who was Magistrate of Dacca in 1776:—"I was particularly fond of the wild-boar chase, a bold and manly amuse-

ment, in which both courage and dexterous horsemanship are required. Our weapon consisted only of a short, heavy spear, three feet in length, and well poised; the boar, being found and unkennelled by the spaniels, runs with great speed across the plain, is pursued on horseback, and the first rider who approaches throws his javelin: if he misses his aim, he is obliged to dismount and recover his weapon, and his place in the field is occupied by the next in succession, who wounds his enemy; a third rider transfixes him to the ground. Unless one is accustomed to ride, and well mounted, it becomes a dangerous amusement. I have seen many accidents happen from the ferocity of the boar. Both tigers and leopards are occasionally met with, but we are not fond of attacking them without fire-arms."

Figure 20 of Johnson's *Indian Field Sports*, p. 258, represents a hunter about to hurl his spear. The cut is reproduced on p. 31 of that charming old book, Blaine's *Encyclopædia of Rural Sports*, (Lond. 1840).

Atalanta "took the first spear" upon record; and on that occasion the fashion was introduced of giving the tushes to the winner.

I have heard people who had no objection to shooting, condemn pig-sticking as cruel: yet this is of all sports the only one practised in modern times where the hunter shares, on almost equal terms, the danger with the hunted. It has its code of honor. The foe

is treated with respect and pursued on certain fixed principles; and, moreover, there is a *casus belli*, the pig being not only one of the most ferocious and dangerous of wild animals, but one of the most incorrigible plunderers,—a perfect Pindarry.

"O let not sapient moralists our well-loved sport decry,
We'll draw a warrant for the game from all antiquity.
T'was thus Meleager's prowess in the chase was tried,
T'was thus Ascanius' youth was fired,
T'was thus Adonis died."

And yet again in honor of the sport :—

"T'were vain to tell the magic spell
That fires the hunter's eye,
When shout and roar arouse the boar,
And force him forth to fly.
His rage at first, his glorious burst,
Dark dashing through the flood,
His bristly might, his meteor flight,
And his death of foam and blood."

The wild boar has long been employed by poets as the type of ferocity.

"The wretched bloody and usurping boar,
That spoiled your summer fields and fruitful vines."
Richard III., v. 3.

Dryden denominates the anabaptists.—"The Bristled Boar," *in the Hind and the Panther.*

"The bristled boar impure as *he*,
But whitened with the foam of sanctity."

He referring to the *Ape*, the free-thinkers.

William, Count of Marck, was called "The Wild Boar of the Ardennes," on account of his fierceness. Scott introduces him in Quentin Durward.

Freyr, son of Niord, of the dynasty of the Vanagods; —god of fertility and peace and dispenser of rain,—the patron god of Sweden and Iceland used to ride the great boar, Gullinbursti.

In the literature of boar-hunting Swinburne's noble lines in *Atalanta in Calydon* should find a place of honor, and something should be said of the great boar Adiwara of Pushakar; but here I am bound by contract to *Notes*, and must reserve these suggestion for another occasion.