SPORT Dre. 190

IN THE

LOW-COUNTRY OF CEYLON

BY

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[With four full-page Illustrations, adapted from Photographs blocked by Skeen & Co.]

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PREFACE.

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This little book on "SPORT IN THE LOW-COUNTRY" is submitted to the public by the writer with diffidence, as he feels that there are men in the Island who are more competent than he to write on the subject. He, however, believes himself to be not altogether without qualifications for the undertaking, as he has spent the greater part of twenty-five years in the forests of the low-country, and has thus had, of necessity, many opportunities of observing the habits of wild animals and of learning by experience the best, pleasantest and cheapest ways of obtaining sport. It is not expected that experienced sportsmen will learn anything new from the following pages, but it is hoped that the little book will be found useful by strangers and new-comers going on their first shooting trip to the low-country. So far from deprecating criticism, the writer will be very glad to hear the views of "old hands" who consider him to be mistaken in any statement made. The indulgence of reviewers and readers is, however, asked for one or two of the illustrations, which are not all that could be desired, owing, however to no fault of Messrs. W. L. H. Skeen & Co, who did the best that could be done with the only photographs available.

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CHAPTER I.

SPORT IN FORMER DAYS.

HERE was a time, within the memory of men still living, when Ceylon was a perfect paradise of sport. Sixty or seventy years ago the Island was simply one huge forest from the summits of the central hills to the sea coast. The jungle came up to the backs of the small towns in the interior, the coffee estates were few and far between, the tanks and fields in the lowcountry were mostly overgrown and the scattered villages sunk in the sea of trees.

The higher ranges, above the elevation at which paddy will grow, about 3,500 feet, were almost uninhabited but were not pathless, for they were intersected by well beaten tracks made by those master road-makers, the elephants, zigzagging up the slopes, running along the ridges and through the gaps of the hills. These paths were used by the natives when crossing the country or going on pilgrimage to Adam's Peak. The pilgrims travelled in large parties, shouting "Sadhu!" every few minutes, partly from religious fervour, but more with the object of frightening away any wild animals in the forest ahead. Elephants roamed in broad daylight over the patanas or upland grass-covered plains, and the valleys and swamps were full of sambhur feeding unmolested. In the low-country the great unbroken forest, which stretched from Dondra Head to Palmyra Point, simply swarmed with game. Elephants were as numerous in this hot, dry country as in the cold, wet hills; great droves of wild buffaloes wallowed in the tanks; thousands of leopards and bears infested the rocky hills and stony tracts; spotted deer grazed in the glades in herds of an hundred or more; and wild pigs rooted about in countless numbers.

Almost the only check on the increase of these wild creatures was the periodical outbreaks of murrain. The last of these efforts of nature to prevent over-population of the forests, of which there is record, is one which killed numbers of elephants, deer and pigs in the Matale district in 1831. Great destruction was no doubt wrought by leopards, crocodiles and other predatory creatures; but the number of animals shot by the natives, with the few antiquated guns they had, must have been very small.

Some idea of the numbers and boldness of the wild beasts which infested the Ceylon forests in the earlier part of the century may be obtained from the following facts :---Herds of elephants were to be met with in the immediate vicinity of the towns. It was not uncommon for boutiques on the outskirts of the Hambantota bazaar to be looted of fruit and grain by these creatures. One, in 1829, chased a man who had fired at it into the main street of that town and trampled him to death. On the tappal-roads places of refuge were built in trees into which the runners climbed when, as often happened, they met elephants which the beating of tom-toms and waving of torches failed to drive off. These huge beasts were little reduced in number by the great kraals organized every year in the Matara district, though two or three hundred head were sometimes caught at one drive. In 1831 Government began to offer rewards for their destruction, and for a

good many years hundreds of them were killed annually and their tails and trunk-tips taken to the Kachcheris. Great numbers were shot by European sportsmen. The well-known Major Rogers is said to have killed over thirteen hundred; also to have purchased his steps in the Cevlon Rifle Regiment by the proceeds of the sale of the ivory obtained from sixty tuskers he shot, a statement to be received with caution. A party of four guns in 1837 killed 104 elephants in three days. Elephant spearing was successfully practised by the natives in the earlier part of the century. A herd was surrounded at night by men carrying torches and tom-toms, and the terrified creatures were easily killed. A member of the Civil Service, writing about 1820, states that he saw at Kottadeniya six elephants. all lying within twenty yards of each other, which had been thus speared by the natives.

Leopards were extremely numerous, as the forests teemed with deer and pigs and other animals on which they preved. As illustrating their boldness it may be related that, in 1826, the Government Agent of the Southern Province having announced his intention of visiting Wellewé, the headman went to get the rest-house ready for his occupation, but found it tenanted by a pair of leopards with cubs. He called together the villagers and they attacked and killed the leopards with guns and bows and arrows and secured the cubs. Bears were so numerous and mauled so many jungle people that Government offered rewards for their destruction, which are still paid. The wild buffaloes were much more dreaded then from their numbers and aggressiveness than at the present day. Sambhur were looked upon as useless creatures, "no part of him being eatable, but the marrow out of his marrow bones." There was no inducement to shoot spotted deer, except a few for food, as there was no sale for their hides or horns. An old writer asserts that a cart-load of shed horns could have been picked up in a day in the southern

forests. It sometimes happened in those days that sportsmen became surfeited with sport, the game being so plentiful and easily killed that shooting became butchery rather than sport.

The change which has come over Ceylon, as a sporting country, during the last half century, is very marked. The immense forests which once covered the hills from Kandy upwards, have disappeared with the exception of some thousands of acresgiving cover to perhaps a dozen elephants, a score or two of leopards and a few hundred sambhur. Tea estates now cover the hillsides and no traces remain of the ancient elephant paths, save in the highest regions, at the back of the Knuckles and West of Adam's Peak.

In the low-country the forest remains in appearance much as it was fifty years ago; but in place of the few tower muskets and flint-lock guns then treasured by the jungle people many thousands of guns of all kinds are now owned by them. A trade in horns and hides has sprung up, created chiefly by itinerant Moor hawkers who barter for them cloths and other commodities and provide the powder and bullets. The slaughter of game became so great, some twenty years ago, that Government was forced to make stringent laws to protect deer as part of the "food supply of the people." There is reason to fear that game is still being illicitly killed in excess of the natural increase, but when means have been found of properly enforcing the existing laws, game is sure to become in the course of time fairly plentiful, and Cevlon will again be what it once was, one of the best countries in the world for sport.



CHAPTER II.

THE LOW COUNTRY FORESTS.

HE forests of the low-country of Ceylon stretch from the foot of the hills on the North, East and South to the sea coast and cover about 12,000 square miles. From the tops of the hills the lowcountry looks like a sea of primeval forest; but, as a matter of fact, the whole extent was at some time or other under cultivation. Thousands of old bunds of tanks of all sizes, overgrown with huge trees, may be found in it, about one to every square mile. The beds of these ancient tanks and the fields under them are now stretches of thorny scrub. The only real forest is to be found on the high ground between the tanks, and even this was probably all cleared and cultivated in years gone by. There are also great stretches of park-country and grass plains, and swamps formed by the overflow of the larger rivers. The whole country is intersected by torrents which run with violence during the rains, are strings of pools for some months afterwards and are dry from about July to November. There are also numerous ponds, rockpools and springs, all of which are connected by game tracks made by wild animals going to water. The extent and variety of cover and the abundance of water and fodder make the forests of Ceylon an ideal home for wild animals.

All parts of this wilderness are not, however, equally populated by forest denizens. There are large tracts where game is scarce, though the conditions appear to be precisely similar to those of adjoining districts where deer and other wild creatures abound. Comparatively few animals are to be found in the high forest, they apparently preferring open country interspersed with trees and bushes where they can feed about freely, can escape more easily from the attacks of carnivorous enemies and are less exposed to the stings of winged insects.

It is a curious fact that, in size and also in length and weight of tusks, antlers and horns, the wild animals of the Island are, as a whole, inferior to animals of the same species on the mainland of India. The explanation of this probably is that the whole of the low-country, having been formerly under cultivation, as is proved by the existence of hundreds of old tanks in the forest, game must then have been very scarce. The few hundred years during which this cultivated country has been gradually relapsing into wild forest has not been a sufficiently long time for the law of the "survival of the fittest" to take effect. This law, which brings about the perpetuation of the finest types in all classes of living things in a natural state, is believed to require ages to produce appreciable results.

Wild animals are usually regarded as creatures of the night; and it is undoubtedly true that they feed chiefly in the earlier part of the night and in the early morning. This habit they have acquired simply from their fear of human beings. In very wild districts, where there are no villages, elephants, deer and pigs may be seen feeding out in the open in the daytime much more frequently than in places where they are liable to see and smell men. Wild beasts are often supposed to have eyes which enable them to see in the dark, but they do not really differ from domesticated animals in that respect. On dark, cloudy nights grazing and browsing animals do not feed, but stand about waiting

for the light. When there is a moon they feed all night without lying down for their usual midnight sleep.

Many people imagine that wild animals wander aimlessly about, and that a herd of deer, which at the beginning of the year roamed the southern forests, might possibly be found at the end of the year in the northern forests, a hundred miles away. No wild beast, however, wanders far from the place where it was born. The range of a herd of deer or a drove of pigs probably never exceeds a few miles, within which every path and pool is familiar to each member of it. Elephants having fewer enemies have wider ranges, but even they probably never go beyond a radius of ten miles. Animals will only leave their accustomed haunts when compelled by thirst in the dry weather to go and look for water. When a herd is stampeded by a gunshot or the rush of a leopard, they will scatter in all directions, but every member of it knows where the rest of the herd is likely to go and makes for the spot and they are all soon united. It is fear that makes wild animals keep to their own restricted ranges; for every beast is aware that if it ventures into unknown forest, it will be attacked by its fellow beasts whose domain it is. No herd will admit a stranger unless it be a big male which is able to hold its own by its fighting powers.

There is no doubt that all the animals of one species, in particular forest districts, have, owing to local conditions, some peculiarity in build, colour or other respect, which distinguishes them from similar animals of another district. The old head clerk of the Mannar Kachcheri, who had measured scores of elephants brought there for shipment to India, claimed, and with justice, that he could tell at a glance whether any elephant brought up, came from the Northern, Eastern or Southern Province. Similarly all the members of a herd have often some inherited malformation or mark. This may

especially be noticed in the case of elephants, and careful observation would no doubt prove that each herd of deer and buffaloes and drove of pigs had some distinctive peculiarity.

Most people suppose that all animals of any one species have the same disposition, that they all have the same degree of courage, ferocity, cunning, &c. The truth is that they vary greatly in character. In the same herd may be found bold and cowardly, ferocious and mild, stupid and cunning members. All who have had to do with elephants, recognise that they differ greatly in disposition, and such no doubt is the case, in a lesser degree, with all wild animals. Want of appreciation of this fact has led to very different estimates being formed by different sportsmen of the character of wild beasts. The man who has been hunted by a hard-headed, fighting bull-elephant will have a different opinion of elephants in general, from the man who has shot half-a-dozen mild, inoffensive, old "allians" without so much as a wag of the tail in protest.

It is a common but erroneous idea, that when any danger threatens a herd, the bulls or males will attempt to protect the females and young. In the first place bull-elephants, he-buffaloes and wild-boars are seldom found with their herds, preferring to wander about by themselves, only joining their families occasionally to court the females. Should any adult male happen to be with the herd when an alarm is given, it is generally the first to bolt. An old female will often act as leader of the herd, and, if the nature of the danger is unknown, will advance to ascertain what it is. Herd elephants will sometimes combine to help a member out of a pit, and buffaloes will charge an enemy in a body; but as a rule each wild animal looks after itself only. Should a female give birth to a young one, the rest of the herd will not regulate their movements to the needs of

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the mother and helpless offspring, but move off unconcernedly. A motherless calf or fawn will usually be butted and kicked and otherwise maltreated by all the rest. Leopards and bears, so far from helping wounded companions, will attack them if they cry out in pain.

It is very doubtful whether there is in this island any particular season when female wild animals drop their young. In countries where there is a winter season the necessity for a breeding season is obvious enough; but where, as in the low-country of Ceylon, the temperature varies only a few degrees throughout the year, and food and water are almost always to be obtained, there is no reason why breeding among wild animals should not go on all the year round. It is also very doubtful whether bucks invariably shed their horns annually, or whether there is any particular season when they shed them.

People who have had little to do with wild beasts commonly regard elephants, leopards, bears, etc., as ferocious creatures, always prowling about "seeking whom they may devour." It may, however, be taken as a truth that wild animals are ordinarily far more afraid of human beings than the latter are o them. The only desire of all wild creatures, always excepting "rogue" elephants and man-eating leopards and crocodiles, all of which are exceedingly rare, is to escape when they happen to meet men. It is only when wounded, cornered or taken by surprise, that they will attack. Even when actually trampling on, biting or clawing their victims, wild beasts will sometimes be seized with panic and bolt. The forest creatures also fear each other, and herds of different species, both harmless, will not commonly feed in the immediate vicinity of each other.

The marvellous way in which the colours of wild an i

mals harmonize with their usual surroundings, always impresses observant sportsmen. The slatev hue of elephants makes them almost invisible at night or when standing in the deep shade of the high forest in which they take shelter during the day; grey-yellow spotted leopards standing or crouching in forest flecked with light by the morning or evening sun are most difficult to distinguish: the black hides of bears, relieved with patches of white on head and breast, make it impossible to see them when wandering about in the forest at night or when lying in dark caves or hollow trees: the dappled coats of spotted deer standing still in glades bordered by trees covered with many-tinted leaves are often indiscernible till they flick their tails exposing the white underneath; the colour of crocodiles closely assimilates to the mud on which they lie during the day; and numbers of other animals, reptiles and birds are so marked and tinted by nature that their colour not only hides them from their enemies, but enables them to secure their food more easily.

There is an everlasting struggle for existence going on in the forest. What with danger from hunters, carnivorous beasts and males of their own species, the life of wild animals is one long watch, the result being that in the course of many generations the senses of these creatures, sight and hearing, and especially smell, have become extraordinarily acute. The sufferings of the forest denizens are frequently severe. Beasts of prey, being unable to catch their victims for days together, often suffer from extreme hunger, and all animals from thirst in the dry weather. Cases of bears and pigs jumping down village wells, and of sambhur and spotted deer going down to the sea and drinking the salt water in their extremity are common enough. The wild creatures of the forest frequently meet with accidents. Elephants, though extremely cautious in their movements, have often stuck fast in the mud of tanks and have been

known to fall over precipices. Bears which had thrust their heads into hollows of trees to get at honey have been found in that position, being unable to withdraw them. Leopards have been lamed by thorns in their pads, producing deep ulcers which made it impossible for them to obtain food, resulting in their starving to death. It is probable that few wild animals, except elephants, leopards and bears, ever die of old age. All other animals, as soon as their muscles begin to stiffen and their senses to fail, fall victims to predatory beasts. The fate of most carnivores, when old and weak, is probably to be killed and eaten by their relatives.

It is generally supposed that dead wild animals are seldom seen. The stinking remains of sambhur, spotted deer and pigs, killed by leopards, may often be found-The rotten meat is soon disposed of by the forest-scavengers, pigs and jackals, and the bones by the porcupines and jungle rats. Shed horns too, gnawed almost entirely away by these last, may sometimes be picked up. Dead elephants are not infrequently found, but they are generally trespassers on paddy-fields, which had been fired at by villagers and had afterwards died in the forest. It is a mystery what becomes of dead monkeys. Hundreds must die every year, but no one ever found the body of one which had died a natural death in the forest.

It is a curious fact that natives, even jungle people who see wild animals almost every day, have many ridiculous and superstitious ideas in regard to them, the falsity of which would be made manifest in many instances by the exercise of a little common sense. These absundities are repeated from father to son, and are so fully believed that few natives ever think of questioning them. A good many instances will be given in the following pages.



CHAPTER III. ELEPHANTS.

F all animals the elephant is undoubtedly one of the strangest. It seems to belong rather to antediluvian times than to the present age as it possesses many of the peculiarities of structure which distinguished the earth-monsters of those days, such as great size, column-like legs, flexible trunks and great flapping ears. In shape and habits it differs very much from almost all other existing mammals. It has no hocks, but knees on its hind legs; its only pace is a walk and it can neither run nor leap; it conveys its food by means of a prehensile trunk to its mouth, into which it is drawn by a hooked tongue; it drinks as no other animal does by sucking up water into its trunk and injecting it into its stomach; it squirts water over its body in the same way to cool itself; its testes are in the abdominal cavity and it cannot therefore be castrated : its fore-feet are round and its hind feet oval; it is said that its lungs adhere permanently to its ribs; that from the position of its blood-vessels it cannot be bled, and that it has no fat in its composition.

Elephants are to be found in almost all the forests of Ceylon, but are not equally distributed. There are large jungle tracts where scarcely any are to be met with. There are very few in the hills, not more than a dozen or so, though it is probable that before the opening up of the

coffee districts, they were rather more numerous there than in the low-country as they prefer a cool, moist climate to a hot, dry one. At the present day they are nost numerous in the Wanni or forest district of the Northern Province, in the Tamankaduwa District of the North-Central Province, the interior of the Eastern Province and the Hambantota Dis trict. It is probable that there are not more than two thousand wild elephants in Ceylon all told.

They may be met with in all kinds of cover but prefer high open forest in which they can move about freely, sheltered from the heat of the sun. Low lands liable to inundation are favourite haunts and are commonly pitted with their huge foot-prints. They usually come out into the open plains, tanks and fields at night, returning to the shelter of the forest when day breaks. At certain seasons of the year, when worried by flies, they often stay out in the open or on the outskirts of the forest for some hours every morning. The habits of each herd depend very much on whether they are liable to be disturbed or not. If not molested in any way, they will remain in the neighbourhood of some favourite drinking place for weeks. In outof-the-way districts solitary elephants may be seen feeding in tanks and open places morning and evening.

The sizes of herds vary from families consisting of a cow elephant and one or more calves to twenty or thirty cows and young ones of both sexes. Each herd is in fact a family, all being related to each other. Consequently it often happens that every member of a herd has some physical peculiarity common to all. As many as sixty elephants have been said to have been seen together in recent years, but it is probable that they were made up of two or more herds which had congregated at some tank in some unusually dry season.

Solitary elephants are usually spoken of by people who know little about these animals, as "rogues"; but, as a matter of fact, all bull elephants, as soon as they arrive

at full growth, wander off by themselves, only joining the herd, from time to time, to pay attentions to some particular cow; and are ordinarily very inoffensive, timid creatures. Occasionaly solitary bull-elephants, only halfgrown, are met with, which have in some way got separated from their own herds and have been refused admittance into others. It is common for two adult bulls, generally very old ones, to fraternize and to go wandering about together.

As is well known, the vast majority of male elephants in Ceylon have no tusks, but only short tushes set vertically in the upper jaw. Females also have tushes, but they are very small. Tuskers are sometimes met with, but are extremely scarce. It is probable that there are not now more than fifty of all ages in the whole Island. That they were pretty numerous in former days is shewn by the fact, that, when Kandy was conquered in 1815. among the loot were 289 tusks weighing 5,9511 lb. Tuskers are usually not so big as the tuskless bulls, but are broader across the forehead and have bigger frontal bumps, while the hollow between the ear and eve is not so marked. Tusks are no doubt merely fighting weapons, for they do not appear to be used in any way in obtaining food. Very fine tusks, quite as big as the average size of Indian ones, have been got from tuskers shot in Ceylon. Occasionally "single tuskers" are met with, which have had the misfortune to lose, by accident, one of the pair they were born with. The heads of such are generally in a terrible state, the hollow of the broken tusk and its base being full of maggots and stinking horribly, with sometimes ' the eve on that side destroyed. Natives believe that there is undying enmity between tuskers and tuskless bulls, and that they never meet without fighting; that the shape of a tusker's fore-feet is oval as well as the hind feet, and that it has a different trumpet from a tuskless male :-all of which beliefs have no foundation. In the Mannar District, where most of the tuskers are to be found, the

villagers tell marvellous stories of a bull with tusks so long that it could only walk by holding its head back at an unnatural angle, and of another which had malformed, crossed tusks which prevented it using its trunk, so that it was slowly starving to death!

One reason which has been given for the rarity of tuskers in Ceylon, is the "scarcity of phosphates in the soil" which sounds learned, but is nensense. Such a theory would account for the total absence of tusks or for their universal imperfect development, but not for the fact that some elephants have perfectly developed tusks and others none at all, but tushes instead. There can be little doubt that tuskers and tuskless elephants are two distinct varieties, the latter being the one indigenous to the Island. The tuskers found in our forests are probably the descendants of imported Indian elephants which escaped and went wild. It is reasonable to suppose that if there are two breeds of elephants in Ceylon, crossbreeding would, in the course of time, produce a species of hybrid animal. Native elephant-catchers and traders assert the existence of such creatures and call them "mákánjans," There was an elephant belonging to the Rameswaram Temple a few years ago, which was said to be one of this class. It had tusks, but they were set vertically, almost touching the ground, and the whole shape of the animal was abnormal.

The average height of full-grown male elephants is about eight feet, and of female elephants ubout seven feet. Bulls of much greater height are, of course, sometimes found. The late Mr. Varian, of the Forest Department, shot one in 1871 in the Trincomalee District, which measured by the tape as it lay 11 ft. 10 in., its fore-foot measuring 66 inches in girth. Giant bulls, over ten feet high, have been shot by other sportsmen, also cows over nine feet. A bull over nine feet at the shoulder is an exceptionally big beast. It is recorded that, out of severa

hundred elephants caught in kraals in the south of the Island in one year at the beginning of the century, only three were over nine feet. Dwarf elephants are occasionally found. A full-grown cow was caught for Government in 1880, which measured only 4 ft. 10 in. at the shoulder, the size of a two-year old calf. Albinos are sometimes met with. There is no record of a "white elephant," so called, having been caught or killed; but animals with large flesh-coloured marks, especially on the head and ears, and with white eyes and toe-nails are not very rare.

In their wild state elephants are extremely inoffensive and unsuspicious. The members of a herd are strongly attached to each other and they have good memories. Elephants caught by the Pannikkans and taken to camp, have instantly recognized others tethered there, which had been caught out of their herd months before. testifying their pleasure by fondling them with their trunks and uttering deep rumbling sounds. They are conservative and will not easily give up their habits, such as going along some particular path or drinking at some favourite pool, though driven away repeatedly. They are also full of curiosity and will always investigate anything strange to them which they come across. This trait is not approved of by Government officers when it takes the form of destroying foot-bridges, breaking down boundary posts and pulling up survey pegs. Boulders which they had obviously been trundling about with their feet and trunks for amusement may sometimes be seen in the drv beds of rivers.

Elephants have only one sense which is really highly developed, viz., smell. They can detect the approach o a man down-wind a long way off. When they observe a taint in the air they will extend their trunks in the direction from which danger is suspected, and one or two strong inhalations will reveal to them the nature of the danger. Their hearing is good enough, but as a rule they

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make so much noise among themselves, feeding, rubbing against trees, flapping their ears, and blowing over themselves that they may easily be approached up-wind undis-Their sight, compared to that of other wild covered. creatures, is very feeble. It is quite possible to stand in the forest, apparently in full view of an elephant, without detection, provided one does not move. Many elephants have broken tushes and the probability is that this results from their striking them against trees while bolting blindly through the forest from some supposed danger. While wandering about at night in the jungle they are probably more guided by their senses of touch and smell than of sight. They apparently can see things above them only to a very limited height.

In spite of their bulk they can move quickly enough. Ordinarily they saunter about with a kind of stately ease, their great flexible-soled feet making no sound, but if alarmed they hurry off with a sort of swift shuffle. When going their best they throw out their legs with long strides swinging their heads from side to side. Big bulls can go about ten miles an hour on the level in the open, but cannot keep up such a pace for more than a few minutes. They are very cautious in all their movements and will not venture on bridges or on swampy land if they can help it. A deep ditch which cannot be stepped across is impassable to them. They are good climbers, as the elephant-paths which in old days zig-zagged all over the hills, testified. Traces of them may sometimes be found on the top of precipitous solitary rocks in the low-country. They descend steep places by sliding down on their hind knees with their fore-legs extended. So far from there being any truth in Shakespeare's statement that "the elephant hath legs for necessity, not for flexure," they can twist their apparently unwieldy bodies into all sorts of postures and can turn with great quickness. They are first-rate swimmers, being able to swim for miles without

rest, though they have not many opportunities of practising this accomplishment in Ceylon. In abnormally rainless seasons when all the tanks and pools are dry they will dig with their feet and trunks great holes for water in the sandy beds of the low-country rivers.

They may be said to be on the whole silent animals. The trumpeting heard in jungle districts at night is often caused by calves quarrelling, though it sounds loud enough to be the angry roars of some nine-foot bull. The shrill blast or roar from the throat uttered by a charging elephant is a distinctly terrifying sound, and the squealing of one engaged in hunting the hunter, which sometimes happens, is not pleasant to hear.

Elephants are most wasteful feeders, and the amount of destruction which a small herd will accomplish in one night is astonishing. They break down with their heads and feet numbers of young trees, twisting off from each a few trunkfuls of tender leaves. Trees of the fig tribe abounding in milky sap are their favourite fodder. They eat quantities of grass, kicking it up with their horny toes and knocking the earth off the roots against their legs with their trunks. They eat more or less all day and night except when sleeping or on the way to their drinking places.

In hot weather they go to drink as a rule at sunset, making their way to the nearest tank or river-pool. They go generally in Indian file following well-worn paths. No particular animal leads the way; sometimes a young calf goes first. They prefer deep water with a hard bottom, into which they can safely wade and roll about. If the water is shallow they will, after drinking, bathe by throwing water over themselves with their trunks. They will not drink very muddy water except in extremity. Elephants usually sleep twice during the twenty-four hours, viz., in the heat of the day and at midnight. They sleep both lying down and standing. When lying down they like to rest their heads on higher ground than their bodies so as to be able to rise easily. They sometimes snore loudly while sleeping in that position. When dozing on their feet they stand still, merely flapping their ears and swinging their trunks slightly every now and then. Calves always lie at their mother's forefeet.

The most characteristic trait of elephants is their restlessness. When in health they are never quiet for a moment, always swinging their heads and trunks, rubbing their legs together, flapping their ears and blowing with their trunks. It is a certain sign that an elephant is ill if it stands motionless with hanging head and flaccid trunk. The statement that "man is the only creature which uses tools" is controverted by the fact that elephants often use bits of stick to scratch themselves with, and branches to fan themselves. They are fond of rubbing themselves against trees to relieve the irritation caused by little parasitic insects which infest the wrinkles in their thick hides. It is for the same reason no doubt that they throw earth over themselves. It is a common practice with them to gash the trunks of trees with their tushes probably to relieve some pain or irritation. They suffer a good deal from intestinal parasites, to get rid of which they eat quantities of earth periodically, which has a purgative effect on them.

Bull-elephants are capable of propagating their kind when from fifteen to twenty years old, and cows generally have their first culves at about the same age. Much nonsense has been written as to the *modus copulandi* and many absurd statements made in connection with the same

subject,—some of which are still believed by natives such as, that tuskless bulls are of the neuter gender, that male elephants have their testes in their heads, that the females are influenced in their sexual desires by the phases of the moon, that they are of so modest a nature that they will not allow the males to cover them in the presence of men, that each female will consort with only one male, and that the first-born of every female is a tusker-calf. It has, however, been proved beyond doubt that the bull-elephant has connection with the cow in the manner common to all quadrupeds, and that from first to last there is nothing abnormal in the provisions of nature for the propagation of the elephant race.

When any female is in the condition to receive the male, the wandering bulls rejoin the herd and there is frequent fighting for her possession till the biggest and strongest male drives off his rivals. He then follows her about continually as is the custom of all animals in such circumstances. The half-grown bulls do not attempt to fight but hang about, slinking away quietly when the big successful bull approaches and utters threatening rumbles. After a few days the bulls all leave the herd and resume their solitary wanderings.

When unable to satisfy their sexual desires bullelephants get into a dangerous condition called "must," one sign of which is the slight discharge of an oily fluid from the temporal glands. While in this state, which may last a week or two, they eat very little and are very excited and restless.

In fighting, elephants butt each other and try to bear each other down. Should one knock its enemy on to its side it will go on pounding it with its ponderous head, without allowing it to rise, till it has crushed the life out of it. They do not always fight fair, having a vicious habit of

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tail-biting. Stump-tailed elephants are not at all uncommon. Elephants often kick heavily, swinging out their hind legs with surprising quickness. They can also strike heavy blows with their trunks.

Females carry their young about eighteen or nineteen months. There does not appear to be any particular time for them to drop their calves. They have usually only one calf at a time, but twin calves are sometimes born. A newly-born calf is a comical long-legged little creature about three feet high and 200 lbs. in weight with staring eves and short inflexible trunk. The natives say that the mother throws earth over it directly after birth, probably to protect it from flies. After a few hours the calf staggers to its feet, but is not able to go about and join the herd for several days. The dugs of the cow are between its forelegs, and the calf sucks standing in front of its mother who fondles it with her trunk. Mothers suckle their calves for two years or more and they have been seen suckling two calves of different ages. The milk is plentiful and very rich.

The number of persons annually killed by wild elephants is very small. When a death of this kind is reported it is always said to be the work of a "rogue." Such loss of life is, however, nearly always accidental, the unfortunate man having come suddenly on the elephant, which being taken by surprise and its instinct of self-preservation roused, rushed at him, knocked him down and trampled on him and then bolted panic-striken at its own violence. When an elephant really means murder, it will kick or shuffle its victim backwards and forwards between its legs and crush him to the ground with its huge head till it leaves him a shapeless mass of flesh and bones. They have been known to afterwards carry the bodies of their victims in their trunks for some distance.

Real "rogues" which infest a certain forest and lie

in wait for travellers and deliberately trample on them or tear them to pieces are extremely rare, there being few recorded instances. Every year notices appear in the "Government Gazette" offering rewards for the destruction of "rogue elephants." Some of these are said to have killed men, the circumstances not being stated, and others are reported to have scared tappal-runners and delayed the mails. Nothing is said in these notifications as to the size, sex or marks of the proclaimed "rogue," and it is difficult to understand how "proof of the destruction of the animal" is to be given under such circumstances; especially as there are probably a dozen or more bull-elephants wandering about alone in the forest specified.

"Rogues" are popularly supposed to be elephants which have been turned out of the herd for misconduct! The fact, however, that a "rogue's" career of murder is generally very short seems to prove that it is simply a bull suffering from temporary sexual excitement. As soon as the fit of "must" has passed, it probably becomes a quiet inoffensive beast again. This theory is strengthened by the fact that female "rogues" are never heard of. A tame elephant which has gone wild is said to make the worst kind of "rogue," having lost its fear of men. There have been not a few cases of supposed "rogues" killing buffaloes and cattle.

Of all wild animals, elephants are most dreaded by jungle villagers, more on account of their impressive size than of danger of attack from them. They do a great deal of harm to the paddy-fields and chēnas and are constantly fired at by the watchers. Almost every wild elephant caught, is found to have a number of boil-like humps on its hide, being old bullet-wounds.

They live to a great age. In wild districts old solitary

bulls may not infrequently be met with which are quite deaf from old age, and partly blind. They pay no attention to shouts, giving the impression of being peculiarly wicked "rogues," but should they get the wind of any human being in the vicinity, they will bolt at once.

CHAPTER IV. ELEPHANT SHOOTING.

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EPHANT shooting is a kind of sport which few people can afford to indulge in owing to the expense. Only foreign princes and noblemen and millionaire globe-trotters care as a rule to pay R100 for the privilege of firing at a wild elephant. Very few licenses are taken out by local sportsmen.

It "goes without saying" that for elephant shooting as powerful guns as possible should be used. As shots are usually obtained at a few paces' distance, accuracy is not so much required as bone-smashing power and shock. A double No. 4 smooth-bore firing a hardened spherical bullet with 12 drachms of powder, is probably the best of weapons for the purpose. Elephants have however often been killed with a single shot from a light small-bore.

Any person about to go after elephants for the first time, would do well to carefully examine a skull at a museum or elsewhere to learn the exact position of the brain which is always the spot aimed at. In Africa, where elephants are found in the open and can be ridden after, body shots are usually given, but, in Ceylon, owing to the density of the cover and the consequent necessity of dropping the animal in its tracks, the head is almost invariably fired at. The information given by villagers in remote districts regarding the wild elephants in the neighbourhood is usually fairly trustworthy. They are sometimes able to state the exact number in a herd and to add particulars, such as that one limped and that there was a young calf, &c. The old solitary bulls are often well known to them.

No sportsman will of course, knowingly fire at herdelephants, that is at cows or half-grown elephants, of which herds usually consist. It is often necessary, however, to track down a herd to see if there is any big bull among them. If a herd is come upon early in the morning while they are feeding they will be heard before they are seen, but if they are come up with towards mid-day, when they are standing still in some shady spot asleep or halfasleep, they will probably be smelt first owing to the strong odour of their droppings. In either case it is easy to get close to them without detection provided they are approached up-wind.

Sportsmen, after satisfying themselves that there was no bull worth shooting in some herd, have sometimes tried to stampede the cows and calves with a shout, but it is not always a safe amusement. Should any noise excite the alarm of a herd they will all wheel round with cocked ears and extend their trunks in the direction of the sound. The young calves always run under their mothers' bellies when danger threatens. An old cow will usually advance a step or two and will probably strike her trunk on the ground, blowing through it at the same time, thus producing a sonorous sound which is intended to intimidate the hidden enemy. After a few moments she will very likely come striding on, rumbling and squealing, flapping her ears and banging the brush-wood about with her trunk. If she happens to be the mother of a young calf she is likely to make things lively for the sportsman. Shouting is of little use to keep her off, but a shot even

into the air, is generally enough to make the whole herd bolt. This is always a trying moment to a novice who is apt to think from the crashing of jungle going on all round that they are all charging down on him. Elephants never charge *en masse*, but there is, of course, danger that one of the herd might, in its consternation, bolt in the direction of the hunter, knock him down, and perhaps trample on him as it rushes past.

It is very difficult to distinguish the sex of an elephant in dense forest, and it is quite possible for an unusually big cow to be mistaken for a bull. No man should fire, however, till he has done his best to decide the doubt.

Legitimate elephant shooting is the following up to the death of full-grown bull elephants. The recent tracks of a solitary bull may easily be followed, even when the ground is dry and hard. If it be seen that it has gone straight on without stopping to feed or to throw earth over itself, it will be necessary to hurry to overtake it. Should it be going down-wind the chance of coming up with it is a poor one. If the hunter hears, under these circumstances, the sudden breaking of jungle ahead he should run forward at once as the elephant has probably winded him and is off. He may come up with it a few hundred yards further and find it standing sideways, listening with cocked ears, when, if he is quick with his shot, he may drop it dead.

It is not quite so easy to approach a solitary elephant as a herd, but if the wind is favourable and there are not too many fallen rotten branches and dead leaves on the ground there is little difficulty in getting within a few yards of it. Many elephants have been crawled up to and shot dead without their ever knowing what hurt them.

Should a solitary bull suspect danger near, it will stand rigid as a rock for a few moments listening and smelling, and will then turn and silently make off, Many a man

who has got so close to one in dense forest as to distinctly hear it blowing through its trunk and flapping its ears has been amazed, on crawling up, to find the huge beast gone without a sound; the yielding horny pad of its foot treading as softly as a naked human foot, and the undergrowth brushing noiselessly against its leathery sides as it fled.

Elephants are sometimes come upon, lying fast asleep on their sides. They should not be fired at in this position for more reasons than one. A slight noise is sufficient to waken the beast, and as it swings up its head to rise to its feet it may easily be shot dead.

In firing at an elephant the effect of the shot depends very much on the sportsman's position. It is as well not to fire in a crouching attitude as the ball is likely to miss the brain, going over it. If the animal is standing broadside on, a shot in the hole of the ear from a standing man ought to kill it instantly. If the right angle be taken, according as the elephant stands with its head partly turned towards or away from the hunter, the brain may easily be reached. The front shot is the most difficult as the ball may strike on the massive frontal bone and penetrate but a little way. The shoulder shot is certain to kill sooner or later, but should never be given unless there is every chance of the animal being followed up to the death. Some men have fired under the tails of bolting elephants with some idea of breaking their backs, also at their legs; but such actions are not commendable.

An elephant on being fired at and only wounded, generally goes crashing headlong through the forest in its terror for a few score yards and then subsides into its usual long noiseless stride. The sudden cessation of the noise is apt to make an inexperienced sportsman think that the animal has either dropped dead or has halted close by, but if he does not follow it quickly he is not likely to see it again that day. There is generally very little blood on the trail

unless the bullet has cut a large artery in the head in which case the elephant will not go far. After going some distance it may stop to rub its wounded head against a tree which will be found smeared with blood. A wounded elephant generally drops its dung soon after bolting, as is the case with all hurt or frightened animals.

It is easy enough, as a rule, to keep in the wake of a bolting elephant in open forest, especially if it is badly wounded, but it should be very cautiously followed in dense thorny jungle, as it may, if hard pressed, turn suddenly and charge its pursuer. In such circumstances the only thing to be done is to stand steady and fire the instant the brute's head appears, and then to scramble out of its way. Care should be taken not to trip, as most of the men who have lost their lives while after elephants have been killed through falling in their path when charging.

To be caught by a furious bull elephant is to be in a very unpleasant position, but is not the certain death it would seem, as elephants are so purblind and naturally inoffensive that they fail as often as not in their clumsy efforts to crush the life out of men completely in their power. Sometimes an elephant making a rush, which is half a charge and half a bolt, will, with a half turn and a quick swing of its head, strike a blow with its trunk at the hunter as it passes, who, if he gets the full force of it, will be lucky if he escapes with only a broken arm or crushed ribs. Elephants rarely charge more than once, as the first well-planted head-shot generally takes all the fight out of one. They charge in different ways according to their dispositions, courageous ones with heads held high, ears cocked, and trunks extended, but more timid ones with swinging heads, flapping ears, and coiled up trunks.

The coup de grace is often given to wounded elephants

on being come up with, standing besides some pool to which they have resorted, thristy with loss of blood and unwonted exertion. They rarely make any sound on being fired at. If very "sick" they will sometimes stand, and receive shot after shot in silence, touching each fresh wound with a quick movement of the trunk. When the brain is touched the huge beast instantly sinks dead, generally falling on its side but sometimes remaining on its knees for a time in an upright position. There have been many cases of elephants dropping stunned by a heavy bullet, which have afterwards scrambled up and made off, to the amazement of the hunter. Some have even had their tails cut off while lying senseless.

The feet may be cut off with a strong sharp knife, but a light hatchet enables the operation to be more quickly performed. This latter tool is also required to cut out tusks or tushes, but it is better to leave these in the animal's head and to send for them a week or so later when they can be drawn out of their sockets without injury. There is little or no risk of their being stolen, as no thief would be able to dispose of such articles without detection. The tail is always taken as a trophy. The ears are often cut off but it is difficult to cure them properly, and they are generally thrown away after poisoning the air of the camp for several days.

Pieces of the thick hide are sometimes taken to make table-tops, the long leg bones to make stands for verandah or hall lamps, and the vertebræ to be mounted as inkstands. Bracelets of elephant hair may be bought, and, though not pretty, are worth having as curiosities. The teeth are sawn into slabs by native jewellers and form handsome caskets, knife handles and other articles.

It is so difficult to measure correctly the height of a dead elephant lying on the ground, that it would be well if foot-measurement were universally adopted. It is commonly said that the height of an elephant is exactly twice the

girth of its forefoot. Though this is not the case, there being big elephants with small feet, and small elephants with big feet, the variations are slight, and, if the girth of the forefoot is given, the height of the animal at the shoulder may be calculated to within an inch or two. The feet should be measured soon after death, as after being cleaned out and dried they shrink several inches.



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CHAPTER V.

ELEPHANT CATCHING AS SPORT.

EYLON is the only place in the world where wild elephants are caught by men on foot with nooses, without the assistance of tame elephants. It is somewhat surprising that so little should be known even in the Island about this remarkable profession, though it has been practised by natives for at least two hundred years. In the days of the Dutch the Pannikkans, as these elephant-catchers are called, were all enrolled by Government and worked under stringent regulations, some of which are voluntarily observed to this day. The English Government has never done anything to encourage or keep alive the profession, which is dving out and will be extinct in a few years. The elephant-catchers, now few in number, are mostly inefficient and are all loaded with debt to traders for advances received to catch elephants which will never be caught.

The Pannikkans are all Moormen, and reside almost exclusively in the Sámanturai and Eravúr Pattus of the Batticaloa District and the Musali Pattu of the Manaar District. They cultivate their fields and attend to their ordinary business in the wet months of the year and only go elephant-catching in the dry season from June to October. Each Pannikkan takes a gang of about a dozen men with him to carry provisions and ropes and to assist in

the tying up, removal and care of any elephants noosed. One of the men acts as mottakaren or general manager, and another as the annávi or performer of religious ceremonies. According to old custom the Pannikkan gets 20%, the mottakaren 20%, and the annavi $12\frac{1}{2}\%$ of the proceeds of the sale of any elephants caught. In addition 5% is devoted to religious ceremonies and 5% to charity, and the balance is equally divided among all the gang including the leaders.

Though the Pannikkans call themselves Mohammedans and observe the precepts of the Kórán, they are also devil-worshippers. No elephant-catching expedition is entered on, till the five forest demons, male and female, feared by all jungle villagers, have been duly propitiated by ceremonies and offerings. Every day while the expedition lasts, before the party starts to look for elephants, a coconut is broken by the annávi at the edge of the forest and offered to the demons with supplications for success.

A Pannikkan will eat but little on the morning when he leaves the camp in search of elephants and his attire is of the scantiest, consisting merely of a narrow strip of cloth passing between his legs, with the ends tucked into a belt. Over his shoulder he will carry his noose-rope made of raw hide, half of deer and half of sambhur skin. It is always from 20 to 22 feet in length and about $3\frac{1}{2}$ inches in girth, and has a noose at one end and a large knot at the other. The noose of a new, well-made rope when opened for use to a diameter of about two feet will stand out as stiff as a barrel-hoop. The eye is very carefully made to slip easily to the end, and is so fashioned that when a strong strain is put on it, it will lock on the rope so that the noose cannot be shaken off by the captured elephant. The men who follow the Pannikkan carry spare ropes, also one or more loaded guns to be used if any elephant charges.

The best place for elephant-catching is fairly open forest,

through which men can run easily, and where there are numbers of young trees to which the captured animal can be made fast. No Pannikkan will attempt to noose in thick, thorny jungle, it being too dangerous and likely to result in failure.

On finding traces of elephants, the party follow the track till they come on the herd. The Pannikkan and one or two staunch followers then creep forward to reconnoitre. and if they catch sight of a nice half-grown animal standing conveniently near, prepare for action. When all is ready a gun is fired and a shout raised, whereupon the whole herd will bolt headlong. With the noose of his rope open in his right hand and the slack in his left the Pannikkan springs out and is soon at the heels of the animal selected for capture. As the frightened beast strides along the elephant-catcher thrusts the noose between its hind legs so that the animal steps into it with its left foot, whereupon he jerks it tight and lets go the whole rope. He then follows hard looking ahead for some convenient tree to make the beast fast to. On seeing one he springs forward, catches up the trailing rope and passing the end round the tree slips the knot through the hitch. The next moment the elephant is brought up with a jerk that may throw it on its head. If the rope stands the strain the beast will pick itself up and pull with all its might. While it stands with its noosed leg straight out behind, the men following hurry up and deftly slip one or more additional ropes on to its leg and make them fast. Finding itself unable to break the ropes an elephant will often turn and charge, but the men have usually very little difficulty in slipping out of its reach. A powerful elephant will sometimes break several ropes in succession till, cowed and exhausted, it is finally caught. Should one of the men following succeed in getting his noose on a running elephant's leg first, and it is afterwards caught, he is thenceforth entitled to call himself a "Pannikkan" and to add the word to his name.

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In noosing elephants there are two sources of real danger. A Pannikkan dashing forward too eagerly may find, while following an elephant, that there is another close behind, when he must get out of its way and be quick about it too. Sometimes when a captured calf bellows its mother will turn and charge back viciously, when, if the men have no gun ready with which to drive her off, they must themselves bolt precipitately.

When the noosers see that an elephant with several ropes on its hind leg is fast and cannot escape they sit down to rest and get their breath, and also to give the captured beast time to smash down the jungle all round it, thus making a cleared space in which it may be more easily tied up. A noose is then laid on the ground and the animal is induced to step into it with one of its forefeet by being provoked to charge in that direction, after which it is soon moored fore and aft to two trees and cannot do more than swing its trunk furiously at its enemies.

As the hard hide ropes, if left on too long, will cut the animal's legs to the bone, they are taken off as soon as possible. Ropes are slipped on to all its legs; those in one side are crossed under it and the other two slackened off. It is then induced to charge in a particular direction when the crossed ropes trip it up, causing it to fall on its side. Two or three men at once throw themselves on to its head, holding it down. Even a large bull cannot rise if a couple of men are seated on its head. The fallen animal will try to pull them off with its trunk, but a man stands ready with a stick with which he administers half-a-dozen blows on that sensitive organ; treatment which soon makes the beast cease its efforts and coil up its trunk tightly.

A long, strong coir rope is then made fast round its neck and a stout stick lashed to that part of it near

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its mouth to prevent the animal biting the rope. The hide ropes are taken off its forelegs and a single rope left on each of its hind legs. Next a rough path is cleared and seven or eight men seize the end of the long neck rope and stand ready, while the Pannikkan and another man post themselves behind to attend to the hind leg ropes. At a given signal the men holding the elephant down spring off its head and snatching up spears lying to hand stand on each side of it at a respectful distance.

The moment the animal rises to its feet the men holding the neck rope give a shout and begin to haul their captive along towards the camp or to some place near water where they intend to tether it. If it charges down on them and gets dangerously near them, the two men behind check it by hanging on to the hind leg ropes, being mightily jerked at every stride of the huge beast. The duty of the men on each side is to prevent it turning aside by prods of their spears. If it succeeds in breaking away to right or left the two men behind speedily stop it by making the back ropes fast to trees. When the animal's head has been got round in the right direction, the ropes are loosed, the men in front haul again on the long neck rope and the whole party goes shouting and crashing through the forest.

A newly-caught elephant is thus often taken a considerable distance immediately after capture. It looks extremely dangerous, but is not really so, which is proved by the fact that accidents hardly ever happen. Even a big bull is perfectly helpless and harmless in the hands of these agile and experienced men. It cannot escape, though a powerful animal will sometimes give great trouble by turning right round and bolting, dragging all the men on the neck rope through the forest, who have perforce to let go. But with three ropes trailing from it, it cannot go far before it is again made fast to a tree by the dexterous Pannikkan following at its heels,

Whilst an elephant is being moved its actions are carefully noted by the noosers who attach superstitious importance to any peculiarities it shows, such as lying down obstinately or turning to one side only in its efforts to escape. Sometimes a furious elephant suddenly becomes quiet when the men look blankly at each other, for they know what is going to happen. In a short time it will sink down and roll on to its side dead, having probably ruptured some internal organ in its struggles.

On reaching the place where the animal is to be kept till it is tame, strong but elastic coir ropes are put on its hind legs and it is securely tethered. Fodder is then cut and thrown to it, and a wooden paddy-mortar brought and lashed to the tree in front of it and water poured into it; but an elephant will not usually either eat or drink for a considerable time, being too exhausted and alarmed.

The jubilant noosers now examine their prize and comment on its points. A high-caste animal has a massive head, with prominent frontal bone, carried high, a back sloping away from head to tail, a big round body on stout legs, the fore ones being bowed in front, a powerful thick trunk, large triangular ears and a well "feathered" tail nearly touching the ground. The back of a low-caste brute is higher than its small head, it has a flat body, thin trunk, long legs and small ears, and it is nearly always more timid and uncertain in temper than a high-caste one. Elephant-catchers also always note the lucky and unlucky marks on animals caught by them. Among the latter are callosities on the neck, peculiarly-shaped white patches on the head, abnormal number of toe-nails and black spots on the tongue.

It is probable that not one elephant in three survives even if it does not die at once from the violence of its struggles after capture. They often live a month or so, become quite tame and then die from the change in their habits forced on them and from the terrible leg sores they get, caused by the ropes. When these become so bad that the toes drop off and the horny sole begins to part from the foot, the animal is useless and is sometimes let loose, only however, to die.

Pannikkans do not attempt, as a rule, to noose elephants over six feet high at the shoulder, but this is only because young animals of that size are most likely to survive capture and are most in demand. They can noose full-grown elephants just as easily, the only difficulty in securing them being that such powerful brutes will break rope after rope before they are made fast. Huge eight-foot bulls have been caught and successfully taken to camp by these men.

Every Pannikkan believes in the existence of, and is ambitious to catch a "muttu-komban" or pearl-tusker, a mythical creature which has hollow tusks with big pearls in them ! They also talk of the "tarasu-komban," a tusker with ringed tusks, specimens of which they say have been caught.

The prices now paid by traders to Pannikkans for elephants are much higher than they used to be. About fifty years ago not more than R100 or R150 at most was paid for a six-foot animal, twenty-five years ago the price had risen to from R250 to R300, and now no Pannikkan will contract to catch and deliver one for less than R500.

The fact that fatal or even severe accidents are extremely rare shews that elephant-noosing on foot is much less dangerous than it would seem. The Pannikans themselves hardly ever get any worse hurts than bad bruises, but their followers, who have, through carelessness or in a spirit of bravado, approached too near to captured elephants, have sometimes paid severely for their recklessness.

Moormen are certainly pluckier than Sinhalese and Tamils but not more so than average Europeans. It is pretty certain that any young Englishman possessed of a quick eye and hand, good running powers and wind, and

an acquaintance with the habits of elephants, would be able to noose them just as well as any Pannikkan, after a little experience. It is rather strange that elephant-noosing as a sport has never been attempted in Ceylon. It would be far more exciting than shooting these huge creatures, and probably less expensive as a license, to capture one costs only R10 against R100 for shooting it, and should one be caught its sale would perhaps cover a large part of the expenses of the trip. There would not be much difficulty in engaging the services of an experienced Pannikkan to give practical instruction and provide the necessary ropes, &c.

Note.—The writer devised in 1879 a trap by means of which he caught, with the permission of Government, a fine young cow-elephant to carry his baggage when travelling. His brother, the late Mr. W. H. Clark, subsequently trapped nearly fifty elephants of all sizes, including one fine tusker, in the Mannar District, Northern Province. He was engaged in this work for about two years and gave it up on joining the Forest Department. The writer spent three weeks with him in 1881 at the Arúvi-aar river, and can testify that for thrilling excitement elephant-trapping leaves nothing to be desired. The trap is merely a very strong hide noose set in a particular way in the path, by which elephants go to drink in the dry season.

CHAPTER VI. I FOPARDS.

T is almost unnecessary to say that the animal commonly spoken of in Ceylon as the "cheetah" is really the leopard, *felis pardus*. It is known to most men that the two animals are quite distinct, and that the former, *felis jubata*, is not found in the Island, nevertheless almost everybody, even including well-known sportsmen, persists in misnaming the only large feline we have in our forests. The Sinhalese name of the creature is "kotiya" and the Tamil name "puli."

It has been asserted by men whose opinions are entitled to respect that both the panther and the leopard are to be met with in the Cevlon forests. The former is said to be the larger and to have twenty-eight caudal vertebra and the latter to have only twenty two. There appears to be nothing else in their structure to differentiate them, and it is difficult to believe that two species of the cat-tribe, not to be distinguished from one another by sight, could live together in the same forests and remain distinct. Inter-breeding must, in the course of centuries, have merged both species into one. The idea probably rose through the well known variations in size, length of limbs and tail and especially in colour to be observed in individuals according to locality and age. Natives who shoot at least fifty leopards for every one shot by Europeans, do not recognise more than one kind.

Leopards are fairly numerous in the low-country and are to be found wherever there is cover, and game for them to live on. In the hills they are now comparatively rare, owing to the conversion of the forests which they once infested in numbers, into coffee and tea estates. They are to be met with in all kinds of cover. in high forest, scrub, and bushy plains, but they prefer low hills, ravines and rocky ground. Their ranges are larger than those of most other animals, both because they have to search for their prev and because they have no reason to fear other animals except stronger males of their own species. A well-known peculiarity of these creatures is their habit of wandering along roads, jungle paths and game-tracks sometimes for considerable dis-Every traveller in the low-country forest is tances. familiar with its "pugs" or round foot prints owing to this habit.

Young leopards as soon as they are, old enough to hunt alone, will leave their dams and lead solitary lives, two or three leopards are often seen together, in which case they are either a male and female pairing or a she-leopard with one or more half-grown cubs.

The leopards of the low-country are, as a rule, larger than those found in the hills. Adult males will measure from six to seven feet from muzzle to tip of tail, stand from twenty-two to twenty-six inches high and weigh from 100 to 175 lbs. The females are of course smaller than the males. The ground colour of leopards varies from dark cinnamon red to rufous fawn with black spots arranged in rosettes and black rings on the tail. When seen in the shady forest they appear to be of a dark grey colour, and if standing still are not easily to be distinguised. Old animals will generally be found to have very light skins, the colour having faded from age, just as grey horses when aged often become almost white. Black leopards are said to have been shot but are extremely rare. They are believed to be merely freaks of nature.

Leopards are ordinarily cowardly sneaking brutes, but when driven by hunger will often act in the most daring way. They have been known to lie in the jungle a few yards from the "kill," quietly listening to men putting up the ambush and to come out and begin to eat within a minute after the men had left, also to enter native "compounds" and carry off calves and goats in broad daylight, also to snap up dogs trotting at the heels of their master's horses. As a rule, however, they can be safely driven away with stones; they will only snarl as they slink off. They are only dangerous when starving, cornered, or wounded and are then very dangerous indeed.

No other wild animals have keener sight or a sharper sense of hearing. It is to these two senses and their wonderful agility that leopards have to trust to find and secure their food. There seems little doubt that their power of smell is very poor. If they possessed this sense in the same perfection as their other senses, the forests would soon be depopulated of game. It is, nevertheless, beyond question that they often go days without food, being unable to catch game. They are hardly ever seen to put their noses to the ground to sniff as other animals do, and appear to have no instinctive knowledge of the advantage of stalking up-wind. When lying in wait for deer and pigs coming to drink, they may often be found to have posted themselves dead to windward of the path they were watching.

They are very active climbers and often climb into trees alongside game-tracks, from which they spring down on deer and other animals passing below. If pressed by hunting-dogs or other foes they usually spring into the nearest tree. They have often been shot in this position, but it is dangerous to fire at them under such circumstances as, if only wounded, they will drop down, all teeth and claws, when it is well not to be within reach. Like all the cat-tribe they dislike getting wet and avoid muddy places. Deer of different kinds, pigs and monkeys are their principal prey but they will eat any animal, bird or reptile they can catch; even iguanas, tortoises, and rats when hungry. The remains of wild pigs killed by these creatures are not often found, the reason being probably that leopards are often afraid to attack them owing to their clannish and courageous disposition. Three or four old sows shewing a bold united front would probably succeed in driving off any but a very ravenous brute. A full-grown old boar would be a formidable antagonist to even a powerful leopard. They sometimes succeed in pouncing on peafowl in long grass and in bounding after and striking down jackals and hares in open places.

Monkeys are such noisy creatures that they are easily found out by their spotted enemy. When a leopard appears under a tree in which monkeys are, there is the wildest excitement. The old males climb to the topmost branches and bellow and bark furiously, whilst the females and young ones spring frantically about. Meanwhile, the leopard darts about underneath, every now and then springing up against, or into the tree. Before long some monkey, mad with terror, misses a leap and falls, or losing its head, drops to the ground with the intention of making for another tree and is instantly caught and killed.

The harsh grating roar which a leopard gives with its muzzle to the ground when on the prowl is no doubt intended to attract the attention of the deer in the neighbourhood. As soon as the frightened creatures begin to bell in response to the roaring their enemy turns off in their direction guided by the sound. It continues to roar till close to them when it will suddenly stop and begin with rapid noiseless steps to stalk them. Before the alarmed deer realize their imminent danger it will spring out with short rapid bounds, rush in among them and strike one down. This only happens when it chances to come on them upwind, for if they scent it, they will be off long before it can get near them. If it fails in its first rush it rarely continues the pursuit.

Leopards have been seen in broad-daylight trying to attract the attention of deer feeding in the open by rolling in the long grass and playing other antics. The curiosity of the silly creatures being roused and not scenting the wily brute they approached slowly with craning necks and long ears cocked till near enough for their enemy to bound among them.

The leopard always attacks its victim, if a quadruped, by seizing it by the throat with its teeth and then grasping it firmly round the neck and shoulders with its strong forelegs, either dislocates its neck with a jerk or rips its stomach open by kicks of its claw-armed hind legs. Deer and small animals generally roll over with the shock of the brute's rush, but a fearful struggle will sometimes take place before a big sambhur stag succumbs to its blood thirsty foe.

Leopards generally commence to eat the soft parts of the belly of their victims, the udder if it is a cow, after tearing out the entrails. If undisturbed they will eat the whole of the carcase except the head and feet, including the hide. If the day breaks while they are eating in the open or if they hear any suspicious sound they will drag the carcase away to a more secluded spot. When gorged they will go only a short distance and lie down. If they do not succeed in procuring fresh food they will return again and again to the "kill" and continue to eat the carcase till the remains have become a mass of fly-blown corruption. There is little doubt that they will eat their own kind if killed in fight or found dead.

Unless very thirsty they will not drink muddy water but will go long distances to drink the clear water in rockholes and river pools. They invariably go off to drink after every meal.

Female leopards have generally two or three cubs at a birth, but a litter of as many as seven has been found.

The period of gestation is about fifteen weeks. The breeding place is generally a huge hollow tree or low dry cave. The cubs are born blind and are of a brown colour with spots not clearly defined. As soon as they can see and can run about freely they accompany their mother in her wanderings. She-leopards are said to drive away the males while they have cubs, lest they should kill and eat them. They nevertheless do not appear to have the same affection for their young as most wild animals have. There have been frequent instances of their being driven off and their cubs captured by unarmed villagers. She-leopards which have lost their cubs, will, however, remain in the neighbourhood two or three nights roaring for them. Young leopards leave their mothers when about eighteen months old, but continue to grow for about twelve months afterwards.

Leopards very rarely attack human beings unprovoked, but cases are recorded of half-starved brutes attacking sleeping men at night in lonely watch-huts and cattlebyres. Man-eating leopards which have killed more than one person are practically unknown. People killed by these creatures have nearly always met their fate by following them into dense forest when wounded or by coming face to face with them suddenly on a jungle path. Bites and scratches from these carrion-feeders are dangerous as likely to produce blood poisoning. Natives say that the decomposing flesh which collects in the groves of the claws of leopards produces such irritation that to relieve it they stand up against trees and scratch the bark violently. Trees so scored may often be seen, but whether for the above reason is not known. Leopards are also said to suffer from sore mouth and lips from feeding on rotten flesh.

Cattle-killing leopards are commonly believed to be old animals whose limbs have become too stiff and their teeth and claws too worn for them to be able to catch and kill

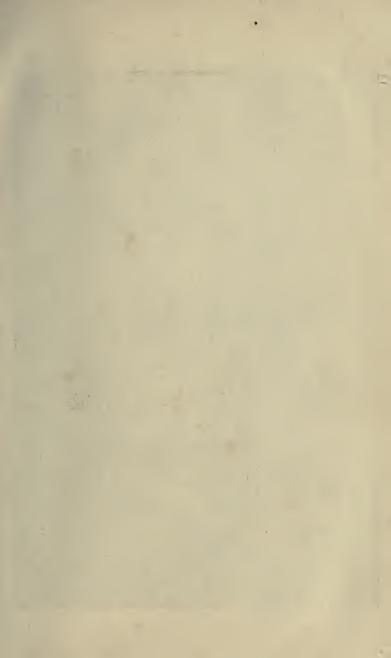
deer, but, as often as not, they are strong healthy young The probability is that they were driven by animals. hunger to attack village cattle, and finding how easy it was to kill them, took to living on beef in preference to venison. Leopards very rarely attack buffaloes, for as soon as a herd scent one they will charge it in a body, and if they catch it will soon gore and crush the life out of it. The half-wild bull buffaloes which wander about singly or in pairs, when not required for ploughing or other work, appear never to be molested by these creatures. Small village cows have been known to drive off and even kill leopards which had attacked their calves in cattle-sheds. A single leopard will sometimes make great havoc among the cattle of a jungle village, killing them in broad daylight with the utmost boldness. Such a "rogue" will never return to its "kill" for a second meal, not from any preference for fresh beef, but because it has learnt from experience that it is dangerous to do so. As natives have no other means of ridding themselves of such scourges except by shooting them from ambushes over the "kills." the brutes often continue their depredations with perfect impunity for a long time till shot by moonlight at some drinking place in the forest.

The reward now paid for shooting a leopard is R5, but it is unnecessary as a native has sufficient inducement to destroy the brute that is killing his cattle. Moreover, a leopard skin is now worth a good deal more than the reward. A good skin which might have been purchased at an outstation a few years ago for a couple of rupees is now worth from ten to fifteen rupees. The meat is sometimes cut into strips and dried and is eaten medicinally.

Cubs may not infrequently be bought in jungle districts for from R5 to R10 each. They make pretty pets till they are a few months old, after which they must be chained up or the ferocious little brutes will kill all the fowls and ducks they see, and after a time will attack sheep and

dogs. They are quite untameable. There is an erroneous idea that giving carnivorous beasts in captivity raw meat will excite their blood-thirsty dispositions, but they would probably be just as savage if fed entirely on vegetable food.







CHAPTER VII. LEOPARD SHOOTING.

The Mark Strand

EOPARDS are few in number considering the great extent of cover, and they wander about so much in their search for prey that no one ever thinks of going specially after them. They are, however, not infrequently seen by sportsmen when after other game, being met strolling along jungle-paths, as is their peculiar habit, or are caught sight of as they spring out of trees where they were lying in wait for deer and pigs, or are come on lying asleep in the sun, generally on rocks. They always bolt under these circumstances and are so quick in their movements that as a rule only snap shots are obtained.

Driving them by beaters out of the forest towards spots where sportsmen have posted themselves with their rifles has been tried but generally unsuccessfully. It should only be attempted when one is known to be lying up in some isolated patch or strip of jungle such as are found in the coast forests.

Most leopards killed are shot from ambushes when they have come to feed on cattle and game they have killed. On receiving news of a "kill" the first thing to be ascertained is whether the leopard believed to have done the deed is a "rogue" or not. If the former, it will be useless to sit up for it, as it will not return to the carcase for a

second meal. It may, however, return to the "kill" two or three days after the first meal being driven to do so by failure to catch any other animal meanwhile.

In fixing on the site for the ambush it is not absolutely necessary to consider the direction of the wind as the eopard, in consequence no doubt of defective power of smell, will come up the wind towards the spot without hesitation. It is more important that the ambush should be well hidden. If a tree stands conveniently near the "kill" it is best to have a platform or perch of poles and sticks built in it. It should be not less than six or eight feet from the ground, both to escape detection as a leopard rarely looks upward unless its attention be directed there, and because it is safer as a crippled brute unable to get away sometimes makes furious efforts to get at its assailants. The platform should be well screened with twigs not only in front but behind, as the leopard may come from any direction, sometimes from the rear, passing directly under the ambush to the "kill." A hole, a few inches square should be left to look and fire through. Men have sometimes used native cots from the village in the construction of ambushes but have generally repented it. finding them to be full of bugs.

It is dangerous to fire from an ambush on the ground or in a hole. Native hunters have lost their lives through firing at leopards standing on a level with them and facing them. On receiving the shot the brute is likely to bound forward in its surprise and terror and if it lands near the crouching man is certain to attack him furiously, perhaps inflicting fatal injuiries before falling dead a few moments later.

As little noise as possible should be made in cutting the poles and sticks for the construction of the ambush as the leopard, if gorged, is probably lying in the jungle not far off, twitching its round ears and blinking its fierce eyes as it listens to the preparations being made for its

destruction. It is in fact better to bring all the materials for the platform from some distance. There is no harm in talking and laughing in ordinary tones, but low voices and stealthy movements are likely to excite the brute's suspicions. When all is ready, the men who have been assisting in making the ambush and who are not going to sit up should be directed to go off to camp talking loudly or singing, which will give the leopard, if in the vicinity, the idea that the coast is clear and it will soon put in an appearance.

If the "kill" is lying in dense scrub or in any other inconvenient position it may safely be dragged out into some more open spot. The leopard will suspect nothing, thinking probably that it had been dragged away by some other wild beast. Some natives imagine that if any animal killed falls on its left side the brute which caught it will only eat of it once, but the idea has no foundation in fact.

The time when a leopard may be expected to return to the "kill," depends very much on when it caught its victim. If this happened during the night the probability is that the brute will be ready for another meal early next afternoon and that it will make its appearance a short time before sun set. The first indication of its approach may possibly be the excited barking of monkeys in the vicinity. Should jackals be tearing the carcase and they suddenly lift their heads, make a whining cry and then bolt, it is pretty certain that the brute is close at hand. On arriving at the edge of the open spot where the "kill" is lying a leopard usually stops and looks round. If its suspicions are in any way roused it may sit up on its hind quarters to get a better view. Sometimes, instead of going straight to the carcase, it will slink round through the jungle and approach it from the other side. Its movements are so silent that often the hunter watching for it has no idea that it is near till he sees the great spotted, long-tailed cat step daintily out of the jungle.

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Most men, on catching sight of the brute, are in such a hurry to shoot as to imperil their chances of killing it. If instead of going up to the "kill" it stops and steadfastly gazes in the direction of the ambush no time should be lost in firing, but if it goes straight to the carcase there is plenty of time and it should not be fired at till it stands still, broadside on, and offers a perfectly certain shot. Another reason for waiting is that there may be two of them afoot, one following the other a few moments later.

On approaching the "kill" and after sniffing it, leopards often purr with pleasure; they also sometimes frisk about and roll on the carcase in their satisfaction at the prospect of a gorge.

They are exceedingly tenacious of life, and even though mortally wounded often manage to get away. If their backs or limbs are broken and they are unable to move from the spot they will lie clawing the ground furiously, snapping their jaws and uttering loud fierce growls.

It is very dangerous to follow wounded leopards through dense forest. Native hunters have sometimes found to their cost that the brutes, though crippled or shot through the lungs, had sufficient vitality and strength left to tear the life out of their pursuers.

Attempts to shoot leopards over live baits are almost always failures. They are such wandering creatures that the chance of one being in the neighbourhood and being attracted to the bait is very small. It is only worth trying when one has got into the habit of going, night after night, to some village after calves and goats. It is, in such case, probably a female with young cubs and consequently not able to range far for food. The best bait is a kid on account of its loud and continual bleating, but they cannot easily be got, goats being rare in jungle villages. Calves are also difficult to obtain as natives will not sell them. Tying up pariah dogs is of little use.

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A cur that in the village would "make night hideous" with its barks and howls will, on being tied up in the jungle, instantly realize its danger and become as mute as a fish.

Leopards are sometimes caught by natives in cage-traps made of strong jungle sticks and baited, also by means of a noose of hide rope attached to a powerful spring made of a pliant young stapling which lifts the caught animal bodily into the air. They are also killed in dead-fall traps made of strong wooden frames heavily weighted with stones. Europeans stationed in wild districts have had large steel spring-traps made and used them with success in catching these animals. Spring guns are sometimes set for their destruction but, as they are illegal and dangerous to human beings and also unsportsmanlike, it is unnecessary to explain how they may most effectively be set. Poisoning the carcase of an animal killed is only excusable in the case of a "rogue" leopard which will not return to "kills" and cannot be otherwise disposed of.

When a leopard has been shot the skull should always be kept and the skin taken off in such a way that the head may be stuffed which will greatly add to the appearance of the handsome rug into which the skin may be made. The claws are often set in gold as brooches. Care should be taken to prevent natives cutting off the whiskers which are valued by them; some believing them to be deadly poison if chopped up fine and administered in food, and others that they have much virtue in the preparation of charms.



CHAPTER VIII.

BEARS.

HE Ceylon Bear, *Melursus ursinus*, is called by the Sinhalese, walaha and by the Tamils, karadi. These uncouth, savage creatures infest all the forests of the low-country but are not found in the wet forests of the interior at a greater elevation than about 1,500 feet. They are most numerous in the driest parts of the Island and prefer high forest interspersed with rocks. Their foot-prints, like those of club-footed men, may be seen in the sandy beds of every river and stream in the low-country in the dry season. In monsoon weather they resort to caves and large hollow trees.

The males generally wander about by themselves and the females with their cubs, but they sometimes go about in pairs. Occasionally a whimpering she-bear, followed by several ardent males, all in excessively bad humour, may be met with, a party it is as well to avoid. Bears do not range far but generally keep to the tract of forest in which they were born. Should one intrude on a neighbour's domains there are sure to be "ructions," for the creatures are great fighters. Many old bears have lost an eye or an ear or have scars to shew, the result of these encounters.

Owing to their shaggy, black hair they look larger than they really are. When facing men they seem broad and strongly built, but when stalking across the path in front of them their comparatively slender bodies and long legs are apparent. Their hind quarters droop and appear to be their weakest part, while their fore-legs are extremely muscular and armed with formidable, curved 3-inch claws which are capable of independent motion like fingers. The males are of course larger than the females. Old he-bears will stand about 33 inches at the shoulder, and when fat may weigh from 15 to 20 stone. They have peculiarly-shaped heads with long grey mobile snouts, their very loose lips being capable of protrusion. The hair round the head is bushy and often of a brownish tint, they have a white "horse-shoe mark" on the breast and white patches behind the ears, have a strong musky odour and are generally covered from head to foot with ticks.

The sight of bears is poor, nor is their sense of hearing particularly acute, but these deficiencies are more than compensated for by their remarkably keen sense of smell. They walk flat-footed with the toes of the fore-feet turned out, which gives them a peculiar comical gait. They often sit up on their hams. Usually they wander about slowly, nosing as they go, but if alarmed shuffle off at a great pace. If hard pressed they can gallop faster than a man can run. They are most agile climbers and constantly scramble up trees, often to a considerable height. in search of honey-combs, always descending backwards. They are also powerful diggers, their strong, blunt, nonretractile claws being well adapted for the purpose. Ordinarily they are very silent, only grunting from time to time as they shuffle about looking for food. If alarmed they growl menacingly, and if angered give loud coughing barks. When fired at unexpectedly they will utter roars of consternation, and if badly wounded give vent to most humanlike wails. They have a peculiar habit of sucking their paws when lying down, making a humming noise at the same time.

Bears may be said to be omnivorous, and they are not at all particular what they eat, Though usually vegetarians they are not above making a meal off any carrion they come across, if hungry. Roots and fruits of forest trees and honey are their chief food. They are very fond of ant-bread, and it is astonishing what holes they will dig in the stone-hard white-ant hills in search of this delicacy. Their strong inhalations as they suck the ants and larvæ out of holes and under rotten timber may he heard at a great distance. They are usually very lean, but in the hot weather, when many of the forest trees drop their fruit, they get extremely fat. The natives say that they sometimes so gorge themselves with the sweet pods of the "ehála" tree which have purgative properties, that they have been found lying in the forest scarcely able to move from the effects.

Though they are most numerous in the driest parts of the country, bears do not appear to be able to support thirst as well as other animals. They usually drink at rock-holes in the depths of the forest, but when these and the tanks and pools are dry, they go to the rivers and dig for water in their sandy beds, often making huge pits.

She-bears have generally two cubs at a birth but sometimes only one, the period of gestation being about seven months. The cubs are blind for about three weeks after birth. The maternal instinct is very strong in bears. They do not leave their young in caves or hollow-trees as most wild animals do. For a few weeks after birth the mother carries her cubs about on her back when looking for food, the little creatures holding on with their feet and claws to the thick fur on their mother's neck. When suddenly alarmed, while a cub is running about, its mother will sometimes catch it up in her mouth and bolt. The cubs stay with their mother till nearly full-grown.

Next to elephants natives dread bears more than any other wild beast owing to their bold and savage dis-

position. By far the greater number of deaths and mutilations suffered by jungle villagers have been from attacks of these brutes, met with suddenly in the dark or at close quarters on forest paths. They do not, as is generally supposed, rise on their hind legs to attack, but rush at their victims, and on their falling, throw themselves on them and holding them down with their fore-feet bite savagely, continuing to do so even after they have ceased to struggle. They have a terrible habit of clawing the faces of people who have fallen under their attacks. Men who have had their cheeks torn away and their eves raked out by the claws of these creatures are to be seen in every jungle district. Natives say that they also always bite their victims in the private parts, and there is no doubt that there have been cases of such mutilation. An attacking bear if struck heavily on the snout is likely to bolt. Small rewards are paid by Government for their destruction, but they are seldom shot by natives, and it is probable that their number is increasing.

They are usually shot by Europeans by moonlight when coming to drink. Some account of this form of sport will be found elsewhere. They are not very often seen in the daytime, but any sportsman going quietly along old timber-roads or game-tracks in a wild district, in the early morning or late in the afternoon, is likely enough to meet one. On catching sight of him the brute will usually face him silently with its long snout stuck out enquiringly and its wicked little eyes squinting. A ball in the centre of the "horse-shoe mark" on its breast will drop it dead. If only wounded it will utter a roar of surprise and anger and then bolt. It will generally not attack unless so near its assailant that it thinks it cannot escape. Bears as a rule are easily killed, not having apparently the tenacity of life most savage creatures have.

In the isolated rocky hills which are to be found scattered about the low-country, caves may often be found,

which are permanently occupied by families of bears. They are not to be found in ordinary rock-cavities, the whole extent of which may be seen from outside, but only in caves which have deep holes or pockets at the back into which the brutes can crawl and lie snug, invisible in the darkness. It is first-class sport routing them out of caves such as these. The floor of the outer cavern is generally thickly strewn with fine dust and it is easy to tell from the foot prints whether the family is at home. As a rule on hearing voices outside, the bears will lie close and give no indication that they are crouching there listening. Crackers are generally required to drive them out. Most bear caves have two or more entrances and the crackers should be thrown only into one, leaving the other open for the bears to bolt out of. Before throwing them in, however, two of the party should be directed to go away talking at the top of their voices so as to deceive the bears into thinking that the men who had disturbed them had gone away. Halfan-hour should be allowed to lapse in perfect silence and then, the sportsman having posted himself in a safe position commanding the mouth of the cave, the crackers should be lit without noise and thrown suddenly in. The uproar which always follows is usually found by tyros rather trying to the nerves, as all the bears within "woof-woof!" fiercely, and come scrambling out in their consternation, giving as a rule easy shots. Sometimes, however, if they suspect danger outside and the cave is large, they will retreat to the back of it and make it echo with their deep barking growls.

Smoking bears out of caves has often been tried but it is a tedious and generally unsatisfactory method. It has frequently ended in the animal being suffocated in the deep recesses of the cavern where it could not be got at. Female-bears have allowed themselves to be burnt to death rather than bolt out and leave their cubs to their fate. If there is only one narrow entrance to the bear-cave it is obviously senseless cruelty to build a big fire at the mouth. Another method of shooting bears which are known to live in particular caves is to lie in wait for them as they . return from their night rambles. They may be expected to turn up soon after daylight, and as they come along, swinging their bodies and rolling their heads, unconscious of danger, they may be shot without trouble.

There is no record of any attempt ever having been made in Ceylon to hunt bears with dogs, but it would probably be most excellent sport. Two or three strong, plucky bullterriers, which would seize by the nose, throat and ears, would probably hold any bear and give the sportsman an opportunity to knife or spear it. The dogs are not likely to be much injured by its blunt claws.

The fur or rather hair of a bear is generally so coarse and thin that the mangy-looking skin is scarcely worth taking. Occasionally, fat young bears with thick glossy hides are shot. The claws may be set in brooches but are scarcely worth it. Natives attach no particular value or virtue to bear's fat or grease and do not extract it. They, however, always cut out the gall-bladder, for which native doctors will give two or three rupees. The male bear, like many of the carnivora, has a bone in the penis which is sometimes cut out by sportsmen and kept as a curiosity.

Bear-cubs have often been kept as pets. While young they are amusing little creatures but soon become savage, surly brutes which must be chained up or shot. They apparently cannot be tamed like the bears of temperate elimes.

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CHAPTER IX. WILD BUFFALOES.

ILD buffaloes are not numerous and are only found in certain localities which suit their habits. Abundance of water to wallow in is absolutely essential to these ungainly creatures, and they are consequently only found where secluded tanks and river-pools exist in the depths of the forest. They are not found in the hills or in the south-western parts of the Island. The Sinhalese name is "wal miharak" and the Tamil "kúlú mádú." A solitary bull is called in the former language "wal míwá" and in the latter "kúlú kidá."

The herds are generally small, rarely exceeding a score in number, and consist of cows and calves; among which are often animals which are only half wild, being once tame beasts which have taken to the bush. The full-grown bulls are seldom with the herd but wander about by themselves and are a source of trouble and loss to the villagers as they often enter the village herds and fight with, and sometimes kill the tame bulls and carry off the cows. In districts where wild buffaloes are found in any number the villagers will not attempt to keep tame ones.

There is nothing in their appearance to distinguish wild from village buffaloes, they being ordinarily no bigger and having the same ungainly build, and hairless, slate-coloured hides. They may perhaps be said to have more grey about them. As with domesticated animals the males are larger

than the females, and the bulls have massive curving horns, while the cows having usually longer, thinner and straighter ones. Solitary bulls sometimes grow to a great size, fifteen hands at the shoulder being about the extreme limit in Ceylon though they have been shot a good deal bigger in India. Their peculiarly high withers makes measurement at the shoulder give results out of proportion to the real bulk of the animal. In their behaviour wild buffaloes are very different from tame ones, being comparatively agile and alert. If they see or smell a human being they will be off at once, their actions shewing unmistakeably that they are forest-creatures.

Their habits are very similar to those of ordinary village buffaloes; they spend much of their time in the water and graze at night or in the cool of the morning and evening.

Herds of wild buffaloes are easily found as the villagers generally know where their favourite wallowing-places are, and at what time they are accustomed to resort to them. As, however, no sportsman wants to shoot cows, the only advantage he derives from this is that he may chance to find with the herd some big bull which had temporarily joined it. If found grazing in the forest or wallowing in some pool the herd may easily be approached up-wind. If there is in it a cow with a very young calf she may give trouble, but, as a rule, on realizing that danger is near the whole herd will bolt headlong.

If come upon in the open, wild buffaloes will generally form in line and stand staring in the direction of the intruder with their noses stuck out and their horns laid flat on their necks. Suddenly one of them will give a snort and a stamp, and at the signal they will turn and gallop off heavily with their tails stiff out behind. Sometimes they will charge down on the sportsman in a body, but this is only when they are uncertain what danger is threatening them, and perhaps suspect it to be a sneaking leopard

after their calves. A shout and waving the arms wil generally turn them, but if that does not suffice, a shot the air is almost certain to send them flying.

It is almost as difficult to approach an old solitary bul in the open as to stalk deer. Before firing at one it is as well to have the positive assurance of some native of the place that it is wild. Not a few inexperienced sportsmen have had to face claims from indignant villagers to be paid the value of murdered domestic buffaloes. It is not altogether safe to act on the well-known paradoxical rule, "If the buffalo bolts it is a wild one, if it charges it is tame one!" as a bull which gallops off on sight of the sportsman may be really only a half-wild one.

When buffaloes charge, meaning mischief, they do so in a blind, headlong fashion with their heads down and one horn advanced, offering a very difficult shot. They are very tough brutes and will sometimes take half-a-dozen shots before falling, though, of course, one well-directed shot will cause instant death. When badly wounded they generally lie down, but if approached will make a dying effort to charge or get away.

Wild buffaloes are "game" under the Ordinance and are even more stringently protected than deer. There is no close season for them. They are seldom caught by the natives as they scarcely repay the trouble of trapping and training them.

The horns of Ceylon wild buffaloes are not to be compared with those obtainable in Central India, Burmah, and Assam. Horns measuring over six feet along outside curve across frontal bone are of quite exceptional size here, but would be thought little of in India.

The meat of wild buffaloes is not of course eaten by Europeans, but the tongue is sometimes cut out and salted.

CHAPTER X. SAMBHUR.

HE Sambhur, cervus unicolor, which is the largest species of deer found in the Island, is almost universally called the "elk," the name given to it by the English officers who conquered and administered the country in the early part of the century. This misnomer will never die out until newspapers make a practice of calling the animal the sambhur, by which name it is known all through India. No sportsman should ever speak of it as the "elk." Its Sinhalese name is "góna" and its Tamil name "murrai."

Sambhur inhabit all the forests of the Island, from the tops of the highest hills to the coast. They are commonly found in high, open forest and are rarely seen in scrub jungle or in open plains. They are fond of the low-lying, damp jungle surrounding tanks and also frequent rocky hills where they lie during the day in the cool shade of overhanging rocks.

They are never seen in herds though sometimes three or four may be come upon feeding together, consisting of stag and hind and half-grown young ones, but they generally go about in pairs. When a hind has young fawns the stag leaves her and wanders about alone.

They grow to a larger size in the low-country than in the hills and the stags have finer antlers. A full-grown stag

will stand from 12 to 14 hands at the shoulder, and an inch or two higher at the haunch, and will weigh from 40 to 50 stone. They are covered with coarse, stiff brown hair which is thick and long on the necks of the stags and bristles up like a mane when the animal is excited or alarmed. The antlers of the stag attain their complete form about the fourth year and after that go on increasing in size annually for several years. The earlier horns are probably shed annually, but later in life they are apparently retained for longer periods, for two years or even more. They are commonly supposed to be shed about April, but it is doubtful whether there is any particular season when this happens. In four or five months new antlers will have grown and the stags will then begin to look for mates. While their horns are "in velvet" they are very wary, keeping to the densest parts of the forest, it being painful to them to strike their tender sprouting horns against the underwood while moving about.

Being very shy creatures they are less seldom seen in the day time than cheetul and other deer, unless come upon lying down in the dark forest. Just after the rains, however, they are more often seen as they are driven out of the forest by the stinging flies and musquitoes which infest it.

Being probably the most hunted of all forest creatures their senses have become very highly developed. They have remarkable powers of smell, their large ears, from 7 to 8 inches long, enable them to hear sounds a long way off, and their eyesight is good.

When undisturbed they wander about browsing, slowly and silently, but when alarmed will bound away heavily and noisily. They are extremely sure-footed, and can swim well when forced to take to the water. When the tanks and pools are dry they are accustomed to dig for water with their fore feet in the sandy beds of rivers. The only sound they make is a loud brassy bellow which can be heard to a great distance, and might easily be mistaken by any one hearing it for the first time for the roar of some ferocious wild beast.

They have some habits which other species of deer have not. They are fond of wallowing in mud-holes in the forest, thus caking themselves with clay from head to foot, probably as a protection from the ticks and flies which worry them. They are accustomed to wander long distances along forest paths, a habit they share with their archenemies the leopards. They also nearly always return along the path by which they had gone to drink, instead of wandering on as most animals do.

It is doubtful whether there is any particular breeding season. The rutting-time is supposed to be about October and November, because the bellowing of the stags may be heard more frequently then than at other times. They fight a good deal while in a state of sexual excitement, using their brow-antlers chiefly in their combats. The hinds gestate about eight months and hardly ever have more than one fawn at a time.

Sambhur are a great nuisance where chenas and plantations have been made in the forest, as, being powerful and agile, they easily break down or jump over fences and will do great damage in one night.

They are the principal object of the native hunters nightshooting. The meat of a full-grown one, fresh or dried, is worth a considerable sum, from R5 to R25 according to whether it is shot in the vicinity of a town or not. Its horns and hide are of comparatively little value, the former, in the low-country, being worth only about 37 cents per 1b. and the latter from 25 to 50 cents for the whole skin.

Their only forest enemy is the leopard, a very formidable one. There is little doubt that more sambhur than cheetul are killed by leopards, probably because they keep to

the deep forest where they are easily stalked, while other animals frequenting the glades and open places have a better chance of escaping the enemy.

The fawns are often kept as pets but they are not very pretty, and if stags, will become dangerous when they grow up and get antlers.

Sambhur may not be fired at without a game license nor during the close season. No sportsman will, of course, care to shoot them in native fashion when coming to drink on moonlight nights, or will fire at hinds or at young stags without antlers. To find sambhur the best way is to stroll quietly along old timber-roads and game-tracks in high forest. It is of little use to attempt to walk without making a noise, as for the greater part of the year the jungle is so thickly strewn with dry fallen leaves and twigs that every step, however cautiously taken, is audible to a considerable distance in the still forest. It is better to imitate, to the best of one's ability, the movements of a sambhur, which, in common with other deer, also buffaloes and pigs, steps heavily with its fore feet and drags its hind feet. This may enable a sportsman to get nearer his game than he otherwise would, provided of course, that he is going up-wind,

In the heat of the day they will generally be come upon lying down. If a stag hears any suspicious sound it will stamp with its fore feet and then uttering a harsh short bellow, bolt crashing through the underwood. When brought to bay its size, sharp antlers and bristling mane give it rather a formidable appearance. If approached then it may charge head down and inflict fatal wounds with its sharp horns or may rise on its hind legs and strike at the hunter with its fore feet. It is said that a young European, who was trying to "stick" a sambhur at bay, holding his knife in front of him, blade downwards instead of upwards, was killed by the weapon being thrust into his own breast by a kick from the fore feet of the beast. If any rocky hills are in the neighbourhood of the camp, the sportsman would do well to visit them and clamber quietly about looking for sambhur, paying due attention to the direction of the wind. They may often be found lying in cool damp recesses under overhanging rocks. Bears and leopards may also be met with in such places; in fact most wild animals appear to have a liking for forest much cut up into ravines and water-courses and strewn with rocks and boulders.

Sambhur are not easily killed and will gallop off with a wound which would stretch almost any other animal on the ground. Scores of them must every year die lingering deaths, which have been fired at by natives at waterholes, but which have got away in spite of their wounds. Many of the stricken creatures also, no doubt, fall an easy prey to leopards.

Sambhur horns are small for the size of the animal. The longest pair, of which there is record, were those of a stag killed in India, which measured 48 inches, but were rather thin. Antlers reaching 36 inches are seldom seen in Ceylon, in fact any over 30 inches may be considered exceptionally good. They have seldom more than six points.

The meat is very poor, being dry and tasteless, but the leg bones are peculiarly rich in marrow, the bones being more hollow than those of most other animals. The hoofs are sometimes converted into jelly.



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CHAPTER XI.

CHEETUL (SPOTTED DEER).

HE cheetul, Cervus axis, is the animal which is universally spoken of in Ceylon as the "spotted deer," and is so described in the Game Ordinance. It is, however, obviously absurd that Ceylon men should have a name for one of the commonest of the deer-tribe different from that by which it is known to their brother sportsmen throughout the length and breadth of India. It is called in Sinhalese múwá and in Tamil púli-mán or "leopard deer." There is no doubt that it is far and away the most beautiful animal in the Ceylon forests. Most men, on shooting one for the first time, have felt some remorse on seeing the golden-coated, graceful, gentle creature lying gasping out its life on the ground.

Cheetul are not found in the hills but only in the low-country, especially in the coast forests, where there are grassy plains interspersed with bushes and strips of forest to which they can retire during the day. The high forests in the interior contain comparatively few of them, but they are numerous in the park-country, the glades along banks of rivers and the neighbourhood of tanks. They are less nocturnal in their habits than sambhur.

They are gregarious and may sometimes be seen in herds of fifty or sixty in wild parts of the country, though

more often in parties of about a dozen and not infrequently in families. They are very conservative in their habits and never wander far from their accustomed haunts. Unlike the males of most other large species of wild animals the bucks remain with the herd and do not go about feeding by themselves. They, however, keep aloof from each other, one or two antlered ones lording it over the others. Should two big bucks accidentally come together within butting distance a fight follows. It is a pretty sight to see the handsome creatures, with proudly arched necks, bristling coats and flashing eyes approach each other slowly with mincing steps and then suddenly rearing, bring their long, thin sharp antlers together with a clash and after a few minutes' scuffling, disengage and go promenading round, apparently under the impression that the admiring eyes of their does are upon them, These, however, continue to graze placidly or stand licking their fawns, paying not the least attention to their lords "goings on."

A full-grown buck will stand from 36 to 40 inches at the shoulder, will weigh about 18 stone, and has usually remarkably graceful, slender antlers. Mal-formed horns. are, however, not uncommon, both among these deer and sambhur, the results generally of accidents while growing. Cheetul are said to shed their antlers about the beginning of the hot weather, but it is improbable that there is any particular season. It is in fact doubtful whether they shed their horns regularly every year, more especially after they have passed middle age. When their new horns are nearly grown they rub them against trees to scale off the dry skin which adheres to them. For this "burnishing" they seem to choose particular trees from the bark of which resin exudes. Most "shed" horns are picked up by natives in the open plains, the long grass of which they burn off in order to facilitate the search, a highly objectionable proceeding for which they can be punished if caught.

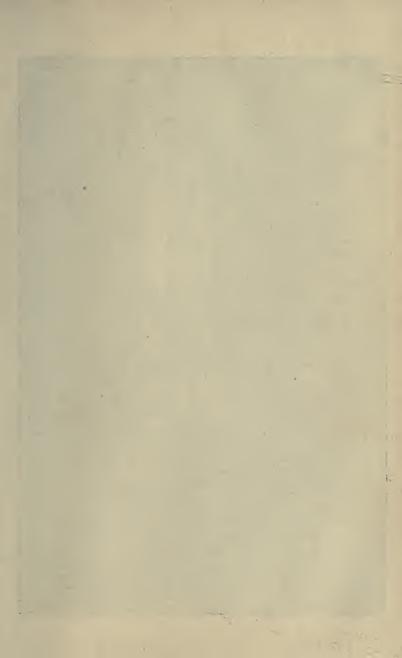
Albinos almost white in colour are sometimes seen. Robert Knox, in his charming old book, gives an account of the capture of one for the King of Kandy, which was accomplished by the surrounding of the herd, of which it was a member, by a large body of men.

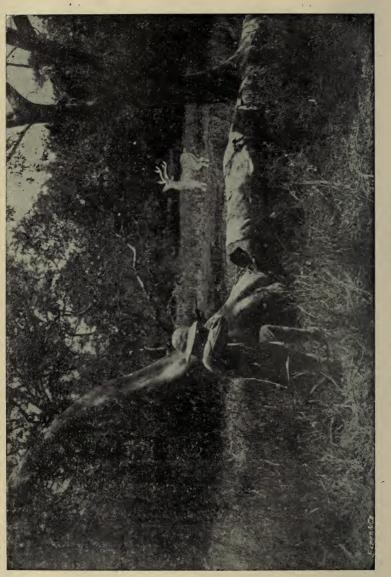
Cheetul are not easily approached, having all their senses highly developed and being always on the alert. When stampeded their movements as they bound away are extremely graceful, but if they merely suspect that danger is near they will slink off head down at a trot. They can swim well, but only take to the water when hard pressed. Bucks hunted by dogs in the coast forests have been known to plunge into the sea and swim out to rocks some distance from shore. They do not appear to be able to dig for water as sambhur do.

The "belling" of bucks is a peculiar moaning sort of bellow generally to be heard at night. When frightened cheetul utter short, sharp barking sounds which are more suggestive of fear than any other wild animal cry.

The does carry their young for about six months. The fawns are about the prettiest little creatures in the world and make the most affectionate pets, following their owners about like dogs. Many are killed every year by pythons which lie in wait in the grass at narrow places in the glades. The mothers try to rescue their young and to kill the snakes by stamping on them with their sharphoofed forefeet, but it is to be feared, very seldom succeed,

Cheetul may not, of course, be fired at without a game license, nor during the close season. The best weapon for shooting them is perhaps a good double '450 express, but, if they are very wild and the country is open, an accurately sighted, single, small-bore rifle will be required for long shots. When met with in the forest they can be killed with buck-shot, but it is an unsportsmanlike and cruel method. They are, with the exception of wild pigs, about





CHFETUL (SPOTTED DEER) SHOOTING.

the only animals which, owing to their frequenting grassy plains and open places in the forest in the day-time, can be stalked and shot at long range. They will not, as a rule, be found out in the open after about eight o'clock in the morning or before five o'clock in the evening. After a rainy night, however, they will often stay out, almost all day, if the sky be cloudy, as they greatly dislike the drip from the sodden forest trees on their coats. They may sometimes be found in newly-burnt chenas or where there have been grass fires, having gone there to lick the ashes.

To shoot them it is best to be about very early and to prowl quietly up-wind round the edges of plains, tanks, old fields and other open places, taking care to keep behind the bushes as much as possible. A small pair of glasses will be found useful to take a look round on emerging onto open country. Cheetul, when standing still, are not to be easily distinguished from the back-ground of forest, and unless precautions are taken, will detect a moving figure at a great distance and be off. They are not easily stalked, and many a man, after a laborious crawl on hands and knees, has raised his head cautiously on nearing the herd only to find that they have vanished like shadows.

On coming unexpectedly on a herd of deer out of range, and seeing them all raise their heads quickly, the sportsman should instantly become as rigid as a rock and not stir hand or foot. Unless they have been much hunted and are very wild the deer will stare fixedly at him, and after a time, seeing no further movement in the object which had alarmed them, will often resume browsing. If the sportsman then lowers himself by imperceptible degrees he may succeed in getting to cover without stampeding the herd and in getting a shot shortly afterwards. Most sportsmen have noticed how instantaneously an object moving in the distance disappears from view on ceasing to move. This is best seen in the case of birds on the wing. A flock of

small birds may be seen flying a long way off; any single member of what would be invisible to ordinary eyesight if perched on a fence a couple of hundred yards off.

On getting within range of a herd undetected the sportsman will, of course, wait a minute or two to pick out the best buck and to steady himself for the shot. When his victim falls to the shot there is generally time enough to empty the left-hand barrel at another buck if in full view, as the startled herd will not bolt for a few seconds, but stand staring at their fallen comrade. Men who pride themselves on being good sportsmen will not of course fire at does or at young bucks without antlers.

They are fairly easily killed, but if only a leg be broken, a buck will, as likely as not, get away. It is wonderful how far and fast one will go on three legs.

Europeans have sometimes tried the native method of shooting deer by moonlight with the assistance of a trained buffalo. Such animals, tame enough to allow Europeans to walk beside them, are very rare. As a novelty it is worth trying if one has the chance, but, owing to the uncertain light, far more deer are likely to be wounded and lost than bagged.

The average length of full-grown cheetul horns is about 25 inches. Antlers over 30 inches may be considered to be unusually good ones. The longest pair recorded was 38 inches.

The meat is better than that of sambhur, but is usually dry and tough, but gets tender if kept. When a buck's horns are "in velvet" it is generally very fat and the meat is then excellent.





CHAPTER XII. MUNTJAK (RED DEER).

TN the definition of "game" given in Section 3 of the Game Ordinance, "red deer" and "barking deer" are referred to as if they were two different animals, but as a matter of fact they are both names of the small deer which is known throughout India as the muntjak. It is also called the "rib-faced deer" and has other names, but it is obvious that it should always be spoken of by the name given to it by all Indian sportsmen. Its scientific name is cervulus muntjac; its Sinhalese name is weli-muwa or ólúwa, and its Tamil name pulatamán.

Muntjak cannot be shot without a license or in the close season. They are found almost everywhere in the forests except in the highest hills, and always near water. High forest liable to floods, also swamps near tanks and along rivers are their favorite haunts, and they hardly ever venture into open places. They are not gregarious, and though sometimes seen in pairs, the bucks generally wander about by themselves. The does, when they have young, lie very close in the darkest thickets and the fawns are seldom seen.

They are one of the smallest species of deer and have long bodies with legs disproportionately short. A well-grown buck may stand 30 inches at the shoulder and weigh 50 lbs., but the average is something less. They are of a reddish brown colour with bellies and thighs white; those found

on the hills being of a deeper shade of red than the lowcountry variety. The hair is smooth and glossy. The bucks have short horns, about 5 or 6 inches long, on a hair-covered pedicel, with hooked tips and a small tine near the base. It is doubtful whether they are ever shed. The males have also long projections or ribs on the face and large canine teeth in the upper jaw, projecting about $1\frac{1}{2}$ inches from the gums, with which they can inflict severe wounds on dogs attacking them. They all have unusually long tongues with which they can lick their whole faces.

Though very shy creatures they often stand and stare stupidly at men who come on them suddenly, affording easy shots. They run in a peculiar way with the head held very low, and make a clicking sound as they go. It has never been satisfactorily ascertained how this sound is produced.

They have very loud voices for such small animals, and when excited, often "bark" for an hour at a time. They may be easily killed with a charge of large shot. The venison is very good, much superior to sambhur and cheetul meat.



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CHAPTER XIII.

WILD PIGS.

ILD pigs, which are called wal-ooru by Sinhalese and kåtu-pandi by Tamils, are not considered "game," and are not protected in any way by the Game Ordinance. Nevertheless, of all the larger wild animals they are much the most numerous. They are to be found both in the hills and in the low-country, and are very common in the neighbourhood of the few jungle villages in the eastern and western parts of the Island, which are inhabited by Moormen, who will not touch these unclean animals. There are favourite haunts in the lowcountry to which the expressive phrase that they "stink of pigs" might almost literally be applied. Numbers are shot, taken in dead-fall traps and killed by leopards every year, nevertheless, there is little danger of their ever becoming scarce.

Though found everywhere wild pigs avoid the high, dry tracts of forest in which for the greater part of the year water is scarce, also dense thorny scrub and the sandy forests along the coast. They love swamps and the neighbourhood of rivers and tanks where there is plenty of soft soil for them to grub up in search of roots and larvæ, also mud to wallow in.

Herds of all sizes are to be met with, from families of half-a-dozen to droves of fifty or more. These consist

almost entirely of sows and young pigs of both sexes, as the boars, as soon as they arrive at full growth, wander off by themselves, only joining the herd occasionally. Natives say that solitary barren sows are not uncommon.

In size wild swine are smaller than the ordinary domestic pig, and are of course, much thinner and leggier. The boars are much larger than the sows, and formidable brutes standing 40 inches at the shoulder and weighing over 20 stone, with thick mane-like bristles on the neck and sharp curving white tusks may sometimes be seen. Ordinary boars are about 30 to 34 inches high and weigh about 15 stone in good condition. All wild pigs have a musky odour which is especially strong in the old boars.

Though so much hunted by both men and leopards, they shew less timidity and are more often seen out in the open than other wild animals. If their suspicions are roused and they are uncertain what danger threatens them, the sows, though almost defenceless creatures, will sometimes advance grunting as if about to attack the enemy. They are very clannish in disposition. Should a pig squeal from fear or pain the other members of the herd will run to it at once to ascertain the cause of the trouble.

All their senses are fairly good and they are as much on the alert as other wild animals, but, from their habit of lying in hollows or hidden in the sedge along tank margins and in other positions from which they have no view, they are, as a rule, easily approached. They walk only on the two large middle toes which are provided with strong hoofs; the upper back toes do not touch the ground except in very swampy soil. When bolting they can gallop at a great pace, as many a man has found who has tried to cut off from the jungle one which he has surprised wallowing in a mud-hole in the open. Their power of turning up the soil with their hard snouts is very remarkable. One of the commonest of jungle-sights is the soft margin of a tank dug up by them as systematically and completely as if done with a hoe. They are rather more noisy than most animals. A "sounder" of them while grubbing will keep up a continual low grunting which sometimes betrays their presence, and the little pigs often fight, running at each openmouthed and squealing loudly. The shrill screams of a wounded pig are ear-piercing.

Wild pigs are omnivorous, Their food consists generally of fallen forest fruits, roots and grubs. They will, however, devour the remains of any animal they may find dead, and do not object to the flavour though the carcase be a week old. Generally they are lean and tough-fleshed, but, about the middle of the year when the forest trees, especially the sweet-fruited "pálai," drop their fruit, they get very fat. From twenty to thirty measures of fat have been obtained by villagers from a single pig. They usually drink at the forest and river pools, but in time of drought resort to the dry rivers, in the sandy beds of which they dig for water making deep holes. They spend a great deal of their time wallowing in mud holes for the sake of coolness and to escape insect pests. Old boars are fond of rubbing themselves against trees. The bark may often be seen deeply scored by their tusks which they are popularly supposed to sharpen in that way, though it is more likely that it is done merely for amusement.

The sows begin to breed before they are two years old, and often have two litters of four to six young each year. The period of gestation is only about four months. When about to give birth to a litter a sow will make a "nest" of grass which she will reap with her mouth and lay systematically in layers. Under this shelter she will lie hidden with her young until they are old enough to run about. These "nests" may often be found in open places, generally at the edge of the forest. The little pigs are more hairy than adults and have fulvous brown stripes along the back and sides. They are often run down and caught by natives. It is said that cross-breeds between wild and domestic

breeds are sometimes to be seen in the jungle villages. Though unclean feeders they do not appear to be subject to disease, and their sagacity and suspicious natures generally save them from accident. A whole herd has, however, been known to jump down into a village well in the extremity of thirst.

Though wild boars have a great reputation for ferocity and gameness, natives appear to have little fear of them as they never attack human beings unprovoked, though it is more than probable that any person approaching one wounded but on its legs, might get very badly ripped by its sharp tusks. Bull-dogs have been known to tackle boars single-mouthed and to come off scatheless, but as a rule dogs venturing to attack them have very soon to retire with their entrails hanging out. It has been said that no leopard will attack a full-grown boar, but it is doubtful whether this is so.

Wild pigs are the chief enemies of the native paddy cultivators and chena clearers. They are cunning fencebreakers, and during crop-time the fields and clearings have to be vigilantly guarded against their drepredations. It is on this account that they are not protected by law, but may be shot anywhere and at any time. Several persons in the Eastern Province have, of recent years, taken up as a business the shooting of wild pigs and salting the meat for sale at Galle and elsewhere.

Attempts have often been made to domesticate young wild pigs, but, if boars, they always grow up so savage as not to be safe to approach.

"Pig-sticking" has never been attempted in Ceylon; no doubt on account of the density of the cover which makes riding after these animals impossible. The shooting of boars is consequently not considered unsportsmanlike here as it is in India. Sows and young pigs are, of course, only shot for food and not as "game." The only trophy a boar yields is its skull and tusks. Any tusks measuring over eight inches along outside curve are above the average size, but pairs over twelve inches long are sometimes got. Two-thirds of each tusk are embedded in the jaw, only two or three inches protruding. The sows have small tusks and can use them when defending themselves against dogs.



CHAPTER XIV.

CROCODILES.

ROCODILES certainly cannot be considered "game," but they are so numerous and so much amusement may be obtained in shooting them or fishing for them that some account of them and of their habits and haunts will not be out of place here. They may be bracketed with snakes as creatures to be destroyed by any humane means wherever and whenever met with. Any person killing one has the satisfaction of feeling that he has rid the world of a noxious reptile.

The Sinhalese name for crocodiles is kimbula and the Tamil name, muthalai. They are sometimes, but erroneously spoken of by Europeans as alligators. It is a moot question whether there are two species in Cevlon, the tank and the river crocodile, but to the unscientific eye there is only one kind. They are not found in the hills, but are extremely common everywhere in the low-country where there is water. All the tanks, rivers and forest pools in the interior swarm with them, and they are also found in the lakes and estuaries along the coast, both in fresh and brackish water. They have often been seen swimming in the sea while making their way to fresh feeding grounds, or having been carried out into the salt water by floods. Travellers have frequently come on them migrating overland from some dried-up tank to some place where experience or instinct tells them there is likely to be water. There

must be hundreds of thousands of these loathsome and dangerous brutes in the Island. Several scores of them may often be seen together basking in the sun on open ground at the edge of a tank.

The largest crocodile ever killed in Ceylon is believed to be a man-eater which was caught in the Matara district a good many years ago and measured a little over 22 feet. Any over 12 feet in length may be considered to be big ones. As is well known they are of a dark, dull green colour marked with irregular black blotches, with yellowish white bellies, are covered with slime and have a strong musky odour. They cannot remain under water like fishes, but are obliged to come to the surface every few minutes to breathe. Their droppings, often found on the bunds of tanks, are quite white and look like balls of lime. They are said to shed their teeth annually.

Contrary to the old idea that crocodiles have no joints in ther backs and cannot turn easily, they are extremely quick in their movements on land. When running they raise themselves on their bandy legs and scurry along on their webbed feet with their tails up, at a great pace, and they can turn and dodge with an agility few animals can equal.

During the day they lie on land basking in the sun, sleeping with their mouths wide open, or float motionless on the water with only the tops of their heads and the serrated edges of their backs above the surface. When disturbed in the water they often blow through their nostrils before sinking, spraying the water to the height of 18 inches, and on rising again will only protrude the tips of ther snouts to breathe. They are only lively at night, which is their feeding time, when they may be heard splashing about catching fish and slapping the water with their tails. At this time they often make a peculiar noise not easy to describe. When caught on dry land they generally utter a sort of growling hiss to

intimidate the enemy. Many of the tank bunds in the low-country have what may be called "croc-slides," down which the creatures slip when taking to the water.

Crocodiles destroy numbers of deer, pigs, cattle, monkeys, and dogs. Their method of attack is to seize by the nose or leg animals coming to drink and to hold on like bull-dogs. The poor creatures, in spite of their desperate struggles, are gradually dragged into the deep water and drowned. The carcases are then pushed into holes in the banks under the surface and left to ripen. Crocodiles also feed on fish, water-birds, and tortoises, in fact on any living thing they can catch. They swarm at the birdbreeding places in the forest, which are always in trees overhanging the water, being attracted there by the numbers of fledglings which fall out of their nests into their maws. Being carrion-eaters by choice, they will come out of the water and go considerable distances to feed on dead buffaloes and cattle, and will readily eat the remains of individuals of their own kind which may have been shot.

The female crocodile lays from eighty to one hundred soft-shelled eggs and buries them under the sand to be hatched by the sun. The young ones are only a few inches long when they emerge from the shell, and are vicious little brutes, shewing their ferocious natures from the very commencement of their existence.

Jungle villagers shew less fear of ordinary crocodiles than might be expected, and may sometimes be seen bathing unconcernedly in a tank with the heads of half-a-dozen of these brutes shewing above the surface only a few yards from them. When a man-eater makes its appearance, not a soul will venture into the water which it infests. It is at all times unsafe to bathe in or even to wade into deep water in the low-country, and no European should go in or send a native after shot birds unless they have fallen in a shallow spot close in shore.

Every year a number of men, women, and children are killed by crocodiles, but it is probable that these casualties are often rather accidents than the result of deliberate attacks, the huge reptiles causing the deaths having mistaken their victims for animals wading or coming to drink, or having been alarmed by being come on suddenly among sedge and weeds. Man-eaters, which have killed more than one person, are extremely rare. Almost all animals, except elephants and buffaloes, are afraid of crocodiles. It is an amusing sight to see the precautions taken and the anxiety shewn by a thirsty pariah-dog coming to drink at a crocodile-infested tank.

Natives have several absurd ideas about these reptiles, that they have four eyes, that they have bezoars in their heads, that their meat has approdisiac properties, and their fat medicinal value, and that their bite produces leprosy.

Few animals are so hard to stalk as crocodiles in the open. The difficulty of crawling within shot of one, even when lying apparently asleep with widely-gaping jaws, is so great as to lead one to suppose that there is some truth in the native idea of the crocodile-bird which always hovers near it and performs the friendly offices of picking the leeches out of its throat and of giving warning of the approach of danger. When floating in the heat of the day on the surface of the water they seem to "sleep with one eye open." They may most easily be shot from ambushes put up near the carcases of cattle which have died near the water or from the bunds of tanks at the foot of which a young pariah dog or puppy has been tied, whose yelping will attract the brutes and bring them within easy range.

It is now well known that the old idea of the impenetrability of the crocodile's scaly hide is a fable, as a bullet from even a light smooth-bore will pierce it anywhere. When shot while basking on land crocodiles generally manage to get to the water, unless the ball has gone through the brain or broken the back. If mortally wounded in the water they usually struggle for a few minutes, raising their heads and tails above the surface or turn on their backs exposing their white bellies, and then sink. Wounded crocodiles often come ashore to die during the night, probably from fear of their fellows, but if they die in the water their putrid, half-eaten carcases will be found floating about two days afterwards. They are extraordinarily tenacious of life and will continue to struggle though their brain-pans have been emptied by an explosive bullet. Skinning a freshly-killed crocodile is gruesome work as the operation causes the legs and tail to move and twitch through muscular contraction as though the creature was alive.

Fishing for crocodiles is good fun. A common mistake is to make the hook too large. It should be made of good round $\frac{3}{2}$ in. steel and the bend should be about $1\frac{1}{2}$ in. across. The line should be a strong cord about fifty feet long and as thick as a man's little finger. About four feet of that part of it nearest the hook should be of loose strands which the creature cannot bite through. The bait may be meat of any kind, and not more should be put on than will cover the hook well with the point just shewing. If the hook and bait be made too large the crocodile will not gulp it down but will try and tear the meat off. The baited hook should be hung in the evening over a forked stick stuck into the bank so as to just dip into the water and the slack of the line neatly coiled on the bank. The end of the line should not be made fast to anything, but a palm leaf or piece of rotten wood or other float attached to it. If, on visiting the spot, in the morning, the hook and line be found gone, search should be made for the float which will be found not far off. On the line being taken in a crocodile will probably be found fast at the end of it. The brute may be sulking in a hole under a tree on the banks when there may be some trouble in getting him out. If it is a big brute dragging it ashore will be an exciting affair. Some one should stand ready with a rifle to shoot it as soon as seen. Care should be taken not to go near the creature, as it is said that a blow from the tail of a big crocodile may break a man's leg.

Instead of a hook natives successfully use a stick of hard wood about a span long, sharpened at both ends which, when gorged with the bait by a crocodile sticks cross-wise in its stomach and acts like a hook. Crocodiles have often been caught in strong steel traps set near the carcases of dead cattle lying near the water. The brutes sometimes get off, leaving a leg in the trap.

Dragging small tanks with nets has been attempted, but the cunning creatures generally escaped by crawling under the net. If it was done with a strong, properly constructed net, heavily weighted at the bottom, excellent sport might be looked for. A haul of lively crocodiles would be a thing to be remembered.

The skulls of unusually big crocodiles are worth keeping; any over 26 inches in length may be considered above the average. Pieces of the belly skin are sometimes used for covering whist and other small tables. The teeth are from 2 in. to $2\frac{1}{2}$ in. long and composed of extremely hard ivory or dentine.



CHAPTER XV. MISCELLANEOUS GAME.

T^N addition to the larger game to be found in the low-country of Ceylon there are a number of small animals which the sportsman is likely enough to come across. A few words concerning these would not be out of place here.

WILD CATS.

There are three kinds of wild cats infesting the forests. The largest of these is the creature called the "tiger cat" or "fishing cat," *felis viverrina*. It is not found in the higher hills but may be met with in any part of the low-country. It is, however, seldom seen. The height of a full-grown male will be about 15 inches, the length from 40 to 50 inches, and the weight from 30 to 35 lbs. The body and limbs are wholly covered with black spots on a fulvous-grey ground. It has small ears and a short tapering ringed tail. It feeds on fish, snakes and mollusca among other things, and is consequently mostly found in thickets near tidal creeks, rivers and swamps.

The common "wild cat" *felis chaus*, sometimes called the "lynx cat," is somewhat larger than the domestic cat. It is not found in the hills and is not often seen even in the low-country except in the northern parts of the Island. It frequents bush-covered plains near jungle villages, and is very destructive, killing numbers of hares, peafowl, partridges, and other small game. It is of a bright tawny colour, mottled with black on the back, has large ears tipped with black hairs, and a tail with black rings at the end. It is very savage and untameable.

The only other wild cat is a pretty little reddish-grey creature, a little smaller than an English domestic cat, called the "rusty-spotted cat" or "red cat," *felis rubiginosa*. It is found everywhere, even in the highest hills, but is, nevertheless, not often seen. It is not usually found in the forest but in open places interspersed with bushes. It is easily tamed.

Natives do not make any distinction between these three small felines, but call them all alike "jungle cats," the Sinhalese name being wal-báwá and the Tamil kátupúnai.

PORCUPINES.

Porcupines are extremely numerous in every part of the Island, yet are not often seen, owing to their strictly nocturnal habits. The Sinhalese call them ittæwa, and the Tamils mul-pandi, which means "spine pig." They are found in all kinds of forest, generally alone, but sometimes in pairs. They lie all day in their burrows under rocks or in hollow trees or ant-hill holes and sally out to feed in the night. Their chief food is roots and fruit, and they are a curse to natives who have opened gardens near their haunts. Very little in the way of food comes amiss to them however. Shed deer horns even may sometimes be picked up, of which all but the burrs had been gnawed away by their sharp teeth.

Full-grown ones stand nine to twelve inches high and weigh from 25 to 30 lbs., but their quills make them look larger than they really are. The "fretful porpentine" is a most excitable, irritable creature, and its scientific name, *hystriv*, if slightly mispronounced seems most appropriate. They are not at all timid, and if attacked by dogs will

shew fight, running at them with a sidelong motion with all their quills up. A dog which has come into contact with one ever afterwards shews a marked disinclination to try conclusions with another. Natives believe that porcupines shoot their quills at their assailants. They are about the most mischievous and capricious of animals as they will cut a fresh gap in a fence every night to get into a plantation. They are great diggers but are not cunning enough to make more than one entrance to their burrows and are consequently easily unearthed. The female brings up her young underground. They are born with eyes open and are covered with short soft spines. The natives believe that the mother carries water for her young in her tail-quills.

Porcupines make amusing pets but are usually a great nuisance. If tethered near a wall they will dig great holes undermining it. If put into a wooden cage they will soon escape by gnawing through the planks or bars. They will feed with and keep on good terms with pigs in a sty. A dead porcupine "plucked" for cooking has a strange honeycombed appearance. The meat is excellent and resembles pork. Boxes made of quills are sold by the hundred in Colombo.

MOUSE DEER.

This pretty little creature, *tragulus meminna*, called by Europeans the "mouse-deer," úkkúlám by the Tamils, mí-minna by the Sinhalese, is found everywhere in the Island except on the higher hills. It frequents high forest, loves rocky places and is never far from water. It is generally solitary, but pairs of them are sometimes come on. They are not "game" and may be shot at any time.

Full-grown males stand from 9 to 12 in. high, weigh from 5 to 6 lbs. and have no horns. They have, however, sharp little tusks or canine teeth in the upper jaw with which they can inflict painful wounds. They are of an olive brown

colour mottled with ash grey, have dark longtitudinal stripes along the back and are white underneath. Those found on the hills are darker in colour than low-country specimens. They take shelter in bad weather and from enemies in hollow trees and crevices under rocks. The does bring up their young, generally two at a birth, in these retreats.

Sportsmen often come across them when looking for other game in high forest. As they bolt, tripping daintily along on the tips of their hoofs they utter sharp little bleats. It is not easy to get shots at them owing to the density of the undergrowth in which they are always found. The natives hunt them with dogs, and numbers are killed in this way. They say that the little creatures are sometimes caught by their feet becoming clogged with dead leaves through which their sharp hoofs had penetrated. The meat is eatable but is not very palatable. They are often kept as pets, but though very pretty, are uninteresting creatures. They have been known to breed in confinement, but as a rule die soon after capture.

JACKALS.

No one can be long in the low-country without seeing jackals or hearing their unearthly cries. Their scientific name *canis aureus*, "golden dog" seems a trifle too grandiloquent for these forest-scavengers. The Sinhalese call them narriya and the Tamils narri. No sportsman will, of course, go out of his way to shoot one, but if a chance offers might bowl over the beast for the sake of its pretty yellowgrey skin.

They are found everywhere even in cultivated tracts of country, provided there are strips of jungle near, where they can lie up by day. They may often be seen crossing plains and dry fields with their peculiar slinking trot, stopping to look about every minute and breaking with a leisurely gallop if approached and into a headlong belly-toground race if fired at. Village dogs will not molest them, only responding with howls to their hideous yells. They

are generally seen in families of about half-a-dozen, but often in pairs and sometimes alone. Large packs of them are very seldom met with. They can swim, but will not venture into the water unless very hard pressed, for fear of crocodiles.

Jackals hunt hares, mouse deer and other small animals and sometimes catch monkeys, also peafowl, jungle fowl and other birds. The remains of all the buffaloes and cattle which die of murrain, and of the deer and pigs killed by leopards, are devoured by these animals, in disposing of which offal they perform a useful office. They will dig up the bodies of natives buried on the outskirts of jungle villages, and the graves are consequently always protected by bushes and thorns being piled over them.

The bitches bring up their young in hollow trees. The pups are often found by the villagers and make amusing pets when young. Dogs, however, will not willingly associate with tame jackals, owing probably to the strong disagreeable odour they have.

Jackals do not attack human beings or cattle. Mad jackals have, however, being known to wander into villages and bite the dogs, causing much alarm.

The natives believe that the dog-jackal has sometimes on its head an excressence which they call the "narri-kombu." Any person possessing a "jackal-horn" will be lucky in everything all his life.! They believe too that jackals use their urine as a means of defence when pursued. Their flesh is sometimes prescribed as medicinal diet by native doctors.

SCALY ANT-EATERS.

Sportsmen in the low-country sometimes come across the scaly ant-eater, *manis pentadactyla*, probably the queerest creature in the forest. The Sinhalese name is kabalawawá and the Tamil úllúnku.

They are burrowing animals and nocturnal in their habits. It is rather strange that these creatures should often be found in the water and that they can swim well. Large ones may measure 6 feet in length. They are covered with horny plates from head to foot and have a curious habit of rolling themselves up into a ball when alarmed. Their strength is great and it is almost impossible for one man to force one to unroll itself. When undisturbed they crawl about on their bandy legs licking up ants and other insects with their long sticky tongues. They make a sort of hissing noise if approached.

Natives believe that they sometimes kill elephants which molest them by coiling round their trunks. The flesh is eaten by them medicinally.

The scaly skin, if nailed on a wooden shield and varnished, makes rather a handsome hall ornament.

PYTHONS AND OTHER SNAKES.

Pythons are found all through the low-country but are commonest in the bush-covered plains along the coast, in the open glades of the forest and near rivers and tanks. They are called in Sinhalese pimburà and in Tamil venkanáti-pámbú. They are generally come on, lying across narrow places where deer and pigs are likely to pass, when they are not easily seen as the irregular diamond-shaped markings on their backs correspond almost exactly with the leaf-strewn grass in which they lie hidden. Sportsmen have often stepped over them when out shooting, and been startled by seeing the huge snake move under them. Pythons may also be seen submerged in jungle and river pools with only their heads above water, lying in wait for game coming to drink. They kill many fawns, young pigs and other animals which they swallow whole, remaining in a comatose condition for a number of days after the gorge. It is said that they have been found in a torpid state with an

entire deer, antlers and all, inside them. They are not poisonous but any person treading on one might get a nasty bite. These reptiles grow to a great size; one 32 feet long is *said* to have been killed, but there is no doubt they have often been seen over 20 feet in length. A python exceeding 12 feet may, however, be considered to be a large one.

Natives believe that they draw their prey towards them by sucking in their breath, but as a matter of fact pythons seize their victims by their teeth and kill them by constriction. Natives believe, too, that they have hooks in their tails.

The skin is pretty and is often made into slippers and other articles. Servants as a rule object to being ordered to skin these creatures, chiefly because they, though quite dead, wriggle in such a life-like way during the operation, owing to muscular contraction.

Cobras, tic-polongas and other snakes are often met with on jungle trips. They are most numerous near rivers and tanks where they can catch numbers of rats and frogs and other small creatures. The record cobra was killed in the Northern Province in 1898 and measured seven feet four inches in length. Any over six feet may be considered of unusual size.

IGUANAS.

Sportsmen, while after game in high forest in the lowcountry, are often startled by the sudden scurrying away of huge lizard-like creatures commonly called iguanas. The Sinhalese call them talagoya and the Tamils úddúmbú.

They grow to a length of four feet or more, and are hunted with dogs by the villagers, who are fond of their flesh. It has often been tasted by Europeans and pronounced to be something like chicken. They are extraordinarily strong creatures. It requires a strong man to drag one out of a narrow hole into which it has got its head and fore-legs.

HARES.

The hare found in Ceylon is the "black-necked hare" *lepus nigricollis.* The Sinhalese name is háwá, and the Tamil músal. They are found almost everywhere but are most common in the sandy coast-forests. In some places in the northern parts they can be kicked out of almost every bush. They also swarm round the tanks and open places and in abandoned over-grown fields in the interior. The best time to go after them is at dusk. The weight of a well-grown one will be from 5 to 8 lb.

FLYING FOXES.

At certain seasons of the year when most of the trees are in fruit, some amusement may be had in shooting flying foxes, a large kind of fruit-eating bat. It must be done by moonlight while they are fluttering about some tree feeding. Though heavy fliers and broad-winged it requires some knack to bring them down in the uncertain light. The fur of these creatures is soft and thick and of a dark red colour and makes pretty purses, pouches, &c. The flesh is much esteemed by natives. It has been tried by Europeans with many misgivings and found sweet and tender.



CHAPTER XVI. PEAFOWL. JUNGLE-FOWL, SNIPE AND PARTRIDGES.

EAFOWL, pavo cristatus, are only found in any number in the coast-forests, generally within fifteen miles of the sea. They frequent the bushcovered plains which stretch round the Island along the west, north and east shores between Puttalam and Hambantota, and all the tanks, glades and open places in the vicinity of these plains. For some unknown reason they are rarely seen in the interior though the conditions of life for them there would appear to be much the same as in the coast-forests, and they are not found in the hills. They are fond of stalking about feeding in the long tank-grass when their colour and markings make them difficult to be distinguished. Several flocks, each of half-a-dozen cocks and hens may often be seen during an afternoon's stroll in some parts. Being protected by law as "game" they may not be fired at without a game license or during the close season. The Sinhalese name for them is "monara" and the Tamil "mivil."

The cocks carry their long trains, which are from four to five feet long, and are called "thokai" in Tamil, in the wet months between October and March. This seems to be the pairing season, for the cocks may then be seen posturing and dancing about, with their tails spread and wings droop-

ing, before the hens. They may sometimes be seen sitting on the branches of dead trees with trains outspread sunning themselves. The hens though handsome birds are dowdy-looking in comparison with their resplendent mates. Peafowl are strong-winged birds but heavy fliers and cannot go far. To compensate for this they are very fast runners, as many a man has found who has tried to run down a wounded bird. They have phenomenally acute eyesight. Their strident cat-like cries are familiar to all who have been in the coast-forests. The leopards and wild cats are their principal enemies, pouncing on them in the long grass. Their food consists of seeds, grain, grass, buds and also insects. They are said to kill all the snakes they find.

The hens lay from five to ten roundish freckled eggs, $2\frac{1}{2}$ in. by 2 in, on the bare ground or grass without any proper nest and sit for about thirty days. A sitting pea-hen will allow people to come very close to it before rising. Should one whirr up suddenly out of the grass near by, it is almost certain that it has a nest there. Natives often find the eggs, and placing them under domestic hens raise the pea-chicks. Peafowl become very tame and bold in captivity, but the cocks are generally found a nuisance from their ear-piercing cries and their vicious habit of killing domestic cocks which they follow about pertinaciously and peck to death.

The meat of full-grown birds is generally tough, but when tender is much like that of turkey, but has a disagreeable looking red tinge. It will "keep" a long time, but is usually considered indigestible when cold. Peacock oil is a great remedy among natives for rheumatism.

Peafowl generally keep to the forest during the heat of the day, only coming out into the open to feed in the mornings and evenings. They may be shot in several ways, the most sporting way being to stalk them and shoot them with a rifle, but owing to their wariness and

telescopic sight they are most difficult creatures to get within range of. One way of getting them, when found out in the open, is to walk towards them "slantingdicularly" with a shot gun. As their enemy approaches the flock, if not previously alarmed by shots, will stalk slowly towards the forest. There is usually a fringe of brush-wood at the edge of the jungle, and as soon as the last bird has entered it, the sportsman should run at the top of his speed towards them. He will probably reach the jungle before they have gone very far in. On hearing his footsteps they are likely to be panic-stricken and to take to wing, when he will have an easy flying-shot. Peafowl are easily tree'd by a dog. Perched up among the branches they will sit craning their necks, watching the antics of the barking little beast below, and often allow the sportsman to come within easy shot before fiying off. They have favourite roosting-places, often in trees overhanging water, to which they resort every night. Natives take advantage of this habit and lie in wait for them and shoot them when they come to roost, sometimes by moonlight. When come on suddenly at close quarters they generally run so quickly into the jungle that there is hardly time to bring the gun to the shoulder, but if they fly off it is difficult to miss them. They are, however, not easily killed owing to the thickness of their wings. Though shot on the wing and falling heavily they will often pick themselves up and run off at a great pace. Birds which have been lamed by a gun shot may sometimes be seen hopping about on one leg.

JUNGLE FOWL.

Any one travelling through the low-country forest is certain to hear frequently the gamey call of the junglecock, *gallus Lafayettii*, "George Joyce!" "George Joyce!" It is peculiar to Ceylon and is called in Sinhalese weli-kukul and in Tamil katu-kóli. The cock is called in these two languages weli-kukul and katú-shaval respectively. They are very common in all the forests of the Island, from the tops of the highest hills to the sea coast, and are found in all kinds of cover, but prefer high open forest where they have a better chance of escaping from their numerous enemies, wild cats, snakes and hawks. At certain seasons they congregate in great numbers in forests where the nillu, *strobilanthes*, is ripe, in order to feed on the berries, at which time excellent sport may be obtained. They may often be seen on the roads especially at cart halting-places, picking up the spilt paddy and poonac. Cocks and hens are often seen together, but when the hens have chickens the cocks usually feed by themselves.

Jungle cocks are very handsome birds with glossy purple-black backs and arched golden-red tails. Their big upright red combs are often covered with ticks. They are very pugnacious and fight fiercely with their long sharp spurs. They will readily accept the challenge of any domestic cock. The hens are dowdy little brown birds and do not look like the mates of such gorgeous creatures as the cocks. They feed about scratching vigorously and uttering sharp metallic clucks. When come on suddenly both cocks and hens usually fly off making a great outcry. They never go far on the wing and generally take refuge in a tree if flushed by dogs, in which case they may easily be shot if approached carefully. They are fast runners.

Should a cock be heard crowing inside the forest near the road or any open place it may often be induced to come out by imitating the flapping of wings by slapping one's leg very quickly. The cock thinking it to be some rival will usually rush out at once to give battle, with drooping wings, head low and neck feathers erect, when it may be shot with ease.

They roost in trees during the night. Unlike domestic birds they never crow at night. The hens lay from two to four creamy-white eggs very like ordinary fowl eggs, generally in a sort of rough grass-nest under a tree or bush, but occasionally in hollows of trees at a considerable distance from the ground. Fowls which are obviously cross-breeds between the jungle and domestic varieties may often be seen in the villages. Many attempts have been made to rear jungle fowl but with little success. The natives often catch them with ingenious springes set in the jungle paths. The flesh has a gamey flavour quite distinct from that of the domestic fowl. Some people will not eat of jungle fowl shot near villages because they are such unclean feeders, but the habits of these birds in this respect are no worse than those of ordinary native poultry.

SNIPE.

Little can be written on the subject of snipe which is not known to every sport-loving man who has been more than a few months in Ceylon, nevertheless a few words as to when and where snipe shooting may most easily be got may be useful to tyros and visitors to the Island.

The Ceylon snipe is the "pin-tailed snipe" gallinago stenura. It is called kæswatuwa by the Sinhalese and kíchán by the Tamils. The first snipe is usually seen late in August or early in September, but they are not numerous enough to be worth going after till some weeks later. The best shooting is obtainable during the wet months of December, January and February. Towards the end of the season they get plump and are then much less wild than on their arrival in the Island. By the middle of April they are as a rule all gone.

During the north-east monsoon snipe may be put up in every paddy-field, tank and swamp. They swarm in places where the soil contains in abundance the worms and insects on which they feed, congregating especially in freshlyploughed fields. It is believed that they feed at night.

Large bags of from fifty to seventy couple to one gun, in one day, have not infrequently been made, most of them in the neighbourhood of Trincomalee. In spite of the thousands killed every year there is no reason to think that snipe are less numerous now than they were formerly.

In addition to the ordinary snipe, the "painted snipe" rhynchæa capensis, is also found. It can be distinguished at a glunce by its handsomer plumage. It is a permanent resident, breeding in the Island, and is most numerous in the northern parts, where five or six couple have been shot in a day. As a rule, however, the proportion is about one "painted" to several hundred "pin-tailed" snipe shot. They are not easily flushed, and fly more slowly and with less zig-zagging than ordinary snipe, and usually drop suddenly into the paddy or sedge after going a short distance. They rarely utter any cry on rising. The little "jack-snipe" is also said to have been shot in the north of the Island.

Very pretty snipe-shooting may be obtained among the low bushes fringing fields and tanks in the low-country, where the birds lie up during the heat of the day. As they whirr out of the brush-wood, zig-zag off and dive down again a few yards off, they are very difficult to hit and afford excellent sport.

All that need be added is the warning that snipe-shooting in the low-country is about the most trying to the health of all forms of sport owing to the exposure to the sun, the glare affecting the eyes, the inhalation of noxious gases from the mud, the wetting of the legs and feet, and the temptation to over-much drinking, even of so mild a beverage as coconut milk.

PARTRIDGES.

Partridges are found only in the Jaffna Peninsula and along the north-east coast as far as Mullaittivu, and the

north-west coast as far as Calpentyn. They live among the low thorny bushes along the shore, and are never seen more than a few miles inland. This restricted area seems to show that they are not indigenous but were introduced, perhaps from India, by some European sportsman stationed in Jaffna in the early days of the British occupation.

They are "red-legged" or "grey" partridges, ortygornis pondiceriana, and are called "kavudári" by the Tamils, who snare a good many of them for sale. These birds are usually seen in pairs, but coveys of them are often come upon. They lie very close in the dense, thorny bushes they frequent, and a dog is usually required to get them out. Sportsmen have often had to poke them out with sticks, or drive them out with stones. They are swift runners and often scurry from bush to bush in preference to rising. They frequently perch in trees, and are supposed to roost in them at night out of reach of the numerous snakes which infest the thorny bushes on the coast. The female lays from eight to ten eggs on the ground without any proper nest. Their food consists of insects and seeds. They have a peculiar noisy clucking cry which is supposed to be produced by the male and female repeating each other's notes with scarcely any interval between, producing a singular effect. The best bag of these birds ever made by one gun, was probably twelve and a half couple, shot by Mr. E. F. Hopkins, c.c.s., at Jaffna.

Quails are constantly put up by sportsmen in the plains and glades and other dry grass lands in the low-country, but they are not often fired at, for the simple reason that men rarely have ready cartridges loaded with the proper shot. Quails generally rise almost at one's feet and fly only a short distance, or run a few yards along the path, and at such range a charge of ordinary snipe shot is likely to blow so small a bird to bits. If they are known to be

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fairly plentiful in any old chêna or abandoned fields it might be worth while to load a few cartridges with No. 10 shot and a small charge of powder, and to go after them as they are capital eating. They are, however, scarcely worth considering as among the game birds of Ceylon.



CHAPTER XVII.

TANK BIRDS.

HROUGHOUT the year, but especially during the north-east monsoon, from November to March, good shooting may be had at the numerous large irrigation tanks in the interior of the Island, at the great brackish lakes and estuaries stretching along the coast and on the perennial rivers on the south-west coast.

Of all the many kinds of birds frequenting these waters the most numerous and the most sought after by sportsmen are the whistling teal, dendrocygna javanica. They are not migratory and are to be found on almost every large stretch of fresh water in the Island all the year round. They congregate in greatest numbers in tanks in which stand half-submerged dead trees, and where there are great banks of reeds and large sheets of shallow water in which they can swim about in security. In such places they may be seen in hundreds. During the day they remain quietly floating in the shallows or among the reeds, out of the reach of the crocodiles, or settle on shore close to the edge of the water and stand preening themselves. They also perch on the dead trees in the tanks, more especially in the breeding season; a curious habit which has given them one of their popular names, viz., "tree-ducks." When evening approaches they rise and fly in flocks round the tank, uttering sibilant cries which can be heard a long way off. After a time they fly off and make their way to newly-ploughed

or sown fields and other feeding grounds, returning to the tank at daybreak. They are both graminivorous and insectivorous and consequently find plenty of food. They breed in the Island, the female laying clutches of from ten to twelve pure white eggs on the ground or in hollows of dead trees. Young teal are often brought round for sale by natives and thrive in confinement.

The usual way of shooting teal is to walk round the tank or along the bund in the evening, or to hide behind bushes at the water's edge and fire at them as they fly whistling over. Most of the large irrigation tanks are provided with Government canoes with outriggers, and good sport may usually be obtained by going out on the water and paddling slowly about. By using a boat birds shot can nearly always be recovered. When shot from the land a certain number are sure to fall into the water and be lost, either through their making their way by swimming and wingflapping to the shelter of the reeds or by falling victims to the crocodiles. Men who have waded into tanks to pick up dead birds have sometimes been startled by seeing them taken down by these reptiles before their eyes. Teal are heavy fliers and are easily shot, No. 5 is considered the best size of shot for them. Decoys made of light wood and painted to resemble teal have been most successfully used to bring them within range. As is well known these birds are very excellent eating.

Flocks of the pretty little goose-teal, *nettapus coromandelianus*, frequent the larger tanks. Though seldom seen, except during the north-east monsoon, they are said to breed in the Island, and to nest in holes in dead trees standing in the water. The males with their bright metallic hues are much handsomer than the sober-coloured little brown and grey females. They are very fast fliers and have a short sharp quacking cry. They are not easy to shoot or to recover after being shot.

Every large tank supports a number of darters, *plotus* melanogaster, big, handsome birds, with greenish black

plumage dashed with silver grey. They breed in the Island, are great swimmers and divers, and are very shy and difficult to approach. They are often to be seen swimming with bodies immersed and only their long snaky necks above the surface. When alarmed they flap out of the water and mounting high, fly swiftly in circles round the tank or over the neighbouring forest. After fishing they are accustomed to perch with expanded wings on trees and stumps standing in the water, drying themselves. They are often eaten.

Little cormorants, *phalocrocorax pygmæus*, are also common tank birds and have habits very similar to those of darters. They are black and about the size of teal, and are called "water-crows" by the natives. They can swim and dive exceedingly well, often remaining under water a long time and coming to the surface a good many yards from the spot where they dived. They are not at all bad eating.

Little grebes or dab-chicks, *podiceps fluviatilis*, are not so common, but may be seen in small flocks on most of the tanks and brackish estuaries. When flushed they fly off skimming along the surface and dropping like stones into the water when out of range. They are difficult to shoot owing to their diminutive size and rapid flight. When fired at while swimming they dive with such extraordinary quickness as apparently to dodge the shot. If only wounded their powers of swimming and diving make it almost hopeless to recover them if there are reed-beds near.

Water-pheasants, hydrophasianus chirurgus, may be seen on many tanks, but are more common on large swamps or stretches of shallow lake choked with lotus plants, on the broad floating leaves of which they may be seen running about on their long-toed feet. It is, however, when they rise, shewing their white wings and long tail-feathers, that they are usually caught sight of. They give a peculiar

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mewing cry when flitting about in search of the waterinsects on which they feed. They have often been eaten by sportsmen.

The great beds of reeds growing in most of the tanks and lakes give cover to large numbers of blue coots, *porphyrio poliocephalus*. These are bright-coloured birds but of ungainly build with short red bills. They fly heavily, with awkward legs stretched out behind, and are very easily shot. It is rare for them to take long flights, and they are usually seen flapping about the reed-beds, uttering loud cries. Their nests are often found in the sedge, a few inches above the water. They can be eaten,

Other birds to be found in most of the tanks of the lowcountry, especially in the north-east monsoon, are stately herons of different kinds, white-necked storks, usually called "parson birds," fast-flying pelican and black-headed ibises, also spoonbills, sombre-hued "paddy birds," and water hens of several species. The loud cries of these last "wok! wok! korowck!" are familiar sounds to all who have camped in the low-country.

A characteristic feature of jungle scenery is the snowy white egrets standing or stalking about the moist margins of tanks or in swampy paddy-fields, sometimes perched on buffaloes relieving them of ticks. In the earlier part of the year the male birds have long hair-like feathers growing out of their backs over their tails, which are much prized. On the grassy expanses round jungle tanks, and in other open places, may be seen and heard noisy red-wattled lapwings, commonly called "did-he-do-its" from their shrill cries. Their startled screams are often heard at night. Many of them have been shot by irate sportsmen because they had by their cries given the alarm to deer which were being stalked. Other birds often found in the neighbourhood of tanks, are stone-plovers, called "hareeyes" by the natives, and golden plover. The last may often be seen in flocks on the ground, and in wild districts

will permit sportsmen to walk within range of them before rising. When flushed they fly swiftly in circles frequently whizzing past the sportsman within easy shot. Most people prefer them to snipe for the table.

Every large tank is usually frequented by one or more pairs of noble-looking sea-eagles, *haliaetus leucogasta*, whose long quavering flute-like cries are most pleasant to hear. Numbers of black-bellied marsh terns are also often seen hovering over tanks. They come from the coast every day to feed, returning at night. Four kinds of kingfishers are to be seen, but are not found at tanks so much as at pools in the forest or in the rivers, in the banks of which they make their subterranean nests. It is said that numbers of them are caught by Moormen and gipsies with decoy birds and limed twigs, and the skins exported to India and China. Of course no sportsman will wantonly shoot eagles, terns, or kingfishers.

Other Birds.—Hair-crested storks, leptoptilus Javanicus, commonly called marabou cranes, are sometimes seen. They are generally come on, feeding alone in some small pool in the forest, and being extremely wary, can, as a rule, only be shot when taken by surprise. When alarmed they usually fly off and perch on some tall tree in the neighbourhood till the danger has passed. The beautiful feathers under their tails, like miniature ostrich feathers, are much valued.

The strangest looking birds in the forest are without doubt the horn-bills, *anthracoceros coronatus*, which are frequently found in pairs or small flocks in open forest adjoining plains and fields. They have a peculiar undulating flight. Though their loud harsh screams enable them to be easily found, they are not so easily shot being very difficult to approach. Sportsmen making trips to the low-country usually try to secure a skin or two of these birds, with huge hollow head or bill attached, as curiosities.

Several kinds of wild pigeons are found in the lowcountry forest. The largest and finest of these is the imperial green pigeon, carpophaga ænea, called batagoya by the Sinhalese. Its noisy flight and loud calls "wuk-wú-a!" are familiar to sportsmen, all of whom regard it as a bird well worth shooting. Another large pigeon is the wood pigeon, palumbus Torringtonia, called milagova by the Sinhalese, It is peculiar to the Island, and is very shy and wary, settling generally at the top of lofty trees. Some miles to the north of Trincomalee is a small rocky island inhabited by numbers of rock pigeons, columba intermedia, where good bags may sometimes be made. There are several kinds of doves, but they are hardly worth powder and shot. One of these, the bronze-winged dove, chalcophaps Indica, is an extraordinarily swift flier, whizzing through the tree-choked forest at express speed. The meat of wild pigeons and doves is generally tough and bitter, though skilful native cooks sometimes manage to make it palatable.

Parakeets are common everywhere and are often shot for the pot when flying over the camp in screaming flocks in the evening. Parakeet pie and mulligatawny are excellent. In harvest-time clouds of tiny ortolans fly about the fields. Dust shot is required for these diminutive birds and a dozen may often be bagged at a shot. They are most toothsome.

On the great tidal flats of the Jaffna lake, the salt lake at Mullaittivu called Nanthikadal, and the numerous estuaries along the north-east and north-west coasts may be seen, especially in the wet months of the year, flocks of pelicans and lines of flamingoes. As they always feed out in the open, far from cover of any sort, it is not easy to get shots at them. They are most easily approached in light canoes, which must be sailed up to them, not paddled. Pelicans are uneatable, having a very "ancient and fishlike" taste, but a well-cooked young flamingo is as succulent a bird as ever appeared on a camp table. In the words of the French restaurateur commending his viands to the British tourist, "It shall leave you nothing to hope for." When the tide is out numbers of curlew, whimbrel and other sea birds may be seen feeding on the shore or on the flats. They may be shot by lying in wait behind bushes on the sea beach, but are more easily got from canoes. They are both excellent eating. All sea birds, and in fact nearly all wild birds, should be skinned and kept some time before cooking.

A few pin-tailed and garganey ducks and common teal are sometimes shot in the north-east monscon, in the northern parts of the Island, but can scarcely be included among the game birds of Ceylon.



Station No.

CHAPTER XVIII. NIGHT-SHOOTING.

IGHT-SHOOTING is almost the only kind of "sport" indulged in by natives, many of whom are keen hunters, which, however, does not prevent them from murdering does and fawns or any other animal which they think will pay them to kill. As Europeans usually shoot purely for love of sport, and are not actuated by commercial motives, the less they employ native methods the better. Night-shooting is only allowable when bears and leopards, and perhaps wild boars and porcupines, are the object of sport, as these animals are rarely met with in the day time.

Though it cannot be regarded as quite a legitimate kind of sport, there can be no doubt that it is a very fascinating one. The pleasure consists in the feeling of being almost alone in the depths of the jungle at night when all wild creatures are afoot, the weird beauty of the moonlit forest, the deep silence, broken only by the distant cries of prowling beasts and startled birds, and the uncertainty as to what wild animal might at any moment come to drink. It is almost impossible for a novice at the sport to sleep, and he will sit for hours, straining his eyes into the darkness and listening intently for sounds indicating the approach of some animal. If he is ambushed on the bank of some dry river, perhaps some solitary bullelephant will come striding down the river-bed, the

scrunch of the sand under its huge feet distinctly audible in the stillness. The temptation to have a shot at it, under the excuse of being in danger, will be almost irresistible, but should be resisted. A shout will be sufficient to scare the huge beast away. A herd of cow elephants and calves might come, when the hidden sportsman will do well to make no sound, for a more interesting sight than elephants drinking he will never see, and, unless on the ground or very near the water, he will be quite safe. A pair of sambhur or a herd of cheetul, or wild pigs might emerge from the forest and hasten to the water with outstretched necks, heedless in their thirst of the possibility of an enemy lurking near. Porcupines often appear singly or in pairs and play about, snapping at each other and rustling their quills.

Night-shooting is only practised on moonlight nights from June to October, when most of the drinking-places in the forest are dry, or have been so stirred by the jungle people in catching in baskets the fish with which they swarm and by the wallowing of pigs and sambhur, as to contain fluid mud rather than water. The wild beasts, being unable to drink at these tanks and pools, go and dig for water in the sandy beds of the dry rivers. The spots chosen are generally at the bends, where the streams in the rains have scoured deep hollows under the banks. Here the elephants and sambhur dig great holes in the wet sand with their feet, wild pigs with their snouts and hoofs, and bears with their paws. In some places there are springs which never dry, and in time of drought the forest in the neighbourhood becomes so infested by thirsty wild animals that natives are afraid to venture near the spot.

As a rule, it is of no use to attempt night-shooting till the moon is in its third quarter, both because its light will not be strong enough and because it will set too soon. Shooting may be obtained for several days after full moon, as, except in very hot, dry weather, wild animals do not usually come to drink much before midnight,

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The choice of the place at which to sit up had better be left to the native guide, also the selection of the spot at which the ambush is to be put up. Natives often construct ambushes at the edge of tanks, but it is not a satisfactory mode of night-shooting, except that, being in the open, the wind may be depended on and there is plenty of light. The great stretch of water makes it impossible to calculate at what point animals are likely to come to drink, and the sportsman will probably be disgusted to see indistinct black objects moving about at the edge of the tank just out of range. Moreover, bears and leopards rarely come to tanks to drink. The best places for night-shooting are pools in the forest, rock-holes in which rain water has collected, and water-holes dug in dry river beds. There are, in different parts of the country, drinking-places which are believed by the villagers to be haunted by devils, which maliciously frighten away the deer and pigs coming to drink. Native hunters will never attempt to shoot at such places, believing that it would be useless. The real reason why shots are never obtained at these pools is that, owing to the shape of the rocks or trees surrounding them, the wind eddies about, and animals approaching the spot are able to detect the presence of the hidden hunter wherever he may be crouching. At every drinking-place there is some spot which the natives have learnt by experience is the best place for the ambush, as it is situated to the leeward of the water during the night-wind prevailing in the dry season. The clay banks behind favourite drinking places in dry river beds are sometimes small lead mines, owing to the numbers of bullets fired into them by generations of native hunters at animals which they missed! It is a common practice for villagers to dig out these bullets with sharp sticks.

On reaching the spot where it is proposed to sit up, the first thing to be done is to ascertain how the wind is blowing. It may be moving in one direction above the trees but in quite a different one in the opening in the forest below, owing to its rebound from the wall of trees opposite. The swirls and eddies of wind along the bends of winding dry river beds are most puzzling. Many a blank night has resulted from the shifting of the wind during the earlier part of the night. The easiest way to find out how the wind is blowing is to blow a few whiffs of tobacco smoke, or to set alight some dry elephant dung or dead leaves. In the latter case all traces of the fire should be removed. The margin of the water-hole should not be approached, except for a few moments to ascertain from the foot-prints in the mud what animals had drunk there the previous night. If possible, a water-hole should be selected well out in the open which will not be overshadowed by the trees when the moon begins to sink.

Two kinds of ambush are used by natives according to the disposition of the animal expected, and the nature of the ground. One, called in Tamil a shrámbi, is a platform built in a tree or on a high bank, and the other, called a wili, is a hole dug in the ground. The former is generally put up in dense forest where large trees stand near the water. It is a most uncomfortable contrivance to sit in. and is liable to give the sportsman cramps and aches, as he dare not move freely, to ease his stiffening limbs, for fear the creaking of the shaky structure might alarm some approaching animal. Wúlis are usually dug at the margin of pools in the open, the earth thrown out helping to conceal the hunter, and serving as a gun-rest. They are more comfortable than shrámbis, but are generally damp. Ambushes are sometimes made at water-holes among rocks by building a low semi-circular wall of loose stones.

It is as well to go to the shooting-place at least a couple of hours before sunset, so as to have plenty of time to get the ambush ready. A sharp jungle-knife and plenty of coir string or jungle-creeper should be taken, also a lantern in case rain comes on, or it is necessary for any other reason to return to camp before morning, or to search for something lost. A pillow and a rug or blanket should be provided for comfort, also such refreshment as may be required, which may be leisurely partaken of before darkness comes on. The writer has more than once got shots by daylight at animals which came to drink soon after he got into the shrámbi and while he was having his dinner.

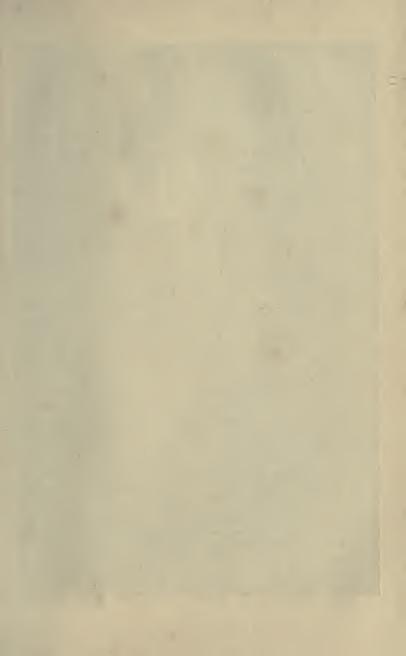
It is generally better for the sportsman to take two natives with him, and make them watch in turns while he sleeps, if he can get trustworthy men. An extra man will make no difference, except that the ambush will probably be inconveniently crowded, and he will find the odour of unwashed humanity in close proximity rather strong. Wild animals coming to drink will be able to smell two men just as easily as three. If, however, the sportsman is confident that from discomfort, excitement or other cause he will not be able to sleep, or knows that he will snore, or will wake up with an exclamation or snort when he feels the touch of the watcher's hand warning him of the coming of some animal, he had better take only one man with him, and make up his mind to an all-night sitting. The watchers should never be allowed to bring their own guns to the shooting-place, most of them being dangerous weapons which go off at the slightest concussion, owing to the homicidal habit all natives have of putting the hammers down on the caps.

Hammerless guns, or guns, the hammers of which are out of the line of aim when at full-cock, are the best for night shooting. Different kinds of sights are used by natives, a triangular piece of white shell fixed on a lump of beeswax, daubing the muzzle with lime, and other similar contrivances. Each experienced European has usually his own favourite device. In the writer's experience there is nothing so effective as a strip of white paper one-eighth of an inch wide fixed with beeswax along the mid rib, the whole length of the barrels. This thin white line is visible

even by starlight, and pretty accurate shooting can be made by means of it. The great difficulty in night-shooting is to avoid firing over or under the animal from a lofty shrámbi or low wúli. As everyone knows moonlight is most deceptive as to the size of objects. It is quite possible to mistake, at first glance, a big wild-boar for an elephant or a wild-cat for a leopard.

Many men think that after a shot has been fired no animal is likely to come to drink for a long time. Such, nevertheless, is not the case, sportsmen having often got a second shot a few minutes after the first. Gun-shots do not seem to scare animals unless they happen to be very close. The dense forest deadens the sound, and the wild creatures probably think the reports to be cracks of thunder, or the crash of falling trees. Sportsmen often suffer much discomfort trying to suppress coughs and sneezes. Of course it is as well to make as little noise as possible, but the chances are against an animal coming to drink just at the moment one's throat or nose begins to tickle! There is no harm generally in smoking, as, if an approaching beast can smell the smoke it can also smell the hidden men. Musquitos are often very troublesome at water-holes and smoking serves to drive them away. When, however, the ambush is very close to the water, and on very still nights when the smoke hangs, it is best to refrain.

It is impossible to even guess at what hour of the night animals will come to drink, as everything depends on the scarcity or otherwise of water in the neighbourhood, and whether the previous day had been hot or cloudy. They may come before sunset or not till just before sunrise, but wild animals usually drink just before lying down for their midnight sleep. They do not invariably drink every night, sometimes only on alternate nights. A slight shower, not sufficient to cause the rain-water to stand in pools, will not prevent animals coming to drink the following night.





Bears come to drink as often in pairs as singly, and sometimes a mother with two half-grown cubs will come together. The whimpering, grunting, and sniffing of bears coming to drink may often be heard several minutes before they appear. They usually shuffle up to the water-hole at a quick pace and begin to drink or dig at once. When thus occupied they generally become so absorbed in satisfying their thirst as to be heedless of everything else. Sometimes, when the hole excavated in the river-bed is deep, they disappear into it before the hunter has time to fire, and he has to wait till they have satisfied their thirst and come out. This, they often do so quickly, that only a snap-shot can be got as they shuffle off into the bungle. Many a bear has been lost by being fired at too soon; almost as soon as seen. There is usually plenty of time for the shot, but if the brute stops suddenly, raises its long white nose and sniffs loudly there is no time to be lost in firing. Bears, owing to their black hides, are conspicuous objects and not easily missed, and they are not difficult to kill. When hit they utter the most heartrending cries, or, if severely wounded, lie down and bite their paws, growling fiercely. If one of a pair is hurt and howls, its companion will sometimes attack it open-If a mother-bear is shot the cub will run mouthed. excitedly round it, uttering shrill little barks, and on the approach of the hunters will run nimbly up the nearest tree, when it may easily be caught. If, by mischance, the cub only is killed, the mother will bolt at the shot, but will not leave the neighbourhood, and if she discovers the men in ambush may attack them, and will certainly keep them awake by her fierce, rapid movements in the jungle near, and her angry growls. If one of a pair of bears is shot it is best to remain perfectly still, as the other may return after a few minutes to ascertain what had happened to its mate.

Leopards coming to drink rarely give any notice of their approach by any sound, but the bellowing of sambhur and the belling of cheetul often indicate their presence in the neighbourhood and put the hunter on the alert. Their colour and markings make it difficult to see them clearly in the moonlight, and they come so stealthily as to generally give the eagerly-watching hunter a start by their sudden appearance. On going to the water a leopard will often walk daintily round the edge till it finds a clean dry spot, and then may lie down to lap. It should not, of course, be fired at while in this position, as a clean miss is likely to be the result, and as the brute bounds away with a startled growl, there is little likelihood of doing any execution with the left-hand barrel. Leopards usually take little notice of any unusual light. A lantern may be hung over the water or over a "kill," and the brute will, as likely as not, walk right under it without hesitation.

Wild boars on being fired at often bolt without a sound though mortally wounded. As a rule, however, if any animal dashes off in silence, or only with a grunt or growl, it is safe to conclude that it has been missed.

Porcupines are often missed with a bullet as they seem much larger in the moonlight than they really are, owing to their quills. They are easily killed with a charge of large shot.

When any animal has been shot at a water-hole, the body may be safely left to lie there as other bears, leopards, &c., will come up to it without hesitation attracted by the smell of blood. If, however, the hunter should consider it better to remove the dead animal, it should be carefully done, so as to leave as little human scent behind as possible. The carcase should then be dragged to the ambush and laid on its stomach with its legs stretched out so as to stiffen in a position which will enable it to be easily skinned in the morning. The body of a bear should not be brought too near the ambush, as it is sure to be covered with ticks, which will leave the carcase and crawl over everything near. On returning to camp after a night spent in the forest a good dose of quinine should be taken to ward off the effects of malaria and chill.

It is not unlikely that some scientific (?) sportsman will invent before long some kind of electric lamp to be used in night-shooting. Possibly such an apparatus is already in use. It is to be hoped that all true sportsmen will set their faces against anything of the sort, and will take steps to prevent its use. Night-shooting, even by moonlight, is only justifiable under certain circumstances, but butchering game by the electric light on dark nights cannot be defended in any way.

CHAPTER XIX. THE GAME LAWS.

HE most important of the Game Laws of Ceylon is Ordinance No. 10 of 1891, which was passed "To prevent the wanton destruction of elephants, buffaloes and other game."

Under this Ordinance a license which costs R100 is required to shoot an elephant. It may be obtained from the Colonial Secretary or any Government Agent or Assistant Government Agent, who, however, may refuse to issue it, or may revoke it after issue. If a license is refused or revoked appeal may be made to the Governor, but it must be sent in within seven days of date of letter refusing or revoking the license. The shooting of tuskers is expressly prohibited, and license is given only to "shoot. at or kill" one elephant, and the holder of the license is not at liberty to fire at and wound an unlimited number of elephants till he kills one. The officer issuing the license may insert any conditions he pleases, such as that no cowelephants, or any bulls under a certain height, are to be killed, and may restrict the district or forest and the time within which the animal may be shot at. No license can be in force more than three months. Free licenses may be issued to shoot any "troublesome or dangerous" tusker or elephant.

Any person shooting a tusker without a license is liable to a fine of R1,000 and confiscation of the tusks, and shooting a tuskless elephant without license involves a fine of R250, with perhaps six months' rigorous imprisonment added.

To capture a tusker or other elephant a license costing R10 is required which will cease to be in force after three months. If the elephant caught is taken out of the Island an export duty of R250 must be paid.

To shoot a wild buffalo a license which costs R20, and which will only be in force three months, must be obtained from the Government Agent or Assistant Government Agent. A license to capture one costs only R2.

Any person shooting or capturing a buffalo without a license may be fined R100 and given three months' imprisonment in addition. There is no close season for buffaloes. Free licenses may be issued to shoot any "troublesome or dangerous" buffalo.

"Game" is defined in the Ordinance to mean "sambhur, spotted deer, red deer, barking deer and peafowl."

To shoot at, kill or capture game a license which costs R3·50, and which will be in force "from date of issue till the 30th day of June next following," must be obtained from the Government Agent or Assistant Government Agent. It is prohibited to shoot game during the close season proclaimed by the Government Agent, which may not exceed five months in any year; also to shoot at game "after dark and before daylight," also to "at any time lay or spread any net or snare, except in or upon any cultivated land, for the purpose of capturing or destroying any game," also to have in possession during the close season any "meat of game" which cannot be accounted for satisfactorily.

Any person shooting at, killing or capturing game without a license is liable to a fine of R30 for each animal killed, plus three months' imprisonment. Shooting at night

or spreading of nets or snares at any time, or transference of licenses may be punished by a fine of R100, with three months' imprisonment added. Shooting in the close season or illegal possession of game-meat during that season involves a fine of R50, plus three months' imprisonment. Informers may be paid half of all fines recovered under this Ordinance.

Elephants, buffaloes, deer, and peafowl trespassing on cultivated land may be shot without license, but information must be given at once to the nearest headman or police officer.

Ordinance No. 19 of 1869 requires every owner of any description of firearm or air gun to take out a license to possess and use it, which may be obtained of any Government Agent or Assistant Government Agent on payment of R1.25; or 50 cents only if the license obtained for it by a former owner is produced. The penalties provided are a fine not exceeding R20 and forfeiture of the unlicensed gun. Any headman, police officer or peace officer failing to inform against a person owning an unlicensed gun is liable to a fine not exceeding R50 for each case. This Ordinance is likely to be superseded shortly by a new one.

Other Ordinances which are of interest to sportsmen are No. 18 of 1886, for "the Protection of Wild Birds," which ' is practically a dead letter, and No. 6 of 1893 for "the Protection of Introduced Birds, Beasts and Fishes."



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CHAPTER XX.

THE DECREASE OF GAME; ITS CAUSES AND REMEDIES.

HE causes of the great decrease in the game of the country during the last twenty years or so, in spite of laws which are so stringent as practically to prohibit natives from shooting, are easy to see. They are (a) the impossibility of exercising any effective control, by means of the headmen, over the actions of many thousands of villagers scattered throughout some twelve thousand square miles of wild forest; (b) the demand that has arisen for deer hides and horns for export, and for fresh and dried meat for local consumption; (c) the increase and improvement in the guns in the hands of natives; and (d) the scarcity of water in the low-country during the dry season, from June to October.

As regards the impossibility of enforcing the present game laws, it is obviously too much to expect of the ignorant, unpaid headmen of jungle villages that they would disregard the advantages resulting to themselves and their people from the illicit shooting of deer, and that they would incur the hostility of their fellow-villagers and the enmity of the Moor traders who supply the powder and bullets and take the hides and horns, and to whom they are probably personally indebted—by prosecuting offenders, practically at their own expense, trudging to court, perhaps forty miles distant, and probably two or three times, owing to postponements of the case. The difficulty of proving the commission of the offences of "shooting of game after dark and before daylight," or of "spreading any net or snare for game" in wild forest districts is so obvious, as to scarcely need pointing out. Any villager, bringing deer meat to his village during the close season has only to say that it was that of an animal which he had found lying in the forest killed by a leopard, to be perfectly safe. No headman would take the trouble to verify his statement.

Twenty years ago the hides of sambhur were frequently left in the forest as not worth removal, only a few being taken for covering cots and for making ropes and sandals. There was not much demand for cheetul hides, except for export to Southern India, where they appear to be valued as sleeping mats and cot-coverlets. When Ordinance No. 11 of 1891 was passed imposing an enhanced export duty on deer hides and horns, the trade which had sprung up in these articles, received a heavy blow, from which, however, there is reason to believe, it is recovering through the establishment of local tanneries, where the raw hides are dressed to be exported as leather, so escaping the Customs duty.

The number of guns in the Island is very large; far in excess of what is required by native cultivators for guarding their fields and gardens from wild beasts. According to the registers kept at the different Kachcheries, 175,484 guns have been licensed since the Firearms Ordinance No. 19 of 1869 came into force (see Appendix A.) As, however, some of these registers are incomplete, it is probable that the real number of guns which have registered approaches 200,000. Many of these guns have, of course, been broken up as useless, or have been taken out of the country by Europeans. But the fact that 72,422 guns have been licensed during the last twenty years shews that they are

still very numerous. Of these, 37,725 were licensed in the hill districts, shewing that they were owned mainly by planters; 18,301 were licensed in the Colombo, Galle, Matara, and Chilaw districts, in which little or no game is to be found; and only 16,396 were licensed in the forest districts of the north, east and south of the Island. It has been estimated that after making allowances for guns not licensed and guns out of order and useless or unfitted for shooting large game, there cannot be more than about 14,844 guns in the hands of jungle villagers, which number, however, may be safely asserted to be more than enough for the wants of the people, as it represents more than one gun for every square mile of forest.

Many sportsmen seem to think that every native who owns a gun is a slayer of deer, and that he is constantly shooting; but such is not the case. Much of the destruction of game is done by well-to-do men from the towns who combine business and pleasure by making shooting-trips to the jungle three or four times a year. Some of these are very keen hunters, but everything is game which comes within range of their guns. The majority of the jungle villagers use their guns very seldom ; not being able to afford to buy powder and bullets, except in minute quantities. The Moor traders will only supply ammuniticn on credit to professional hunters. Single-barrelled capguns are almost universally in use, double-barrels being rare, while rifles and breechloaders are almost unknown. Many of these native-owned guns are excessively dangerous to fire, having barrels half-eaten through by the corrosive action of burnt powder never cleaned out, locks stiff with rust and nipples loose. Fortunately the danger is lessened by the inferior quality of the powder used, a good deal of which is said to be ground-down blasting powder. Α very large number of guns are used in shooting small animals and birds, also in firing salutes at weddings and other festivities, and are never taken to the forest. The possession of a gun seems to be regarded by many natives mainly as a sort of certificate of being well-to-do and

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respectable. Twenty years ago ancient gingalls, fired from rests, match-locks which had been converted into flint-locks, old Tower muskets and other fearsome weapons were common, but are now seldom seen. Should the proposed annual tax on guns be imposed, it is probable that many of these dangerous old fire-arms will be destroyed as not being worth paying for—a result much to be desired.

An important point to be borne in mind when considering the destruction of game by natives is the very few opportunities they have of shooting. As everybody knows, almost their only method of shooting is by moonlight, at water-holes, during the dry season. The dry months being usually only five, from June to October, and as there is only sufficient light on about six nights during each month to be worth shooting by, it follows that natives have only about thirty days in each year during which they can kill game. They do sometimes shoot by daylight at drinking-places in exceptionally dry seasons, but the deer thus killed are only a small fraction of the number killed at night.

The number of deer killed annually by leopards is larger than might be supposed. Assuming that there are 1,660 leopards in the Island of all ages and sexes (see page 127), of which half are adults, and that each adult kills one deer every other month (not too low an estimate if it is considered that a leopard's food mainly consists of monkeys, mouse-deer, hares and other small animals), then 4,980 deer will have been destroyed by them annually. Of these a not inconsiderable number will be bucks. Natives frequently pick up in the jungle the antlers of bucks which have met their deaths in this way.

The principal reason, however, for the great decrease of game is simply the scarcity of water in the low-country during the five dry months of the year. The immense forests could easily support ten times as many head of

game as are now to be found in them, and if the water supply was in reasonable proportion to the cover, the natives could not exercise their destructive method of shooting, and the process of extermination now going on would be almost impossible. The professional hunters might, of course, take to stalking deer in European fashion, and though their brown colour and naked feet would be of great advantage to them in creeping up to game undetected, they would not be able to shoot a tithe of the deer they now kill. It is not only the actual shooting done by natives at water-holes which destroys the game. It is probable that a good many animals, especially fawns, die every year practically of thirst, being unable to get water, every drinking-place for miles being watched by natives in ambush. In exceptionally dry years the mortality from this cause must be considerable. At such times the poor creatures are harried to death, day and night, as their sufferings force them to come out into the open and drink in broad daylight, when they are shot down with ease by the merciless villagers.

Though difficult it is not impossible to make a rough estimate of the number of deer of all kinds in our forests. Some members of the Ceylon Game Protection Society recently came to the conclusion, after inspecting a number of cut and shed horns lying at the Colombo Custom House, and from figures given to them by the Principal Collector of Customs, as to the quantity of horns exported, that an average of 120,000 sambhur and cheetul are killed every year.

A little consideration will shew that there must be something wrong with this estimate. If correct, it proves a great deal too much, for it shews that, in spite of the immense destruction of game, both in the past and at present, our forests still teem with deer to an incredible extent. As these forests cover about 12,000 square miles, including tanks, fields, villages, &c., it follows that ten deer, on an average, are killed every year, in every square mile of the low-country, and that there must be 360,000 deer in all. or thirty, on an average, in every square mile, to stand such a drain. This last ecnelusion is arrived at by assuming that deer are being killed out at a rate so much higher than the birth rate, that the cervine race in the Island will be extinct in thirty years; that the proportion of the sexes is 20% of adult bucks, 30% of adult does, and 50% of young of both sexes, and that every adult doe has one fawn annually. No man who has fagged unsuccessfully after cheetul, morning after morning, or tramped high forest after sambhur, will be easily convinced that there are, on an average, thirty of these two kinds of deer in every 640 acres of the low-country. The probability is that the figures given to the Ceylon Game Protection Society were erroneous, perhaps including the horns of cattle and buffaloes, though this is hard to believe.

A more reasonable estimate may be arrived at in the following way. Assuming that each of the 14,844 guns, estimated to be in the hands of native hunters, accounts, during the thirty days of moonlight in each year, for two deer killed, and adding 4,980 killed by leopards, and 1,332 which die of wounds, thirst or accidents, a total will be got of 36,000 deer destroyed annually. A small calculation, made with the data given in the last paragraph, will shew that, if so many are killed, there must now be 108,000 deer of all kinds in the low-country, or nine for every square mile.

Of these 108,000, it may be roughly estimated that 60,000 are cheetul, 36,000 are sambhur, and 12,000 are muntjak, or five cheetul, three sambhur, and one muntjak in every square mile.

With regard to elephants, the probability is that for a number of years past their number has been about stationary. Ever since the great destruction of these huge creatures, from forty to fifty years ago, when hundreds were killed for the sake of the Government reward, their increase has been more or less balanced by the number captured by the Pannikkans or shot by sportsmen, or native cultivators watching their fields and chênas.

During the last thirty-seven years an average number of 62 elephants, caught by the Pannikkans, have been exported from the Island. (See Appendix B.) As the methods of these men are most destructive to life, it may be assumed that only one out of three elephants caught survives, which will account for 124 more. They frequently fire at elephants to drive them off or to repel attacks, and it is probable that at least 24 are killed every year in this way. As villagers frequently fire at elephants trespassing on cultivated land, which afterwards die in the forest, it may be estimated that 40 are so killed annually. Probably not more than 25 elephants on an average are killed by sportsmen every year, and a similar number, perhaps, meet with accidental death or are killed in fighting. This gives a total of 300 elephants, on an average, which have been killed or caught in Cevlon annually in recent years.

Assuming that the death-rate and birth-rate about balance themselves, it follows, as female elephants breed only once in about two years, that there must be 600 adult cows in the Island. If we then take the proportions of the adult bulls and cows and the immature young of both sexes to be 20 %, 30 %, and 50 % respectively, it will be seen that there must be abcut 2,000 elephants all told in our forests. This would give a herd or family of five for every thirty square miles, which would seem probable enough, seeing that there are vast tracts in which scarcely an elephant is to be found.

This estimate will no doubt seem to some people, who have not given the subject full consideration, a very low one. Government officers travelling on duty in the forest in the dry weather, and seeing a number of elephants congregated at a tank, are apt to imagine that the surrounding forests are swarming with them; whereas the truth probably is that the herd seen at the tank is the only one for scores of square miles of waterless country round. Elephants sometimes come, night after night, to some particular drinking-place, and Europeans, seeing this, might easily over-estimate the number in the neighbourhood, not realizing that it is the same herd or family which comes every night. The creatures are so big and so destructive to vegetation in their feeding, that it is easy for anyone coming on their tracks to form erroneous ideas as to their number from the marks they leave.

Considering the immense cover, it is strange that leopards and bears should not be more numerous than they are. The former are more prolific than the latter, but owing to the difficulty they have in finding food and to their hard lives, probably do not increase any faster. Not more than one cub per annum to each she-leopard and she-bear can be reckoned on.

It has been calculated that since the passing of Ordinance No. 6 of 1872, rewards for the destruction of 8,873 leopards have been paid at the different Kachcheries in the Island. (See appendix C.) This does not represent the actual number killed, as, if a skin is worth more than R5, which is very often the case, the owner will prefer to sell it in the bazaar, rather than take it to the Kachcheri for the reward, where it would have to be given up. It is probable that at least half of those shot by natives are thus disposed of. This will give a total of 13,310 leopards or 492 shot annually during 27 years, and if we add eight for animals killed in fighting or by accident, a total of 500 is arrived at.

Assuming that as many leopards die every year as are born, and that each she-leopard brings up only one cub out of two or more born annually, it follows, reasoning as in the case of deer and elephants, that there must be about 1,660 leopards of all sexes and ages in the Island, or about one for every $7\frac{1}{2}$ square miles of forest.

The number of bears in our forests can only be roughly guessed at. They are seldom shot by natives as the reward is small and their skins are practically worthless. They are only fired at when they come unexpectedly to deer drinking-places. During the last 27 years rewards were paid by Government for the destruction of 2.401 bears, or an average of 89 per annum. Of these more than half were killed on the Northern Province. (See Appendix C.) The food of bears is more easily got than that of leopards, and though the females have usually only one cub at a time, they look after their young more affectionately than she-leopards, and probably fewer die in cub-hood. Bears are no doubt rather more numerous than leopards, but being strictly night-animals, and as they confine themselves to the densest forest, rarely coming near inhabited places, they are not so often seen. An estimate of 2,000 bears of all ages, or one for every six square miles of forest, would perhaps not be very wide of the mark.

Of recent years wild buffalos have greatly decreased in number; perhaps through murrain. It is probable that there are now not more than a few hundreds in the wild parts of the Eastern and North-Central Provinces and the Province of Uva.

The orly absolutely certain way of preventing the extermination of game would be the creation of extensive "sanctuaries," and the multiplication of drinking-places in them. The Forest Department is now busy demarcating large "reserved forests," every river, tank, rock-pool or other drinking-place in which will be known and marked on maps, and will be constantly visited by the patrolling forest-watchers. Any person trespassing within the defined limits for any purpose whatever, without a pass, will be liable to arrest and punishment. These forests will be practically "sanctuaries," and the deer in them, being unmolested, will rapidly increase. If the Game Protection Society provided funds for the making of fresh drinking places where water was scarce, and fcr clearing round existing water-holes and opening broad paths to them, so as to make it difficult for leopards to lie in wait there, much practical good would be done in the way of protecting deer from their two-legged and four-legged enemies.

It will be some years before these "reserved forests" have been demarcated and proclaimed on a sufficiently large scale, and the writer would suggest that meanwhile the following steps should be taken which he believes, would go a long way towards arresting the destruction of game now going on, though he does not claim that they would entirely prevent it, viz. :--

I. A Game Board to be appointed by Government for each Province, consisting of the Government Agent, the Assistant Conservator of Forests and three unofficial members, two of them Europeans, and the third a leading native, to look after native interests.

The Board to confer on all matters relating to the game laws, registration of guns, sale of hides and horns, &c. The Government Agent to issue licenses, proclaim sanctuaries, sanction prosecutions, fix rates, and give orders generally with the approval of the Board.

II. Licenses to shoot game to be issued only to *bona-fidê* sportsmen, European or native, shooting strictly for amusement. Such licenses to be paid for at the rate of R10 each if taken out for a year, or any unexpired portion of a year, and at the rate of R2.50 if taken out only for one month.

III. In order that the "food supply of the people" should be provided for, a number of free licenses to be issued annually to native hunters, say one for every five hundred inhabitants of any forest district, on the

following conditions, (a) that the man is a permanent resident in the district in which he is allowed to shoot, (b) that he does not allow any other person to use his licensed gun, (c) that he does not shoot more than a specified, limited quantity of game during the year, (d) that he brings to the Kachcheri the horns and hides of all deer shot, which will be sold by auction quarterly, and half the proceeds paid over to him, (e) that he sells the meat, either fresh or dried, only to villagers for local consumption, at prices fixed by the chief headman with the approval of the Game Board, (f) that he does not use any irregular method of killing game, such as pitfalls, traps, spring-guns, driving with dogs, or poison, and that he does not not kill fawns, (g) that he does not shoot in "sanctuaries," (h) that he does his utmost to prevent killing of game by unlicensed persons, (i) that his license may be cancelled at any time, without notice or compensation, if not availed of or abused.

These free licenses to be given for purely forest districts, and none to be given to Government officials or headmen of any rank. The licensed hunters to be allowed to shoot at any time all the year round, to the limit allowed, and to be entitled to a moiety of all fines recovered for offences against the game laws reported by them.

If, in the opinion of the Game Board, game is scarce in any particular district, no free license to be issued for that district, or only a very few head allowed to be killed in it.

Some of the advantages of this system of free licenses would be that (a) a body of unpaid game-keepers would be formed, whose *interest* it would be to prevent illicit destruction of game, (b) the jungle people would be able to get meat for food of what they are practically deprived by the present Ordinance, (c) the useless destruction of game through wounded animals dying in the jungle would be reduced, as licenses would be issued only to men known to be good shots and to possess good guns, (d) reliable

information would be obtained to quantity of game killed annually, and (e) the killing n each district could be regulated to some extent according to the head of game it carried.

. The principal danger under the system would be that the licensed hunters will be tempted by greed to allow other men to shoot for them; also to exceed the limit allowed, but there would always be plenty of persons, jealous of their privileges, who would be ready to inform against them. The penalty threatened by the Ordinance of R100 fine and three months' imprisonment, with loss of a lucrative occupation, would probably induce them to act fairly honestly.

IV. All guns to be licensed *annually*, at the rate of R2.50 each for breechloaders, and R1 each for muzzle-loaders.

V. The close season to be abolished as having failed entirely to prevent the illicit destruction of game.

VI. Shed horns to be declared "forest produce" under the Forest Ordinance, and the right to collect them to be sold annually in each Province, under the condition that none are to be removed from the Province till they have been inspected, and a pass obtained from some duly appointed officer.

VII. The Customs Department to be directed by Government to keep separate returns of all sambhur hides and horns and all cheetul hides and horns exported, also a separate return of all shed horns. There need be no difficulty in distinguishing shed from cut horns; no intelligent man can be deceived after he has once been shewn the difference.



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CHAPTER XXI. LOST IN THE FOREST.

HE forests of the low-country are so dense and pathless, that it is easy for a sportsman to lose his way when eagerly following game, even though accompanied by a native who has lived all his life in that locality. Almost every man who has done any shooting to speak of, has at some time or other, felt that unpleasant thrill following the sudden realisation of the fact that he had not the least idea in what direction the camp lay, and that it was getting dark ! So many have had the disagreeable experience of passing a night in the forest without food or sleep, that a few hints as to how such a predicament may be avoided or its inconveniences minimized will probably not be considered out of place here.

It is an excellent plan for a sportsman, on arrival at his shooting ground, to carefully study the best map of the district he has been able to procure, and to fix in his mind the position of all the natural and artificial features of the country in the neighbourhood of his camp. It is then fairly easy for him at any time, when he has lost his bearings in dense forest, to decide in what direction he should go to be sure of striking, sooner or later, some particular road or river or stretch of paddy-fields.

Every man going on a shooting-trip to the low-country should provide himself with a good pocket compase, a

"day and uight" one for choice, that is one, the half of the revolving card of which is coloured black, making it possible, even on a dark cloudy night, to distinguish the north and south line. It should be always worn like a watch when out shooting. The probability is, however, that after being taken out fifty times without being required, it will be found to have been left in camp on the occasion when it is at last urgently wanted !

As a rule, any villager acting as guide, can be depended upon so long as his employer does not go more than a few miles from the village, and sticks to paths, stream-beds and game-tracks familiar to him, but should the sportsman plunge into the deep forest, say in pursuit of a wounded animal, the guide will probably shew before long by his hesitation and nervous manner that he does not know where he is. There are, of course, natives, notably Veddahs, possessed of highly-developed "bumps of locality," who will unerringly make their way, almost in a bee line, to any desired spot, but they are the exception. It is generally safer for a European who has not learnt much wood-craft, to leave his native guide to find a way out when lost, however small his confidence in the man may be. In any case, no good whatever will result from frightening the fellow with threats and curses.

On realizing that one is lost, the first thing to be done, in the absence of a compass, is to glance at the sun and fix the west as near as possible, which may be some degrees to the north or south of the point where the sun sinks below the tree tops, according to the time of the year. Many men while out after game make mental note, almost instinctively, of the direction in which they are going, and if the belated sportsman has done this, he should be able with his knowledge of the surrounding country derived from his map, and of the position of the west, to decide approximately in what direction the camp lies. If it is possible to get a view over the forest from some high rock or lofty tree near by, he will be able to fix his position better, but such rocks are rarely at hand when wanted, and the taller kinds of trees rising above the forest have usually trunks too straight and smooth to be climbed even by a native.

When the probable direction of the camp has been decided on, no time should be lost in making straight for it through the forest as fast as possible, blazing trees and breaking twigs on the way as guiding marks in case it is discovered that the direction taken is entirely wrong, and it is necessary to return to the starting point. It is very difficult without a compass, to keep on a straight course when hurrying through darkening forest, dodging the trees and pushing through the undergrowth, especially if it is a cloudy evening and the position of the sinking sun is uncertain. A circuitous or zigzaggy line is sure to be taken unless the compass is constantly consulted, or the sun frequently glanced at.

If after a time it seems pretty evident that there is little chance of making his way to camp, the sportsman should turn his attention to finding some good place to spend the night in. If he comes across a well-defined game track he should follow it, as it will probably lead to some drinking place where he can get water, or to some rocks or open place where he can stay till daylight, with greater comfort and feeling of security than in the dense forest.

It is of little use for a belated sportsman to continue his efforts to find his way back to the camp after night fall. He will only go wandering about in circles in the dark and become exhausted with fatigue, anxiety and thirst. It is much better to resign oneself to the prospect of a night in the forest and to trust to one's friends or followers. The native guide should be sent up the nearest high tree and ordered to fire signals of distress at intervals of from ten minutes to half an hour according to number of cartridges available. So fired, the reports will be heard more distinctly and at a greater distance, than if fired at ground level, the forest having the effect of deadening the sounds. If ammunition is all spent it is a good plan to blow through the barrel of one's gun like a bugle, if the trick has been learned. With a little practice sounds may be produced which will be audible a mile or two away on a still night. Shouting is of little use, unless there is reason to believe that there are natives at some paddy-field or chena not far off, or that a rescue party is near. Guides, however, on these occasions invariably yell themselves hoarse, and as it serves to employ their energies and to keep up their spirits, they should be allowed to exercise their voices as they please.

When an hour or two have passed, and no answering shots or cries have been heard, there is nothing to be done but to make oneself as comfortable as circumstances permit. If matches are available, a big fire should be lit. One of the party should stay awake to keep the fire burning and listen for indications of the coming of the search party, while the rest sleep as well as the mosquitoes and ticks will let them. There is little fear of attack by wild beasts, as real rogue-elephants and man-eating leopards are exceedingly rare, and other animals, if they happen to come near, will bolt at once on smelling human beings or seeing the fire. It is only inflicting useless discomfort on oneself to climb into trees, and the danger of dropping asleep and falling down, to the risk of life and limb, is not slight.

Should a shower be heard coming up it is a good plan to strip, to roll up one's clothes into a ball and place them in the hollow of a tree, or under a stone, or in any other dry place, to be resumed when the rain is over. It is safer and less disagreeable to stand naked in the rain for a time than to spend the night in wet clothes.

On reaching camp next day the unlucky sportsman should take a hot bath, a dose of quinine, and have a good sleep, and if he is a man of ordinary physic and constitution the probabilities are that he will be none the worse for the night spent in the warm, dry forest.

She bre calding bard

CHAPTER XXII. HINTS FOR A SHOOTING TRIP.

HE first thing to be done by any one proposing to go on a shooting trip to the low-country is, if he is resident in Ceylon, to join the Game Protection Society, if he is not already a member. If he is only a visitor to the Island he will find that a donation to the funds of the Society will not be resented by the Hon. Secretary.

With Whom to Go.-To enjoy a shooting trip it is almost necessary to have one or more congenial companions; it is not often that a man is met with who prefers going alone. Most people are apparently of opinion that in a trip of this kind, as in love, "two's company, three's none," it being a matter of common experience that when more than two men go together, unless they are tried comrades and everything goes well, disagreements are almost certain to arise. The choice of a companion on a trip which may extend to several weeks is an important matter. To go with a bad-tempered man is fatal. During even the best-arranged trips accidents and delays are sure to happen, calculated to try the sweetest of tempers ; the weather becomes bad, servants and coolies fall ill, stores and drinks give out, and a man who cannot put up with such troubles without curses and complaints will spoil the pleasure of any trip. Among persons to be avoided as companions on shooting trips are, the physically weak man who might 'knock up

any day and bring the trip to an abrupt end; the man who does not particularly care for sport, who will probably get tired of the outing and want to go home at the most inconvenient time; the ultra-keen man, who is brokenhearted, and bores his companions with his wails if he misses an easy shot; also the pig-headed, selfish man, who wants everything his own way.

Where to Go.-The decision as to the best part of the country to go to on a shooting trip, depends, in the case of a resident in the Island, very much on where he happens to be living. A planter in the Matale district would naturally select Tamankaduwa, while another in the Haputale district would no doubt prefer Hambantota, in each case simply on account of its proximity. As a rule, the more remote a jungle district is from civilization, the better is the shooting to be got there, but such districts are not only difficult and expensive to get to, but valuable time is wasted on the way there. It is generally admitted that the best shooting is to be had in the Vanni, the great forest-district in the North, and in the almost uninhabited tract, half way between Batticaloa and Hambantota. Good sport may however be had, if properly looked for, almost anywhere in the low-country except south of Puttalam on the west coast, and east of Tangalle on the south coast.

It has sometimes happened that men, when about to start on a shooting trip, have heard that another party had just gone to the district to which they had proposed to go, and they have accordingly changed all their plans at great inconvenience, and gone somewhere else, under the impression that the other party would "disturb" the game, and make good sport impossible for a time for those following them. The absurdity of this idea will be manifest when it is considered that in that district scores of guns, in the hands of native hunters, are popping day and night. A few extra guns would make no difference

whatever. Three or four parties might shoot in one district, from different camps, without materially spoiling each other's sport.

When to Go.-For all-round-shooting the best time for a trip to the low-country is between the middle of January and the end of March. By the earlier date the north-east monsoon is generally over, and cool, dry weather may be expected. The hot weather begins early in April and continues till the end of October. The south-west monsoon is little felt in the northern and eastern parts of the Island. Little rain falls, and dry hot winds blow from June to September which speedily dry up the tanks and river-pools. For night-shooting the best time is between the beginning of July and the middle of October, when there are few drinking-places left to which bears and other animals can go. If the south-west monsoon rains are unusually heavy night-shooting may not be possible till the end of August, The "sowing rains" in September sometimes spoil such sport.

A shooting trip at any season of the year should, if possible, be arranged to begin when the moon is a few days old. It is a great advantage and pleasure to have moonlight when travelling or camping in the jungle.

How to Go.—The most convenient and expeditious way of travelling in the low-country is with coolies. It is however expensive, and only planters and others who have command of labour, can, as a rule, obtain them. They are commonly not to be had in the villages, and if, with the help of Government officers and headmen, they are procured, they have to be so highly paid in proportion to the loads they carry, will only go such short distances, break down so easily and are altogether so unsatisfactory, that unless the distance to be travelled is very short, it is better to have nothing to do with village coolies. When harvesting paddy or clearing chenas their services cannot be got for "love or money." Bazaar coolies engaged in towns are usually drunken diseased scoundrels, who will bolt with their advances on the first opportunity.

Carts are convenient for the transport of baggage where there are roads, but on the arrival of a party at the shooting-ground, coolies are usually required to carry the things to camp some miles away in the jungle. The rate of cart hire all over the low-country is ordinarily R1.50 per day.

Elephants, hired from Sinhalese headmen and contractors, have sometimes been engaged to carry the baggage of a shooting party, but they are very expensive, costing from R4 to R8 per day; will carry comparatively small loads and get ill or galled very easily.

Tavalams or pack-bullocks or ponies have been tried for transport of baggage, but have never proved a success. The animals are constantly straying off and cannot be found when wanted, always take a long time and require skill and patience to load, and travel very slowly.

Horses should always be provided. As the stabling and food they will get may prove to be of the roughest, no valuable animals should, of course, be taken. Strong country ponies which will be none the worse for being out all night in the rain, and can live on grass if need be, are the best to take. They should be re-shod just before starting.

Where to put up.—All over the low-country along the numerous roads, at intervals of nine to fifteen miles, are resthouses of different classes, all more or less furnished. Good shooting is not, as a rule, to be obtained in the immediate neighbourhood of a resthouse, though there are some, in out-of-the-way places, from the verandahs of which shots may sometimes be had at deer, wild pigs, peafowl, hares and other game. The permission of Government, represented by the Chairman of the Provincial or District Road Committee, has to be obtained in all cases for the occupation of a resthouse for more than three

days, but this rule does not often cause inconvenience, for unless game is very plentiful, which is unfortunately rare, shooting parties do not usually stop more than a few days in any place.

There are also a good many road, tank, forest and circuit bungalows, built for the accommodation of Government officers travelling on duty. They are generally small buildings of rough timber with mud walls and thatched roofs, and usually contain little or no furniture. Good sport may often be got in the immediate neighbourhood of these bungalows. Permission to occupy them must be obtained from the provincial departmental officers in charge.

It is sometimes convenient for a shooting party to take up quarters in a village, and it is usual to put up at the house of the headman. Attached to it there is almost certain to be a large open shed where all the work of the household, except the cooking, is done. Such a shed, hung round with mats and cloths does not make bad quarters in dry weather. All cots, stools and other native furniture in the shed should be put outside, or not made use of, as they are likely to be full of bugs. There are seldom any fleas, owing to the frequent application of cow dung to the mud floor of all native houses. It seems scarcely necessary to say that a present to the owner of any building occupied should always be given on departure, but this acknowledgement of civility is often forgotten.

When other accommodation is not available, the little, mud-built thatched Roman Catholic Chapels to be found in many villages may be occupied without the people raising any objection, provided nothing is done to offend their religious prejudices. Heathen temples and mosques cannot, of course, be entered by Europeans.

In the low-country in the dry weather it is possible to camp out in the open under a shady tree for many days

together with little fear of rain falling, but anyone "roughing it" in this fashion must take his chance of fever and chills.

It is sometimes necessary when shooting in a part of the country where there are no villages, rest-houses, or Government bungalows, to camp in the jungle. In such case it is generally better to put up huts built of jungle sticks, with grass walls and roofs for the whole party, including servants and coolies, and also stabling for the horses. They should. of course, be quite ready for occupation before the arrival of the party. A trustworthy man should be sent beforehand to superintend the work, for which villagers may be engaged through the local headman. If small advances are given there will be no difficulty in getting the services of the villagers, who are accustomed to put up such huts. The site selected should be a shady place near good water. The ground should be well cleared and swept, or the camp is likely to be infested by ticks or invaded by armies of black ants, whose bite is most painful. The stables should be built so as not to face the "land wind," if blowing.

A small double-topped tent, large enough for two people to sleep in, and sufficiently light with poles, ropes, &c., for two coolies to carry, is a useful but not indispensable thing to take on a jungle trip. If it is proposed to camp under canvas, sheets of drill or kháki, twelve feet square for roofing and walling huts and stables built of jungle sticks for servants, coolies and horses should also be taken. It should be remembered that the weight of tents, unless made of waterproof canvas, is greatly increased when they get wet, and that they are never so healthy and cool to live in as thatched huts. It is an excellent plan to take on a trip a number of "talipots," which are sheets or mats about eight feet by four feet, made of the leaf of the talipot palm. Being very light, perfectly waterproof and cheap, costing about fifty cents each in Colombo, they will be found useful for many purposes.

A big camp fire should be kept burning every night. It may prevent a starving leopard carrying off the dogs, and has a cheerful picturesque look.

What to Take.—It may be accepted as a maxim that it is better to take rather too many things on a shooting-trip than too few. It is a great mistake to "rough it," and to run risk of spoiling the pleasure of a trip, or of losing health for want of a few conveniences and comforts. A man should, in fact, live rather better when camping or travelling in the jungle than he is accustomed to do at home.

Not one man in ten will take the trouble, but it is an excellent plan to number all boxes, &c., taken on a trip, and to make lists of their contents.

Clothes.-As regards clothes, it is necessary to state first that a chill may be taken in the low-country quite as easily as up-country, while the after-effects are likely to be worse. The use of flannel is apt to produce in those not accustomed to the heat of the plains that distressing skin eruption, "prickly heat," but there can be no doubt that it is the safest thing to wear, provided it is thin and soft. A light sun-hat which shades the back of the head well is, of course, indispensable. For shooting in the evergreen forests of the low-country, clothes of a brown colour dashed with green, or entirely green, should be worn, and the hat be covered with the same material. Light shoes with thin or india-rubber soles, in which it is possible to creep about the jungle noiselessly over the rotten sticks and dead leaves, are much better than heavy thick-soled boots.

Camp Furniture.—Every member of a shooting-party should be provided with a camp bed, a canvas lounge chair and a camp stool. Mosquito curtains for the bed must not on any account be forgotten, nor a blanket, as it is sometimes very chilly in the night in the low-country, in the earlier part of the year. All bedding should be

wrapped up most carefully in hold-alls or water-proofs secure from damp. The lounge chair will be found a great comfort in camp, and should invariably be taken. A hammock is an excellent thing to take. Even if not used as a substitute for a bed, it can be slung up anywhere for taking a siesta in, and will be most useful if any one of the party meets with an accident or is taken ill, and has to be carried to the nearest hospital. Waterproof bed sheets, about six feet by three feet, are useful things to have, to be laid on the damp ground when night-shooting, on tops of camp beds in leaky huts or tents, and used in other ways. One folding table about four feet square, for meals, should be taken. All clothes and store boxes should be raised off the ground on stones when in camp to save the contents from white ants and other insects.

Stores.—A good supply of tinned food should be taken, not so much for daily use as to be kept in reserve in case of ordinary supplies failing. Men who have gone on shooting-trips intending to "live on their guns," have generally repented it. A number of tins of prepared soup are most excellent things to have. They can be opened and warmed in a few minutes, and nothing is so comforting to a man, too hungry and tired to wait till his dinner is cooked, like a plate of hot soup. It is generally necessary to take a reserve stock of horse food, as grain is seldom procurable in the jungle, and paddy not always. In the event of the horse food giving out, and no paddy being obtainable, the horses might be fed with Indian corn grown in the chenas which is generally to be got.

Drinks.—As regards drinks every man will, of course, be guided by his own wants and tastes. All that need be said is that the heat usually promotes a far larger consumption of alcoholic beverages than is conducive to health.

Most men have an exaggerated idea of the deadly nature of low-country water, judging solely by its appearance, but, as a matter of fact, the turbid, odorous tank and river

water is often perfectly innocuous, while clear, sparkling water running through tea estates in the hills might easily swarm with disease germs. Nevertheless, to avoid all risks, all water drunk on a shooting-trip should first be filtered and then boiled. Every man should take his own filter, and make as little use as possible of rest-house filters, as they are seldom cleaned and are generally worse than useress. Some men think that when very hot and perspiring freely they can safely drink bad water, the idea being that it will run off through the pores and leave no illeffects; but whether the doctors will support this theory is doubtful.

If the expense need not be considered, it is as well to take an ample supply of soda water, but in such case a cart will have to be employed, as it will be far too heavy to be carried by coolies. It is, however, a delusion to suppose that saturating water with carbonic acid gas—that is, making soda water, will kill all deleterious germs that may be in it. Death has often resulted in the East from drinking soda water made in native bazaars from water obtained from contaminated wells. Aerated waters are made at most of the outstations, but they are nearly always inferior to what may be obtained in Colombo.

Local Supplies.—Rice, fowls, and eggs may usually be procured in the jungle villages at cheap rates. It is better, however, to bring such rice for one's servants and coolies, as they are accustomed to, and not to trust to procuring supplies locally. Natives are very fastidious about their rice, and upcountry coolies will grumble fiercely if forced to eat the dark-coloured, gritty stuff to be got in the lowcountry. The village fowls are small and tough-eating, and the eggs, at the time of purchase, have generally got the last of the three stages of freshness recognised by native cooks, "boiled-egg," "poached-egg" and "omletteegg." Pumpkins, cucumbers, brinjalls and sweet potatoes, grown in the chenas, may often be got, and sometimes

plantains. Manioc does not make a bad substitute for potatoes at a pinch. In jungle villages off the cart road straw for horses and thatching huts may generally be had for nothing.

Game as Food.-Meat, provided by the guns of the party, is usually plentiful in a shooting camp, but is generally dry tasteless stuff. Venison, in the opinion of most men, is not to be compared with good beef and mutton, unless it happens to be the meat of a stag with its antlers "in velvet," when it is generally fat and juicy. A young wild pig is fairly good eating, but the flesh of an old boar or sow is rather rank. Sportsmen sometimes amuse themselves by trying fancy dishes while in camp, such as roast monkey, salted elephant tongue, bear-ham, stewed iguana and curried flying-fox, but do not repeat such experiments Many men will not touch hares or jungle-fowl often. which have been shot near villages, because they feed on the offal and filth lying round the huts, but this fastidiousness seems unreasonable when it is considered what foul feeders the ordinary village fowls are, which are eaten by every body without hesitation.

Servants.—The success of a shooting-trip depends so much on the servants and coolies taken, that no trouble should be spared to make them comfortable and contented. There should be no divided responsibility among the servants, or each of them will look solely after his own master, to the general discomfort. The catering should be entrusted to one man, the cooking to another, and each member of the party should have his own boy to look after his personal belongings. Servants, who have had some experience of jungle travelling, should be taken, if possible. Men with quarrelsome dispositions should be left at home, however excellent they may be in other respects. Nothing is more annoying than to have servants and coolies quarrelling in cump. It is politic to allow smoking, chattering, and even "singing" in camp to a reasonable limit, as it keeps the

men in good temper. Their food-supply should never be allowed to run short and "treats" every now and then should be served out to them. Every man should be provided with a sleeping-mat and a blanket, which will probably save his services, by warding off fever, the result of chill. Batta should be given to every man brought from home; and whenever any one does anything in any way worthy of praise he should be given a small present at once. When servants and coolies realize that a shooting trip means extra pay, plenty of food, and presents if they do well, they will be eager to accompany their masters on future trips.

Care should be taken to prevent one's followers from bullying and cheating the villagers, which they are very prone to do.

Trackers.—The wilder and more unsophisticated the jungle-man who has undertaken to point out game is, the better tracker he will probably prove to be. The old type of tracker who would squat in front of one, and after staring hard in silence for some minutes, would ask how old one was, and whether married, and similar questions, is unfortunately dying out. It did not do to miss easy shots in their company, for they never told lies to please one, or pointed to imaginary drops of blood, but grunted out that it was a clean miss, and conveyed plainly enough by their disgusted air what they thought of one's shooting !

There are several trackers in Trincomalee, Batticaloa and Hambantota districts who may be called professionals. They usually charge high for their services, and think a great deal of themselves, having been spoilt by wealthy sportsmen who employed them. It is doubtful whether they are a whit better able to find game than ordinary jungle villagers. The art of tracking game, that is following their foot-prints or blood-trail, is little practised now, and when attempted is generally a failure, except in the case of elephants, on account of the dryness and hardness of

the ground in the low-country for the greater part of the year. All that a sportsman need hope to get is an intelligent man who knows the country round well, and is able to take him to places where he knows that certain animals are likely to be found, and this is generally enough. It is, however, necessary that the tracker should understand that his employer is a man of experience, for if he suspects him to be a novice, he is, as likely as not,--if, for instance, bear shooting at night is proposed,-to take him to some waterhole where he knows no bear has been for a generation, and snooze comfortably while his victim sits perched on a gridiron of sticks fighting mosquitos all night! On the other hand, if he has confidence in the sportsman, the latter may find his method of bringing him up to the game sometimes trying to the nerves. To be suddenly brought face to face with some dangerous brute, and for the tracker to drop on his heels, with the casual remark over his shoulder, "There he is,-shoot" is apt to flurry the coolest hand !

Each village tracker is usually possessed of an ancient ingle-barrelled gun, which he is sure to bring to the camp with much pride, and want to take with him while out looking for game, but it is as well to come to an early arrangement with him that it is to be left at home. Natives have a dangerous habit of putting the hammers down on the caps of their loaded guns. The slightest blow or jar is sufficient to explode the charge under these circumstances; and as these gas-pipe affairs are commonly carried with the muzzle pointing up or down the path, it is most unsafe to be in their vicinity. Moreover, if a tracker is allowed to carry his gun, the chances are that, through excitement or fear, he will fire it off on coming on a dangerous game, and so spoil his employer's sport.

It is a common idea that all natives who shoot are pot-hunters, who kill game solely to make money. It is their primary object no doubt, but there are many villagers for whom hunting has a fascination, and who

would continue to shoot in their own way even if not a cent was to be made out of it.

Some village hunters own first-class hunting pariah dogs. It is a pity the employment of these brutes cannot be prevented, as they pull down for their masters many deer, especially half-grown ones and fawns. Sportsmen have, however, been thankful enough sometimes for their services in tracking wounded animals.

A jungle-man's estimate of distance is generally very vague and unreliable. Should one say that some water hole is about two miles from camp, it is safe to calculate on having at least a three miles tramp to it.

A very common practice is to over-pay trackers. A man in the joy of his heart at killing, say a big elephant, is apt to reward the native who lead him up to it too lavishly, quite out of proportion to the trouble and risk the man had. The result is, that the fellow forms an exaggerated idea of his own merits, and, when the next shooting party comes along, expects to be remunerated on the same scale, whether good sport is obtained or not.

Guns.—It is not easy to give advice of any value in regard to guns required for sport in the low-country, as so much depends on what a man can afford to pay for them. If a man is wealthy he will of course provide himself with a complete battery, suitable for the different kinds of game he is likely to meet with; say a double four smooth-bore for elephants and buffaloes, a '500 or '450 double express for leopards, bears and deer, a singlebarrelled magazine small-bore, say '303, rifle accurately sighted for long range deer-stalking in the plains, a double ten-bore for long range wild-fowl shooting, and as a second gun for elephant and buffaloes, a light twenty-bore for snipe-shooting and bird-collecting, and a double twelve /2 bore for general shooting. The vast majority, however, of those for whom this little book is written will have to 28

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be content with a couple of guns at most, and it is for their benefit that the following hints are given :—

Almost every man "swears by" some particular gunmaker, and has a preference for some particular make, breech-action, &c., in regard to which, nothing more can be said than that there is little to choose in point of efficiency between guns turned out by different makers of repute, and that every man must suit his own fancy and taste. Nor can any advice be given as to weight, bore, length of barrels, bend of stock, balance, &c., as guns should be fitted to their owners according to their stature and strength. All that can be done is to indicate, in general terms, the kind of country in which shots are usually obtained in the low-country, and to draw some inferences therefrom.

It may be safely asserted that owing to the density of the cover in the low-country, nine out of ten shots obtained are within sixty yards, at which range a wellfitting spherical bullet from a first-class smooth-bore will, for all practical purposes, fly as true as a rifle bullet. This remark does not apply to rough-cast thirteen-bore bullets fired from a twelve-bore, which, at the range mentioned, cannot be counted on to hit a dinner plate with certainty. The vast majority of shots are also snap-shots obtained while the animal is bolting, and only a momentary glimpse is got of it through the underwood. Game in the high forest is indeed generally heard bolting before it is seen. Fine sights are of little use in such circumstances, or indeed any sights at all. What a sportsman then wants, is the power to throw his gun into his shoulder and touch the trigger almost simultaneously, and to do this, a gun is wanted so fitting his shoulder, neck and arms as to bear instantly and almost automatically on the object aimed at when raised to fire. Snap-shooting is, in fact, an art which it behoves every man ambitious to get good sport in Ceylon to practise.

A young man coming out to Ceylon, and unable to afford more than one gun, should provide himself with a fairly heavy, say about 8-lbs., strongly-built, twelve-bore gun with cylindrical barrels, and able to fire five or six drachms of powder without risk of shaking the breech. It should be hammerless for choice, but there are many makes of guns, the hammers of which, when on full cock, are out of sight of the line of fire, and so are practically hammerless. Such a gun, by a first-rate maker, will, if care is taken to use only accurately fitting bullets, make excellent shooting at short ranges, but will, of course, be found heavy for snipe shooting &c.

If the young sportsman can afford two guns, he had better get a lighter twelve-bore, say one about $6\frac{1}{2}$ to 7-lbs. weight. Unless he expects to get a good deal of snipe shooting it is better not to have the left barrel choked, as the gun can then be used with ball as a second gun when out nightshooting or after dangerous game. His other gun should be a '450 express, which he will find quite powerful enough for most of the animals he is likely to come across elephants and buffaloes being, so to speak, luxuries.

Many men in Ceylon have gone out shooting with small bore magazine rifles, in regard to which a few words may be said here. They are all very well, and indeed are the right weapons, for stalking deer in the open, and when long shots have to be made, but in dense forest there are grave objections to their use. The necessity of dropping a magazine rifle to the hip to re-load, and the second or two required for throwing out the cartridge case and slipping a fresh cartridge into the breech, and for re-aligning the sights on raising it to the shoulder, will often prove just too long to enable the second shot to be got at an animal bolting through the thick cover of a Ceylon forest, which shot the "left" of a double-barrelled rifle would almost certainly have given. Should a man fire at some savage wild beast at close quarters with a magazine rifle and miss

he will have a good deal less chance of saving himself from its attack than if armed with a double-barrelled gun,

A most important consideration in choosing guns for sport in Ceylon is their stopping or crippling power. Every sportsman who has been in the low-country shooting, knows well, from bitter experience, that if he fails to find a wounded animal within a few hundred vards of the spot where he fired at it, there is small chance of his ever seeing it again, owing to the dense cover and the hardness of the ground, on which no tracks to speak of are left. Consequently bullets giving great smash or shock are required. An elongated, nickel-cased bullet from a modern small-bore, will go like a needle through an animal, which, unless hit in a vital part, will gallop off miles, scarcely conscious that it is wounded. In the hands of a dead shot a light rifle, with a tiny pellet and a pinch of powder, is, of course, as good as "a young cannon," firing a four oz. shell with twelve drachms of powder, in an ordinary man's hands, but, as few men can claim to be "dead shots," it is as well others should make up for their deficiencies by using the most formidable weapons obtainable.

Economy is an excellent thing, but it is a virtue which may be exercised to one's disadvantage in the purchase of a gun. Cheap "iron-monger's guns" are to be obtained everywhere, the barrels of which were made in Belgium and fitted to the stocks in Birmingham, and, though these may not burst, and may even shoot fairly well, it is far better, when buying an article on which one's life may depend, to go to a good maker and pay a good price. An excellent gun may, however, be bought for a reasonable sum without going to a fashionable gunsmith and paying five guineas extra for his name on the ock-plate and barrels.

Other Sporting Requisites.—The carrying of a huge, heavy hunting-knife is usually looked upon as the "outward

and visible sign" of a tyro in sport. Such a knife is of little use on a shooting trip. It is only "once in a blue moon" that it may be wanted for defence against a wild beast's attack, and it is not required for cutting one's way through jungle. It is far easier and quicker to go through jungle by pushing aside the undergrowth, and ducking under overhanging boughs, than to clear a path. If jungle has to be cleared a light native katti or bill-hook is the best tool for the work. A large clasp-knife with a single five-inch blade of the finest steel and a catch to prevent it closing, and provided with a swivel to hang at the belt, is a much handier thing to carry than a fancy hunting knife.

Other useful things to take on a shooting trip are a collapsible canoe or boat for shooting or fishing on tanks, a pair of small field-glasses for deer and peafowl shooting in the plains, one or two good butcher's knives for skinning, also a light hatchet, a steel-yard to take the weight, and a small tape-measure to take the dimensions, of any unusually heavy or large animal killed, a spring balance weighing up to 112 lbs. to regulate coolie loads, &c., supplies of arsenical soap and carbolic acid to preserve trophies and specimens, a powerful steel trap for leopards, crocodile hooks with strong lines, and hooks and lines for fishing in tanks and river pools.

A map of the country in which the trip is to be made should be taken. One on the scale of a mile to the inch is large enough. It can be obtained from the Surveyor-General's Office at a cost of a few rupees.

Itineraries, in two volumes, of the principal and minor roads in the Island were published by Government in 1888. The first volume is out of print, but copies may be obtained if sought for; the second may be obtained from the Government Record Office, Colombo, for Rs. 8, with map, and Rs. 3 without. These itineraries are now somewhat out of date, but a good deal of information as to distances, resthouses, supplies obtainable, will be found in them.

Precautions to Preserve Health.-When a man is attacked during a shooting trip in the low-country, or on his return home, by fever or other disease, he generally attributes it to exposure, to malaria, or to drinking bad water. In nine cases out of ten, however, the cause is simply exposure to the sun and neglect of ordinary precautions. If a man who is not accustomed to a hot climate, will, day after day, go out before day-break, tramp about in the burning sun, perhaps with no coat on, return to camp about midday tired and hungry, and immediately pour into an empty stomach a bottle of beer or a stiff whisky and soda, he must expect to pay for his folly. Again, if a man will sit in the land-wind in sweat-saturated clothes, or out in the open on a dewy evening, he has no one but himself to blame if he gets a chill, followed by fever, Exposure to the sun and chills has laid more sportsmen on their backs than malaria and bad water. An umbrella is, of course, not to be thought of when one is actually looking for game, but it is an excellent thing to have when returning to camp and the sun is hot, and all wild animals, with more sense than many human beings, have retired into the shade of the forest. In fact, it is of little use prowling about after deer and pigs after 8 o'clock, as they are seldom to be found in the open later, unless there has been heavy rain during the night.

The water of long-stagnant tanks and pools, though apparently clean enough, should never be bathed in as eczema is likely to result. All cuts and abrasions should be attended to promptly and carefully, as they are liable in the low-country to turn into nasty sores difficult to heal. It is not a bad plan to take a small dose of quinine every day during a shooting trip as a precaution.

Fever, dysentery, diarrhœa and sunstroke being the principal physical ills flesh is heir to in the low-country, suitable medicines should be taken. A large bottle of castor oil or salts should be provided for dosing servants

and coolies, who are apt to make themselves ill by gorging on game, a diet to which they are unaccustomed. Lint and sticking plaister should be taken in case of accidents. A pair of tweezers for the extraction of thorns, if taken, will be found to be often required.

Throughout the low-country, even in most out-of-the-way places, Government have established small field-hospitals to which members of shooting parties who have met with accidents, or are seriously ill, can be taken for treatment.

Insect Pests.—So much of the pleasure of shooting in the low-country is spoilt by the attacks of insects of many kinds, that a few words as to how these annoyances may be minimized may be found useful.

The two principal insect pests are land-leeches and ticks. The former are principally found in the damp forests of the western parts of the Island, but a few may be picked up in certain forests of the north and east. In tramping through forest infested by them, it is almost impossible to escape them entirely, but a good many may be choked off by wearing field boots or leech-gaiters smeared with citronella oil. This oil is so powerfully scented, that boots anointed with it retain the odour a long time, even though the wearer tramps through wet jungle and grass all the morning.

Ticks are only found in the drier parts of the country, and principally in the rainless months from May to October; they are seldom seen at other times of the year. There are two kinds, the most common being one about the size of a pin's head, of which hundreds may be seen swarming on a single leaf, and the other a round flat insect about the size of a split pea. There is no way of avoiding these creatures. Any one shooting in a part of the country infested by them will find it necessary to have all his clothes soaked in boiling water every day on returning from the jungle, in order to kill the ticks swarming over them. Their bite, especially when they get to tender

parts, as between the toes, is very painful, and the tickling sensation produced by the crawling of the minute creatures over one during the night is very irritating.

Mosquitoes are found everywhere in the low-country, but are a real pest only after the rains between February and August. The forests are then full of them, especially in the neighbourhood of water, and they often make evening in camp a misery. They are little felt at other times, and almost entirely disappear during the height of the dry weather and also of the rains. The anopheles, the newlydiscovered fever-giving musquito, has been discovered in not a few places in the low-country.

Not to scratch leech, tick or mosquito bites is advice constantly given, but seldom followed. Strong carbolic oil or other dressing should always be applied to them. Neglect of tick bites on the feet may result in a man being lamed for weeks.

Fleas are not such a pest in the low-country as in the hills. If it is necessary to occupy an old building or shed infested by them, the best way to destroy them is to sweep the floor with blazing torches of straw or dry grass. The same method may be employed to get rid of the armies of black ants which sometimes invade camps. At certain seasons of the year a grey fly called kúrúdí by the Tamils is a great annoyance. It stings almost as soon as it alights, and is most persistent in its attacks. Horses and cattle become almost unmanageable under its assaults. In the dry, still weather eye-flies are an intolerable nuisance, making it difficult to do any reading or writing during the day unless a coolie is employed to keep them off with a fan.

Among other undesirable creatures with which acquaintance is often made in camp are snakes, scorpions, centipedes, hornets, stinging caterpillars and red ants. The simplest way to avoid these is to take care not to camp near heaps of rubbish, or hollow or rotten trees, and to have the ground round the camp swept every day.

CHAPTER XXIII.

A FEW "DON'TS" FOR THE BENEFIT OF INEXPERIENCED SPORTSMEN AND OTHERS.

ON'T call leopards "cheetahs," or sambhur "elk," or cheetul "spotted deer," or muntjak "red-deer."

Don't break the game laws, however much you may be tempted, or however small the chance of detection.

Don't break them under the very poor excuse that others, notably natives, do so.

If you will do it, don't ever afterwards speak of native hunters as "poachers."

Don't forget that your object is "sport" pure and simple. Consequently *don't* adopt native methods of killing game.

Don't fire at deer and pigs at drinking-places by moonlight.

Don't fire at any creature which is neither dangerous, nor has trophies of any value or interest, nor is fit to eat.

Don't fire at cow-elephants, cow-buffaloes, hinds, does or sows, or immature male animals.

If you will shoot cow-elephants and cow-buffaloes, *don't* plead in excuse that otherwise you would have got no "sport," for the admission will prove you to have been

actuated by mere blood-thirstiness and not genuine sporting instinct.

If you will shoot hinds and does, don't try to make your friends believe that you did so to provide food for your men. They will know well enough that if you had made proper arrangements for provisioning your party, such slaughter would have been unnecessary.

Don't murder monkeys, either wantonly or to provide some lady-friend with a "dear little baby-monkey."

Don't fire if there is no reasonable chance of killing, *e.g.*, when the animal is bolting directly from you, or through dense under-wood, or is standing in a bad light.

Don't use buck-shot to kill deer or pigs.

Unless you are a dead shot and have first-class nerves, don't use small-bore rifles (except for long range shooting) or light guns. For your own sake and that of the game you go after, use the heaviest and most paralyzing weapons you can afford to buy, or are able to carry.

Don't, when pleased with yourself, make extravagant presents to trackers and others, out of all proportion to their services, thus spoiling the chances of poorer men getting sport at reasonable cost.

If anything strange happens to you when out shooting *don't* relate the incident in the presence of persons who are not sportsmen, or who know nothing of the habits of wild beasts; or what King David said in his haste of all men will probably be applied to you in particular.

Don't take a loaded gun into a house or tent.

Don't lay a loaded gun on the bottom of a cart or trap.

If you will do it, *don't*, in your haste to get a shot, draw it out with the muzzle towards you.

Don't carry a gun cross-wise, but on the shoulder, if on the tramp, or against the hip, pointing forwards, if near game.

Don't go bending or crawling through dense jungle, or scrambling over rocks, with the gun on full-cock.

Don't raise your gun to your shoulder till you have wheeled to your shot.

Don't, turning as on a pivot, blindly follow with your gun at your shoulder, game bolting or flying to the right or left, if you would avoid giving your friends occasion for blasphemy.

Don't fire over a ducking man.

Don't dig the end of your rifle into the ground in your eagerness when stalking game on all fours and pushing the weapon before you, or you may choke the muzzle with earth and get a nasty jar when you fire, if no worse thing happen to you.

Don't forget, when about to fire, that bullets and shot will glance off rocks and trees.

Don't keep a gun on full-cock a moment longer than is necessary.

Don't half-cock your gun carelessly. Ease down the hammer and then draw it back with a click, when you will have a firm half-cock which will not jar off.

Don't uncock your gun on a rainy day till you are sure it is pointing into space, for the wet hammer may slip from your thumb as you ease the trigger and so explode the charge.

Some guns have very small back-set hammers. *Don't* lower these till you have opened the breech.

Some men have a foolish habit of frequently pointing their guns at objects at which they do not intend to fire. *Dont* do it.

Don't leave your guns to be cleaned by your servants.

Don't fire at an object moving in the dark until you are quite certain what it is. The Coroner may make himself objectionable about it.

Don't expose yourself unnecessarily to the sun; and not at all to chills, by sitting in damp clothes, &c.

On your return to camp, hot, tired and thirsty, after a long tramp in the sun, don't immediately gulp down a bottle of beer or a whiskey and soda, but sip your drink slowly while you cool down.

If you will disregard these precautions, *don't*, on your return home, attribute your illness to "drinking bad water."

Lastly, when you get home from a low-country shooting trip, safe and well, don't measure its success by the number of animal-lives you took, but think of the elephants you saw by moonlight drinking at the tank, of the buttingmatch between two bucks out in the open which you watched through your glasses, of the monkeys which gambolled undisturbed in the tree over your tent, of the night when Jones stepped out of bed into an army of venomous "kaddiyar" ants, and the recording-angel had to resort to shorthand to take down his remarks, of the appearance Smith presented after he had rashly undertaken to cut a honey-comb out of a tree, of the delightful evenings round the blazing camp fire, and all the other incidents of the trip, exciting or comical, which more than justify you in saying you had "a jolly good time," though you may not have brought back a single decent trophy,



Estimated No. Different of the second and on Estates. Estimated No. Ibands of low-country villagere.			_					7000 1155	52870 14844	
Estimated No. of Guns out of order & useless.	1188 148 1400	385 692 136	110 110	220	180	265	336 285	920	1967	
Estimated No. of Guns not fitted for game					1			480	3983	*Estimated.
Total No. of Guns licensed and unlicensed,	11881 1482 13992	3850 6916 1363	1100	2200	1800	2650	3356 2848	9594	79664	I *
Estimated No. of Guna not licensed 10 %	1080 136 1272	350 628 124	100	150	163	241	305 259	872	7242	
No. of Guns licensed during last twenty	10801 1346 12720	*.3500 6288 1239	*1000	*1:00	1637 *4000	2409 *2000	3051 2589	8722	72422	
No. of Guna licensed.	55165 1461 18330	16380 24150 1448	238 238 1490	4529 2083 0274	2445	4507	4696 4784	17749	175484 24516	200000
Year from which records have been kept up to 31st Dec. 1899.	2 1576 1872	5 5 1872	1895	5 5 Noot	1871	1569	1874 1869		records	Total
District.	Colombo Kalutara Kandy	Nuwara Ellya Matale Jaffna	Mannar Mullaittivu & Vavunia Galle	Matara Hambantota Kurunecala	Puttalam	Batticaloa			ins registered of which the	
Province.	Western Central	Northern	Southern			Eastern c	abaragamuwa	Province of Uva	Estimated number of Gu have been lost,	
	Deveountly Size Trom which records have been type to the size trom which records have been type to the size troes the the type to the the type to the size troes the type to the type to the size troes the type to the type	Province Province Province P	Morthern Diverseduring, 1,790 Morthern Diverseduring, 1,790 Morthern Distrimated No. Distrimated No. Distrimated No. Distrimated No. Distrimated No. Distrimated No. Distrimated No. Distrimated No. Distrimated No. Distrimated	Province Province Province P	Province. Diversed during Province. Province. Province. Province. Western No. of Guns and and Gund	Province. Province. Province. District. Province. District. Western Western Morthern Morthern Matala Matala Mullatitivu, & Vavuia. Matala Matala	Province. Province. Province. Province. Province. District. Western Western Worthern Northern Northern	Province. District. District. Province. District. District. Province. Western District. District. Mestern District. District. District. District. District. Mestern District. District. Colombo District. District. Colombo Metulear District. Colombo District. District. Colombo District. District. Colombo District. District. Colombo District. District. Colombo District. District. Distrint. <td>Province. District. District. Province. District. District. Province. Western District. District. Western District. Mestern Mestern Mestern Mestern Mestern Mestern Mestern Mestern Mestern Mestern Monthern Mestern Monthern Mestern Monthern Mestern Mannar Mestern Mannar Mestern Mannar Mestern Mannar Mestern Mannar Mestern Mannar Mannar </td> <td>Province. District. District. Province. District. District. Province. District. District. Province. District. District. Western Colombo District. Western Colombo No. of duns not duns of duns not duns of duns not duns of duns not duns of duns not duns. Worth-Western Jaffna Jaffna No. of duns not duns of duns not duns of duns not duns of duns not duns of duns not did na duns of duns not duns of duns not did na duns of duns not duns of duns not did na duns of duns not duns of duns of duns not duns of duns of duns not duns of duns not duns of duns of duns not duns of duns of duns of duns not duns of duns of duns not duns of duns of duns of duns of duns of duns of duns not duns of duns duns of duns of duns duns duns duns duns duns dun</td>	Province. District. District. Province. District. District. Province. Western District. District. Western District. Mestern Mestern Mestern Mestern Mestern Mestern Mestern Mestern Mestern Mestern Monthern Mestern Monthern Mestern Monthern Mestern Mannar Mestern Mannar Mestern Mannar Mestern Mannar Mestern Mannar Mestern Mannar Mannar	Province. District. District. Province. District. District. Province. District. District. Province. District. District. Western Colombo District. Western Colombo No. of duns not duns of duns not duns of duns not duns of duns not duns of duns not duns. Worth-Western Jaffna Jaffna No. of duns not duns of duns not duns of duns not duns of duns not duns of duns not did na duns of duns not duns of duns not did na duns of duns not duns of duns not did na duns of duns not duns of duns of duns not duns of duns of duns not duns of duns not duns of duns of duns not duns of duns of duns of duns not duns of duns of duns not duns of duns of duns of duns of duns of duns of duns not duns of duns duns of duns of duns duns duns duns duns duns dun

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B.

Number of Elephants exported from Ceylon during the last Thirty-seven Years.

Year.	Number exported	Value.	Average value of each.		Yalue. Average value of each. Year.		Number exported	Value	Avera value each	of
1863 1864 1865 1866 1867 1868 1869 1870 1871 1872 1873 1874	173 294 271 103 148 167 99 38 74 53 83 74 53 83 77	Rs. 28690 45920 72660 63250 23280 47450 46500 8050 17600 22270 28900 41302 28900	Rs. 165 156 268 614 157 284 469 211 237 420 348 536	c. 84 19 11 07 29 13 69 84 84 19 19 39 39	1882 1883 1884 1885 1886 1887 1888 1889 1890 1891 1892 1893	1613 25 86 51 17 50 58 57 42 48 24 24 21	Rs. 470757 10100 40010 21000 9700 19100 26000 33550 	Rs. 404 465 411 570 382 448 588 	c. 00 23 77 59 00 27 59 29 62 58 19	
1875 1876 1877 1878	73111	3500 1000 500 500	500 333 500 500	00 33 00 00	1894 1895 1896 1897	36 12 29 9	$\begin{array}{c c} 36000 \\ 10800 \\ 24700 \\ 9500 \end{array}$	851 1055	$ \begin{array}{c} 00 \\ 00 \\ 72 \\ 55 \end{array} $	
1879 1880 1881	1 12 8	$710 \\ 11205 \\ 7470$	710 933 933	00 75 75	1898 1899 	3 9 	4800 15750			
	1613	470757			Total	2190	842317			

Note.—It will be seen from the above figures that the declared value of elephants exported from the Island during the last ten years is nearly double that of the previous ten years, probably owing to the demand which has recently arisen in England, America, and the Continent for elephants for Zoological Gardens and Circuses.

The value of elephants has been steadily increasing during the last forty years. In the sixties the average value of each animal exported was Rs. 261.15; in the seventies Rs. 367.84; in the eighties Rs. 489.35; and in the nineties Rs. 910.30.

C.

Number of Rogue Elephants, Leopards and Bears destroyed, for which rewards were paid since passing of Game Ordinance No. 6 of 1872; during years specified.

Province.	District.	Į	Period.	Rogue Ele- phants.	Leo- pards.	Bears.
Western	Colombo Kalutara	 	1876—1899	1 1		_
Central	Kandy Nuwara Eliya Matale	 a	1872—1899 ,, ,,		$28 \\ 2 \\ 253$	Ξ,
Northern	Jaffna Mannar Mullaittivu Vavuniya	····	1876 ^{**} 1899 1880—1892 **	6 	2333 896 439 573	966 231 271 184
Southern	Galle Matara Hambantota	 	1882—1899 ,, ,,	=	23 1056	
North-West- ern	Kurunegala Puttalam Chilaw	••••	$1873 - 1899 \\1872 - 1899 \\1888 - 1899$. 5 2.	722 370 7	8 69 —
Eastern	Batticaloa Trincomalee		1879 - 1899 1885 - 1899	4	493 12	57 40
North-Cent- ral			1874—1899	1	1207	264
Province of Sabaraga- muwa	Ratnapura Kegalle		_	1	_	=
Province of Uva	_		1876—1899		59	22
Estimated	to have been d	lest	roved during	21	8473	2401
years for whi missing	ch the Kachch	eri	records are	-	400	100
			Total	21	8873	2501

D.

Number of Licenses to shoot Elephants, Buffaloes, and Game issued since passing of the Game Ordinance No. 10 of 1891:-

Province.	District.	To shoot Ele- phants.	To shoot Buf- faloes.	To shoot Game.
Western	Colombo Kalutara		_	8
Central	Kandy	0		148
	Nuwara Eliya Matale	. —	_	$\begin{array}{c} 186\\ 441 \end{array}$
Northern	Jaffna Mannar	1	2	51 13
	Mullaittivu Vavuniya		1	15 21
Southern	Galle Matara		33	24
North-Western	Hambantota Kurunegala		94	209 44
rorth-western	Puttalam Chilaw	. 4		154 21
Eastern	Batticaloa Trincomalee	1 00	40 13	$\begin{array}{c}156\\449\end{array}$
North-Central		15	6	329
Province of Sa- baragamuwa}	Ratuapura Kegalle		1	189 8
Province of Uva	-	49	41	337
	Total	230	252	2807

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E.

TE LOOP LOOP

CLOSE SEASONS.

FOR SAMBHUR, CHEETUL, AND MUNTJAK.

Western Province	•••	1st June to 31st October
Central ", …	•••	do
Northern ,,		1st October to 1st March
Southern ,,		1st November to $31st$ March
Magam Pattu only	•••	1st June to 31st October
North-Western Province		30th June to 31st October
Eastern "	•••	1st June to 31st October
North-Central "		'do
Province of Sabaragamuw	a	1st July to 31st October
Province of Uva		1st June to 31st October

FOR PEAFOWL.

Western Province		1st November to 31st March
Central ,,		Nil.
Northern ,,	•••	1st November to 31st March
Southern ,,	••••	Nil.
Magam Pattu only-		1st November to 31st March
North-Western Province		30th June to 31st October
Eastern ",		1st June to 31st October
North-Central ,,	•••	do
Province of Sabaragamuw	7a	1st July to 31st October
Province of Uva	•••	1st June to 31st October

MEASUREMENTS OF TROPHIES.

H

The writer made it widely known that he would be glad to get the measurements of any good trophies obtained in Ceylon, to be recorded in this little book, but very few sportsmen responded to his request. The measurements received, some of which are very meagre, are tabulated below.

The writer would be very pleased to receive further measurements of Ceylon trophies to be given in the second edition of this book, should one be called for. Full measurements should be given, according to statements below :--

RT.R.DH A NTS

	it of	Igi9W denT	lbs.	11	11
	hes. th of	snL	ii	92	
	th of hes.	Left.	l ii l	143	
-	Leng	Right.	ii.	143	11
	vht of sks.	i9W	1bs. 55		
	sala. th of	nT uT	in. 154		
	th of isks.	Left.	in. 64	53	11
	Leng	Right.	in. 64	55	
2	to df.	tiÐ Fore	in. 47	49	56
OT NETT TATIA	ker or lian,	lauT IA	Tusker	Allian Tusker	Allian Do
	Where Shot.		Palatapane, S.P	Bopatalawa Patanas	Rugam, E.P.
	Name.		J. R. Barkley	F. Farr	R. W. Byrde

APPENDIX.

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LEOPARDS.

Gurth of Fore-	in. 11
Girth at Neck.	in. 22
Weight.	lbs. 130
Height at Shoulder.	in. 29
Total Length.	in. 86
Length of Tail.	ii.
Length of Body.	in.
Sex.	Male
Where Shot.	:
Name.	F. Farr

SAMBHUR (ELK.)

ıarks.	Ren	Knifed
Girth of	burr.	in. 8 10
Brow tines.	Left.	$\frac{9\frac{1}{2}}{15\frac{1}{4}}$
Brow	Right.	in. 9 ¹ / ₂ 14 16
qit m tip.	Froi to	in. 26
tesd. read.	er9 qs	in.
th out-	Left.	in. 31 29 <u>1</u> 234
Length ou side curve.	Right.	
Where Shot.		Balahana, Province of Uva Rugan, E.P Elk Plains Hambegamuwa, Province of Uva
Name.		J. R. Barkley R. P. Doudney F. Farr

vii.

	Remarks.		Killed by	leopard.		1	1	1	-		Remarke		Run down by dogs.	Brow tine 1 ⁴ / ₈ in.
	th of tr.	nd ud	in.	64	64	1			63		-		1	Broy
1	tines.	Left.	in.	144	6	1	1	1	6	-	beqi- גנוז	n9. 10 f93	1	57 7
1	Brow tines.	Right.	in.	144	6	1	1	1			qit m tip.		— in.	1 10
ER).	qit m tip.	61 Fro	in.	184	171	1	1	1	19	R).	tsətr .bxər	91Đ Iq2	1 1	64
DE]	atest .bæð	ds G ^{re}	ín.	23 <u>1</u> 01	21	1	1		22	DEER).	Girth.		2 3 in.	- m
ont.) DTTEI	Length outside curve.	Left.	in.	33 <u>3</u> 90	$30\frac{3}{4}$	344	014 14	333	32 ³ 30	RED	Length ove pedicel	Left.	5% in.	574 241
F. -(cont.) L (SPOTT)	Length outside curve.	Right.	in.	344	31 31	344	200	331 332 202	$32\frac{3}{2}$	AK (Length above pedicel	Right.	64 in	54
F (cont.) CHEETUL (SPOTTED DEER).	Where Shot.		Tanamalwela. Province			Koralai Pattu, E.P.	Kuda Oya, Province of	Uva	Batticaloa District	MUNTJAK (RED	Where Shot		Punani R. P	Meemora, Nikalawe
	Name.		A. G. L. Dunuis	U.	Do	R. P. Doudney	J. R. Barkley		Alfred Clark		Name		North C. Davidson	• :

viii.

APPENDIX.

	Remarks.		in.	Solitary bull do do		Remarks.	Knifed.
2	ереяд.	♥	<u> </u>	$10\frac{4}{2}$		Length of Tusks.	in. 9 ³ / ₄
	qit mo qit c	г . Ъ	in.	$28\frac{1}{2}$ $34\frac{1}{2}$ $20\frac{1}{2}$			
	testest. .bs910	e	l ii l	40 44 ¹ / ₂		Length of Head.	in. 18
	irth at nickest part.	44 19 1		$15\frac{1}{2}$ $15\frac{1}{2}$ $15\frac{1}{2}$		Weight.	lbs. -
	Length outside curve.	Left.	in.	35_{4}^{3} 34 31 31			
· · · · · · · · · · · · · · · · · · ·		Right. Left.	ii.	$35\frac{3}{4}$	BOAR	Height at Shoulder	in. 32
NET OFFICE TO TO	Sweep from tip to tip out- side curve	Sweep from tip to tip out- side curve and acrose forehead. 116 82‡ 79 74			WILD BOAR.	Length snout to root of tail.	
	Where Shot.		Udapotene, S. P	Arruvi-aar, N.P.		Where Shot.	Ambawela
	Name.			M. L. WHKINS Alfred Clark Ed. E. Nicol R. P. Doudney		Name.	F. Farr

F.--(cont.) BUFFALOES. ix

