

MUDUMALAI WILDLIFE SANCTUARY

*Written and Illustrated
By*

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FOREWORD

Mudumalai Wildlife Sanctuary is one of the wellknown sanctuaries in the country. It has a fascinating variety of plant and animal life which makes it a biologist's paradise. Situated on the main tourist route between Ootacamund in Tamil Nadu and Mysore in Karnataka, the sanctuary is undoubtedly a popular tourist attraction. Several thousands of tourists, both Indian and foreign, visit the sanctuary throughout the year.

In the absence of intelligent guidance and interpretation through publications, explaining the more interesting features of the sanctuary, the lay visitor may find the trip he had looked forward to with so much of expectation, dull and disappointing. Often the attention of the visitor is focussed on the larger animals, which may not always present themselves before him and he fails to observe and appreciate other facets of nature's bounteous treasure.

This book on Mudumalai Sanctuary, written by a keen and knowledgeable naturalist and wild life enthusiast, will no doubt serve as an excellent guide to the visitors. With his intimate knowledge of the sanctuary, extending over a period of two decades, Thiru Davidar has been able to present a comprehensive account of the sanctuary—its physical features, flora, fauna, facilities available for visitors, hints on viewing wildlife and photography—in a very interesting and informative manner. The photographs illustrating this book were taken by Thiru Davidar in Mudumalai Sanctuary.

While expressing my gratitude to Thiru Davidar for the commendable work he has done in bringing out this publication, I must mention in particular that he has undertaken this task without charging anything for the time and labour he has devoted. It has been entirely a labour of love and also it is a testimony of his abounding love for wildlife.

K. A. BHOJA SHETTY,
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INTRODUCTION.

Location.

The Mudumalai wildlife sanctuary is situated at the tri-junction of the three southern States of Tamil Nadu, Karnataka and Kerala, but within the borders of Tamil Nadu, in a wide belt of jungle skirting the base of the main Nilgiri Range. This jungle expanse occupies a table-land a sharp step below and to the south of the towering Nilgiri plateau, but forms part of the Nilgiri complex.

Physical features.

The Nilgiri Hills have been described as an off shoot of the Western Ghats located at a point where they meet the Eastern Ghats. As a consequence, the Nilgiris combine the features of both mountain chains which is noticeable especially in the lower plateau where the sanctuary is situated.

The sanctuary region is a richly varied mixture of flatland, undulating parkland, open grass land, swamp, an occasional naked and some fully clothed hill features; valleys and nullas. But the overall picture is a smooth, rolling hill forest. A fair idea of the country could be gained as one motors down from the Nilgiri Plateau or from a lookout point like the one behind the Kargudi rest house.

The most outstanding physical feature of the region is the Moyar Canyon (which was called the 'Mysore Ditch' before malaria was eradicated from the area). It is an awesome gorge gouged out by the Moyar river from the point where it plunges into the canyon in a series of spectacular cascades. This waterfall is situated near Teppakadu off the Circular Road and is a sight worth seeing.

Mudumalai is a remarkably well watered sanctuary. Besides the Moyar and Sigur rivers, their tributaries which generally go by the name of this or that halla, meaning water course, probe deep into the remotest parts of the sanctuary and like the circulatory system of a living being, keep all parts of the sanctuary well watered and drained.

The flume channel taking water from the Singara Power House to the Moyar Power House lower down, with its regulatory dam at Maravankandy and its seepage form yet another water complex.

Rainfall.

The range in precipitation between the Eastern and Western sections is wide. While ~~Bonne~~ on the west receives upto 200 cm of rainfall in a year Kargudi receives about 150 cm, Masinigudi, Moyar and the areas on the East receive even less, ranging from 50 to 100 cm. Further east it is so scanty that it could pass for a rain-shadow area. This is because the western region is in the south-west monsoon belt and the eastern region is not only beyond it, but is not within the effective range of the north-east monsoon. However, each region trades a bit of its own monsoon with that of the other.

Climate.

Placed as it is, at a favourable elevation of about 1000 M above mean sea level Mudumalai enjoys a moderate climate without extremes of heat and cold. The range in temperature is generally between 15C and 35C, rarely falling below or rising over the above minimum and maximum temperatures. Warm weather sets in early by February, but once the south-west monsoon winds start blowing inland by about the middle of May, it begins to cool down.

Beginnings.

The management of wildlife through the regulation of shooting was introduced for the first time in India in the Nilgiri Hills when the Nilgiris Game and Fish Preservation Act of 1879 was enacted and enforced at the instance of the Nilgiris Game Association. Despite the fact that the Mudumalai area was a popular hunting ground due to good management, for which as much credit is due to the forest administration, as to some conservation-minded sportsmen, the region which had been sadly depleted of game before the implementation of the Act, soon recovered and had a thriving and viable stock. By the mid-thirties the herds of deer on the Kargudi Hill had become so tame that it seemed a shame to shoot even the trophy stages among them and the Game Association closed the Hill and its environs to shooting. The Association also took other steps like closing the trunk road between Thorapalli and Teppakadu and a 100 yard strip on either side to shooting to preserve game and discourage motor car poaching. In 1940 the Government officially constituted the Mudumalai Sanctuary. The sanctuary had a brief set back in the latter part of the Second World War when the South-East Asia Command set up a jungle warfare training camp in Kargudi, the ruins of which are still in evidence.

Extent.

Initially the area set apart as sanctuary was 62 square km. This was gradually extended to cover an area of 321 square km. which is the sanctuary's present extent.

The jungle extends into Karnataka and Kerala where the respective State Governments following Tamil Nadu's lead have set up their own wildlife sanctuaries. These three sanctuaries together form one of the largest forest areas affording protection to wild life in the country.

Administration.

With the enforcement of the Wildlife (Protection) Act, 1972 in Tamil Nadu, a separate Wildlife wing has been set up. The sanctuary is managed by the Wildlife Warden, Mudumalai, with his office in 'Mahalingam Buildings', Ootacamund. The Chief Wild Life Warden, with his office in Coimbatore is in overall charge of all sanctuaries in the State. Locally four range officers are incharge of the four administrative ranges, namely, Kargudi, Mudumalai, Teppakadu and Masinigudi. The ranges are divided into blocks and compartments. Teppakadu is the focal point of most activities, such as, elephant rides, van rides, etc., in the sanctuary.

How to get to Mudumalai.

The sanctuary lies on the Ootacamund-Mysore National Highway, roughly midway between the two cities (Teppakadu being 91 km. from Mysore and 67 km from Ooty) and could be approached with equal facility from either direction. From Teppakadu there are two routes to Ooty; one a short cut over the steep and narrow Sigur Ghat Road, which has a gradient of 1 in 10 in places and has to be negotiated with care. Over this route Teppakadu is only 36 km. from Ooty as against 67 km. over the Highway via Gudalur. The sanctuary is well served by buses, particularly from Ooty.

The nearest railhead to the south is Ooty via Coimbatore and Mettupalayam and the most convenient railhead to the north is Mysore.

Bangalore and Coimbatore airports are 250 km. and 170 km. from Teppakadu respectively.

When to go.

There is no 'closed season' in Mudumalai. It may be visited right round the year, even during the rains. This is possible because the eastern, and western sections fall into two different monsoon belts. The best season for a visit, however, is the summer, which in Mudumalai commences and concludes earlier than in the plains. The best months for viewing wildlife are February and March. Then cover is

sparse and visibility is good, the deciduous plants having shed their leaves. But the sanctuary bears a burnt, dry and drab appearance then. After the spring showers in March and April, the jungle puts on a fresh green mantle and presents a pleasing picture. The one drawback, then, is that due to the proximity of Ooty the sanctuary suffers from the summer exodus to this popular hill-station. Between the middle of April and the middle of June, the sanctuary attracts a string of visitors, including VIPs, who cause a severe strain on the services provided for the convenience of visitors.

Languages spoken.—Although the official language is Tamil, being a border area it is possible to get by with Kannada or Malayalam. Most of the officials, including forest guards, shop-keepers and rest-house keepers speak English and a few speak Hindi also.

The people.—No account of Mudumalai will be complete without a word about the fascinating jungle people who make it their home. The three principal inhabitants are the Kurumbas (Mullu Kurumba and Jen or Honey Kurumba or Sholanayaka), the Irulas and the Paniyas. Each tribe has its own distinctive social habits and culture. Like the flora and to a certain extent the fauna, each tribe predominates certain parts of the sanctuary with unavoidable overlaps. They have one common trait, however, which is a simple and happy nature.

Posts, telegraphs and telephones.

There is a branch post office in Kargudi (Pin code: 643211) and a sub-post office in Teppakadu. This post office has a special bison head cancellation. Kargudi and Teppakadu (Sylvan Lodge) have telephone connections. Masinagudi has post and telegraph and public call offices. However, postal clearances are not frequent and telephone communications often get disrupted by the exuberance of elephants.

Reservations for elephant rides, rest houses, etc.

Reservation of accommodation (see table of rest houses), elephant, van and jeep rides can be done at the office of the Wildlife Warden, Mudumalai in Ootacamund upto 24 hours prior to the visit on payment of the required fees. Casual visitors can approach one of the Range Officers on the spot for allotment of unreserved accommodation.

FLORA

Mudumalai is so located geographically that it enjoys the rare distinction of encompassing within its limited confines four botanically distinct tracts, namely, the southern sub-tropical wet, tropical semi-evergreen, tropical moist deciduous, and tropical dry deciduous forests. On the ground, however, these distinctions are not so fine as the tracts tend to overlap, except at the extremities, resulting in a happy mixture of rain forest and scrub ; evergreen and deciduous forest ; lofty as well as stunted trees, grass covered hills and marshy swamps. By and large the flora is of mixed complexion with deciduous plants predominating.

Rainfall is the principal factor in determining the character and composition of the flora in the different sections of the sanctuary. But terrain, depth, composition and drainage of soil also play an important role.

Tall grasses, together commonly referred to as 'elephant grass' or 'thappai' in Tamil is a striking feature of the sanctuary and grows luxuriantly over much of the sanctuary area, except in the extreme east. Elephants, gaur and practically all the larger herbivores are fond of elephant grass, especially when it is young and tender. The grass makes viewing wildlife on foot or from a low vehicle, except when they chance to be on a cleared area such as a road, difficult. Hence the need for and popularity of elephant rides in Mudumalai.

Bamboo, which is of the giant variety (*Bambusa arundinacea*) is the most important plant in the sanctuary from the wildlife point of view. Elephants eat bamboo as one might eat sugarcane with obvious relish and gusto. Bamboo which grows along the banks of most streams and ravines throughout the sanctuary offers shelter to most forms of wildlife. Bamboo is put to a variety of uses by the tribals residing in the sanctuary. Once the bamboo completes its life span, which is fifty years or so, mass flowering and seeding over wide stretches takes place. Such flowering has been taking place in the sanctuary over the past ten years, starting from the Benne forest in the West. Wherever such seeding takes place animals and birds gather to feast on the seeds, which in taste and appearance is like rice and tribal people will walk miles to collect them.

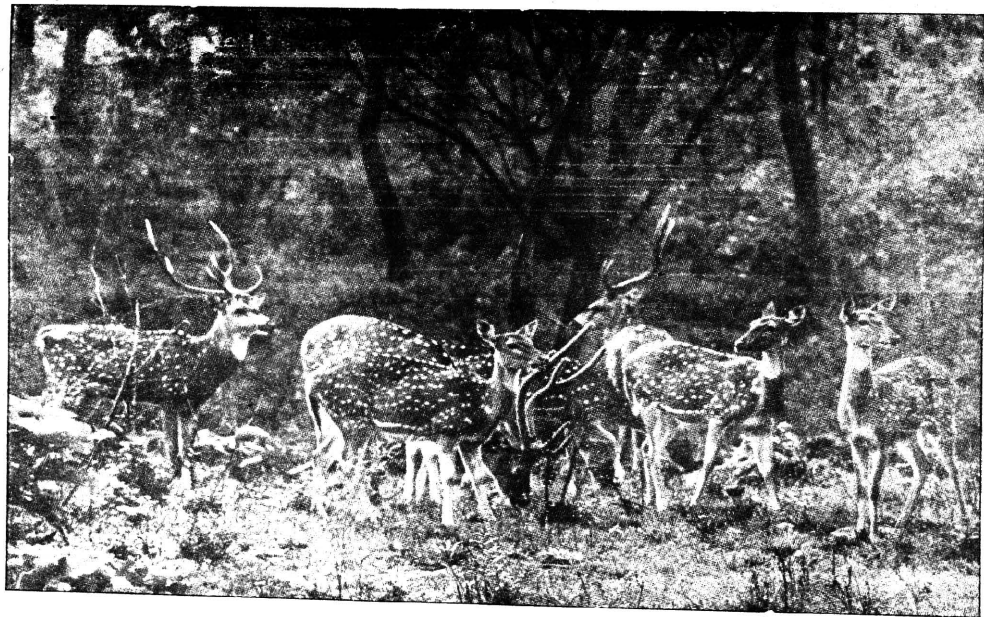
Lantana has run wild over most of the sanctuary and although considered a weed serves many useful purposes. Its many coloured flowers are decorative, its fruits and leaves provide food for animals and birds, and most important of all *lantana* thickets offer shelter to a variety of wildlife. Of late, *eupatorium*, a pernicious weed which seems to have no saving feature is trying to gain ground in the sanctuary.

The Mudumalai region is well known for its valuable timber. Teak (*Tectona grandis*) is commercially the most valuable tree. It grows wild and has a wide distribution. It is also raised in plantations by the Forest Department. Other timber species are rosewood (*Dalbergia latifolia*), mathi (*Terminalia crenulata*), vengai (*Pterocarpus marsupium*), Venteak (*Lagerstroemia lanceolata*), thadasu (*Grewia tiliaefolia*) crocodile bark tree (*Terminalia tomentosa*), etc. Sandalwood (*Santalum album*), a semi parasitic tree of stunted growth, is common in the eastern parts of the sanctuary.

There are some very fine flowering trees and shrubs which light up the jungle when in bloom. As they blossom at different times of the year, there is hardly any season when some species or the other is without flowers. The slender Indian laburnum (*Cassia fistula*) is outstanding when in flower. In summer the laburnum is loaded with pale yellow flowers which hang like bunches of glowing yellow grapes. The flame of the forest (*Butea monosperma*) with its flame-coloured flowers is another impressive flower bearer. The coral tree (*Erythrina indica*) and the red silk cotton tree (*Salmalia malabarica*) also bear striking blossoms. There are so many flowering shrubs and ground orchids that a detailed list is not possible in this brief note.

Among the fruit bearers are wild mango, jamun, nelli, *zizyphua jujuba* and varieties of wild figs. The fruit of the *zizyphus jujuba* which is widely distributed in the eastern section of the sanctuary is a special favourite with the animals and birds.

Edible tubers, which are an important source of food for the tribals and enjoyed by wild pigs, and medicinal plants including the famed *Rauwolfia serpentina*, and fungi including some colourful ones, are also found in Mudumalai.



HERD OF SPOTTED DEER.

ANIMALS

The sanctuary's greatest attraction is its 'Big Game'—a term though inappropriate in the context of a wildlife preserve is used nevertheless for want of a more descriptive term—namely, tiger, leopard, bear, elephant and bison (gaur, to be precise). It is not everyone who has the good fortune to have a glimpse of one of the big cats, nor for that matter, a bear. This is understandable. These animals besides being nocturnal and shy are adept at taking advantage of the cover the country affords. But the other two, especially the elephant, could be observed without special effort, not only because they are partly diurnal and less shy but their bulk makes it difficult for them to hide.

Although the expression 'wildlife' denotes the native flora and fauna of a region, for the purpose of this note it is largely used to refer to wild animals and birds and particularly to animals.

There is a general feeling that tigers and leopards are ferocious and dangerous. These animals have every reason to be afraid of man and go out of their way to avoid contact, leave alone confrontation. There has never been an instance of an attack on people by one of the big cats in the sanctuary. The animal to be most feared in the sanctuary is the elephant, especially cows with very young calves and solitary bulls. Too close an approach must be avoided.

Besides the 'Big Five' there is a whole array of animals which find sanctuary in Mudumalai. There are four kinds of deer, namely, sambur, spotted deer, barking deer; and mouse deer; an antelope: wild boar, hyena and wild dog. Among the smaller animals are the common langur, bonnet monkey, jungle cat, civets, malabar squirrel, flying squirrel, hare, otters, porcupine, jackal and mongoose.

The sanctuary's unique location, encompassing varied types of forests and terrain, caters to the various habitat preferences of its animal inhabitants. It has, therefore, a wide variety of animals the distribution of which is largely patterned according to the type of habitat within the sanctuary. For instance spotted deer show a preference for the more open jungle found in the eastern and northern sections of the sanctuary. Hyenas and porcupines also seem to prefer this habitat. Elephant and bison normally range over the bamboo and elephant grass country in the middle and towards the west of the sanctuary. Animals also migrate locally in search of food and water and to escape from extremes in climatic conditions and insect pests.

Tiger (Panthera tigris) For sheer supple grace, symmetry and power there is no animal to match the tiger. A tiger in the wild has all this plus some indefinable quality which enhances its beauty. This

is especially true of Nilgiri tigers which, due to influences of terrain and climate, are sleek and wear a rich and heavy coat. The tiger being a predator, suffers from certain limiting factors such as availability of prey, etc., so that a given area cannot support too many of them. Considering this factor and the depleted stock of the species in the country, Mudumalai can boast of fair tiger population. However, visitors rarely get to see the Mudumalai tigers. This is due to the fact that the tiger, besides being nocturnal and shy, has a coat of black and gold stripes which matches the texture of the Mudumalai jungle of long grass and bamboo so perfectly as to make it virtually invisible. Tigers are mostly sighted besides public roads at night. On such occasions all one might see are two glowing orbs forcefully reminding one of William Blake's tribute to the animal and its maker.

Tiger, tiger burning bright
In the forests of the night
What immortal hand or eye
Could frame thy fearful symmetry.

There are eight races of the tiger species spread over Asia. The Indian race, which extends into Nepal, Bangladesh and Burma, is often referred to as the Royal Bengal tiger. The practice of calling tigers as well as leopards 'puli' ('huli' in Kannada) in Mudumalai could cause confusion. Although tigers may live up to 30 years, it is doubtful whether their life span extends beyond 20 years in the wild state.

Leopard (*Panthera pardus*) There was at one time a raging controversy over the classification of leopards and panthers. It has now been settled beyond doubt that there is only one species of the animal and that it is immaterial by what name it is called. But it is a mistake to call a leopard a cheetah or hunting leopard which is a totally different species and unfortunately extinct in the wild state in India. The leopard, one of the most adaptable of Carnivores, is capable of surviving in any environment—provided of course it is allowed to survive—and is not too choosy about what it eats. Since the sanctuary provides leopards an ideal setting, they thrive there. In spite of the leopard's tawny coat, which matches the pattern of light and shade in the jungle and provides it with a perfect camouflage making detection difficult, they are sighted more often than tigers because they are less shy and more numerous. Leopards are good climbers and have often been seen lying along branches of trees in the sanctuary. The best time to see them is at dusk or soon after nightfall.

Bear (*Melursus ursinus*) The species of bear found in Mudumalai, and for that matter south of the Himalayan foot hills, is the sloth bear. How it got the name, since it is not at all slothful, is not known. It is a black shaggy haired animal with a white 'V' emblazoned across its chest. Bears are nocturnal and live mainly on fruits and insects—principally termites. They are equipped with long curving claws for digging and climbing. Their favourite food is honey, to secure which they will go to a great deal of trouble. Bears can be seen moving about even during the day in less disturbed areas especially during the honey season, which is May-June in Mudumalai and occasionally at other times when it is cloudy and cool. Mother bears carry their young on the back, piggy-back fashion, when out foraging.

Elephant (*Elephas maximus*) Elephants are one of the commonest animals to be seen in the sanctuary. This was not the case hitherto, at anytime within living memory. The main reason for their increase is the denudation of forests all around the sanctuary especially in the Wynaad so that the elephants are obliged to seek shelter and food in the sanctuary. If this rapid shrinkage of available elephant habitat is not checked in time, elephants are going to be a problem in and around the sanctuary since they are capable of destroying the habitat if too numerous.

Elephant herds are largely family groups, and on occasion several groups will join to make a large herd. Young bulls band themselves together and range on their own. Such bull parties are common in Mudumalai. Herd bulls live on the periphery of the herds joining and leaving the herd at will. Some old timers live a truly solitary life, no longer involved in the responsibilities of family life, sometimes accompanied by a companion who may be of equal age or younger. Solitary bulls have often been branded 'rogues' although most of them are inoffensive and peace loving. Even the few rogues among them are man made, because of having been shot at and wounded when raiding crops. Even in their case it is not a matter of once a rogue always a rogue. Most of the solitaires are magnificent tuskers. The proportion of *macknas* or males without tusks to tuskers is relatively small in the area. People are inclined to make wild guesses as regards the height of elephants. It is rarely that one comes across an elephant ten feet or more in height (measurement being taken at the shoulder), in a straight line, even in Mudumalai which can boast of having, perhaps, the largest number of fine tuskers to be found anywhere in this land of the elephant. If it is drizzly and cool, elephants can be seen at all hours of the day. Otherwise they spend the hot afternoon hours resting in the shade in some secluded spot. Elephants have poor eyesight but have an acute sense of smell, the multipurpose trunk

also serving as the nose. Bull elephants (and on rare occasions cows also) come into a condition known as *musth*. When an elephant is in *musth* a gland located between the eye and the ear on either side of its head opens out and secretes a dark oily fluid, which leaves a trace and makes it possible for such elephants to be identified. The exact function of the *musth* gland is not known but it seems to be indicative of some sort of sexual disturbance. When a bull is in *musth*, it is irritable and is easily provoked. Bulls in *musth* are best avoided.

Gaur or Indian Bison (Bos gaurus) Whatever scientists may say there is no doubt that the gaur will continue to be called the bison. The fact that this name has stuck for so long is proof of its popularity. This misnomer is not without merits; for one thing it is not a tongue twister (so much so that it has even been assimilated into the regional languages), and secondly it sounds grand and is a fitting name for a grand animal. Mudumalai is the home of the bison. This famous stamping ground of the bison was virtually stamped out of existence when an epidemic of rinderpest (no doubt brought in by the decrepit slaughter cattle that pass through every week) raged through the region in 1968 and decimated the bison population. It is a tribute to the ideal conditions that prevail in Mudumalai, that the bison are back home where they belong, though they are nowhere near the original figure. The Circular Road and compartments 7 and 8 and 13 and 14 are the favourite haunts of this animal. Bison are the largest and most magnificent wild oxen in the world. What distinguishes a bison from other oxen is its striking dorsal ridge. The bison is an embodiment of vigour and vitality and is built for a hardy life on the mountains. At birth bison are golden yellow in colour and at every subsequent stage of growth they turn darker until they become a deep reddish brown. But bulls get darker until they turn jet black. In habit and behaviour bison closely resemble the elephant. As in the case of elephants, there are solitary bulls and parties of bulls. Elephants and bison are often seen feeding together. Undoubtedly it is the bison that benefit by this association since elephants, in the course of feeding, pull down bamboo and other forage within the reach of their associates. Another such association commonly seen in the sanctuary is the one between monkeys and deer. The bison is a true forest animal and unlike the elephant shuns habitations and as a rule does not raid crops. It is common to mistake a herd's master bull for the leader. Such a mistake is made in the case of other gregarious animals such as deer and elephants as well. The males, particularly the mature ones are not permanent fixtures in the herds which are basically matriarchal units. Careful observation will reveal who the true leader is. It is usually an old cow.

Sambur (*Cervus unicolor*) The sambur is the largest deer in India, a stag standing almost 150 cm at the shoulder. It is an animal of the forest, but in the sanctuary it shows no particular preference to heavily wooded areas and is more or less equally distributed. Sambur herds are small. The lordly stags, however, are shy and prefer to live on their own on the slopes or in the depths of the jungle and associate with the hinds mainly during the rut, which is in winter. During this period stags develop manes, walk with jaunty steps, hold their heads high and look majestic. They are also less secretive then. Sambur stags and for that matter stags of all species shed their antlers and grow a new pair periodically, which is more or less annually. This process, incidentally is the most apparent distinction between deer and antelope—the antelope having horns with a core like that of cattle which are not shed. In its growth stage, the antlers are enclosed in a skin covering which looks and feels like velvet and stags carrying such antlers are known to be in 'velvet'. When the skin covering starts peeling off, stags rub their antlers on plants and trees to quicken the shedding process. Sambur are the principal prey of the tiger.

Spotted deer or Cheetal (*Axis axis*) This graceful deer, perhaps the most beautiful of all deer is extremely common and add charm to whatever setting they are present. However, they are partial to the more open areas of Moyar and Avarahalla Reserves. Unlike sambur spotted deer associate in larger herds and could be seen at all times of the day. Animals which associate in groups, like spotted deer for instance have a highly developed social organisation. A 'peck order' or social ranking order which may apply to the group as a whole or to the different sexes separately is part of the organisation. This hierarchy is not static but keeps changing. As part of this set up certain postures and gestures have been developed to avoid unnecessary conflicts. But fights do take place even among seemingly mild spotted deer does to establish rank. Mature stags, as in the case of bison and elephant bulls, do not live permanently with the herds and form loose associations or stag parties on their own particularly before and after the breeding season. The Avarahalla Reserve is known for large gatherings of spotted deer stags. Wild Dogs and leopards take a heavy toll of the spotted deer in the sanctuary.

Barking Deer (*Muntiacus muntjac*) Barking deer are usually located by their call, which resembles the barking of a dog. And that is how it got its name. It is also known as the muntjac, jungle sheep and rib-faced deer. The barking deer is about the same size as a medium sized domestic goat and is almost red in colour. It runs with a peculiar gait, hind quarters held high and this posture distinguishes it from sub-adult spotted deer when on

the run. The Manradiar Avenue area is a favourite spot. But even there it is not comon.

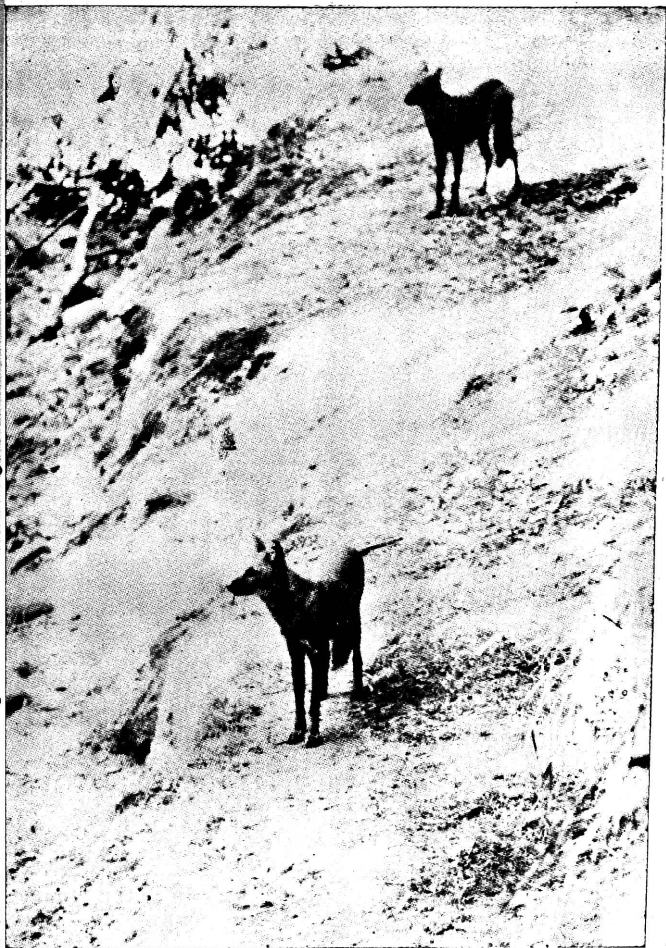
Mouse Deer or Indian Chevrotain (Tragulus meminna).—This miniature deer which belongs to a separate infra order from the other deer mentioned above stands about 25 to 30 cm at the shoulder is a lovable creature. It does not grow antlers. It is usually seen at night by the roadside, especially after a heavy shower.

Fourhorned antelope (Tetracerus quadricornis).—The four horned antelope is the only representative of the antelope group in the sanctuary. It has the distinction of being the only antelope in the world having four horns. Very often the front horns are mere buttons and sometimes just knobs under the skin. It favours the dry ridge above the Moyar river and even there it is uncommon. This antelope has the peculiar habit of returning to the same place to defecate and its presence could be detected by the piles of droppings it leaves.

Asatic Wild Dog or the Dhole (Cuon alpinus)—The wild dog is the most maligned creature in the jungle. Attributing the disappearance of deer to the wild dog man has pursued and persecuted it for centuries. This mistaken belief has been disproved in the case of the Mudumalai Sanctuary where the hunter and its quarry have co-existed in fair numbers. The wild dog is not a true dog but is considered one for all practical purposes. In size and shape it resembles a village dog, and is uniformly red in colour. What distinguishes it from a village dog is its rounded ears and black bushy tail. Wild dogs associate in packs which are usually family parties consisting of about half a dozen to a dozen animals. Packs of twenty to thirty dogs are not an unusual sight in the sanctuary. The wild dog has a useful role to play in keeping the deer population from exploding and in keeping them trim and healthy by destroying weak and diseased members of the deer herds. In spite of pack formations and proven skill as hunters there has been no instance of wild dogs attacking people.

Hyena (Hyaena hyaena).—The species of hyena found in India is the striped hyena. In the sanctuary hyenas are mostly found in the Moyar and Avarahalla Reserves. Being nocturnal they are seldom seen by visitors. The hyena is a scavenger eating what is left of tiger and leopard kills and carcasses of diseased cattle after vultures, village dogs and jackals have had their fill. What is usually left are bones. To tackle these the hyena is endowed with powerful jaws.

Indian Wild Boar (Sus scrofa).—Wild pig herds ('sounders' as these are called) generally take up residence in thickets close to



WILD DOGS.

cultivated fields so that they could raid them at night without having to go far. The jungle around Masinigudi and Moyar is a good place to look for them. Boars develop tusks ('tushes' being the correct expression) and have been known to put them to good use in defending themselves with admirable courage. Unless driven by necessity even tigers prefer to avoid confrontation with large boars.

Coming to the smaller animals there are two kinds of monkeys, the black faced, silvery grey common langur or hanuman monkey (*Presbytis entellus*) and the bonnet macaque or Madras monkey (*Macaca radiata*). Anatomically the most obvious point of distinction between the two groups is that while the macaques have cheek pouches for stuffing food in haste to be eaten at leisure, the langurs do not have such pouches. The long limbed graceful langur are a delight to watch whether on the ground or on trees or in bamboo brakes. The langur's food consists of fruits, flowers, buds and leaves. Except for the troop around Teppakadu the langurs in the sanctuary are shy forest creatures and take fright when subjected to scrutiny. Among the smaller cats are the Jungle cat (*Felis chaus*) and leopard cat (*Felis bengalensis*). The leopard cat is a beautiful creature and is often mistaken for a leopard cub in the uncertain light of dawn and at dusk. The civet family is represented by the small Indian Civet (*Viverricula indica*)—(these animals yield 'civet', a strong basic scent); and the common palm civet or toddy cat (*Paradoxurus hermaphroditus*). These animals being creatures of the night they are seldom seen, unless by chance, by the roadside at night. Three kinds of mongooses inhabit the sanctuary. They are, the common mongoose (*Herpestes edwardsi*), Stripenecked mongoose (*Herpestes vitticollis*), so called because of the black stripe, edged with lighter coloured hair reaching down from behind each ear to the shoulder and the largest Indian mongoose, the brown mongoose (*Herpestes fuscus*). The race of Indian giant squirrel found in Mudumalai commonly known as the Malabar squirrel (*Ratufa indica maxima*) is fairly common. This large brilliantly coloured and handsome squirrel is perhaps the most beautiful animal of its species in the world. Its call resembles the rat tat rat tat of machine gunfire and is heard throughout the day as the Malabar squirrel is quick to take offence and scold; suspicious, it likes to warn the jungle folks of real or imaginary dangers and chatty, it likes to communicate with friends long distance. This squirrel has the habit of building nests out of reach of predators on slender branches of trees and on tall bamboo, to be used as nurseries or merely as sleeping quarters. As each squirrel has more than one nest there are Malabar squirrel nests scattered all over the sanctuary. An interesting inhabitant of the sanctuary is the large brown flying squirrel (*Petaurista p. philippensis*). This

squirrel does not fly like a bird flapping its wings, but glides or parachutes with the assistance of thin membranes which connect its limbs on either side of its body and are ordinarily kept folded. For getting from place to place the animal climbs to the top of a tree and launches into the air and glides to or as close to the bole of a neighbouring tree and repeats the performance until it reaches its destination. It can cover as much as 50 m in a single 'flight'. Watchd from below a flying squirrel "in flight resembles a kite on a crash course, which is what it is as the animal can give very little direction to its flight. Being nocturnal it may not be possible for visitors to see it by day unless flushed out of its sleeping quarters by accident.

The Porcupine (*Hystrix indica*) is a nocturnal creature which spends the day sleeping in a rock cave or earth den and comes out at night. Unlike other nocturnal animals which leave very little evidence of their presence porcupines leave behind them on game trails their brightly marked quills (which are actually modified hair) that are pushed out by replacements. When caught in the glare of headlamps of a motor vehicle a porcupine will invariably put up its quills and dance in a daze, reminding one of a strutting turkey cock. Contrary to popular belief porcupines do not shoot their quills at their enemies. But a porcupine will charge into its enemy backwards leaving it stuck with quills like a pin cushion.

The hare found in the sanctuary, invariably called the 'rabbit', in the blacknaped hare (*Lepus 'n' nigricollis*). It is commonly seen at night by the roadside.

The presence of the Indian fox has not been reported. But Jackals (*canis aureus*) are common.

Otters inhabit secluded pools in the Moyar and Sigur Rivers coursing through the sanctuary. It is almost certain that the common otter (*Lutra lutra*) an otter of the hills, as well as the smooth Indian otter (*Lutra perspicillata*), an otter of the plains, are represented. Some bats occur.

It is possible that the sanctuary holds a few ratel (*Mellivora capensis*), Pangolin or scaly Anteater (*Manis crassicaudata*) ; Nilgiri marten (*Martes gwatkinsi*), rusty Spotted Cat (*Felis rubiginosa*), fishing cat (*Felis viverrina*), brown palm civet (*Pardoxurus Jerdoni*), the near extinct Malabar civet (*Viverra megapila*), and the small Travancore flying Squirrel (*Petinomys fuscocapillus*), as the range of these animals extends to, or close to this region. It would be exciting to locate and identify these animals and put them on the sanctuary map.

The sanctuary is rich in bird life; far richer than in of animal life, a fact, that escapes the attention of the normal visitor as in his eagerness to see the larger animals, he not only fails but ignores the bird life around him. As practically every order and most families of birds found in the Indian sub-continent are represented, including some uncommon and rare species, identifying them alone becomes an exciting game. To assist the amateur bird-watcher in this task, an adequate stock of books on birds is kept in the sanctuary.

The Peacock, our national bird, is fairly common around Moyar. A cock with a full train looks very handsome in its jungle habitat and is worth looking out for.

The gray junglefowl is a common bird. The cock is a smart, trim, beautifully turned-out fellow armed with a pair of spurs, with which it stakes out and defends its territory during the breeding season. A cock's breeding plumage includes a speckled white, black and gold hackle, which is much in demand with anglers in the West for trying artificial flies to lure sport fishes like salmon and trout. The cock's call which is not altogether unlike the crowing of its domestic cousin is bold and vigorous and could be heard most of the year. The red spurfowl, the grey partridge, some species of quails are the other game birds, so called because they are the objects of pursuit, elsewhere, of course. These birds, along with the goggle-eyed plover and a few others also represent the terrestrial ground-bird population, so called as they spend much of their time on the ground.

There are some very melodious song birds; small Malabar whistling thrush or whistling schoolboy, which favours well-wooded water courses; the large racket-tailed dronge, which with its trailing outer tail feathers is a delight to watch, whether chasing its prey or tackling intruders; the shama, the long-tailed black and chestnut cousin of the magpie-robin, which prefers the deep jungle; the spotted babbler, the inconspicuous little bird of the under bush being some of the outstanding performers. The birds are particularly vociferous at the commencement of the respective breeding seasons.

The chorus of birds at dawn as they all join in welcoming the break of day in unison is something worth taking the trouble to rise early to listen to. The bird chorus is especially noticeable along the Moyar River. For noise for noise's sake there is no bird to beat the small green barbet, a dumpy, grass green bird, which

is not so small after all. During the greater part of the year it goes on and on tirelessly, from dawn to dusk calling kurr koturr, koturr, koturr from perches high up in the trees.

The green pigeons, southern as well as the greyfronted have musical calls which could be heard a long way off. These birds gather in large numbers when fruits of their choice ripen. Once they get in among the foliage of a leafy tree, they merge with their surroundings so perfectly that it is well nigh impossible to locate them. The Nilgiri wood pigeon, a steel grey bird the size of a crow, is another fargivorous or fruit-eating bird, which could be seen moving about in small parties in the sanctuary. Jerdon's imperial pigeon is rare and spotted and ring doves are common. Little brown Dove and red turtle dove are not so common. Emerald doves are not uncommon and are partial to well-watered areas. It is so well camouflaged that it is usually possible to catch only a glimpse of this bird as it flashes past at great speed.

Malabar grey hornbill is the chief representative of the hornbill family. But the great pied hornbill has been seen on rare occasions.

Bulbuls and mynas are represented by two or more species. There are three species of parakeets (it may be noted that there are no parrots in the wild state in India) present, namely the blue-winged, the roseringed and the blossomheaded. They are noisy and appear to be in a hurry always. The southern grackle or hill myna, which because of its extraordinary ability to learn human speech is a much sought after cage bird, is quite common.

Woodpeckers and flycatchers are better represented than the other birds. Each is represented by about ten different resident species. Among the woodpeckers, one of the smallest in the country, namely the Nilgiri piculet which is smaller than a sparrow, as well as one of the largest, namely the Malabar black woodpecker, which is as big as a crow occur. Among the fly catchers, the most attractive is the paradise fly catchers. The adult male is, a snow white bird, the size of a bulbul, with a black head and crest and two trailing, ribbon-like tail feathers. This lithe and agile bird is a delight to watch as it darts about, its streamers fluttering after it.

Babblers and warblers which are dull coloured and inconspicuous are so over represented that it becomes a problem identifying them in the field.

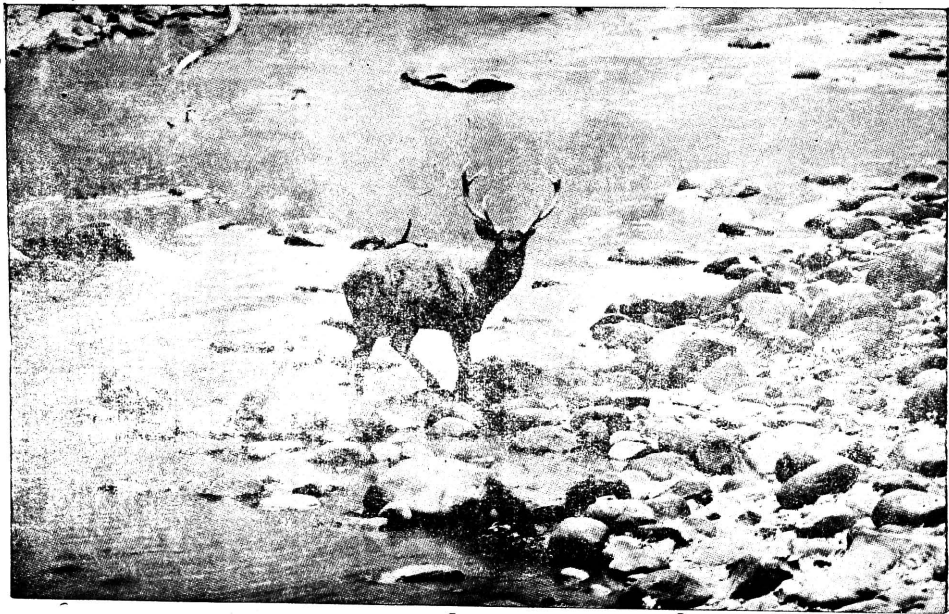
Among the birds of bright plumage are the Malabar trogon, fairy bluebird, scarlet minivet and orioles.

At nightfall a different set of birds take over. Among the owls three large species are present, namely, the brown wood owl, brown fish owl and forest eagle owl. The brown wood owl and the forest eagle owl could sometimes be seen moving about even during the day. There are some species of nightjar that are resident within the sanctuary limits.

Among birds of prey, a whole range is present, eagles, hawks, buzzards, harriers and falcons. The crested serpent eagle and the hawk eagle, both large, powerful birds of prey are common.

The commonest scavenging bird is the whitebacked or Bengal vulture. These birds are very useful for locating kills of tigers and leopards. King vulture and the smaller white scavenger vulture also occur.

Mudumalai could even boast of sheltering water birds—waders as well as some duck species, some resident and some migratory on its water spreads.



REPTILES AND OTHERS.

Snakes.—It is a common belief that snakes abound in the jungle. There are snakes, no doubt, but it is rarely that one comes across a snake in the sanctuary. To meet one of the three major poisonous snakes, namely, a cobra, krait or viper is a rarer experience.

There is no record of king cobras occurring in the region. The Indian python (not the boa constrictor as some refer to it) is found in the sanctuary. The largest recorded from Mudumalai measured 5.18 meters (17 ft.). It is possible that larger pythons exist as some large ones have been observed swallowing near adult spotted deer and on one occasion a bison calf. The snake seen most often is however, the dhaman or rat snake. This, possibly, because it is partly diurnal and possibly because of its length.

LIZARDS.

The common monitor lizard (often miscalled the 'iguana') attains good growth in the area. One meter to one-and-a half meter monitor lizards are not uncommon. The chameleon is also found in the sanctuary. However, the most interesting reptile inhabitant is the flying lizard (*Draco dussumier*). This lizard is a pocket version of the common garden lizard. Like the flying squirrel, it glides and it does not fly like a bat, for instance. It has membranes on either side of its body which remain folded and invisible when not in use and which when stretched helps it to 'fly'. A gliding lizard so much resembles a falling leaf that it is difficult to detect it. But what gives the lizard away is its habit of flicking its bright yellow throat pouch in and out in rapid succession.

Tortoises.—Water tortoises (terrapins) are common in river pools. Land tortoises are uncommon and keep to the drier parts.

Crocodiles.—Some small-sized marsh crocodiles take up residence in undisturbed pools in the Moyar River below the waterfall.

Fish.—Carnatic carp (*Barbus carnaticus*) a cousin of the mighty mahseer is the common fish. Mahseer work their way up to the pools below the waterfall in winter to spawn. Large eels (*Anguilla bengalensis*) are found in rocky pools.

Butterflies.—There are many varieties of butterflies in the region. It is indeed a happy hunting ground for the lepidopterist. Mass migration of butterflies could be observed during certain seasons.

Other insects.—A distinguishing feature of the sanctuary are its giant ant hills. Blood-sucking leaches, a source of annoyance, are fortunately rare. Malaria which was at one time a scourge has been eradicated from the area. Some richly coloured spiders are present.

THE THEPPAKADU ELEPHANT CAMP.

One of the main attractions of the Mudumalai wild life sanctuary is the elephant camp which is located on a bend in the Moyar River amongst picturesque surroundings, at Teppakadu where the Ooty-Gudalur-Mysore and Ooty-Sigur-Mysore roads meet.

The Teppakadu camp serves as base camp for the work camps scattered in the jungle around and keeps these camps supplied with their requirements in elephants, men and provisions. Besides working elephants, calves, expectant and nursing mothers, sick elephants and 'old timers' on the pension roll make up the camp elephant population. At work camps elephants can be seen hauling, stacking and loading timber, with apparently little guidance from their mahouts. In carrying out their tasks, working elephants display amazing skill and intelligence.

Elephants, like people, have names ; such sweet names of as Sundari, Malathi, Suguna, Gajendran and Arjuna. For students of animal behaviour, the camp offers much scope for observation and study. No two elephants behave in the same manner and each has a character of its own. Some are amiable, others ill-tempered, some big hearted, a few mean, many predictable and some unpredictable.

The prime requisite of any elephant camp is water. For elephants must have plenty of water. The Moyar River meets this requirement of the camp. The elephants look forward to their daily bath in the river with eagerness. There they are made to lie flat while the mahouts scramble over their immense bulk, using sections of the screw pine fruit, which grows in certain parts of the sanctuary, to scrub them clean.

Elephants have enormous appetites, a full grown elephant requiring two to three hundred kilograms of food a day. If all this requirement were to be met by stall-feeding them even the government can not afford it. So what the camp officials do is to dole out a daily ration of balanced food consisting of rice, millets, cocoanut, minerals, etc., and let their charges out in the jungle at night, hobbled, of course, to forage for themselves to make up the balance. Feeding time at the end of the day is probably the best time to visit the camp.

The practice of letting the camp animals loose in the jungle at night has lead to several clandestine romances between wild bulls and camp cows. The Teppakadu Camp has, as a result, earned the reputation of having the largest birth rate among elephants in captivity and of having produced a record number of calves.

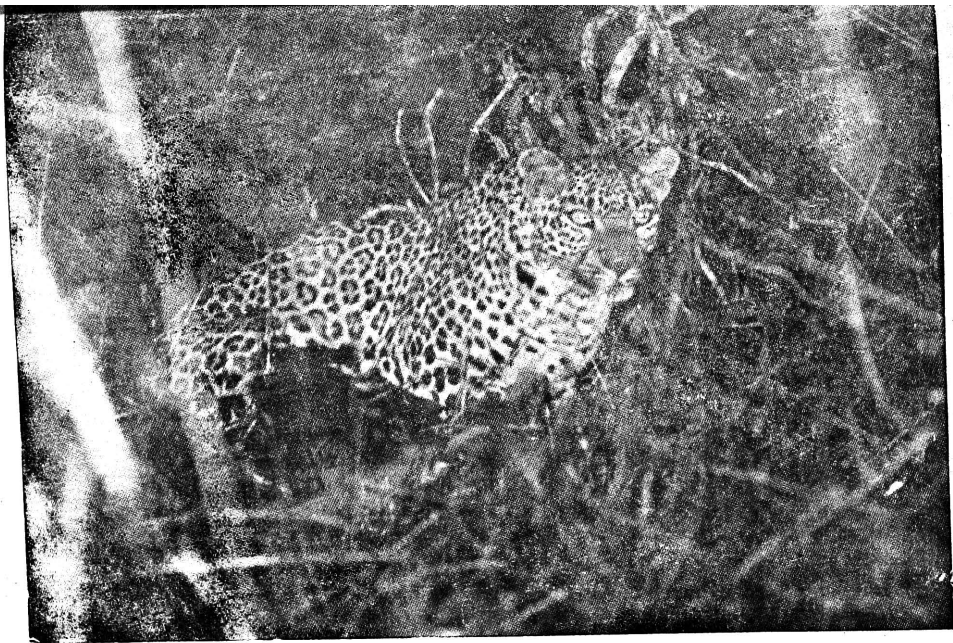
Elephants give birth to one calf at a time. But in May, 1971 Devaki gave birth to twins, an event which made news all over the world. The twins Sujay and Vijay are star attractions of the camp. Not all affairs are carried on under cover of darkness. Sometimes when a cow is in season, love-sick, wild-bulls lose their natural fear of man and hang around the camp night and day, scaring residents as well as visitors.

There have also been instances of wild elephant calves straying into the camp—no doubt mistaking the tame elephants there for a wild herd—thus contributing to their own capture.

Life in the camp centres around the two or three calves that are usually there. These little creatures are full of mischief. As puppies and kittens play with their tails baby elephants have fun playing with their trunks, and in the process learn to put this multipurpose limb to good use. The calves are also taught to perform small feats for the entertainment of visitors.

Each elephant has a mahout, the driver and a kavadi, the attendant or learner driver. From the day the mahout takes charge of an elephant he loses, his identity and takes that of his charge, even to the extent of assuming the elephant's name. Every elephant knows to distinguish between the mahout and the kavadi and to tease the poor kavadi no end.

The elephant men at Teppakadu are drawn mostly from the Kurumba tribe. They love respect and their charges which accounts for their being good elephant men.



LEOPARD

FACILITIES PROVIDED FOR OBSERVING WILDLIFE.

Elephant Rides:

Viewing wildlife from the back of elephants is the first choice of most visitors not merely for its novelty but because it invariably turns out to be a rewarding experience. Since not more than three or four elephants could be spared for this purpose and as each elephant can accomodate upto four adults and no more it may not be possible for everyone to enjoy this facility.

Unlike a jeep ride, the distance covered in an elephant ride which lasts about two hours is not much, but one is on more intimate terms with nature on an elephant. It is also possible to make a closer approach to wild animals on an elephant as one goes cross country and animals are less shy of one of their own kind. While trying to make a close approach, the wind must be studied and approach made upwind as most animals, particularly herbivores and bear have a keener sense of smell than hearing or sight.

Dull coloured clothes which merge with the jungle background should be worn. Unnecessary movement and even whispered conversation should be avoided in the presence of wild animals. A useful tip to avoid backache is to relax and sway with the movement of the riding elephant and not sit stiff and erect. The seat is a cross between a howdah and a pad and is well cushioned, properly secured and safe. Visitors should take care not to stretch their limbs beyond the arm and foot rests of the seat to avoid injury as riding elephants have the knack of squeezing their way through between trees with hardly any space to spare. Rides are arranged between six and eight in the morning and three and five in the evenings, in one or two batches. It is important that visitors should keep to schedule to avoid disappointment.

Jeep and Van rides :

Jeeps and vans are available to take visitors round the sanctuary. As long stretches are covered in the course of these rides, the chances of viewing wildlife are better. Because of the system of sharing costs van rides are cheap. As some of the roads are narrow visitors should never lean out of vehicles. The following note will give an idea of the nature of the country and the type of wild animals that one is likely to come across in the course of these drives.

Mudumalai;

Could be approached from Teppakadu as well as Kargudi. Long grass, teak and mixed jungle. Swamps in hollows. Elephants, bison, sambur and small herds of spotted deer and wild boar near Kargudi. If lucky, tiger and bear; and leopard around Kargudi.

Benne :

Beyond Mudumalai.. Long grass, bamboo and teak and mixture of sub-tropical wet and Tropical semi-evergreen forests. Bridges and culverts are periodically washed away and the road is impassable most of the time. Elephant, bison and sambur. Good tiger and bear country.

Ombetta Vayal:

The Mudumalai range has many Vayals or swamps. Ombetta is about the best of these swamps. It is midway between upper Kargudi and Mudumalai game hut. It has a luxuriant growth of tall grasses most of the year, and is a haunt of elephants. The road skirts the swamp and provides a good view of the swamp and its approaches.

Sand road :

A fair weather road originally formed to transport sand from the Kakkanhalla stream bed on the Mudumalai-Bandipur border, the Sand road is good for observing elephants and at times gaur, sambur and wild pigs. The sand road could be reached from Kargudi, Teppakadu and Mudumalai over sanctuary roads and from the Ooty-Mysore trunk road also.

Circular Road :

Long grass with teak, bamboo and mixed tree growth. Bison, elephant, sambur and small herds of spotted deer—with luck, leopard and bear and on rare occasions tiger.

Manradiar Avenue :

The road winds round a hill overlooking the Moyar River. Mixed forest with pretty glades; more open forests towards the east. Elephant, bison, sambur, spotted deer, barking deer and wild boar. Occasional wild dog packs, leopard, bear and tiger in that order.

Jeyadev Avenue :

Flat scrub type of jungle. Large herds of spotted deer, some sambur near Moyar, wild boar and wild dogs. Along the Moyar ridge fourhorned antelope.

Public Roads :

Kakanhala to Thorapalli; Teppakadu to Masinigudi and Masinigudi to Moyar are excellent places to look out for wild animals at dusk and birds at dawn.

Private vehicles :

Visitors are allowed to take their own vehicles on sanctuary roads during the day on payment of fees. It would be inadvisable to take vehicles with low clearance on some of these roads. Information on the condition of the roads should be sought before attempting to take a private vehicle on them.

Machans observation towers :

A few machans have been put up to enable visitors to sit and observe wildlife and more are planned. As water is available almost throughout the sanctuary over most of the year machan watching is more productive in summer. Nevertheless to sit on nature's lap on a quiet afternoon absorbing the jungle atmosphere awaiting a visit from a wild creature, is in itself, an experience.

Treks :

Unless accompanied by an official guide it is not advisable to undertake treks into the interior of the sanctuary. Even then it is risky.

FACILITIES FOR STAY.

The sanctuary is so conveniently located that flying visits are possible. However, for the better appreciation of the sanctuary and its wildlife and to get the feel of the jungle a stay in one of its rest-houses would be an advantage. In Mudumalai the resthouses have not been lumped together in one small campus as in most sanctuaries, but lie scattered. Although this may not be convenient from the administrative angle and for those without transportation of their own, it has certain overriding advantages. For one thing there is no crowding in any one place and there is a choice of locations to pick from—a choice which has to be exercised well in advance. This way it is possible for the resthouses to be extensions of the jungle, which, in fact, they are. And trips to Teppakadu and back for elephant and van rides, if properly timed could by themselves, be rewarding.

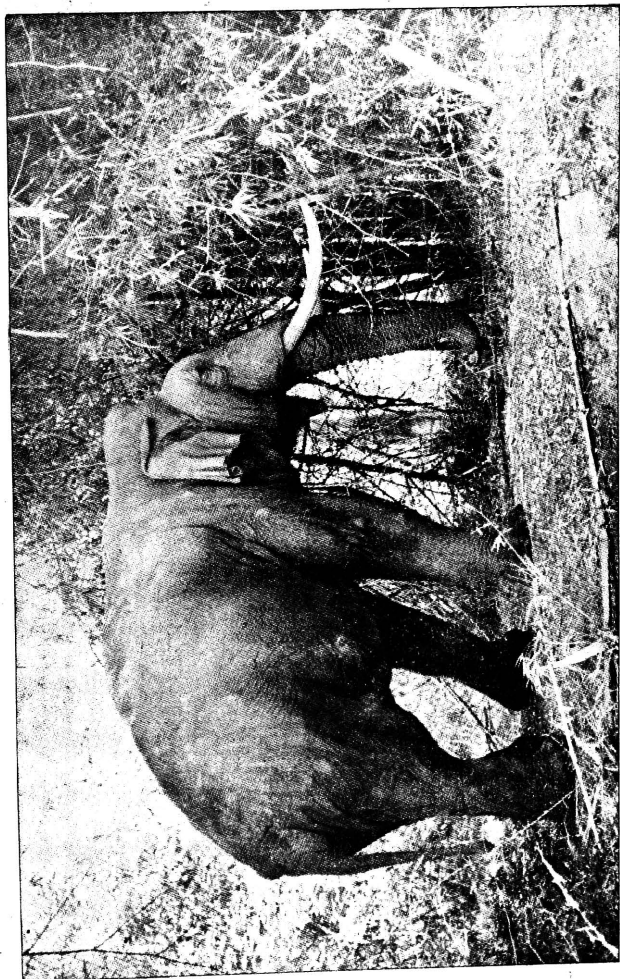
The Sylvan Lodge complex in Teppakadu consisting of the main lodge, the Log House (built entirely of teak), dormitories and Camp sites overlooking the Moyar River (and more or less faces the elephant camp across the river) has the best location—scenically as well as from the point of view of convenience for elephant and van rides and public transport buses. At nights elephants, sambur and spotted deer come close to the Lodge

Abhyaranyam overlooks the Ooty-Mysore Road and is about 5 km. to the south of Teppakadu. Sambur and spotted deer and occasionally elephants visit the salt licks in front of the resthouse at night. The Kargudi resthouse is situated on the top of the Kargudi Hill, in a secluded spot, about 2 km. from the public road. It is a good place for listening to animal and bird calls. But this resthouse is mere an inspection bungalow reserved for Government Officers touring the area then a resthouse. The Masinigudi resthouse and the Log House near it, are situated 8 km. from Teppakadu and one km. beyond Masinigudi village, towards Moyar. This resthouse is conveniently situated for drives along the Moyar road. The Pykara hydro-electric towerline which passes by the side of the resthouse cuts a wide swath through the Moyar Reserve and is a good place to watch for animals at dawn and in the evenings.

The resthouses are comparable to hotels with three star rating, but are much cheaper. Even the charges for food, which are regulated, are moderate. Electricity and modern sanitation have been installed and bed linen is provided. But the plumbing and water-supply get out of order once in a while, mainly due to the fact that the electric lines which have to pass through large sections of jungle get disrupted due to various reasons. A little tolerance on the part of the visitors would be to the advantage of all concerned.

A competent cook who is provided with assistance is incharge of the kitchen in each resthouse. A little hint in the matter of food preferences will not be taken amiss. Each resthouse has a fridge and canned provisions also available. Due to pressure of demand and shortage of accommodation, the sanctuary authorities are by necessity compelled to regulate the stay of visitors, particularly during rush seasons. Automobile trailer campers are advised not to park their vehicles at random on the roads or in the forest in their own interest, but to seek the guidance of a Range Officer. People who may be passing through and who may wish to stay overnight, may approach one of the Range Officers to allot them accommodation. The Range Officers usually oblige, if there is vacancy and no prior booking.

Reservations are done from the afternoon of a particular day to the following forenoon or from forenoon to the following morning, provided the stay does not exceed 24 hours. For more details of the resthouses please refer to the table at the end of the book. Besides the forest resthouses, there are Electricity Board Inspection bungalows in Moyar and Singara and Highways Department travellers bungalows in Masinigudi and Gudalur. The Inspection bungalows are usually reserved for official use. But the travellers bungalows are open to the public.



ADVICE TO VISITORS.

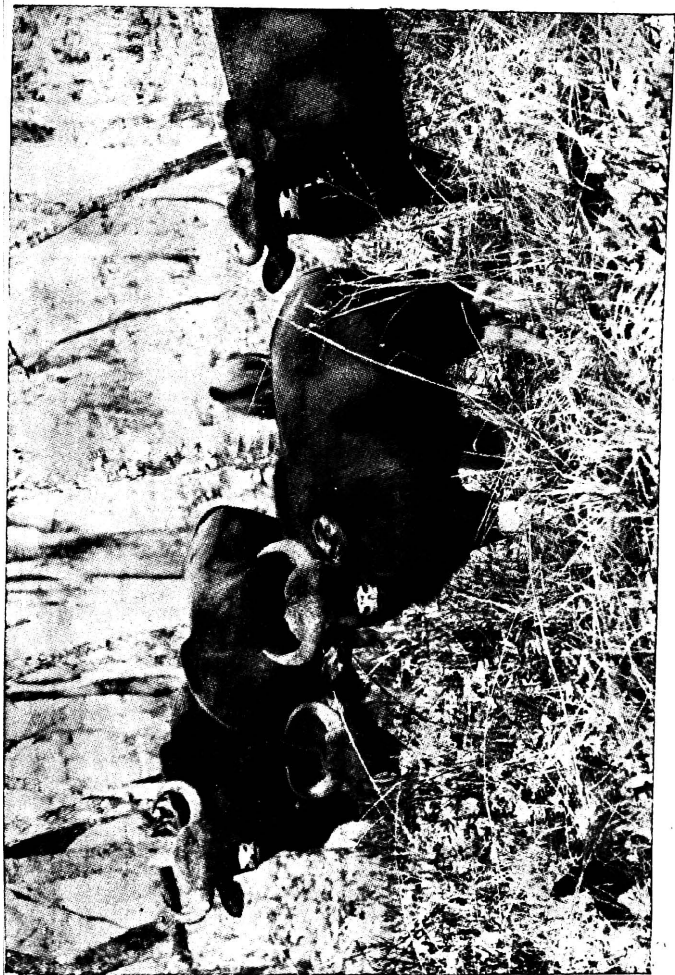
It is well to remember that one visits a sanctuary to observe wild animals, birds and other forms of wildlife in their habitat, at their convenience as they go about their affairs. The visitors' path and that of the wild animals must cross to result in a meeting. The sanctuary officials in Mudumalai try to contrive such meetings. But it is not always that they succeed in their efforts. A visitor who recognises this basic fact and is mentally prepared to face such an eventuality and admire the other facts of nature that are presented to him will make a success of his visit as the sanctuary has much to offer even without the better publicised larger animals showing up.

For one thing the atmosphere is different; the pace is easy and peace prevails. Even if the animals fail to show up they make their presence felt in various ways. The trumpeting of the elephant, the sport of the disturbed bison which explodes like a rifle shot, the challenge of the spotted deer stag, the belling of sambur, the fierce whooping of the male langur in an effort to establish dominance over the troop and show off to its rivals, are exciting to hear. The handiwork of the mighty elephant, bear diggings, the pugmarks of a tiger are exciting to see. The jungle itself with its pot-pourrie of plant growth with a strong deciduous complexion that presents a different face at every turn and is ever changing, deserves a close look.

Animals are, as a rule colour blind, but whites, reds, yellows and other bright colours stand out and frighten them and are to be avoided particularly if one is taking an elephant ride or sitting on a machan. Movement, is equally disturbing to the animals; pointing at animals and talking in their presence are worse.

Playing of transistor radios and tape-recorders are taboo in the jungle. Besides frightening wild animals and birds the visitor would fail to hear bird song and animal sounds which he has come all the way to listen to. Even in the resthouses they should not be played as they are a nuisance and source of annoyance to one's neighbours and disturb the peace of the jungle which is at the doorstep. The sanctuary is not a place for noisy picnics and wild parties. Remember it is the home, indeed one of the last homes, of wildlife and should be treated with respect. On no account should one annoy or provoke wild animals or approach them too closely. Such action will invite a charge particularly from elephants.

Except for the warm months of February, March, April and May, a blanket comes in handy at night. These are provided in the resthouses. However, additional requirements have to be brought. During the cold season, that is, between November and January woollen jerseys are necessary. At other times heavy cotton or light woollen clothing would not come amiss.



WILDLIFE PHOTOGRAPHY.

In spite of recent advances made in the field of photography with improvement in film speeds and quality, through the lens metering, telephoto lenses with wider aperture openings, handy Zoom lenses and other sophistication in equipment wildlife photography in Indian jungle conditions remains an enigma and as tough a proposition as ever.

A large format camera has certain advantages over miniature cameras. But these are cancelled by their cumbersomeness and non-availability of certain useful accessories. They are more for the professional to dabble with. A 35 mm. camera with through the lens metering has a distinct edge over other equipment—better still, two cameras or just two bodies alone, one for colour work and the other loaded with fairly fast (say 400 ASA) black and white film; with inter changeable lenses. Meter reading taken with conventional light meters from the back of an elephant or from a vehicle is likely to be misleading as the light where the subject is at ground level in the undergrowth is one to two stops poorer. This is why a camera with through the lens metering is to be preferred.

A good quality telelens is an asset as there is no falling away of print quality towards the edges. A light, fine quality Zoom lens in the 85|90 mm to 200|250 mm Zooming range, with upto F4 aperture opening, is the best bet. Failing which a 200 mm focal length telelens of fairly good quality would serve the purpose admirably. Anything smaller is too small and anything longer is too long and bulky and their apertures do not open wide enough for jungle use. Since the 'models' are likely to be elephants and bison (and herds of deer) the photographer will find his model overflowing the frame with extra long lenses.

Filters have little use in Mudumalai conditions. So also the standard electronic flash units. However, they may be useful for close-up photography at dusk along the public roads. The best time of the year for taking pictures is between February and April when the jungle is comparatively open. However, February|March is not a good time for colour photography as the jungle is then dry and colourless.

The railings on the seats used for elephant back riding and window ledges in vans are a source of temptation to rest the camera. More camera shake is caused by these 'rests' than otherwise. The photographer should brace the camera against his body, hold his breath and squeeze the trigger at fairly fast shutter speeds (preferably at 1|250th of a second or more). Any good luck will followed.

SIDE ATTRACTIONS.

A feature of Mudumalai is its side attractions. (i) Singara and Moyar power houses of the Pykara hydro-electric system are situated on the sanctuary's periphery. Trolleys hauled by winches up and down steep inclines provide the means of transportation to the power houses (The Singara Power house, however, could be reached by road from the sanctuary side). A trolley ride is a thrilling experience, but it is not recommended for people who cannot stand heights. Prior permission to enter the power houses and for using the winch has to be obtained from the District Collector or the Divisional Engineers concerned; the D.E. Moyar, for Moyar and the D.E., Glenmorgan, for Singara. Photography is prohibited. (ii) There are tea and coffee plantations not far away. Tea unlike coffee, which is merely pulped and sent away to the Coffee Board pool, is manufactured in a factory. Prior permission from the Manager of the Estate concerned has to be obtained to visit the factory. (iii) Those interested in archeology will find hero stones, stone tablets, ruined temples and forts and tribal burial places lying scattered over the area interesting. (iv) There is a State sericultural station in Masinigudi where silk worms are raised and silk thread is reeled from cocoons.

PARTICULARS OF SANCTUARY REST HOUSES.

Name of the Rest house.	Number of units.	Beds.	Sanitation and Electricity.	Boarding.	Phone No.	Charges for Occupation.	For Reservation.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Abhyaranyam	2	2 each	Provided	Available	Gudalur (26 Ext.)	Rs. 12 per Person Rs. 6 Addl. Person Rs. 12 per Person.	Reception Range Officer, Theppakadu Ooty Reception Centre for advance booking. casual visitors for occupation on the day of arrival
Abhyaranyam (Annexe)	2	2 each	Do.	Do.	(Nearest)	Rs. 18 Per Person	Do.
Kargudy (Rest House)	2	3 each	Do.	Do.	Gudalur 26	Rs. 6 Addl. Person	Do.
Peacock Dormitory		30 cots without beds.			Do.	Rs. 1 per person	Do.
Sylvan Lodge Theppakadu.	4	2 each	Provided	Do.	Masinagudy 35	Rs. 18 per person Rs. Addl. Person	Do.
Sylvan Log House	2	2 each	Do.	Do.	Do.	Rs. 12 per person Rs. 6 Addl.	Do.
Sylvan VIP suite	1	4	Do.	Do.	Do.	Rs. 18 per person	Do.
Sylvan Minivet Dormitory.	2	3 each	Do.	Do.	Do.	Rs. 3 per bed.	Do.

Name of the Rest house, (1)	Number of units, (2)	Beds, (3)	Sanitation and Electricity, (4)		Boarding, (5)	Phone No. (6)	Charges for Occupation, (7)	For Reservation, (8)
			Provided	Available				
Morgan dormitory } Theppakkadu.	2	4 each					Rs. 3 per bed per day.	Do.
Masinagudi Rest House.	3	2 double 1 single	Do.	Do.	Masinagudy 26. (Range Office).		Rs. 10 each	Do.
Masinagudy Lof House.	4	2 each	Do.	Do.	Do.		Rs. 5 Addl. person	Do.
Mudumalai Game hut.	2	2+1	No electricity or boarding.	Do.	Do.		Rs. 12 Each Addl. Rs. 6 (To be fixed)	Do.

Note:—Campers and trailers can be parked in Rest house grounds on payment of a fee of Rs. 3 per vehicle.

ALL CHARGES SUBJECT TO REVISION.

In addition there are Highways Department Travellers Bungalows at Masinagudi and Gudalur; Electricity Board Inspection Bungalows at Moyar and Singara; All within 10 to 20 Km. of Theppakkadu.

RATING TABLE.

Month.	Rating.	Weather.	Temperature Appx—Av. °C.	Remarks.
January	4	Fine but chilly	17	Fairly good.
February	5	Fine	21	Jungle very dry-good visibility.
March	5	Warm-occasional showers in the afternoon	26	Best time for seeing wildlife.
April	5	Do.	30	Do. Young grass.
May	4	Pre-monsoon showers	30	Do. but too many visitors and services strained.
June	3	S. W. Monsoon sets in	27	Rain with clear days.
July	2	Heavy rains	25	Wet. Poor conditions but eastern section less affected.
August	2	Heavy to moderate rain	25	Do.
September	4	Fine	25	Good time.
October	3	N. E. Monsoon sets in towards later part.	23	Jungle luxuriant-poor visibility.
November	4	N. E. Monsoon continues	21	Do.
December	4	Fine, but chilly	17	Jungle drying up.

TABLE OF CHARGES:

Sanctuary fee

A fee of Rs. 1 per person and 0.50 Paise per child above 3 years and below 12 years is charged to each visitor.

Vehicles—

Use of Departmental vehicles

Van (Mini) Capacity—10
Van capacity—20
Jeep capacity—6

25 per km per person subject to a minimum of Rs. 1.50 per Km for jeep and Rs. 2 for other vehicles. Charges may be shared between two or more parties.

Owner's vehicles

Privately owned vehicles may be taken inside the Sanctuary at owner's risk on payment of Rs. 5 per vehicle per day. Charge for a van is Rs. 7.50.

Elephant ride

Rs. 20 upto 4 adults for a ride which may last two hours approx. The carrying capacity of an elephant is 4 adults. Rides start at 6 a. m. and at 8 a. m. in the morning and again at 4-00 in the after-noon until sunset. It is advisable to reserve rides in advance.

Photograph

Still camera Rs. 2 per camera per day. 8 mm and 16 mm Movie cameras for amateurs Rs. 10 per day. For professionals, enhanced fees are charged. For rates and permission, applications to be made to the Chief Wild Life Warden Madras-600 006.

Note.—Rates are subject to revision.