

MAMMALS OF HAZARIBAGH FORESTS.

By.
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1. Common Langur (*Presbytis entellus*). The langur is usually found in smaller or larger communities, composed of individuals of both sexes and of all ages, the youngest clinging to their mothers and being carried by them, especially when alarmed.
2. Tiger or Sher (*Panthera tigris*) The brilliant colouration of the tiger harmonises exceedingly well with the grass bush among which he prowls. The jungles most favoured by tigers are those that are green, heavy and continuous, and well watered by perennial streams or with some good pools of water in them - and with low hills and evergreen bushes, and above all with a good supply of their natural prey. Essentially nocturnal, lying concealed in the long grass till evening, then issuing forth for his nightly prowls. He dislikes sun and always tries to shelter himself as much as possible from the burning rays of the sun. It is during the rains that the tiger is more frequently come across in the day time, when the weather is cloudy and cool. There is no fixed season during which cubs are born but the mating season is believed to be February and March and during those months the animal, calls more than at any other time. The present writer has, however, seen tigers mating as late as June in the Calcutta zoo. The period of gestation is about 15 to 16 weeks 2-3 but may be 6 produced in a litter. Cubs are kept well hidden away in some dark and gloomy nullah or in a dense patch of long grass.
3. Panther or Tindwa (*Panthera pardus*). Ground colour pale-fulvous yellow with dark spots grouped in a rosettes. Fur short and close. Varies in size from 6 to 8 ft. The panther is not as particular about its habitat as the tiger is and ranges from thick and heavy jungle to the scrub. Secluded caves are also favoured. Being more tolerant of the sun they frequently hunt by day. Its prey consists of small mammals and birds, but cattle, deer stags and even doe sambar are not too large for it. In spite of its small size, the panther is a ferocious animal. It finds no difficulty in climbing trees and very often does so and lies curled up along a branch over hanging sun well frequented game track, to pounce on unwary animal that has the misfortune to pass underneath. Probably it breeds in the spring, and produces from 3 to 4 cubs, the lair being generally in a cave or under an overhanging cliff.
4. Jungle cat or Khatas (*Felis chaus*). The jungle cat is somewhat superior in size to the domestic cat from which it differs in having a circular pupil to the eye, the tail is less elongated than in many of the true cats, varying from one third to two-fifth the length of the head and body. The colour of the fur of the body varies from sandy or yellowish-grey to greyish brown, the under part whitish with a yellow or red tinge. It frequents jungle and open country and is very partial to long grass, reeds, corn fields and sugar cane fields. It does much damage to game of all kinds, partridges, hares etc. Very ravage even when caught young is generally untamable. The movements in the open are much like those of a small panther. It is said to breed twice a year, but is very little known about its breeding habits.
5. Caracal or siyeh gush (*Felis caracal*). Foxy coloured, larger than the jungle cat, with broad head and tufted ears of back hair. From the latter feature the animal is known to the Persians as Siyah gush. Siyah means black and gush ears. The caracal stands higher on ~~among grass and bushes~~, where it preys on birds, rodents, gazelles and small deer. Very active creature and have the power of springing up and capturing birds on

the wing at a height of 4 to 5 feet above the ground. It is easily tamed and trained to capture birds and deer etc. This interesting uncommon and elusive animal is fast disappearing from our forests. Only twice seen in Hazaribagh National Park, once in December '57 and then in January '60. Two immature cubs were found in Sarisua Game Sanctuary in Rajasthan on 31st October '58. The cubs were abandoned by the parents and could not be kept alive. From this it appears that the natural food of the animal is disappearing.

6. Mongoose or Newla (*Herpestes edwardsi*) Tawny yellowish grey in colour- marked with alternate light and dark rings, which gives special appearance to the fur. It has long, weasel-like body and more or less elongated tail generally thick at the root. It lives in open lands, scrub jungles and cultivation. It is a great destroyer of poisonous snakes and rats. In a rage its body would swell to nearly thrice its size, from the erection of its long stiff hair and it must be very hard for a snake to drive its fangs through the thick skin which all kinds of *Herpestes* possess. It waits till the snake makes a dart on it, and then suddenly pounce upon the reptile's head and crunches it to pieces. In spite of its natural fierceness, the mongoose is easily tamed and forms a affectionate and gentle pet.

7. Striped Hyena or hundar (*Hyaena hyaena*). In colour the striped hyena is dirty grey, with long transverse black stripes over the body and a mane of longer and coarser hair along the neck and ~~six~~ spine to the beginning of its bushy tail. It has large and pointed ears. Equally at home in heavy forest as in thin scrub and grass jungles. It makes its home in caves, if any are handy, otherwise is content with holes in the ground. More plentiful in hot arid tracts than in low lying and heavily wooded country. A scavenger by profession, cleans up tiger and panther kill. Also eats dogs goats etc, inveterate dog lifter prowls around villages, carrying off all pariahs it can get. Absolutely nocturnal in his outings and is never come across in the day time. Wondering about but may be seen sometimes even after dawn. The call of the hyena is a very disagreeable unearthly cry and gos are often tempted out by it when near, and fall a victim to the stealthy marauder.

8. Jackal or gidhar (*Canis aureus*). It is a mixture of black, white and rufous. The reddish brown hairs of the tail have long black tips, thus forming a distinct black tip to the tail itself. It frequents hilly or plain country, forest or open lands, villages and cultivation. Goes about singly or in pairs, but often associates in packs, which may be of considerable size, ~~their~~ assemblages being more frequent at night than during the day, the food comprises not only and the flesh, but also fruits, maize and sugar cane. In towns and villages the jackals act as efficient scavengers, as well as poultry thieves. The cry of a pack, when heard, strikes the ear with a peculiarly blood curdling chill, and gives the impression that it is uttered by a much larger number than is really the case.

9. Fox Or Lomri (*Vulpes bengalensis*) The general colour of the fur is grey, with reddish tinge, the tip of the tail black, while the ears are grey. This black tip to the tail, coupled with the small size at once distinguishes this species from all other foxes inhabiting India proper. It seeks to open country, scrub and cultivated lands, avoids thick forest. The fox lives in a burrow dug by itself in open ground. The burrow always has several openings, some of them blind, others leading to a central one where the animal sleeps and breeds. Not shy and runs with great speed doubling like a . Its cry is a short yelping bark, quickly repeated three or four times.

10. Wild dog or dhob (*Cynalopex alpinus*). Rusty red with a dark tipped bushy tail. Stands from 10-20 in. in height with a pointed muzzle and

erect ears. It keeps entirely to forest where there is food, shade and water. Restless animals hunting both day and night. They go hunting in large packs but fortunately a pack never resides for long in one particular forest or the game would be wiped out. It is known to attack and kill both tiger and panther. Deer quit a jungle in which a pack of wild dog arrives. Prolific breeders, six pups at a time.

11. Sloth Bear or Bhalu (*Helurrus urrinus*). Bhalu is covered with very long and coarse fur, which attains its greatest length on the shoulders, the end of the muggle, dirty grey, whitish V shaped breast patch, rest of the fur black, but the long claws are white. Very partial to low, rocky and wooded hills as rule. They live in caves, Generally found solitary or in pairs, but four or five are met with in company. Purely vegetarian and insectivorous. Night feeders-pay visit to fruit trees like pipal, mohua, ber etc. climbs to high branches to shake down fruits, also drinks toddy of low date palms. An expert in discovering and digging up colonies of termites. Very fond of honey and climbs trees to rob hives. All bears are short sighted but make for this with a marvellously acute sense of scent. Pugnacious and will charge without provocation. In search of fruit trees they travell very long distances at night. The young cubs are generally carried on the back of the female when the animals are on the move.

12. Grey Musk shrew or Chuchundar (*Suncus murinus*). Useful and unoffensive animals, help to rid a house of noxious pests. Very intolerant of rats and help in keeping away their vermin. During the day it lies concealed in holes and drains, comes out at night to hut cockroaches and other insects, while thus engaged utters from time to time a short sharp squeak.

13. A large number of bats occur specially in the country close to Kodarma F.R.F.

14. Firestriped palm squirrel or gilheri (*Funambulus pennanti*). It has fire pale stripes on its back. Lives in town, cities and villages, wherever garden groves and hedges occur.

15. Three striped palm squirrel or Jilheri (*F. palmarum*). It has only three dorsal stripes. This squirrel on the other is a forest dweller.

16. Mole rat- or ghus (*Bandicota bengalensis*). Common.

18. House rat. or Chuha (*Rattus rattus*). Common.

19. Rufous tailed hare or Khargosh (*Lepus nigricollis ruficandatus*). Numerous in forests.

20. Bison or Gaur (*Bos gaurus*). Old bulls are jet black, with an ashy forehead and white stockinged feet. The animal is the embodiment of vigour and strength. Large and heavy forests are its habitat. Fond of hilly country. Shy and retiring. With no taste for cultivated crops. It does not damage crops. The tender leaves of the bamboo are a great favourite with the bison but the chief food is grass. Feeds during the greater part of the hight and late in the morning. Lies up during the head of the day, but is on the move again in the afternoon. Restless animals, seldom itx be found in the same tract for any length of time. When undisturbed in good pasture, bison are always in the bait of lying down for a few hours during the middle of the day and at certain seasons fod of rolling either in the dust or mud. There is a distinct and powerful lovine smell when a heard has rested for a day or two. A jungle patch frequented by bison is invariably infested with ticks. Disappearing from Hazaribagh- the unfortunate animals are being shot for the sake of their hides, flesh and tongues. The bison is also prone to rinderpest and other cattle diseases introduced by the

village herds that are brought for grazing to the forests.

19. Indian Gazelle or Chinkara (*Gazella gazella*). Our only gazelle, but a graceful one. The general colour of this well known species is light chestnut above, separated by a distinct medial brim from the white of its underparts, white streak down each side of the face. The tail and small tufts on knees are black. The horns have a slight S shaped curve when seen from the side, usually have 15 to 16 rings, average length of the horns are 10 to 12 inches. The does also have horns but these are smooth. Prefers hot, dry and arid tracts. Fond of scattered bushes or thin tree jungle, cut up with ravines and broken ground where it is commonly found in parties from four to eight, occasionally from ten to twenty may be together. It lives on grass and leaves of bushes and perhaps never drinks, for it is common in tracts where there is no water. Chinkara like up in the day and come out late in the evening. When disturbed, gives out a sharp little sneeze, when uncertain of the object disturbing, they stand and stamp the ground with forefeet, all the time uttering notes of warning and alarm.

20. Fourhorned antelope or Chousingha (*Tetracerus quadricornis*). The upper coat is dull red brown, lower white, a dark stripe down the front of each leg. First two horns are up to 4 in. and are set far back on the frontal bone, while the small ones are a couple of inches in front of them, never exceed an inch and a half in length. Femals hornless. Likes heavy tree jungle as well as scrub. Singly or in pairs, never in herds. The call is only heard when the animal is frightened, is a low, hollow and mellow sound almost a whistle. Drinks regularly and seldom lives far from water. This animal was quite common in Hazaribagh some years back but not found now.

21. Nilgai (*Boselaphus tragocarmelus*). Largest of the Indian antilopes. The adult bull nilgai is dark grey, with bluish tinge, lips, chin, inside of the ears and undersurface of the tail are white. Two white spots on each check, and a ring above and below each fetlock are likewise white. Stiff black hairs on the throat. Both sexes have dark manes, but males only are horned and the horns are short, smooth straight and directed upwards and backwards. Young bulls and the cows are tawny, clumsy and stupid animal. Lives on scrub and thinly wooded jungles. Freely enters cultivation, specially sugar cane and arhar. Gregarious and go about in small herds, feeding from the late afternoon, through out the night, upto a couple of hours after sunrise. Shy and wary creature and can go for long periods without its thirst. It has grunting alarm cry, which sends the herd away to safer place, in an ungainly gallop, heads held up, as if gazing at the blue sky above. Tigers feed on nilgais though seldom nilgai inhabit the same jungle as the tigers.

22. Sambar (*Cervus uricolor*). Sambar is a grand looking animal with its large bill shaped ears, six pointed antlers and shaggy mane of coarse stiff hair round the throat. Frequents hilly country but may be found in the broken ground and ravines, when such are not too distant from forest clothed hills. Both stags and hinds are ~~fn~~ often found singly, but small herds from four or five to a dozen are commonly met with. Nocturnal but may be seen feeding in the morning and evening, but grazes chiefly at night and at that time often visits small patches of cultivation. It generally selects a well shaded spot to rest from dawn to nightfall. Drinks daily and wallows at the edges of tanks and pools. The colder the weather the more these animals seem to enjoy these rolls. The wallows are in the small hours of the morning and the wallow spots are easily recognised. The shikaries mark the wallowing pools and give the poor animals a hot reception when they turn up on morn-light-nights - incidentally the animals are very fond of morn-let nights, Wary and very shy of facing open ground except on dark nights. Acute powers of scent and hearing. It moves very silently through dense jungles. The stags cast their antlers in March April by rubbing them

gently against small and tender saplings in the forests.

23. Hog deer or para (*Axis porcinus*). Smallest deer stands only some 24 inches. In build this species is characterized by the shortness of legs, longish tail and no mane on the neck and throat. Short antlers are mounted on very long bony pedicles. After giving out a brow line, the ~~is~~ is almost straight till it divides into a longer fore and shorter hind ~~is~~. The fur of the para is brownish each hair being tipped with white so as to give ~~speckled~~ speckled appearance. The under parts are paler and the under surface of the tail and the insides of the ears white. Favours grass jungles by the banks of rivers. It is one of the first of the ungle inhabitants to be on the move in the evening and can be seen on the confines of heavy ~~x~~ tree jungle while day light lingers. Solitary creatures and it is but seldom that more than two or three are found together. Feeds in the open early morning and in evening. Lives very close during the remainder of the day in high patches of grass. Does not like to change its feeding grounds unless greatly harassed. It has completely disappeared from Hazaribagh forests, was quite common in Hunter's time.

24. Spotted deer or Chital (*Axis axis*). Most beautiful of all deer. Completely spotted, spots run up to the neck and below the belly and are so distributed as to form lines, they do not fade in winter, and they are conspicuously white on a ground colour of golden brown. The antlers lack any sign of palmation, being narrow and sweeping upwards in a long curve and having only three times on each side. Spotted deer live in herds, the bucks remaining with the does and fawns through out the year. They breed freely in captivity. Fond of thin flat jungle with large grassy glades and bamboo jungles. Also frequents both hilly tracts and plains, never wanders far from its drinking places for they drink at least ~~w~~ twice in 24 hours. Many of its favourite haunts are in some of the most beautiful wild scenery of the plains and lower hills on the margins of rippling streams with their banks ever green by lofty trees or in grassy glades. A herd of them grazing in a forest glade is the prettiest sight imaginable. When harassed by carnivore, chital give out a short shrill call of alarm and warning.

25. Barking deer. or Kakar (*Muntiacus muntjak*). Also known as Muntjac are small animals with a high rump, short fore legs, short antlers with only two points each and curious rib like markings on the faces hence the name ribfaced deer. It stands about one foot nine inches high at the shoulder and is a reddish fawn colour, with white underparts. Shy and retiring animal that lives in thick cover, from which it emerges only late in the evening to feed in the open. Found alone or in pairs on grassy slopes near thickly wooded ravines or valleys. It has a barking cry. Kakar are adepts at making their way at speed through the most dense jungle, and run with head low and hind quarter elevated. When running, a peculiar rattling sound is produced. The bucks when attacked by dogs, use their tusks which coverve outwards in a peculiar manner as their chief weapons of defence and are able to inflict gashes of considerable depth.

26. Mouse Deer or pisura (*Tragulus meminna*). Pisura is of medium height, standing from 10 to 12 inches at the withers. In colour the upper parts are brown of variable shade, the flanks are spotted with white- white stripes along the sides of the body. These stripes are general by other transverse lines across the lions. The face is pointed, legs very delicate and thin. Antlers are not developed. It has a very peculiar way of walking in a ~~peculiar~~ manner on the stream tips of its hoofs, which gives a stiff and rigid appearance to the legs, and has thus given rise to the popular notion that the animal has no joints. Timid and shy and lies concealed in grass or heavy jungle

and only comes out to feed in the evening and early morning. Due to its retired habits it is not often seen. The male keeps with the female during the mating season (about June or July), but at other times live solitary.

27. Wild Boar or Suar (*Sus cretatus*). Brownish black, stomach marly naked, crest of stiff bristles runs down the spine from the back of the skull, bristles on the cheeks and throat are reversed and point outwards. But the young piglets have black and tan strips, which help to conceal them in the undergrowth, the lower tusks of the male boar which project about 3 inches from the jaw, and are kept with edges as sharp as razors, are most formidable weapons, capable of ripping upon a horse at a single stroke, they frequent moist or marshy situations, where there is plenty of cover. Their great characteristic is their habit of turning up the ground with their snouts in search of food, leaving marks by which their presence can be instantly recognised. It is this habit which renders these animals so obnoxious to the cultivator. In the morning and evenings it wanders in search of food, in cultivated localities devastating the crops, but away from human haunts it depends chiefly upon roots. Readily feeds on the carcasses of animals and other carrion. In spite of its boldness, the wild boar seldom makes unprovoked attacks but when once roused nothing will stop it.

Note:-

The tigers and leopards have practically disappeared from the Ranchi plateau, and even in Hazaribagh district, once famous through out the country for the richness of its carnivore, the numbers have been so sadly reduced that in many areas even forest dwellers do not see a tiger or a leopard for years on end. The future of both the animals outside the State owned Reserved forests of Singhbhum seems doomed. The wolf or hurar (*Canis lupus*) the Hog deer or para (*alis porcinus*) and the four horned antelope or chowsingha (*Tetraeerus quadricornis*) were fairly common in Hazaribagh forests in the olden days, but not seen now.

Directly responsible for this is the disappearance of the code of conduct and ethics which guided the sportsman of old. Gone are the days when shooting was a battle of wits between the hunter and the hunted, each having a 50-50 chance of getting the better of the other. Thanks to modern firearms, machans and spot lights, animals particularly carnivores today do not stand a chance. The latest ruse is to have an animal declared either a cattle lifter or a man eater. The practice of herding old, decrepit and useless cattle in Pinjrapoles situated in forest areas, on the ground that their maintenance in such areas will not be a heavy burden, since they can be turned loose to graze in the forest, is directly responsible. Nobody cares to collect their cattle and herd them back to the Pinjrapoles after the days grazing. Those that stray are left to their fate and are snapped up by tigers. With food so easily available, carnivora gradually converge on the Pinjrapole and eventually turn to village cattle as well. This is the chance for which 'Shikaris' lie in wait.

Herds grazing in the forests, not only compete with wild life for food, but they spread diseases which are often lethal to them and can very well wipe out the entire wild life population. The excessive cattle grazing is also responsible in decimating the fauna and flora.

To arrest the decline, the Hazaribagh National Park was created (the second one is at Betla in Palamau district). Strictly speaking, neither of them is a National Park as no legislation creating them has been passed by the Assembly. Both are sanctuaries established

under executive orders of the Government and are National Park only in the sense that funds for their development and management are specially provided in the Forest Department budget which others get only a token provision.

Though the National Park has been in existence now for some 12 years, two ecological surveys carried out in 1960 and 1965 respectively have shown that conditions there are steadily deteriorating. The animals, except for Sambar and spotted deer, have neither increased in number nor have they shed their fear of man. The habitat too is not being preserved and interference is leading to degradation. In an effort to protect against summer fires, all roads and paths are fire traced by nearly burning in March every year. By now the fire tracing has become so extensive as to cover almost the entire area of the park. Besides several hundred hectares have been cut and all trees and shrubs removed. The objection is to improve visibility, but the areas have been so denuded of cover that no animal can possibly venture into them. The fires have also led to increased gully erosion and gully heads advancing by several metres every year are quite common through out the Park. The area of the park is small and because of the absence of a buffer zone around it, carnivora are shot on the fringes (Barkagaon, Itkhouri, Tatijharia etc) the moment they stray outside, on the ground that they are a menace to these and other villages. Mention must be made of the activities of a Shikar Agency in the district. It guarantees tigers for Rs.10,000/- to foreign tourists and carries out the guarantee by arranging a shoot just outside the boundary of the National Park.

From the very beginning man has waged a war of extermination on the flesh eating animals. But if he removes them completely, he leaves himself with the task of controlling the numbers of the vegetarian animals that the carnivoras keep in check killing those that are old and unfit, and incidentally maintaining the health of the herd. There is no difficulty where deer are concerned, for man secures the spot and the venison that formerly fell to the wolves. But when the numbers of the smaller carnivorous mammals are reduced, harmful rodents such as rats, field voles, rabbits and squirrels can multiply to the extent where they can do serious damage to the crop and trees. It is not easy for man to hunt these unaided. It is at this point that he comes to realise that the wild carnivores play a very useful part in preserving the balance of Nature, by keeping down the numbers of herbivorous mammals they assist the growth of plants and trees. "Live and let live" is a principle that all of us have to adopt and respect. No man can exist solely for himself and in all his endeavours he has to allow others to live as well. And why should not this be extended to cover wild life too?

Every year, during wild life week, we hear about the need to save and revive what is left of our wild life. And yet the process of destruction of forests going on - they are being ruthlessly destroyed. Forests are in desperate need of protection. Natural forests (Not plantation) of every kind are the basic and most important part of the wild life of any Nation, and there is no effective conservation possible if the flora is not safe guarded. In most cases, the Damodar Valley Projects have submerged very large areas of forests and destroyed the wild life in them. In the name of producing more food large areas are being disforested.

In 1952 the Central Board of Forestry, adopted a resolution on forest policy. The most important point in the new policy was that agriculture was no longer to be given preference over forestry, and the release of forests for cultivation was specially prohibited. And yet in 1953 in Bihar the orders were issued that all cultivable lands included within boundaries of the Private Forests which have been taken over by the State were to be released, and for this purpose applications were invited. The result was that in each district there were thousands of

such applications. It is estimated that nearly 10,000 hectares of forest had to be given up for cultivation.

The conservation of forests helps the conservation of soil, water and wild life. We have no right to jeopardize the future like this. The destruction of forests should be halted sooner. It is clear that the factors inhibiting tree growth in Bihar are grazing and human interference. Once these are controlled forests come up naturally. Little we realise that if the plants are completely removed from the earth the atmospheric oxygen would soon disappear because it would all be absorbed into the soil and rocks. With the oxygen decreasing, all the animals would gradually smother. On the other hand if animal life are entirely removed from the earth, the plants would have to depend on the carbon dioxide of organic decay. Thus animals and plants need each other vitally.

The situation at present is critical and only a determined conservation policy may save enough to pay its way. The will to pursue such a policy has to be developed and the policy formulated. Naturalists can be of advisory and in that direction the decisions lie with the authorities. If clear demarcation of conservation areas is made a great deal can be achieved. By conservation areas are meant meadow, grass land and forest which would be so rigorously kept away from villages and fields that no preserved animals would stray into fields and no grazing would be allowed in the conservation areas. By adequate provision of food in the conservation areas and attaining the bionomic balance it should be possible to do so. Grazing can be stopped by adequate watch and ward personnel.

One last word- the balance of the different species is still fairly well represented in Hazaribagh forests but if attention is not paid to a lighter application of the shooting rules and preservation of forests, this balance is bound to be upset in the near future.

The forests on Parasnath Hill- a place of Jain Pilgrim should be declared a sanctuary. Sambar, Cheetal, Mouse deer would benefit from such protection.