

# Field Observations on habits of Indian Langur, *Presbytis entellus* (Dufresne) in Gir Forest, Gujarat

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( With 1 Text-figure )

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## I—INTRODUCTION

During October-November, 1962 a party from Zoological Survey of India conducted a general faunistic survey of certain areas of the Gir forest in Saurashtra region of the Gujarat State famed for its lions. While engaged in the survey, I had numerous occasions to observe the habits of the common Indian Langur, *Presbytis entellus* (Dufresne) in these forests. Incidentally it may be mentioned here that the other Indian monkey, the Macaques (*Macaca* spp.) were never observed in these forests and I was told that they are totally absent in this region, the only monkey commonly met with being the langur.

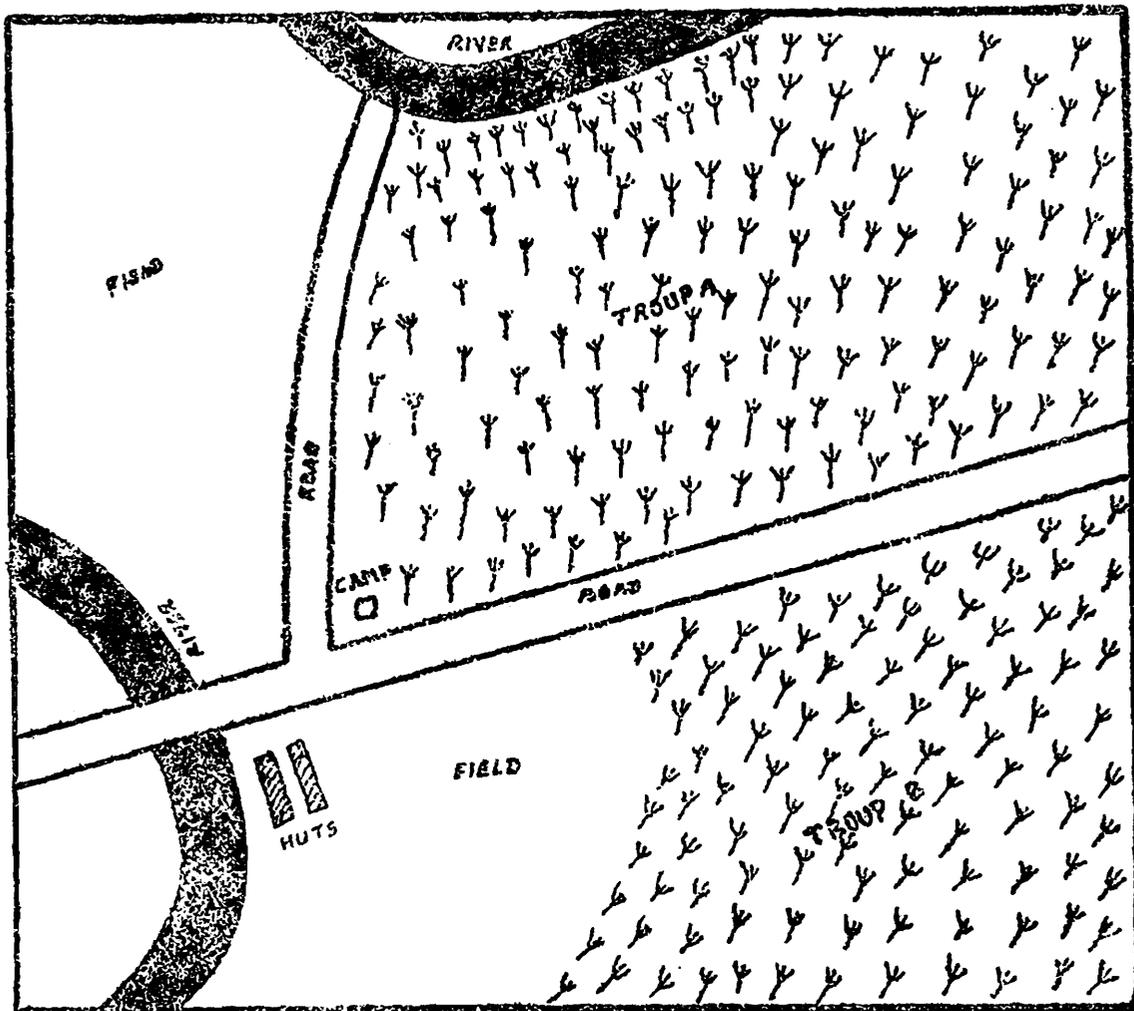
Observations were mostly made on two troupes of langurs inhabiting the forest near Sirwan, about 14 Km. from Sasan Gir.

## II—TERRITORY AND TROUP-COMPOSITION

*Territory.*—Each troupe was found to have distinctive territory with certain conspicuous land marks as the boundary. The place Sirwan is a small forest village with a cluster of tribal (“Siddi”) hamlets. A forest stream winds its course through the outskirts of this village which is crossed by the forest road from Sasan. Before crossing the stream, when approached from Sasan, there are a few strips of cultivated fields on either side, that of right side being more extensive, and also two or three “pukka” buildings of the Forest Department, of which one, intended as the forest guard’s quarters, served us as our camp (Text-fig. 1). This road and the strips of cultivated fields differentiated the territory of the two groups, serving as the boundary line. As the stream was almost semicircular in its course at this place both the troupes had ready recourse to water. In fact riverine jungle seems to be the favourite haunts of these monkeys and generally they never frequent jungles remote from any water course. The fact that they often rest in shade near water courses was reported by earlier workers like McCann (1928) and Prater (1948). This preference has been consistently observed by me in other places also where I have watched troupes of langurs.

*Rec. Zool. Surv. India, 62 (1&2), 1970.*

Each troupe confined itself to its earmarked territory and this adherence was rather obvious by its strict application. Although the members scattered rather widely during their wanderings, they invariably stopped at the edge of the road not venturing further on to the other side. A few young individuals with their characteristic delinquency crossed the road sometimes, but they immediately retreated to their side on sight of any intruder (sometimes the observer) or the members of the opposite troupe, even if running into the alien territory was easier and quicker. Their sense of territorial possession is strong, a fact which Hughes (1884) testifies by reporting two troupes fighting for a territory the larger group evicting the smaller by attacking and killing the latter's leader. Such territorial adherence is in marked contrast to the case of Macaques, where according to Nolte (1955) who studied the Bonnet Monkey (*M. radiata*), there was no marked parochialism.



TEXT-FIG. 1.—Map of camp site where two troupes of Lungurs were studied.

*Troupe-composition.*—There were 18 members in one troupe and about 22 in the other. Obviously the size of the troupe varies to a great extent as Nolte (1955) observed troupes of 50 or more at Sikandra near Akbar's Tomb and in western Himalayas near Chakrata as well as smaller troupes from 4-5 to 17 members, elsewhere. Each troupe had a leader, a large male. In addition to the leader, I could count 3 males, 10 females and 4 juveniles in the first group. The second group did not readily lend itself to counting as the jungle here was more thick and dark, but I

could count 2 males in addition to the leader and about 6 young ones. But the actual composition of this troupe may be different. There are many earlier reports about exclusively male troupes, (see Jerdon, 1867 ; Prater, 1948) but I have so far not observed anything like that. Carpenter (1935) has observed in the case of Red Spider Monkeys (*Atèles geoffroyi* Kuhl) that large groups in their wanderings tend to divide into smaller sub-groups of various composition one of which group is of males only and then regroup eventually in various composition during their progress through the forest. It is quite probable that what has been reported as exclusive male parties in the case of langurs may represent some such sub-groups belonging to a larger assemblage.

### III—OBSERVATIONS ON DAILY ROUTINE ACTIVITIES

*Daily routine.*—The activity rhythm shows two peak periods, one from 6-30 to 9 a.m. and the other from 4 to 7 p.m. During this time they never alight to the ground, but move along tree tops. This is the real feeding time and the whole troupe is characteristically silent, busily foraging for food among the leaves, tender shoots and fruits of the trees. I never observed them eating insects or making any efforts to catch some. It seems that the diurnal routine of these langurs can be categorised into three periods : (1) feeding time, (2) recreation time, and (3) resting time. There is of course considerable overlap between the last two periods. But by and large this holds good.

The food seeking goes on in real earnest till about 9 or 9-30 a.m. Thereafter, some of them mostly juveniles and females alight to open ground especially agricultural fields. Nolte (1955) also reports similar postfeeding ground movements in *M. radiata*. Crops in the fields were harvested at this time, but the fallow lands were used by the monkeys for a sort of sun-bath by the older members and for frolicking play by the youngsters. By all accounts this seems to be the recreation time. It is at this time that the first vocal exercise of the morning, a loud resounding call or some short barks are uttered by some individuals. The loud call seems to be simply a manifestation of excess energy, whereas the short bark apparently signifies some irritation or annoyance.

By about 11-30 to 12 a.m. they retreat from these open places into the shades where it is more cool. This invariably will be among a group of shady trees near the bank of the forest stream. Some of them come to the very edge of water and dip their lips into it, supporting the forepart of their body by the outstretched arms applied to the ground. They drink only a little, perhaps being able to meet their water requirements from their succulent food. Those who have quenched their extra thirst now jump on to some branch of a tree overhanging the stream and may remain there motionless for a considerable time. This is also the time when the members engage in the act of grooming each other.

The resting time lasts till the afternoon heat is considerably dissipated. By about 4 p.m. (slightly earlier on cloudy days) the second period of peak activity begins. But this time the individuals are not so much in earnest about seeking out and consuming food as in the morning

as there are many apparently aimless leaps and bounces and frittering away of the time. They are also more vociferous at this time than in the morning. But towards dusk the whole troupe suddenly becomes silent and starts travelling in a definite direction. In all probability there must be some regular sleeping quarter which unfortunately I had no occasion to locate.

*Leader's role.*—It is often possible to identify a troupe by distinguishing the leader, as each troupe has a large male which by its authoritative demeanour gives no doubt about its unquestioned leadership. He is often bold and aggressive and may even hold his ground to watch the intruder with a malicious expression, when the rest of the troupe makes a big commotion among the tree branches by their prodigious leaps, while fleeing. The leader will be the last to bolt, and does so only after showing some boldness, threatening the intruder by a grimace of showing its teeth and growling at him, sometimes uttering some low gruttering barks. This behaviour serves to hold their object of fright at bay and to give time for other members to safely evacuate. But apart from this, the part played by the leader in the social organisation of the troupe appears to be limited. In the daily troupe movement at best only the general direction is set by the leader, and within that direction the members are quite free to scatter in a wide area. Often other members go well in advance of the leader. But as soon as the troupe is disturbed by any sign of alarm the leader comes into his own as described above.

*Play.*—As stated in describing daily routine the time of play is immediately after the early morning feeding time. By and large, young and old alike indulge in some sort of play. This may take the form of grappling, tumbling, chasing each other, or merely running to the edge of the clearing, remain squatting for a brief while and suddenly running back. Some members at this time give vent to their playful mood by a resounding call which may be taken up by many others.

*Nursing and maternal instinct.*—As there were no infants with the troupe I could not make any observations on this aspect. But I would like to append here an observation which was made at another place. Here the troupe, which was small, consisted of among others a mother and its suckling infant. Other female members of the troupe evinced a keen interest in the infant which appeared to be the common object of affection and concern. Often one of the females would take away the suckling infant from its mother's breast and put it to her own, or fondle it, the mother silently yielding to such behaviour. But the infant apparently possessed power of recognition of its mother, as it not only refused to suckle at the dry teats of such aspiring mothers but showed its unhappiness by trying to get out and reach its own mother. This display of maternal instinct and family cohesion is touchingly humane and of much interest.

#### IV—SUMMARY

Field observations on the habits of the Indian Langur, *Presbytis entellus* (Dufresne) were conducted in the Gir Forest, Gujarat. Two troupes of langurs were studied and it was found that each troupe had

its distinctive territory with clear territorial adherence. The troupe consisted of 18-22 members of both sexes and young ones. Activity rhythm showed two peak periods, morning and evening. Daily routine can be categorised into (1) feeding time (peak activity periods), (2) recreation time, and (3) resting time. Recreation follows the morning feeding when members indulge in playful antics. This is followed by resting on shady trees near river bank till the evening feeding starts. Each troupe has a leader whose authority is conspicuous only when the troupe faces danger or disturbance. An interesting observation regarding common concern and care of infants by females other than the mother observed elsewhere is also appended.

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