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Hanuman Langur's (*Semnopithecus entellus*) Social Behaviour and their Interaction with Citizens of Akoli and Bhathakokdi Durg, C.G., India

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ABSTRACT

Langurs are wild creatures, a prominent group of primates. Scientifically identified as *Semnopithecus entellus*, greyish langurs sometimes are known as Hanuman langurs or entellus langurs. In the present study social behaviours of hanuman langurs or entellus langurs is observed in village Akoli and Bhathakokdi of district Durg, Chhattisgarh, India. Langurs prefer eating plant parts majorly leaf and fruits. Now-a-days, due to loss of their habitat, they are facing shelter problems as well as food scarcity and moved to the nearby village side to fulfil their requirements. They show a wide range of intra and interspecific behaviour and maintain an established social life. Their interaction with peoples is very friendly. Although they stay in surrounding natural forest area in night and in other adverse weather, they prefer to socialise and spend time with peoples and other animals during the daytime.

Key words: *Semnopithecus entellus*, Monkey, Langurs, Group size, Social behaviour.

Introduction

Within the Mammalia class, the group of primates is the most advanced. The common Indian langur (*Semnopithecus entellus*) is a primate that is a member of the sub-family Colobinae, along with lemurs, leaf primates, and Colobus monkeys of Asia and Africa. They are indeed referred as grey langurs, Hanuman lemurs, or entellus langurs. The Sanskrit word "langulin," which means "having a long tail," is from which the term "langur" originated. The term "hanuman" refers to King Rama's devoted monkey deity in the Ramayana.

Langurs often are found in areas of vegetation ranging from dense wet forests to dry scrub with isolated low trees. Furthermore, they reside on the foothills of the Himalayas, up to 3300 metres above

sea level, particularly in snowy areas Jay (1965). They spend approximately 50 and 80 percentage of their time lying on the ground and are polygamous, diurnal, and colonial in nature. They are giant, grey animals with a grey body and a black face. Adults have prominent eyebrows, which spread from the forehead whorl behind the brows, and a tuft-like crest produced by the crown hair. Their hands and feet are black, while their torso is a silvery blueish grey. Indian langurs have been studied by Jay (1962, 1965, 1968). In the present study the social behaviour of langurs was studied in the Durg district of Chhattisgarh state.

Study Area and Sites

The village Akoli and Bhathakokdi, Durg is situated on a latitude of 21°11'25.62"N and a longitude of

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81°17'57"E and latitude of 21°19'04.49"N and 81°28'49.17E longitude" respectively. It is located on the east bank of the Shivnath River near Tehsil Dhamdha. Major crop of the area is Rice, Wheat, Gram, Khesari and Soybean. The Tomato, Cauliflower, Ladies finger, Cabbage, Drum stick, Beans, Pumpkin, Bitter guard, Bottle guard, Ridged guard, Brinjal, Capsicum and other green leafy vegetables are the major vegetables grown in the area. In the present study Crop Fields and Vegetable farms of the area were selected.

Materials and Methods

Different groups of grey langurs at village Akoli and Bhathakokdi Durg, Chhattisgarh were observed and the data were collected through Simple Observation Method and Random Sampling Method. The present study was made between March 2021 to March 2022. During the study period three groups of langurs were observed in village Bhathakokdi and two groups were observed in village Akoli. All the groups comprise with male, female, young and infants with one dominating male. They were observed for their daily behaviour in the village Bhathakokdi and Akoli. The native territory and social behaviour of the groups of grey langurs were observed for at least 12 hrs. in a day and other informations related to them in human settlement were collected from the farmers, various fruit sellers and grocery shop owners by personal interviews.

Observation

The present study was made between March 2021 to March 2022. During the study period three groups of langurs were observed in village Bhathakokdi and two groups were observed in village Akoli. The size of groups in Bhathakokdi were 43, 55 and 29 while the size of groups in village Akoli was 54 and 31. All the groups comprise with male, female, young and infants with one dominating male. The

group size of monkey and their different behaviour observed are given in Table 1 and 2 respectively

Feed on leaves, bushes, shoots, roots, fruit, and seeds. They also consume insect larvae, spiders and termite. Adults sit close and even touch each other's faces as a means of express their closeness to each other. They can use facial expressions too in order to show love, fear, anger, or sadness to each other. They screech on unwanted movement of human beings towards their young once. They also made loud sound with aggressive facial expression during the encounter with other groups and whoops to challenge the anti-groups. It was observed that the most aggressive behaviour was shown by the adult males over other individuals with in the group which varied to particular situation like food and mate. Mother monkey were nursed, groomed and carried their infants on her chest. When an infant's could not move to long distance, the mother came and quickly picked in its leap and moved away. Parental care is prominent among langurs where mother supports their infants from predators, natural calamities and from being infanticide. All the members of the group spend the majority of their time to groom themselves and each other. They sit close to each other, removed lice and adorn the hair of each other. They use hands, lips and tongue to pick up ectoparasitic insect and clean debris from body for feeding and hygienic purposes. Reproduction of langurs was generally observed between an adult male (alpha male) and an adult female. Female signalled the male by head shaking, dropping her tail on the ground to accomplish it. Mating was disturbed for a moment by other females and sub adult in the group.

Results and Discussion

At village Akoli two groups and at village Bhathakokdi three groups of monkeys were visited almost 20 days in a month and rest of the times they

Table 1. Size and composition of Hanuman Langur's group at village Akoli and Bhathakokdi

S. No.	Sites Name	Groups Name	Adults		Juveniles		Infants	Total
			M	F	M	F		
1.	Bhatakokdi	B1	05	17	07	06	08	43
		B2	09	11	11	15	10	56
		B3	05	06	04	07	04	26
2.	Akoli	A1	10	17	09	10	08	54
		A2	04	05	02	02	03	16

moved to nearby areas. In village Akoli group A1 consists 54 and group A2 consist of 16 members. Both the group A1 and A2 were resides in different areas of the village simultaneously. In village Bhathakokdi all the three groups B1, B2 and B3 were consist 43, 56 and 26 members respectively. Group B1 and B3 were reside within the different places of village, while group B2 were observed in mango orchard in outskirts of the village in most of the time. People of both the villages were harassed by the destructive activities of these groups in their farms and house hold materials. The daily behavioural activities like feeding, social, aggressive, parental care, grooming and reproductive behaviour were started from early in the morning at about 5.30 am. By the call of dominant male “whoops”.

Feeding Behaviour: We observed that langurs mostly consumed leaves, bark, buds, flowers, fruits and seeds of different plant species along with small insects, spiders and termites resides on the tree trunk. They were also provided cooked food or fruits by villagers or they also stole food from villager’s farms and houses. According to Mohanty

and Paltal (2005) and Alam *et al.* (2014) langur’s accomplished their social interactions where food resource and resting sites were available.

Social hierarchies and aggression exist for all group types (Srivastava and Mohnot, 1992). In the present study aggression is observed by the alpha male’s interaction for food and mate specially when the other low ranking male mate with the female.

Parental care is the social interaction among females and the infants. Sugiyama (1965) studied that infants spend their mother’s chests for their survival as they cannot move independently where they mostly suckle or sleep. It is observed that the mother langur is always caring for their young once and protect them from predators and natural calamities.

We observed that the females show their friendly relationship through grooming each other like foraging, travelling, greeting and resting while the dominant males showed allogrooming to ensure protection during violent encounters. According to Ahsan (1994) allogrooming is the non- agonistic interactions which indicate the closeness among the individuals. Like other langurs exchange allo and autogrooming for accesses to food shares De Waal

Table 2. Observation of social behaviour of Hanuman Langur’s in Bhatakokdi and Akoli village

Feeding Behaviour	Social Behaviour	Aggressive Behaviour	Parental Care	Grooming Behaviour	Reproductive Behaviour
Feed on leaves, bushes, shoots, roots, fruit, and seeds. They also consume insect larvae, spiders and termite.	Adults sit close and even touch each other’s faces as a means of express their closeness to each other. They can use facial expressions too in order to show love, fear, anger, or sadness to each other.	They screech on unwanted movement of human beings towards their young once. They also made loud sound with aggressive facial expression during the encounter with other groups and whoops to challenge the anti-groups.	Mother monkey were nursed, groomed and carried their infants on her chest. When an infant’s could not move to long distance, the mother came and quickly picked in its leap and moved away. Parental care is prominent among langurs wheremother supports their infants from predators, natural calamities and from beinginfanticide.	All the members of the group spend the majority of their time to groom themselves and each other.They sit close to each other, removed lice and adorn the hair of each other. They use hands, lips and tongue to pick up ectoparasitic insect and clean debrisfrom body for feeding and hygienic purposes.	Reproduction of langurs was generally observed between an adult male (alpha male) and an adult female. Female signalled the male by head shaking, dropping her tail on the ground to accomplish it. Mating was disturbed for a moment by other females and sub adult in the group.

and Yoshihara (1983) and also reported by Foster *et al.* (2009).

Reproduction of langur was generally observed between an adult male (alpha male) and an adult female. Female signalled the male by head shaking, dropping her tail on the ground to accomplish it. Mating was disturbed for a moment by other females and sub adult in the group. Similar phenomenon was observed by Jay (1965) in Hanuman Langur at Dharwar, India.

Conclusion

The wild langurs are social animals. They act similarly to other primates and an even other living beings. Akoli and Bhathakokdi, Durg are Eco-climato-logically excellent places for the monkey's population. Appropriate management are required to maintain the habitat and food availability with minimum loss of villagers.

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