

DIRECT FROM FIELD

The Duration of Grief and Period of Carrying the Dead Infant May be Related to the Age of the Grieving Mother?

Jodhpur is located in western Rajasthan (altitude about 241m, latitude 26° 18' N and longitude 73° 08 E) at the eastern edge of Great Indian Desert. This diagonal plateau is inhabited by a geographically isolated pocket population of 1850-2000 Hanuman langurs, comprised of 35-36 bisexual troops and 15-16 all-male bands (Mohnot *et al.*, 1981, 1987; Rajpurohit *et al.*, 2006, 2010; Ram *et al.*, 2011). The Hanuman langur (*Semnopithecus entellus* Dufresne, 1797) is the best knowing and the most adaptable south Asian colobine. They live in a wide range of habitats from the Himalayas and peninsular forests to semi arid lands, in villages, towns and on cultivated land (Roonwal and Mohnot, 1977). Social units in common langurs consist of one male bisexual troops, multi-male bisexual troops and all-male bands. In the western parts of their habitat in India (*i.e.* Jodhpur), langurs usually form unimale bisexual troops (Mohnot, 1974).

The mother-offspring bond is arguably the strongest and most essential social bond among mammals (Cronin *et al.*, 2011). Jay (1962) suggests that three important elements (coat colour, vocalizations, and quality of movements) in the infant's appearance and behaviour are essential in releasing maternal behaviour of the mother in langurs. Thus, the body of a dead infant may continue to elicit maternal behaviour from its mother and other adult females for several days after death. The carrying of dead infant reported many time in several species of primates in wild. A

recent observation has described how Hanuman langur carried the body of her dead infant for days.

Observation

Grief response to the death of a black coat female infant (approximately 2 months old) in Hanuman langur was studied at daijar (troop B1) near Jodhpur, Rajasthan. The study was conducted in January 2018, we observed that the mother (approximately 6 years old) carried the corpse of her dead infant for a period of 6 days. Mother of the dead infant showed different responses directed toward the dead infant ranging from passive observation (observing from distance, observing from near) to active intervention (Inspection of face, peer, pick up infant, smelling, grooming, touching face, touching neck, touching other body parts, kissing and carrying the infant ventrally) of the corpse of her infant. (Fig.1)

The observation started 24 hours after the infant died. Mother carried dead infant long after its death and kept a safe distance from other troop's members. Food intake of the grieving mother was also drastically reduced during those 6 days. Mother of the dead infant occasionally went to feeding site (carrying her dead infant ventrally) for food and water and then immediately return to the roosting site. Mother was also observed trying to feed her dead infant on day 3 and 4.



Fig. 1: Grieving mother with her dead infant.

The duration of grief and period of carrying the dead infant may be related to the age of the grieving mother, age of the infant and the cause of death of the infant. Further observation and scientific data are required to support this observation.

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