



Sexual Anticipation Behaviour in *Semnopithecus entellus* around Jodhpur, Rajasthan (India)

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Abstract: Present finding in *Semnopithecus entellus* supports sexual excitement behaviour. Observation suggests that the Hanuman langur also anticipated the sexual desire presence of females. So penile erection occurs in *entellus*. Field observation on emotional behaviour suggest that the more frequency of sexual anticipation happened in presence of opposed sex member. Out of total episodes of sexual excitement, 17.71% is spontaneous or random erection and 82.28% of penile erection in the presence of adult were observed during 2017-18 field survey study.

Keywords: Hanuman langur, Anticipation, emotional behaviour, Bisexual troops

I. INTRODUCTION

Sexual arousal (sexual excitement) is the arousal of sexual desire, during or in anticipation of sexual activity. Several physiological reactions happen in the body and mind as preparation for sexual intercourse and continue during it. In human man sexual excitement will lead to a genital enlarged, and in woman excitement, the body's response is enlarged sexual tissues such as mammary gland areola, labia majora, the labia minora, clitoris, vaginal walls and vaginal lubrication. Mental stimuli and physical stimuli such as touch, and the internal fluctuation of hormones, can influence sexual excitement (Soucasaux, 1990).

Hanuman langur live in social system include unimale bisexual troops, all male band and more than one male band. Most of time troop live in Unimale bisexual troops where multi-male condition found rarely in troop during resident male replacement process (Rajpurohit et al., 2006). Resident male identify by large body size as compare to other troop member in Unimale bisexual troop. This type of condition also called as polygyny condition or Harem group.

Hanuman langur females get sexual maturity after Juveniles stage by 3 year of age. Males reaching sexual maturity after Juveniles-2 stage by age of 4.8 years and easily identify by large canine teeth, well developed ischial pad and long genital organ. When langur performs sexual intercourse, the female down her posterior portion/back down for mounting of a male partner. Male and female both are lower down their tail during sexual intercourse. Study revealed that the birth of Black coat infants happen throughout the year but maximum birth accrue between February and April.

II. MATERIAL AND METHODS

The study was carried out near Mandore garden in Jodhpur city. In Jodhpur, langur live within the radius of 100km. 2018 survey and census data revealed that the population of Jodhpur langur crossed 2861members composed in 54 groups (Singh and Rajpurohit, 2020).

Data for sexual behaviour investigation in langur collected through at libitum and scan sampling (Altman, 1974). For proper identification of sexual behaviour 1 min data sheet were used for focal sampling. All observation observed in natural environment.

III. OBSERVATION AND RESULTS

The period in which langur perform the various activity are studied. During the study period, time spent in sexual and other activities was found highest in troop B-04a (03.30%) followed by troop B-06 (02.50%) and troop B-01 (02.30%). Result suggests that langur spend mean 2.7 % percentage time in sexual and other activity.

During study time, sexual excitement also seen in Hanuman langur. Total of 175 observation was made of sexual excitement in Mandore troop (alpha male and AMB adult males). Observation is recorded by a focal animal sampling of 1 min sheet.

Sexual excitement behaviour classifies base of penile erection in Hanuman langur. Penile erection is a biological occurrence in which the genital organ (penis) becomes steady and puffy. Penile erection mainly happens during sexual excitement condition. The size, position, and direction of an erection be different significantly in langur. Two categories of penile erection were observed (Table 1).

- a. Spontaneous or random erections
- b. Penile erection in the presence of adult females

Spontaneous or random erections, also known as involuntary, random or unwanted erection, erections happened any time during the day. The presence of an adult female is not necessary for such type of erections condition (Figure 1).

The second category is penile erection in the presence of adult female- where penile erection happens during the presence of an adult or sub-adult female. This behaviour indicates the sexual excitement of male toward adult female or sub adult female. Male langur predicts the sexual arousal after seen female, so such type of behaviour occurs in langur.

Table 1: Episodes observed of sexual excitement in *Semnopithecus entellus*

Total episodes 175	Sexual excitement frequency		
Spontaneous or random erections			
Episodes 31 (17.71%)	Low	Moderate	High
Time in min (sec.)	< 2 (120)	< 5 (300)	> 5 (300)
Number of episodes observe	8	12	11
Penile erection in the presence of adult female			
Episodes 144 (82.28%)	Low	Moderate	High
Time in min (sec.)	< 2 (120)	< 5 (300)	> 5 (300)
Number of episodes observe	33	52	59

Sample size (N=7) (Mandore AMB adult males and alpha male of Mandore focal troop)



Sexual excitement behavior show by Adult Male

Penile erection show by Adult male, presence of Adult Female

Figure 1: Various Sexual behaviour shows by Hanuman langur

Result suggests that 175 total episodes of sexual excitement are observed. Out of 175 (100%) 31 episodes (17.71%) is spontaneous or random erection (low frequency, 8; moderate frequency, 12 and high frequency, 11 episodes.) and 144 episodes (82.28%) of penile erection is the presence of adult female (low frequency, 33; moderate frequency, 52 and 59 episodes of high frequency) is seen. Data suggest that penile erection that means sexual urge of anticipation is more during the presence of female langur. That mean langur also feels sexual excitement in the presence of a female (figure 2).

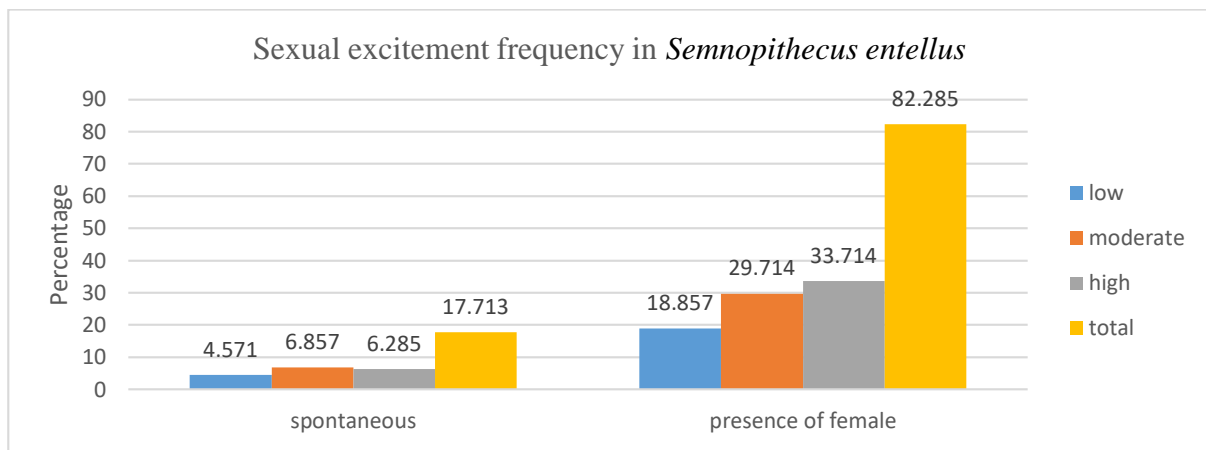


Figure 2: Graph showing episodes observed of sexual excitement in *Semnopithecus entellus*

IV. DISCUSSION AND CONCLUSION

Sexual anticipation is a particular instance of the aroused state in which an specific individual appears to be ready to respond to erotic stimuli with an appropriate emotional behavioural response. Most of Sexual studies done on Mammalian groups (Agmo, 2008; Agmo et al., 2004; Bancroft, 2005; Agmo, 2011; Pfaus et al., 2003; Sachs, 2007).

Sachs, 2007 studied that sexual stimulation has many dimensions. Some authors have defined it quite generally as a “state motivated toward the experience of sexual pleasure” (Bancroft, 2005) so that arousal contains phenomenon such as the cognitive processing of sexual stimuli, incentive motivation as well as sexual organ reflex. As noted previously (Bancroft, 2005), as most authors focused on mammals (humans in his case), especially males, so the genital stages could be measured by studying penile erections.

Others have also supported this response as the best measure, especially when trying to ascertain sexual arousal in non-human mammals (Sachs, 2007). Sachs (2007) in particular has said that the active penis of sexual excitement or sexual anticipation.

Present finding in *Semnopithecus entellus* also supports sexual excitement behaviour. Results suggest that the langur also anticipated the sexual desire presence of females. So penile erection occurs in *entellus*.

It also seems that the excitement is a state mediated by the autonomous nervous system that comes about when the animal is sexually motivated. Sexual behaviour show by animal when same member of animal engage with sexual behaviour or by presence of sexual partner.

V. ACKNOWLEDGEMENT

The authors are grateful to Head, Department of Zoology, J.N.V. University, Jodhpur for providing facilities and logistic support during study. The authors are also expressed thanks technical and nontechnical staff for help direct or indirect during research work, and last thanks for those researchers of department of Zoology who help during field work.

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