Sterilization of Lions in Nandankanan Zoo

I. Nath[1], V.S.C. Bose[2], S.K. Panda[3] and H.K. Mohapatra[3]

Increased population of lions requires adoption of sterilization measures in several Zoological Parks (George *et.al.,* 1995). Eighteen male lions of Nandankanan Zoo were vasectomised previously. After one month all the vasectomised lions were released to lion safari to stay with female lions. After 6 months two of the lioness were found to be pregnant. The mating of female ones with other intact male lion was not possible due to strong wire net enclosures. It was decided to collect semen from all the vasectomised lions to study the presence of viable spermatozoa. The body weight and age of male lions were between 80-100 kg and 3-8 years respectively. After routine preparation the lions were anaesthetized by a mixture of 200 mg of xylazine hydrochloride and 300 mg of ketamine hydrochloride administered intramuscularly by a blow gun rifle. The lions were recumbent within 10 minutes. The degree of sedation was evaluated by touching the lions with a long stick. The lions were assessed to be in surgical plane of anaesthesia by absence of pedal reflex. Semen collection was done by electro ejaculation. The electrodes of the electro-ejaculator was introduced into the rectum to contact the prostatic region at the neck of urinary bladder. Semen was collected in 3 steps starting from 3 volt to 5 volt electro-stimulation. Sterilised test tubes were held at tip of penis to collect semen following electrical stimulation. At 5 volt range the lions urinated thereby contaminating the semen. Semen collected from two lions revealed presence of viable spermatozoa. Then two intact lions were isolated from safari and orchiectomy was performed as usual. Histological examination of spermatic cord at vasectomy site revealed a patent duct. There was no report of any pregnant female since 6 years. The two castrated lions became obese and lost their mane.

In the present case, in two lions the vas deference might be missed while ligating it thereby leaving a patent duct which was confirmed histologically. George *et.al.* (1995) stated that there is femination and loss of mane after orchiectomy of lions. In this case orchiectomy was done to avoid any further pregnancy due to failure of vasectomy operation. Hence, it was concluded that, if facilities are there, semen collection should be done before releasing the vasectomised lions to safari.

Acknowledgement

Authors are thankful to the Director, Nadankanan Zoo and Dr. Shivaji of CCMB, Hyderabad for providing the facilities

Reference

George, P.O., L.J. Chandra, J.V. Cheeran, T. Sarada Amma and K. Rajan Kutty., (1995) Orchiectomy in lions (*Panthera leo*). Indian Vet. J. 72: 92.

[1] Assistant Professor, [2] Professor, Department of Surgery, [3] Assistant Professor, Department of Pathology, Orissa Veterinary College, Bhubaneshwar 751 003, Orissa

Unusual Nocturnal Activity of a Grey Mongoose *Herpestes edwardsii* in Bandipur Tiger Reserve, Karnataka

Satish Kumar Sharma*

On February 16, 2005 at about 2058 hours a Grey Mongoose *Herpestes edwardsii* was seen searching something near the base of a Eucalyptus tree close to Reception Center of Tiger Reserve, Bandipur, Karnataka State. It was quite visible in the light of offices and other buildings present nearby. Perhaps it was searching some food item (?) since it was not in any hurry to seek cover of vegetation or any hole to pass the night despite presence of humans and vehicles. Many modern development activities are changing habits of many wild animals. Electric light is one of them. Nocturnal feeding has been reported in many diurnal birds like Black Drongo *Dicrurus adcimilis* and White - bellied Drongo *(D. caerulescens)* near electric bulbs (Khan 1990, Nameer 1990, Sharma 1991 and 2003).

Insects, toads and frogs habitually congregate near electric lights during nights. Insects falling under light and Common Indian Toad *Bufo melanostictus* present there for eating the failing insects, could be the food of mongoose. Night lights possibly changing the biological rhythms of birds and mammals residing near light sources. Such disturbed animals show extended diurnalism near light source during nights. Extended diurnalism becomes possible due to availability of extra light hours and other benefits like better or extra food opportunities. If chances are available, animal might change their rhythms for better survival.

Acknowledgements

The author is thankful to Jagdeesh Rao and Dinesh Reddy, Foundation for Ecological Security, Anand (Gujarat).

References

Khan, A.R. (1990). Feeding habits of Black Drongo. *Newsletter for birdwatchers* 30(10 & 11): 11.

Nameer, P.O. (1990). Midnight feeding by Black Drongo. *Newsletter for birdwatchers* 30(7 & 8): 9.

Sharma, S.K. (1991). Nocturnal feeding by Black Drongo. *Newsletter for birdwatchers* 31(3 & 4): 8.

Sharma, S.K. (2003). Nocturnal feeding by White- bellied Drongo *Dicrurus caerulescens.* Journal of the Bombay Natural History Society 100(1): 144.

**** Foundation For Ecological Security, 18, New Ahinsapuri, Fatehpura, Udaipur - 313001 Rajasthan***

Small Indian Mongoose, *Herpestes edwardsii*, A. Roy, Artist, ZOO