

## LONGEVITY OF LION-TAILED MACAQUE (*MACACA SILENUS*) IN CAPTIVITY AT NANDANKANAN ZOOLOGICAL PARK, BHUBANESWAR

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A male Lion-tailed Macaque (*Macaca silenus*) born at the National Zoological Park, New Delhi on 26 May 1976 was given to Nandankanan Zoological Park, Bhubaneswar, Orissa on January 20, 1982. He died at the age of 24 years, nine months and eight days, on March 06, 2001. During his lifetime at Nandankanan, the animal had sired 11 offsprings with three females from 1983 to 1992 and was identified with international studbook number 1253 and national studbook number T54. The Indian studbook constituted in 1996 for Lion-tailed Macaque (Anon., 1997) with draft master plan collection report on its Indian population had recommended its transfer to Peshwe Park Zoological Gardens, Pune in exchange of wild origin male to prevent inbreeding. The exchange did not materialize.

The animal was housed along with females of the species in one of the monkey islands of the park with suitable vegetation surrounded by a water moat. These macaques, are fed with a variety of fruits, vegetables, greens, bread, milk and cooked rice. In addition, they also have free access to insects in the natural vegetation. The way in which Lion-tailed Macaques are exhibited probably has a great influence on their welfare. A good spacious exhibit with vertical climbs (trees) can minimize psychological and behavioural problems associated with captivity.

The macaques as a group live relatively long in captivity (Crandall, 1965). The life span of all species of macaques, in general, is given as 30 years or more (Walker *et al.*, 1964) and for Lion-tailed Macaques as over 20 years (Parker, 1990). The maximum longevity recorded for this species is 17 years and 7 months (Jones, 1962). One specimen of this species at Rotterdam Zoo lived for 16 years, 11 months and 16 days (Flower, 1931).

Acharjyo and Patnaik (1994) reported that a female lived for 18 years, four months and 18 days at the Nandankanan Zoological Park, Bhubaneswar and died at an estimated age of 20 years.

Reportedly, there are several animals which have lived more than 30 years, in captivity - at least five animals in European zoos where >30 years specimen are presently living #909 (born in 1970), #957 (1971), #987 (1971), #771 (1967), #772 (1967) (European Studbook for LTM). The oldest Lion-tails that lived at Woodland Park Zoo died at the age of 40 years. The oldest Lion-tailed Macaque presently reported in San Diego is at least 37 years old (Helena Fitch-Snyder, International Studbook Keeper, pers. comm.).

Lion-tailed Macaque is listed as Endangered in the IUCN Red List of Threatened Species (Hilton-Taylor, 2000). The worldwide captive population of this threatened primate is 250 or more (Schmidt, 1986). Presently no zoo is reported to have captive population of more than 30 specimens for a breeding size population. The International Zoo Year Book (Vol. 36, 1998) reports 64 collections of 186:190:13+ with most presumed captive bred specimens. Only 50 individuals in the 18 Indian zoos were available in 2001 (against 74 specimens in 1997) in captivity and none have more than 10 individuals. The lone female birth during 2000-2001 had been at the Maitri Baugh Zoo, Bhilai.

The longevity of 24 years 9 months and 8 days recorded in this park for this species born in captivity appears to be the highest reported so far in the Indian zoos.

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