

BEHAVIOURAL STUDIES ON NICOBAR CRAB EATING MACAQUES IN CAPTIVITY

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Introduction

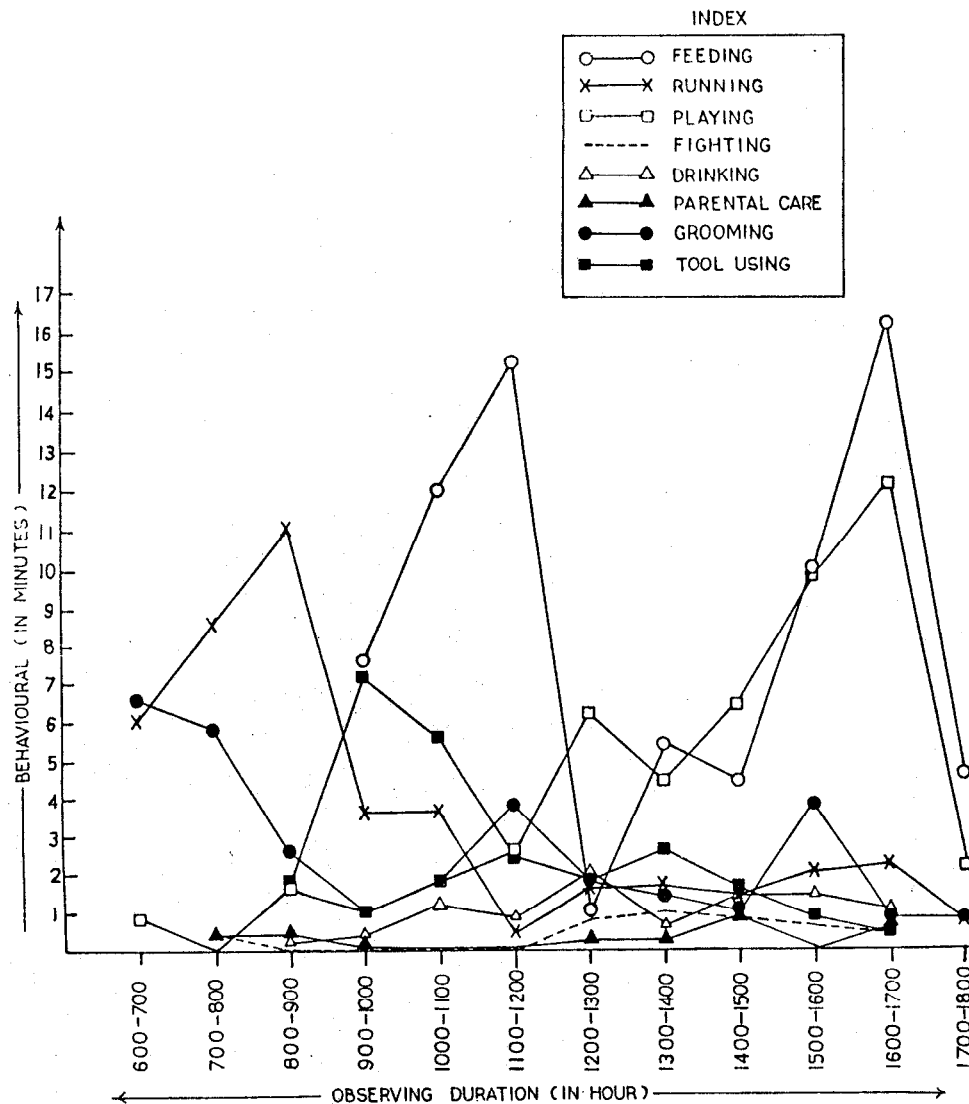
In this classification of animals, man gives pride of place to himself and to the apes and monkeys as man. The class Mammalia to which they fall, constitute a wild and heterogeneous group, distributed throughout the world and said to arise somewhere in Jurassic period about 150 million years ago from some cotylosaurian reptiles. And further they are grouped together in the highest order Primata of the above class. All of them are primarily arboreal mammals with prehensile limbs and with highly developed cerebral hemispheres in their brain.

Description

The crab eating Macaque (*Macaca irus umbresa* Miller) is a medium sized, dark haired macaque. Its distribution is just confined to few islands of India in the whole world i.e. in Nicobar Archipelago, Great Nicobar and Katchal. They are distinguishable from *Macaca irus aurea* and resembling typical representative of the species from the Malay peninsula and Sumatra in the mode of growth of the cheek-hairs, which on the fore part of the cheek of backwards from the face and on the hind part forwards from in front of the ear and neck; the upturned points of the two hair

streams meeting to form a conspicuous vertical crest which descends from the edge of the crown to the throat. The eyebrow vibrissae are also less well developed at least on the average. The general colour of the upper side and of the limbs is nearly uniform hair-brown, with a faint tinge of brown colour more pronounced on the sides, the hairs are marked with a cream ring which is sharp on the crown and nape, less so on the buttocks and thighs. The tail is dark brown above, almost black in its proximal half, pale dark below. The underside of the back is pale dark. According to Miller the general colour differs from that of specimens of *irus* from the Malay peninsula by being much darker and less yellowish.

As its distribution is very restricted as stated above, the species is on threshold and endangered one and that is one of the reasons to keep them under Schedule-I of Wildlife (Protection) Act, 1972. Their exact population in those Islands is not well known due to absence of census. However, due to sea being barrier, their migration possibilities are also negligible and that is evident from the fact that this species is not even distributed in whole of Andaman and Nicobar Islands. Hence keeping in view their endangeredness, apart from giving them utmost protection in their habitat, a captive breeding programme was

NICOBAR MONKEY (MALE)5 DAYS OBSERVATION

undertaken by way of bringing Macaques to the Port Blair Zoo on 6.8.1980. The captive breeding was not much successful and that is evident from the birth and death amongst them.

It was fact that scientific studies on

Macaques brought from Wild and kept in captivity since 1980 might be undertaken to know some of their important behaviours which can later be compared from the similar set of this species who are still found in wild. As regards the behavioural studies on this species, nothing much has so far been

done. Pondicherry University is doing some work in the field i.e. at Campbell Bay.

Methodology

For carrying out these researches, 3 members of Macaque family i.e. Male, Female and a female child were selected. They all were Zoo born. The male was aged about 9 years, the female 10 years and female child 1 year 9 months.

The feeding, drinking, running, playing, fighting, grooming, tool-using, mating and parental care behaviours were being observed during day time i.e. 6 A.M to 6 P.M. to know the time spent for exhibiting different behaviours. Observations on one male Macaque is given in Fig. 1.

Observations

(a) *Feeding behaviour* - From the above observations, it is evident that a male crab eating Macaque shows maximum of feeding activity during the day time and minimum of parental care. The feeding behaviour is at peak during the evening hours i.e. for 16.2 minutes in an hour, i.e. between 1600 hrs to 1700 hrs and also during noon i.e. between 1100 hrs to 1200 hrs for 15.2 minutes and also between 1000 hrs to 1100 hrs for 12 minutes. In rest of the hours, it is for few minutes only.

(b) *Drinking behaviour* - This Macaque does not spend much of its time in drinking water and there is no significant timings for doing so. The maximum time spent was for 2 minutes during 1200 hrs to 1300 hrs which may be due to hottest period of the day and the minimum is for 12 seconds in the morning hours that is 0800 hrs to 0900 hrs.

Moreover this behaviour was exhi-

bited only after the supply of daily feed to them i.e. around 0800 hrs.

(c) *Running behaviour* - This behaviour also rightly corresponds with the timings of the day that is to say that during cooler hours of the day, this activity is more and during hotter period it is less. The maximum time that is 8.6 plus 11 minutes spent exhibiting this activity is from 0700 hours to 0900 hours and then activity gradually decreases. Further it rises in the afternoon till evening and in between 1600 hrs to 1700 hrs it is exhibited for 2.2 minutes (2 minutes and 12 seconds).

(d) *Fighting behaviour* - (Aggression Behaviour) being the same family, this behaviour was quite insignificant. Just on one day that is on 31st January, 1990, the behaviour was exhibited for the maximum time of 5 minutes between 1300 to 1400 hours.

(e) *Grooming behaviour* - No uniform trend can be established for this behaviour but the behaviour is quite prominent. In this maximum time spent is during morning hours that is 0600 hours to 0700 hours and minimum during late evening hours.

(f) *Tool-using behaviour* - This is also being exhibited during most parts of the day more during 0900 hrs to 1100 hrs that is 12.8 minutes (12 minutes and 48 seconds).

(g) *Courtship behaviour* - This behaviour was not at all exhibited during the period of observation.

(h) *Parental care* - This was also sporadically exhibited as this behaviour is basically with the female member of the family.

SUMMARY

Crab eating macaque, Schedule-I animal under WildLife (Protection) Act, 1972 is confined only to a few Islands of Nicobar group. Its feeding, drinking, running, fighting, grooming and tool-using behaviour have been studied.

बंदी अवस्था में निकोबार के केकड़ा भक्षी कपि के व्यवहार का अध्ययन
राम हेतु, ए० के० सिन्हा व जे० पी० मिश्र

सारांश

भारतीय वन्य प्राणी (सुरक्षा) अधिनियम 1972 की अनुसूची के प्राणियों में लिया हुआ केकड़ा भक्षी कपि (बन्दर) निकोबार समूह के कुछ द्वीपों में ही पाया जाता है। इसके भोजन करने, पानी पीने, दौड़ने लड़ने और उपकरण उपयोग करने संबंधी व्यवहार का अध्ययन किया गया है।

Reference

Prater, S.H. (1971). *The book of Indian Animals*.
