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A NOTE ON THE RATINGS AND FUTURE OF NON-HUMAN PRIMATES IN INDIA

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INTRODUCTION

India has an amazing high diversity of non-human primate populations and is represented by 15 species. Majority of these species are forest dwellers, but there are some, which live in wide ranging habitats and are well adapted to divergent habitats. These primate species are good indicators of the viability of ecosystems and can be used for the proper management and conservation of the divergent ecosystems. Hence, it is equally important that this primate biodiversity be maintained. Recent report released by the Conservation International and Primate Specialist Group have classified 195 primate species and subspecies as either critically endangered or endangered and this figure nearly jumped to 63% since the initial report published in January 2000. One in three primate species is now regarded as threatened. Asia accounts for almost 45% of the world most endangered primates, with 11 listed among the top 25, and is regarded as world leader in endangered primate species (Primate Specialist Group 2002). Based on the information available, Indian primates can be categorised into : (1) Common; and fairly abundant species, (2) Rare and threatened species, (3) Data deficient species and (4) Species of doubtful distribution. Each of these has its own conservation and management problems and need to address separately.

COMMON AND FAIRLY ABUNDANT SPECIES

The three species : Rhesus macaque (*Macaco mulatta*), Bonnet macaque (*Macaco radiata*) and Hanuman langur (*Semnopithecus entellus*) are common and widely distributed. Bonnet macaques are restricted to south India and the Hanuman langurs are not found in northeastern India. These species are well adapted and live in wide ranging habitats such as forested areas including the montane forests of Himalayas, towns, villages, roadsides, temples, railway stations, mangroves, tourist places etc. These three species are commensal and cause agricultural and health problems

in many areas. Rhesus is more aggressive than the other two species. Rhesus and Bonnet raid crop fields and horticulture and vegetables gardens more than the Hanuman langurs. As these species live in human-dominated environments, consequently there is an increase in man-monkey conflicts. Due to the absence of management plan for commensal monkeys, the problem of man-monkey conflicts is only going to increase in future.

RARE AND THREATENED SPECIES

Majority of Indian primates belong to this category and are forest dwellers. This category includes as many as 9 species : Pig-tailed macaque (*Macaca nemestrina*), Stump-tailed macaque (*Macaca arctoides*), Assamese macaque (*Macaca assamensis*), Lion-tailed macaque (*Macaca silenus*), Golden langur (*Trachypithecus geei*), Phayre's leaf monkey (*Trachypithecus phayrei*), Nilgiri langur (*Trachypithecus johnii*), Capped langur (*Trachypithecus pileatus*) and Hoolock gibbon (*Bunopithecus hoolock*). They live either in the forests of northeast or south India and entirely depend on the forests for their food and shelter. Assamese macaques, at places, also inhabit the temples, towns and roadside habitats. These primates have limited distribution and small in populations. Their groups are small with scattered distribution and face serious habitat loss. Most of these species are either Critically Endangered or Endangered and hence are Threatened.

DATA DEFICIENT SPECIES

The three species : Slow loris (*Nycticebts coucang*), Slender loris (*Loris tardigradus*) and Crab-eating macaque (*Macaca fascicularis umbrossa*) inhabit the forests of northeast states of India, south India and the Nicobar Islands respectively. Out of these three, slow and slender loris are nocturnal and their status are not known. The crab-eating macaques have also not been extensively studied in the field and their present status has not been worked out.

SPECIES OF DOUBTFUL DISTRIBUTION

In recent years reports have been published regarding the occurrence of a few other species, which have not been reported in the past. The occurrences of P'ere David's or Tibetan macaque (*Macaca thibetana*) and Snub-nosed monkey (*Rhinopithecus roxellanae*) have been reported by some field workers from Arunachal Pradesh. These species are found in China and Myanmar. The occurrence of these species in India has not yet been confirmed. It has also been mentioned that the Tibetan macaque/Arunachal macaque (*Macaca munzala*) sighted in Arunachal Pradesh is probably, misidentification of a subspecies of Assamese macaque. To reach a definite conclusion about the occurrence of these species in India it is necessary to conduct extensive field surveys of Arunachal Pradesh.

DISCUSSION

These diverse primate populations have different conservation and management problems and need different approaches. The three common and abundant species that live in different habitats including the human habitations have often led to serious man-monkey conflicts. They raid the crops and homes and cause health problems, They have been tolerated in the past due to religious sentiments attached to these species, but the tolerance has now decreased resulting increase in man-monkey conflicts. This increased intolerance, particularly in rural and urban areas, resulted either in elimination or driven out from the areas where the monkeys ones had abundant populations. In such scenario it is possible that the common and abundant species may well become an endangered species in certain habitats in future. At certain places small isolated populations of these species occur and need attention. To address the problems of those species that are overabundant and act as pest is to develop the natural forests and other habitats in their entire range of distribution by increasing the abundance of fruiting trees, waterholes and shelters so that they can be translocated. It is also necessary to take up fertility control measures to those populations, which cause human nuisance. It is further suggested that the studies on rural and urban monkeys may be intensified so that more and more suitable management programmes can be drawn.

Majority of India's primate species are rare and endangered and facing possible extinction in future if no action is taken for their conservation and management. These species are primarily forest dwellers, restricted in their distribution, of small group size, low group density and are facing serious habitat loss and disturbance, and at places subjected to hunting pressure. These species need total protection, restoration and improvement of habitats, strict enforcement of Wildlife Protection Act, regular monitoring of the populations, involvement of local people and experienced field biologist in conservation and management programmes and also taking up suitable awareness programmes. Steps should be taken to link the fragmented habitats with the nearest viable and vibrant forest habitats by means of corridors.

For the data deficient species it is necessary to intensify field studies and collect information on their basic ecology and behaviour, present status, movements and home range patterns, food requirements, breeding, recruitment order, habitat requirement *etc.*, so that effective conservation and management programmes can be adopted.

As regard the occurrence of doubtful species it is necessary to conduct extensive field surveys of the entire Arunachal Pradesh. Conservation and management programmes should be drawn by keeping in mind the requirements of entire biodiversity of non-human primates.

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