Current status and conservation of the gray snub-nosed monkey

Rhinopithecus brelichi (Colobinae) in Guizhou, China

Zuo-Fu Xiang1,2 & Ming Li1*

1 Key lab of Animal Ecology and Conservation Biology, Institute of Zoology, Chinese Academy of Science, Beijing, P.R. China
2 Central South University of Forestry & Technology, Changsha, Hunan, P.R. China

Introduction

The gray snub-nosed monkey Rhinopithecus brelichi was categorized as an endangered species by IUCN. At present, R. brelichi is restricted to a small region at Mt. Fanjing in northwest Guizhou, China. After the latest survey was carried out from 1988 to 1993, no further surveys have been conducted over the last 15 years. Here we (1) provide information on the distribution and population size (2) evaluate the present conservation status and factors threatening and (3) recommend conservation strategies on this special species. The results will be fundamental to protection of the gray snub-nosed monkey.

Methods

The primate survey method was similar to that used in examinations of R. bieti. The survey was performed along existing trails or ridges where it was relative easy to find traces. We evaluated threats to R. brelichi using direct observations of human activity and interviews with local officials, guides, and villagers. We also estimated the annual cash income of local people in the Reserve by sampling the 60 households in Niujiaodong village, and approximated the forest’s value to villagers. Interviews with local officials and residents, and an inspection of the historical literature, were used to identify other threats on R. brelichi, including hunting events.

Results

Four sub-populations, with a total of ca. 750 individuals, were located in mixed deciduous and evergreen broad leaf forest at 800 - 2,200 m asl. Identified threats include (1) accidentally injured or killed by poaching, (2) loss or alteration of habitat through wood extraction, and (3) loss or alteration of habitat through economic activities, such as building projects.

Fig. 1 Fangjingshan National Nature Reserve, showing the historical and current occurrence of Rhinopithecus brelichi. Sub-populations of R. brelichi are located in: A, Yangao; B, Dongpengshan; C, Huixiangping; D, Gaofeng. Sites where R. brelichi was historically hunted: 1, Paomuba; 2, Shizijie; 3, Jinzhanping; 4, Panxi; 5, Macaohe.

Fig. 2 A one male, multi-female unit of R. brelichi in the evergreen broad leaf forest

Fig. 3. Tourist numbers (in ten thousands) that visited Fangjingshan National Nature Reserve during 1-7 October from 2001 to 2008

Fig. 4. Annual cash income per household from forest and non-forest products, assessed from a sample of 60 households in Niujiaodong village 2007.

Conclusions

The stable population for the last three decades suggests that the population may be near the Reserve’s carrying capacity. Threats to the species include accidental injury/ death by poaching and loss/alteration of habitat through wood extraction and economic activities. Future conservation measurements should be based on alleviating anthropogenic pressure on the ecosystem and community participatory conservation.

Acknowledgments

This study was supported by National Basic Research Program of China, National Natural Science Foundation of China, National Geographic Society, Rufford Small Grants for Nature Conservation, and Primate Conservation Inc.