

An Ecological Overview of Red Panda

Arun Adhikari¹

Abstract

According to recent report, 20% of world's wild mammals are threatened with extinction. One of them, Red panda is also in the front list. Decreasing number of Red Panda compels us to think about all its related activities and our role to conserve it. Habitat destruction is one of the main cause of its reducing number. So, we need to keep in mind about its characteristics and requirements, seriously. This article is trying to provide information about present status of Red Panda which gives a way forward for its better management. Researches on Red Panda are found in very limited numbers in Nepal. This article is written to promote the research on this species intensively which can help in biodiversity conservation from our side.

संसारका बीस प्रतिशत स्तनधारी प्राणीहरू लोप हुने अवस्थामा पुग्न लागेको अध्ययनले देखाएको छ। हाब्रे प्रजाती पनि यसै भित्र पर्न गएको अवस्था छ। अब हामी सबैले हाब्रेको हरेक क्रियाकलापको बारेमा अध्ययन गरेर आफ्नो भूमिकाको बारेमा पनि सोच्ने समय आईसकेको छ। यसलाई आवश्यक वासस्थानको दिन प्रतिदिन नष्ट हुँदै जानु पनि यसको संख्यामा कमि आउनुको मुख्य कारक बनेको छ। अब हामी सबैले विचार गर्ने पछि कि हाब्रे संरक्षणलाई आवश्यक पर्ने तत्वहरू तथा हाब्रेको चालचलन के कस्तो छ? यस लेखमा हाब्रेको वर्तमान अवस्थाको जानकारी दिनुको साथै यसको संरक्षणमा उचित योगदान गर्नको लागि संरक्षणविद्हरूलाई भक्भक्क्याउने प्रयास गरेको छ। यस प्रजातिमा अनुसन्धानहरू पनि यथेष्ट मात्रामा गरेको पाइँदैन। यस लेखले संरक्षकहरूलाई हाब्रेको अनुसन्धानमा लागेर जैविक विविधता संरक्षणमा मद्दत पुऱ्याउन सहयोग गर्नेछ भन्ने विश्वास छ।

Key Words: Red Panda, Bamboo, Solitary, Threatened, Behavior, Habitat, Conservation

Introduction

Himalayan mammal Red Panda is very attractive wild species found in Nepal. Widely, it's known as 'Cat Bear' and 'Habre' is commonly used local name in Nepal.

Classification of Red Panda which is found in Nepal is as follows. **Figure 1: *A. fulgens fulgens***

Kingdom	:	Animalia
Phylum	:	Chordata
Sub-phylum	:	Vertebrata
Class	:	Mammalia
Order	:	Carnivora
Sub-order	:	Caniformia
Family	:	Ailuridea
Genus	:	<i>Ailurus</i>
Species	:	<i>fulgens fulgens</i>



Source: www.wikipedia.org

¹ Kathmandu Forestry College, Kathmandu, Nepal, Email: naturediver@gmail.com

This endangered species was first caught in 1936 in America. Due to its low population densities, shyness and cryptic coloration, it's very hard to encounter Red Panda in wild. It's legally protected species in Nepal.

Distribution

Two sub-species of Red Panda are recorded. Red Panda (*Ailurus fulgens fulgens*) is found in Namlung valley of Langtang, Mugu, and Rara lake and its surrounding areas of Nepal and can also be found in Yunan state and Sichuan valley of China, India, Bhutan . Another sub-species of Red Panda (*Ailurus fulgens styani*) can be found in Northern Myanmar and Hengduwan of China. So, Red Panda is distributed from the Himalayan region of India to Nepal, China, Bhutan, Myanmar and Laos. Based on forest type, i.e. Abies forest, there is 912sq.km of potential habitat for Red Panda in Nepal (Yonzon, 1989). Red Pandas are in decreasing trend these days.

Morphology

Red Panda has head and body length of 51 – 65cm where as it has furry tail of about 40cm long with 12 alternative red and buff rings. Its height is 27 – 28cm at its shoulder. It is a small mammal having just 3 – 6kg weight, round head with erect and pointed ears. Face is white with reddish brown marks under the eyes. Upper part of the body is covered with reddish brown fur and ventrally its glossy black. Its black legs are covered with dense and white hair in soles of its feet. There is no sexual dimorphism in color or size between male and female.

Habitat

Red Panda is found in temperate climate in deciduous and coniferous forest. Bamboo species are vital for its survival. Leaves, shoots and coppice of the bamboo (Nigalo and Malingo) are the main food of Red Panda. So, this species prefer mountain forest with bamboo or we say Fir-Jharpa forest. Its habitat is mostly dominated by Rhododendron species. It takes rest in broad and soft branches of big trees. Its habitat ranges from 3000 to 4000m elevation. Recently, it has been published that Red Panda can be found above 1500m of elevation in Nepal (Chalise, 2008). The average annual temperature of its habitat is 10°C to 15°C and average annual rainfall is 350cm. They are generally limited to a narrow altitudinal band. Its habitat sharing species are leopard, wolf, musk deer, bear, barking deer, serow, jackal, jungle cat, ghoral, and Himalayan thar.

Behaviors

Red Panda's activities changes throughout the year with changing temperature, feeding regimes and presence of young. It is a solitary and sedentary animal which is found in pair or group of three. It is shy and elusive animal adapted in temperate bamboo forest. They are mostly active in dusk, dawn and during the night. Its mobility is high in January and February for

breeding activities. They are partially territorial animals and they secrete a scent from glandular sacs of anal region to mark their territory. This secretion is also used for following friends and defense purpose. Home range of Red Panda varies from 1.3 to 11.57 sq. km. In average, male has its home range of 5.12 sq. km. and female restricted in 2.37 sq. km. Home range of Red Panda greatly depends on availability of food in its habitat, potential mates, shelter and concealment from predators.

Feeding ecology

Bamboo leaves are the primary food source of the Habre. They are said to be carnivore but are adapted to pure herbivore diet also. They eat bamboo leaves, shoots, grains, fruits of plants, blossoms, berries, bird eggs as food. Main bamboo species they use as food are *Arundinaria maling* and *A. aristata*. Bamboo consists 68.4% of its annual diet (Mahato, 2004). They also eat *Sorbus cuspidate* and *Sorbus microphylla* species as food.

Reproduction

Mating in Red Panda occurs in early winter i.e. January to March. Male and female rarely interact with each other outside of the mating season. They give born to cubs in June/July and produce 1 to 4 cubs at a time. Its gestation period is 134 days in average. It takes two weeks to open the eyes of the cubs. Cubs generally get matured sexually or reproductively after 18 months from its birth. Average life span of Red Panda is 8 to 10 years but its maximum recorded life span is 14 years. They can breed up to age of 12 years.

Conservation status

Red Panda is the protected wild animal of Nepal. Legally, it is protected by the NPWC Act 1973 in Nepal. It is in endangered category of IUCN red list where as it is in Appendix I of CITES list. Red Pandas are threatened due to deforestation, fuel wood collection, grazing and collection of bamboo shoots and buds. It is said that there are about 300 Red Pandas surviving in Nepal.

Conservation challenges

Due to low population density and shy nature, research on Red Panda is being very difficult. It's small body size and cryptic coloration is also making them extremely exclusion. Another big threat on this species is human activities on its habitat. Grazing, collection of bamboo shoots as fuel wood, buds, destruction of its habitat are the main interfering activities. Scarcity of food material is the major problem in its habitat. Fire hazard in the mountain region is also helping to decrease Habre population. Hunting of Red Panda, for its attractive skin, is common in some ethnic groups of Nepal. These days, they are also facing the problems of climate change in the form of shifting bio-climatic zone which is affecting badly in its natural habitat condition.

So, we need an immediate conservation management plan for its secure future in Nepal. Limited potential habitat area and decreasing encounter rate of Red Panda in wild direct us to work intensively on its conservation to prevent it from the danger of extinction. Extinction of Red Panda from its habitat can badly affect the mountain bio-diversity and ecosystem.

Reference

Chalise, M. K. 2008, *Nepalka Sanrakshit Banyajantu*, Sajha prakasan.

Mahato, N. K. 2004, Baseline survey of Red panda status in the Buffer Zone of Sagarmatha National Park, research report.

National Parks and Wildlife conservation Act, Nepal, 1973.

Shrestha, T. K. 1997, *Mammals of Nepal*.

Yonzon, P. B. 1989, Ecology and conservation of the Red panda in the Nepal Himalayas, Ph. D thesis, University of Maine.

www.animaldiversity.ummz.umich.edu (August, 2009).

www.wikipedia.org (August, 2009).