



Research Article

Preliminary assessment of group composition and activity pattern of the critically endangered Bornean Banded Langur *Presbytis chrysomelas chrysomelas* in Tanjung Datu National Park

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Abstract

The Bornean banded langur (*Presbytis chrysomelas chrysomelas*) is critically endangered species primarily found in Sarawak, Malaysia. Albeit this species is in peril, the ecology knowledge of this endemic species of Borneo is still scarce. Thus, a rapid survey employing total count and scan sampling method was conducted between July to August 2023 at Tanjung Datu National Park (TDNP), Sarawak to observe the social interaction of species with the environment. The behaviour of langur was recorded by employing scanning sampling method at 10 minutes intervals. This study sought to provide

preliminary data on behavioural ecology of the Bornean banded langur within the national park. During the survey, three groups (consisting two to seven individuals) and a solitary male Bornean banded langur were recorded. The langurs were observed in both dipterocarp forests and coastal forests within the park. The daily activities of the Bornean banded langurs in TDNP were predominantly resting (31%), moving (29%), feeding (26%), vocalizing (14%), but not engaging in other social activities such as grooming, playing and mating. Knowing the behavioural ecological status as well as understanding ecology by identifying the activity pattern of langur is essential to government authorities and pertinent stakeholders to implement conservation strategies for the Bornean banded langur and their habitats.

Keywords

Colobine, threatened species, behaviour, conservation

Introduction

Tanjung Datu National Park (TDNP), located in Sarawak, Malaysia, is one of the smallest national parks in the region, covering an area of 1379 hectares. Despite its size, it serves as a prime habitat to five diurnal primate species namely long-tailed macaque (*Macaca fascicularis* Raffles, 1821), pig-tailed macaque (*Macaca nemestrina* Linnaeus, 1766), silver leaf monkey (*Trachypithecus cristatus* Raffles, 1821), Abbott gibbon (*Hylobates abbotti* Kloss, 1929) and the most threatened species, the Bornean banded langur (*Presbytis chrysomelas* Müller, 1838) (Ampeng 2003). The Bornean banded langur is an understudied rare primate and endemic to Borneo. Locally, it is known as penatat or penyatat by Bidayuh, lutung by Malays, luntung in Sarawak Malay, bijit by Iban, and berangad by Kenyah (Mohd-Hatta 2013). Two subspecies have been recognised, namely, *P. c. chrysomelas* and *P. c. cruciger* (Phillipps 2018). The species is distributed from western Sarawak to west Kalimantan, Indonesia (Phillipps 2018). Historically, this species was widely dispersed throughout Borneo.

Nevertheless, in recent years, *P. c. chrysomelas* is restricted in its range to five specific areas in Sarawak, namely Tanjung Datu National Park (TDNP), Samunsam Wildlife Sanctuary (SWS), Maludam National Park (MNP), Similajau National Park (SNP), and Pueh National Park (PNP) (Noor-Faezah et al. 2023). The native habitat of langur has been constricted due land conversion for agriculture and urban development purposes, exacerbating its vulnerability. Currently, the species occupies less than 5% of their lowland habitats, namely tropical rainforests, mangrove forests, and swamp forests (Nijman et al. 2020).

Bornean banded langur groups are often found in three to seven individuals, with one male, multi females and their offsprings. The species is known to eat 25% to 65% of fruits and leaves (Ehlers Smith 2014, Nijman et al. 2020). According to the International Union for Conservation of Nature (IUCN) (2022), the primate is one of the world's 25 most