

Observations on Particolored Flying Squirrel *Hylopetes alboniger* (Hodgson 1836) in Northeast India

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Particolored Flying Squirrel *Hylopetes alboniger* belongs to genus *Hylopetes* and is distributed in northeast India, Nepal, Bhutan, China, Myanmar, Thailand, Lao PDR (only in three locations), Vietnam and Cambodia (in some parts) (Duckworth *et al.*, 2008). This species was included under endangered category by IUCN before 1996 and was later shifted to Least Concern category due to relatively wide distribution and presumed large population. Much information regarding its ecology remains unknown. This species is found in elevation ranges between 1500-4000m msl and is also thought to exist in lower elevations (Duckworth *et al.*, 2008); even our findings confirm the presence of this species at lower elevation ranges of between 100-500m msl.

In our survey to assess the flying squirrel diversity in Namdapha National Park during October and November 2011, we recorded 6 individuals of this species at an altitude not more than 500m msl in several places of Deban locality (Table 1). The species was also recorded in our previous surveys carried out in Pakke Wildlife Sanctuary, Seijosa; Talley Valley Wildlife Sanctuary, Sessa Orchid Sanctuary, Tipi and Mehao Wildlife Sanctuary, in Lower Dibang Valley of Arunachal Pradesh during 2003-2006 and in 2011. The species was also recorded at Borajan Wildlife Sanctuary in Tinsukia, Amchang Wildlife Sanctuary, Guwahati and Gibbon Wildlife Sanctuary, Jorhat in Assam during 2009. All the areas mentioned above where *H. alboniger* was recorded fall under tropical and sub-tropical forest types with an elevation range between 100-1500 msl. It is an active species found gliding very fast between the trees and sometimes, is very difficult to



Figure 1: Particolored Flying Squirrel (*H. alboniger*) feeding on the ripened fruit of *Psidium guajava* at Deban in Namdapha National Park, Arunachal Pradesh. (Photo C. Murali Krishna)



Figure 2: Particolored Flying Squirrel (*H. alboniger*) feeding on the ripened fruit of *Ficus curtipes* in Borajan Wildlife Sanctuary, Assam. (Photo P.C. Ray)

detect it in dense tropical forest canopy. It was usually spotted along with the red giant flying squirrel *Petaurista petaurista* and is thought to be sympatric with it. It is found to feed on fruits, flowers and leaves of several trees during nights and roosts as well as nests in tree hollows during the day. On four instances, we observed the species feeding once on the ripened fruit of *Psidium*

guajava, on the flowers of Wild Mango *Mangifera* species and on the ripened fruits of *Neolamarckia cadamba* in Namdapha National

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Figure 3: Particolored Flying Squirrel roosting (*H. alboniger*) in Amchang Wildlife Sanctuary, Assam, India. (Photo: P.C. Ray)



Figure 4: A rescued Particolored Flying Squirrel (*H. alboniger*) from Borajan Wildlife Sanctuary, Assam, India. (Photo: P.C. Ray)

Table 1: Sightings of *H. alboniger* in Namdapha National Park

S. No	GPS Location	Elevation (msl)	No. of Individuals	Activity during sighting
1.	27°29'46.38"N, 96°23'35.83"E	304	2	Feeding on the ripened fruits of <i>Psidium guajava</i> and <i>Neolamarckia cadamba</i>
2.	27°29'41.90"N, 96°23'34.20"E	370	1	Gliding
3.	27°29'36.20"N, 96°23'43.32"E	372	1	Gliding
4.	27°29'33.10"N, 96°23'43.95"E	330	1	Gliding
5.	27 29' 42.0"N, 96 23' 35.4"E	414	1	Feeding on the flowers of wild <i>Mangifera</i> spp.

Park and on the ripened fruits of *Ficus curtipes* in Borajan Wildlife Sanctuary, Assam. The species preferred ripened seasonal fruits over flowers and leaves. In our observation at Namdapha National Park, we recorded that half eaten fruits dropped by this species as well as other arboreal mammal's viz. Red Giant flying squirrel and Masked Palm civet (*Paguma larvata*) attracted the barking deer's (*Muntiacus muntjak*) and wild boars (*Sus scrofa*) which further attracted large carnivore (tiger and wild dogs). This could be an observation to state the role of the species in maintaining the food chain in the forest ecosystem. The species usually preferred tall trees (more than 30-40 m) for roosting and nesting with wider open canopy. *H. alboniger* was recorded more in the forest edges along the forest road which may facilitate sufficient space for gliding. However, a conclusion cannot be drawn as usually the detectability of the species is high in the disturbed habitat.

We recorded the glide distance ranging from approximately between 10-110m. The glide or the single shoot distance was more or less similar to that of giant flying squirrel (*Petaurista petaurista*, 150 m; Nowak, 1991) and to other small flying squirrel (*Hylopetes lepidus*, >135 m; Thorington *et al.*, 1981). Rapid destruction of its habitat in northeastern India for the construction of dams, road expansion, *jhum* cultivation and the expanding agricultural lands are some of the major threats to the species (Duckworth *et al.*, 2008). Even hunting of this species is common among several tribal communities of the state as they hunt this species as a source of bushmeat. However, few tribals mentioned of using the species in socio-cultural practices such as marriage ceremonies by sacrificing the species for their good will. Through interviews and discussions with the local

communities, it is assumed that the species is not that common in the respective areas.

However, more detailed studies are required to understand its distribution, population and behavioral ecology for the better conservation of this small, magnificent nocturnal glider acting as natural seed disperser to conserve the tropical forest ecosystem. In addition, immediate conservation awareness programmes have to be formulated to spread the message among the local tribal community about importance of species and

the role that it plays in the forest ecosystems.

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