INDIAN FLYING FOX

First recorded observation of mangrove roost of *Pteropus giganteus* in India

IUCN Red List:

Global — LC
(Molur et al. 2008)

National
India — LC
(Molur et al. 2002)

Mangrove habitat as a roosting site for India Flying Foxes *Pteropus giganteus* Photo: Yatish Lele

Mammalia
[Class of Mammals]

Chiroptera
[Order of Bats]

Pteropodidae
[Family of Fruit Bats]

Pteropus giganteus
[Indian Flying Fox]

Species described by Brünnich in 1782

The Indian Flying Fox or the Greater Indian Fruit Bat, *Pteropus giganteus,* is a widely distributed bat species and occurs in the tropical regions of south central Asia, mainly between Pakistan and China (Bates & Harrison 1997). The species usually roosts on large trees in colonies especially close to agricultural fields, ponds and kerbside (Molur et al. 2008). They usually have one permanent roost with one or two temporary roosts (Molur et al. 2008). These large colonies or roost groups usually consist of hundred to several thousand individuals and are called as 'camps' (Eby 1991; Parry-Jones & Augee 1992). Several studies pertaining to the roosting of the species have documented that the species roosts mainly on the forest trees such as *Ficus* sp., *Tamarindus indica, Albizia* sp., *Pterocarpus marsupium, Azadirachta indica,*

Location of the roosting site of *Pteropus giganteus* on Google Map

Mangifera indica, Dalbergia sp., *Casuarina* sp., *Eucalyptus* and so on (Reginald et al. 2008; Marimuthu 1988; Vendan 2003; Khatun et al. 2014; Gulraiz et al. 2015; Chakravarthy 2007).

Global Distribution (Molur et al. 2008):

South Asia — Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka.

Southeast Asia — Cambodia, China, Myanmar.

During a visit to Sindhudurg District, Maharashtra, India; a camp of the Indian flying fox was observed to be roosting on a small mangrove island (16.411768°, 73.407616°) in the Wadatar creek. Mangroves prove to be an unusual roosting site for the flying foxes as no earlier records are present on the use of mangroves as a roosting site in India. All the present records indicating the roosting sites of the species are mainly deciduous forest trees, as mentioned above. Thus this sighting proves to be the first record of the use of mangrove habitat as a roosting site by the *Pteropus giganteus* in India.

Pteropodids or Megachiropteras (Fruit bats) or flying foxes are observed to be roosting in a wide range of habitats which even includes mangroves (Regents of the University of Michigan 2014). The Common Flying Fox *Pteropus vampyrus* and the Island Flying Fox *Pteropus hypomelanus* are largely observed to be roosting on the mangroves in the Southeast Asia (Fujita 1988). Colonies of the rare East Coast Free-tail Bat *Mormopterus norfolkensis* can also be found roosting on grey mangroves

Avicennia marina in southeastern Australia (McConville et al. 2013). Grey-headed Flying-fox *Pteropus poliocephalus*, Black Flying-fox *Pteropus alecto* and Little Red flying-fox *Pteropus scapulatus* have also been documented to be roosting on mangroves in Australia (Rainforest CRC 2006; Brisbane City Council 2010).

Flying foxes also display a unique symbiotic interaction with mangroves as they are identified to be the key pollinators and seed dispersers for the mangroves in many parts of the world (Kathiresan & Bingham 2001; Ashraf & Habjoka 2013). Thus bats play a significant role in the propagation of mangroves indirectly contributing towards its conservation. As per Ashraf & Habjoka (2013) destruction of mangroves are considered to be the key threat today for fruit bats in the Indo-West-Pacific biogeographic realm.

Today, very few studies related to the interactions between bats and mangroves have been documented, while the only few record such as published by Sandhilya (2007), mentions that mangroves supports mammals like fruit bats. But more detailed studies are definitely required in order to understand the interactions of bats and mangroves in India which would ultimately lead to the conservation of not only the bat species but also the mangrove habitat.

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