

ADDITIONAL RECORDS OF CANTOR'S LEAF-NOSED BAT *HIPPOSIDEROS GALERITUS* CANTOR, 1846 (MAMMALIA: CHIROPTERA: HIPPOSIDERIDAE) IN EASTERN INDIA: ODISHA

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The Cantor's Leaf-nosed Bat *Hipposideros galeritus* Cantor, 1846 is one of the 81 species of leaf-nosed bats (Hipposideridae) found worldwide (Wilson & Reeder 2005). It is widely distributed in South Asia and Southeast Asia (Francis et al. 2008) and has been recorded from Bangladesh, Borneo, Cambodia, India, Indonesia, Lao PDR, Malaysia, Sri Lanka, Thailand and Vietnam (Bates & Harrison 1997; Molur et al. 2002). This species is categorized as 'Least Concern' in the IUCN Red List of Threatened Species (Francis et al. 2008). The species is mostly found in dry to wet lowland forests

and prefers to roost inside old mines, cracks, culverts, crevices in old buildings, caves, among large boulders, overhanging ledges, tunnels, dungeons, forts, temples and churches (Bates & Harrison 1997); sometimes co-roosting with other bat species (Flannery 1995; Payne et al. 2005). It has been recorded from the sea level to an elevation of 1,100m (Molur et al. 2002).

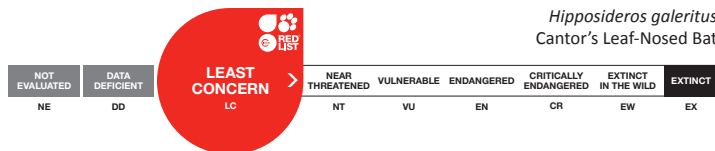
Cantor's Leaf-nosed Bat is a comparatively rare species in India and has been recorded from a few localities with a small colony size (Bates & Harrison 1997). It has been reported from Karnataka (Wroughton 1913; Brosset 1962), Gujarat (Ryley 1914; Wroughton 1918), Bihar (Wroughton 1915), Maharashtra (Brosset 1962), Madhya Pradesh (Khajuria 1970), and most recently from Andhra Pradesh (Srinivasulu 2004). Occurrence of this species in eastern India is very scarce and reported from only a single locality in Bihar (Wroughton 1915). So far 24 species of bats have been reported from Odisha, a coastal state of eastern India (Das et al. 1993; Debata et al. 2013). Here we present the first report on the occurrence of Cantor's Leaf-nosed Bat in Odisha and an additional distribution record in eastern India.

On 18 February 2012, while surveying the fauna of Bonai Forest Division in Sundergarh District, western Odisha, we observed a single individual of the species



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Hipposideros galeritus
Cantor's Leaf-Nosed Bat



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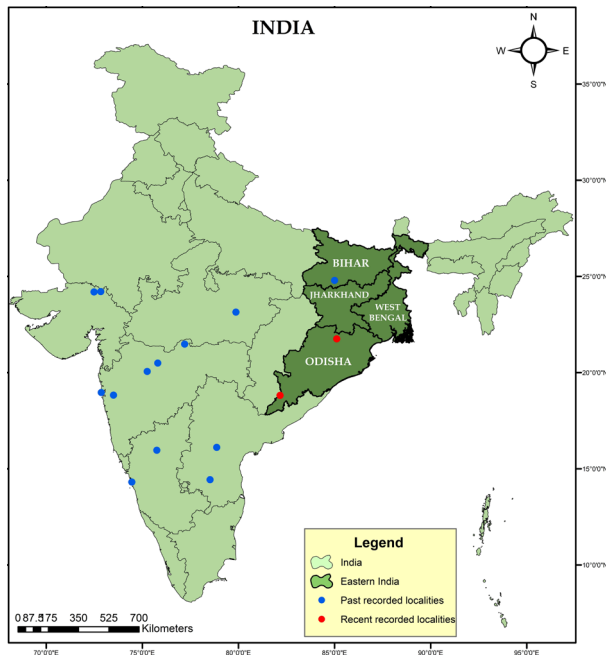


Figure 1. Map showing detailed recorded localities of *Hipposideros galeritus* in India

in a cave ($21^{\circ}45'39.43''\text{N}$ & $85^{\circ}06'50.01''\text{E}$) at the base of Khandadhar Waterfall at an elevation of 408m (Fig. 1). Vegetation of the area comprises the northern tropical moist deciduous forest. During another occasion on 28 October 2014, while surveying bats in Koraput District, southern Odisha, we observed this species in a lime stone cave ($18^{\circ}49'15.42''\text{N}$ & $82^{\circ}10'0.21''\text{E}$; elevation 457m) at Gupteswar co-roosting with *Hipposideros ater* at a height of 3m from ground (Fig. 1). Gupteswar lies within the Eastern Ghat hill range extensions in Odisha adjoining Kanger Valley National Park of the neighbouring state Chhatisgarh. Vegetation of the area is of mixed moist deciduous forest type.

This species is distinguished from other congeners in having dark brown pelage and nose leaf simple along with two pairs of well-developed supplementary lateral leaflets (Image 1). The anterior leaf has no median emargination whereas the intermediate leaf is simple with a slightly convex superior border. The posterior leaf is equipped with three well-developed septa dividing it into four distinct cells. The ears are triangular in shape being broad at the base. About two-third of the back of ears is covered with thick fur. Based on the above characters and the detailed external morphological measurements (Table 1), the species was confirmed as *Hipposideros galeritus* (Image 2) using the identification keys by Bates & Harrison (1997) and Srinivasulu et al. (2010). No specimens were collected.

Occurrence of this microchiropteran species from



Image 1. *Hipposideros galeritus* from Gupteswar caves in Odisha



Image 2. Head of *Hipposideros galeritus* showing two pairs of supplementary leaflets

Odisha has presumably been overlooked by previous workers. The lack of systematic surveys in many parts of Odisha and the Eastern Ghats has resulted in a biased understanding of distribution of many species across the Indian subcontinent, which is evident from the recent faunal inventories (Mohapatra et al. 2010, 2014; Agarwal et al. 2013; Debata et al. 2013; Paley 2014). In the present note herewith we are reporting occurrence of the species for the first time from Odisha from two localities namely Bonai and Gupteswar area with additional distribution records in eastern India. We recommend that the chiropteran diversity of Odisha be assessed, and targeted surveys be carried out for further inventories, particularly in the Eastern Ghats.

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Table 1. Detailed morphological measurements of *H. galeritus*

External characters	Morphological measurements of the three individuals (in mm) (not collected)			Average length (in mm)
	Khandadhar	Gupteswar	Gupteswar	
Forearm	46	46.4	46.5	46.3
Head Body	51	50.3	51.7	51
Hind foot	5	5.3	5.3	5.2
Tail	31.2	31.5	32.1	31.6
Ear	15	14.4	15.3	14.9
3 rd mt	35.8	35.7	36.2	35.9
4 th mt	35.4	35.1	35.4	35.3
5 th mt	31.9	32.3	33	32.4
1ph 3 rd mt	14.2	14	14.1	14.1
2ph 3 rd mt	19.1	19.2	19.3	19.2
1ph 4 th mt	9.9	10.1	10	10
2ph 4 th mt	9	8.8	8.9	8.9

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