

RECORDS OF *MEGAEROPS NIPHANAE* YENBUTRA & FELTEN, 1983
(MAMMALIA : CHIROPTERA : PTEROPODIDAE), *HIPPOSIDEROS*
LANKADIVA KELAART, 1850 AND *HIPPOSIDEROS ARMIGER*
ARMIGER (HODGSON, 1835) (CHIROPTERA
RHINOLOPHIDAE) FROM MANIPUR,
INDIA, WITH TAXONOMIC NOTES

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Faunistic surveys were conducted in Manipur, specially for mammals, during March and November-December, 1992, by the Zoological Survey of India. The collection thus obtained contains several species of bats, of which, three, namely, *Megaerops niphanae* Yenbutra & Felten, *Hipposideros lankadiva* Kelaart and *Hipposideros armiger armiger* (Hodgson) were found to be unrecorded from that state (Blanford 1891, Roonwal 1950, Ellerman and Morrisson-Scoot 1966, Agrawal *et al.* 1992). Hence, they are reported hereunder. In addition, taxonomic remarks and distribution of these bats have been given.

External measurements have been taken in the field and the skull-measurements in the laboratory. All measurements are in millimeters and have been taken after Khajuria (1953), except cranial rostrum and the rostral height at front of c^1 which have been taken after Sinha (1969) and Yenbutra & Felten (1983), respectively.

SYSTEMATIC ACCOUNT

Order : CHIROPTERA

Family : PTEROPODIDAE

***Megaerops niphanae* Yenbutra & Felten, 1983 Niphan's Fruit Bat**

1983. *Megaerops niphanae* Yenbutra & Felten, *Senckenberg. biol.*, 64 : 2 (Sakaerat Environmental Research Station (14°30' N—101°56' E), Amphoe Pak Thong Chai, Prov. Nakhon Ratchasima, Thailand).

Material examined : Manipur : Tamenglong district 1 ♂, Tamenglong (*c* 1280 m), coll. Ajoy K. Mandal, 22 Nov 1992 (in spirit, skull extracted), Zoological Survey of India Registration Number (ZSI Reg. No.) 23904. Imphal district : 1 ♀, Uchathol (*c* 175 m), coll. Ajoy K. Mandal, 28 Nov 1992 (in spirit, skull extracted), ZSI Reg. No. 23905.

Measurements : External : 1 ♂, 1 ♀ : length of forearm 59.4, 59.0 ; length of ear 19.2, 17.5 ; length of tibia 23.0, 22.7 ; length of foot and claw 14.0, 14.0. Cranial : 1 ♂, 1 ♀ : greatest length 28.0, 26.3 ; cranial rostrum 6.3, 6.3 ; length of maxillary tooth-row 8.6, 8.3 ; canine width 5.7, 5.3 ; least interorbital width 5.0, 5.0 ; cranial width 12.4, 12.0 ; zygomatic width 17.8, 17.6 ; molar width 8.3, 7.9 ; mandibular length 20.0, 19.0 ; rostral height at front of c^1 4.4, 4.4.

Distribution : *Megaerops niphanae* was described from northern Thailand (Yenbutra & Felten 1983). The occurrence of this species in Vietnam and Pashok (Darjiling district, West Bengal), India, was confirmed by Koopman (1989). The present specimens therefore, constitute the first record of *Megaerops niphanae* from Manipur, and extend its distributional range further south-eastwards in India.

Remarks : Wroughton (1916) reported a specimen from Pashok, as *Cynopterus sphinx* which was subsequently identified by Hill (1983) as *Megaerops ecaudatus* (Temminck), with some hesitation. Hill (1983) also treated specimens from northern Thailand and Vietnam in the same manner. Koopman (1989) confirmed the specimen from Pashok as *Megaerops niphanae*. He also mentioned a specimen from Vietnam (present in the American Museum of Natural History) as *M. niphanae*. Incidentally, *M. niphanae* is the largest among the four species known thus far of the Indo-Malayan genus *Megaerops*.

Both the specimens were collected at night with the help of nylon mist nets, and were found to be entangled in the uppermost tier of the nets at a height of about 4.5 m above the ground. The habitat at Temenglong was undulating hilly terrain with bushes and a banana plantation. Two nets were set up in a V-shaped manner alongside the banana plantation. A large number of *Cynopterus* sp. were also caught in these nets. In Uchathol, nets were set up on the hill-slope with *Lantana* bushes around. Besides *Megaerops niphanae*, individuals of *Cynopterus* sp. and *Pipistrellus* sp. were also caught in the nets. *M. niphanae* was found to be less noisy than *Cynopterus sphinx* and when disturbed, emitted a call somewhat reminiscent of the call of that species, but with less harshness.

Family : RHINOLOPHIDAE

Subfamily : HIPPOSIDERINAE

Hipposideros lankadiva Kelaart, 1850

Sri Lanka Gigantic Leaf-nosed Bat,

Kelaart's Leaf-nosed Bat

1850. *Hipposideros lankadiva* Kelaart. *J. Ceylon Branch R. Asiatic Soc.*, 2 : 216 (Kandy, Ceylon = Sri Lanka).

Material examined : Manipur : Imphal district : 1 ♀, Jiribam (c 175 m), coll. A. K. Poddar, 19 Mar 1992 (in spirit, skull extracted), ZSI Reg. No. 23902.

Measurements : External : 1 ♀ : length of forearm 86.5 ; length of ear 24.0 ; length of tibia 36.0 ; length of foot and claw 15.0. Cranial : 1 ♀ ; greatest length 32.5 ; condylocanine length 27.9 ; length of maxillary tooth-row 11.7 ; canine width 8.0 ; least interorbital width 3.4 ; cranial width 13.7 ; zygomatic width 19.3 ; molar width 12.8 ; mandibular length 23.0.

Distribution : *Hipposideros lankadiva* is known from Sri Lanka and India (Karnataka, Maharashtra, Madhya Pradesh, Orissa, West Bengal and Meghalaya) (Agrawal *et al.* 1992). Hence, the present specimen constitutes the first authentic record of the species from Manipur, and also extends its distributional range eastwards.

Remarks : Ellerman & Morrison-Scott (1966) recognised three subspecies of *Hipposideros lankadiva* from the Indian mainland, *viz.*, *H. l. indus*, *H. l. mixtus* and *H. l. unitus*. Brosset (1962) did not consider the variation in colour in the present species as zoogeographically related and he considered this species as monotypic. Hill (1963) has maintained all the mainland subspecies of *lankadiva*. Under the circumstances, further study of fresh material from the entire range of distribution of the species is very much necessary to reach to a definite conclusion.

The specimen was collected with the help of mist nets placed on hill-top with rubber plantations. It was found entangled in the net, at about midnight, 3 m above the ground level along with specimens belonging to the genera *Cynopterus* and *Pipistrellus*.

***Hipposideros armiger armiger* (Hodgson, 1835)**

Great Himalayan Leaf-nosed Bat

1835. *Rhinolophus armiger* Hodgson, *J. Asiat. Soc. Beng.*, 4 : 699 (Nepal).

Material examined : Manipur : Tamenglong district : 1 ♀ , Tharon Cave (30 Km North of Tamenglong, c 1,280 m. coll. Ajoy K. Mandal, 23 Nov 1992 (in spirit, skull extracted but damaged), ZSI Reg. No. 23903.

Measurements : External : 1 ♀ : length of forearm 89.1 ; length of ear 26.0 ; length of tibia 37.6 ; length of foot and claw 16.5.

Distribution : *Hipposideros armiger armiger* is known from Nepal ; India (Uttar Pradesh, Sikkim, West Bengal, Assam, Meghalaya) ; Burma ; southeastern China ; Hong Kong ; Vietnam ; Thailand ; Malay Peninsula and nearby islands (Agrawal *et al.* 1992). Hence, the present specimen constitutes the first record of the species from Manipur and extends its distributional range southeastwards, in India.

Remarks : Ellerman & Morrison-Scott (1966) recognised six subspecies of *Hipposideros armiger*, of which, Hill (1963) has synonymised *swinhoii* Peters and *debilis* Andersen with the nominate subspecies.

This specimen was collected from Tharon Cave (a limestone cave, 30 Km North of Tamenglong), where a colony of this species exists. The bat was collected by striking with a stick when it was flying. Two albino specimens of this from were also noticed which could not be collected. No other species of bats could be located in the cave.

SUMMARY

Megaerops niphanae, *Hipposideros lankadiva* and *Hipposideros armiger armiger* have been recorded for the first time from Manipur, India. Their locality, measurements, distribution and taxonomic remarks have been appended.

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