

## NEW RECORDS OF BATS FROM NAGALAND, INDIA

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### INTRODUCTION

In connection with the study of mammalian fauna of Nagaland, faunistic surveys were undertaken during September-October, 1996; March-April, 1997; November, 1977 and March-April, 1998. The collection made during these surveys contain several species of bats of which five, viz. *Megaerops niphanae* Yenbutra and Felten, *Taphozous longimanus longimanus* Hardwicke, *Megaderma lyra lyra* Geoffroy, *Rhinolophus lepidus lepidus* Blyth and *Pipistrellus dormeri* (Dobson) have not yet been recorded from the present State of Nagaland (Blanford 1891, Mills 1923, Hinton and Lindsay 1926, Ellerman and Morrison Scott 1966, Lekagul and McNeely 1977, Corbet and Hill 1992, Agarwal *et al.* 1992, Wilson and Reeder 1993, Das *et al.* 1995, Bates *et al.* 1997, Sinha 1999). Since the final report on the faunal account of the State will take some more time for completion, it was considered worthwhile to publish the new distributional records of these bats hereunder.

External measurements have been taken in the field from freshly killed specimens and skull measurements in the laboratory. All measurements are in millimetres and have been taken after Khajuria (1953).

List of abbreviations used for various measurements :

- c<sup>1</sup>-c<sup>1</sup> = distance between outer surface of upper canines;
- ccl = condylocanine length;
- cw = cranial width;
- E = length of ear;
- Fa = length of forearm;
- F & Cl = length of foot and claw;
- iw = least interorbital width;
- l = greatest length of skull;
- m<sup>3</sup>-m<sup>3</sup> = distance between outer surface of third upper molars;
- ml = mandibular length;
- mtr = length of maxillary tooth-row;
- Tb = length of tibia;

TI = length of tail;  
 zw = zygomatic width.

### SYSTEMATIC ACCOUNT

Order CHIROPTERA

Family PTEROPODIDAE

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

1983. *Megaerops niphanae* Yenbutra & Felten, *Senckenberg Biol.* 64 : 2 (Thailand).

*Material examined* Nagaland Kohima district 1♂, 2♀ Kohima, 7.iv.1998; 2♂ : Dimapur, 5.iv.1998. Mokokchung district 2♂, 2♀ Mokokchung, 14.xi.1997, 3.iv.1997, coll. J. P. Srivastava.

*Measurements* External : 2♂ : Fa 59.0, 60.2; E 18.0, 18.4; Tb 22.5, 24.2; F & CI 12.5, 13.5. 2♀ Fa 60.0, 61.2; E 17.9, 18.1; Tb 12.8, 13.0; F & CI 13.0, 13.5. Cranial 1♂, 1♀ l 28.1, 28.8; ccl 23.9, 25; mtr 9.0, 9.1; c'-c' 5.5, 5.6; iw 5.3, 5.8; cw 12.1, 12.3; zw 17.9, 18.2; m<sup>1</sup>-m<sup>2</sup> 8.4, 8.5; ml 20.6, 21.0.

*Distribution* : Within the Indian limits, *Megaerops niphanae* is known only from Pashok (Darjeeling district, West Bengal, India). Mandal *et al.* (1993 & 1997) recorded it from Manipur and Mizoram respectively. The present specimens, therefore, constitute the first record of this species from Nagaland.

Family EMBALLONURIDAE

#### *Taphozous longimanus longimanus* Hardwicke, 1825 (Long-armed Sheath-tailed Bat)

1825. *Taphoyous longimanus* Hardwicke, *Trans. Linn. Soc. London*, 14 : 525, Calcutta, Bengal, India.

*Material examined* Nagaland Kohima district : 1♂ Dimapur, 24.ix.1996, coll. J. P. Srivastava.

*Measurements* External 1♂ Fa 58.5; TI 11.5; E 12.1, Tb 25.0; F & CI 11.8. Cranial : 1♂ : l 20.9; c'-c' 4.8; iw 5.8; cw 10.5; zw 12.7; m<sup>1</sup>-m<sup>2</sup> 8.5; ml 15.5.

*Distribution* This species is widely distributed in the Indian peninsula; northwards to Gujarat and Rajasthan on the west and West Bengal, Assam (Sinha 1996) and Tripura on the east. Hence, the specimen constitutes the first authentic record of this species from Nagaland.

Family MEGADERMATIDAE

#### *Megaderma lyra lyra* Geoffroy, 1810 (Indian False Vampire)

1810. *Megaderma lyra* E. Geoffroy, *Ann. Mus. Hist. nat. Paris*, 15 : 190 (India, probably Madras, Madras district, Tamil Nadu).

**Material examined** : Nagaland : Kohima district : 2♂; 1♀ : Kohima, 22.iii.1997; 2♀ : Dimapur, 22.ix.1996; coll. J. P. Srivastava.

**Measurements** : External : 1♂, 1♀ : Fa 63.0, 62.0; E 37.0, 36.0; Tr 16.2, 16.4; Tb 33.0, 34.0; F & Cl 20.2, 19.5. Cranial : 1♂, 1♀ : l 29.2, 28.9; mtr 11.6, 11.0; c'-c' 5.5, 5.3; iw 5.2, 5.0; cw 12.5, 12.4; zw 16.2, 16.1; m<sup>3</sup>-m<sup>3</sup> 10.3, 10.1; ml 19.7, 19.2

**Distribution** : This species is widely distributed throughout Indian mainland from Jammu & Kashmir to Cape Comorin and from Gujarat to Assam (Hinton & Lindsay 1926) and Arunachal Pradesh (Chakraborty & Sen 1991; Sinha 1999). The present specimens, therefore constitute the first authentic record of this species from Nagaland.

Family : RHINOLOPHIDAE

***Rhinolophus lepidus lepidus*** Blyth, 1844 (Little Indian Horse-shoe Bat)

1844. *Rhinolophus lepidus* Blyth. *J. Asiat. Soc. Beng.*, 13 : 486 (Vicinity of Calcutta, West Bengal, India).

**Material examined** : Nagaland : Wokha district : 1♂ : Wokha, 25.ix.1996, coll. J. P. Srivastava.

**Measurements** : External : 1♂ : Fa 38.2; E 14.7; Tb 16.0; F & Cl 7.5; Cranial 1♂ : l 16.0; ccl 13.8; mtr 6.0; c'-c' 3.9; iw 2.3; cw 6.5; zw 7.9; m<sup>3</sup>-m<sup>3</sup> 5.3; ml 10.0.

**Distribution** : In India, *Rhinolophus lepidus lepidus* has been recorded from Delhi, Rajasthan, Uttar Pradesh, Madhya Pradesh, Maharashtra, Karnataka, Kerala, Tamil Nadu, Andhra Pradesh, Orissa, Bihar, West Bengal, Assam (Kurup 1968), Meghalaya and Mizoram (Mandal *et al.* 1997). The present specimens thus constitute the first authentic record of this species from Nagaland.

Family : VESPERTILIONIDAE

***Pipistrellus dormeri*** (Dobson, 1875) (Dormer's Bat)

1875. *Scotozous dormeri* Dobson, *Proc. zool. Soc. Lond.*, 373 (Bellary Hills, Bellary district, Karnataka, India).

**Material examined** : Nagaland : Kohima district : 1♂ : Kohima, 23.iii.1997, coll. J. P. Srivastava.

**Measurements** : External : 1♂ : Fa 35.6; E 11.9; Tb 13.8; F & Cl 8.3. Cranial : 1♂ : l 14.6; mtr 5.4; c'-c' 4.8; iw 4.3; cw 8.2; zw 9.8; m<sup>3</sup>-m<sup>3</sup> 7.1; ml 10.1.

**Distribution** : Within the Indian limits, this species is known to be widely distributed from Jammu & Kashmir south at least to Karnataka and from Gujarat east to West Bengal and very recently from Meghalaya (Sinha 1995), Manipur and Mizoram (Mandal *et al.* in press). This specimen therefore constitute the first authentic record of this species from Nagaland.

### SUMMARY

Five species of bats namely, *Megaerops niphanae*, *Taphozous longimanus longimanus*, *Megaderma lyra lyra*, *Rhinolophus lepidus lepidus*, *Pipistrellus dormeri* have been recorded for the first time from Nagaland, India. Their collection locality, measurements and distribution in India have been given.

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