

MAMMALIA

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The mammal material is comprised of 20 species belonging to 15 genera and 8 families including a new genus and new species of flying squirrel, described in details elsewhere (Saha, 1982) and some interesting forms.

Classification, in general, has been adopted after Ellerman & Morrison-Scoot (1966) unless otherwise stated. External measurements, except that of the wet chiropterans, were all taken in the field.

Abbreviations used in the text are as follows :

H&B	— Head and body	Fa	— Forearm
Tl	— Tail	E	— Ear
Hf	— Hindfoot	GrWs	— Greatest Wing span

TAXONOMIC ACCOUNT

Order : INSECTIVORA

Family : SORICIDAE

1. ***Suncus murinus soccatus*** (Hodgson)

Sorex soccatus Hodgson, 1845. *Ann. Mag. nat. Hist.*, 15 : 270.

Type Locality : Central Nepal.

Material examined : 1 ♂, 1 ♀ ; all wet, taken from Hornbill Camp on 11.iv.1981.

<i>Measurements</i> :	♂	♀
H&B	126.5	114.3
Tl	75.5	61.5
Hf	19.5	18.1
E	10.6	10

Mammae : 3 pairs, inguinal.

Remarks ; Trapped near a hill stream.

2. *Suncus fulvocinereus* (Anderson)

Crocidura (Pachyura) fulvocinereus Anderson, 1877. *J. Asiat. Soc. Beng.*, 46 : 263.

Type Locality : Gauhati, Assam.

Material examined : 1 ♂, dry-skin and skull, taken from Deban on 8.iv.1981.

Measurements : H& B 104.5, Tl 77.5, Hf 11.5, E 14.

Remarks : Trapped near a hill stream. The specimen is not fully matured. Ossification of the cranium is thin and cusps of the teeth are much prominent and least worn. Here, it is treated as a distinct species for its incisors being altogether different from those of the *Suncus murinus* (Linnaeus), although, Ellerman & Morrison-Scott (1966) treated this form as a subspecies of that form.

Family : TUPAIDAE

3. *Tupaia glis assamensis* Wroughton

Tupaia belangeri assamensis Wroughton, 1912. *J. Bombay nat. Hist. Soc.*, 27 : 599.

Type Locality : Mokokchung, Nagaland.

Material examined : 1 ♀; dry-skin and skull, taken from Gibbonsland on 30.iv.1981.

Measurements : H&B 168, Tl 90+, Hf 45, E 16.

Mammae : 3 pairs, one each on thorax, abdomen and preinguinum.

Remarks : The tree shrews were fairly common in the terrain but were elusive of being confused with the diurnal squirrels that also occupied a similar niche.

Most of the recent authors considered the family Tupaiidae belonging to the order Primates and some have revived the proposition to keep it under a distinct order. Here, it is retained under the order Insectivora following Ellerman & Morrison-Scott (1966).

Order : CHIROPTERA

Family : PTEROPODIDAE

4. *Cynopterus angulatus* Miller

Cynopterus angulatus Miller, 1898. *Pave. Acad. nat. Sci. Philad.*, 316.

Type Locality ; Trang, Lower Siam.

Material examined : 22 ♂, 24 ♀ ; all wet, taken from Firmbase

Camp on 19.iv.1981, from Namdapha Camp on 22.iv.1981, from Gibbonsland on 29, 30.iv & 2.v.1981. One from Farmbase camp and two from Gibbonsland have fully grown foetus.

<i>Measurements :</i>	♂	♀
	Fa 64.3-72.2,	66.8-72.8
	E 17.7-21.3,	17 -22.4

Remarks : Miller's Short-nosed Fruit-Bat has been treated as a subspecies of *Cynopterus brachyotis* in Ellerman & Morrison-Scott (1966) but Hill & Thonglongya (1972) treated it as a subspecies of *Cynopterus sphinx*. Here, it is treated as a distinct species as has been done on earlier occasions, pending to detailed studies.

5. *Megaerops ecaudatus* (Temminck)

Pachysonia ecaudatus Temminck, 1837. *Mon. Mamm.* 2 : 94.

Type Locality : Padang, Western Sumatra.

Material examined : 2 ♀ ; wet and dry, taken from Gibbonsland on 30.iv.1981.

<i>Measurements :</i>	H&B 84, 90	Fa 59.6, 62.7
	E 18.5, 19	GrWS —, 424

Remarks : The genus and the species have been, so far, recorded from Indonesia, Malaysia, Thailand and Vietnam. Saha (in press) recorded their occurrence in Namdapha on the basis of the present material that constitute a new record for the Indian subregion and an addition to the mammalian (Chiroptera) faunal list and extending the distributional range further northwestwardly in Arunachal Pradesh in India.

6. *Sphaerias blanfordi* (Thomas)

Cynopterus blanfordi Thomas, 1891. *Ann. Mus. Ster. nat. Geneva*, 2, 10 : 884, 921-922.

Type Locality : Leito, Cheba, Karin Hill.

Material examined : 3 ♂, 5 ♀ ; wet and dry, taken from Gibbonsland on 29, 30.iv. & 2.v.1981, and from Chiria Camp on 25.iv.1981.

<i>Measurements :</i>	♂	♀
	H&B 89 — —	89.5, — — —
	Fa 555, 56(2)	51.7, 52.3, 55.2, 55.3, 60.5
	E 17.3, 18, 19	16.1, 16.4, 17.9, 18.3, 19.5
	GrWS 371, — —	414, — — —

Remarks : Until recently, the species was known to range in Burma and Siam (=Thailand). Bhatt (1968) obtained it for the first time in Uttar Pradesh. Chakraborty (1975) reported it for the first time in Bhutan. These material add further localities in Arunachal Pradesh, India.

7. *Macroglossus minimus* (Geoffroy)

Pteropus minimus Geoffroy, 1810. *Ann. Mus. nat. Hist. Paris*, 15 : 97.

Type Locality : Java.

Material examined : 1 ♂, 3 ♀; wet and dry, taken from Gibbonsland on 29, 30.iv.1981 and from Miao on 5.v.1981.

<i>Measurements</i> :	♂	♀
H&B	79	84, 89, —
Tl	3.5	5.5, —, 5.2
Fa	44	52, 47, 47.5
E	16	15, 16.5, 17
GrWS	331	332, 336, —

Remarks : The species has been recorded to range from Java, Bali and adjacent islands northwestwardly through Sumatra, Malay Peninsula and Tenasserim to Darjeeling in West Bengal, India. The present finding confirms its occurrence in northeastern part of the Himalayas.

Notes : All the species of fruitbats, listed above were found to be common in Namdapha area, so much so that they foul the mist nets when set in night.

Order : CARNIVORA

Family : MUSTELIDAE

8. *Martes flavigula flavigula* (Boddaert)

Mustela flavigula Boddaert, 1785. *Elench. Anim.* 88.

Type Locality : Unknown but Pocock (1941) fixed as Nepal.

Material examined : 1 ♀; dry-skin and skull, taken from Hornbill Camp on 14.iv.1981.

Measurements : H&B 480, Tl 395, Hf 94, E 38

Mammae : 2 pairs, abdominal.

Remarks : This species has been reported to be fond of preying on the Barking Deer. This animal was found to be actually preying on a

fawn of the Barking Deer. At about 10 hours in the morning, the animal held the victim on its throat when the carotids and the windpipe got choked by the powerful canines of the predator and was killed by strangulation. This animal was collected while it was in action as stated above.

9. **Melogale moschata millsii** (Thomas)

Helictis millsii Thomas, 1923. *J. Bombay nat. Hist. Soc.*, 28 : 432.

Type Locality : Mokokchung, Nagaland.

Material examined : 1— ; Skull and skeleton (remains of a carcass), taken from Namdapha Camp on 20.iv.1981.

Remarks : The carcass of the specimen was found to be laying on the right bank of the Noa Dihing river opposite the Namdapha Camp, and about two metres away from the water line.

Family : FELIDAE

10. **Felis bengalensis horsfieldii** (Gray)

Leopardus horsfieldii Gray, 1842. *Ann. Mag. nat. Hist.*, 10 : 260.

Type Locality : Bhutan.

Material examined : 1 ♂, dry-skin and skull, taken from Gibbonsland on 29.iv.1981.

Measurements : H&B 472, Tl 272, Hf 114, E 46.

Order : ARTIODACTYLA

Family : CERVIDAE

11. **Muntiacus muntjak** (Zimmermann)

Cervus muntjak Zimmermann, 1780. *Georg. Gesch.*, 2 : 131.

Type Locality : Java.

Material examined : 1 ♂ (fawn of about two months old) ; dry-skin and skull, taken from Hornbill Camp on 14.iv.1981.

Remarks : The specimen was found to be killed by strangulation by a Yellow-throated Martin as referred under that species.

12. **Axis porcinus** (Zimmermann)

Axis porcinus Zimmermann, 1780. *Georg. Gesch.*, 2 : 131.

Type Locality : Bengal.

Material examined : A pair of shed antlers taken from Firmbase Camp on 16.iv.1981.

Order : RODENTIA

Family : SCIURIDAE

13. **Biswamoyopterus biswasi** Saha

Biswamoyopterus biswasi Saha, 1982. *Bull. zool. Surv. India*, 4(3) : 331-336.

Type Locality : Deban, Namdapha, Tirap District, Arunachal Pradesh, India.

Material examined : 1 ♂ ; dry-skin, skull and baculum, taken from Deban on 27.iv.1981. (Being the Holotype).

Measurements : H&B 405, Tl 605, Hf 78, E 46.

Remarks : The genus and the species are newly described taxa by Saha (1982). This monotypic genus is another example like *Aeromys* Robinson & Kloss, 1915, that abridges the giant flying squirrels and the smaller flying squirrels ; to the former by the presence of inter-femoral membrane and non-distichous, cylindrical tail. and with the latter by much simplified, brachydont molariform teeth. It has but several other taxonomic characters that are typical to several distinct genera, of which the presence of ear tufts and the last upper premolar being larger than first upper molar are similar to those in *Belomys* Thomas, 1908 and *Trogopterus* Heude, 1898. And it has the unique feature of the incisors being white and not red as in all other flying squirrels.

14. **Petaurista candidulus** Wroughton

Petaurista candidulus Wroughton, 1911. *J. Bombay nat. Hist. Soc.*, 20(4) : 1014, 1022.

Type Locality : Kindat, Western Burma.

Material examined : 1 ♂, 4 ♀ ; dry-skin, skull and baculum, taken from Deban on 7.iv.1981; from Zero Camp on 9.iv.1981, from Hornbill Camp on 11.iv.1981 and from Miao on 6.v.1981.

<i>Measurements</i> :	♂	♀ ♀
H&B	460	455, 485, 488, 495
Tl	570	630, 595, 612, 681
Hf	88	91, 86, 91, 96
E	51	50, 50, 51, 53

Mammae : 3 pairs.

Remarks : This flying squirrel was found to be fairly common in Namdapha area and sympatric with the Namdapha Flying squirrel, *Biswamoyopterus biswasi* Saha. This species has been treated as a subspecies of *Petaurista alborufous* Milne-Edwards, 1870 in Ellerman (1949, 1961). and in Ellerman & Morrison-Scott (1966). Here, it is treated as a distinct species following Wroughton (1911).

15. *Callosciurus erythraeus intermedius* (Anderson)

Sciurus gordonii var. *intermedia* Anderson, 1978. *Zool. Anat. Res. Yunnan* : 241.

Type Locality ; Dikrang Valley, Assam.

Material examined : 1 ♀ ; dry-skin and skull, taken from Hornbill Camp on 15.iv.1981.

Measurements : H&B 230, Tl 222, Hf 60, E 22.

Mammae : 2 pairs.

Remarks : Due to the lack of incipient black tail tip unlike in allied subspecies of the red-bellied squirrels and also due to presence of the reddish agouti on dorsal pelage including the ears, this form is readily distinguished.

16. *Callosciurus gordonii* (Anderson)

Sciurus gordonii Anderson, 1871. *Proc. Zool. Soc. Lond.*, : 140.

Type Locality : Bhamo, Upper Burma.

Material examined : 1 ♂ ; dry-skin and skull, taken from Gibbonsland on 2.v.1981.

Measurements : H&B 195, Tl 210, Hf 54, E 22

Remarks : This form has been treated as a subspecies of *Callosciurus erythraeus* (Pallas) in Ellerman (1961) and in Ellerman & Morrison-Scott (1966). Moor & Tate (1965) treated it as a subspecies of *Callosciurus flavimanus* (Geoffroy). The red bellied squirrels of the Indo-Burmese and adjacent areas require a thorough investigation with adequate field data for taxonomic purposes. Precisely, the multiple forms described from this region pose a complicated affair due to meagre knowledge of geographic distribution of each form. Pending to further studies, this form is retained here as a distinct species for its characteristic coloration, specially that of the underside.

17. *Callosciurus pygerythrus stevensi* (Thomas)

Sciurus stevensi Thomas, 1908. *J. Bombay nat. Hist. Soc.*, 18 : 246.

Type Locality : Beni Chung, Abor-Miri Hills (= Arunachal Pradesh, India).

Material examined : 2 ♂, 5 ♀ ; dry-skin, skull and baculum, taken from Firmbase Camp on 19.iv.1981, from Namdapha Camp on 20.iv.1981, from Gibbonsland on 1.v.1981, and from Miao on 4 & 6.v.1981.

<i>Measurements</i> :	♂ ♂	♀ ♀
H&B	205, 215	190, 195, 195, 200, 205
Tl	210, 185	210, 155, 205, 130, 190
Hf	50, 48	44, 41, 48, 45, 45
E	20, 22	21.5, 21, 22, 21, —

Mammae : 2 pairs.

Remarks : The reddish yellow thigh patch was present in two females taken from Miao and in summer coat. The male from Miao, which is also in summer coat and the rest of the specimens in winter coat do not possess any thigh patch. Apparently, the thigh patch may be attributed to the females in summer coat only, that is, the presence of thigh patch is both a sexual and a seasonal affair.

18. *Tamiops mccllellandi mccllellandi* (Horsfield)

Sciurus mccllellandi Horsfield, 1839. *Proc. zool. Soc. Lond.*, 1839 : 152.

Type Locality : Assam.

Material examined : 1 ♂ ; dry-skin and skull, taken from Deban on 27.iv.1981.

Measurements : H&B 111, Tl 103, Hf 25, E 13.5.

Family : MURIDAE

19. *Rattus nitidus nitidus* (Hodgson)

Mus nitidus Hodgson, 1845. *Ann. Mag. nat. Hist.*, 15 : 267.

Type Locality : Nepal.

Material examined : 1 ♀ ; wet-skull extracted, taken from Deban on 27.iv.1981.

Measurements : H&B 166, Tl 170, Hf 34.5, E 22.

Mammae : 4 pairs.

20. *Rattus rattus tistae* Hinton

Rattus rattus tistae Hinton, 1918. *J. Bombay nat. Hist. Soc.*, 26 : 68.

Type Locality : Pashok, Darjeeling, West Bengal, India.

Material examined : 1 ♂, 2 ♀ ; wet-skull extracted and dry-skin and skull, taken from Gibbonsland on 29.iv.1981 & 2, 3.v.1981.

<i>Measurements</i> :	♂	♀ ♀
H&B	155	143, 152
Tl	180	170, 176
Hf	31	31, 31
E	21	21, 21.5

Mammae : 5 pairs.

Remarks : Apparently, this is a commensal form associated with the hutments.

SUMMARY

Mammalian Collection of the Namdapha Expedition 1981 by Zoological Survey of India belonging to 20 species, 15 genera and 8 families have been dealt with. Taxonomic account with annotations on field-notes have been furnished.

ACKNOWLEDGEMENTS

The author is thankful to Dr. B. K. Tikader, Director, Zoological Survey of India for all the facilities provided to work upon the collection. Thanks are due to Drs. V. C. Agrawal and S. Chakraborty for their taxonomic views and to Sarvashree P. K. Das, J. P. Lal and M. K. Ghosh for their valuable suggestions and also for the help rendered in laboratory work ; and, sincerely expresses the gratitude to Dr. Shyamrup Biswas and to Shree N. C. Gayen and Shree B. Ram with whom the author shared the pains and pleasures in course of the expedition in Namdapha National Park.

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