

## I. INTRODUCTION

The scope of work includes the cataloguing of specimens (Registration number, sex, nature of material, locality, collector or donor and date of collection or donation), their external and cranial measurements, remarks on variation or on taxonomic status wherever desirable and their distribution within the limits of the Indian subregion. The distribution is based on the material present in the National Zoological collections and the works of Blyth (1863), Sclater (1891), Wroughton (1919), Phillips (1933, 1935), Roonwal (1950), Ellerman and Morrison-Scott (1951), Biswas and Khajuria (1957), Ellerman (1963), Moore and Tate (1965), Kurup (1968), Tiwari and Biswas (1969), Khajuria and Ghose (1970), Agrawal (1973), Das and Agrawal (1973), Chakraborty (1975), Agrawal and Bhattacharyya (in press) and Agrawal and Chakraborty (1971, 1979).

This catalogue includes collections upto the year 1970. The number against each specimen refers to the registration number in the records of the Zoological Survey of India. All measurements are in millimeters. In case of skins, these have only been given when they have noted on fresh material by the collector. The cranial measurements have been taken afresh by us according to Ellerman (1963). The colour names given with initial capital letter are after Ridgway (1886).

## II. ACKNOWLEDGEMENT

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## III. THE ABBREVIATIONS USED IN THE TEXT

bul	length of bulla
cw.	cranial width
E	length of ear
HB	length of head and body
HF	length of hindfoot
iw	interorbital width
nas	length of nasal
on	occipitonasal length
orb	length of orbit

pal	length of palate
tl	length of tail
TR	length of toothrow
ZSI	Zoological Survey of India

#### IV. GEOGRAPHICAL GLOSSARY

In view of recent reorganisation of states within the Indian Union, and the change in names of some of the states and adjoining countries, a glossary of current names is given below to avoid confusion.

<i>Old name</i>	<i>Current name</i>
1. Assam	(i) Arunachal Pradesh' ( Kameng, Subansiri, Siang, Lohit and Tirap Frontier Divisions) (ii) Nagaland (Naga Hills) (iii) Meghalaya (Garo, Khasi and Jaintia Hills) (iv) Mizoram (Lushai Hills) (v) Assam ( plains of Brahmaputra in the north and extending up to Mizoram in the south )
2. Ceylon	Sri Lanka
3. East Pakistan	Bangladesh
4. Madras	Tamil Nadu
5. Mysore	Karnataka
6. Naga Hills	Nagaland
7. NEFA	Arunachal Pradesh
8. Punjab	(i) Punjab ( Amritsar, Bhatinda, Ferozepur, Gurdaspur, Hoshiarpur, Jullundur, Kapurthala, Ludhiana, Patiala, Rupar, Sangrur Dists. ) (ii) Himachal Pradesh ( Bilaspur, Chamba, Kangra, Kinnaur, Kulu, Lahul & Spiti, Mahasu, Mandi, Simla, Sirmur Dists.) (iii) Haryana (Ambala, Gurgaon, Hissar, Jind, Karnal, Mahendragarh, Rohtak Dists.)
9. Siam	Thailand
10. West Pakistan	Pakistan

V THE CATALOGUE

Family SCIURIDAE

1. **Belomys pearsoni pearsoni** ( Gray )

1842. *Sciuropterus pearsoni* Gray, *Ann. Mag. nat. Hist.*, **10** : 263. ( Darjeeling, West Bengal ).

*Material* :

9488	—	Skin ( Syntype of <i>Sciuropterus villosus</i> Blyth )	Assam	<i>F. Bonyage</i> ( 1845 ).
9489	—	Skin and Skull ( Syntype of <i>Sciuropterus villsus</i> Blyth )	Do	<i>Do.</i>
9770	—	Skin ( damaged )	Naga Hills, Nagaland	<i>H. H. Godwin Austen.</i>
9771	—	Skin ( damaged )	Cachar, Assam	<i>Mus. Collector.</i>

*Distribution* : INDIA : Sikkim, West Bengal ( Darjeeling ), Assam, Nagaland. BHUTAN.

2. **Belomys pearsoni trichotis** Thomas

1908. *Belomys trichotis* Thomas, *Ann. Mag. nat. Hist.*, **1** : 7 ( Machi, Manipur ).

*Material* :

9772	—	Skin ( damaged )	Yunnan, China	<i>J. Anderson.</i>
15030	♀ Juv.	Skin and Skull	Mt. Popa, Burma ( c 1512 m. )	<i>G.C. Shortridge</i> ( 1913 ).

*Measurements* :

External : Reg. No. 15030 : HB 154, tl 147, HF 36, E 20.

Cranial : Reg. No. 15030 : on 36. 8, pal 19, nas 10, TR 8.

*Remarks* : The dorsum, in the juvenile is light brown, grizzled with white ; tail brown in general, but mixed with white hairs in the proximal portion and tending to be dark in the medial. Venter almost white with bluish or yellowish tinge in some portions.

Skull sutures distinct ; interparietal well developed.

*Distribution* : INDIA : Manipur. BURMA : Yin, 64 Km West of Kalewa, Tonkin, Mt. Popa.

### 3. *Belomys pearsoni* ( Gray )

*Material* :

18669	♂ Juv.	Skin with Skull ( in spirit )	Ponse, Yunnan China.	<i>J. Anderson</i> ( 1836 ).
18670	♂ Juv.	Do	Do	<i>Do.</i>

*Remarks* : Specimens are too young to be identified up to subspecific level.

### 4. *Petaurista elegans gorkhali* ( Lindsay )

1929. *Sciuropterus gorkhali* Lindsay, *J. Bombay nat. Hist. Soc.*, 33 : 566. ( Gorkha, Nepal ).

*Material* :

14267	— Juv.	Skin with Skull ( in spirit )	Khumbu, Nepal ( c 3660 m. )	<i>B. Biswas</i> ( 15. v. 1954 ).
15051	♂	Skin and Skull	Apoon, Gorkha, Nepal	<i>N. A. Baptista</i> ( 25. iv. 1923 ).

*Measurements* :

External : Reg. No. 15051 : HB 330, tl 350, HF 64, E 42.

Cranial : Reg. No. 15051 : on 63.2 ; pal 31.6 ; nas 21.1 ; iw 12.1 ; orb 22.8 ; TR 14 ; bul 12.1.

*Remarks* : No. 14267 is juvenile ; molars are not erupted.

*Distribution* : NEPAL.

### 5. *Petaurista elegans* ( Miller )

*Material* :

12379	♂	Skin	Phalet, Singalila range, Darjeeling, W. Bengal	<i>B. Biswas</i> ( 28.xii. 1952 ).
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*Measurements* :

External : HB 318, tl 372, HF 65, E 40.

*Remarks* : The exact subspecific identification of the present specimen is not possible due to lack of skull. In external characters, however, it resembles '*gorkhali*' from Nepal.

6. *Petaurista alborufus alborufus* ( Milne-Edwards )

1870. *Pteromys alborufus* Milne-Edwards, *C. R. Acad. Sci. Paris*, **70** : 342 (Moupin, Szechuan, China).

*Material :*

15688	—	Skin (Syntype)	Moupin, Szechuan, China	<i>A. Phayre</i> (1844).
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7. *Petaurista alborufus candidulus* Wroughton

1911. *Petaurista candidulus* Wroughton, *J. Bombay nat. Hist. Soc.*, **20** : 1014 & 1022. ( Kindat, W. Burma ).

*Material :*

9719	—	Skull	Pegu, Burma	<i>J. Barbe</i> (1844).
9720	—	Skull	Samagooting, Nagaland	<i>J. Butler</i>
15058	♂	Skin and Skull	80 Km. N. of Kindat, U. Chindwin, Burma (c 1829 m.)	<i>J.M.D. Mackenzie</i> (26. iv. 1915).
15059	♀	Skin	48 Km. N. of Toungoo, Burma (c 152 m.)	<i>J.M.D. Mackenzie</i> (7. i. 1929).

*Measurements :*

External : Reg. No. 15058 & 15059 : HB 415, 480 ; tl 504, 536 ; HF 79, 91 ; E 45, 45.

## Cranial :

Reg. No.	on	pal	nas	iw	orb	bul
9719	72.4	37	21.2	15.5	25.5	13.4
9720	74.7	38.2	24.4	16.3	27.9	13.5
15058	73.6	36.7	23	17.1	26.4	13.4

*Remarks :* The skin of No. 9720 was lost in the varanasi flood (1944). Robinson and Kloss (1918) remarked about it as "very old much deteriorated...differs from others in being browner and less rufous above with little or no darkening of any part of hairs behind the ears".

*Distribution* : INDIA : Assam, Meghalaya (Cherrapunji), Nagaland, Manipur. BURMA : From Kindat to Tenasserim.

### 8. *Petaurista petaurista philippensis* (Elliot)

- 1839 *Pteromys philippensis* Elliot, *Madras J. Litt. & Sci.*, **10** : 217. ( S. Maharatta ).  
 1842 *Pteromys oral* Tickell, *Calcutta J. nat. Hist.*, **2** : 401. ( Singhbhum, Bihar ).  
 1911. *Petaurista cinderella* Wroughton, *J. Bombay nat. Hist. Soc.*, **20** : 1014, 1018.  
 ( Dangs, Surat Dist., Gujarat ).

#### *Material* :

9311	—	Skin (damaged)	Rourkel, Nagpur, Maharashtra	<i>B. D. Whiffen</i>
9708	—	Skull	Travancore, Kerala	Purchased.
9709	—	Skin (damaged)	Do.	—
9710	—	Skin and Skull (damaged)	Sri Lanka	<i>Colombo Museum</i>
9711	—	Skull	—	—
9712	—	Skull	—	—
9805	♀	Skull	Kanara, Karnataka	—
15067	♂	Skin and Skull	Gersoppa falls, Kanara, Karnataka (c 397 m.)	<i>G.C. Shortridge</i> (3. v. 1912).
15068	♀	Skin and Skull	Kodai kanal, Tamil Nadu (c 1524 m.)	<i>C. Mecann</i> (21. iii. 1922).
15069	♀	Skin and Skull	Helleri, Coorg, Karnataka (c 1083 m.)	<i>G.C. Shortridge</i> (25. xii. 1912).
15070	♂	Skin and Skull	Benhope, Nilgiri, Tamil Nadu (c 914-1219 m.)	<i>J.R.O'Brien</i> (27. iv. 1921).
15071	♀	Skin	Palakapandy, Malabar, Kerala (c 1067 m.)	<i>Do.</i>

18624 Juv. Skin with Purulia, W. Theobald  
Skull West Bengal  
(in spirit).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
15067	435	535	77	47
15068	460	480	72	41
15069	450	575	82	45

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9708	71.9	36.2	21.5	15.8	26.6	16.6	14
9711	69	34.3	21.5	—	25.5	15.7	12.8
9712	69.5	34.9	21.4	16.0	26.3	14.6	13.0
9805	72.0	36.2	20.9	15.6	26.8	16.5	14.0
15067	71.7	36.8	21.0	16.5	25.5	15.6	14.6
15069	74.7	37.5	22.5	15.3	26.6	15.6	14.7

*Remarks :* Skull No. 9711 and 9712 are marked as *Pteromys oral* (Tickell) which was later synonymized with *Petaurista philippensis* (Elliot) by Ellerman (1963). Although these two skulls are slightly smaller (69-69.5 vs 71.7-74.7) than those of *philippensis*, nothing definite can be said about their status due to lack of skin or collection-locality.

*Distribution :* INDIA : Gujarat, Maharashtra, Karnataka, Kerala, Tamil Nadu, Madhya Pradesh, Bihar, Orissa, West Bengal.

9. *Petaurista petaurista cineraceus* ( Blyth )

1847. *Pteromys petaurista* var. *cineraceus* Blyth, *J. asiat. Soc. Beng.*, **16** : 865. ( Arakan, Burma ).

*Material :*

3805	—	Skin and Skull ( damaged )	Menangerie	W. Rutledge.
9485	♂	Skin and Skull ( Syntype )	Arakan, Burma	A. Phayre (1844).
9714	♂	Skin and Skull ( damaged )	Do	Mus. Collector.
9764	—	Skin and Skull ( damaged )	—	—

15045	♂	Skin and Skull	48 Km. NW. of Toungoo, Burma	<i>J. M. D. Mackenzie</i> (6. i. 1928).
15046	♂	Skin and Skull	Do	<i>Do.</i> (8. i. 1928).
15047	♂	Skin and Skull	32 Km. NW of Toungoo, Burma	<i>Do.</i> (12. iv. 1927).
15048	♀	Skin and Skull	Do	<i>Do.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15045	461	570	84	49
15046	435	520	81	48
15047	445	550	82	43
15048	475	430	79	45

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
3805	70	34.3	20	16.6	24.9	14.8	13.2
15045	77	38.3	24.7	16.6	27.7	—	15.5
15046	70.9	36.5	21.9	16.1	26.2	—	14.2
15047	73.7	37.7	23.7	14.9	26.7	—	15.3
15048	74.7	38.3	24.1	16.5	27.3	—	14.5

*Remarks :* No. 9764 is mentioned as *Eupetaurus cinereus* Thomas in Sclater's Catalogue (1891). Later, Robinson and Kloss (1918) identified it as *Petaurista petaurista cineraceus*, with which we agree.

*Distribution :* BURMA : Arakan to Tenasserim.

10. *Petaurista petaurista lylei* Bonhote

1900. *Petaurista lylei* Bonhote, *Proc. zool. Soc. Lond.*, : 192. ( Doi Sritepe, Chiengmai, Thailand ).

*Material :*

11414	♂	Skin	Khasi Hills, Meghalaya	<i>H. L. Hiteshi</i> (15. iv. 1922).
16348	♀	Skin and Skull	Rongrengiri, Garo Hills, Meghalaya	<i>H. Khajuria</i> (29. vi. 1957).



*Measurements :*

External :

Reg. No.	HB	tl	HF	E
11414	415	570	78.5	45
16348	480	540	90	50

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
16348	79.6	40.1	24	20	28.9	17.1	13.7.

*Distribution :* INDIA : Meghalaya ( Khasi and Garo Hills ).  
BURMA : Kabaw.

**11. *Petaurista petaurista albiventer* ( Gray )**

1834. *Pteromys albiventer* Gray, *Illustr. Indian zool.*, pl. xviii. ( Nepal ).  
1844. *Pteromys inornatus* Geoffroy, in *Jacquemont's Voyage*, 4, *Mamm.* : 62. Atlas, 2, pl. iv. ( Northern India ).  
1911. *Petaurista birrelli* Wroughton, *J. Bombay nat. Hist. Soc.*, 20 : 1014, 1019. ( Murree, Pakistan ).  
1911. *Petaurista fulvinus* Wroughton, *J. Bombay nat. Hist. Soc.*, 20 : 1014, 1021. ( Simla, Himachal Pradesh ).

*Material :*

7469	—	Skin and Skull	—	—
7632	♂ Juv.	Skin and Skull	—	Zool. Garden, Calcutta.
9731	—	Skin ( damaged )	Cherrapunji, Meghalaya	F. Skipwith.
9734	—	Skin and Skull ( damaged )	Ladakh, Kashmir	J. Biddulph.
9736	—	Do "	Kashmir	J. E. T. Aitchinson.
9737	—	Skin (damaged )	Sikkim	L. Mandelli.
9739	—	Do	Do	—
15052	♂	Skin and Skull	Trium, Pakistan (c 2988 m.)	H.W Wells . (17. iv. 1922)
15053	♂	Skin and Skull	Murree, Pakistan (c 914 m.)	H. W. Wells (21. iv. 1922)

15054	♂	Skin and Skull	Kumaon, Uttar Pradesh (c 2286 m.)	<i>C. A. Crump</i> (2. i. 1914).
15055	♂	Skin and Skull	Rahla, Kulu, H. Pradesh	<i>H. W. Wells</i> (4. vi. 1922).
15064	♀	Skull	—	—
15065	♂ Juv.	Skull	—	—
15373	♀	Skin	Naggar, H. Pradesh	<i>J. Schmidt</i> (29. x. 1958).
15374	♀	Skin	Do.	<i>Do.</i>
18615	Juv.	Skin and Skull	Kumaon, Uttar Pradesh	—
18629	♂	Skin with Skull ( in spirit )	Kathmandu, Nepal	<i>Mus. Collector</i> (10. i. 1971).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15052	380	360	71	39
15053	350	380	75	46
15054	365	410	72	42
15055	380	470	70	46

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
15052	67.6	34.1	20	15.5	25.2	15.8	12.8
15053	59.5	31.0	19.5	15.4	22.3	11.6	12
15054	70.0	36.0	21	16.5	—	17.0	12.5
15055	67	36	20	15.8	25.8	16.8	12.3
15064	64	35	19.4	13.7	24.3	16.1	13.1

*Distribution :* PAKISTAN. INDIA : Jammu and Kashmir, Himachal Pradesh, Uttar Pradesh ( Kumaon ), Sikkim, Meghalaya ( Cherrapunji ) and Nagaland. NEPAL.

12. *Petaurista petaurista yunanensis* ( Anderson )

1875. *Pteromys yunanensis* Anderson, *Ann. Mag. nat. Hist.*, (4) 16 : 282. ( Momein, Yunnan, China ).

*Material :*

9486	—	Skin ( Syntype )	Momein, Yunnan, China ( c 1524 m. )	<i>J. Anderson</i> ( 1868 ).
9725	—	Do	Do	<i>Do.</i>

*Distribution* : INDIA : Arunachal Pradesh, Nagaland (Kurup, 1968).  
BURMA : Hpimaw, Adung Valley.

13. ***Petaurista petaurista melanotus* ( Gray )**

1887. *Pteromys malanotus* Gray, *Charlesworth's Mag. nat. Hist.*, 1 : 584. ( Malay peninsula ).

*Material* :

9745	—	Skin and Skull	Thailand	<i>Dr. Finlayson.</i>
9746	—	Do	Do	<i>Do.</i>

*Measurements* :

Cranial :

Reg. No.	on	pal	nas	iw	orb	bul
9745	66.2	33.7	19.2	14.9	25	12.9
9746	67.3	33.8	20.0	14.1	24.4	12.2

The place of collection of these specimens mentioned on the original label is Siam ( Thailand ). But Robinson and Kloss ( 1918 ) are of the opinion that these are actually from Malay Peninsula.

14. ***Petaurista petaurista nigricaudatus* Robinson & Kloss**

1918. *Petaurista nigricaudatus* Robinson & Kloss, *J. Fed. Malay States Mus.*, 7 : 224. ( Idjen Massif, E. Java ).

*Material* :

10169	♂	Skin and Skull ( damaged )	Sodong Jerok, Odjenmassif, East Java ( c 1190 m. )	<i>Fed. Malay States Mus.</i> ( 30. iii. 1916 ).
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*Measurements* : External : HB 425 ; tl 485 ; HF 75 ; E 22.

15. ***Petaurista magnificus* ( Hodgson )**

1836. *Sciuropterus magnificus* Hodgson, *J. Asiat. Soc. Beng.*, 5 : 231. ( Nepal ).

*Material* :

7268	—	Skin and Skull	—	<i>W. Rutledge.</i>
7551	♀	Skin and Skull	—	<i>Zool. Garden, Calcutta</i> ( 31. viii. 1897 ).
9728	—	Skin and Skull ( Syntype )	Nepal	<i>B. H. Hodgson</i> ( 1836 ).

9729	—	Skin and Skull (damaged)	Sikkim	—
9730	Juv.	Skin	Sikkim	<i>L. Mandelli.</i>
9732	—	Skull	Darjeeling, West Bengal	<i>W. Earle.</i>
9733	—	Skull	—	<i>Zool. Garden, Calcutta.</i>
15056	♂	Skin and Skull	Satthar Hills, Gorkha, Nepal	<i>N.A. Baptista</i> (14. i. 1923).
15057	♀	Skin and Skull	Do	<i>Do.</i> (15. i. 1923).
18616	♂	Skin and Skull	Gomchu, Bhutan	<i>M. Nair</i> (28. iii. 1966).
18621	♂	Skin	Paro, Bhutan (c 2440 m.)	<i>B. Biswas</i> (14. ii. 1969).
18622	♀	Skin	Do	<i>Do.</i>
18623	♀	Skin and Skull	Mitangar, Bhutan (c 1676 m.)	<i>B. Biswas</i> (7. v. 1966)

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
18616	490	510	80	51
18621	415	495	81	46
18622	414	464	79	45
18623	487	522	85	50

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul	cw
7268	72.1	35.8	23	16.2	27.2	16.6	12	33.8
9732	70.2	37.4	21	15.5	26.9	—	12.2	34.0
9733	71.1	36.6	21.9	15.1	26.2	—	12	33.4
18616	72	38.1	22.1	16.1	26.1	17.8	—	—
18623	75.5	39.8	22.4	17.0	28	18	—	—
18622	72.6	37.4	22	15.9	27.1	18.3	—	—

*Remarks :* Blanford (1888-91) has mentioned that, in this species, the coat colour varies during summer and winter. But the two specimens (No. 18621 and 18622) from Bhutan collected in February, show the

summer garb. Recently, Saha (1978) has assigned the specimens from Bhutan to a new subspecies of *Petaurista nobilis* viz *P. nobilis singhei*.

*Distribution* : NEPAL. INDIA : Sikkim and West Bengal (Darjeeling). BHUTAN.

**16. *Hylopetes lepidus belone* (Thomas)**

1908. *Sciuropterus (Hylopetes) belone* Thomas, *Ann. mag. nat. Hist.*, **2** : 305. (Pulau Terutau, Straits of Malacca).

*Material* :

15031	♂	Skin and skull	Maliwun, Victoria Point, Tenasserim, Burma	<i>G.C. Shortridge</i> (7. ii. 1914).
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*Measurements* :

External : HB 137 ; tl 123 ; HF 28 ; E 19.

Cranial : on 34.9 ; pal 16.5 ; nas 9.6 ; iw 7.7 ; orb 12.8 ; bul 16.8 ; cw 16.4.

*Distribution* : BURMA : Tenasserim, Terutau Island.

**17. *Hylopetes spadiceus* (Blyth)**

1847. *Sciuropterus spadiceus* Blyth, *J. Asiat. Soc. Beng.*, **16** : 867. (Arakan, Burma).

*Material* :

9765	—	Skin and Skull (Syntype)	Arakan, Burma	<i>A. Phayre.</i>
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*Distribution* : BURMA : Arakan, Maymyo.

**18. *Hylopetes phayrei phayrei* (Blyth)**

1859. *Sciuropterus phayrei* Blyth, *J. Asiat. Soc. Beng.*, **28** : 278. (Rangoon, Burma).

*Material* :

9490	—	Skin and Skull (Syntype)	Rangoon, Burma	<i>A. Phayre &amp; Maj. Berdmore.</i>
9491	—	Skin (Syntype)	Do	<i>Do.</i>

15040	♀	Skin and Skull	Mt. Popa, Burma (c 1514 m.)	<i>G.C. Shortridge</i> (7. ix. 1913).
15041	♂	Skin and Skull	Do	<i>Do.</i>
15042	♂	Skin and Skull (damaged)	32 km. N. of Toungoo, Burma (c 30 m.)	<i>J.M.D. Mackenzie</i> (7. iv. 1927).
15043	♀	Skin and Skull (damaged)	Do	<i>J.M.D. Mackenzie</i> (11. iv. 1927).
15044	—	Skin (damaged)	80 km. w. of Kindat, Chin Hills, Burma (c 1525 m.)	<i>Do.</i> (Apr. 1915).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15040	161	137	35	25
15041	153	132	31	25
15042	156	146	26	24
15043	161	147	33	23

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
15040	39.6	20	8.8	8.7	15.3	8.2	8.6
15041	38.8	19.2	10.1	7.6	14.7	7.8	8.3
15042	39.3	20.2	10.2	8.6	15.1	7.9	8.0

*Remarks :* The dorsum is Broccoli Brown in April-specimens but have an orange tinge in those of September.

*Distribution :* INDIA : Manipur. BURMA : Pegu Yomes, Mt. Popa, Chin Hills and area 32 Km north of Toungoo.

19. *Hylopetes fimbriatus fimbriatus* (Gray)

1837. *Sciuropterus fimbriatus* Gray, *Ann. Mag. nat. Hist.*, 1 : 584. (Simla, Himachal Pradesh).

*Material :*

8990	—	Skin and Skull	Kashmir	<i>J. Scully.</i>
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9748	—	Skin	Gilgit, Kashmir	—
9750	—	Skin	—	—
9751	Juv.	Skin and Skull	Gilgit, Kashmir	—
15066	♂	Skin and Skull	Sardalla, Kashmir (c 2653 m.)	<i>C. H. Stockley</i> (17. x. 1923).
18287	—	Skin	Kashmir	<i>Pratap Singh.</i>

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
15066	270	280	60	44

Cranial :

Reg. No.	on	pal	nas	iw	orb	bul	cw	TR
15066	56.3	30.1	13.1	13.3	22.2	12	25	12.4

*Remarks :* In the skull, the spinous process of the palate is fairly well developed and the interparietal suture indistinct as against the former being poorly developed and the latter fairly well distinct in *Hylopetes alboniger*.

*Distribution :* PAKISTAN : INDIA : Kashmir and Himachal Pradesh (alt. 1800m. to 3600m.).

20. *Hylopetes alboniger alboniger* (Hodgson)

1836. *Sciuropterus alboniger* Hodgson, *J. Asiat. Soc. Beng.*, 5 : 231. (Nepal).

*Material :*

9763	—	Skin (damaged)	Shillong, Meghalaya	<i>T. La. Touche.</i>
11188	♂ Juv.	Skin	25 km. N. of Imphal, Manipur, (c 1220m.)	Purchased (10. xii. 1945).
11378	♀	Skin and Skull	Khezhabama, Nagaland	<i>Naga Hill &amp; Manipur Survey team</i> (25. i. 1936).

11379	♀	Skin and Skull	Do	<i>Do.</i>
15032	♀	Skull	Khonshong, Jaintia Hills, Meghalaya	<i>H. W. Wells</i> (29. vii. 1920).
15033	♀	Skull	Do	<i>Do.</i> (30. vii. 1920).
15034	♂	Skull	Do	<i>Do.</i> (29. vii. 1920).
15035	♂	Skull	Do	<i>Do.</i> (31. vii. 1920).
15036	♂	Skin	80 km. W. of Kindat, Chin Hills, (c 1525m.)	<i>J. M. D. Mackenzie</i> (30. i. 1915).
15037	♀	Skin	Dening, Mishmi Hills, Arunachal Pradesh, (c. 686 m.)	<i>H. W. Wells</i> (30. iii. 1921).
15038	♂	Skin and Skull	Darjeeling W. Bengal, (c 1067 m.)	<i>C. A. Crump</i> (4. ii. 1915).
15039	♂	Skin and Skull	Chuntang, Sikkim, (c 1640 m.)	<i>C. A. Crump</i> (11. xii. 1914).
18627	♀	Skin with Skull (in spirit)	Garo Hills, Meghalaya	<i>H. L. Houghton.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
11378	264	211	39	—
11379	270	210	41	—
15039	213	198	41	32

## Cranial :

Reg. No	on	pal	nas	iw	orb	TR	bul
11378	49.0	25.8	13.5	10.3	18.5	10.8	8.2
11379	45.2	23.0	12.1	9.6	18.0	10.1	8.8
15032	49.6	25.6	13.8	10.1	—	10.9	8.5
15033	47.5	24.2	14.0	9.7	15.1	10.2	8.4
15034	47.8	23.9	13.2	10.1	—	8.9	8.7
15035	48.0	23.0	14.0	10.2	17	10.5	9.2
15039	50.0	26.0	14.2	11.2	18	10.2	8.4



*Remarks* : The uterus of a specimen (No. 18627) contained 6 embryos.

*Distribution* : INDIA : Sikkim, West Bengal ( Darjeeling, Duars ), Arunachal Pradesh, Meghalaya and Nagaland. NEPAL. BANGLADESH. BURMA : Western Burma ( 900m. to 1500m. )

### 21. *Eupetaurus cinereus* Thomas

1888. *Eupetaurus cinereus* Thomas, *J. Asiat. Soc. Beng.*, 57, 2 : 258. ( Gilgit valley, Kashmir ).

*Material* :

9492	—	Skin and Skull (Syntype)	Gilgit, Kashmir ( c 1830 m. )	<i>G. M. Giles</i> ( 1887 ).
19103	—	Skin	Sikkim ( c 2745 m. )	<i>J. S. Gill.</i>

*Remarks* : No. 19103 differs from the syntype in minor details of colour. The dorsal hairs are slaty grey with slate dominating as against the grey colour in the latter. Other details have already been mentioned by Agrawal & Chakraborty (1970).

*Distribution* : PAKISTAN. INDIA. Kashmir, Sikkim.

### 22. *Dremomys lokriah lokriah* ( Hodgson )

1836. *Sciurus lokriah* Hodgson, *J. Asiat. Soc. Beng.*, 5 : 232. ( Nepal ).

*Material* :

9149	—	Skin and Skull	Abor Hills, Arunachal Pradesh	<i>S. W Kemp</i> ( 24. ii. 1912 ).
9441	♂	Skin and Skull	Nongjuri, Khasi Hills, Meghalaya	<i>B. Warren</i> ( May 1909 ).
9443	—	Skin and Skull	Sheopuri ridge, Nepal	<i>J. Scully</i> ( 1878 ).
9444	—	Skin and Skull	Do	<i>Do.</i>
9446	—	Skin and Skull	Sisaguta, Nepal	<i>J. Scully</i> ( Dec. 1877 ).
9447	—	Skin ( Syntype )	Nepal	<i>B. H. Hodgson.</i>
9448	—	Skin and Skull	Darjeeling, West Bengal	<i>J. Anderson.</i>
9449	♀	Do	Sikkim	<i>L. Mandelli,</i>

9450	—	Skin	Sikkim	<i>Mr. Oakes.</i>
9451	—	Do	Naga Hills, Nagaland	<i>H. H. Godwin Austen.</i>
9452	—	Do	Do.	<i>A. W. Chennell.</i>
9455	—	Skin and Skull	Shillong, Meghalaya	<i>T. La. Touche.</i>
14306	♂	Skin and Skull	Bhuntang, Sikkim	<i>C. A. Crump ( 15. xii. 1914 ).</i>
14307	♀	Skin	Dreyi, Mishmi Hills, Arunachal Pradesh	<i>H. W. Wells ( 1. vi. 1921 ).</i>
14308	♂	Skin	Sathar, Nepal	<i>N. A. Baptista ( 9. i. 1923 ).</i>
15855	♀	Skin and Skull	Palmajua, Darjeeling, West Bengal	<i>R. L. Fernandez ( 24. vi. 1958 ).</i>
15856	—	Do	Do	<i>H. Khajuria ( 25. vi. 1958 ).</i>
15857	♀	Do	Do	<i>R. L. Fernandez ( July 1958 ).</i>
15858	♂	Do	Do	<i>Do,</i>
15859	♂	Do	Do	<i>Do.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14306	153	125	42	22
14307	190	134	40	20
14308	174	—	44	21
15855	183	152	44.5	21
15856	187	159	44	21
15857	188	—	40.5	19
15858	183	153	46	20
15859	185	150	44.5	22

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul.
9149	52.8	25.1	16.8	15.3	15.9	8.1	8.1
9441	—	22.7	16.2	13.3	14.0	8.9	8.2
9443	46.5	22	15.6	14.4	14.5	—	7.1
15856	50.4	24	15.3	14.3	15.2	8.1	7.9

*Remarks* : Nos. 9149, 9441, 9451, 9452 and 9455 were identified by Robinson and Kloss (1918) as *Dremomys lokriah bhotia* Wroughton. But these are exactly similar to *D. l. lokriah* in pelage colour. As such, we have kept them under this subspecies.

*Distribution* : INDIA : W. Sikkim, West Bengal (Darjeeling), Arunachal Pradesh, Assam (Cachar), Meghalaya and Nagaland. BURMA : Adung valley and Taron valley.

### 23. *Dremomys lokriah macmillani* Thomas

1916. *Dremomys macmillani* Thomas, *J. Bombay nat. Hist. Soc.*, 24 : 238. (Tatkon, Burma).  
 1922. *Dremomys lokriah garonum* Thomas, *J. Bombay nat. Hist. Soc.*, 28 : 430. (Tura, Garo Hills, Meghalaya).

#### *Material* :

10204	—	Skin	Tura, Garo Hills, Meghalaya	<i>T. La. Touche.</i>
10205	—	Do	Do	<i>S. W. Kemp.</i>
11189	—	Skin and Skull	Dimapur, Manipur	<i>M. L. Roonwal</i> (29. x. 1945).
11190	♂	Do	Do	<i>Do.</i> (5. xi. 1945).
11191	♂ Juv.	Do	Do	<i>Do.</i> (11. xi. 1945).
11192	♂	Skull	Do	<i>Do.</i> (12. xi. 1945).
11193	♀	Skin and Skull	Do	<i>Do.</i> (30. xi. 1945).
11194	♂	Do	Do	<i>Do.</i> (1. xii. 1945).
11195	♂ Juv.	Do	Do	<i>Do.</i> (4. xii. 1945).
11197	♂ Juv.	Do	Do	<i>Do.</i> (9. xii. 1945).
11198	♂	Do	Do	<i>Do.</i> (12. xii. 1945).
11199	♀	Do	Do	<i>Do.</i> (18. xii. 1945).
11462	♂	Skin and Skull	Luanglong Khulen, Manipur	<i>Naga Hills &amp;</i> <i>Manipur</i> <i>Survey team</i> (10. ii. 1936).
14302	♀ Juv.	Do	Khasi Hills, Meghalaya	<i>H. W. Wells</i> (26. iv. 1920).
14303	♂	Do	Kabdaw Valley, Upper Chindwin, Burma	<i>J. M. D. Mackenzie</i> (12. v. 1914.)

*Measurements :*

## External :

Reg. No.	HB	Tl	HF	E
10205	185	118	45	11
11190	190	159	44	20
11191	155	133	43	18
11193	194	153	45	22
11194	172	—	44	20
11195	153	—	44	18
11197	160	133	44	19
11198	180	160	45	20
11199	180	130	42	19

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
11189	50.2	24.6	15.8	13.6	15.2	8.0	8.1
11190	49.7	24.8	15.6	12.5	15.7	8.9	—
11192	50.9	25	15.5	14	16	8.9	8.8
11194	46.7	23.3	13.7	13	14.9	—	8.1
11198	48.3	23.7	15.3	12.1	15.5	—	—
11199	46.5	22.3	14	12.2	14.8	—	8.3

*Remarks :* Moore and Tate (1965) maintained the population of Garo and Khasi Hills (Meghalaya) as *D. lokriah garonum* Thomas. But our three specimens from the same area are indistinguishable from that of *macmillani* in respect of colour. Therefore we agree with Ellerman's (1963) view.

*Distribution :* INDIA : Meghalaya, Assam (Kamrup), Tripura, Nagaland and Manipur. BURMA : Chin Hills, Tatkon and Kabaw.

From the distribution of the nominate subspecies and of *macmillani* it is obvious that there is some overlap in their range in Meghalaya and Nagaland.

24. *Dremomys lokriah bhotia* Wroughton

1916. *Dremomys lokriah bhotia* Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 418-426. (Sedonchen, Sikkim).

*Material :*

18595	♀	Skin and Skull	Chasilakha, Bhutan	<i>B. Biswas</i> (1.ii. 1969).
18596	♂	Do	Onwangdi Road, Bhutan	<i>Do.</i> (26.ii. 1969).

18597	♀	Do	Susuna, Bhutan	<i>B. Biswas</i> (11. ii. 1969).
18598	♀	Do	Gomchu, Bhutan	<i>Do.</i> (12. iv. 1966).
18599	♀	Do	Do	<i>Do.</i> (8. iv. 1966).
18600	♀	Do	Do	<i>Do.</i> (8. iv. 1966).
18601	♂	Do	Panjurmane, Bhutan	<i>Do.</i> (12.xii. 1967).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
18595	205	130	46	23
18596	177	142	46	20
18598	173	115	40	19
18599	175	120	38	17
18600	175	114	40	18
18601	189	134	41	22

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
18595	51.3	25.5	16.9	16.5	15.0	8.9	7.6
18598	49.1	25.8	15.7	14.4	15.2	8.1	7.4
18599	48.2	23.5	15.9	14.2	14.8	8.4	7.2
18600	47.5	23.1	14.9	14.6	14.4	8.5	7.5
18601	50.4	24.4	15.6	14.5	15.2	8.5	7.7

*Remarks :* Wroughton (1916) described the subspecies *Dremomys lokriah bhotia* from Sikkim. It was later synonymized with *D. lokriah lokriah* by Ellerman (1963). Chakraborty (1975) resuscitated it with the remarks that population from Bhutan is darker and more olivaceous than those of *lokriah* from Nepal. We agree with the latter view.

Robinson and Kloss (1918) identified a number of specimens from Meghalaya, Arunachal Pradesh and Nagaland as *D. lokriah bhotia*. But we are of the view that these are nothing but *D. lokriah lokriah*. The distribution of the subspecies *bhotia* is, thus restricted to Eastern Sikkim and Bhutan.

*Distribution :* INDIA : Eastern Sikkim. BHUTAN.

25. *Dremomys rufigenis rufigenis* (Blanford)

1878. *Sciurus rufigenis* Blanford, *J. Asiat. Soc. Beng.*, 47 : 156. (Mount Mooleyit, Tenasserim).

*Material :*

8432	♂	Skin and Skull	Mongha, Shan States, Burma	<i>J. Coggin Brown</i> (Apr. 1907).
14921	♀	Skin and Skull	Thandaung, c 32 km. NE. of Toungoo, Burma	<i>J.M.D. Mackenzie</i> (17. xi. 1927).
14922	♂	Skin	Thandaung, c 32 km. NE. of Toungoo, Burma	<i>Do.</i> (5. iv. 1928).
14923	♀	Skin and Skull	Pyauung-Gaung, Shan States, Burma	<i>G.C. Shortridge</i> (8. v. 1913).
14924	♂	Skin and Skull	Selen, Shan States, Burma	<i>Do.</i> (29. v. 1913).
14925	♂	Skin	Kindat, Upper Chindwin, Burma	<i>Do.</i> (1. vii. 1914).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14921	184	161	46	19
14922	169	154	45	22
14923	201	143	44	20
14924	195	155	46.5	20
14925	194	166.5	48	20.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
8432	52.2	24.8	17.1	14.7	15.7	8.9	7.7
14921	53.2	25.1	17	14.7	15.1	9.9	7.8
14923	50.3	24.1	16.1	14.6	14.9	9.6	7.5
14924	51.1	24.6	16.2	14.4	14.8	9.7	7.7

*Distribution :* INDIA : Assam, Nagaland and Manipur. BURMA.

26. **Dremomys pernyi howelli** (Thomas)

1922. *Dremomys pernyi howelli* Thomas, *Ann. Mag. nat. Hist.*, (9) 10 : 401. (Ma-Chang Kai, Western Yunnan, China).

*Material :*

9138	—	Skin	Sirpo Valley, Abor Hills, Arunachal Pradesh	<i>I. Burn Murdoch</i> (16.iv. 1912).
14920	♀ Juv.	Skin & Skull	c 102 km. W. of Chin Hills, Burma (c 1220 m.)	<i>J.M.D. Mackenzie</i> (9.v. 1915).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
14920	141	124	44	20

Cranial :

Reg. No.	on	pal	nas	iw	bul
14920	42.7	21.5	14	11.5	8

*Distribution :* Arunachal Pradesh, Nagaland and Manipur. BURMA : Northern Burma.

27. **Funambulus sublineatus sublineatus** (Waterhouse)

1838. *Sciurus sublineatus* Waterhouse, *Proc. zool. Soc. Lond.*, : p. 19. (Nilgiri Hills, Tamil Nadu).

*Material :*

7242	—	Skin	Panmudi, Travancore, Kerala	<i>H.S. Ferguson</i> (Dec. 1890).
9661	—	Skin and Skull	Nilgiri Hills, Tamil Nadu	<i>J.B. Jerdon</i> (1844).
9662	—	Skin	Malabar, Kerala	<i>H. Baker</i> (1859).
14298	♀	Skin and Skull (damaged)	Vidura, Travancore, Kerala	<i>S.N. Pillay</i> (29. iv. 1919).

14299	♂	Skin and Skull	Madura, Tamil Nadu (c 1524 m.)	<i>S.H. Prater</i> (19. v. 1917).
14300	♀	Do	Benhope, Nilgiri Hills, Tamil Nadu (c 914-1219 m.)	<i>J.R. O' Brien</i> (4. vii. 1921).
14301	♂	Skin and Skull (damaged)	Palni Hills, Tamil Nadu	<i>C. Mccann</i> (21. ii. 1922).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14301	107	112	27	13

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
14299	33.3	15.1	9.5	10.4	9.8	6.0
14300	34.7	15.7	10.4	10.5	9.9	6.2

*Remarks :* Label of No. 14300 bears the remark "trapped in jungle among rocks, ear pale brown, feet white above and flesh below".

*Distribution :* INDIA : Karnataka, Kerala and Tamil Nadu.

28. *Funambulus sublineatus obscurus* (Pelzeln & Kohl)

1886. *Sciurus palmarum* var. *obscura* Pelzeln and Kohl, *Verh. Zool. Bot. Ges. Wien.*, 35 : 525. (Uplands of Sri Lanka).

*Material :*

9663	—	Skin and Skull (damaged)	Sri Lanka	<i>E.F. Kelaart</i> (1859).
16499	♂	Do	Bambara, Bottuwa, Sri Lanka	<i>E.M. Mayor</i> (1904).

*Remarks :* No. 9663 is originally labelled as the type of *Sciurus trilineatus* Kelaart. But Robinson and Kloss (1918) kept it, under *F. s. obscurus*. Though this specimen resembles the other (No. 16499) in general colour but the dorsal stripes, particularly the median one, are very faint as against prominent in the latter. It may be due to fading.

*Distribution :* SRI LANKA,



29. **Funambulus layardi layardi** ( Blyth )

1849. *Sciurus layardi* Blyth, *J. Asiat. Soc. Beng.*, **18** : 602. ( Ambegamoa Hills, Sri Lanka )

*Material :*

9481 — Skin and Sri Lanka *E. L. Layard*  
Skull ( 1843 ).  
( Holotype )

*Measurements :*

Cranial :

on	nas	iw	orb	bul
40	12	14.1	11.75	7.1

*Distribution :* SRI LANKA : Central Province.

30. **Funambulus layardi dravidianus** Robinson

1917. *Funambulus layardi dravidianus* Robinson, *Rec. Indian Mus.*, **13** : 42. ( Western Ghats, Travancore, Kerala ).

*Material :*

9773/10143 Juv. Skin and Western *N. Annandale.*  
Skull Ghats,  
( Holotype ) Travancore,  
Kerala

*Measurements :*

Cranial :

on	pal	nas	orb	iw	bul
42.35	22.45	13	12.6	14	8.15

*Distribution :* INDIA : Kerala ( Travancore ).

31. **Funambulus tristriatus tristriatus** ( Waterhouse )

1837. *Sciurus tristriatus* Waterhouse, *Charlesworth's Mag. nat. Hist.*, **1** : 496—499. ( Peninsular India ).

1867. *Sciurus ( Tamias ) dussumieri* Milne Edwards, *Rev. zool.*, **19** : 226. ( Malabar, Kerala ).

1916. *Funambulus tristriatus numarius* Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 646. ( Helwak, Satara, Maharashtra ).

1917. *Funambulus tristriatus annandalei* Robinson, *Rec. Indian Mus.*, **13** : 41. ( Shasthancotta, Travancore, Kerala ).

1919. *Funambulus thomasi* Wroughton & Davidson, *J. Bombay nat. Hist. Soc.*, **26** : 729. ( Khandalla, Bombay Presidency, Maharashtra ).

*Material :*

8496	♂	Skin and Skull	Sasthancotta, Kerala	<i>N. Annandalei</i> ( 8. xi. 1908 ).
8497	♂	Do	Do	<i>Do.</i>
8498	♀	Do ( Holo- type of <i>F. t.</i> <i>annandalei</i> )	Do	<i>Do.</i>
8499	♀	Skin and Skull	Do	<i>Do.</i>
9513	—	Skin	—	—
9518	—	Do	Kalakhud, Maharashtra	<i>H. H. Godwin- Austen.</i>
9519	—	Do	Travancore, Kerala	Purchased.
9520	—	Do	Do	<i>Do.</i>
9526	—	Do	—	<i>Do.</i>
9527	—	Skin and Skull ( damaged )	—	Purchased.
9528	—	Skin	—	—
9800	♀	Skin and Skull ( damaged )	Dharwar, Karnataka	<i>G. C. Shortridge</i> ( 29. x. 1911 ).
9801	♂	Skin	Sirsi, N. Kanara, Karnataka	<i>Do.</i> ( 6. iv. 1912 ).
9802	♀	Skin and Skull ( damaged )	Potoli, N. Kanara, Karnataka ( c 549 m. )	<i>Do.</i> ( 18. i. 1912 ).
9803	♂	Skin	Devikop, S. Maharatta, Karnataka ( c 610 m. )	<i>Do.</i> ( 27. xi. 1911 ).
14954	♂	Do	Ghatkopar, Bombay, Maharashtra	<i>S. H. Prater</i> ( 27. iv. 1914 ).
14955	♂	Do	Khia, Ratna- giri, Maharashtra	<i>Do.</i> ( 24. xii. 1914 ).

14956	♀	Skin	Helwak, Satara, Maharashtra	<i>Do.</i> ( 9. xii. 1914 ).
14957	♀	Do	Ghatkopar, Bombay, Maharashtra	<i>Do.</i> ( 27. iv. 1914 ).
14958	♂	Skull	—	<i>Do.</i> ( 9. xii. 1914 ).
14959	—	Skin and Skull	Shimoga, Karnataka ( c 762 m. )	<i>G. C. Shortridge</i> ( 7. vi. 1912 ).
14960	♂	Juv. Skin and Skull	Sirsi, N. Kanara, Karnataka ( c 457 m. )	<i>Do.</i> (7.iv. 1912).
14961	♀	Juv. Skin	Dharwar, Karnataka	<i>Do.</i> (29. x. 1911).
14962	♀	Skin and Skull	Valey, Travancore, Kerala	<i>S.N. Pillay</i> (30. viii. 1915).
18743	♂	Do	Poinguinim, Goa	<i>V.C. Agrawal</i> (24. xii. 1968).
18744	♂	Do	Do	<i>Do.</i> (25. xii. 1968).
18745	♂	Do	Do	<i>Do.</i> (26. xii. 1968).
18746	♀	Do	Do	<i>Do.</i> (27. xii. 1968).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
8496	171	155	37	15
8497	187	137	35	19
8498	170	161	35	20
8499	170	121	45	16
9800	163	150	39	17
9801	163	142	38	16
9802	139	123	37	16.5
9803	150	148	38	18
14954	138	157	38	16
14955	158	118	36	15
14956	150	123	32	15
14957	145	130	34	15
14959	174	144	38	17
14960	107	112	35	16
14961	97	118	35	15

Reg. No.	HB	tl	HF	E
14962	155	160	33	17
18743	155	153	38.5	16.5
18744	145	140	37.5	15.5
18745	138	142	37.5	16
18746	103	108	33	13.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
8426	43.7	22.7	13.6	13.4	12.5	8.8
8497	44.5	23.5	14.2	13.8	13.4	8.65
8498	43.7	22.85	13.9	13.1	12.3	8.45
8499	43.5	23	13.4	12.8	—	—
9801	38.6	20.1	11.5	11.4	11.7	8
9803	37.6	18.4	10.8	11.2	12.2	—
14954	39.9	20.1	11.6	12	12.3	7.4
14955	41.3	20	12.6	12.2	12.7	7.7
14958	40.7	20.1	13.1	12.9	12.1	7.3
14959	42.2	21	13	13	13.4	7.6
14962	42.7	21.5	13	12.5	12.7	8.2
18743	42.8	22.5	13.5	13.6	12.3	8
18744	40.0	20	12	13.2	12	—
18745	39	21	11.8	12	11.8	8.2

(pm 3

erupting)

*Remarks* : Nos. 9519 and 9520 differ from the rest in having the thigh, root of tail and upper surface of hindfoot reddish instead of being grizzled with grey and light brown. In No. 9513, the mid-dorsal stripe is faint, almost obscure. Due to lack of external and cranial measurements, we are unable to assess their exact status, and, therefore, provisionally list these specimens under this subspecies.

*Distribution* : INDIA : Maharashtra, Goa, Karnataka (Dharwar, north Kanara) and South Kerala.

32. *Funambulus tristriatus wroughtoni* Ryley

1913. *Funambulus wroughtoni* Ryley, *J. Bombay nat. Hist. Soc.*, 22 : 437. (Srimangala, Coorg, Karnataka).

*Material* :

14948	♂	Skin and Skull	Haleri, N. Coorg, Karnataka (c 1084 m.)	<i>G.C. Shortridge</i> (22. xii. 1912).
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14949	♂	Skin and Skull	Haleri, N. Coorg, Karnataka (c 1084 m.)	<i>G.C. Shortridge</i> (8. i. 1913).
14950	♀	Do	Wotekolli, S. Coorg, Karnataka (c 610 m.)	<i>Do.</i> (16. i. 1913).
14951	♂	Do	Srimangala, S. Coorg, Karnataka (c 878 m.)	<i>Do.</i> (6. ii. 1913).
14952	♂	Do	Cotengady, Cochin, Kerala (c 1067 m.)	<i>J.R.O'Brien</i> (29. vii. 1921).
14953	♀ Juv.	Do	Shernally, Cochin, Kerala (c 457 m.)	<i>J.R.O'Brien</i> (3. vi. 1921).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
14948	166	164	63	17
14950	191	166	43	18
14951	200	166	47	18

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
14948	42.7	21.1	13.1	12.8	13.1	—
14949	44.7	23	14.6	13.5	13.2	8.1
14950	46.8	23.8	15	14.3	13.8	—
14951	46.4	23.6	13.7	13.4	13.5	8.9
14952	44	22.1	13.3	14.6	13.6	8.8
14953	42.1	21.1	12.2	12.6	13	8

*Remarks :* Individual variation in colour is evident. In No. 14952 the rufous tinge over forehead and snout is more prominent than in others. The saddle in specimen No. 14953 lacks the usual rufous tinge. The mid-dorsal pale stripe is faint in Nos. 14948 and 14950.

*Distribution :* INDIA : Karnataka (Coorg) and North Kerala.

33. *Funambulus palmarum palmarum* ( Linnaeus )

1766. *Sciurus palmarum* Linnaeus, *Syst. Nat.*, 12 ed., 1 : 86. ( Madras ).  
 1814. *Sciurus penicillatus* Leach, *Zool. Misc.*, 1 : 6, pl. 1. ( Madras ).  
 1835. *Sciurus indicus* Lesson, *Illustr. Zool.*, 15, pl. 43. Not of Erxleben, 1777.  
 1905. *Funambulus palmarum comorinus* Wroughton, *J. Bombay nat. Hist. Soc.*, 16 : 411. ( Trivandrum, Kerala ).  
 1916. *Funambulus bengalensis* Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 648. ( Hazaribagh, Bihar ).  
 1919. *Funambulus gossei* Wroughton & Davidson, *J. Bombay nat. Hist. Soc.*, 26 : 730. ( Kotagiri, Nilgiri Hills, Tamil Nadu ).  
 1849. *Sciurus brodiei* Blyth, *J. Asiat. Soc. Beng.*, 18 : 602. ( Point Pedro, Sri Lanka ).

*Material :*

8081	—	Skin and Skull	Mandapam, Tamil Nadu	<i>N. Annandale.</i>
9514	—	Skin	Midnapur, West Bengal	<i>E. Blyth.</i>
9515	—	Skin and Skull ( damaged )	Do.	<i>Do.</i>
9517	—	Do	Trombay, Maharashtra	<i>H. H. Godwin Austen (28. i. 1875).</i>
9524	—	Skin	—	<i>F. Day.</i>
9525	—	Do	—	<i>Do.</i>
9636	♂	Skin and Skull	Travancore, Kerala	( 28. ix. 1908 ).
9637	♂	Do	Shencottali, Travancore, Kerala	( 24. xi. 1908 ).
9638	♀	Do	Do	( 25. xi. 1908 ).
9640	♀	Do	Do	<i>Do.</i>
9641	♀	Do	Do	<i>Do.</i>
9642	♀	Do	Madras, Tamil Nadu	( 27. xi. 1908 ).
9643	♀	Skin	Do	<i>Do.</i>
9644	♀	Skin and Skull	Do	<i>Do.</i>
9645	♂	Skin	Do	<i>Do.</i>
9646	♂	Skin and Skull ( damaged )	Do	<i>Do.</i>

9773	—	Skin	Travancore, Kerala	<i>N. Annandale.</i>
9774	—	Skin and Skull ( damaged )	Do	<i>Do.</i>
9776	—	Skin and Skull	Do	<i>Do.</i>
10779	♀	Skin	Kurumbapatti, Salem, Tamil Nadu	<i>N. A. Baptista</i> ( 12. iv. 1929 ).
10780	♀	Skull	Palkonda Hills, Andhra Pradesh	<i>Do.</i> ( 6. viii. 1929 ).
10781	♂	Skin and Skull	Kurumbapatti, Salem, Tamil Nadu	<i>Do.</i> ( 26. iv. 1929 ).
14929	♀	Skin	Denikanikota Range, Salem, Tamil Nadu	<i>Do.</i> ( 22. x. 1930 ).
14930	♀	Do	Do	<i>Do.</i>
14931	♂	Do	Do ( c 933 m. )	<i>N. A. Baptista</i> ( 20. x. 1930 ).
14932	♀	Do	Shevaroy Hills, Tamil Nadu	<i>Do.</i> ( 12. v. 1929 ).
14933	♂	Do	Kurumbapatti, Salem, Tamil Nadu	<i>Do.</i> ( 29. iv. 1929 ).
14934	♂	Do	Chubum, Madura, Tamil Nadu	<i>S. H. Prater</i> ( 9. v. 1917 ).
14935	♂	Do	Benhope, Kotagiri, Nilgiri, Tamil Nadu	<i>J. R. O' Brien</i> ( 29. vi. 1921 ).
14936	♀	Skull	Palkonda Hills, Andhra Pradesh	<i>N. A. Baptista</i> ( 7. vi. 1930 ).
14937	♂	Do	Darbhangha, Bihar	<i>Do.</i> ( 5. ix. 1922 ).
14938	♂	Skin and Skull (damaged)	Travancore, Kerala	<i>Govt. Mus.</i> (3. vi. 1919).

14939	♂	Skin and Skull	Nagercoil, Travancore, Kerala	<i>R. S. Pillay</i> (27. ix. 1915).
14940	♀	Skin and Skull (damaged)	Nagercoil, Travancore, Kerala	<i>Do.</i> (17. viii. 1915).
14941	♂	Skin and Skull	Poshavar, Travancore, Kerala	<i>Do.</i> (13. x. 1915).
14942	♂	Skin and Skull (damaged)	Benhope, Kotagiri, Nilgiri, Tamil Nadu	<i>J. R. O' Brien</i> (29. vi. 1921).
14943	♀	Do	Do	<i>Do.</i> (2. vii. 1921).
14944	♂	Skin and Skull	Hazaribagh, Bihar	<i>C. A. Crump</i> (11. v. 1914).
14945	♂	Do	Do	<i>Do.</i> (3. v. 1914)
14946	♂	Do	Chilka Lake, Orissa	<i>Do.</i> (5. x. 1921).
14947	♀	Do	Do	<i>Do.</i> (5. x. 1921).

**F. palmarum palmarum = ('brodiei')**

9480	—	Skin and Skull (damaged) (Holotype)	Point Pedro, Sri Lanka	<i>E. L. Layard.</i>
14311	♀	Skin and Skull	Cheddikulam, Sri Lanka	<i>E. W. Mayor</i> (2. xii. 1913).
14312	♂	Do	Do	<i>Do.</i> (9. xi. 1913).
14313	♀ Juv.	Do	Do	<i>Do.</i> (25. xi. 1913).

**F. palmarum palmarum**

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
9637	150	155	30	16
9638	117	134	29	15
9640	160	171	30	15



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Reg. No.	HB	tl	HF	E
9641	124	140	30	15
9642	159	123	35	15
9643	155	145	33	15
9644	165	139	35	15
9645	163	153	37	15
9646	167	154	35	15
10779	130	141	37	18
10781	136	155	38	17
14931	150	—	40	17
14932	131	147	37	18
14933	132	155	38	17
14934	140	133	35	17
14939	135	145	36	15
14940	150	150	39	17
14944	142	153	36	16
14945	136	—	36	16
14946	155	169	37	17
14947	148	113	35	16

**F. palmarum palmarum = ('brodiei')**

14311	153	110	36	16
14312	154	145	38	15.5
14313	111	130	34	15

**F. palmarum palmarum**

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
8081	40.2	19.5	12	11.6	12.5	7.8
9636	36.8	17.4	10.3	11.1	11.9	7.1
9637	37	18.1	10.1	10.8	12.4	7.8
9639	38.4	19	11.3	10.9	12.1	7.5
9640	37.7	18.4	10.8	11.1	12	7.5
9644	38.6	19.2	10.7	11.6	12	7.3
9775	38	18.3	10.2	11.1	11.8	—
9776	38.1	18.7	10.7	11.8	12.5	—
14936	38.3	19.1	11.8	11.1	12	7.6
14937	37.2	18.4	10.7	10.5	11.3	—
14939	37.8	18.4	10.5	11.7	12.1	7.9
14942	38.8	—	—	11.5	12.1	7.7
14944	38.4	18.7	11.4	10.9	12.1	—

Reg. No.	on	pal	nas	iw	orb	TR
14945	38.4	19	11.4	10.7	12.1	7.1
14946	39	19.6	11.6	11.7	12.6	6.8
14947	36.6	17.8	10.7	9.7	11.7	6.8

**F. palmarum palmarum = ('brodiei')**

9480	—	—	—	11.9	—	7.3
14311	38.2	—	11.5	11.5	—	—
14312	38.5	19.2	10.7	11.2	12.3	—

*Remarks* : *Funambulus palmarum brodiei* (Blyth) has recently been synonymized with *F. p. palmarum* (Linnaeus) by Agrawal and Chakraborty (1979). Measurements of specimens registered as *brodiei* are given separately for comparison.

*Distribution* : INDIA : Kerala, Tamil Nadu, Andhra Pradesh, Bihar, Orissa, West Bengal. SRILANKA : Northern Province.

**34. Funambulus palmarum bellaricus Wroughton**

1916. *Funambulus palmarum bellaricus* Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 647. (Vijayanagar, Bellary, Karnataka).

*Material* :

9791	♀	Skin and Skull	Dharwar, Karnataka	<i>G. C. Shortridge</i> (29. x. 1911).
9792	♂	Do	Vijayanagar, Bellary, Karnataka	<i>Do.</i> (12. vii. 1912).
9794	♂	Do	Hawsbhavi, Dharwar, Karnataka	<i>Do.</i> (18. ii. 1912).
9795	♂	Skin and Skull (damaged)	Vijayanagar, Bellary, Karnataka	<i>Do.</i> (21. vii. 1912).
14309	♂	Do	Do	<i>Do.</i> (20. vii. 1912).
14310	♀	Do	Dharwar, S. Maharatta, Karnataka, (c 762 m.)	<i>Do.</i> (3. xii. 1911).
14980	♂	Do	Kolar, Karnataka, (c 850-1228 m.)	<i>Do.</i> (24. ix. 1912).

14981	♀	Skin and Skull (damaged)	Seringapatam, Karnataka, (c 714 m.)	<i>G. C. Shortridge</i> (26. x. 1912).
14982	♂	Do	Do	<i>Do.</i> —

*Measurements :*

## `External :

Reg. No.	HB	tl	HF	E
9791	140	152	37	15
9792	177	176	41	17
9794	165	142	40	17
9795	178	—	40	17
14309	167	129	40	17.5
14310	130	134	38	17.5
14980	159	154	40	16.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9791	39	19.7	11.8	11.7	12.2	—
9792	38.2	19	11.3	11.5	12.5	7.3
14309	38.9	19.1	10.4	10.7	12.3	7.3
14980	38	18.1	11.3	10.2	12	7.1

*Distribution :* INDIA : Karnataka and probably in Maharashtra.

35. *Funambulus palmarum robertsoni* Wroughton

1916. *Funambulus robertsoni* Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 647. (Pachmarhi, Hoshangabad, Madhya Pradesh).

*Material :*

9793	♀	Skin and Skull	Pachmarhi, Hoshangabad, Madhya Pradesh	<i>C.A. Crump</i> (17. iii. 1912).
9796	♂	Skin and Skull (damaged)	Do	<i>Do.</i> (13. iii. 1912).
13101	♀	Skin and Skull (in spirit)	Muki, Banjar valley, Madhya Pradesh	<i>B. Biswas</i> (7. ix. 1957).
13102	♂ Juv.	Do	Do	<i>Do.</i> (30. viii. 1957).

14926 ♀	Skin and Skull	Sival, Nimar, Madhya Pradesh, (c 305 m.)	<i>C.A. Crump</i> (26. xi. 1911).
14927 ♀	Do	Pachmarhi, Hoshangabad, Madhya Pradesh	<i>Do.</i> (17. iii. 1912).
14928 ♀	Do	Chichpall, Chanda, Madhya Pradesh, (c 396 m.)	<i>Do.</i> (5. vi. 1912).
18630 ♀	Skin	Pachmarhi, Hoshangabad, Madhya Pradesh	<i>M.L. Roonwal</i> (12. ii. 1941).
18631 ♂	Do	Do	<i>Do.</i> (12. ii. 1941).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9793	135	145	37	16
9796	140	93	35	16
13101	133	140	35	14.5
13102	100	119	35.5	15
14926	151	158	38	17
14927	143	140	37	17
14928	136	155	36	16
18630	145	141	35	—
18631	145	175	38	—

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9793	36.6	18	10	11.1	12	6.8
13101	37.2	18.8	12	9.8	12.1	6.5
14926	38.4	18.7	11.1	11	12	6.5
14927	38.7	19.1	10.9	12.3	11.8	7.4
14928	37.9	18.5	11	10.5	12	6.9

*Remarks :* Specimens collected during August, September and November differ from those of February, March and June in having more brownish grizzling over the saddle and a buff tinge on the dorsal white stripes.

*Distribution :* INDIA : Madhya Pradesh.

36. *Funambulus palmarum kelaarti* (Layard)

1851. *Sciurus kelaarti* Layard in Blyth, *J. Asiat. Soc. Beng.*, **20** : 166. (Hambantota, Sri Lanka).
1915. *Funambulus palmarum favonicus* Thomas & Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 39. (Udugama, S. P., Sri Lanka).
1915. *Funambulus palmarum olympius* Thomas & Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 41. (Urugalla, Sri Lanka).

*Material :*

9479	—	Skin and Skull (damaged) (Holotype)	Hambantota, Sri Lanka	<i>E. L. Layard</i> (1843).
9521	—	Skin and Skull (damaged)	—	—
9522	—	Do	Sri Lanka	<i>E. F. Kelaart</i> (1850).
14922	♀	Skin	Wellawaya, S. P., Sri Lanka	<i>E. M. Mayor</i> (6. vii. 1913).
14963	♀	Skin and Skull (damaged)	Batticola, S. P., Sri Lanka	<i>Do.</i> (1. viii. 1913).
14964	♂	Skin and Skull	Colombo, Sri Lanka	<i>Do.</i> (1. iv. 1913).
14965	♂	Do	Kumbukhum, S. P., Sri Lanka	<i>Do.</i> (15. vii. 1913).
14966	♀	Skin and Skull (damaged)	Tammannewa, S. P., Sri Lanka	<i>Do.</i> (5. v. 1914).
14967	♂	Do	Ranna, S. P., Sri Lanka	<i>Do.</i> (22. v. 1913).
14968	♂	Do	Kottawa, S. P., Sri Lanka	<i>Do.</i> (11. iv. 1913).
14969	♀	Skin and Skull	Kandy, S. P., Sri Lanka	<i>Do.</i> (13. ii. 1914).
14970	♂	Do	Urugalla, C.P., Sri Lanka	<i>Do.</i> (15. i. 1914).
14971	♀	Do	Perademya, S.P., Sri Lanka	<i>Do.</i> (14. ii. 1914).

14973	♂	Skin and Skull	Mankeni, E. P., Sri Lanka .	<i>Do.</i> (9. ix. 1913).
14974	♂	Skin and Skull (damaged)	Trincomallas, S. P., Sri Lanka	<i>Do.</i> (27. v. 1914).
14975	♀	Skin and Skull	Anuradhapura, N. C. P., Sri Lanka	<i>Do.</i> (3. vi. 1914).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14964	146	143	33	16.5
14965	154	166	41.5	18
14966	151	74+	35	17
14967	139	143	36	15.5
14968	140	115	35	16
14969	133	145	37	16.5
14970	152	140	35	15
14971	142	111	34	16
14973	134	145	35	16
14974	137	120	32	14
14975	148	138	34.5	15.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
14964	36.8	17.9	11.1	11.5	11.6	7.2
14965	41.3	20.8	13.7	12.3	12.7	8
14969	37.7	18.8	11.9	11.4	12.5	7.6
14970	39.2	19.9	11.2	11.5	12.5	7.6
14971	39	19.6	12.1	11	12.7	7.8
14973	37.3	18.2	10.8	11.2	12.6	7.4
14975	37.5	18.4	11.1	11	11.7	7.4

*Distribution :* SRI LANKA : Western Province, North West Province, North Central Province, Central Province, Southern Province, Eastern Province.

37. *Funambulus pennanti* Wroughton

1905. *Funambulus pennanti* Wroughton, *J. Bombay nat. Hist. Soc.*, **16** : 411. (Mandvi Taluka, Surat district, Gujarat).
1905. *Funambulus pennanti argentescens* Wroughton, *J. Bombay. nat. Hist. Soc.*, **16** : 413. (Rawalpindi, Pakistan).
1916. *Funambulus pennanti lutescens* Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 430. (Deesa, Palanpur, Gujarat).

*Material :*

3174	♂	Skin and Skull (in spirit)	Rajanpur, Punjab	<i>E. Saunders.</i>
3798	♂	Skin and Skull	Oudh, Uttar Pradesh	<i>O. L. Fraser.</i>
7562	♂ Juv.	Skin	Calcutta, West Bengal	— (11. xii. 1896).
8433	♂	Do	Barielly, Uttar Pradesh	— (19. ii. 1907).
8434	♀	Do	Bijnor, Uttar Pradesh	— (18. i. 1907).
8435	♀	Do	Barielly, Uttar Pradesh	— (19. iii. 1908).
8436	♀	Do	Bijnor, Uttar Pradesh	— (16. i. 1907).
9494	♂	Do	Calcutta, West Bengal	<i>Mus. Collector.</i>
9495	♀	Do	Do	<i>Do.</i>
9496	♂	Do	Do	<i>Do.</i>
9618	♀	Do	Pishin, Baluchistan, Pakistan	<i>W.T. Blanford</i> (7. ii. 1872).
9619	—	Do	Nepal Tarai	<i>J. Scully.</i>
9620	♂	Do	Inampur, Purulia, West Bengal	<i>Mus. Collector.</i>
9621	♂	Do	Raghunathpur, Purulia, West Bengal	<i>Do.</i>
9622	♂	Do	Calcutta, West Bengal	<i>J. Anderson</i> (1870).
9623	♂	Do	Do	<i>J. Anderson</i>
9624	♂	Do	Do	<i>Do. (Jan. 1869).</i>
9625	♂	Do	Do	<i>Do. (Dec. 1868).</i>
9626	—	Do	Howrah, West Bengal	<i>Do. (1870).</i>
9629	—	Skin and Skull	—	<i>E.R. Alston</i> (Purchased)
9630	♂	Skin	Barielly, Uttar Pradesh	—(19. iii. 1907).

9631	♀	Skin	Lucknow, Uttar Pradesh	—(17. i. 1908).
9633	♂	Do	Do	—(17. i. 1908).
9634	♀	Skin and Skull	— —	—
9635	♂	Skin	Agra, Uttar Pradesh	—(10. i. 1908).
9638	♀	Do	Lucknow, Uttar Pradesh	—(17. i. 1908).
9647	♀	Do	Balighat, Puri, Orissa	—(23. x. 1908).
9648	♀	Do	Do	—(23. x. 1908).
9649	—	Do	Belur, West Bengal	—(23. x. 1868)
9650	♂	Do	Do	<i>J. Caunter</i> (23. xi. 1908).
9651	♂	Do	Do	<i>Do.</i>
9652	—	Do	Sitanullah, Pareshnath Hill, Bihar	<i>N. Annandale and Jenkins.</i>
9797	—	Skin and Skull	—	—
9798	♂	Skin	Chanda, Madhya Pradesh (c 244 m)	<i>C. A. Crump</i> (2. vi. 1912).
9799	♂	Skin	Bhuj, Gujarat, (c 90 m)	—(1. viii. 1911).
11024	♀	Skin and Skull (in spirit)	Sardhi Jhelum, Salt Range, Pakistan	<i>Lac. Res. Inst.</i> (23. vii. 1922).
11042	—	Nest	Varanasi, Uttar Pradesh	<i>M. L. Roonwal</i> (17. vii. 1944).
11043	♂	Skin	Do	<i>Do.</i> (25. i. 1945).
11045	♂	Do	Do	—(16. ii. 1945).
11046	♂	Skin and Skull	Do	—(6. iii. 1945).
11047	♀	Skin and Skull (in spirit)	Allahabad, Uttar Pradesh	<i>M. L. Roonwal</i> (15. iii. 1945).



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11048	♀	Skin and Skull (in spirit)	Allahabad, Uttar Pradesh	<i>M. L. Roonwal</i> (16. iii. 1945).
11049	♂	Skin and Skull (damaged)	Do	<i>Do.</i> (15. iii. 1945).
11058	♀	Skin and Skull (in spirit)	Lucknow, Uttar Pradesh	<i>Do.</i> (19. iii. 1945).
11059	♂ Subad.	Skin and Skull (in spirit)	Lucknow, Uttar Pradesh	<i>Do.</i> (19. iii. 1945).
11060	♂	Do	Do	<i>Do.</i>
11061	♀	Do	Do	<i>Do.</i>
11062	♀	Do	Do	<i>Do.</i>
11068	Juv.	Do	Do	<i>Do.</i> (20. iii. 1945).
11069	Juv.	Do	Do	<i>Do.</i>
11070	Juv.	Do	Do	<i>Do.</i>
11072	♀	Do	Do	<i>Do.</i>
11073	♂	Do	Do	<i>Do.</i>
11074	♂	Do	Do	<i>Do.</i>
11075	♂	Do	Do	<i>Do.</i>
11076	♀	Do	Do	<i>Do.</i>
11105	♂	Skin	Varanasi, Uttar Pradesh	<i>B. Nath</i> (15. iv. 1948).
11107	—	Do	Do	<i>J. K. Singh</i> (Oct. 1945).
11118	♀	Do	Lerki Paley, Bolangir, Orissa	<i>P. N. Mitter</i> (10. iii. 1946).
11372	—	Skin (damaged)	Mewar, Rajasthan	<i>B. N. Chopra and</i> <i>M. L. Roonwal</i> (Oct. 1941).
11376	♂	Do (damaged)	Udaisagar, Mewar, Rajasthan	<i>M. L. Roonwal</i> (11. x. 1948).
11484	♂	Skin	Raghunathpur, Purulia, West Bengal	<i>B. Nath</i> (6. xii. 1948).
11485	♂	Do	Rewa, Madhya Pradesh	<i>M. L. Roonwal</i> (19. iii. 1947).

11486	♂	Skin	Rewa, Madhya Pradesh	<i>M. L. Roonwal</i> (19. iii. 1947).
11487	♀	Skin	Shikarganj, Rewa, Madhya Pradesh	<i>Do.</i> (8. iv. 1947).
11488	♂	Do	Rewa, Madhya Pradesh	<i>Do.</i> (18. iii. 1947).
11489	♀	Skin (damaged)	Balaram river, Palanpur, Gujarat	— (16. iii. 1948).
11491	♂	Skin	Mavli, Mewar, Rajasthan	<i>P. N. Mitter</i> (26. ii. 1948).
11496	♂	Skin (damaged)	Sarai, Mewar, Rajasthan	<i>A. F. Fernandez</i> (27. ii. 1948).
11497	♂	Skin	Mavli, Mewar, Rajasthan	<i>P. N. Mitter</i> (26. ii. 1948).
11500	♂	Skin (damaged)	Jogmandi, Jodhpur, Rajasthan	<i>Do.</i> (3. iii. 1948).
11501	♀	Do	Deesa, Palanpur, Gujarat	— (14. iii. 1948).
11509	♂	Skin	Purulia, West Bengal	<i>B. Nath</i> (8. xii. 1948).
11510	♀	Do	Inampur, Manbhum, Bihar	<i>T. B. Sinha</i> (24. xi. 1948).
11511	♀	Skin and Skull	Tanda falls, Mirzapur, Uttar Pradesh	—(13. xii. 1946).
11512	♀	Do	Rewa, Madhya Pradesh	<i>M. L. Roonwal</i> (18. iii. 1947).
11538	♂	Skin (damaged)	Deesa, Palanpur, Gujarat	<i>K. S. Pradhan</i> (14. iii. 1948).
11616	♀	Skin	Chandan Nagar, Hooghly, West Bengal	<i>B. Biswas</i> (30. vii. 1950).
12132	♀	Do	Port Blair, Andaman	— (24. iii. 1952).
12414	♂	Skin and Skull (in spirit)	Kundri, Daltonganj, Bihar	<i>Lac. Res. Inst.</i> (Jun. 1955).
12415	♂	Do	Do	<i>Do.</i>

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12416	♂	Skin and Skull (in spirit)	Kundri, Daltonganj, Bihar	<i>Lac. Res. Inst.</i> (Jun. 1955).
12481	♂	Do	Hoshiarpur, Punjab	<i>Punjab Univ.</i> (1955).
12482	♂	Skin	Gorakhpur, Uttar Pradesh	<i>Z. S. I. Party</i> (25. ii. 1955).
12483	♂	Do	Do	<i>Do.</i> (24. ii. 1955).
13380	—	Skin	Varanasi, Uttar Pradesh	—(1946).
13804	♂	Skin (damaged)	Calcutta, West Bengal	<i>B. S. Lamba</i> (7. iii. 1960).
14257	♂	Skin and Skull	Varanasi, Uttar Pradesh	<i>A. N. Fernandez</i> (20. vi. 1946).
14258	♀	Skin	Do	<i>Do.</i> (20. vi. 1946).
14259	♂	Skin and Skull	Do	<i>Do.</i> (24. v. 1946).
14260	♀	Skin	Do	<i>Do.</i> (29. vii. 1946).
14937	♂	Do	Baghowine, Darbhanga, Bihar	<i>N. A. Baptista</i> (5. ix. 1922).
14987	♂	Do	Morar, Gwalior, Madhya Pradesh	<i>C. Primrose</i> (15. vi. 1922).
14988	♀	Do	Do	<i>Do.</i>
14989	♂	Do	Agarmalwa, Gwalior, Madhya Pradesh	<i>J. R. O' Brien</i> (15. xii. 1922).
14990	♀	Do	Guna, Gwalior, Madhya Pradesh	<i>Do.</i> (11. x. 1922).
14991	♂	Do	Lothia, Gwalior, Madhya Pradesh	<i>Do.</i> (2. xi. 1922).
14992	♀	Do	Dhamtal, Kangra, Himachal Pradesh (c 610 m.)	<i>H. W. Wells</i> (22. x. 1922).
14993	♂	Do	Do	<i>Do.</i> (1. xi. 1922).

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14994	♂	Skin and Skull	Chorepura, Gwalior, Madhya Pradesh, (c 335 m.)	<i>C. M. Mayor</i> (4. viii. 1914).
14995	♂	Skin	Chakala, Rawalpindi, Pakistan	<i>C. H. Stockley</i> (12. vii. 1921).
14996	♀	Do	Panjgur, Baluchistan, Pakistan, (c 976m.)	<i>J. E. B. Hotton</i> (7. i. 1918).
14997	♂	Do	Kallar Kahar, Salt Range, Pakistan	<i>H. W. Wells</i> (21. iv. 1923).
14998	♂	Do	Madhopur, Ravi river, Pakistan	<i>Do.</i> (10. ii. 1923).
14999	♂	Do	Mirpur, Sikra, Sind, Pakistan	<i>C. McCann</i> (12. x. 1922).
15000	♀	Do	Gharo, Sind, Pakistan	<i>Do.</i> (7. x. 1922).
15001	♀	Do	Danta, Gujarat, (c 305 m)	<i>C. A. Crump</i> (5. vii. 1913).
15002	♂	Do	Jacobabad, Sind, Pakistan	<i>S. H. Prater</i> (20. ii. 1915).
15003	♀	Do	Gholana, Sind, Pakistan	<i>C. McCann</i> (17. x. 1922).
15004	♀	Do	Chakri, Salt Range, Pakistan, (c 274 m)	<i>H. W. Wells</i> (12. iii. 1923).
15005	♂	Do	Mand, Mekarah, Baluchistan, Pakistan	<i>J. E. B. Hotson</i> (5. iii. 1918.)
15006	♀	Skin and Skull	Pilibhit, Rohilkhand, Uttar Pradesh, (c 244 m)	<i>C. A. Crump</i> (4. iii. 1914).
15007	♂	Skin	Luna, Palanpur, Gujarat, (c 46 m.)	<i>Do.</i> (9. iv. 1913).

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15008	♂	Skin	Nimaighat, Hazaribagh, Bihar, (c 333 m.)	<i>Do.</i> (24. vi. 1914).
15009	♂	Do	Ghodasgaon, Khandesh, Madhya Pradesh, (c 305 m.)	<i>Do.</i> (6. v. 1911).
15010	♀	Do	Talala, Junagadh, Gujarat	<i>Do.</i> (21. x. 1912).
15011	♀	Do	Rajkot, Gujarat, (c 30 m.)	<i>Do.</i> (10. xii. 1912).
15012	♂	Do	Ramnagar, Kumaon, Uttar Pradesh	<i>Do.</i> (8. xii. 1913).
15013	♀	Do	Daltonganj, Bihar, (c 181 m.)	<i>Do.</i> (25. iii. 1914).
15014	♂	Do	Junagadh, Gujarat, (c 137 m.)	<i>Do.</i> (19. ix. 1912).
15015	♂	Do	Danta, Gujarat, (c 305 m.)	<i>Do.</i> (4. vii. 1913).
15016	♂	Do	Dhrangadhra, Gujarat	<i>Do.</i> (2. ii. 1913).
15017	♀	Do	Sakot, Hoshangabad, Madhya Pradesh, (c 366 m.)	<i>Do.</i> (28. i. 1912).
15018	♀	Do	Chichpalli, Chanda, Madhya Pradesh, (c 396 m.)	<i>Do.</i> (11. vi. 1912).
15019	♂	Do	Mt. Abu, Rajasthan, (c 131 m.)	<i>Do.</i> (8. vi. 1913).
15020	♀	Do	Salt Range, Pakistan, (c 610)	<i>H.W. Wells</i> (7. v. 1923).

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15021	♂	Skin	Turbat, Baluchistan, Pakistan	<i>J.E.B. Hotson</i> (28. xi. 1917).
16325	♂	Do	Bally, West Bengal	<i>S.S. Saha</i> (16. vi. 1963).
16372	♀	Skin and Skull	Bahraich, Uttar Pradesh	<i>H. Khajuria</i> (13. x. 1956).
16373	♂	Do	Do	<i>Do.</i>
16375	♀	Do	Do	<i>Do.</i>
16376	♀	Do	Do	<i>Do.</i>
16377	♀	Skin	Do	<i>Do.</i> (17. x. 1956).
16378	—	Do	Do	—
16379	♀	Skin and Skull	Do	<i>H. Khajuria</i> (14. x. 1956).
16380	♀	Do	Do	<i>Do.</i> (15. x. 1956).
16381	♀	Skin	Raipur, Nishangarh, Uttar Pradesh	<i>Do.</i> (7. ix. 1956).
16382	♂	Skin and Skull	Do	<i>Do.</i>
16383	♀	Skin	Sahasdhara, Dehra dun, Uttar Pradesh	<i>Do.</i> (9. ix. 1956).
16384	♂	Do	Do	<i>Do.</i>
16385	♂	Skin (skull inside)	Raipur road, Nishangarh, Uttar Pradesh	<i>Do.</i> (7. ix. 1956).
16386	♂	Skin and Skull	Do	<i>Do.</i>
16387	♂	Do	Do	<i>Do.</i>
16388	♂	Skin	Raipur forest, Nishangarh, Uttar Pradesh	<i>Do.</i> ( 6. ix. 1956).
16389	♀	Skin and Skull	Raipur road, Nishangarh, Uttar Pradesh	<i>Do.</i> (9. ix. 1956).
16390	♀	Do	Rajpur, Dehra- dun, Uttar Pradesh	<i>Do.</i> (11. ix. 1956).

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16391	♀	Skin and Skull	Chatgaon, Dehradun, Uttar Pradesh	<i>H. Khajuria</i> (11. ix. 1956).
16392	♂	Do	Raipur, Nishangarh, Uttar Pradesh	<i>Do.</i> (28. viii. 1956).
16393	♀	Do	Do	<i>Do.</i> (29. viii. 1956).
16394	♀	Skin	Dehradun, Uttar Pradesh	<i>Do.</i> (6. viii. 1956).
16395	♂	Skin and Skull	Do	<i>Do.</i>
16396	♀	Do	Do	<i>Do.</i>
16397	♂	Skin	Do	<i>Do.</i>
16398	♂	Skin and Skull	Varanasi, Uttar Pradesh	<i>Do.</i> (25. x. 1956).
16399	♂	Skin	Nepal	<i>Do.</i> (21. ix. 1956).
16400	♂	Do	Do	<i>Do.</i>
16401	♀	Skin and Skull	Mohand, Nishangarh, Uttar Pradesh	<i>Do.</i> (30. viii. 1956).
16402	—	Do	Do	<i>Do.</i> —
16549	♀	Do	Bikaner, Rajasthan	<i>P. D. Gupta</i> (2. x. 1962).
18493	♂	Do	Siwan, Sorath, Gujarat	<i>B. Biswas</i> (29. xi. 1962).
18608	♂ Juv.	Do	Rajasthan	—
18639	♂	Skin and Skull (in spirit)	Varanasi, Uttar Pradesh	<i>M. L. Roonwal</i> (4. xi. 1944).
18642	♂	Do	Do	<i>Do.</i>
18657	♀	Do	Manbhum (=Purulia), West Bengal	<i>T. R. Sinha</i> (26. xi. 1948).
18658	♂	Skin (in spirit)	Raipur road, Nishangarh, Uttar Pradesh	<i>H. Khajuria</i> (8. ix. 1956).
18659	♀	Do	Do	<i>Do.</i>
18660	♀	Do	Do	<i>Do.</i>
18661	♂	Do	Do	<i>Do.</i>
18662	♀	Do	Barkala, Uttar Pradesh	<i>Do.</i> (1. ix. 1956).

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18663	♀	Skin (in spirit)	Barkala, Uttar Pradesh	<i>H. Khajuria</i> (8. ix. 1956).
18664	♀	Do	Do	<i>Do.</i>
18665	♀	Do	Do	<i>Do.</i>
18666	♂	Do	Do	<i>Do.</i>
18667	♂	Skin and Skull (in spirit)	Rajasthan	<i>K. S. Pradhan</i>
18668	♂	Do	Do	<i>Do.</i>
18671	Juv.	Skin	Taldi, 24-Praganas, West Bengal	<i>A. K. Mondal</i> (25. xii. 1968).
19133	♀	Do	Jungle Ghat area, Port Blair, Andaman Island	<i>B. S. Lamba</i> (29. ii. 1964),
19134	♂	Do	Chabagicha Area, Port Blair, Andaman Island	<i>Do.</i> (1. iii. 1964).
19135	♂	Do	Do	<i>Do.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
8433	147	155	37	15
8434	145	128	38	15
8435	150	133	36	15
8436	142	152	37	16
9630	149	132	36	16
9631	148	125	32	16
9633	145	131	33	16
9634	137	141	35	16
9635	155	148	33	18
9638	165	140	32	17
9798	149	156	41	17
9799	133	115	36	16
11043	156	156	38	—
11045	139	126	37	16
11046	145	122	38	—
11047	153	134	37	—
11048	153	130	41	—



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Reg. No.	HB	tl	HF	E
11059	92	100	31	—
11060	156	135	37	—
11061	153	79	38	—
11062	146	98	36	—
11068	78	64	21	10
11069	74	65	23	10
11070	78	66	24	10
11072	93	—	30	15
11073	93	110	—	—
11074	92	102	31	—
11075	95	109	31	16
11076	97	105	32.5	15
11105	117	114	39	16
11118	149	—	36	11
11484	142.5	136	34.5	13.5
11485	121	134	38	15
11486	154	148	38	16
11487	156	140	38	22
11488	152	139	40	19
11489	133	138	34	16
11496	152	—	37	12
11497	125	133	36	13
11500	170	134	33	16
11501	152	121	35	14
11509	138	127	34	11.5
11510	149	—	38	14
11511	140	143	36	13
11538	151	115	36	16
11616	153	164	41	14
12132	142	147	37	18
12482	130	150	35	19
14257	126	—	38	16
14258	148	155	37	16
14259	155	—	40	17
14260	146	156	38	16
14937	143	156	41	18
14987	154	145	38	16
14988	157	130	35	16
14989	159	166	36	18
14990	158	150	38	18

Reg. No.	HB	tl	HF	E
14991	182	158	37	15
14992	137	144	35	15
14993	151	176	38	14
14994	148	122	36.5	15
14995	123	138	36	17
14996	142	170	39	17
14997	131	150	38	16
14998	150	150	39	17
14999	129	115	35	15
15000	137	135	34	15
15001	142	156	37	17
15002	136	164	35	15
15003	127	137	35	15
15004	152	149	42	19
15005	122	145	36	18
15006	142	153	39	17
15007	144	146	38	15
15008	138	152	38	17
15009	141	155	38	17
15010	146	—	37	16
15011	143	145	39	17
15012	139	—	37	17
15013	148	151	38	17
15014	137	132	28	16
15015	141	153	39	17
15016	137	145	38	17
15017	134	147	36	16
15018	142	144	38	16
15020	137	167	37	16
15021	135	138	38	18
16325	152	130	38	17
16372	144	129	38	17
16373	146	118	37	17
16375	135.5	155	37.5	15.5
16376	138	155	38	16
16377	132	131	38	17
16380	182	183	42	24
16381	190	200	44	24
16382	192	188	40	24
16383	191	201	42	24

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Reg. No.	HB	tl	HF	E
16384	186	198	48	26
16385	173	196	44	22
16386	192	200	48	24
16387	162	168	44	20
16388	180	184	48	22
16389	136	202	46	22
16390	180	200	46	24
16391	170	184	48	20
16392	230	200	40	20
16393	212	172	42	22
16394	150	128	39	16
16395	150	140	39	16
16396	163	—	39	16
16397	150	140	39	16
16398	150	130	38	—
16401	174	192	34	—
16549	155	170	34	18
18493	159	130	36	14
18657	113	118	30	13
18658	128	144	43	24
18659	114	194	40	22
18660	132	136	44	22
18661	134	181	45	24
18662	144	200	46	24
18663	144	194	44	24
18664	142	198	46	24
18665	146	202	48	24
18666	140	202	46	24
19133	146	149	37.5	15
19134	148	145	37	15
19135	145	120	36	15

*Remarks* : Wroughton (1905, 1916) advocated three subspecies, namely, *Funambulus pennanti pennanti*, *F. p. argentescens* and *F. p. lutescens* on the basis of the dorsal coloration. On the basis of study on a large number of specimens of this species, Ellerman (1963) remarked that the colour differences between the three subspecies mentioned by Wroughton, are completely inconstant and that Wroughton seems to have described only three colour variations which may occur anywhere. Therefore, he treated *pennanti* as a monotypic species. Later, Moore and Tate (1965) accepted all the three subspecies. From our studies,

however, we find that the colour differences between the three supposed subspecies are nothing but individual variations, and therefore, we support Ellerman's view.

Nos. 3174, 3798 and 14937 are wrongly labelled as *F. palmarum* but they are actually of *F. pennanti*.

No. 3798 is partially albinistic. Its entire dorsum is cream buff without any visible stripe.

Three females collected during March and April were pregnant, containing 2, 3 and 4 foetuses.

Baculum : Long, about 13 mm. in length, narrow, slightly swollen at base and curved apically.

*Distribution* : PAKISTAN. INDIA : The whole of northern India, south to about 20° N latitude and east to the Gangetic delta in West Bengal, also in Meghalaya and Andaman (Port Blair).

### 38. *Ratufa macroura macroura* (Pennant)

1769. *Sciurus macrourus* Pennant, *Ind. zool.*, 1, pl. 1. (Highlands of Sri Lanka).

#### *Material* :

9283	—	Skull	Sri Lanka	<i>E.F. Kelaart.</i>
9472	—	Skull	Sri Lanka	<i>E.F. Kelaart.</i> (Original label lost).

#### *Measurements* :

##### Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9283	66.6	30.7	20.2	28	24	14

*Remarks* : The original label of No. 9472 is lost and in the secondary label it is marked as the type of *Sciurus teanantii* Layard. According to Robinson and Kloss (1918), this is not the type specimen.

*Distribution* : SRI LANKA : The highland jungles of the Central and Uva Provinces.

### 39. *Ratufa macroura melanochra* Thomas and Wroughton

1915. *Ratufa macroura melanochra* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 36. (Kottawa, S. P., Sri Lanka).

#### *Material* :

9280	—	Skin (damaged)	Sri Lanka	<i>Zool. Garden, Calcutta.</i>
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15175	♀	Skin	Anasigalla, Mutugama, Sri Lanka	<i>W.W Phillips</i> (8. xii. 1920).
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*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15175	360	390	79	27

*Distribution :* SRI LANKA : The wet lowland areas of Southern and Western Provinces.

40. *Ratufa macroura dandolena* Thomas and Wroughton

1915. *Ratufa macroura dandolena* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 86. (Wellawaya, Uva, Sri Lanka).  
1931. *Ratufa macroura sinhala* Phillips, *Ceylon J. Sci., Sec. B.*, 16 : 215. (Nikawewa, Eastern Province, Sri Lanka).

*Material :*

9282	—	Skull	Sri Lanka	<i>E. Templeton.</i>
9779	—	Skin	Do	<i>E. L. Layard.</i>
10754	—	Skin and Skull	Salem, Tamil Nadu	<i>N. A. Baptista</i> (13. iv. 1929).
15106	♀	Do	Maha Oya, E. Province, Sri Lanka	<i>E. W. Mayor</i> (10. viii. 1913).
15107	♂	Do	Do	<i>Do.</i>
15108	♀	Do	Do	<i>Do.</i> (12. viii. 1913).
15109	♂	Do	Do	<i>Do.</i> (17. viii. 1913).
15110	♀	Do	North slope of Palni Hills, Tamil Nadu (c 915 m.)	<i>J. R. O' Brien</i> (Dec. 1921).
15111	♂	Do	Do	<i>Do.</i>
15112	♂	Do	Manekini, E. Province, Sri Lanka	<i>E. W. Mayor</i> (3. ix. 1913).
15113	♀	Do	Do	<i>Do.</i> (2. ix. 1913).
15114	♂	Do	Do	<i>Do.</i> (9. ix. 1913).
15115	♀	Do	Do	<i>Do.</i>
15116	♂	Do	Do	<i>Do.</i> (28. iv. 1914).

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15127	♀	Skin	Dharmapuri, North Salem, Tamil Nadu	<i>N. A. Baptista</i> (16. ix. 1930).
15128	♂	Do	Do	<i>Do.</i> (1. x. 1930).
15129	♂	Do	Do	<i>Do.</i> (30. ix. 1930).
15130	♀	Do	Do	<i>Do.</i> (28. ix. 1930).
15131	♀	Do	Do	<i>Do.</i> (7. x. 1930).
15132	♂	Do	Anchetti Range, N. Salem, Tamil Nadu	<i>Do.</i> (5. ix. 1930).
15133	—	Do	South India	—
15134	—	Do	Do	—
15172	♂	Do	Dharmapuri Range, N. Salem, Tamil Nadu	<i>N. A. Baptista</i> (2. x. 1930).
15173	♂	Do	Do	<i>Do.</i> (7. x. 1930).
15174	♀	Do	Anchetti Range, N. Salem, Tamil Nadu	<i>Do.</i> (8. ix. 1930).
19737	—	Do	—	—
19741	♀	Skin and Skull	—	<i>Zool. Garden,</i> <i>Calcutta</i> (19. vii. 1918).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15106	326	357	67	22
15107	315	371	69	22.5
15108	316	340	62	23
15109	236+	325	64	24
15110	327	343	67	25
15111	333	355	67	25
15112	312	356	61	24
15113	330	341	63	24
15114	312	345	63	23.5
15115	320	360	62.5	24
15116	280	312	61	22
15127	340	360	73	23
15128	360	390	74	24
15129	345	400	71	24

Reg. No.	HB	tl	HF	E
15130	330	370	71	24
15132	335	—	75	24
15173	330	370	76	24

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9282	63.1	28	19.2	25.3	22.9	—
15107	66.1	29	21.3	26	22	12.8
15108	66.2	27	20.8	25	22	12
15109	63.5	28	19	25	22	13
15110	65	28	21.5	26	22	12.8
15111	64	28.5	20.3	24.5	21	13
15112	64	29	21	24.2	22	13
15113	64	28	19	27	23	12.8
15114	64	28	22	24.2	21.8	13.2
15115	63.8	28.8	19.9	25	22	13
15116	66	29	22	25	21.8	13.2
19741	66.8	29.4	20.8	27.6	23	12.7

*Remarks* : No. 15173 is partially albinistic. Its entire body is white except the basal portion of the fur, which is brownish.

The colour of hind foot of No. 19741 is closer to that of *Ratufa bicolor felli* Thomas and Wroughton, but its skull is small and falls within the range of *Ratufa macroura dandolena*. Hence, we have kept it under this species.

*Distribution* : INDIA : Kerala, Tamil Nadu. SRI LANKA. The dry lowland of North-West, North-Central, Central, Southern, Eastern and Uva Provinces.

41. *Ratufa indica indica* (Erxleben)

1777. *Sciurus indicus* Erxleben, *Syst. Regn. Anim.* p. 420. (Bombay Presidency, Maharashtra).

*Material* :

9787	♂	Skull	Samasgi, Kanara, Karnataka	<i>G. C. Shortridge</i> (March 1912).
9788	♂	Do	Devikop, Dharwar, Karnataka	<i>Do.</i> (Nov. 1911).
15087	♀	Skin and Skull	Ghatmatha, Satara, Maharashtra	<i>S. H. Prater</i> (11. xii. 1914).
15088	♀	Do	Samasgi, Kanara, Karnataka	<i>G. C. Shortridge</i> (14. iii. 1912).

15089	♀	Skin	Samasgi, Kanara, Karnataka	<i>G. C. Shortridge</i> (19. iii. 1912).
15090	♂	Do	Devikop, Dharwar, Karnataka	<i>Do.</i> (24. xi. 1911).
15091	♀	Do	Ghatmatha, Satara, Maharashtra	<i>S. H. Prater</i> (10. x. 1914).
18726	♀	Do	Molem, Goa	<i>V. C. Agrawal</i> (4. i. 1969).
18738	♂ Juv.	Do	Do	<i>Do.</i> (2. i. 1969).
18739	♂	Do	Do	<i>Do.</i> (2. i. 1969).
18740	♂	Do	Do	<i>Do.</i> (2. i. 1969).
18741	♂	Do	Do	<i>Do.</i> (4. i. 1969).
18782	♂	Skin and Skull	Sonaulim, Goa	<i>V. C. Agrawal</i> (6. i. 1969).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15087	345	431	64	27
15088	360	435	70	26
15089	360	408	71	28
15090	370	397	73	27
15091	351	447	—	29
18726	360	423	80	26
18738	340	410	79	25
18739	378	440	81	26
18740	363	425	81	25
18741	390	440	80	27
18742	366	425	78	26

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9787	71.8	31.5	24.3	27	23.2	—
9788	71.3	31.1	23.8	27.1	24.2	14.3
15087	73	30.3	23.1	—	24.1	15.2
15088	71	30.5	21.2	25.8	24	14.1
15089	72.2	31.5	24.2	27.6	23	15.5
15090	71.9	31.6	23	28	23	14.9
18726	70	30.5	23	27.2	22.6	15.5
18738	73.5	31.5	25	28.2	23.3	14
18739	73	31	23.8	28.2	23.5	15
18740	75.5	32.5	25	32	23.2	15.2
18741	76	32.6	23.8	31	24	14.3
18742	73	31	23	28.8	23.5	14.5



Two specimens from Goa and one from Satara are intermediate between *R. indica indica* and *R. indica centralis*, in colour and measurements as discussed by Agrawal (1973).

*Distribution* : INDIA : Gujarat (Surat Dangs), Maharashtra, Goa, Karnataka (Dharwar and Kanara).

#### 42. *Ratufa indica superans* Ryley

1913. *Ratufa indica superans* Ryley, *J. Bombay nat. Hist. Soc.*, **22** : 436. (Wotekolli, S. Coorg, Karnataka).

*Material* :

15176	♂	Skin	Wotekolli, S. Coorg, Karnataka, (c 610 m.)	<i>G.C. Shortridge</i> (6. i. 1913).
18483	—	Do	—	—

*Measurements* :

External :

Reg. No.	HB	tl	HF	E
15176	400	490	92	33

*Distribution* : INDIA : Karnataka (Coorg ; Makut, Wotekolli).

#### 43. *Ratufa indica bengalensis* (Blanford)

1897. *Sciurus indicus* var. *bengalensis* Blanford, *J. Bombay nat. Hist. Soc.*, **11** : 303, pl. B, fig. 2. (Type locality unknown).

*Material* :

9587	—	Skull	—	<i>Asiatic Society of Bengal.</i>
15177	♀	Skin and Skull	Masiniguide, Nilgiri, Tamil Nadu	<i>J.R. O'Brien.</i>
15178	♀	Do	Nagarhole, Coorg, Karnataka	<i>G. C. Shortridge</i> (16. ii. 1913).
15179	♂	Skull	Coorg, Karnataka	<i>Do.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15177	419	387	110	21
15178	365	425	85	32

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9587	76.6	34	24.9	30.5	25.6	—
15177	75	32.8	30	22	25	14.8
15178	70	30	25	22.1	24	15.8
15179	74.1	31.8	29	25	24.1	15.6

*Remarks :* Moore and Tate (1965) synonymized *Ratufa indica bengalensis* with *Ratufa indica maxima*. Since our specimens of *bengalensis* and those mentioned by Ellerman (1963) differ from that of *indica* in having a black tail and longer hindfoot (84-87 vs 57-80) and from *maxima* in the absence of black patches on the back, we still maintain this subspecies.

*Distribution :* INDIA : Karnataka (Coorg : Kutta, Barampaddy Forest) and Tamil Nadu (Nilgiri).

44. *Ratufa indica centralis* Ryley

1913. *Ratufa indica centralis* Ryley, *J. Bombay nat. Hist. Soc.*, 22 : 436. (Hoshangabad, Madhya Pradesh).

*Material :*

9600	♀	Skull	No History	<i>Asiatic Society of Bengal.</i>
9611	—	Do	Do	<i>Do.</i>
9613	—	Do	Do	<i>Do.</i>
9789	♂	Do	Bori, Hoshangabad, Madhya Pradesh, (c 488 m.)	<i>C. A. Crump</i> (Feb. 1912).
9790	♀	Do	Do	<i>Do.</i>
15137	♀	Skin and Skull	Do (c 427 m.)	<i>Do.</i> (2. ii. 1912).
15138	♀	Skin	Kurnool, Andhra Pradesh	<i>N. A. Baptista</i> (14. iv. 1913).
15139	♂	Skin and Skull	Luih, Chaibassa, Bihar, (c 305 m)	<i>C. A. Crump</i> (26. vii. 1914).
15143	♀	Do	Do	<i>Do.</i>

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15144	♂	Skin and Skull	Bori, Hoshangabad, Madhya Pradesh	<i>C. A. Crump</i> (13. ii. 1912).
15145	♀	Do	Sankrametta, Jeypore, Orissa	<i>N. A. Baptista</i> (7. iv. 1930).
15146	♂	Do	Luih, Chaibassa, Bihar, (c 305 m.)	<i>C. A. Crump</i> (25. vii. 1914).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15137	342	401	74	29
15138	350	445	78	25
15139	360	450	81	30
15143	353	393	80	29
15144	342	382	72	29
15146	360	405	74	28

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9600	68.8	30	22	26.5	23.4	13.9
9611	75.9	30.8	26	29.2	24.3	—
9613	71.5	30.1	22.8	26.2	24.3	—
9789	68.6	29.3	21.5	27.3	23.6	14
9790	72	31	23	27.6	22.5	13.9
15137	71.3	30	21.8	29	23	14
15144	70.1	29	22	27	21.9	14
15145	73	30.5	22.2	27.8	22.8	14.7
15146	73.3	32	23	30	23	14.2

*Distribution :* INDIA : Madhya Pradesh, Andhra Pradesh, South Karnataka, Tamil Nadu (Coonor, Nilgiris, Coimbatore), Bihar and Orissa.

45. *Ratufa indica maxima* (Schreber)

1784. *Sciurus maximus* Schreber, *Saiigth.*, Pl. 217 B. Text, 4 : 785 (1785). (Malabar, Kerala).

*Material :*

9595	—	Damaged Skull	S. Malabar, Kerala	<i>J. Baker.</i>
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9598	—	Damaged Skin	Travancore, Kerala	<i>Travancore Mus.</i>
9610	—	Skull	South Malabar, Kerala	—
9616	—	Do	Travancore, Kerala	<i>Travancore Mus.</i>
11685	♀	Skin and damaged Skull	Peninsular India	—
15094	♂	Skin and Skull	Madura, Tamil Nadu (c 1525 m.)	<i>S. H. Prater</i> (11. v. 1917).
15095	♀	Do	Cochin, Kerala	<i>J. R. O' Brien</i> (1. iv. 1921).
15096	♀	Do	Do	<i>Do.</i>
15097	♂	Do	Palni Hills, Tamil Nadu (c 1860 m.)	<i>C. Mc Cann</i> (4. vi. 1922).
15098	♀	Do	Do	<i>Do.</i>
15099	♀	Do	Do	<i>Do.</i> (31. v. 1922).
15100	♂	Do	Do	<i>Do.</i> (1. vi. 1922).
15101	♂	Do	Do	<i>Do.</i> (31. v. 1922).
15102	♀	Skull	Do	<i>Do.</i> (31. v. 1922).
15103	♂	Skin and Skull	Do	<i>Do.</i> (5. vi. 1922).
15104	♀	Do	South Malabar, Kerala	<i>J. R. O' Brien</i> (25. iv. 1921).
15105	♂	Skull	—	—
16326	♂	Skin and Skull	Valparai, Tamil Nadu	<i>T. M. Shortt</i> (9. xi. 1963).
19480	—	Damaged Skin	Travancore, Kerala	—
19481	—	Do	Western Ghats, India	—

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15095	365	414	83	21
15096	416	386	72	28
15097	380	370	75	26

Reg. No.	HB	tl	HF	E
15098	400	410	78	26
15099	400	410	76	25
15100	400	390	75	25
15103	380	415	77	27
15104	428	495	83	27

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9610	76.3	33	23.7	31	25.4	—
9616	75.9	32.2	26	27.8	24.6	15
15095	71	30.5	20.3	24.5	24.5	15.5
15097	75.4	31.8	25.1	29.4	26	15
15099	77.5	33	24.9	30	24.5	15.3
15100	78.5	33	25	30	25	15
15101	76.5	32.1	25	28	24	15
15102	77	31	26.5	28.1	24.5	14.3
15105	80.5	34	27.5	29.5	26.5	16
16326	70.2	32	22	25.1	—	14.4

*Remarks* : No. 15105 is very old. Its first upper molar is worn to such an extent that only a trace of it is present in the jaw.

*Distribution* : INDIA : Kerala, Tamil Nadu (Ootacamund, Palni Hills, Madura).

46. *Ratufa bicolor bicolor* (Sparrman)

1778. *Sciurus bicolor* Sparrman, *Gotheborg, Samhalle Hand.* (Wet. Afd.), 1 : 70. (Anjer, West Java).

*Material* :

7785	Juv.	Skull	—	—
10148	♂	Skin and Skull	Tjibodas, Gedesh, (c 1525 m.)	<i>H. C. Robinson</i> (2. iii. 1916).
19489	—	Do.	No history	—
19740	—	Skin with Skull inside	—	—

*Measurements* :

## External :

Reg. No.	HB	tl	HF	E
10148	365	401	73	31

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
7785	63.1	27.6	20.4	25	22.4	13.1
10148	72.2	32.1	24.3	28	24.5	13.7

47. *Ratufa bicolor baliensis* Thomas

1913. *Ratufa bicolor baliensis* Thomas, *Ann. Mag. nat. Hist.*, (8) **11** : 506. (Tjetoe-kambawang, Bali).

*Material* :

10150	♀	Skin and Skull	Sodong, Jerok, E. Java, (c 1190 m.)	<i>Federated Malay States Museum</i> (9. iv. 1916).
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*Measurements* :

## External :

HB	tl	HF	E
359	417	77	28

## Cranial :

on	pal	nas	iw	orb
73.7	33	23	29	23.6

48. *Ratufa bicolor palliata* Miller

1902. *Ratufa palliata* Miller, *Proc. Acad. Natn. Sci. Philad.*, 1902 : 147. (Indragiri River, E. Sumatra).

*Material* :

10149	♂	Skin and Skull (damaged)	Sungei, Kumbang, Korinchi, W. Sumatra, (c 1372 m.)	<i>Federated Malay States Museum</i> (11. iv. 1914).
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*Measurements* :

## External :

HB	tl	HF	E
396	452	77	33

## Cranial :

on	pal	nas	iw	orb	TR
70.3	31.6	22.6	28.5	23.3	13.5

49. *Ratufa bicolor gigantea* (M'Clelland)

1839. *Sciurus giganteus* M'Clelland, *Proc. zool. Soc. Lond.* : 150. (Assam).  
 1849. *Sciurus macruroides* Hodgson, *J. Asiat. Soc. Beng.*, 18 : 775. (Nepal).  
 1916. *Ratufa gigantea lutrina* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 226. (Tatkon, Western Bank of Chindwin River, Burma).  
 1923. *Ratufa gigantea stigmosa* Thomas, *J. Bombay nat. Hist. Soc.*, 29 : 86. (Doi Stritepe, Chiangmai, Thailand).

*Material :*

1451	—	Skin	Sikkim	<i>L. Mandelli.</i>
9252	—	Skin and Skull	Do	<i>Do.</i>
9554	—	Skin and lower Jaw	Do	<i>Do.</i>
9555	—	Skin	Do	<i>Do.</i>
9556	—	Skin (damaged)	Do	<i>Do.</i>
9558	—	Skin and damaged Skull	Do	<i>Do.</i>
9562	—	Skin (damaged) and Skull	Do	<i>H. J. Elwes.</i>
9564	—	Skin (damaged)	Garo Hills, Meghalaya	<i>J. Anderson</i> (1869).
9565	—	Skin (damaged) and Skull	Samagooting, Nagaland	<i>J. Butler</i>
9566	—	Skin and Skull (damaged)	Do	<i>J. Anderson</i> (1869).
9567	—	Skin and Skull	Do	<i>J. Butler</i>
9571	—	Skin (damaged) and Skull	Naga Hills, Nagaland	<i>A. W. Channell.</i>
9573	—	Skin and Skull	Dunsiri Valley, Assam	<i>H. H. Godwin</i> <i>Austen</i> (26. viii. 1878)

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9574	—	Skin (damaged)	Sikkim	<i>W. T. Blanford.</i>
9576	—	Skin (damaged) and Skull	Dunsiri valley, Assam	<i>E. F. Smith</i> (1859).
9579	—	Skin (damaged)	Sibsagar, Assam	<i>L. Mandelli.</i>
9580	—	Do	Yunnan, China, (c 1830 m.)	<i>J. Anderson</i> (21. v. 1868).
9588	♂	Skin and Skull (damaged)	Darjeeling, West Bengal, (c 1525 m.)	<i>G. Massan.</i>
9590	—	Skin and Skull	Rungbee, Darjeeling, West Bengal	<i>J. Munro.</i>
11476	♀	Skin	Khasi Hills, Meghalaya	<i>Assam Survey</i> (4. vi. 1949).
11540	♀	Do	Do	<i>H. L. Hiteshi</i> (12. vi. 1949).
15083	♀	Skin and Skull	32 km. Sw. of Kindat, Burma, (c 305 m.)	<i>J. M. D. Mackenzie</i> (5. i. 1915).
15084	♂	Do	16 Km Sw. of Kindat, Burma	<i>Do.</i> (15. xii. 1914).
15085	♀	Do	Kabdaw valley, Chindwin, Burma, (c 183 m.)	<i>Do.</i> —
15086	♂	Skin	Do	<i>G. C. Shortridge</i> (4. ii. 1914).
15155	♂	Skin and Skull	Mishmi Hills, Arunachal Pradesh, (c 433 m.)	<i>H. W. Wells</i> (16. v. 1921).
15156	♀	Do	Gokteik, N. Shan State, Burma, (c 641 m.)	<i>G. C. Shortridge</i> (20. iv. 1913).



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15157	♂	Skin and Skull	Gokteik, N. Shan State, Burma, (c 641 m.)	<i>G.C. Shortridge</i> (21. iv. 1913).
15158	♀	Do	Hkamti, Upper Chindwin, Burma, (c 152 m.)	<i>Do.</i> (1. viii. 1914).
15159	♀	Do	Tura, Garo Hills, Meghalaya, (c 152 m.)	<i>H.W. Wells</i> (23. xi. 1919).
15160	♂	Do	Kamrup, Assam, (c 762 m.)	<i>Do.</i> (2. ii. 1921).
15161	♂	Do	Narbong, Darjeeling, West Bengal, (c 305 m.)	<i>C.A. Crump</i> (15. iii. 1915).
15162	♀	Do	Sivok West Bengal, (c 152 m.)	<i>Do.</i> (18. iii. 1915).
15163	♂	Do	Sangser, Darjeeling, West Bengal, (c 1098 m.)	<i>N.A. Baptista</i> (19. viii. 1916).
15164	♂	Do	Gokteik, N. Shan States, Burma, (c 641 m.)	<i>G.C. Shortridge</i> (24. iv. 1913).
15922	♀	Do	Tarkbala, Darjeeling, West Bengal, (c 411 m.)	<i>H. Khajuria</i> (18. viii. 1958).
15923	♂	Do	Do	<i>Do.</i> (19. viii. 1958).
15924	♂	Do	Do	<i>Do.</i> (15. viii. 1958).
16349	♀	Do	Jamduar, Assam	<i>Do.</i> (16. iii. 1957).
16350	♀	Do	Do	<i>Do.</i> (12. iii. 1957).

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16403	♀	Skin and Skull	Rongrengiri, Garo Hills, Meghalaya	<i>H. Khajuria</i> (6. ii. 1957).
16404	♂	Do	Jamduar, Assam	<i>Do.</i> (13. iii. 1957).
16405	♀	Do	Do	<i>Do.</i> (17. iii. 1957).
16406	♂	Do	Do	<i>Do.</i> (19. iii. 1957).
16407	♀	Do	Do	<i>Do.</i> (30. iii. 1957).
18632	♂	Do	Panjurmane, Bhutan, (c 1525 m.)	<i>B. Biswas</i> (8. xii. 1967).
18633	♀	Do	Batase, Bhutan, (c 1280)	<i>Do.</i> (17. xi. 1967).
18634	♀	Do	Shamgong, Bhutan, (c 1960)	<i>Do.</i> (3. xii. 1967).
18635	♂	Do	Chasilakha, Bhutan, (c 1860 m.)	<i>Do.</i> (5. ii. 1969).
18849	♀	Do	Langsaran, Bhutan, (c 1250 m.)	<i>Do.</i> (6. v. 1966).
19488	♂	Skull	Sikkim	<i>Do.</i> (10. i. 1953).
19491	—	Mounted specimen	Darjeeling, West Bengal	<i>Capt. Bonavia.</i>
19739	♀	Skin	Guntang, Bhutan	(7. Sept. 1914).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
11540	360	470	81	31
15083	355	510	89	32
15084	369	498	93	31.5
15085	414	521	91	31
15156	410	485	85	33.5
15157	385	510	86	34.5
15158	428	520	92	33
15159	380	470	90	25
15160	430	555	94	33

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Reg. No.	HB	tl	HF	E
15161	368	458	84	31
15162	380	470	90	25
15163	395	470	90	32
15922	375	450	87.5	30
15923	325	450	90	32.5
15924	325	450	92.5	28
16403	407	499	70	32
16404	391	442	72	39
16405	420	483	86	34
16406	413	464	82	31
16407	357	431	76	24
16349	420	446	78	30
16350	450	471	74	33
18632	379	501	74	33
18633	362	440	80	27
18634	405	481	87	37
18635	371	482	78	35
18849	370	422 +	77	34
		(tail mutilated)		
19739	335	329	73	30

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9565	72.8	32.8	20.3	27.5	—	—
9567	76.5	34.5	24.5	32	—	14.1
9573	73.6	32.2	—	32	—	14.1
15083	72.1	32.1	22.8	27.2	23.9	14.4
15084	75	32.5	24.4	32.2	25.3	14.2
15085	77.1	35.1	23	34	25.8	14.6
15155	74	32.5	23	30.5	25	14
15156	76	32.5	25.3	31	—	14.4
15157	75	32	24.5	29.1	24.6	14
15158	76.8	32.2	24.1	30.4	25.8	13.8
15159	74	32.5	22	29	25	14
15160	73	32	22.5	26	25.7	14.1
15161	74.5	32	21.8	29.2	—	13.5
15162	74	32.5	22	29	25.7	14
15163	74.3	32.6	22.9	30.3	25.7	13.2
15922	76.1	33.1	23	31.5	25.5	13
15923	75	33.1	23	29.5	25	13.5

Reg. No.	on	pal	nas	iw	orb	TR
15924	68.2	30	—	26.5	23.5	12.5
16404	72.5	32.2	21	28.2	25.4	13.7
16406	75	32.7	24.4	30.8	25.1	14.1
16349	74	32.2	23	30.2	—	—
16350	76	32.4	23	31.5	26.1	14
18632	76.1	33.6	22.1	30	26.4	14.3
18634	78	33.2	24.6	31.5	26.8	15
18635	73.5	31.6	22.1	29.2	25.3	14
18849	75.7	32.7	23.6	31	26.5	14.4

*Distribution* : NEPAL. BHUTAN. INDIA : Sikkim, West Bengal (Darjeeling), Assam, Arunachal Pradesh, Meghalaya, Nagaland, Tripura, Manipur. BURMA : North of 22°N latitude.

#### 50. *Ratufa bicolor fellii* Thomas and Wroughton

1916. *Ratufa fellii* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 226. (Yin, Burma).

#### *Material* :

15079	♀	Skin and Skull	Yin, Lower Chindwin, Burma	<i>G.C. Shortridge</i> (12. vi. 1914).
15080	♀	Do	Do	<i>Do.</i> (13. vi. 1914).
15081	♀	Do	Do	<i>Do.</i> (9. vi. 1914).
15082	♀	Do	Do	<i>Do.</i> (17. vi. 1914).

#### *Measurements* :

##### External :

Reg. No.	HB	tl	HF	E
15079	365	418	77	27.5
15080	375	442	75	28
15082	335	440	81	27

##### Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
15079	72.4	32	23.6	30.2	24.2	14.2
15080	75	32.2	24.4	30	23.5	13.6
15081	73.6	30.8	23	29.5	24.2	14
15082	71.1	30.6	23	29	23.5	14

*Distribution* : BURMA : east bank of Lower Chindwin, Chin Hills and Mt. Victoria.

51. *Ratufa bicolor phaeopepla* Miller

1913. *Ratufa phaeopepla* Miller, *Smiths. Misc. Coll.*, 61 : 21. (Sungei Balik S. Tenasserim).
1913. *Ratufa celaenopepla* Miller, *Smiths. Misc. Coll.*, 61 : 21, 26. (Domel Island).
1916. *Ratufa phaeopepla marana* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 227. (Mount Popa, Burma).

*Material :*

9529	—	Skull	Ye, Burma	<i>G.M. Giller</i> (1886).
9530	♀	Skin and Skull	Pilai, Elphinstone Island, Mergui Archaeipelago	<i>J. Anderson</i> (6. iii. 1882).
9532	—	Skin	Thaing, King Island, Mergui Archaeipelago	<i>Do.</i> (31. i. 1882).
9533	♂	Skin and Skull	Mergui, Burma	<i>J. Anderson</i> (14. xii. 1882).
9534	—	Do	Amherst, Tenasserim, Burma	<i>J. Armstrong.</i>
9535	—	Do	Do	<i>Do.</i>
9581	—	Do	Upper Burma	<i>C. Williams</i> (1865).
9592	—	Skin	Tenasserim, Burma	<i>F. Jenkins</i> (1845).
15147	♂	Do	48 km. N. of Toungoo, Burma, (c 155 m.)	<i>J.M.D. Mackenzie</i> (19. i. 1928).
15148	♀	Do	16 km. N. of Toungoo, Burma, (c 30 m.)	<i>Do.</i> (22. iv. 1927).
15149	♀	Do	48 km. SE of Prome, Burma, (c 92 m.)	<i>Do.</i> (24. xi. 1916).

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15150	♂	Skin	58 km. N. of Toungoo, Burma, (c 155 m.)	<i>J.M.D. Mackenzie</i> (3. xii. 1927).
15151	♀	Skull	Toungoo, Burma	<i>Do.</i> —
15152	♂ Juv.	Skin and Skull	58 km. N. of Toungoo, Burma, (c 155 m.)	<i>Do.</i> (3. xii. 1927).
15153	♂	Do	Toungoo, Burma	<i>Do.</i> —
15154	♀	Do	Mount Popa, Burma	<i>G. C. Shortridge.</i>
15180	♂	Do	Kisseraing Island, Mergui Archipelago	<i>C.A. Primrose</i> (7. i. 1922).
15181	♀	Do	Do	<i>Do.</i> (6. i. 1922).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15147	358	495	83	30
15148	340	480	82	30
15149	368	455	83	29
15150	361	403	85	28
15152	320	439	79	29
15180	405	430	66	27
15181	360	480	75	26

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9530	76.8	—	25.2	31.2	24.2	—
15147	76	35	25.6	31	26	14.2
15149	74.5	34	24.5	33	25.8	14.5
15151	—	33.2	—	28.1	25.3	14
15152	70	31.8	22.2	27.5	24.5	14.5
15153	73.1	32.3	24.8	29	24.3	14.2
15154	72.1	32.5	24	29.5	25.2	13.6
15180	71.8	31	22	28	23.5	13.1
15181	72.5	31	20.5	26.5	23.8	14

*Remarks* : In our specimens, although there is a tendency in the hindfoot and orbit being smaller in *celaenopepla* than in *phaeopepla*, but if the measurements mentioned by Ellerman (1963) are also taken into account, then these form a continuous series. Therefore, we support the merger of *celaenopepla* with *phaeopepla*.

*Distribution* : BURMA : Mt. Popa, Toungoo, Tenasserim, King Island, Kisseraing Island and Elphinstone Island.

## 52. *Ratufa bicolor penangensis* Robinson and Kloss

1911. *Ratufa melanopepla penangensis* Robinson and Kloss, *J. Fed. Malay States Mus.*, 4 : 245. (Penang Island).

### *Material* :

9536	—	Skin and Skull	No locality	<i>Purchased.</i>
9537	—	Do	Do	<i>Do.</i>
19483	—	Skin	Telok Bahang, Penang Island	<i>Federated Malay States Museum (11. iii. 1911).</i>

### *Measurements* :

#### Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9536	67.8	30.2	22.3	27.6	22.1	12.7
9537	67.5	29.6	22.8	25.4	22.7	13.3

## 53. *Ratufa bicolor tiomanensis* Miller

1900. *Ratufa tiomanensis* Miller, *Proc. Acad. Sci. Wash.*, 2 : 216. (Tioman Island).

### *Material* :

19482	♂	Skin	Juara Bay, East Coast of Malay Peninsula	<i>Federated Malay States Museum (22. vi. 1916).</i>
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### *Measurements* :

#### External :

HB	tl	HF	E
338	384	65	27

54. *Ratufa bicolor decolorata* Robinson and Kloss

1914. *Ratufa melanopepla decolorata* Robinson and Kloss, *Ann. Mag. nat. Hist.*, (8) 13 : 227. (Koh Samui Island).

*Material :*

19490	♂	Skin and Skull	W. Side Koh Samui, Bandon Right, Siamese Malay	<i>H. C. Robinson</i> (7. v. 1913).
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*Measurements :*

## External :

HB	tl	HF	E
315	327	46	29

## Cranial :

on	pal	nas	iw	orb	TR
67	29·6	20·6	25·8	22·2	13·3

55. *Ratufa bicolor peninsulæ* Miller

1913. *Ratufa melanopepla peninsulæ* Miller, *Smiths. Misc. Coll.*, 61 (21) : 25. (Lay Song Hong, Trang, Peninsular Siam).

*Material :*

9538	♂	Skull	Malay Peninsula	<i>W. Rutledge.</i>
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*Measurements :*

## Cranial :

on	pal	nas	iw	orb	TR
63·8	28·6	20·5	22·7	21·3	13·2

56. *Ratufa affinis hypoleuca* (Horsfield)

1824. *Sciurus hypoleucos* Horsfield, *Zool. Res. in Java*, p. 165. (Bencoolen, West Sumatra).

*Material :*

9543	—	Skin and Skull	Java	<i>T. Horsfield.</i>
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57. *Ratufa affinis pyrsonata* Miller

1900. *Ratufa pyrsonata* Miller, *Proc. Acad. Sci.*, 2 : 75. (Trang, Peninsular Siam).

*Material :*

7071	♂	Skin	Taiping, Perak, Malay Peninsula	<i>Mus. Collector</i> (1887).
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58. *Ratufa affinis auriventer* (Is. Geoffroy)1892. *Sciurus auriventer* Is. Geoffroy, *Mag. Zool. Cl.*, 1, pl. v. (Java in error = Malacca).*Material :*

9100	♂	Skin and Skull	Malacca	<i>H. C. Robinson</i> (26. x. 1910).
9101	♂	Do	Do	<i>Do.</i> (27. x. 1910).
9542	—	Do	Do	<i>E. R. Alston.</i>
9546	—	Skull (damaged)	Malay Peninsula	<i>G. Frith</i> (1846).
9547	—	Do	Do	<i>Do.</i>
9548	—	Skull	Java	<i>Mrs. Turnbull</i> (1857).
9580	—	Skin	Malay Peninsula	<i>E. Linstedt</i> (1846).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9100	315	405	61	22
9101	380	472	70	22

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR
9548	60.8	26.6	18.7	24.8	21	12.4

59. *Ratufa ehippium cothurnata* Lyon1911. *Ratufa cothurnata* Lyon, *Proc. U. S. Nat. Mus.*, 40 : 98. (Mt. Palung, near Sukadana, West Borneo).*Material :*

9544	—	Skin and Skull	Borneo	<i>E. R. Alston.</i>
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60. *Ratufa ehippium sandakanensis* Bonhote1900. *Ratufa ehippium sandakanensis* Bonhote, *Ann. Mag. nat. Hist.*, (7) 5 : 497. (Sandakan, N. Borneo).*Material :*

9550	—	Skin and Skull	Borneo	<i>E. R. Alston,</i>
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61. *Menetes berdmorei berdmorei* (Blyth)

1849. *Sciurus berdmorei* Blyth, *J. Asiat. Soc. Beng.*, 18 : 603. (Thoungyeen Dist., Burma).

*Material :*

9665	—	Skin	Martaban, Burma	<i>E. Blyth.</i>
9666	—	Do	Do	<i>Do.</i>
9667	♂	Skin and Skull (damaged)	Thaing, King Island, Mergui Archaeipelago	<i>J. Anderson</i> (Jan. 1882).
9668	♀	Skin	Do	<i>Do.</i>
15022	♀	Skin and Skull	South Zamayi, Burma, (c 122 m.)	<i>J. M. D. Mackenzie</i> (22. v. 1916).
15023	♂	Skin and Skull	Toungoo, Burma	<i>Do.</i> (2. xii. 1927).
15024	♂	Do	Do	<i>Do.</i>
15025	♀	Do	Sullivan Island, Mergui Archaeipelago	<i>C. Primrose</i> (4. iii. 1922).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15022	121	115	38	16.5
15023	171	—	40	18
15024	175	126	41	19.5
15025	193	—	37	19

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
15023	46.4	25.3	14.7	12.3	15.5	9.5	8.1
15024	47.2	25.2	14.3	12	15.4	9.7	—
15025	49.5	25.9	15	13.4	14.7	10.4	8.2

*Remarks :* Dorsal stripes are more prominent in specimens collected during December than in those of March and May.

*Distribution :* BURMA : Tenasserim to 112Km north of Pegu, King Island, Kisseraing Island and Sullivan Island.

62. *Menetes berdmorei decoratus* Thomas

1914. *Menetes berdmorei decoratus* Thomas, *J. Bombay nat. Hist. Soc.*, **23** : 24. (Mount Popa, Burma).

*Material :*

15026	♀	Skin and Skull	Mt. Popa, Burma, (c 1512 m.)	<i>G. C. Shortridge</i> (30. ix. 1913).
15027	♀	Do	Do	<i>Do.</i> (14. ix. 1913).
15028	♂	Do	Do	<i>Do.</i> (31. viii. 1913).
15029	♂	Skin and Skull (damaged)	Do	<i>Do.</i> (17. ix. 1913).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15026	186	169	44	19
15027	189	152	43	20
15028	165	147	43	20
15029	187	151	43	20

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
15026	46.5	24.8	14	12.1	15.3	9.7	9
15027	48	25	15	12.6	15.5	9.9	8.5
15028	44	23	12.7	11.5	14.4	9.4	8.4

*Distribution* : BURMA : Mt. Popa. Moore and Tate (1965) treated the entire population occupying north of Pegu as *decoratus* but Ellerman (1963) treated the population other than Mt. Popa as of nominate subspecies.

63. *Marmota bobak himalayana* (Hodgson)

1841. *Arctomys himalayanus* Hodgson, *J. Asiat. Soc. Beng.*, **10** : 777. (Nepal).

*Material :*

3675	♀	Flat Skin	—	<i>Zool. Garden, Calcutta.</i>
3828	♀	Skin and Skull (in spirit)	—	<i>W. Rutledge.</i>
4238	♀	Skin	—	<i>Do.</i>

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7776	♀	Skin and Skull	—	<i>Zool. Garden, Calcutta.</i>
15348	♂	Do	Patsco, Lahul, Himachal Pradesh, (c 3904 m).	<i>H.W. Wells (2. viii. 1922).</i>
15349	♀ Juv.	Do	Do	<i>Do. —</i>
15350	♂ Juv.	Do	Lingti, Lahul, Himachal Pradesh, (c 4967 m.)	<i>Do. (7. viii. 1922).</i>
15351	♀	Do	Do	<i>Do. (12. viii. 1922).</i>
15352	♂ Juv.	Do	Do	<i>Do. (14. viii. 1922).</i>
15353	♀	Do	Do, (c 4575 m.)	<i>Do. (17. viii. 1922).</i>
15354	♀	Skin	Kiyhlung, Lahul, Himachal Pradesh	<i>Do. (21. viii. 1922).</i>
17653	♂ Juv.	Do	Lingti, Lahul, Himachal Pradesh, (c 4575).	<i>Do. (16. viii. 1922).</i>
17654	—	Skin and Skull	Tibet	<i>C. A. Crump.</i>
18628	—	Skin	—	—
19729	♀	Skin and Skull (Stuffed)	Tibet	—
19730	—	Skin and Skull (damaged)	Tibet	<i>H. B. Hodgson.</i>
19731	♀	Skin (damaged)	Bhutan	<i>W. Rutledge.</i>
19732	—	Stuffed Skin (damaged)	—	<i>G. A. Bushby (1848).</i>
19733	♂	Skin (damaged)	Bhutan	<i>W. Rutledge.</i>
19734	♂	Do	—	<i>Do.</i>
19736	—	Skin and Skull (damaged)	—	—

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## External :

Reg. No.	HB	tl	HF	E
15348	580	180	102	28
15349	370	155	75	23
15350	410	150	—	—
15351	590	200	100	26
15352	350	120	70	20
15353	520	160	90	26
17653	370	110	76	24

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
15348	110	61.9	46	22.6	38.9	23.9	17.2
15351	100.2	55.9	42.2	23.6	36.6	24.2	17
15353	93.2	52.5	40.5	22.3	35	22.1	17
17654	110.4	64	46.4	27.5	38.3	25	17.3

*Remarks :* The dorsum is uniformly greyish-tawny in juveniles but mixed with patches of black hairs in adults. Further, the tail is relatively longer in the juveniles than in the adults (more than one-third *vs* less than one-third of head and body length).

*Distribution :* INDIA : Kashmir, Himachal Pradesh, Uttar Pradesh and Sikkim. NEPAL. BHUTAN.

64. *Marmota caudata aurea* (Blanford)

1875. *Arctomys aureus* Blanford, *J. Asiat. Soc. Beng.*, 44 : 106, 123. (Kaskasu Pass, Chinese Turkestan).

*Material :*

4257	—	Skin (damaged)	Little Pamir	<i>G. M. Gles</i> (May 1885).
7412	♂ Juv.	Skin and Skull	Great Pamir, Lake Victoria	<i>A. Alcock.</i>
15347	—	Skull	— —	<i>F. M. Bailey.</i>
15686	—	Skin and Skull (Holotype)	Kaskasu Pass, Chinese Turkestan, (c 3965 m.)	<i>F. Stoliczka</i> (15.v.1874).
19735	—	Skin and Skull (damaged)	Kaskasu Pass, Chinese Turkestan, (c 3965 m.)	<i>Do.</i> (15.v.1874).

*Measurements :*

## Cranial :

Reg. No.	on	pal	nas	iw	orb	bul
15347	86.5	46.5	35.3	19.4	30.4	14.1

*Distribution :* PAKISTAN : Chitral.

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330	—	Skin	—	—
3834	♂	Skin ( flat )	—	<i>W. Rutledge</i>
4240	♂ Juv.	Skin (damaged)	—	<i>Do.</i>

**65. Marmota monax (Linnaeus)**

1758. *Arctomys monax* Linnaeus, *Syst. Nat.*, 10th Ed., 1 : 60. (Maryland).

*Material :*

6218	—	Skin	—	—
6219	—	Skin	—	—

*Remarks :* The subspecific identification is not possible due to lack of external and cranial measurements and locality. Head is dark brown. Dorsal hairs are slaty brown on base, pale white at tip and intervened with yellowish and dark brown bands.

**66. Citellus tridecemlineatus Mitchill**

1821. *Citellus tridecemlineatus* Mitchill, *Med. Repos.*, n. s., 6 (21) : 248. (Central Minnesota).

*Material :*

15483	♀	Skin and Skull	Lagrange co., Pigeon river, Indiana	<i>T.W. Hackstra</i> (18. vi. 1962).
15483	♀	Do	Tippecanoe Co., W. Lafayette, Indiana	<i>L.J. Roop</i> (7. iv. 1962).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15482	254	89	36	9
15483	257	84	34	11

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
15482 &	36.9	20.3	13	7.7	14.8	6.7	8.8
15483	40.1	21	12.9	8.1	15	7.5	8.4

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*Remarks* : Post orbital process of skull is very small ; lacrymal bone is fairly well developed and flattened as compared to that of Oriental species of squirrels.

The above specimens were received in exchange from Purdue University, Lafayette, Indiana.

67. *Nannosciurus whiteheadi* (Thomas)

1887. *Sciurus whiteheadi* Thomas, *Ann. Mag. nat. Hist.*, (5) 20 : 127. (Mt. Kinabalu, North Borneo).

7234 — Skin and Kinabalu, *J. Whitehead.*  
Skull North Borneo  
(damaged)

68. *Sciurus carolinensis* Gmelin

1788. *Sciurus carolinensis* Gmelin, *Syst. Nat.*, 1 : 148. (Carolina).

*Material* :

3305 ♀ Skin and Skull N. America *W. Rutledge.*  
(in spirit)  
9498 ♂ Do — *Do.*

*Measurements* :

## Cranial :

Reg. No.	on	pal	nas	orb	iw	TR	bul	cw
3305	62	31.6	19.5	19.7	19	10.1	10.5	25.5
9498	62.5	31.8	21.7	20.8	20	11.6	10.6	25.7

*Remarks* : Coat colour bleached due to the action of spirit ; ears naked. Baculum small, 8 mm. in length ; almost straight except at the distal end which is slightly curved.

69. *Sciurus vulgaris* Linnaeus

1758. *Sciurus vulgaris* Linnaeus, *Syst. Nat.*, 10th Ed., 1 : 63. (Upsala, Sweden).

*Material* :

3597 ♂ Skin and Skull England *Zool. Garden,*  
(in spirit) *Calcutta.*

*Measurements* :

## Cranial :

on	pal	nas	iw	TR	bul	cw
50.4	26	15.2	17	9.6	10	23.4

*Remarks* : Coat colour bleached due to the action of spirit ; ears tufted.

70. *Sciurus anomalus pallescens* (Gray)

1867. *Sciurus pallescens* Gray, *Ann. Mag. nat. Hist.*, (3) 20 : 285. (Asia Minor).  
 1875. *Sciurus fulvus* Blanford, *Ann. Mag. nat. Hist.*, (4) 16 : 311. (Shiraj, Persia).

*Material :*

9484	♂	Skin and Skull (Holotype of <i>S. fulvus</i> )	Shiraj, Persia, (c 1219 m.)	<i>St. John</i> , (1870).
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71. *Rhinosciurus laticaudatus tupaoides* Gray

1843. *Rhinosciurus tupaoides* Gray, *List. Mamm.*, p. 195. (Singapore).

*Material :*

9664	—	Skin (Holotype)	Malay Peninsula, Singapore, Malay	<i>G. Maxon</i> (1851).
10156	—	Skull	Kaunaurig, Bandon, NE. Malay Peninsula	<i>Fed. Malay States</i> <i>Mus.</i>
10162	♂	Do	Parit, Perak	<i>Do.</i>
18610	♂	Skin	Kao Nawng, Bandom Siamese Malay	<i>H. C. Robinson</i> (16. vi. 1913).
18611	♂	Do	Parit, Perak	<i>Fed. Malay</i> <i>States Mus.</i> (16. ix. 1911).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
18610 &	211	114	37	16
18611	210	84	40	17

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
10156 &	55.8	24.6	18.6	12.6	15.3	11.6	11.2
10162	56.6	31	20.2	13.2	15.7	11.8	11.3

72. *Rhinosciurus laticaudatus robinsoni* Thomas

1908. *Rhinosciurus robinsoni* Thomas, *J. Fed. Malay States Mus.*, 2 : 104. (Tioman Island, E. Malay Peninsula).

*Material :*

10155	♂	Skull	Juara Bay, Pulau Tioman, Malay Peninsula	<i>Fed. Malay States</i> <i>Mus.</i>
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10161	♀	Skin and Skull	Juara Bay, Pulau Tioman, Malay Peninsula	<i>Fed. Malay States Mus. (6.vi. 1915).</i>
18613	♂	Skin	Do	<i>Fed. Malay States Mus. (10.vi. 1915).</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10161	187	96	34	19
18613	195	92	38.5	18

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
10155	56.5	29	20.2	11.9	15.2	11.9	10.8

**73. *Lariscus insignis javanus* ( Thomas and Wroughton )**

1909. *Laria insignis javana* Thomas and Wroughton, *Proc. zool. Soc.* (abstr.), p. 19 and 389. (Buitenzorg, W. Java).

*Material :*

10159	♀	Skin and Skull	Tjibodas, W. Java	<i>Fed. Malay States Mus. (29. ii. 1916).</i>
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*Measurements :*

## External :

HB	tl	HF	E
174	104	45	18

## Cranial :

on	pal	nas	iw	orb	bul
48.4	24.5	14.6	13.8	15.2	7.6

**74. *Lariscus insignis niobe* (Thomas)**

1898. *Funambululus niobe* Thomas, *Ann. Mag. nat. Hist.*, (7) 2 : 249. (Pajo, Highlands of West Sumatra).

*Material :*

10160	♀	Skin and Skull	Sungei, Kumbang, Korinchi, W. Sumatra	<i>Fed. Malay States Mus. (15. iv. 1914).</i>
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*Measurements :*

## External :

HB	tl	HF	E
179	91	42	15.5

## Cranial :

on	pal	nas	iw	orb	TR	bul
46.9	23.1	14.3	13.2	14.1	8.9	7.1

75. *Lariscus insignis jalorensis* (Bonhote)

1903. *Funambulus insignis jalorensis* Bonhote, *Fasc. Malay., Zool.*, **1** : 24. (Jalor, North Malay Peninsula).

*Material :*

9670	♂	Skin and Skull	Malacca, Malay Peninsula	<i>E. R. Alston.</i>
10142	♀	Skin	Benom foot Hills, Pehang, Malay Peninsula	— (2. xi. 1913).
10154	♂	Skin and Skull	Bukit Tangga, Negri Sembilan, Malay Peninsula	— (13. i. 1914).
10158	♂	Do	Betu Tegor, Perak, Malay Peninsula	<i>Fed. Malay States Mus.</i> (31. x. 1938).
18612	♀	Skin	Ayer Kring, Negri Sembilan, Malay Peninsula	— (17. iii. 1918).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10142	168	100	43	14
10154	170	108	—	15
10158	190	110	46	19
18612	185	108	44	15

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9670	—	23.7	15.7	13.5	15.1	9	—
10154	—	22.9	15.4	13.4	14.8	8.9	8.3
10158	49	24.1	15.4	14	14.5	—	—

AGRAWAL & CHAKRABORTY : *Catalogue of Mammals*76. *Tamiasciurus hudsonicus loquax* Bangs

1896. *Tamiasciurus loquax* Bangs, *Proc. biol. Soc. Wash.*, **10** : 161. (Liberty Hill, New London County, Connecticut).

*Material :*

15480	♂	Skin and Skull	Lagrange Co. Pigeon river, Fish & Game area, Indiana	<i>J. S. Grundy</i> (14. vi. 1962).
15481	♀	Do	Tippecanoe Co. W. Lafayette, Indiana	<i>R. C. Brundage</i> (18. iii. 1962).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
15480	289	100	48	25
15481	305	105	—	24

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
15480	46	23.1	14	14.2	16.3	7.4	9
15481	—	23.3	—	15.1	16	7	9.6

*Remarks :* The above specimens are received in exchange from Purdue University, Lafayette, Indiana.

77. *Tamiops swinhoe swinhoe* (Milne-Edwards)

1874. *Sciurus macclellandi* var *swinhoe* Milne-Edwards, *Rech. des. Mamm.*, p. 308. (Moupin, Szechuan, China).

*Material :*

9699	—	Skin	Moupin, China	<i>Pere David.</i>
9700	—	Do	Miwan, Kiangsi, China	<i>Do.</i>

*Remarks :* Both the above mentioned skins are badly damaged. In No. 9699 dorsal stripes are poorly developed and in No. 9700 these are prominent.

78. *Tamiops swinhoe maritimus* (Bonhote)

1900. *Sciurus macclellandi maritimus* Bonhote, *Ann. Mag. nat. Hist.*, (7) **5** : 51. (Foochow, Fukien, China).

*Material :*

7372	—	Skin and damaged Skull	Foochow, China	<i>C. B. Rickett</i> (April, 1892).
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79. *Tamiops macclellandi novemlineatus* (Miller)

1908. *Sciurus macclellandi novemlineatus* Miller, *Proc. biol. Soc. Wash.*, **16** : 147.  
(Trang, Siamese Malaya).

*Material :*

9018	♂	Skin	Selangor, Pehang border, Malay Peninsula, (c 1220 m.)	<i>Fed. Malay States Mus.</i> (Oct. 1909).
9019	♀	Do	Do	<i>Do.</i>
9778	—	Skin and Skull (damaged)	No History	—
10449	♀	Skin	Menuang Ganng, Ulu Langat, Selangor, (c 915 m.)	<i>Fed. Malay States Mus.</i> (28.v. 1911).
10450	♂	Do	Bukit Kuta, Ulu Selangor, (c 1037 m.)	—

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9018	100	105	25	10.5
10449	105	108	27	11.5

80. *Tamiops macclellandi formosanus* (Bonhote)

1900. *Sciurus macclellandi formosanus* Bonhote, *Ann. Mag. nat. Hist.*, (7) **5** : 52.  
(North Formosa).

*Material :*

9701	—	Skin and Skull (damaged) (Topotype)	Formosa	<i>E. R. Alston.</i>
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81. *Tamiops macclellandi barbei* (Blyth)

1847. *Sciurus barbei* Blyth, *J. Asiat. Soc. Beng.*, **16** : 875. (Ye, Tenasserim).

*Material :*

9694	—	Skin	Moulmein, Burma	<i>Mus. Collector</i> (Oct. 1872).
9695	—	Do	Do	<i>Do.</i>
9696	—	Do	Do	<i>Do.</i>
9697	—	Do	Do	<i>Do.</i>

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9698	—	Skin and Tenasserim, Skull Burma (damaged)	<i>Maj. Berdmore.</i>
9702	—	Do —	—
14283	♂	Skin and Kisseraing Skull Island, Burma	<i>C. Primrose</i> (6. i. 1922).
14284	♂	Do Toungoo, Burma, (c 122 m.)	<i>J. M. D. Mackenzie</i> (30. vii. 1927).
14285	♀	Do Tenasserim, Burma	<i>G. C. Shortridge</i> (3. iii. 1914).
14286	♀	Do Toungoo, Burma, (c 122 m.)	<i>J. M. D. Mackenzie</i> (13. xii. 1926).
14287	♂	Do Tenasserim, Burma	<i>G. C. Shortridge</i> (16. v. 1914).
14288	♀	Do Barlaw, Tenasserim river, Burma	<i>Do.</i> (23. iv. 1914).
14289	♂	Do Tenasserim, Burma	<i>Do.</i> (29. iv. 1914).
18642	♀	Do Kings Island, Mergui Archipelago	<i>C. Primrose</i> (23. ix. 1921).
18650	♂	Skin and Moulmein, Burma Skull (in spirit)	<i>J. Wood Mason.</i>
18651	♂	Skin and Moulmein, Skull Burma inside (in spirit)	<i>Do.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14283	101	110	25	13
14284	115	117	26	11
14285	114	110	29	13
14286	114	115	26	14
14287	110	110	29	13.5
14288	111	114	29	13
14289	110	119	28	13.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14284	31.5	13.5	8	11.6	9.6	5.4	5.8

*Remarks* : Ventral surface distinctly orange as against whitish or light grey, often with faint orange tinge in the nominate subspecies.

*Distribution* : BURMA : Bhamo to Tenasserim, Kings Island.

82. *Tamiops macclellandi macclellandi* (Horsfield)

1839. *Sciurus macclellandi* Horsfield, *Proc. zool. Soc. Lond.*, p. 152. (Assam).

*Material* :

7678	—	Skin and damaged Skull	—	—
9135	♂	Do	Kobo, Arunachal Pradesh	<i>S. W. Kemp</i> (3. xii. 1911).
9136	♂	Do	Do	<i>Do.</i> (8. xii. 1911).
9142	♀	Do	Rotung, Sikkim, (c 402 m.)	<i>Do.</i> —
9671	—	Skin and Skull	Sikkim	<i>L. Mandelli</i>
9672	—	Skin and damaged Skull	Do	<i>Do.</i>
9673	—	Skin and Skull	Do	<i>Do.</i>
9674	—	Skin and damaged Skull	Do	<i>Do.</i>
9675	—	Skin and Skull	Do	<i>H. J. Elwes.</i>
9676	—	Skin and damaged Skull	Do	<i>Do.</i>
9679	—	Do	Darjeeling, West Bengal	<i>Mr. Cakes.</i>
9680	—	Do	Do	<i>Do.</i>
9681	♂	Skin and damaged Skull	Naga Hills, Nagaland	<i>H. H. Godwin-Austen.</i>

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9682	♂	Skin and damaged Skull	Naga Hills, Nagaland	<i>H. H. Godwin-Austen.</i>
9683	—	Do	Do	<i>Do.</i> (Aug. 1875).
9684	—	Do	Do	<i>Do.</i> (Aug. 1875).
9685	—	Do	Do	<i>Do.</i> —
9687	♂	Do	Do	<i>A. W. Chennell</i> (Dec. 1875).
9688	♀	Do	Do	<i>A. W. Chennell</i> (April 1876).
9689	—	Do	N. Cachar, Assam	<i>H. H. Godwin-Austen</i> (May 1876).
9690	—	Do	Do	<i>Do.</i> —
9691	♀	Do	Duffla Hills, Arunachal Pradesh	<i>Do.</i> —
9692	♀	Do	Do	<i>Do.</i> —
11461	♂	Skin and Skull	Silchar Road, Manipur	<i>Naga Hills &amp; Manipur</i> <i>Survey</i> (11. ii. 1936).
14216	♀	Do	Sedonchen, Sikkim	<i>C. A. Crump</i> (17. xi. 1914).
14217	♂	Do	Gangtok, Sikkim, (c 1830 m.)	<i>Do.</i> (1. xii. 1914).
14218	♀	Do	Chuntang, Sikkim, (c 1634 m.)	<i>Do.</i> (10. xii. 1914).
14219	♂	Do	Do	<i>Do.</i> (14. xii. 1914).
14220	♂	Do	Gopaldhara, Darjeeling, West Bengal, (c 1440 m.)	<i>N. A. Baptista</i> (4. v. 1915).
14221	♂	Skin and Skull	Dibong river, Sadiya, Assam	<i>H. W. Wells</i> (30. xi. 1919).
14222	♂	Do	Dening, Mishmi Hills, Arunachal Pradesh, (c 687 m.)	<i>Do.</i> (1. iv. 1921).
14223	♂	Do	Dening, Mishmi Hills, Arunachal Pradesh	<i>Do.</i> (2. iv. 1921).

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14224	♂	Skin and Skull	Dreyi, Mishmi Hills, Arunachal Pradesh, (c 1568 m.)	<i>H. W. Wells</i> , (16. vi. 1921).
14225	♀	Do	Hkamti, U. Chindwin river, Burma, (c 152 m.)	<i>G. C. Shortridge</i> (29. vii. 1914).
14226	♂	Do	Do	<i>Do.</i> (11. viii. 1914).
14227	♀	Juv.Do	Chin Hills, c 96 km. W. of Kindat, Burma, (c 1525 m.)	<i>J.M.D. Mackenzie</i> (3. v. 1915).
14228	♀	Do	Do	<i>Do.</i> (5. v. 1915).
14229	♂	Do	Do	<i>Do.</i> (6. v. 1915).
15914	♀	Skin	Palmajua, Darjeeling, West Bengal, (c 687 m.)	<i>R.L. Fernandez</i> (22. vi. 1958).
15915	♀	Skin and Skull	Do	<i>H. Khajuria</i> (26. vi. 1958).
15916	♀	Juv.Do	Do	<i>Mr. Paynter</i> (26. vi. 1958).
15917	♀	Do	Do	<i>H. Khajuria</i> (27. vi. 1958).
15994	♂	Do	Do	<i>Do.</i> (27. vi. 1958).
18287	♂	Do	Gomchu, Bhutan, (c 2318 m.)	<i>B. Biswas</i> (7. iv. 1966).
18288	♂	Skin	Balfai, Bhutan, (c 2623 m.)	<i>Do.</i> (30. iii. 1966).
18636	♀	Skin and Skull	Simtokha, Bhutan, (c 976 m.)	<i>Do.</i> (23. ii. 1969).
18637	♀	Do	Shamgong, Bhutan, (c 597 m.)	<i>Do.</i> (4. xii. 1967).
18638	♂	Skin	Do	<i>Do.</i> (3. xii. 1967).
18652	♀	Skin and Skull	Samagooting, Nagaland	<i>J. Butler</i>
18653	♂	Do	Do	<i>Do.</i>



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18654	♂	Do	Sibsagar, Assam	<i>S. E. Peal.</i>
18655	♀	Do	Darjeeling, West Bengal	<i>W. T. Blanford.</i>
18656	♀	Do	Kamaing, Myitkyina, Burma	<i>B. N. Chopra</i>
18725	♀	Skin	Kaling, Bhutan, (c 2135 m.)	<i>B. Biswas</i> (11. iv. 1966).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9135	120	80	20	12
9136	113	90	20.3	10.2
9142	120	102	23	12
11461	115	95	29	—
14217	111	96	28	13
14218	100	100	27	12
14219	117	102	29	14
14220	117	—	25	12
14221	105	90	24	14
14222	116	101	27.5	13
14223	109	91	28	14
14224	105	90	24	13
14225	114	99	27.5	13.5
14226	116	101	28	13
14227	66	45	17	6.5
14228	116	94	26	12
14229	116	95	25	13.5
15914	121	98	29	14
15915	126	110	27	12
15916	72	81	23.5	11
15917	126	110	27	12
15994	124	94	19	15
18287	120	91	18	12
18288	116	103	24	12.5
18636	103.5	102	26.5	13
18637	111	93	27.5	13
18638	117	104	28	14
18725	125	110	27.5	11.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14217	33.2	15	9.6	12.1	10.3	5.8	6.5
14219	33.8	15.3	8.8	11.6	10.2	5.8	5.9
14221	30.4	14.5	8.3	11.1	—	5.4	6
14222	32.1	14.6	8.9	12	10	5.5	5.5
14223	32	15	8.5	11.5	9.5	—	5.9
14226	32.6	14.9	9	11.6	10.2	5.6	5.9
15994	34.5	15.3	10.1	12.3	11	5	6.3
18287	33.5	15	9.5	11.8	10.4	—	5.5
18288	33.7	15	9.9	12	10.4	5.7	5.8

*Remarks* : Ventral colour varies from white to light grey with faint orange tinge. Dorsal stripes are distinct, even in juvenile specimens. The mid dorsal stripe is darker than the lateral stripes, but the intensity of grey coloration in the latter varies irrespective of sex, season and locality.

*Distribution* : INDIA : Sikkim, West Bengal ( Darjeeling ), Assam, Arunachal Pradesh, Meghalaya, Mizoram, Nagaland, Manipur. NEPAL. BHUTAN. BURMA : Northern and western Burma.

83. *Callosciurus erythraeus erythraeus* (Pallas)

1779. *Sciurus erythraeus* Pallas, *Nov. Spec. Quad. Glir. Ord.*, p. 337. (Type locality not known, probably some part of Assam).

*Material* :

7096/9276	—	Skin and damaged Skull	Shillong, Meghalaya	<i>T. Toucha.</i>
9235	♀	Skin	Garo Hills, Meghalaya, (c 1240 m.)	<i>J. Anderson.</i>
9236	♂	Do	Garo Hills, Meghalaya	<i>H. H. Godwin-Austen.</i>
9237	♂	Do	Do	<i>Do.</i>
9239	—	Skin and Skull	— —	<i>A. W. Channell.</i>
9240	—	Do	— —	—
10196	♀	Skin	Tura, Garo Hills, Meghalaya	<i>S. W. Kemp.</i>
10199	♀	Do	Do	— —

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10203	♂	Skin	Tura, Garo Hills, Meghalaya, (c 940 m.)	<i>S. W. Kemp.</i>
10206	♂	Do	Do	— —
11465	♀	Skin and Skull	Chilpara Reserve Forest, Assam	<i>H. L. Hiteshi</i> (22. vi. 1949).
11466	♂	Do	North of Nongpoh Valley, Khasi Hills, Meghalaya	<i>Do.</i> (12. v. 1949).
11467	♂	Do	Do	<i>Do.</i> (12. vi. 1949).
11468	♂	Do	East of Nongpoh Valley, Khasi Hills, Meghalaya, (c 940 m.)	<i>Do.</i> (25. v. 1949).
11469	♀	Skin and damaged Skull	North of Nongpoh Valley, Khasi Hills, Meghalaya,	<i>Do.</i>
11470	♀	Skin and Skull	Do (c 700 m.)	<i>Do.</i> (12. v. 1949).
11471	♂	Do	North of Nongpoh Valley, Khasi Hills, Meghalaya	<i>Do.</i> (5. vi. 1949).
11472	♀	Do	East of Nongpoh Valley, Khasi Hills, Meghalaya, (c 650 m.)	<i>Do.</i> (13. vi. 1949).
14261	♂	Skin	Garo Hills, Meghalaya, (c 450 m.)	<i>H. W. Wells</i> (22. ii. 1920).
14262	♂	Skin and Skull	Garo Hills, Meghalaya, (c 380 m.)	<i>Do.</i> (25. iii. 1920).
14263	♀	Skin	Jowai, Meghalaya, (c 1400 m.)	<i>Do.</i> (17. vi. 1920).
14264	♀	Do	Rajapara, South Kamrup, Assam	<i>Do.</i> (18. xi. 1920).

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17701	♀	Skin and Skull	Rongrengiri, Garo Hills, Meghalaya	<i>H. Khajuria</i> (11. i. 1957).
17702	♀	Skin	Do (c 450 m.)	<i>Do.</i> (5. ii. 1957).
18493	—	Do	—	—
18494	—	Do	Tura, Garo Hills, Meghalaya	—

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10196	240	242	—	12
10199	236	222	54	12
10203	230	212	54	12
10206	220	218	55	12
11465	230	220	51	20
11466	237	227	50	21
11467	230	228	—	21
11468	245	210	55	20
11469	225	243	52	17
11470	233	227	51	21
11471	228	208	52	22
11472	238	232	52	18.5
14261	212	235	51	19
14262	244	202	51	19
14263	263	244	50	16
14264	230	260	53	22
17701	250	220	50	23
17702	239	230	48	25
18494	230	215	53	12

## Cranial :

Reg No.	on	pal	nas	iw	orb	TR	bul
11465	54	26.1	17.2	18.5	17.1	10.7	10.3
11466	56	26.8	16.5	21.5	18.1	10.1	11.1
11467	57	26.8	16	20.5	17	—	—
11468	57	28.3	18	21.5	16.5	9.9	10.5
11470	56	27	16.5	21	17	10.8	10
11472	54	27	—	18.8	17.3	10.1	11

*Distribution :* INDIA : Assam (Kamrup), Meghalaya (Jowai).

84. *Callosciurus erythraeus atrodorsalis* (Gray)

1842. *Sciurus atrodorsalis* Gray, *Ann. Mag. nat. Hist.*, 10 : 263. ('Bhutan', Substitute Moulmein).

1855. *Sciurus hyperythrus* Blyth, *J. Asiat Soc. Beng.*, 24 : 474. (Tenasserim).

*Material :*

6197	♀	Skin and Skull (in spirit)	—	—
7592	—	Skin and Skull	Shwaygwyin, Burma	<i>A. R. S. Anderson</i> (Jan. 1898).
9330	—	Skin	South of Irrawady, Burma	<i>T. H. Hood</i> (1873).
9332	—	Do	Do	<i>Do.</i>
9333	—	Do	Do	<i>Do.</i>
9334	—	Do	Do	<i>Do.</i>
9335	—	Do	Moulmein, Burma	<i>Do.</i> (Mar. 1873).
9337	—	Do	Do	<i>Do.</i>
9338	—	Do	Do	<i>Do.</i> (1871).
9339	—	Do	Do	<i>Do.</i> (Mar. 1873).
9340	♂	Skin and Skull	Do	<i>Do.</i> (Oct. 1872).
9341	♀	Do	Do	<i>Do.</i>
9342	♀	Do	Do	<i>Do.</i>
9343	—	Do	Do	<i>Do.</i>
9344	—	Skin	Do	<i>Do.</i>
9346	—	Do	Do	<i>Do.</i>
9347	—	Skin	Moulmein, Burma	<i>Do.</i> (Oct. 1872).
9349	—	Do	Do	<i>Do.</i>
9350	—	Do	Do	<i>Do.</i>
9351	—	Do	Do	<i>Do.</i>
9352	—	Do	Do	<i>Do.</i> (1872).
9353	—	Do	Do	<i>Do.</i>
9354	—	Do	Do	<i>Do.</i> (Oct. 1872).
9355	♂	Skin and Skull	Do	<i>Do.</i>

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9356	—	Skin and Skull	Mooley Range, Tenasserim, Burma	<i>Purchased (1877).</i>
9357	—	Do.	Do	<i>Do.</i>
9358	—	Skin and damaged Skull	Do	<i>Do.</i>
9360	♀	Skin and Skull	Moulmein, Burma	<i>T. H. Hood (Mar. 1872).</i>
9362	♀	Skin	- Do	<i>Do. (Aug. 1872).</i>
9363	—	Skull	Do	<i>Do.</i>
9364	♂	Skin and Skull	Do	<i>Do.</i>
9365	♀	Do	Do	<i>Do.</i>
9367	—	Skin and damaged Skull	Do	<i>Do.</i>
9478	—	Skin (Holo- type of <i>Sciurus hyperythrus</i> )	Do	<i>Major Berdmore (1852).</i>
9781	—	Mounted specimen	—	<i>Major Tickell.</i>
18495	—	Skin	—	—
18496	—	Do	—	—
18640	♀	Skin and Skull (in spirit)	East of Irrawady, Burma	<i>T. H. Hood.</i>
18641	♀	Do	Do	<i>Do.</i>
18648	♀	Do	Do	<i>Do.</i>
18649	♀	Do	Do	<i>Do.</i>

*Measurements :*

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
7592	50	24	15.2	17.5	16	9.9	9
9340	48.5	22.8	15	18.4	15.6	9	9
9342	48.3	24	15	18.2	16	9.5	8.5
9343	50	24	16	18.5	—	9.5	8.8
9355	50	24.1	14.8	18.8	16	9.4	—
9357	49	24.1	—	19	16	9	9.1

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Reg. No.	on	pal	nas	iw	orb	TR	bul
9360	51.8	25	16.1	18.8	16.3	9.1	9.2
9363	49.2	24.1	15	19.7	16.8	—	9.3
9364	48.7	23.6	15.3	17.9	16.1	8.9	10
9365	47.2	23.5	14.7	18.1	15.9	8.2	9.2
18640	52.6	25.3	16.6	19	16.3	9.3	9.5
18641	50.5	24	16.3	19	16.6	9.3	9

*Distribution* : BURMA : east of Irrawady, south of Moulmein.

85. *Callosciurus erythraeus erythrogaster* (Blyth)

1842. *Sciurus erythrogaster* Blyth, *J. Asiat. Soc. Beng.*, 11 : 970. (Manipur).

*Material* :

9153	♀	Skin	Pashighat, Arunachal Pradesh, (c 160 m.)	<i>S. W. Kemp</i> (26. iii. 1912).
9241	—	Do	East Naga Hills, Nagaland	<i>H. H. Godwin- Austen</i> (Aug. 1875).
9242	—	Skin and Skull	Do	<i>Do.</i> (4. viii. 1875).
9243	—	Do	Do	<i>Do.</i>
9244	—	Do	Do	<i>Do.</i> (Aug. 1875).
9245	♂	Do	Dimapur, Manipur	<i>Do.</i> (19. iv. 1875).
9246	♂	Skin and damaged Skull.	—	<i>Do.</i>
9247	♀	Skin	—	<i>Do.</i>
9248	—	Do	Samagooting, Nagaland	<i>Capt. Butler</i> (Aug. 1872).
9250	♂	Do	Naga Hills, Nagaland	<i>A. W. Chennell</i> (27. xii. 1875).
9253	—	Skin and Skull	Assam	<i>A. W. Chennell.</i>
9254	♂	Skin	Sylhet, Bangladesh	<i>Zool. Garden, Calcutta.</i>
9255	—	Do	Do	<i>Do.</i>
9256	—	Skin and Skull	Chittagong, Bangladesh	<i>J. L. Lister.</i>

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9257	♂	Skin	Assam	<i>A. W. Chennell.</i>
9262	—	Skin and Skull (Holotype)	Manipur	<i>C. S. Guthrie</i> (1842).
10086	♀	Skin and Skull	Assam	<i>Do.</i> (19. iv. 1875).
11374	♀	Do	Luanglong, Khunow, Manipur, (c 1000 m.)	<i>Naga Hills and Manipur Survey</i> (10. ii. 1936).
11375	♂	Do	Regailous Camp, Manipur, (c 1000 m.)	<i>Do.</i>
14167	♀	Do	Digboi, Assam	<i>H. W. Wells</i> (8. xi. 1919).
14168	♂	Do	Chin Hills, Burma, (c 1300 m.)	<i>J. M. D. Mackenzie</i> (6. v. 1915).
14169	♂	Do	Tamanthe, Chindwin, Burma	<i>G. C. Shortridge</i> (21. vii. 1914).
18773	♀	Do	Deomali Forest, Tirap Div., Arunachal Pradesh	<i>G. S. Arora</i> (9. 11. 71).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9153	251	229	43	22
11374	225	270	55	—
11375	207	274	55	—
14167	209	225	46	21
14168	248	201	52	21
14169	224	225	56	21.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9245	55	26.7	17.7	19.5	16.6	10	10
9256	58	27.6	18	22.3	18	10.1	10.3
9262	55.8	27.9	17	20	16.7	10.6	—
11375	54.9	26	16.8	18.2	18	—	9.8
14167	52.5	26.1	16.1	18	17.1	10	10.3
14168	53.1	25.8	16	18.8	17.5	10.1	10
14169	53	26.3	15.1	19.4	16.5	10	9.9



*Remarks* : No. 14168 appears to be an intergrade between *Callosciurus erythraeus erythrogaster* and *C. e. crotalius*. Its tail is grizzled with white. Chin and midventral region of No. 14167 is agouti in colour, the latter extending from chin to belly. Dorsal surface in Nos. 9254, 9255 and 9256 is much darker (Prouts Brown) than that of other specimens of this subspecies.

*Distribution* : INDIA : Assam, Arunachal Pradesh (Tirap, Pashi-ghat), Meghalaya (Syndai), Nagaland, Mizoram and Manipur. BANGLADESH. BURMA : Mt. Victoria, Kindat, Tamanthe and west of Chindwin.

### 86. *Callosciurus erythraeus punctatissimus* (Gray)

1867: *Macroxus punctatissimus* Gray, *Ann. Mag. nat. Hist.*, 20 : 283. (India).

#### *Material* :

18890	♂	Skin and Skull	Ambassa, Tripura	<i>V. C. Agrawal</i> (1. i. 1973).
18891	♂	Do	Do	<i>Do.</i> (1. i. 1973).
18892	♀	Do	Do	<i>Do.</i> (4. i. 1973).
18893	♂	Do	Do	<i>Do.</i> (4. ii. 1971).
18894	♂	Do	Do	<i>Do.</i> (5. ii. 1971).
18895	♀	Do	Do	<i>Do.</i> (10. ii. 1971).
18896	♂	Do	Do	<i>Do.</i> (9. ii. 1971).
18897	♂ Juv.	Do	Do	<i>Do.</i> (7. ii. 1971).
18898	♂	Do	Garjee, Tripura	<i>Do.</i> (1. xii. 1969).
18899	♂	Do	Do	<i>Do.</i> (1. xii. 1969).
18900	♂	Do	Do	<i>Do.</i> (30. xi. 1969).
18901	♂	Do	Do	<i>Do.</i> (26. xi. 1969).
18902	♂	Do	Ganganagar, Tripura	<i>Do.</i> (12. xii. 1972).
18903	♂	Skin and Skull	Ganganagar, Tripura	<i>Do.</i> (14. xii. 1972).
18904	♀	Do	Teliamura, Tripura	<i>Do.</i> (27. i. 1971).

#### *Measurements* :

##### External :

Reg. No.	HB	tl	HF	E
18890	238	253	54	21
18891	225	230	56	21
18892	212	250	56	20.5

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Reg. No.	HB	tl	HF	E
18893	244	258	58	22
18894	231	248	56	22
18895	242	239	55	23
18896	253	225	57	22
18897	204	230	54	22.5
18898	232	250	55	23
18899	230	245	58	22.5
18900	253	230	54	21.5
18901	250	235	57	20
18902	240	250	57	22
18903	234	255	55	22
18904	221	260	57	21.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
18890	56.4	28.1	18.1	20.6	17.4	10.6	12.1
18891	55.9	26.9	17.9	20.9	17.1	9.7	10.7
18892	56.5	28.1	18	20.4	17.6	10.1	10.9
18893	58.5	28.2	18.7	22	18	11	11
18894	56.5	28	17.8	19.7	17.2	10	11.5
18895	—	28.5	18.2	21.2	18	10.4	—
18896	55.5	28	17.5	18.3	17.1	10.4	11
18897	54	26.7	16.5	18	16.1	10.6	10.8
18898	56.6	27.3	18.2	21	17.8	10.5	11.2
18899	55.4	27.3	18.1	18.7	17	10.4	10.2
18900	57.1	28.1	18.9	20	17.2	10.3	10.3
18901	—	28.3	18.3	20.3	17.2	9.7	11
18902	57.9	27.9	18.9	22	18.2	10.5	10.5
18903	57.1	27.6	18.6	21.9	17.3	10.1	11
18904	54.8	28.2	17.8	17.5	17.5	10	10.4

*Remarks* : The above mentioned specimens tally well with the original description of *Macroxus punctatissimus* given by Gray (1867) not only in the fine grizzling of the fur but also in the darkness of colour. Therefore, this subspecies has been resuscitated by Agrawal and Bhattacharyya (in Press). Since this subspecies has recently been revived, the up to date holdings of the Zoological Survey of India, has been included in the catalogue.

*Distribution* : INDIA : Assam (Cachar), Tripura,

87. *Callosciurus erythraeus gordonii* (Anderson)1871. *Sciurus gordonii* Anderson, *Proc. zool. Soc. Lond.*, p. 140. (Bhamo, Burma).*Material :*

9257	—	Skin and Skull (Syntype)	Bhamo, Burma	<i>J. Anderson</i> (Feb. 1868).
9258	—	Skin and Skull	—	—
9259	—	Do	—	—
9266	—	Do	—	—
9267	—	Do	—	—
9268	—	Skin and damaged Skull (Syntype)	Bhamo, Burma	<i>J. Anderson</i>
9269	♂	Skin	Segoin, Burma	<i>Do.</i> (4. x. 1868).
9270	—	Skin and Skull	—	—
9271	♀	Skin	Sawaddy, Burma	<i>Do.</i> (30. i. 1875).
9273	♂	Skin and Skull	Second defile of Irrawady, Burma	<i>Do.</i> (5. iii. 1875).
9274	—	Skull	—	—
9275	—	Damaged Skull	—	—

*Measurements :*

## Cranial :

Reg. No.	on.	pal	nas	iw	orb	TR	bul
9258	49.7	24.3	15.9	16.2	15.7	9	—
9266	49.1	23.9	16	18.4	16.9	8.9	—
9267	49.9	24.8	14.7	17.6	15.4	8.6	—
9270	50.2	—	15.2	16.9	15.8	—	—
9273	51	25.3	16	17.5	16.1	9.7	9.5
9274	49.4	24	14.7	17	15.7	9.2	9.2

*Remarks :* Ventral surface, except the median stripe, in Nos. 9257 and 9267 is buff in colour and in Nos. 9258, 9266 and 9268 almost rusty.

Skull Nos. 9274 and 9275 were identified by Robinson and Kloss (1918) as those of *C. erythraeus erythraeus*. But these are smaller in size

than those of *erythraeus* and fits in well with *gordoni*. Therefore, we have kept them under this subspecies.

*Distribution* : BURMA : northeast Burma.

88. ***Callosciurus erythraeus bhutanensis*** (Bonhote)

1901. *Sciurus erythraeus bhutanensis* Bonhote, *Ann. Mag. nat. Hist.*, **7** : 161. (Bhutan).

*Material* :

18604	♀	Skin and Skull	Mithangar, Bhutan	<i>B. Biswas</i> (6. v. 1966).
18605	♀	Do	Geylegphug, Bhutan	<i>Do.</i> (11. xi. 1967).
18606	♀	Do	Mithangar, Bhutan	<i>Do.</i> (3. v. 1966).
18607	♀	Do	Geylegphug, Bhutan	<i>Do.</i> (11. xi. 1967).

*Measurements* :

External :

Reg. No.	HB	tl	HF	E
18604	233	182	49	19
18605	218	222	55	22
18606	213	193	46	19
18607	217	209	49	20

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
18604	—	26.2	—	19.5	17.3	—	9.3
18605	54.8	26.7	17.6	19.4	17.3	9.9	9.9
18606	54.3	26.4	16.8	19.1	17.2	10.5	9.9

*Remarks* : Facial region is distinctly reddish in all the specimens.

*Distribution* : BHUTAN.

89. ***Callosciurus erythraeus castaneiventris*** (Gray)

1842. *Sciurus castaneiventris* Gray, *Ann. Mag. nat. Hist.*, **10** : 263. China, evidently the vicinity of Canton).

1847. *Sciurus griseopectus* Blyth, *J. Asiat Soc. Beng.*, **16** : 873. (China).

*Material* :

7370	—	Skin and damaged Skull	Foochow, China	<i>R. Rickett</i> (Apr. 1892).
7371	—	Do	Do	<i>Do.</i>

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9013	♀	Skin	Bukit Fraser, above Semangho Pass, (c 1300 m.), China	<i>Selanger State Mus.</i> (11. x. 1909).
9014	♂	Do	Do	<i>Do.</i> (14. x. 1909).
9369	—	Skin (Holotype of <i>S. griseopectus</i> )	China	<i>R. Mullick.</i>
9370	—	Skin and Skull	Amoy, China	<i>R. Swinhoe.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9013	204	185	42	20
9014	214	186	46	20

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9370	51	24.1	15.5	18.2	16.6	9.2	9

*Remarks :* Chin, chest as well as a part of the midventral region of specimen Nos 9369 and 9370 are yellowish buff in colour.

**90. *Callosciurus erythraeus rubeculus* (Miller)**

1903. *Sciurus rubeculus* Miller, *Smiths. Misc. Coll.*, 45 : 22. (Khao Soi Dao, Trong).  
 1914. *Sciurus erythraeus youngi* Robinson and Kloss, *Ann. Mag. nat. Hist.*, (8) 13 : 224. (Teku Plateau, Gunong Tahan, North Pahang).

*Material :*

10097	♂	Skin	Kao Nawng, Bandon, Siamese Malaya, (c 1140 m.)	<i>H. C. Robinson and E. Siemund</i> (Jun. 1913).
10098	♂	Skin and Skull	Gunong Tahan, North Pahang, (c 950 m.)	<i>H. C. Robinson and C. B. Kloss</i> (5. vii. 1911).
10099	♀	Do	Do	<i>Do.</i> (Jul. 1911).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10098	195	186	47	20

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
10098	50.2	24.6	15.5	18.7	16.2	—	8.3
10099	49.4	23.7	14.8	17	16.1	9	8.4

91. *Callosciurus erythraeus intermedius* (Anderson)

1879. *Sciurus gordonii* var. *intermedia* Anderson, *Zool. & Anat. Res. Yunnan* : p. 241.  
(Dikrang Valley, Assam).

*Material* :

9151	♀	Skin and Skull	Kobo, Assam	<i>S. W. Kemp.</i>
9152	♀	Do	Do	<i>Do.</i>
9156	♀	Do	Do	<i>Do.</i> (Dec. 1911).
9157	♀	Do	Do	<i>Do.</i>
9158	—	Skin	Sipro Valley, Abor Hills, Arunachal Pradesh	<i>M. Decourcy.</i>
9159	♀	Do	Kobo, Assam	<i>S. W. Kemp.</i>
9160	♀	Do	Do	<i>Do.</i>
9161	♀	Do	Do	<i>Do.</i> (7. xii. 1911).
9162	♀	Skin and Skull	Do	<i>Do.</i> (Mar. 1912).
9163	♀	Do	Kobo, Abor Hills, Assam	<i>Do.</i>
9260	♂	Skin (Holotype)	Dikrang, Assam	<i>H. H. Godwin-Austen.</i>
9261	♂	Skin and Skull	Dikrang Valley, Assam	<i>Do.</i>
9263	♂	Do	Daffla Hills, Arunachal Pradesh	<i>Do.</i>
9264	♀	Do	—	<i>Do.</i>
9265	♀	Do	Assam	<i>F. Day</i> (1876).
9272	—	Do	Assam	<i>Do.</i>
14233	♂	Do	Dening, Mishmi Hills, Arunachal Pradesh, (c 720 m.)	<i>H. W. Wells</i> (3. v. 1921).

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14234	♀	Skin and Skull	Dreyi, Mishmi Hills, Arunachal Pradesh, (c 1680 m.)	<i>Do.</i> (2. vi. 1921).
14235	♂	Do	Do	<i>Do.</i>
14236	♂	Do	Sadiya, Assam, (c 191 m.)	<i>H. W. Wells.</i> (27. xi. 1919).
14237	♂	Do	Sadiya, Assam, (c 160 m.)	<i>Do.</i> (3. xii. 1919).
14238	♂	Do	Dening, Mishmi Hills, Arunachal Pradesh, (c 720 m.)	<i>Do.</i> (24. iii. 1921).
14239	♀	Do	Do	<i>Do.</i> (29. iii. 1921).
14240	♀	Do	Do	<i>Do.</i> (31. iii. 1921).
14241	♀	Do	Do	<i>Do.</i> (5. iv. 1921).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9161	250	210	39	22
14233	219	216	51	20
14234	205	194	44	21
14235	210	183	43	21
14236	220	205	48	21
14237	198	—	45	20
14238	250	220	50	20
14239	221	220	50	20.5
14240	213	220	50	21
14241	224	234	49	20.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14233	54	26.1	16.8	19	17	9.9	9.9
14234	52.4	24.9	16.1	19.4	16.1	10	9.5
14235	50.5	24.4	15.5	18	15.2	10	9.5
14236	52.8	26	15.1	18.5	17	10.1	10
14237	50.8	24.2	15.2	18.2	15.5	10.2	10
14238	54.2	26	16	18.4	17	10	9.6
14239	51	25	15	18.3	16.4	10.1	10
14240	50	24.8	15	17.8	16.2	10.1	9.2
14241	52.3	26	16.8	18.5	16.2	10.1	9.5

*Distribution* : INDIA : Assam (Kobo, Sadiya, Dikrang), Arunachal Pradesh (Mishmi Hills, Abor Hills, Lohit Valley). BURMA : Northern Burma. Moore and Tate (1965) have mentioned eight specimens from south Kamrup, Assam.

92. **Callosciurus erythraeus crotalius** (Thomas and Wroughton)

1916. *Callosciurus erythraeus crotalius* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 229. (Hkamti, west Bank of Chindwin).

1916. *Callosciurus erythraeus kinneari* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, **24** : 229. (Tatkon, west Bank of Chindwin).

*Material* :

14170	♀	Skin and Skull	Hkamti, Upper Chindwin, Burma, (c 160 m.)	<i>G. C. Shortridge</i> (24. vii. 1914).
14171	♂	Do	Do	<i>Do.</i> (27. vii. 1914).
14172	♂	Do	Do	<i>Do.</i> (5. viii. 1914).
14173	♀	Do	Do	<i>Do.</i> (7. viii. 1914).
14230	♀	Do	32 km. west of Kindat, Burma, (c 800 m.)	<i>J.M.D. Mackenzie</i> (27. xii. 1914).
14231	♀	Do	Do	<i>Do.</i> (23. iii. 1915).
14232	♂	Do	Tatkon, Kindat, Burma	<i>Do.</i> (26. vi. 1914).

*Measurements* :

External :

Reg. No.	HB	tl	HF	E
14170	246	239	56.5	20
14171	244	244	58	22
14172	242	241	57	21.5
14173	237	234	54.5	22.5
14230	234	239	55	21
14231	238	223	54	21.5
14232	206	210	56.5	20.5

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14170	55.1	27	18	—	17	10.2	10
14171	54.5	—	17	20	17	10	10
14172	55.9	27	17	19.5	16.9	10	10.1



Reg. No.	on	pal	nas	iw	orb	TR	bul
14173	55	26.8	17.2	21	17.1	10.1	10
14230	56.2	28	18	21.5	17.2	11	10
14231	55.1	26.3	17	19.1	16.8	10.6	10.1
14232	52	25	15.6	18	16.6	—	9.6

*Remarks* : In Nos. 14230 and 14232, a grey stripe, about 6 cm long, extends from throat to belly.

*Distribution* : BURMA : Western Burma.

### 93. *Callosciurus flavimanus phayrei* (Blyth)

1855. *Sciurus phayrei* Blyth, *J. Asiat. Soc. Beng.*, 24 : 472, 476. (Martaban, Burma).

1862. *Sciurus blanfordii* Blyth, *J. Asiat. Soc. Beng.*, 31 : 333. (Ava, Burma).

#### *Material* :

7593	♂	Skin and Skull	Kollado, Salwin Hill tracts, Burma	<i>A.R.S. Anderson</i> (22. i. 1873).
7594	♀	Do	Do	<i>Do.</i>
9298	—	Skin and damaged Skull (Syntype of <i>S. blanfordii</i> )	Ava, Burma	<i>W. T. Blandford</i> (1862).
9299	♀	Skin	Pudeepee, Burma	<i>J. Anderson</i> (10. i. 1875).
9300	—	Skin and damaged Skull (Lectotype of <i>S. phayrei</i> )	Martaban, Burma	<i>E. Blyth</i> (1861).
9301	—	Do	Do	<i>Do.</i>
9302	—	Damaged Skull	—	—
9473	—	Skin and Skull (Lectotype of <i>S. phayrei</i> )	Maratban, Burma	<i>E. Blyth</i> (1861).
10178	♂	Skin and Skull	Heho, South Shan States, Burma	<i>N. Annandale</i> (Mar. 1917).

					<i>N. Anandale</i>
10179	♀	Skin and Skull	Fort Stedman, South Shan States, Burma		(24. ii. 1917).
10181	♂	Do	Do		<i>Do.</i> (Mar. 1917).
14269	♀	Do	Gokteik, North Shan States, Burma, (c 700 m.)		<i>G. C. Shortridge</i> (24. iv. 1913).
14270	♀	Do	Do		<i>Do.</i>
14271	♂	Do	Se'en, North Shan States, Burma, (c 470 m.)		<i>Do.</i> (24. v. 1913).
14272	♂	Do	Ngapyinin, Shwebo Dist., Burma		<i>Do.</i> (30. vii. 1913).
14273	Juv ♀	Do	Do		<i>Do.</i> (2. viii. 1913).
14913	♀	Do	Toungoo, Burma		<i>J. M. D. Mackenzie</i> (17. iv. 1927).
14914	♂	Do	Do		<i>Do.</i> (9. iii. 1927).
14915	♂	Do	Do		<i>Do.</i> (9. ix. 1927).
14916	♀	Do	Do		<i>Do.</i> (22. xi. 1927).
14917	♂	Do	Do		<i>Do.</i> (31. xii. 1926).
14918	♂	Do	Do		<i>Do.</i> (1. i. 1927).
14919	♂ Juv	Do	Do		<i>Do.</i> (14. v. 1927).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10178	232	227	41	20
10179	230	248	48	20
10181	236	208	42	20
14269	236	218	55.5	23.5
14270	240	247	55	23
14271	244	217	53	21.5
14272	218	217	48	21
14273	181	193	47	19
14913	206	234	48	20
14914	206	—	49	21

Reg. No.	HB	tl	HF	E
14915	207	241	48	21
14916	192	235	50	20
14917	213	225	48	19
14918	197	217	46	20
14919	173	226	48	19

**Cranial :**

Reg. No.	on	pal	nas	iw	orb	TR.	bul
9298	51.6	—	15.2	—	18.1	—	10.5
9473	50.7	23.7	15.9	18.7	15.9	9.2	10
14269	56.1	27.5	17.2	19	18	11	10.8
14270	57	29	17.8	21	17.5	10.2	10.1
14271	57.5	28	17.7	18.5	18.5	11	10
14272	52	25.8	15.7	17.8	17	—	9.8
14913	52	25	16	17.6	17.6	10.5	9.9
14914	54	25.1	17.1	18.4	16	10.1	9.8
14915	53	25.6	15.8	18.9	17	10	9
14916	51	24.3	15.1	17.2	16.1	10	9
14917	53	25.6	17	18.7	16.6	10.3	9
14918	51	24.1	16	18.5	15.7	9.8	9

*Remarks :* Recently Moore and Tate (1965) has synonymized *Sciurus blanfordi* (Blyth) with *Sciurus phayrei* (Blyth). Although the dark ventro-lateral patch is present in all the three lectotypes of *Sciurus phayrei* and absent in the type *S. blanfordi*, but is variable in other specimens of both the species.

Furthermore, the skull size mentioned by Ellerman (1963) for differentiating the two subspecies overlaps in our specimens. Therefore, we support Moore and Tate's view.

*Distribution :* BURMA : Se'en to Tenasserim through Toungoo and Martaban.

**94. Callosciurus flavimanus sladeni (Anderson)**

1871. *Sciurus sladeni* Anderson, *Proc. zool. Soc. Lond.*, p. 139. (Thigyain, Burma).

*Material :*

9371	—	Skin and Skull (Syntype)	Thigyain, Burma	<i>J. Anderson</i> (8. i. 1868).
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9372	—	Skin and Skull	Burma	<i>C. Williams.</i>
9373	—	Do	Do	<i>Do.</i>
9374	—	Skull (Syntype)	Thigyain, Burma	<i>J. Anderson</i> (1868).
9783	—	Skin and Skull (Syntype)	Do	<i>Do.</i>
14187	♀	Skin and Skull	Kindat, Burma	<i>G. C. Shortridge</i> (28. vi. 1914).
14188	♂	Do	Do	<i>Do.</i> (1. vii. 1914).
14189	♂	Do	Do	<i>Do.</i>
14190	♂	Do	Do	<i>J.M.D. Mackenzie</i> (28. xi. 1914).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14187	223	255	56.5	21.5
14188	232	246	57	21.5
14189	237	248	56	21
14190	240	255	53	22

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14187	57.3	27.2	19.1	21.5	16.7	10.2	10
14188	57	27	18	20.7	16.8	10.5	10.1
14189	55	26.6	17	20.3	17.2	9.8	10.1
14190	55.4	26.3	17.8	20.2	16.5	—	10

*Distribution :* BURMA : 32Km northwest of Mansi, Myitkyina to Kindat through Katha region.

95. *Callosciurus flavimanus haringtoni* (Thomas)

1905. *Sciurus haringtoni* Thomas, *Ann. Mag. nat. Hist.*, **16** : 314. (Moungkan, east bank of Ohindwin, Burma).

*Material :*

14123	♀	Skin and damaged Skull	Homalin, Burma	<i>G. C. Shortridge</i> (13. vii. 1914).
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14124	♀	Skin and Skull	Homalin, Burma	<i>G. C. Shortridge</i> (16. vii. 1914).
14125	♂	Do	Do	<i>Do.</i> (14. vii. 1914).
14126	♀	Do	Do	<i>Do.</i> (17. vii. 1914).
14127	♀	Do	Do	<i>Do.</i> (29. viii. 1914).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
14123	234	233	57	21.5
14124	248	275	58	26
14125	240	257	58.5	23
14126	248	272	57	22.5
14127	244	273	58	22

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14124	56	27	16.6	19.6	17.2	11.2	11
14125	56.1	26.5	17.5	20.5	16.6	10.5	10.3
14126	54.9	26.5	16.8	19.4	17.5	10	10.1
14127	55	26	16.9	20.1	17.5	—	11

*Distribution :* BURMA : Mounghan, Homalin, Tamanthe, Hulaung and Kawya.

96. *Callosciurus flavimanus rubex* (Thomas)

1914. *Sciurus sladeni rubex* Thomas, *J. Bombay nat. Hist. Soc.*, 23 : 198. (Apparently Yin, Burma).

*Material :*

14265	♀	Skin and Skull	Yin, Lower Chindwin, Burma	<i>G. C. Shortridge</i> (13. vi. 1914).
14266	♂	Skin and Skull	Do	<i>Do.</i> (18. vi. 1914).
14267	♂	Do	Do	<i>Do.</i> (17. vi. 1914).
14268	♀	Skin and damaged Skull	Do	<i>Do.</i> (19. vi. 1914).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14265	219	225	54	20.5
14266	218	210	54	19
14267	211	214	58.5	21
14268	183	277	53.5	19

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14265	54.9	26	18	19.5	17	10	9.6
14266	51	—	15.3	18.5	16.5	—	9.3
14267	52.3	26	17.8	18.9	16.7	—	9.8

*Distribution :* BURMA : Yin, Youngbintha.

97. *Callosciurus flavimanus shortridgei* Thomas and Wroughton

1916. *Callosciurus sladeni shortridgei* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 232. (Hkamti, east bank of Upper Chindwin, Burma).

*Material :*

14135	♀	Skin and Skull	Hkamti, Upper Chindwin, Burma	<i>G. C. Shortridge</i> (24. vii. 1914).
14136	♂	Do	Do	<i>Do.</i> (25. vii. 1914).
14137	♂	Skin	Do	<i>Do.</i> (1. viii. 1914).
14138	♀	Skin and Skull	Do	<i>Do.</i> (2. viii. 1914).

*Measurements :*

## External

Reg. No.	HB	tl	HF	E
14135	244	222	59	22.5
14136	230	208	58	23
14137	233	265	57.5	22
14138	246	282	59.5	22

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14135	54.9	26	16.5	20.5	17.5	—	10.8
14136	56.2	26.2	17	20	18	—	10
14138	57	27.6	17	20.8	17.8	10	10.3

*Distribution :* BURMA : Hkamti, Minsin and Kauktaung.

98. *Callosciurus finlaysoni ferrugineus* (F. Cuvier)

1829. *Sciurus ferrugineus* F. Cuvier, *Hist. nat. Mamm.*, 3 : pl. 238. (Pegu, Burma).

*Material :*

9464	—	Skin and Skull	Rangoon, Burma	<i>H. Feilder</i> (1870).
9465	—	Do	Burma	<i>C. Williams</i> (1865).
9466	—	Do	Do	<i>Do.</i>
9467	—	Do	—	<i>E. R. Alston.</i>
9468	—	Do	—	<i>A. S. B.</i>
9469	♀	Do	Syriam, Pegu, Burma	<i>J. Armstrong</i> (1876).
9470	♀	Do	Do	<i>Do.</i>
14178	♀	Do	Zaungw, Pegu, Burma	<i>J. M. D. Mackenzie</i> (17. i. 1916).
14179	♀	Do	64 km. north of Pegu, Burma	<i>Do.</i> (21. iv. 1914).
14180	♂	Do	56 km. north of Pegu, Burma	<i>Do.</i> (11. v. 1916).
14181	♀	Do	Theme, Pome, Burma, (c 153 m.)	<i>Do.</i> (21. x. 1914).
14182	♂	Do	Mt. Popa, Burma, (c 1550 m.)	<i>Do.</i> (3. ix. 1913).
14183	♀	Do	48 km. north of Toungoo, Burma	<i>Do.</i> (23. viii. 1927).
14184	♂	Do	58 km. north of Toungoo, Burma	<i>Do.</i> (3. xii. 1927).
14185	♂	Do	48 km. north of Toungoo, Burma	<i>Do.</i> (28. vi. 1927).
14186	♀	Do	Do	<i>Do.</i> (8. iv. 1927).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
14178	227	219	51	23
14179	222	214	51	21.5
14180	209	232	55	20
14181	209	228	52	22
14182	198	211	51.5	22

Reg. No.	HB	tl	HF	E
14183	214	254	54	22
14185	210	224	50.3	20
14186	210	230	51.5	20.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14178	52.3	25.7	15.9	20.2	16.2	11	10.3
14179	51.4	25.1	15.3	18.7	17	11	10.9
14184	53.5	26.8	17.2	20	16.7	10.8	10.2
14185	52.7	25.6	16.5	20.4	16.7	10.5	10.5
14186	52.9	26.3	16.6	—	16.2	10.5	10.2

*Distribution* : BURMA : From Gokteik and Lawksawk to Rangoon, Mt. Popa, Pegu Yomas and Toungoo.

99. *Callosciurus caniceps caniceps* (Gray)

1842. *Sciurus caniceps* Gray, *Ann. Mag. nat. Hist.*, 10: 263. (North Tenasserim Burma ).

*Material* :

6526	♂	Skin and Skull (in spirit)	Moulmein, Burma	<i>J. Wood-Mason.</i>
6529	♂	Do	Do	<i>Do.</i>
6530	♂	Do	Do	<i>Do.</i>
6531	♂	Do	Do	<i>Do.</i>
7672	—	Skin	Probably Salwin Hill Tracts, Burma	<i>A. R. S. Anderson.</i>
9308	♀	Skin and Skull	Moulmein, Burma	<i>T. H. Hood.</i>
9309	—	Skin	Do	<i>Do.</i>
9310	—	Do	Do	<i>Do. (Oct. 1872).</i>
9311	—	Do	Do	<i>Do.</i>
9312	—	Do	Do	<i>Do.</i>
9313	—	Do	Do	<i>Do. (Oct. 1872).</i>
9314	♀	Skin and Skull	Moulmein, Burma	<i>T. H. Hood</i> ( Oct. 1872 ).
9315	—	Skin	Do.	<i>Do.</i>
9329	—	Skin and Skull	—	<i>A. R. S. Anderson.</i>



9474	—	Skin and Skull (Syntype of <i>Sciurus</i> <i>chrysonotus</i> )	Amherst, Tenasserim, Burma	<i>E. O' Ryley and</i> <i>J. Barbe (1846).</i>
9475	—	Do	Do	<i>Do.</i>
9476	—	Do	Do	<i>Do.</i>
9477	—	Do	Do	<i>Do.</i>
10167	—	Skin	Moulmein, Burma	<i>T. H. Hood</i> ( Oct. 1872 ).
18625	—	Skin and Skull ( in spirit )	Do	<i>Do.</i> (1872).
18627	—	Do	Do	<i>Do.</i>

*Measurements :*

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
6526	55.3	27.2	16.5	20.5	16.9	11.1	9.7
6529	52.5	25.7	15.6	16.8	16.9	10.7	10
6530	56.9	26.6	17.7	19.6	17.7	11.2	9.6
9308	53.8	26	15.4	19.5	17.5	—	10.1
9329	56.3	26.5	18.4	21.1	17.5	—	—
9474	53.8	26.4	16.6	—	19.3	10.2	—
9475	53	25.9	15.9	17.6	19.1	10.7	9.9
9476	55.5	26.7	16.9	—	20.4	10.9	10.3
9477	53	25.6	16.3	17.3	19	11	9.5

*Distribution :* BURMA : Moulmein, Amherst, Hankaryit, Lampea, Favoy, Thoungyeh, Kawlichuang Kawkareik, Myawadi, Lakya and probably in Salwin Hill Tracts.

100. ***Callosciurus caniceps bimaculatus*** ( Temminck )

1853. *Sciurus bimaculatus* Temminck, *Esquisses Zoologiques sur la cote de Guine*, p. 251. (Peninsula of Malacca).

*Material :*

9322	—	Skin	Mergui, Tenasserim, Burma	<i>J. Anderson</i> ( 23. iii. 1881 ).
9323	—	Skull	Do	<i>Do.</i>
9324	—	Skin and Skull	Do	<i>Do.</i> ( Dec. 1881 ).

9325	—	Skin and Skull	Mergui, Tenasserim, Burma	<i>J. Anderson</i> ( 14. xii. 1881 ).
10088	♀	Skin	SW. Koh Pennan Island, Siamese Malay	<i>H. C. Robinson and E. Siemund</i> (25. v. 1913).
10089	♂	Skin and damaged Skull	Do	<i>Do.</i> (31. v. 1913).
10094	♂	Skin and Skull	Lamra, Trang, North Malay Peninsula	<i>Mus. Collector</i> (4. i. 1910).
10101	♀	Do	Krongmon, Trang, North Malay Peninsula	<i>Do.</i> (16. ii. 1910).
14191	♂	Do	Victoria Point, South Tenasserim, Burma	<i>G. C. Shortridge</i> (28. xi. 1913).
14192	♂	Do	Bankachon, South Tenasserim, Burma	<i>Do.</i> (8. xii. 1913).
14193	♂	Do	Do	<i>Do.</i> (15. xii. 1913).
14194	♀	Do	Victoria Point, South Tenasserim, Burma	<i>Do.</i> (28. xi. 1913).
14195	♀	Do	Banakachon, South Tenasserim, Burma	<i>Do.</i> (9. xii. 1913).
14196	♀	Do	South Tenasserim, Burma	<i>Do</i> (3. iii. 1914).
14197	♂	Do	Do	<i>Do.</i>
14204	♀	Skull	—	—

14205	♂	Skin	Nathay Mine, Tenasserim, Burma	<i>C. Primrose</i> (12. iv. 1922).
14206	♀	Do	Do	<i>Do.</i>
14207	♀	Do	Do	<i>Do.</i> (16. iv. 1922).
14208	♂	Do	Mergui, Tenasserim, Burma	<i>Do.</i> (21. iv. 1922).
14209	♀	Do	Do	<i>Do.</i> (2. ix. 1921).
14210	♀	Skin and Skull	King's Island, Mergui Archaepelago	<i>Do.</i> (11. ix. 1921).
14211	♂	Skin	Do	<i>Do.</i> (12. 9. 1921).
14212	♂	Skin	Kisseraing Island, Mergui Archaepelago	<i>C. Primrose</i> (24. i. 1922).
14213	♂	Do	Do	<i>Do.</i> (27. i. 1922).
14214	♂	Do	Nathy Mine, Tenasserim, Burma	<i>Do.</i> (17. iv. 1922).
14215	♂	Skull	—	—

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
10088	202	235	49	29
10089	207	229	49.5	21
10094	226	220	47	19
10101	213	214	47	18
14191	230	222	52	21
14192	230	222	53	20
14193	233	208	53	21
14194	234	236	52	20.5
14195	230	221	53	20
14196	235	237	50	20.5
14197	233	238	50	21.5
14206	237	201	49	20
14207	237	240	50	20
14208	250	240	50	18
14209	227	207	46	20
14212	225	220	44	18
14213	240	227	45	19
14214	235	205	42	20

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9323	52.1	25	15.2	18.2	17	—	9.6
9324	54.5	26.3	15.7	19.4	17.5	—	9.6
10094	54.7	26.6	16.7	18.2	17.9	—	10.2
10101	55	26.5	16.8	18.2	17.3	—	10.5
14191	56.6	27.2	17.3	20.2	18	10.8	10
14193	53.5	26.5	15.5	18.6	17	10	9.4
14194	54.2	27	17	19.5	17	10.1	9.6
14195	56	26.6	18	20	17	11	9.2
14196	55.3	27	17	18	16.8	10.5	9.5
14197	55.5	27.3	17.1	18.5	17	11.5	9.8
14198	54.4	26.2	17	19.4	17	10.6	9
14204	55.3	26.5	17	20	17.4	9.8	9
14210	54.1	26	17	19	17	10.1	9.6
14215	53	25.1	16	19.8	16.5	10.2	9

*Distribution* : BURMA : Bankason, Sungei Balik, Tanjong Badak, Champang, Tagoot, Nathay Mine, Boyce's Point, Mergui district, King's Island, Tenasserim Island, Kisseraing Island, Tavoy Island, Hastings Island, St. Luke Island, St. Mathew Island, Clara Island, James Island.

101. *Callosciurus caniceps sullivanus* (Miller)

1903. *Sciurus sullivanus* Miller, *Smiths. misc. Coll.*, 45 : 17. (Sullivan Island, Mergui Archipelago).

*Material* :

9319	♀	Skin and Skull	Padang Tebu, Sullivan Island, Mergui Archipelago	<i>J. Anderson</i> (Feb. 1882).
9320	♀	Skin	Pilai, Elphinstone Island, Mergui Archipelago	<i>Do.</i> (1882).
9321	♀	Skin and Skull	<i>Do.</i>	<i>Do.</i>
9323	♀	Skin	<i>Do.</i>	<i>Do.</i>

*Measurements* :

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9319	54.2	27	16	19.5	17.6	—	9.9
9321	54	26.2	17	19	17.5	—	10.1

*Distribution* : BURMA : Sullivan Island, Malcolm Island, Elphinstone Island.

102. *Callosciurus caniceps crumpi* Wroughton

1916. *Callosciurus crumpi* Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 425. (Sedonchen, Sikkim).

*Material* :

14199	♀	Skin and Skull	Sedonchen, Sikkim, (c 2000 m.)	<i>C. A. Crump</i> (12. xi. 1914).
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*Measurements* :

External :

HB	tl	HF	E
172	190	49	19

Cranial :

on	pal	nas	iw	orb	TR	bul
46.8	23	14.2	16.2	15.8	8.6	8.2

*Distribution* : Sikkim.

103. *Callosciurus caniceps shanicus* (Ryley)

1914. *Sciurus atrodorsalis shanicus* Ryley, *J. Bombay nat. Hist. Soc.*, 22 : 663. (Gokteik, Shan States, Burma).

*Material* :

8431	—	Skin	Mongtta, North Shan States, Burma	<i>J. C. Brown</i> (Apr. 1907).
9110	—	Skull	—	—
14200	♂	Skin and Skull	South east Maymyo, Burma	<i>J. P. Cook</i> (24. vii. 1913).
14201	♂	Do	Faung-gaung, North Shan States, Burma, (c 900 m.)	<i>G. C. Shortridge</i> (30. iv. 1913).
14202	♂	Skin	Gokteik, North Shan States, Burma, (c 700 m.)	<i>Do.</i> (25. iv. 1913).

14203	♀	Skin and Skull	Kalaw, South Shan States, Burma (c 1300 m.)	<i>J. M. D. Mackenzie</i> (2. x. 1926).
14901	♀	Do	Faung-gaung, North Shan States, Burma, (c 900 m.)	<i>G. C. Shortridge</i> (1. v. 1913).
14902	♀ Juv	Do	Maymyo, Burma, (c 1150 m.)	<i>Do.</i> (14. iv. 1913).
14910	♀	Do	Gokteik, North Shan States, Burma, (c 700 m.)	<i>Do.</i> (24. iv. 1913).
14911	♂	Do	Do	<i>Do.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14200	200	165	42	20
14201	200	170	46	19
14203	189	176	46	18
14901	210	178	46.5	19.5
14902	151	168	45.5	21
14910	217	118	49	19
14911	210	200	49	20

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14203	47.5	23.2	14.3	16.2	15	14.2	9.5
14901	48.8	23	15.5	16.5	15.2	9	9
14910	50	24	13.8	18.8	16.2	9	9.2
14911	50.2	24	15	18	16.2	10	9.2

*Distribution :* BURMA : Gokteik, Hsipaw, Kalaw, Mongha, Maymyo, Pyaunggaung and Tavoy.

104. *Callosciurus caniceps concolor* (Blyth)

1855. *Sciurus concolor* Blyth, *J. Asiat. Soc. Beng.*, 24 : 474. (From the vicinity of Malacca).

*Material :*

9108	♀	Skin	Bukit Jong, Trengganu, Malaysia	<i>C. B. Kloss</i> (Sept. 1910).
9109	♀	Do	Do	<i>Do.</i>

9110	♀	Skin	Bentong, Pahang, Malaysia	<i>H. C. Robinson</i> (11. vi. 1910).
9111	♂	Skin and damaged Skull	Do	<i>Do.</i>
9112	♀	Skin	Nyalas, Malacca	<i>C. B. Kloss</i> (Oct. 1910).
9227	—	Skin and damaged Skull	Perak, Malaysia	<i>Mus. Collector.</i>
9326	—	Do	Do	<i>Do.</i>
9328	—	Skin and damaged Skull (Type specimen)	Malacca	<i>G. Moxon (1847).</i>
10087	—	Skin and Skull	—	—
10095	♂	Skull	Pulau Adang, Butang Islands, Straits of Malacca	<i>H. C. Robinson</i> (23. iv. 1911).
10096	♀	Do	Pulau Rawi, Butang Islands, Straits of Malacca	<i>Do.</i> (20. xi. 1911).
10100	♂	Do	Klang Gates, Selanger, Malaysia	<i>Mus. Collector</i> (10. i. 1909).
10102	♂	Skin and damaged Skull	Palau Terutau, Straits of Malacca	<i>H. C. Robinson</i> (Dec. 1909).
10138	♀	Skin and Skull	Do	<i>Do.</i> (Feb. 1909).
18516	—	Skin	—	—

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
9108	202	202	42	17
9109	192	195	41	17

Reg. No.	HB	tl	HF	E
9110	214	225	45	18
9111	203	195	44	17
9112	208	205	45	20
10095	199	178	45.5	19
10096	202	168	44	16.5
10100	205	195	46	18
10102	206	220	44	18
10138	220	210	46	20

## Cranial :

Reg. No.	on	pal	nas	iw	orb	bul
9110	—	25	—	18	18.2	10.3
9112	—	25.7	—	18	18	9.8
10095	48.7	23.4	14.5	16.8	15.8	9.5
10096	50	24.8	14.9	18	16.3	9.5
10100	50.2	24.4	—	17.1	17	8.8
10138	53.1	26.2	15.3	16.8	16.6	9.1

105. *Callosciurus caniceps lancavensis* (Miller)

1908. *Sciurus lancavensis* Miller, *Smiths. Misc. Coll.*, 45 : 16. (Lankawi Island).

*Material :*

10090	♀	Skin and Skull	Pulau Lankawi, Straits of Malacca	<i>Mus. Collector</i> (Mar. 1908).
10091	♂	Do	Do	<i>Do.</i> (10. ii. 1908).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10090	222	200	44	10
10091	230	200	45	19

## Cranial :

Reg. No.	on	pal	nas	iw	orb	bul
10090	54	25.9	16.9	18.9	16.1	10.1
10091	52.8	25.9	15.5	18.5	16.8	10



**106. Callosciurus caniceps samuiensis (Robinson and Kloss)**

1914. *Sciurus concolor samuiensis* Robinson and Kloss, *Ann. Mag. nat. Hist.*, (8) **13** : 226. (Samui Island, Thailand).

*Material :*

10092	♂	Skin and damaged Skull	Koh Samui Island, North East Malay Peninsula	<i>H.C. Robinson</i> and <i>E. Siemund</i> (11. v. 1913).
10093	♀	Skin and Skull	Do	<i>Do.</i> (13. v. 1913).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
10092	229	223	49.5	19.5
10093	225	210	45	20

Cranial :

Reg. No.	on	pal	nas	iw	orb	bul
10092	—	—	—	18.3	17	9.8
10093	53.4	25.6	16.8	19.1	16.7	10.2

**107 Callosciurus quinquestriatus quinquestriatus (Anderson)**

1871. *Sciurus quinquestriatus* Anderson, *Proc. zool. Soc. Lond.*, p. 142. (Ponsee, Kakhyen Hills, Yunnan-Burma border).

*Material :*

7558	—	Skin and Skull	—	<i>E. Pottinger.</i>
9461	—	Skin only (Paratype)	Ponsee, Kakhyen Hills, Burma, (c 3050 m.)	<i>J. Anderson</i> (4. v. 1868).
9462	—	Skin and damaged Skull (Paratype)	Ponsee, Kakhyen Hills, Burma, (c 3050 m.)	<i>J. Anderson</i> ( 18. iv. 1868 ).
9463	—	Skin and damaged Skull (Holotype)	Do	<i>J. Anderson</i> (1868).
10163	—	Skin and damaged Skull (Paratype)	Do	<i>J. Anderson</i> ( 4. iii. 1868 ).

*Measurements :*

## Cranial :

Reg. No.	pal	nas	iw	orb	TR
9462	24.9	16.4	18.6	16.5	9.9
10163	23.8	15.2	—	15.2	9.7

*Remarks :* Fur on the entire dorsal surface is grizzled with brown and black, but in areas around face, ear, limbs and the tail, the brown colour dominating due to narrow black bands. Tail-tuft dark brown, becoming lighter at the apex.

*Distribution :* BURMA : Northeastern Burma.

108. *Callosciurus pygerythrus pygerythrus* ( I. Geoffroy )

1831. *Sciurus pygerythrus* I. Geoffroy, in Belanger, *Voy. Inde Orient. Zool.*, p. 145 (Pegu, Burma).

*Material :*

9284	—	Skin and Skull	Burma	<i>C. Williams.</i>
9285	—	Skin	Rangoon, Burma	<i>J. Fayer.</i>
9286	—	Skin and Skull	Do	<i>A. Phayre.</i>
9287	—	Do	Do	<i>J. Armstrong</i> ( Jan. 1876 ).
9289	—	Do	Do	<i>Do.</i>
9290	♂	Do	Do	<i>Do.</i>
9782	—	Do	Pegu, Burma	<i>Major Berdmore.</i>
14274	♂	Do	40 km. North of Pegu, Burma	<i>J. M. D. Mackenzie</i> (18. 1. 1916).
14275	♂	Do	Do	<i>Do.</i> (12. v. 1916).
14276	♂	Do	Toungoo, Burma	<i>Do.</i> (25. xi. 1927).
14277	♀	Do	41 km. North-west of Toungoo, Burma	<i>Do.</i> (23. i. 1928).
14278	♀	Do	56 km. South-east of Prome, Burma	<i>Do.</i> (21. x. 1916).
14279	♀	Do	Do	<i>Do.</i> (23. x. 1916).
14280	♂	Do	48 km. South-east of Prome, Burma	<i>Do.</i> (12. i. 1917).
14281	♀	Do	Do	<i>Do.</i> ( 19. i. 1917).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
14274	187	162	43	18
14275	158	176	42	17
14276	182	177	44	21
14277	177	180	41	18
14278	181	181	45	18.5
14279	170	177	40.5	18
14280	181	152	41	18
14281	184	174	43	19

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
14274	45.7	23.2	13.8	14.1	15.2	8.2	9.1
14276	46.4	22.6	13.6	15.5	15.8	8.2	9.2
14277	45.5	22.4	13.1	14.5	15	7.5	9
14278	46	22	14	15.2	15.2	8.5	8.9
14279	43	20.8	12.2	14	14.3	—	9
14280	44	22.2	13.5	14.1	15	8	8.5
14281	46.5	22.8	14	15.5	15.2	8.3	—

*Distribution :* BURMA : Toungoo to Tenasserim.

109. *Callosciurus pygerythrus janetta* (Thomas)

1914. *Sciurus pygerythrus janetta* Thomas, *J. Bombay nat. Hist. Soc.*, 23 : 203.  
(Mandalay, Burma).

*Material :*

6480	♀ Juv.	Skin and Skull (in spirit)	Mandalay, Burma	<i>P. Sladen.</i>
9291	—	Skin and Skull	Burma	<i>C. Williams</i> (1865).
9292	♂	Do	Sagaing, Burma	<i>J. Anderson</i> (Oct. 1868).
9294	♀	Do	Do	<i>Do.</i>
9295	♂	Do	Ava, Burma	<i>Do.</i>
9296	♀	Do	Do	<i>Do.</i> (Jan. 1875).
9297	♀	Do	Kabuet, Burma	<i>J. Armstrong</i> (Jan. 1875).

10164	—	Skin and Skull	Burma	<i>C. Williams.</i>
14128	♂	Skin	Mingun, Sagaing, Burma	<i>G. C. Shortridge</i> (8. vii. 1913).
14129	♀	Do	Do	<i>Do.</i>
14130	♂	Do	Kyawk Myaung, Irrawaddy, Burma	<i>Do.</i> (27.vii.1913).
14131	♀	Do	Mount Popa, Burma	<i>Do.</i> (1. ix. 1913).
14132	♂	Do	Do	<i>Do.</i>
14133	♂	Do	Yin, Lower Chindwin, Burma	<i>Do.</i> (11.vi. 1914).
14134	♂	Do	Do	<i>Do.</i> (18. vi. 1914);

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14128	192	161	43	20
14129	186	174	41.5	19
14130	160	163	43	19
14131	173	176	40.5	19.5
14132	191	176	42	19
14133	190	145	44	20.5
14134	186	162	44	19

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9292	46	22.1	13.4	15.4	15.8	9.3	8.3
9297	45	21.7	13.1	14.9	15.4	8.5	8.9
14128	46	22.2	14.2	15.6	15.7	8.5	9.3
14129	45	—	12.4	13.3	15.6	8.5	9.2
14131	42.8	20.1	11.9	14.1	14.3	8.7	8.7
14132	44.5	21	13	15	15.1	8.1	9.2
14133	45.5	22.2	13.1	14.9	15.3	—	9.3
14134	—	21.5	13.6	15.7	15.6	9	9.3

*Remarks :* In No. 6480 fur is poorly developed and is cream in colour. In skull, m1 and m2 have only erupted.

*Distribution :* BURMA : Central Burma.

110. *Callosciurus pygerythrus lokroides* (Hodgson)

 1886. *Sciurus lokroides* Hodgson, *J. Asiat. Soc. Beng.*, 5 : 232. (Nepal).

*Material :*

7300	—	Skin (damaged) and Skull	Darjeeling, West Bengal	—
7301	♂	Skin and Skull (in spirit)	Tindaria, Darjee- ling, West Bengal	<i>W. Patridge</i> (15. iv. 1892).
8404	—	Skin	Kathmandu, Nepal	<i>Major Manners- Smith.</i>
9377	—	Skin (damaged) and Skull	Bhimphed, Nepal	<i>J. Scully.</i>
9378	—	Skin	Hitawia, Nepal	<i>Do.</i>
9380	—	Do	Sikkim	<i>H. J. Elwes.</i>
9382	—	Skin (damaged) and Skull	Darjeeling, West Bengal	<i>W. T. Blanford.</i>
9384	—	Skin and Skull	Do	<i>G. Masson.</i>
9385	—	Skin	Do	<i>J. Anderson.</i>
9392	—	Skin (damaged) and Skull	Sikkim	<i>Do.</i>
9393	—	Skin (damaged)	Darjeeling, West Bengal	<i>Do.</i>
9414	—	Skin (damaged) and Skull	Manipur	<i>H. H. Godwin- Austen.</i>
9416	—	Skin (damaged)	Do	<i>Do.</i>
9417	—	Do	Do	<i>Do.</i>
9428	—	Skin (damaged) and Skull	Sikkim	<i>L. Mandelli.</i>
9431	—	Skin (damaged)	Darjeeling, West Bengal	<i>E. Blyth.</i>

9436	—	Skin (damaged) and Skull	—	<i>A. Grote.</i>
11463	♂	Skin	Hitaura, Nepal	<i>B. Biswas</i> (26. v. 1947).
11464	♂	Do	Do	<i>Do.</i>
11539	♀	Do	Do	<i>P. N. Mitra</i> (1. vi. 1947).
14147	♂	Skin and Skull	Pashok, Darjee- ling, West Bengal	<i>N. A. Baptista</i> (12. vii. 1915).
14148	♀	Do	Sangser, Darjee- ling, West Bengal	<i>Do.</i> (18. viii. 1916).
14149	♀	Skin	Mongpo, Darjee- ling, West Bengal, (c 1260 m.)	<i>H. Stevens</i> (6. v. 1921).
14150	♀	Skin and Skull	Chuntang, Sikkim	<i>C. A. Crump</i> (17. xii. 1914).
14151	♂	Do	Narbong, Darjee- ling, West Bengal, (c 625 m.)	<i>Do.</i> (10. iii. 1915).
14153	♂	Do	Chalnakhel, Nepal	<i>N. A. Baptista</i> (10. v. 1921).
14154	♀	Do	Hathiban, Nepal	<i>Do.</i> (2. vi. 1922).
14155	♀	Skin	Do	<i>Do.</i>
14156	♀	Do	Kawapany, Nepal	<i>Do.</i> (22. iii. 1921).
14157	♂	Do	Gopaldhara, Darjeeling, West Bengal, (c 1530 m.)	<i>Do.</i> (28. v. 1915).
14158	♂	Do	Do	<i>Do.</i> (15. vi. 1915).
14159	♂	Do	Do	<i>Do.</i> (28. v. 1915).
14160	♀	Skin and Skull	Sivok, West Bengal	<i>C. A. Crump</i> (22. iii. 1915).
14161	♂	Do	Mongpo, Darjee- ling, West Bengal, (c 1260 m.)	<i>H. Stevens</i> (26. v. 1921).

14162	♂	Skin	Mongpo, Darjee- ling, West Bengal, (c 1260 m.)	<i>H. Stevans</i> (9. v. 1921).
14163	♀	Do	Do	<i>Do.</i> (1. v. 1921).
14164	♀	Do	Do	<i>Do.</i> (28. iv. 1921).
14165	♀	Do	Do	<i>Do.</i> (9. v. 1921).
14166	♀	Do	Do	<i>Do.</i> (6. v. 1921).
15851	♀	Do	Darjeeling, West Bengal	<i>R. L. Fernandez</i> (17. viii. 1958).
15852	♂	Skin and Skull	Do	<i>Do.</i> (22. viii. 1958).
15853	♀	Skin	Do	<i>Do.</i>
15854	♀	Do	Do	<i>Purchased</i> (22. viii. 1958).
18589	♂	Do	Kon River, Nepal	<i>K. K. Nair</i> (9. ix. 1947).
18602	♂	Skin and Skull	Geylegphug, Bhutan	<i>B. Biswas</i> (13. ix. 1967).
18603	♂ Juv.	Do	Do	<i>Do.</i> (10. ix. 1967).
18643	♀	Skin and damaged Skull (in spirit)	—	—
18644	♀	Skin and Skull (in spirit)	—	—
18645	♀ Juv.	Do	Darjeeling, West Bengal	<i>W. T. Blanford.</i>

*Measurements :*

External :

Reg No.	HB	tl	HF	E
11463	198	176	43.5	14.5
11539	193	170	45	13.5
14147	170	185	42	19
14148	158	175	42	19
14149	200	190	40	16
14150	182	185	43	18
14151	188	186	43	19
14152	188	196	47	20
14153	165	182	43	20
14154	177	178	42	22

Reg. No.	HB	tl	HF	E
14155	178	178	42	22
14156	172	—	42	20
14157	184	191	43	19
14158	177	182	41	18
14159	183	177	41	19
14160	185	191	45	19
14161	203	195	40	18
14162	210	205	44	20
14163	220	170	37	16
14164	202	171	41	19
14165	200	180	43	18
18589	163	179	44	14
18602	172	172	41	18
18603	162	148	39	19

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
7301	49	23.4	14.8	15.9	16.1	9.4	8.3
14147	48	—	14.6	16.6	15.7	—	8.4
14148	46.9	22.8	14.4	15	15.3	8.8	8.1
14150	47.9	23.7	14.5	15.4	—	9.7	8.7
14151	48.3	24	15.1	17	15.8	8.9	8.7
14152	48.8	23.8	15.3	16.9	16.3	10	8.8
14153	48.3	24	14.3	16.3	15	8.9	8.5
14160	50.7	—	15.9	17.3	16	9.7	8.9
14161	49.2	24	15.3	18.1	15.8	9.4	8.7
18602	46.8	22.6	12.3	15.1	15.2	8.8	8.2
18603	43.8	20.8	12.3	14.9	15	—	8
18646	43.7	20.9	13.8	14.4	14	8.2	7.3

*Remarks* : No. 9436 differs from all others in being much darker in general colour, and therefore, may be a juvenile of *Callosciurus germaini* (Milne-Edwards).

*Distribution* : INDIA : Sikkim, northern West Bengal and Manipur. NEPAL. BHUTAN.

111. *Callosciurus pygerythrus blythi* (Tytler)

1854. *Sciurus blythii* Tytler, *Ann. Mag. nat. Hist.*, 14 : 172. (Dacca, Bangladesh).

*Material* :

9397	—	Skin (damaged)	Lushai Country, Assam	<i>Mus. Collector.</i>
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9399	- —	Skin (damaged)	Garo Hills, Meghalaya	<i>J. Anderson.</i>
9401	—	Skin	Naga Hills, Nagaland	<i>H. H. Godwin- Austen.</i>
9404	—	Skin (damaged)	Do	<i>Do.</i>
9407	—	Skin (damaged) and Skull	Samagooting, Nagaland	—
9408	—	Skin (damaged)	Do	<i>J. Butler.</i>
9418	—	Skin (damaged) and Skull	Harmuth, Dikrang, Assam	<i>H. H. Godwin- Austen.</i>
9421	—	Skin (damaged)	Arakan, Burma	<i>Mus. Collector.</i>
9424	—	Do	Preparis Island, Bay of Bengal	<i>V. Ball.</i>
9425	—	Skin (damaged) and Skull	Do	<i>F. Stoliczka.</i>
9427	—	Skin (damaged)	Amherst Isle, Arakan, Burma	<i>J. Armstrong.</i>
9429	—	Skin (damaged)	—	—
9433	—	Skin (damaged) and Skull	Assam	<i>F. Jenkins.</i>
9434	—	Skin (damaged)	Arakan, Burma	<i>A. Phayre.</i>
10307	♀	Do	—	—
11419	♂	Skin	Nongpoh, Khasi Hills, Meghalaya	<i>H. L. Hiteshi</i> (15. v. 1949).
11420	♀	Do	Do	<i>Do.</i> (8. v. 1949).
11421	♂	Skin and Skull	Do	<i>Do.</i> (12. v. 1949).
11422	♀	Skin	Burnihat, Khasi Hills, Meghalaya	<i>R. Sherard</i> (31. v. 1949).

11451	♂	Skin and damaged Skull	Nongpoh, Khasi Hills, Meghalaya	<i>H. L. Hiteshi</i> (4. vi. 1949).
11452	♀	Skin and Skull	Do	<i>Do.</i> (4. v. 1949).
11453	♂	Skin and damaged Skull	Jangta, Assam	<i>S. L. Hora and M. L. Roonwal</i> (15. ix. 1939).
11454	♀	Skin and Skull	Nongpoh, Khasi Hills, Meghalaya	<i>H. L. Hiteshi</i> (10. v. 1949).
11455	♀	Skin and damaged Skull	Do	<i>Do.</i> (15. v. 1949).
11456	♂ Juv.	Skin and Skull	Garo Hills, Meghalaya	<i>Do.</i> (26. vi. 1949).
11457	♀	Do	Burnihat, Khasi Hills, Meghalaya	<i>R. Sherard</i> (20. v. 1949).
11458	♂	Skin and damaged Skull	Lokra, Assam	<i>S. L. Hora and M. L. Roonwal</i> (9. xi. 1939).
11459	♀	Skin	Nongpoh, Khasi Hills, Meghalaya	<i>H. L. Hiteshi</i> (11. v. 1949).
11460	♀	Skin and Skull	Do	<i>Do.</i> (15. v. 1949).
14242	♀	Do	Hkamti, Upper Chindwin, Burma	<i>G. C. Shortridge</i> (1. viii. 1914).
14244	♀	Skin and Skull	Bogandi, North Kamrup, Assam	<i>H. W. Wells</i> (5. i. 1921).
14245	♀	Do	Kindat, Burma	<i>J. M. D. Mackenzie</i> (9. i. 1915).
14246	♂	Do	Do	<i>Do.</i> (19.ii.1915).
14247	♀	Do	Rajapara, South Kamrup, Assam	<i>H. W. Wells</i> (10. xi. 1920).
14248	♂	Do	Lamsakhang, Cachar, Assam	<i>Do.</i> (8. ix. 1920).
14249	♀	Do	Lanka, Cachar, Assam	<i>Do.</i> (19. x. 1920).
14250	♂ Juv.	Do	Kindat, Burma	<i>J. M. D. Mackenzie</i> (20. iv. 1920).

14976	♀	Skin	Tatkon, Kindat, Burma	<i>G. C. Shortridge</i> (26. vi. 1914).
14977	♂	Do	Do	<i>Do.</i> (25. vi. 1914).
14978	♂	Do	Do	<i>Do.</i> (1. vii. 1914).
14979	♂	Do	Do	<i>Do.</i> (14.vii.1914).
16351	♀	Skin and Skull	Jamduar, Goalpara, Assam	<i>B. K. Tikadar</i> (8. iij. 1957).
16352	♂	Do	Do	<i>H. Khajuria</i> (8. iij. 1957).
16353	♀	Do	Khasi and Jaintia Hills, Meghalaya	<i>Do.</i> (8. xii. 1956).
16354	♀	Do	Do	<i>Do.</i> (21. xi. 1956).
16355	♀	Do	Do	<i>Do.</i> (26. xi. 1956).
16356	♂	Do	Raimona, Goalpara, Assam	<i>B. K. Tikadar</i> (7. iv. 1957).
16358	♂	Skin	Do	<i>H. Khajuria</i> (3. iv. 1957).
16359	♂	Do	Do	<i>Do.</i> (7. v. 1957).
16360	♂	Do	Do	<i>Do.</i> (9. iv. 1957).
16361	♀	Skin and Skull	Jamduar, Goalpara, Assam	<i>Do.</i> (16. iij. 1957).
16362	♀	Do	Do	<i>Do.</i> (20. iij. 1957).
16363	♂	Skin	Do	<i>Do.</i>
16364	♀	Skin and Skull	Do	<i>Do.</i> (24. iij. 1957).
16365	♀	Do	Do	<i>Do.</i> (9. iij. 1957).
16366	♂	Do	Do	<i>Do.</i> (11. iij. 1957).
16367	♀	Skin	Rongrengiri, Garo Hills, Meghalaya	<i>Do.</i> (11. xi. 1957).
16368	♀	Skin and Skull	Do	<i>Do.</i> (15. 1. 1957).
16369	—	Do	Do	<i>Do.</i> (21. i. 1957).
16370	♀	Do	Do	<i>Do.</i> (29. i. 1957).
18590	♂	Skin	Garo Hills, Meghalaya	<i>Do.</i> (17. ii. 1922).
18646	♀	Skin and Skull (in spirit)	Preparis Island, Burma	<i>F. Stoliczka.</i>
18647	♀	Do	Cachar, Assam	<i>N. Bellety</i> (1872).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
11419	186	191	42	18
11420	180	188	40	20
11421	194	144	46	20
11451	149	103	42	17
11452	189	192	42	19
11453	178	217	42	—
11454	190	160	44	—
11455	182	171	41	—
11456	145	151	40.5	19.5
11457	190	181	38	17
11458	190	185	41	20
11459	197	190	40.5	20.5
11460	184	194.5	41.7	19.5
14242	202	175	45.5	19
14243	193	196	41	17
14244	174	162	40	19
14245	192	189	43.5	19.5
14246	181	184	44	18
14247	191	185	43	21
14248	190	197	40	18
14249	176	200	42	17
14976	192	189	44.5	18.5
14977	191	197	44.5	19
14978	194	193	44.5	18.5
14979	166	172	43	18.5
16351	187	176	41	19
16352	192	164	39	20
16353	172	189	39.5	21
16354	187	188	43.5	18.5
16355	175	192	45	17
16356	192	174	35.5	20.5
16358	181	191	39	19
16359	193	101	34	21
16360	191	185	38.5	19
16361	203	174	40	23
16362	189	193	42	20
16364	193	178	38.5	21
16365	183	177	41	20

Reg. No.	HB	tl	HF	E
16366	191	178	38	17.5
16367	202	145	37	19
16368	180	175	37	17
16370	195	187	40	20
18590	202	187	38	21

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
11421	47.5	23.4	13.6	16	15.9	9.1	8.4
11452	49	23.7	14.5	16.6	16.1	9.4	8.8
11455	47.2	23.2	13.2	16.1	14.9	8.7	8.7
11457	48.2	23.4	12.8	16.8	15.5	8.6	8.9
11460	49.2	24.5	13.9	16.1	16.2	9.1	8.7
14243	47.8	22.9	13.5	15.4	15.1	8.9	8.2
14245	48.5	24	14.7	16.8	16.7	9.1	8.5
14247	48.4	23.8	13.7	15.5	15.4	9.2	8.8
14248	46.8	23.1	13.6	16.1	16	9.5	8.5
16359	47.5	23.2	13.5	15.3	15.6	—	8
16361	47.5	24	12.8	15.8	15.2	8.8	8
16362	47.6	22.8	12.9	16	15.2	8.9	8.8
16364	49.1	23.8	14.6	15.5	15.7	9.2	8.7
16365	46.4	22	13	15.3	15.1	9.2	8.6
16368	45.3	22.3	13	14.4	14.7	9.3	8.2

*Distribution* : INDIA : Assam, Meghalaya, Nagaland. BURMA : Hkamti, Kabaw Valley, Homalin, Tamanthe, Kindat, Preparis Island.

112. **Callosciurus pygerythrus bellona** (Thomas and Wroughton)

1916. *Tomeutes mearsi bellona* Thomas and Wroughton, *J. Bombay nat. Hist. Soc.*, 24 : 419, 420. (Kin, west side of Chindwin, Burma).

*Material* :

14139	♂	Skin	Kin, west side of	<i>G. C. Shortridge</i>
			Chindwin, Burma	(7. vi. 1914).
14140	♂	Do	Do	<i>Do.</i> (7. vi. 1914).
14141	♂	Do	Do	<i>Do.</i> (8. vi. 1914).
14142	♀	Do	Do	<i>Do.</i>
14143	♀	Do	Do	<i>Do.</i> (9. vi. 1914).
14144	♀	Do	Do	<i>Do.</i>
14145	♂	Do	Do	<i>Do.</i> (18. vi. 1914).
14146	♀	Do	Do	<i>Do.</i> (19. vi. 1914).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
14139	184	173	42.5	18
14140	184	189	44	18
14141	172	182	45	19
14142	181	176	43	18.5
14143	187	158	43	18
14144	154	175	44	19
14145	177	—	43	19
14146	172	188	43	19

*Distribution :* BURMA : Kin.

### 113. *Callosciurus pygerythrus stevensi* (Thomas)

1908. *Sciurus stevensi* Thomas, *J. Bombay nat. Hist. Soc.*, 18 : 246. ( Beni-Chang, Abor-Miri Hills, Arunachal Pradesh ).

*Material :*

9139	♀	Skin and Skull	Balek, Abor Hills, Arunachal Pradesh	<i>S. W. Kemp</i> (Mar. 1912).
9140	♀	Do	Do	<i>Do.</i>
9141	♀	Do	Rotang, Abor Hills, Arunachal Pradesh	<i>Do.</i> <i>Do.</i>
9143	♀	Do	Balek, Abor Hills, Arunachal Pradesh	<i>Do.</i>
9146	♀	Do	Rotang, Abor Hills, Arunachal Pradesh	<i>Do.</i>
9148	♂	Skin	Near Balek, Abor Hills, Arunachal Pradesh	<i>Do.</i>

*Measurements :*

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9139	—	24	14.8	15.7	17.1	9.7	8.5
9140	49	23.8	—	15.3	16.8	9.3	8.3
9143	49.7	24	15.8	15	16.6	—	8.6
9146	48	24	14.8	15.3	16.8	9.3	8.3

*Distribution :* INDIA : Assam (Sadiya), Arunachal Pradesh and Nagaland. BURMA : Northern Burma.

114. **Callosciurus prevosti** (Desmarest)

1822. *Sciurus prevostii* Desmarest, *Ency. Meth. (Mamm.)*, p. 335.

*Material :*

3584	♂	Skin and Skull (in spirit)	—	—	<i>O. L. Fraser.</i>
3758	♀	Skin and Skull inside (in spirit)	—	—	<i>Zool. Garden, Calcutta</i>

*Measurements :*

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
3584	56	25	17	24.5	17	10	11.1.

*Remarks :* It is not possible to identify the above specimens upto subspecific level as the colour is entirely bleached and there is no mention of the collection locality.

115. **Callosciurus prevosti prevosti** (Desmarest)

1822. *Sciurus prevostii* Desmarest, *Ency. Meth. (Mamm.)*, p. 335. (Settlement of Malacca).

*Material :*

2948	♀	Skin	Menagerie specimen	<i>W. Rutledge.</i>
9653	—	Skin	Malacca	<i>E. R. Alston.</i>
9658	—	Skin and damaged Skull	Do	<i>A. Charton.</i>

9659	—	Skin (damaged) and Skull	Do	<i>R. W. C. Frith.</i>
10128	♂	Skin and Skull	Nyalas, Malacca	<i>Fed. Malay States Mus. (24. x. 1910).</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10128	244	253	50	16

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9659	—	27.8	18.4	23.7	16.3	—	—
10128	57.4	27.4	18.7	23.4	17.5	10.7	10

**116. *Callosciurus prevosti rafflesi* (Vigors and Horsfield)**

1828. *Sciurus rafflesii* Vigors and Horsfield, *Zool. Journ.*, 4 : 119. (Sumatra, probably Bencoolen, West Sumatra).

*Material :*

1491	—	Skin and Skull	—	—
7487	—	Skin (damaged)	Menagerie specimen	<i>W. Rutledge</i>
7529	—	Skin and (damaged) Skull	Do	<i>Do.</i>
7880	♀	Skin and Skull	Do	<i>Do.</i>
9657	—	Do	Do	<i>Zoo. Garden, Calcutta.</i>

*Measurements :*

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
7487	56.6	27.1	18.4	23.2	17.2	11	10.9
9657	57.1	26.7	18.1	21.7	16.8	10.5	11

*Remarks :* In No. 9657, m<sup>3</sup> of the left side is almost worn out. Frontal area of the skull is much depressed anteriorly, probably due to some early injury.



117. *Callosciurus prevosti humei* (Bonhote)

1901. *Sciurus prevosti humei* Bonhote, *Ann. Mag. nat. Hist.*, (7) 7 : 170. (Klang, Selangor).

*Material :*

10129	♀	Skin and Skull	Tanjong Malim, Perak-Selangor boundary, Malay Peninsula	<i>Fed. Malay States Mus.</i> (19. iv. 1908).
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*Measurements :*

External :

HB	tl	HF	E
266	228	58	21

Cranial :

on	pal	nas	iw	orb	bul
56.6	26.8	17.8	23.8	17.4	10.5

118. *Callosciurus prevosti wrayi* (Kloss)

1910. *Sciurus prevostii wrayi* Kloss, *J. Fed. Malay States Mus.*, 4 : 148. (Kuala Lipis, Pahang).

*Material :*

10131	♂	Skin and Skull	Temengoh, Upper Perak, Malay Peninsula	<i>H. C. Robinson</i> (12. vii. 1909).
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*Measurements :*

External :

HB	tl	HF	E
245	252	58	29

Cranial :

on	pal	nas	iw	orb	TR	bul
60.5	28.8	20.2	26.6	18.2	9.5	11.2

119. *Callosciurus prevosti melanops* (Miller)

1902. *Sciurus melanops* Miller, *Proc. Acad. nat. Philad.*, p. 151. (Indragiri River, East Sumatra).

*Material :*

7395	—	Skin	Menagerie specimen	<i>W. Rutledge,</i>
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7488	♂	Skin and Skull	Menagerie specimen	<i>W. Rutledge.</i>
7489	♀	Do	Do	<i>Do.</i>
7490	—	Do	Do	<i>Do.</i>
7491	—	Skull	Do	<i>Do.</i>
7685	♂	Skin and Skull	Do	<i>Zool. Garden, Calcutta.</i>
7922	♂	Do	Do	<i>Do.</i>
18614	—	Do	—	<i>W. Rutledge.</i>

*Measurements :*

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
7488	56.8	27.3	17.2	23.9	16.5	10.3	10.5
7489	58	26.5	18	22.5	17.4	11.2	11.5
7490	54.7	25.9	16	22.8	—	—	10.3
7491	55	25.3	17.2	21.6	16.5	10.6	10.5
7922	58.3	29.1	20	23.6	17	—	11.8

120. **Callosciurus prevosti borneoensis** (Müller and Schlegel)

1844. *Sciurus rafflesii* var. *borneoensis* Müller and Schlegel, in Temm., *Verh. nat. gesch. Ned. overz. bezitt Zool.* p. 86. (Pontianak, West Borneo).

*Material :*

9660 — Skin Borneo Batavian Society.

121. **Callosciurus prevosti kuchingensis** (Bonhote)

1901. *Sciurus prevostii kuchingensis* Bonhote, *Ann. Mag. nat. Hist.*, (7) 7 : 170. (Kuching, Sarawak).

*Material :*

9654 — Skin and Skull Matang, Sarawak, Borneo *E. R. Alston* (1870).

122. **Callosciurus prevosti atricapillus** (Schlegel)

1863. *Sciurus atricapillus* Schlegel, *Ned. Tijd. Dierk.*, 1 : 27. (Kapas River, West Borneo).

*Material :*

10183 ♂ Skin and Skull Ulu Anyut, Paku Saribas, Sarawak, Borneo *H. C. Robinson* (5. viii. 1915).

*Measurements :*

External :

HB	tl	HF	E
225	193	49	22

Cranial :

on	pal	nas	iw	orb	bul
52	25.6	15.7	22.3	17.4	9.9

**123. Callosciurus prevosti carimonensis (Miller)**

1906. *Sciurus prevostii carimonensis* Miller, *Proc. U. S. Nat. Mus.*, 31 : 261. ( Great Karimon Island, Rhio Archipelago ).

*Material :*

10130	♂	Skin (damaged)	Great Karimon Island, Rhio Archipelago	<i>E. Siemund</i> (5. viii. 1908).
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*Measurements :*

External :

HB	tl	HF	E
215	237	53	20

**124. Callosciurus prevosti griseicauda (Bonhote)**

1901. *Sciurus caroli griseicauda* Bonhote, *Ann. Mag. nat. Hist.*, (7) 7 : 174. ( Mt. Kalulong, Baram, Sarawak, Borneo ).

*Material :*

9655	—	Skin	—	<i>E. R. Alston.</i>
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**125. Callosciurus prevosti pluto (Gray)**

1867. *Macroxus pluto* Gray, *Ann. Mag. nat. Hist.*, 22 : 283. (Sarawak, more probably from north Borneo).

*Material :*

9656	—	Skin and Skull	Borneo	<i>E. R. Alston.</i>
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*Measurements :*

Cranial :

on	pal	nas	iw	orb	bul
53.5	25	16.4	21.3	16.6	10.1

126. *Callosciurus nigrovittatus nigrovittatus* (Horsfield)

1823. *Sciurus nigrovittatus* Horsfield, *Zool. Res. Java*, 7 : 149. (Java, probably east central parts).

*Material :*

10103	♂	Skin and Skull	Tjibodes, West Java	<i>Fed. Malay States Mus.</i> (28. ii. 1916).
10104	♀	Do	Do	Do.

*Measurement :*

## External :

Reg. No.	HB	tl	HF	E
10103	181	160	42	14
10104	183	164	43	15

127. *Callosciurus nigrovittatus bilimitatus* (Miller)

1903. *Sciurus bilimitatus* Miller, *Smiths. Misc. Coll.*, 45 : 8. (Trengganu, Malay States).

*Material :*

10105	—	Skin and Skull	Ulu Selama, North East Perak	<i>Fed. Malay States Mus.</i> (4. v. 1909).
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*Measurements :*

## External :

HB	tl	HF	E
223	160	45	19

## Cranial :

on	pal	nas	iw	orb	bul
47.5	23.4	14.8	19.2	15.6	9

128. *Callosciurus nigrovittatus johorensis* (Robinson and Wroughton)

1911. *Sciurus nigrovittatus johorensis* Robinson and Wroughton, *J. Fed. Malay States Mus.*, 4 : 166. (Pelepak, Johore).

*Material :*

9499	—	Skin and Skull	Malay Peninsula	<i>J. Lindstedt.</i>
9505	♀	Do	—	<i>Zool. Garden, Calcutta</i>
9506	—	Skull	—	—

9507	—	Skin and Skull	Malay Peninsula	<i>G. Moxon.</i>
10106	—	Skull	—	—
10140	—	Do	—	—

*Measurements :*

Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9506	—	23.3	12.4	18	15.5	8.4	8.8
10106	48.4	23.4	13.6	18.3	15.3	9.3	8.6
10140	48.5	23.4	15.2	19	—	—	9.5

129. ***Callosciurus nigrovittatus microrhynchus*** (Kloss)

1908. *Sciurus (bilimitatus) microrhynchus* Kloss, *J. Fed. Malay States Mus.*, 2 : 144. (Tioman Island).

*Material :*

10108	♀	damaged skull (Topotype)	Juara Bay, Pulau Tioman, Coast of Pahang	<i>Fed. Malay States Mus. (June 1915).</i>
10111	♀	Skin (Topotype)	Do	<i>Do. (8. vii. 1915).</i>

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
10111	182	153	34	16

130. ***Callosciurus nigrovittatus bocki*** (Robinson and Wroughton)

1911. *Sciurus nigrovittatus bocki* Robinson and Wroughton, *J. Fed. Malay States Mus.*, 4 : 167. (Pajo, Padang Highlands, Sumatra).

*Material :*

10107	♀	Skin and Skull	Sungei Kumbang, Korinchi, West Sumatra	<i>H. C. Robinson and C. B. Kloss (1. iv. 1914).</i>
10141	♂	Do	Do	<i>Do.</i>

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
10107	174	154	38.5	16
10141	177	140	39.5	15

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
10107	43	19.7	12.7	16.3	14	—	8.5
10141	42.3	19.8	11.8	16.1	14.2	8	8

131. **Callosciurus notatus notatus** (Boddaert)

1785. *Sciurus notatus* Boddaert, *Elench. Anim.*, p. 119. (West Java).

*Material :*

9500 — Skin West Java *A. R. Wallace.*

132. **Callosciurus vittatus subluteus** (Thomas and Wroughton)

1909. *Sciurus vittatus subluteus* Thomas and Wroughton, *Ann. Mag. nat. Hist.*, (8) 3 : 440. (Sikarang, South East Johore).

*Material :*

10122 ♀ Skin and Skull Tanjong Surat, Johore *H. C. Robinson and E. Seimund* (26. vii. 1908).

*Measurements :*

## External :

HB	tl	HF	E
213	183	47	16

## Cranial :

on	pal	nas	iw	orb	TR	bul
49	24.3	12.4	19.3	15.8	8.8	9.8

133. **Callosciurus vittatus pemangilensis** (Miller)

1903. *Sciurus pemangilensis* Miller, *Smiths. Misc. Coll.*, 45 : 9. (Pemanggil Island).

*Material :*

10121 ♀ Skull Pulau Pemanggil, Johore Archipelago *H. C. Robinson* (12. vii. 1915).  
 10139 ♂ Skin and Skull Do *Do.* (7. vii. 1915).

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10139	185	159	37	17

134. *Callosciurus vittatus dulitensis* (Bonhote)

1901. *Sciurus vittatus dulitensis* Bonhote, *Ann. Mag. nat. Hist.*, 7 (7) : 451. (Mt. Dulit, Baram, Borneo).

*Material :*

9502	♂	Skin	Sarawak, Borneo	<i>A. R. Wallace.</i>
10126	♂	Do	Kuala Selanoi, Paku Saribas, Sarawak, Borneo	<i>Mus. Collector.</i>
10127	—	Skin and Skull	Sungei Pelandok, Paku Saribas, Sarawak, Borneo	<i>Mus. Collector.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10126	196	172	44	16
10127	195	196	46	15

135. *Callosciurus vittatus miniatus* (Miller)

1900. *Sciurus notatus miniatus* Miller, *Proc. Acad. Sci. Wash.*, 2 : 79. (Trang, Siamese Malaya).

*Material :*

9102	♂	Skin (Topotype)	Chong, Trang, Siamese Malaya	<i>H. C. Robinson.</i>
9103	♀	Skin	Bukit Jong, Trengganu, East Malay Peninsula	<i>C. B. Kloss</i> (25. ix. 1910).
9105	♂	Skin and Skull	Do	—
9106	—	Skull	Do	—
9107	♀	Do	Nyalas, Malacca	<i>Fed. Malay States Mus.</i>
9194	—	Skin and Skull	Do	<i>Do.</i>
9498	—	Skin and damaged Skull	Malacca	<i>F. Stoliczka.</i>

9503	♂	Skin and Skull	Malacca	<i>E. R. Alston.</i>
9504	♂	Do	—	<i>W. Rutledge.</i>
9509	—	Do	Malay Peninsula	—
9512	♂	Skin	—	<i>Zool. Garden, Calcutta.</i>
9610	—	Skull	—	—
10117	—	Do	—	—

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
9102	197	183	43	19
9103	196	204	43	18
9104	190	204	44	15
9105	199	155	42	15

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
9104	47.1	23.1	14	17.2	16.2	—	9
9106	49.5	24	15.1	17.9	15.6	7	9.7
9504	51.4	25.6	16.1	18.6	15.8	—	10
10117	52.5	25.5	15.2	19.4	16.5	—	10.8

136. *Callosciurus vittatus scotti* (Kloss)

1911. *Sciurus vittatus scottii* Kloss, *Ann. Mag. nat. Hist.*, 8 (7) : 117. (Little Redang Island, off Trengganu, East Malay Peninsula).

*Material :*

10110	♂	Skin and damaged Skull (Paratype)	Little Redang Island, off Trengganu, East Malay Peninsula	<i>C. B. Kloss</i> (30. viii. 1910).
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*Measurements :*

## External :

HB	tl	HF	E
175	175	43	16



137. **Callosciurus vittatus plasticus** (Kloss)

1911. *Sciurus vittatus plasticus* Kloss, *Ann. Mag. nat. Hist.*, 8 (7) : 117. (Great Redang Island, off Trengganu, East Malay Peninsula).

*Material :*

10112	♀	damaged Skull (Paratype)	Great Redang Island, off Trengganu, East Malay Peninsula	<i>C. B. Kloss.</i>
10113	♂	Skin and damaged Skull (Paratype)	Do	<i>Do.</i> (31. viii. 1910).

*Measurements :*

External :

Reg. No.	HB	tl	HF	E
10113	188	185	43.5	17

138. **Callosciurus vittatus perhentiani** (Kloss)

1911. *Sciurus vittatus perhentiani* Kloss, *Ann. Mag. Nat. Hist.*, (8) 7 : 118. (West Perhentian Island, off Trengganu, East Malay Peninsula).

*Material :*

10116	♀	Skin and Skull (Paratype)	West Perhentian Island, off Trengganu, East Malay Peninsula	<i>C. B. Kloss</i> (9. x. 1910).
10135	♂	Do	Do	<i>Do.</i> (13. ix. 1910).

*Measurements :*

Reg. No.	HB	tl	HF	E
10116	178	187	43.5	—
10135	138	168	42.5	16.5

Cranial :

Reg. No.	on	pal	nas	iw	orb	bul
10116	—	22.4	—	16	—	9
10135	42.2	22	12.9	15.5	14.5	8.9

139. *Callosciurus vittatus proteus* (Kloss)

1911. *Sciurus vittatus proteus* Kloss, *Ann. Mag. nat. Hist.*, 8 (7) : 118. (East Perhentian Island, off Trengganu, East Malay Peninsula).

*Material :*

10114	♀	Skin and damaged Skull	East Perhentian Island, off Trengganu, East Malay Peninsula	— (8. ix. 1910).
10115	♂	Skull	Do	—

140. *Callosciurus vittatus tenuirostris* (Miller)

1900. *Sciurus tenuirostris* Miller, *Proc. Acad. Sci. Wash.*, 2 : 224. (Tioman Island, off coast of Pahang).

*Material :*

10109	♂	Skin and Skull	Juara Bay, Pulau Tiomen, South China Sea	<i>H. C. Robinson and E. Seimund</i> (9. ix. 1907).
10123	♀	Do	Do	<i>Do.</i>

*Measurements :*

## External :

Reg. No.	HB	tl	HF	E
10123	195	184	42.5	17.5

## Cranial :

Reg. No.	on	pal	nas	iw	orb	TR	bul
10123	51.5	25.1	15.3	18.5	16.3	9.7	10.1

141. *Callosciurus germaini germaini* (Milne-Edwards)

1867. *Sciurus germaini* Milne-Edwards, *Rev. Zool.*, p. 193. (Pulau Condor, off Cambodian Coast).

*Material :*

9471	—	Skin and Skull (Paratype)	Pulau Condor, off Cambodian Coast	<i>A. Germaine.</i>
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## ERRATA

<i>Page No.</i>	<i>Line</i>	<i>Printed</i>	<i>Read</i>
388	T 9	18782	18742
410	B 15	15483	15482

T = from Top  
B = from Bottom