

THREE NEW MAMMALS FROM SIAM.

BY C. BODEN KLOSS, F.Z.S.

1. *Paguma larvata vagans*, subsp. nov.

*Type.* Skin of female, No. 2655/CBK. Collected at Sikawtur, 40 miles N. W. of Raheng, Western Siam, 1500 ft., on Feb. 27th, 1917, by Mr. K. G. Gairdner. Original number 374.

*Characters.* Differs from *Paguma larvata intrudens* Wroughton, from Myitkyina, North Burma,\* in having the hair of the upper parts tipped with black instead of buff, the white stripe not extending beyond the neck, the pale spot above the eye confluent with the patch below the ear, the fore-neck cream, the ventral surface creamy with pale grey bases to the hairs except on the fore-neck and posterior abdomen where the fur is unicolorous, and the hind legs strongly tinged with ochraceous on their inner sides.

Fur of two kinds on the upper surface:—a woolly under-fur of a drab colour, sometimes tipped with buffy; and longer harsher hairs with drab bases succeeded by a black and a buffy annulation and a black tip.

*Colour.* A creamy stripe, broadest on the face, extending from the muzzle to the end of the nape; a creamy spot below the eyes; from above the eyes a creamy area extending beneath the ears downwards to the fore-neck.

Rest of head with ears, cheeks, chin and throat blackish brown, this colour bordering the pale stripe and dying out on the shoulders. Fore and hind feet blackish brown.

Remainder of upper parts and limbs pale smoky grey suffused with buffy, the black annulations very narrow, the black tips most marked along the middle line of the back; rump washed with isabelline and inner sides of hind limbs with ochraceous.

Throat and posterior abdomen creamy to the bases of the hairs; the rest of the under body paler, the hairs with pale grey bases.

Tail with proximal half like the rump, becoming blackish brown distally where only the base of the fur is buffy; extreme tip creamy.

---

\* Wroughton, Journ. Bombay N. H. S., XIX, p. 793 (1910); Ryley, *ibid*, XXII, p. 720 (1914).

[ Colour of soft parts. Nose, liver brown; feet, black; genital skin, white. Mammae, 2 pairs only found. Pads of hind-feet, 33 mm. in width. K. G. G. ].

*Measurements.* Head and body, 610; tail, 575; hindfoot, 74; ear, 50 mm. Of the skull I am unable to give any details as it was carried off by some animal while drying: it probably possessed no characters that would differentiate it from neighbouring races.

*Remarks.* Animals from South Tenasserim and Bandon, Peninsular Siam, connect this race with *robusta* Miller, from Trang\*; they are not so dull as *vagans* but less fulvous and buffy than the other, and the nape stripe is faintly indicated: they do not appear distinct enough, however, to justify the bestowal of a name.

## 2. *Rattus griseiventer rahengis*, subsp. nov.

*Types.* Male vix ad. and female a.l. from Me Taw, 40 miles N. W. of Raheng, W. Siam, 1500 ft [Nos. 2637, 8/CBK]. Collected by Mr. K. G. Gairdner on 2 Feb. 1917. Orig. Nos. 459, 460.

*Characters.* Differs from *Rattus griseiventer* (Bonhote) in being more woolly (less spiny) and much darker above; hands and feet white throughout, not largely brown. Mammae 3-3=12.

*Colour.* Above dark brown grizzled with ochraceous tawny, sides and limbs greyish brown; under-parts neutral grey washed with creamy in the male, with pale buff in the female. Tail dark throughout: ten rings to the centimetre at the middle.

*Skull and teeth.* Compared with that of *R. g. griseiventer*, the skull has the nasals much longer, pointed posteriorly and extending backwards well beyond a line joining the front borders of the orbital spaces; bullae smaller, less dilated and narrower: the teeth larger.

The palatal foramina extend about .5 mm. behind a line joining the roots of the molars, the tooth rows diverge posteriorly and the front edge of the anteorbital plate is convex and overhangs the base (considerably in the female).

*Remarks.* I have referred these animals to *R. griseiventer* (Bonhote) but it should not necessarily be inferred that I regard the latter as the true superform of the species to which both belong: they

\* *Paradoxurus robustus* Miller, Proc. Biol. Soc. Washington, xix, p. 26 (1906).

seem, however, related to it, and it is the earliest, undoubtedly allied race, I am able to compare them with for the moment.

For comparison, the dimensions of the type of *R. rubricosa* (Anderson, Zool. Res. Yunnan, p. 306) from the country between Bhamo and Momein, are given: though also a grey-bellied rat, it will be seen that it is a far smaller animal; the skull of *R. g. rahengis* is heavy with strong ridges whereas the other's looks more like that of a gigantic *R. concolor*.

Measurements of Rats in millimetres.

	<i>R. griseiventer rahengis</i> ♂	<i>R. griseiventer rahengis</i> ♀	* <i>R. griseiventer griseiventer</i> ♂	† <i>R. rubricosa</i> ♂
Head and body ... ..	190	208	205	140
Tail ... ..	174	194	190	130
Hindfoot, s. u. ... ..	34	37	35	32
Ear ... ..	19.5	21	20.5	—
Skull:—				
greatest length ... ..	44.3	45.2	45	37.5
condylo-basilar length ... ..	38	39.8	39	32.1
palatilar length ... ..	—	22	20.8	17.5
diastema ... ..	12	12.5	12.4	10
upper molar row (alveoli) ... ..	7	7.9	6.8	6.8
combined palatal foramina ... ..	8.1 × 2.8	8.9 × 2.8	8.6 × 3	7.3 × 2.2
m <sup>3</sup> —m <sup>3</sup> (alveoli) ... ..	5.1	5.3	5	4.1
nasals ... ..	18 × 5	18.5 × 5	16 × 5	14.8 × 4
interorbital breadth ... ..	6	6	6.7	5.4
brain case breadth ... ..	17	17	16.5	15.7
zygomatic breadth ... ..	20.8	20.1	20.1	17.2

3. *Rattus rajah siarma*, subsp. nov.

*Rattus surifer*, Gyldenstolpe (partim), Kungl. Sv. Vet. Akad. Handl., 57, No. 2, p. 42 (1917) [Koon Tan, N. Siam].

*Type.* Adult male (skin and skull) from Sikawtur, 40 miles

\* Male with very worn teeth from Plentong River, S. Johore, Malay Peninsula, No. 2539-08. F. M. S. Mus.

† Teeth considerably more worn than No. 2637, slightly more worn than No. 2368.

N. W. of Raheng, W. Siam, 1500, ft. [No. 2632/CBK.]. Collected by Mr. K. G. Gairdner on 13 March 1917. Orig. No. 399.

*Diagnosis.* Slightly darker than *R. rajah finis*\* from S. E. Siam and with shorter nasals: these are more truncate posteriorly and always, apparently, fall decidedly short of a line joining the front extremities of the orbital spaces; in *finis* the nasals are nearly always protracted backwards beyond such a line, and the ends are more rounded or pointed: in the present race the posterior ends of the premaxillaries are also less oblique. This form is duller above than *R. rajah surifer* (Miller) of Peninsular Siam.

*Specimens examined.* Six from the type locality and Me Taw, 1500 ft., closely adjacent [Orig. Nos. 364, 376, 398, 405.], and another from the Pa Wa Gorge, N. Siam [Orig. No. 228], all collected by Mr. Gairdner.

---

\* *Epimys surifer finis*, Kloss, P. Z. S. 1916, pp. 51, 73.

Measurements of *Rattus rajah siama*.

Locality	Sex	Head and body	Tail	Hind-foot s. u.	Ear	SKULL									No.	Remarks
						Greatest length	Condyllo-basilar length	Palatilar length	Diastema	Upper molar row (alveoli)	Length palatal foramina	Nasals	Zygomatic breadth			
Sikawtur and Me Taw, W. Siam...	♂	198	204	40	23.5	45.5	...	19	12.9	6.6	6	16.6 × 4.8	20	2629	Adult.	
" " ...	♂	150	173	38	21.5	41.3	34.5	17.1	11	6.5	5.9	15 × 4.5	19	2630	"	
" " "	♀	...	...	...	...	44.8	37	18	12.2	6.2	6.1	16.5 × 4.4	20	2631	"	
" " ...	♂	177	186	40	22	44.5	36.5	18	12	6.3	5.9	15.6 × 4.2	19	2632	" Type.	
" " ...	♀	171	161	34	22.5	42	35.2	17.7	11.5	6.6	6	15.1 × 4.1	19.1	2633	"	
" " ...	♀	...	...	...	...	...	...	...	11.3	6.4	6.3	16.1 × 4.2	...	2634	"	
Pa Wa Gorge, N. Siam ...	♀	171	168	37	19	41.7	...	17	11.3	6.2	5.3	15.1 × 4.6	20	2506	"	

