

GELÆUS, gen. nov.

Closely allied to *Chrysodema*, but differs from all the species of that genus in having two sharply cut impressions at the base of the thorax. Just below the shoulders the elytra are acutely angular. The tarsi are yellow.

I propose this for the insect I formerly described as *Pseudochrysodema* (?) *Walkeri* (Ann. & Mag. Nat. Hist. 1892, x. p. 411).

Capt. Kerremans has more recently described it as *Chrysodema cupriventris*.

THYMEDES, gen. nov.

Closely allied to *Chrysodema*, but with a form and appearance which are suggestive of *Psiloptera*. Thorax evenly convex, without impressions, but with a slightly raised median line. The marginal carina extended to the anterior angle. Elytra strongly striato-punctate; the apical margins serrate. Antennæ yellow. Tarsi metallic. Metathoracic episterna gradually acuminate posteriorly.

I propose this generic name for *Chrysodema flavicornis*, Saund.

The only *Chrysodema* known to me that at all resembles this is *C. hebes*, Kerr., but neither in that nor in any other species does the lateral carina of the thorax extend quite to the anterior angles as in *flavicornis*.

[To be continued.]

LXXX.—*New Neotropical Molossus, Conepatus, Nectomys, Proechimys, and Agouti, with a Note on the Genus Mesomys.* By OLDFIELD THOMAS.

Molossus Burnesi, sp. n.

Allied to the very small species of *Molossus*, *M. tropidorhynchus*, Gray, and *M. pygmaeus*, Miller, but distinguished by the different shape of the brain-case.

Size about as in *M. tropidorhynchus* and *pygmaeus*, markedly less than in *M. obscurus*, of which there are two specimens in the same collection. Hairs of back exceedingly short, less than 2 mm. in length, as against 3 in *M. obscurus*, their bases white and their tips brown, the net result being a

lighter colour than in *M. obscurus*. Belly paler brown, approaching "broccoli-brown." Muzzle not so high and not so conspicuously ridged as in *M. obscurus*. General characters of ear, tragus, &c. as in other members of the group. Hind legs markedly shorter than in *M. obscurus*.

Skull, as compared with that of *M. tropidorhynchus*, which it about equals in size, remarkable for its large, rounded, and inflated brain-case; anteriorly the brain-case bulges out over the temporal fossa much more than in the allied species, and the upper part projects laterally beyond the lower. In consequence the greatest breadth of the brain-case has to be taken high up on the skull, and not at the base of the zygomata, and is equal to the same dimension in the much larger *M. obscurus*.

Teeth apparently much as in *M. tropidorhynchus*; upper incisors not quite touching canines; anterior lower premolar little more than half as broad as the posterior.

Dimensions of the type (measured on the spirit-specimen):—Forearm 33·7 mm.

Head and body 53; tail 31; third finger, metacarpus 35, 1st phalanx 16, 2nd phalanx 15; fifth finger 33; lower leg and foot (c. u.) 19·5.

Skull: greatest length 16·2; basal length 12; zygomatic breadth 10·7; interorbital breadth 3·9; breadth of brain-case 8·9; mastoid breadth 10; front of canine to back of m^1 6; front of lower canine to back of m_1 6·7.

Hab. Cayenne.

Type. Female in spirit. B. M. no. 5. 1. 8. 7. Presented by W. Barnes, Esq.

This little species is evidently a member of the *M. tropidorhynchus* group, but may be distinguished by its short fur and the peculiarly swollen shape of its brain-case. Specimens of the true *M. obscurus* were also obtained by Mr. Barnes at the same time, and are at once recognizable by their very much larger size (forearm 39–40 mm.).

The nearest ally of *M. Barnesi* is probably Miller's *M. pygmaeus** from the Island of Curaçoa, but this has a brain-case breadth of only 8 mm., which indicates a very differently shaped skull.

Conepatus tropicalis trichurus, subsp. n.

Apparently very similar to the Mexican *C. tropicalis*, Merriam, but with decidedly longer tail, whose black is

* P. Biol. Soc. Wash. xiii. p. 162 (1900).

restricted to a shorter area at the base. Dorsal white streaks barely extending on to the loins (about 280 mm. from commencement on crown), not "to hips." Brush at end of tail very thick, the hairs attaining 110 mm. in length. Fur of back coarse, sparse, not very long (hairs about 30-35 mm. in length), less mixed with wool-hairs than in *C. mapurito*.

Skull of about the same size as in *tropicalis*, smaller than in *mapurito*.

Dimensions of the type (measured in the flesh):—

Head and body 417 mm.; tail (vertebrae) 170; hind foot, s. u. 67, c. u. 74.

Skull: basal length 69; zygomatic breadth 46·5; mastoid breadth 40·5; palate length 32·7; length of upper molar on outer side 9·3.

Hab. Panama and Costa Rica. Type from Boquete, Chiriqui. Alt. 4000 ft.

Type. Male. B.M. no. 4. 7. 6. 5. Collected 5th March, 1904, by Mr. H. J. Watson. Five specimens examined.

This skunk has hitherto been referred to *C. mapurito*, Gm., but the recent acquisition of a second specimen representing that form shows that the Central-American animal is distinct, being smaller, and having a shorter bushier tail, on which the black extends for a shorter distance at the base. It may also be noted, though probably an accident of preparation, that both our specimens of *C. mapurito* have the dorsal light colour of a dull creamy tone, while in five specimens of the Central-American animal it is really white.

Nectomys dimidiatus, sp. n.

A diminutive species with the glossy fur of the typical S.-American members of the genus.

Size immensely less than in any hitherto known member of the typical glossy-furred *Nectomys*, rather smaller even than in *N. esmeraldarum*, the smallest of the fluffy-furred species. Fur obviously modified for an aquatic life, close and glossy, with a thick velvety underfur; hairs of back about 6 mm. in length. General colour of back rather lighter than "clove-brown," the sides becoming more "bistre." A dull buffy line edging the dark colour on the flanks, and running down the inner side of the hind limbs. Belly dull clay-colour, deadened by the slaty bases of the hairs showing through. Outer side of arms greyish brown. Upper surface of hands and feet dull white. Tail of medium length, finely scaled, 15 rings to the centimetre, slaty greyish above, dull white below.

Skull, in correlation with its smaller size, much more lightly built than in ordinary *Nectomys*; supraorbital ridges little developed, the brain-case broad, smooth, and rounded. Zygomata widely and evenly spread. Nasals not markedly narrowed behind. Palatal foramina much larger than in any other species, narrowed in front, widely open and rounded behind, where they extend to the level of the front edge of m^1 .

Molars much worn in the type, but apparently with the complicated structure of those of true *Nectomys*, with which their shape and general proportions agree.

Dimensions of the type (measured in the flesh):—

Head and body 125 mm.; tail 115; hind foot, s. u. 26, c. u. 28; ear 13.

Skull: greatest length 30; basilar length 23.4; zygomatic breadth 17; nasals 11.2×3.2 ; interorbital breadth 4.8; breadth of brain-case 13; palate length 12.8; diastema 7.6; palatal foramina 5.7×2.3 ; length of upper molar series 4.4.

Hab. Escondido River, 7 miles below Rama, Nicaragua.

Type. Old male. B.M. no. 5. 3. 4. 2. Collected 5th November, 1904, by Mr. W. G. Palmer.

This remarkable species, not half the bulk of any hitherto known member of the true glossy-furred *Nectomys*, is the first of the group found in Central America. Allen's *Sigmodontomys Alfari* and the closely allied *Nectomys russulus* of Colombia are forms with more *Oryzomys*-like fur; but their exact generic position is not at present easy to define, owing to want of specimens with unworn teeth. Although the same difficulty exists with the type of *N. dimidiatus*, its general characters are so much like those of typical *Nectomys* that I have no hesitation in assigning it to that genus, of which it forms the most diminutive member.

"Caught in banana-plantation, on very wet red clay."

Proechimys Goeldii, sp. n.

Size about as in the ordinary Para species, *P. oris*, Thos.* Colour of type a dull greyish brown, darker and more rufous on back, greyer and lighter on head and sides. But this colour is probably not that natural to the animal (which is presumably some shade of rufous), but is due to the action of the preservative in which the specimen has been kept. Under surface dull white, not sharply defined laterally. Spines of back feeble, barely exceeding half a millimetre in breadth, about 17–18 mm. in length, with a long slender

* Ann. & Mag. Nat. Hist. (7) xiv. p. 195 (1904).

point; greyish basally, black terminally. Fifth hind toe, without claw, reaching just to the level of the front of the pad at the base of the third and fourth digits. Mammaræ 6, two pairs high up on the sides between the limbs, one pair in the inguinal region.

Skull less ridged than that of *P. cayennensis*, more heavily built than that of *P. oris*, with a broader muzzle, the forehead convex mesially, the profile evenly convex to the middle of the brain-case, then strongly declining backwards, supra-orbital ridges not strongly developed and not continued backwards past the fronto-parietal suture, the surface of the parietals smooth and unridged. Malars slenderer and less high than in *P. oris*. Palatal foramina short, ending 4 mm. in front of the molars, parallel-sided, the edges produced backwards as two parallel ridges enclosing the area immediately behind the foramina, this area being at a lower level than the rest of the palate; septum comparatively broad. Posterior palatal notch penetrating to the level of the hinder edge of m^2 . Pterygoids narrow, little spatulate. Bullæ of medium development.

Cheek-teeth of normal size and structure, the premolar and last molar each with four, m^2 and m^3 each with an indication of five laminæ. In the lower jaw the premolar appears to have five laminæ and the molars four each. In *P. oris* the teeth throughout, upper and lower, have four laminæ each. In *P. cayennensis* the upper all have four laminæ, but the lower premolar is as in *P. Goeldii*.

Dimensions of the type (measured on the spirit-specimen):—

Head and body 223 mm; tail (lost); hind foot (s. u.) 49; ear 20.

Skull: greatest length 56; basilar length 40; zygomatic breadth 27.5; nasals 21×6.5 ; interorbital breadth 13; mastoid breadth 20.5; palate length from henselion 19.3; diastema 12.5; palatal foramina 5×3 ; length of upper cheek-tooth series 9.8.

Hab. Santarem, Lower Amazon.

Type. Adult female. B.M. no. 5. 1. 25. 6. Presented by Dr. E. A. Goeldi, after whom the species is named.

The members of the genus *Proechimys* being only distinguishable by their cranial characters, I have ventured to describe this spiny rat in spite of its apparent discoloration and the tailless condition of the type. The skull is readily distinguishable from that of both *P. oris* and the Guianan species *P. cayennensis* by its peculiar palatal foramina, even if the differences in the number of the molar laminæ prove to disappear on the examination of further specimens.

Agouti sierræ, sp. n.

Size comparatively small. Fur long and thick, as in *A. Taczanowskii* *. General colour about as in that animal, dark brown, near "seal-brown," but less purple. White spots large, subequal, not coalesced into lines, disposed, though rather irregularly, in three rows, of which the most superior approach within an inch of each other on the withers and are about 4 inches apart on the back, where the space is partly filled up by a few extra spots. This *Paca* is therefore one of the most heavily and evenly spotted of the group. Belly-hairs whitish, washed terminally with pale brown, not sharply demarcated laterally. Top of head blackish brown, without spots; cheeks paler brown, more or less grizzled with whitish; lips and throat dull whitish; a brown chin-spot present. Ears brown, with some whitish hairs at their anterior base. Limbs brown like the sides, their inner surfaces scarcely lighter; upper surface of hands and feet of a reddish brown, quite different to the blackish brown of the general colour, something between "umber" and "Prout's brown"; sole-pads profusely granulated, except just under the heel. Mammæ 1—1=4.

Skull conspicuously smaller than in *paca* and *Taczanowskii*, the surface almost quite smooth (but the type is a female). Zygomatic concavities small. Postpalatal region of skull proportionally short, the postpalatal length less than the distance from the back of the palate to the maxillary suture. Teeth large, the length of the molar series conspicuously greater than the maxillary part of the diastema. Bullæ very low and small, little inflated, their antero-posterior length barely 14 mm., as compared to 16–17 in the allied forms.

Dimensions of the type (measured on skin):—

Head and body 650 mm.; hind foot, s. n. 84, c. n. 94.

Skull: greatest length 123; basilar length 99; zygomatic breadth 82; nasals 41×22.5 ; interorbital breadth 35; tip to tip of postorbital processes 49; least breadth above auditory meatus 37.5; greatest posterior breadth 47.5; occipital height from basion 28.7; length of broadened surface of zygoma 64; greatest height of zygoma 36; zygomatic concavity, measured internally in horizontal plane, 34×18 ; diastema 38; postpalatal length 38; length of upper tooth-row (crowns) 28.

Hab. Pedregosa Montañas, Sierra de Merida, Venezuela. Alt. 2000 m.

* Stolzmann, P. Z. S. 1885, p. 181.

Type. Adult female, permanent dentition in place. B.M. no. 5.2.5.19. Collected 24th November, 1904, by S. Briceño. Two specimens. An imperfect specimen from Bogota also apparently the same.

"Eyes blue. Makes a nest underground, with two exits."—S. B.

The Pacas fall into two groups, those of the mountains and those of the plains. The former are comparatively long and thickly haired and darker coloured, and have the sole-pads distinct and profusely granulated; so far as is yet known, they are confined to the mountains of N.W. S. America. On the other hand, the lowland Pacas, ranging from Panama to South Brazil, are more sparsely covered with shorter hair, are paler in colour, brown or rufous, and their foot-pads are smoother, especially posteriorly, and less sharply defined from the general surface of the sole.

To the lowland group belong the forms described as *paca*, Linn., *fulvus*, F. Cuv., *subniger*, F. Cuv.*, and *virgatus*, Bangs, while to the highland series should be referred *Taczanowskii*, Stolzmann, and the present new form, which may be identified by its small size and very small bullæ. The animal described by Gervais, from the skull only, as *sublævis*, from Colombia, cannot be identified, and the type is no longer to be found in the Paris Museum. It may have been a female of either *paca* or *Taczanowskii*, but, no mention being made of its size being specially small, it is not likely to have been the present species.

MESOMYS, Wagn.

At last I am able definitely to identify the genus *Mesomys* of Wagner, which has been a puzzle to zoologists for half a century. Founded originally on a specimen which had lost its tail, an accident of most common occurrence in the group, tailless specimens of several other groups have been assigned to it, and all sorts of erroneous conclusions have been published about it on this account. Of late years, as in Dr. Allen's paper † on *Echimys* and *Proechimys*, it has been looked upon as probably synonymous with the former.

* Type locality Tobago. But I am informed by that excellent naturalist Mr. H. Caracciolo that the Paca is not indigenous to Tobago, and that it was probably introduced there from Trinidad.

† Bull. Am. Mus. N. H. xii. p. 257 (1899). Trouessart, in the recent Supplement to his 'Conspectus,' seems to have misunderstood the gist of Dr. Allen's paper, as he uses *Echimys* for the *cristatus* group and *Euryzigmatomys* for *spinosa*. But it is quite clear, as Dr. Allen as shown, that *Echimys* should be used for the latter and *Loucheresi* for the former.

I now owe to the kindness of Dr. E. A. Goeldi of Para the two spiny rats from Marajo mentioned incidentally in his paper of 1901 on *Mesomys ecaudatus* *; and at first I supposed them to represent a new genus, but soon found that they corresponded so closely in all their characters with the original description of *Mesomys ecaudatus* (except for the presence of a long tail), that they were certainly identical generically, and probably specifically, with Natterer's animal.

Glünther's "*Echimys ferrugineus*" † is also assignable to the same genus, and is closely allied to *M. ecaudatus*.

The following is a short description of the genus, with measurements of one of the Marajo specimens:—

External form as in *Proechimys*, but the ears short and the feet short and broad, as in *Loncheres*, the fifth hind toe reaching to the end of the first phalanx of the fourth. Spinous system at a maximum. Tail long, well haired. Cheek-teeth rounded, as in *Proechimys*, each upper one with five or six transverse laminae, the lower premolar with five and the lower molars with four oblique laminae. General form of skull as in *Loncheres*, the muzzle being similarly short, narrow, and parallel-sided; palatal foramina small; bullae flattened.

Exactly as Wagner stated, *Mesomys* may be said to have the skull, ears, and feet of *Loncheres*, with the teeth of *Proechimys*, to which latter it is really no doubt most closely allied. From the structure of its feet it is presumably an arboreal form, like *Loncheres*, instead of being terrestrial, like *Proechimys*. It is true that there are rather more laminae in the upper teeth than is usual in *Proechimys*, but there is a certain amount of variation in the number of the laminae, even in the same species ‡, so that this difference does not nullify the strong general resemblance that the teeth of *Mesomys* have to those of *Proechimys*.

The following are the dimensions of a Marajo specimen (an adult male, preserved in spirit):—

Head and body 163 mm.; tail 186; hind foot (s. u.) 30; ear 11.

Skull: greatest length 44; basilar length 33; zygomatic breadth 22·5; nasals 12·4 × 5; interorbital breadth 11; mastoid breadth 20; palate length 15·3; diastoma 9·4; palatal foramina 3·8; length of upper tooth-series 6·7.

* Bol. Mus. Para, iii. p. 170 (1901).

† P. Z. S. 1876, p. 750, pl. lxxiv. (animal).

‡ Cf. *P. vacillator*, Thos. Ann. & Mag. Nat. Hist. (7) xi. p. 490 (1903).