

## Article XXIV.—NEW SOUTH AMERICAN MURIDÆ AND A NEW METACHIRUS.

By J. A. ALLEN.

Of the nine species described in the present paper eight are based on material in the British Museum.

In this connection I take the opportunity to express my appreciation of the great kindness shown me by Mr. Oldfield Thomas, Curator of Mammals, during a few weeks spent at the British Museum the past summer, chiefly in the study of South American Rodents. He not only allowed me unrestricted use of the material under his charge, but greatly aided me in many ways in my researches. The following descriptions of new species were written in response to his generous solicitation.

### *Oryzomys bolivaris*, sp. nov.

*Type*, No. 99-9-9-27, British Museum, ♂ adult, Porvenir, Bolivar, Ecuador, altitude 1800 m., March 10, 1899; collected by P. O. Simons. Original No. 251.

Above medially very dark brown, punctated with ferruginous, the general effect being what might be called dark chestnut brown; sides lighter, more yellowish brown, becoming gradually paler towards the ventral surface, which is sharply defined and dull white, the fur being plumbeous at base and broadly tipped with soiled white; upper surface of fore and hind feet nearly naked, dull flesh color, soles blackish brown; ears rather small, dark brown; tail naked, pale brown, nearly unicolor.

*Measurements* (of type and only specimen).—Total length, 225 mm.; head and body, 125; tail, 100; hind foot, 29; ear, 18.

The skull presents nothing distinctive; it is rather narrow for its length, with rather a broad postpalatal opening and rather large palatal foramina. The teeth are of medium size, but in the single specimen are greatly worn. Total length, 30.2; basilar length, —; zygomatic width, 15.2; mastoid width, 12; postorbital width, 5.2; length of nasals, 12; length of palate, 6; palatal foramina, 6; upper toothrow, 4.5; length of lower jaw, 16; height of condyle, 8.5; lower toothrow, 4.8.

This species is characterized by the dark color of the dorsal surface, small ears, and tail considerably shorter than the head and body. In coloration it somewhat resembles the *S. magdalæna* group, but the general effect is much darker and more bordering on dark chestnut than yellowish brown, but from which group

it differs in its relatively somewhat shorter tail and very much smaller ears. Known at present only from the type specimen.

### *Oryzomys castaneus*, sp. nov.

*Type*, No. 1-3-19-11, British Museum, ♀ adult, St. Javier, northern Ecuador, altitude 60 feet, July 28, 1900; collected by G. Flemming and R. Miketta. Orig. No. 171.

Similar in texture of pelage and coloration to *O. nitidus*, but much smaller, with relatively as well as absolutely much weaker dentition. General color above dark reddish brown or light chestnut, paler, more yellowish brown on the sides; below dull whitish or soiled grayish white, the fur being plumbeous at base and broadly tipped with whitish. Upper surface of fore and hind feet nearly naked, flesh color, palms flesh color, soles dark brown; ears of medium size, brown; tail much shorter than head and body, naked, pale brown above, slightly lighter below.

*Measurements* (of type and only specimen).—Total length, 223 mm.; head and body, 118; tail, 105; hind foot, 29; ear, 19. Skull of the typical form for the genus, with a well-developed supraorbital bead, running back to the parieto-occipital suture; interparietal large; posterior palatal opening broad for the size of the skull; palatal foramina small; molar dentition weak. Total length, 30; basilar length, —; zygomatic width, 14.4; mastoid width, 11.3; postorbital width, 5.3; length of nasals, 11.2; interparietal, 3 X 9; length of palate, 7; palatal foramina, 4; upper toothrow, 4.1; lower jaw, length, 15; height at condyle, 7.8; lower toothrow, 4.6.

This species, at present known only from the type, bears a close resemblance in coloration to *O. nitidus* (*Hesperomys laticeps*, var. *nitidus* Thomas, type, 85-4-1-41, Br. Mus), from Amable Maria, Central Peru (P. Z. S., 1884, 452, pl. xlvi, fig. 1), but is smaller, with a very much shorter and narrower hind foot (27 against 30.5 in *O. nitidus*, type, both from dry skins), relatively shorter tail, and much weaker molar dentition.

### *Oryzomys perenensis*, sp. nov.

*Type*, No. 0-7-7-25, British Museum, ♂ adult, Perené, Department of Junin, Peru, April 11, 1900; altitude 800 m. Collected by P. O. Simons; collector's No. 930.

Very similar in coloration, texture of pelage, size, and proportions to *O. magdalena* Allen, but with the skull much broader and the dentition much heavier.

*Measurements* (of type).—Total length, 237 mm.; head and body, 125; tail, 112; hind foot, 31; ear, 22. Seven adults range in total length from 227 to 260 (one very old male reaches 279); length of head and body, from 118 to 135 (with one, 144); tail length, 105 to 125 (one, 135); hind foot, 28-33; ear, 20-25.

The skull and teeth present no differences of distinctive importance. Compared with *O. magdalena*, its nearest known ally, the skull is much broader throughout, with the teeth of the molar series about one third broader. Total length, 34; basilar length, 21.6; zygomatic width, —; mastoid width, 13; postorbital width, 5; length of nasals, 13; palatal length, 8; palatal foramina, 5; length of upper toothrow, 5; length of lower jaw, 17; height at condyle, 8.6; lower toothrow, 5.8.

This species is based on a series of 11 specimens, collected by Mr. P. O. Simons at Perené, Department of Junin, Peru, at an altitude of 800 m., in March and April, 1900. The series includes several young adults, which are darker, especially along the median line above, with less of the yellowish brown of the adults. One old male (No. 0-7-7-25) is much larger than the rest of the series and of a rather deeper brown above. One young example (No. 0-7-7-26) is exceptional for the strong wash of pale yellowish brown on the sides.

Externally this form is not readily distinguished from *O. magdalena*, but the two are easily separable on comparison of the skulls. Both are apparently geographical forms of *O. laticeps*.

#### *Oryzomys rivularis*, sp. nov.

*Type*, No. 1-1-6-5, British Museum, ♀ adult, Rio Verde, northern Ecuador, altitude 3200 feet, Nov. 28, 1899; collected by R. Miketta.

In coloration throughout essentially like *O. bolivaris*, but much larger and with the tail much longer than head and body.

*Measurements* (of type and only specimen).—Total length, 238 mm.; head and body, 111; tail, 127; hind foot, 32; ear, 17.

Skull narrow and slender, as in *O. magdalena*, but the rostral portion still more elongated and narrower, the zygomatic branch of maxilla broader, the anterosuperior border more produced, and the enclosed foramen less expanded laterally; posterior palatal opening broader; dentition weak, as in *O. magdalena*. Total length, 32; basilar length, 23.6; zygomatic width, 15; mastoid width, 12; postorbital width, 6; length of nasals, 7; length of palate, 7; palatal foramina, 4; upper toothrow, 4.6; length of lower jaw, 17; height at condyle, 8; lower toothrow, 5 mm.

This form closely resembles *O. bolivaris* in coloration and in the small size of the ears, in comparison with these members in the *O. laticeps* group, and from which group it further differs in the length of the tail, considerably exceeding that of the head and body. Known at present only from the type, in which the body is much overstuffed, it greatly exceeding the measurements taken from the specimen in the flesh.

***Phyllotis chacoënsis*, sp. nov.**

*Type*, No. 98-5-14-2, British Museum, ♀ adult, Waikthlatingwayalwa, Chaco boreal, Paraguay; Graham Kerr, Sept. 5, 1897.

Pelage thick and soft. Above strongly yellowish brown, varied with black-tipped hairs, chiefly on the back; sides with fewer black-tipped hairs, and more strongly yellowish, or ochraceous buff; nose and top of head more grayish; cheeks like the sides; below pure white to the base of the hairs; fore arm, thighs, and hind legs like adjoining parts of the body; upper surface of fore and hind feet white, well clothed; palms and soles naked, the former flesh color, the latter darker, or brownish flesh color; ears large, dull brown, thinly haired on both surfaces; a small yellowish white tuft at posterior base of ear; tail much longer than head and body, bicolor, dark brown or blackish above, white below, well haired, the hairs increasing in length toward the end of the tail, forming a brushy pencil at the tip.

*Measurements*.—Total length (of type), 327 mm.; head and body, 142; tail, 185; hind foot, 31 (without claws, 33 with claws); ear, 24. Another specimen gives the following measurements, taken from a well-made skin: Total length, 267; head and body, 120; tail, 147; hind foot, 29; ear, 18.

Skull long and narrow, with a narrow brain case, interparietal very broad, the anterosuperior border of the maxillary plate of the zygoma produced to form a slight angle, in this feature diverging from the *Phyllotis darwini* type toward *Euneomys*; bullæ large; molars (including m<sup>2</sup>) nearly as in *Phyllotis darwini*, but bullæ much larger, molar series much broader, and brain case relatively much narrower. The type skull measures as follows: Total length, 38; basilar length, 29; length of nasals, 16; zygomatic breadth, 18; mastoid breadth, 14; interorbital breadth, 6; palatal length, 7.2; palatal foramina, 8 × 2.5; upper toothrow, 5; lower jaw (from inner base of incisors to condyle), 19; height at condyle, 10; lower toothrow, 5.3.

This species resembles most nearly *Phyllotis griseoflavus* (Waterh.), with the type of which it has been compared, but from which it differs in its brighter, more buffy coloration, and in the fur on the ventral surface being wholly white to the base, instead of basally pale plumbeous. It is also apparently larger. The type locality of *P. griseoflavus* is the mouth of the Rio Negro, Patagonia, to which species three other specimens from Chupat, Patagonia, are evidently referable. The type locality of *P. chacoënsis* is the northern Chaco country of Paraguay, northwest of Asuncion.

*P. chacoënsis* is based on three specimens from Waikthlatingwayalwa. They all agree very closely in external features, including the wholly white fur of the ventral surface.

**Phyllotis cachinus, sp. nov.**

*Type*, No. 97-5-5-19, British Museum, ♀ adult, Upper Cachi River, Salta, Argentina, collected and presented by Prof. Spegazzini.

Similar to *P. griseoflavus* in general coloration, but with the pelage of the ventral surface pale grayish at extreme base, instead of deep plumbeous for the basal half or more. It also differs from *P. griseoflavus* in the skull being broader, including both the brain case and the rostral portion, with very much heavier dentition, the molar series being one-third broader as well as longer, and with a much heavier lower jaw.

It differs from *P. chacoensis* in its shorter parietal ( $11 \times 3$  as against  $11 \times 4$  in *P. chacoensis*), heavier dentition, more inflated bullæ, and smaller size.

*Measurements* (of type).—Total length, 296 mm.; head and body, 137; tail, 159; hind foot, 29; ear, 24.

Skull about as in *P. griseoflavus* and *P. chacoensis*, except in its rather greater relative breadth as compared with the former, and its short interparietal as compared with the latter, and much heavier dentition in comparison with either. Total length, 35; basilar length, 27; zygomatic breadth, 17; mastoid breadth, 14.5; interorbital breadth, 5; length of nasals, 15.5; palate, 6.8; palatal foramina,  $7.2 \times 2.5$ ; interparietal,  $11 \times 2.8$ ; upper toothrow, 5.4; lower jaw (inner base of incisors to condyle), 19; height at condyle, 9; lower tooth-row, 5.7.

A specimen from the Lower Cachi, No. 79-5-5-18, ♀, from the same collector, with an imperfect skull, seems better referable to *P. chacoensis*, it having the ventral pelage snow-white to the roots, and weaker dentition.

Doubtless *griseoflavus*, *chacoensis*, and *cachinus* will prove to be closely related forms of the same species, but they show features of difference worthy of note, and, moreover, inhabit quite different faunal districts. The first two are chaco forms, widely separated geographically, while the latter is from the mountain district northwest of Salta.

**Eligmodontia morgani, sp. nov.**

*Type*, collector's No. 127, ♀ adult, Arroya Else, Patagonia, April 17, 1895; coll. A. E. Colburn.

Pelage very full, long, and soft. Above dull ochraceous gray, finely lined with black, sides paler and more buffy, passing into a well-defined pale yellowish lateral line, extending from the sides of nose to the base of the tail; lower parts pure white, the fur plumbeous at base, the apical half white; ears medium, dusky brown externally, pale buffy gray internally; tail about as long as head and body, sharply bicolor, dark brown above, grayish white below, well

haired and slightly penicillate; fore and hind feet above grayish white, well covered with short hairs; soles and palms flesh color, sparsely haired, the flesh-colored skin barely showing through the hairs.

*Measurements.*—Total length (of type), 165 mm.; head and body, 85; tail, 80; hind foot, 23; ear (from dry skin), 13.

Skull much as in *E. elegans* but rather smaller, and with the same character of dentition. Total length, 24; basilar length, 17.5; zygomatic breadth, 12; mastoid breadth, 11; interorbital breadth, 4; length of nasals, 10; palate, 5; palatal foramina, 5×2; interparietal, 11×2.5; upper toothrow, 4; lower jaw, 12; height at condyle, 5.3; lower toothrow, 4.

This species has externally the appearance of a small-eared *Phyllotis* with furred soles. Its nearest known ally appears to be *E. elegans*, from which it differs in having much smaller ears and a shorter tail, the foot and body being nearly as in *E. elegans*.

The type of *E. elegans* was collected by Darwin at Bahia Blanca and is much changed in color by exposure for a long time (formally) as a mounted specimen. Two other specimens in fair condition from Chupat, northern Patagonia, identified as *E. elegans* by Mr. Thomas, very closely resemble in color the series of *E. morgani* from Sta. Cruz, but differ from them strikingly in their much larger ears and much longer tails. There are no flesh measurements, but the vertebrae still remain in the tail and the skins are fairly made up. Head and body (in skin), 78; tail vertebrae, 97; ear from notch, 19. The other specimen has the same proportions but is a little smaller.

This species is based on a large series of specimens collected at or near Cape Fairweather, Patagonia, by Mr. A. E. Colburn, for the Princeton Patagonian Expedition, generously supported by Mr. J. Pierrepont Morgan, after whom the species is named.

#### *Akodon tucumanensis*, sp. nov.

*Type*, No. 0-7-9-13, British Museum, ♀ adult, Tucuman, Argentina, alt. 450 m., June 29, 1899; coll. L. Dionelli.

Pelage very soft and full. Above dull ruddy brown, darker and more reddish than in *A. xanthorhinus*, minutely grizzled with black-tipped hairs, darkest over the back, lighter on the sides; sides of nose rather lighter, but not very distinctly different from the front of the head, in this differing from the *A. xanthorhinus-canescens* group; below buffy gray varying to strong buff; ears small, dark brown, edged within with buffy brown hairs; feet dusky gray above, soles of hind feet dusky brown; tail indistinctly bicolor, very thickly haired; blackish brown above, sides and below lighter, pale buffy gray.

*Measurements*.—Total length (type), 140.5 mm.; head and body, 81; tail, 59.5; hind foot, 17.5; ear 15. Three adults (2 males and 1 female) give the following: Total length, 136.8 (130–140.5); head and body, 77.8 (70–82.5); tail, 59 (57.5–60); hind foot, 17.8 (17–19); ear, 12.6 (12.5–15).

The skull presents no differences except those of size from its near congeners. Total length (type), 24; basilar length, 18; zygomatic breadth, 12; greatest width of brain case, 11.2; interorbital breadth, 5.2; nasals, 8; palate, 3; palatal foramina, 5.5; upper toothrow, 4.

*Akodon tucumanensis* belongs to the small-sized, soft-furred, short-tailed, small-eared, short-nosed group of which *A. olivaceus*, *A. xanthorhinus*, and *A. canescens* are typical representatives and its nearest allies, from which, however, it is strongly distinct in features of coloration. It is smaller than *olivaceus*, agreeing very nearly in size with *A. canescens* and *A. xanthorhinus*. It is thus far represented by only the three specimens above mentioned, all taken at Tucuman, June 29, July 1, and July 24, 1899, by Mr. L. Dionelli.

### Metachirus nudicaudatus boliviensis, subsp. nov.

*Type*, No. 1-6-7-73, British Museum, ♀ ad., Chulumani, Yungas, Bolivia, alt. 2000 m., Feb. 14, 1901; P. O. Simons.

Above pale yellowish gray, strongly variegated with black, the black most developed along the median line, giving the effect of a blackish dorsal area, which, in some specimens, takes the form of a quite distinct black median line; sides paler, more fulvous and less blackish; below pale buff, this color extending well up on the sides and on the outer edge of thigh and hind leg. Head black, slightly variegated with gray along the frontal region and top of the nose; a broad black stripe extends from the whiskers to the base of the ear, enclosing the eye, and crossing over the head in front of the ears to join the blackish median band on the head; eye-spots ochraceous; feet dull yellowish gray brown, palms brownish flesh color, soles dusky; ears pale brown; tail brown for about the basal two-thirds, the apical portion whitish.

*Measurements*.—Type: Total length, 498 mm.; head and body, 225; tail, 273; hind foot, 40; ear, 38. A series of 6 specimens, 3 males and 3 females, measure as follows:

B. M. No.	Sex.	Head and body.	Tail.	Hind foot.	Ear.
1-6-7-71	♂	240	298	43	38
1-6-7-69	♂	243	308	42	38.5
1-6-7-70	♂ juv.	195	253	39	36
1-6-7-73	♀	225	273	40	38
1-6-7-74	♀	240	290	41	39
1-6-7-72	♀	238	300	42	38

*Skull*.—Type (young adult ♀): Total length, 54; basal length, 51; length of nasals, 27.5; width of nasals, 9 × 3.7; zygomatic breadth, 28; mastoid breadth, 16.5; interorbital breadth, 9.5; palatal length (from inner base of incisors), 30; breadth at  $m^4$ , outside, 18; inside, 11; upper toothrow, 19.5;  $m^{1-4}$ , 11.

No. 1-6-7-72, ad. ♀ with worn teeth: Total length, 55; basal length, 52; length of nasals, 29; width of nasals, 9 × 4; zygomatic breadth, 28; mastoid breadth, 17; interorbital breadth, 9.5; palatal length, 31; upper toothrow, 20;  $m^{1-4}$ , 11.5.

*Young*.—Young examples, one-tenth to one-fourth grown, similar to adults in general coloration, but in the very young with a strongly marked black dorsal stripe, the cheeks and eye-spots brighter, approaching ochraceous buff.

*Metachirus boliviensis* belongs to the *M. nudicaudatus* group, but differs from all previously described members of it in the blackish variegation of the back, black-tipped hairs being not only a conspicuous feature of the dorsal coloration, but give in some specimens the prevailing tone, especially to the median area, which shows often a tendency to a distinct black median band, which in the young appears as a distinct, sharply defined line, wholly absent in young of corresponding age in *M. nudicaudatus* (Guiana specimens) and in *M. nudicaudatus colombica* (from near Bogota). It also differs from the other forms in the paler coloration of the sides and abdomen, outside of thighs, and eye-spots, with consequently greater contrast between the coloration of the dorsal and ventral surfaces. The black of the dorsal surface is about as in the *M. opossum* group, but with a pale yellowish gray color instead of a clear gray. Apparently its nearest ally is *M. nudicaudatus phaeurus* Thomas from northern Ecuador (type and only specimen, 1-3-19-44, ♂ ad., May 19, 1900, St. Javier, N. Ecuador, alt. 60 feet; G. Flemming). The type of the latter is in short velvety pelage with a broad, ill-defined dusky median area and a wholly dark tail. This form corresponds to the dark form—*tschudii*—of the *M. opossum* group from Peru.

This subspecies is based on a series of 11 specimens, collected by P. O. Simons at Chulumani, Bolivia, of which 5 are young of various ages (2 nurslings, 2 apparently just old enough to shift for themselves, and 1 about two-thirds grown) and 6 fully adult. The series is very uniform in coloration, though varying a little in the amount of black on the back, except that the two very young specimens have the black median stripe more distinct than the older examples.

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[New names of genera, species, and subspecies are printed in heavy-faced type.]

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## ERRATA.

- Page 46, line 1 at top, for *lutesens* read *lutescens*.  
Page 217, line 17 from bottom, for *grisescens* read *griscescens*.  
Page 225, line 5 from top, for *Synallaxis* read *Synallaxis*.  
Plates XXIX and XXX, in title at bottom, for n. sp. read Whitf.

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