

**Article XXVII.—NEW MAMMALS COLLECTED ON THE
ROOSEVELT BRAZILIAN EXPEDITION.**

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Six of the ten species of mammals here recorded as apparently new were collected on the Roosevelt Brazilian Expedition in 1913-1914, in the State of Matto Grosso, Brazil. Of the others two (*Æcomys emiliæ* and *Proechimys boimensis*) are from eastern Brazil, one (*Æcomys florenciæ*) is from the Caquetá district of Colombia and the other (*Molossus daulensis*) from Ecuador.

***Proechimys boimensis* sp. nov.**

Type, No. 37486, ♂ ad., Boim, Rio Tapajos, Brazil, Oct 10, 1911 (ex Museu Goeldi).

Upperparts bright yellowish rufous, sparsely varied mesially with black-tipped hairs, the pelage soft except for a few intermixed stiffish hairs on the middle of the back; underparts clear white, sharply defined against the orange rufous of the sides; inside of upper arms and inside of thighs naked; ears long and narrow, naked, light brown; fore feet buffy gray, edged with white on the inner margin; hind feet above pale yellowish white, soles pale brown; tail very light brown above, much lighter below, and tuftless, the annulations not obscured by the scanty short bristly hairs.

Total length, 348 mm.; head and body, 199; tail, 149; hind foot, 45; ear, 25.

Skull long, narrow and lightly built. Total length, 56.3; zygomatic breadth, 23.2; interorbital breadth, 10.5; breadth of braincase, 19.6; nasals, 22 × 6; maxillary toothrow, 7.1; diastema, 11; palatal foramina, 5 × 3.

Represented only by the type, an old male with the teeth much worn. Received from the Museu Goeldi as *Proechimys oris*, with three specimens of true *P. oris* from Cametá, Rio Tocantins, and two specimens of true *P. goeldii* from Faro, on the Amazon, not far from the type locality of *goeldii*.

Proechimys boimensis differs so strongly from any other species of the genus that it scarcely needs comparison with any of them. Its small size, weak structure, the strong orange rufous coloration of the upperparts (slightly darkened with blackish mesially and bright orange rufous on the sides), and its soft pelage serve at once to distinguish it.

***Æcomys milleri* sp. nov.**

Type, No. 37117, ♂ ad., Barão Melgaço, Matto Grosso, Brazil, March 5, 1914; Leo E. Miller, for whom the species is named (Roosevelt Expedition).

Similar in general coloration and size to *Æ. bicolor* (Tomes). Pelage soft, short

and thick. Upperparts uniform dark cinnamon brown, finely lined with black; underparts clear white (slightly tinged with fulvous in some specimens), the hair short and velvety, and white to the base; no fulvous lateral line as in *bicolor*, the white of the underparts being sharply defined against the cinnamon brown of the flanks; ears prominent, dark brown, nearly naked externally; feet flesh-colored, slightly clothed with very short pale cinnamon-colored hairs; tail blackish brown, very finely annulated, the short fine dusky hairs not concealing the scales except towards the tip, which is more thickly haired and slightly tufted.

Total length of type, 185 mm.; head and body, 95; tail vertebræ, 90; hind foot, 20. The type and 5 topotypes: Total length, 198 (185–210); head and body, 98.6 (95–100); tail vertebræ, 98.3 (80–110); hind foot, 22.

Skull of type, occipitonasal length, 24; zygomatic breadth, 13; interorbital breadth, 5; breadth of braincase, 11.2; palatal foramina, 5×2.5 ; maxillary tooth-row, 3.5; diastema, 6.

Represented by the type and 5 topotypes, and by a single specimen from Urufá, on the upper Gy-Paraná.

This species belongs to the *Ēcomys bicolor* (Tomes) group, but differs from it in the ventral surface being clear white instead of yellowish white, and in other minor color differences and in slightly smaller size. It differs similarly from *Ē. florenciæ*, described below from the Caquetá drainage of southwestern Colombia.

Ēcomys florenciæ sp. nov.

Ēcomys bicolor ALLEN (not *Hesperomys bicolor* of Tomes), Bull. Amer. Mus. Nat. Hist., XXXV, p. 210, May 31, 1916.

Type, No. 33863, ♀ ad. (skin only), Florencia (altitude 675 feet), Rio Caquetá drainage, southwestern Colombia, June 25, 1912; Leo E. Miller.

Closely similar to *Ē. bicolor* (Tomes), from the western slope of the Andes, near Pallatanga, Ecuador, even to the fulvous tinge of the white underparts.

Upperparts cinnamon brown, darkened along the middle of the back by black-tipped hairs; sides paler and more yellowish, forming at the lower edge a quite distinct golden-fulvous lateral line, extending anteriorly to the sides of the nose; head, from the eyes anteriorly, paler and grayer than the back; whole ventral surface strongly suffused with pale buff, varying much in intensity in different specimens; upper surface of feet pale buffy gray, the soles blackish brown; ears dark brown, sparsely haired; tail dark brown, unicolor, the annulations distinctly visible through the fine short brownish hairs, which increase in amount apically and form a slight terminal tuft.

Type, total length, 200 mm.; head and body, 100; tail vertebræ, 100; hind foot, 22. A series of 4 topotypes: Total length, 197 (190–200); head and body, 97 (90–100); tail vertebræ, 100 (all 100); hind foot, 22 (all 22). The skulls of the entire series were unfortunately lost.

Represented by 6 specimens, all from the type locality.

This form is slightly larger than either *Ē. bicolor* or *Ē. milleri* and differs from the latter especially in the color of the ventral surface. I

formerly referred these Florencia specimens to *Æ. bicolor*, but it is a slightly larger form, and somewhat different in color. The three forms are probably merely geographic races of the same specific group, for which *bicolor* is the earliest name. The known range of the group is now extended eastward to western Matto Grosso.

***Æcomys emiliæ*¹ sp. nov.**

Type, No. 37495, ♂ ad., Rio Mojú, Pará, Brazil (ex Museu Goeldi), Feb. 28, 1914.

Upperparts, in general effect, pale buffy grayish brown, with a slight mixture of black-tipped hairs, passing into pale yellowish gray on the sides; no yellow lateral line; underparts sharply defined clear white, the fur very short, soft, velvety, and white to the base; ears pale brown, apical two-thirds nearly naked, basal third heavily clothed with long fur tipped with dusky brown; tail heavily clothed for the basal half-inch and concolorous with the back; rest of the tail uniform dusky brown, the hairs nearly concealing the annulations, increasing in abundance toward the tip, which is strongly tufted; upper surface of fore and hind feet dull brown with a slight buffy tinge, the edges and the toes white faintly tinged with pale buff; soles flesh-color; a rather distinct narrow blackish eyering; whiskers abundant, very long and black.

Total length, 300 mm.; head and body, 135; tail, 165; hind foot, 28; ear, 16.

Represented by only the type, the skull of which has unfortunately been mislaid.

This species appears to be very distinct from any described form of either *Æcomys* or *Rhipidomys* from eastern Brazil. In coloration it bears some resemblance to *Rhipidomys cearanus* Thomas, but it is very much larger and otherwise obviously different.

***Oryzomys (Oligoryzomys) microtis* sp. nov.**

Type, No. 37091, ♂ ad., Lower Rio Solimoens (fifty miles above mouth), April 29, 1914; Leo E. Miller (Roosevelt Expedition).

Similar in size and general coloration to *O. (Oligoryzomys) navus* Bangs, but very much less rufous above and clearer white below, and with very much smaller ears. Upperparts dull yellowish brown, finely lined with black-tipped hairs; underparts white (in type, faintly tinged with buff in some specimens); upper surface of feet thinly clothed with light buffy brown hairs; soles dark brown; tail shorter than head and body, brown, nearly naked, finely annulated, the tip not distinctly tufted; ears small, brownish, nearly naked.

Total length (type), 183 mm.; head and body, 93; tail, 90; hind foot, 20. Six topotypes: Total length, 178; head and body, 93; tail, 88; hind foot, 21.2.

¹ Named in honor of Dr. Emilie Snethlage, Director of the Museu Goeldi, Pará, Brazil, through whose kindness the American Museum of Natural History has received valuable collections of both birds and mammals secured by her during her important explorations in eastern Brazil.

Skull (type), total length, 23; zygomatic breadth, 11.5 (?), interorbital breadth, 3.7; breadth of braincase, 15; palatal foramina 4×1.3 ; maxillary tooththrow, 3; diastema, 5.

Represented by 8 specimens, all from the type locality.

Readily distinguished by pale coloration, relatively small ears, and tail less than half the total length.

In this connection I have had occasion to take up the *Oligoryzomys* group somewhat in detail, with the following results. It is a natural group, as has been repeatedly admitted by different authors, but is perhaps better recognized, for the present, as of only subgeneric value. It contains a considerable number of species and subspecies, and has a wide distribution, ranging from southern Mexico to the coast region of Peru in the west and from Trinidad and the northern coast region of Venezuela to the southern provinces of Brazil. The members of the group are readily recognized by the external characters of small size and very long tail (usually decidedly longer than head and body), which in most forms is distinctly tufted at the end. The material at present available is insufficient for a satisfactory review of the group, but the following seem referable to it, and still others, among them some of the earlier described species, appear also to belong to it, including the *Oryzomys stolzmanni* group.

The group includes two types of pelage, one of which, including most of the species, has the pelage short and fine, but in the *humilior* group it is soft and woolly.

The Mexican and Central American forms that have been recognized¹ are probably only geographic races of *O. fuscescens* (Saussure). A reëxamination of *vegetus*, of Chiriqui, proves it to be quite easily distinguishable from either *fulvescens* or *costaricensis*. *O. nicaraguæ* is known only from the adult type and a half grown specimen; the type is distinctly different from either of the other forms, and the half-grown specimen differs strongly from two specimens of *costaricensis* of corresponding age, the only available specimens of either of the other forms that are comparable with it.

The first form described from northern South America is *O. delicatus* Allen and Chapman (1897), from a single mutilated specimen from the Island of Trinidad; it appears to be quite distinct from any of the later described forms from continental South America.

O. humilior Thomas² (1898) is the first described member of a widely

¹ *O. fulvescens* (Saussure), 1860. State of Vera Cruz, Mexico.

O. costaricensis Allen, 1893. Costa Rica.

O. (O.) vegetus Bangs, 1902. Chiriqui.

O. (O.) nicaraguæ Allen, 1910. Vijagua, Nicaragua.

² *Oryzomys dryas humilior* Thomas, Ann. and Mag. Nat. Hist. (7), II, p. 268, Sept. 1898. Plains of Bogota. Not closely related to *dryas*, referred by Thomas in 1906 to *Æcomys*, "as probably = to *Æ. bicolor* (Tomes)."

distributed South American group, to which is referable *O. fulvirostris* Allen (1912), representing in the Western and Central Andes *O. humilior* of the Eastern Andes, the Santa Marta region and the Merida Andes.

O. (O.) navus Bangs (January, 1899), the type of *Oligoryzomys*, is also a member of a wide ranging group, which includes *O. tenuipes* Allen (December, 1899) described from the Merida Andes,¹ and *O. (O.) munchiquensis* Allen (1912) from the Eastern Andes. *O. tenuipes* ranges to the northern coast of Venezuela, and differs from *navus* in having the ventral surface buffy instead of clear white, while *munchiquensis* has the ventral surface grayish white and the upperparts darker than in either *tenuipes* or *navus*. *O. griseola* Osgood (1912), from the Paramo de Tama (Colombia-Venezuela boundary) is doubtless covered by the series I refer to *tenuipes*; but *griseola* is unknown to me and may be a recognizable subspecies of the *tenuis* 'complex.'

O. arenalis Thomas (1913), from the desert coast region of Peru is unknown to me but is referred to by the author as "a very small pale form of the '*Oligoryzomys*' group."

It seems necessary to add to the foregoing the following two forms from southwestern Matto Grosso.

***Oryzomys (Oligoryzomys) utiaritensis* sp. nov.**

Type, No. 37541, ♀ ad., Utiarity, Rio Papagaia, Matto Grosso, Brazil, Jan. 30, 1914; Leo E. Miller (Roosevelt Expedition).

Closely resembles *O. stolzmanni* but paler and more yellowish above and somewhat smaller.

Upperparts clay-color finely line with black-tipped hairs over the back, nearly pure clay-color on the sides; front of head and nose darker and slightly grayish; underparts grayish white, the hairs darker at base; upper surface of feet paler, about flesh-color, soles dark brown; ears large, light brown, nearly naked; tail longer than head and body, finely annulated, light brown and nearly naked, the apical portion with short, bristly grayish hairs.

Total length, 220 mm.; head and body, 100; tail vertebræ, 120; hind foot, 22; ear from crown (in skin), 14. Skull, total length, 24; condylobasal length, 23; zygomatic breadth, 12 (?); breadth of braincase, 11; length of nasals, 9; maxillary tooththrow, 3.5; palatal foramina, 4×1.5 ; diastema, 5.

Represented by two specimens, both from the type locality. The second specimen is a young adult, much younger than the type.

This species resembles *O. stolzmanni* in size and general appearance, but is smaller, the coloration above is much yellower, the pelage less woolly,

¹ The two specimens recorded (*antea*, p. 214) by me from Bogotá as "near *tenuipes*" prove to be referable to *navus*, of which I then had no specimens for comparison.

and the tail relatively shorter. It is less closely related to *O. eliurus*, with authentic specimens of which it has also been compared.

***Oryzomys (Oligoryzomys) mattogrossæ* sp. nov.**

Type, No. 37542, ♂ ad., Utiarity, Matto Grosso, Brazil, Jan. 31, 1914; Leo E. Miller (Roosevelt Expedition).

Similar in general to *O. utiaritensis* but the upperparts with a more rufous tone, especially on the rump; the underparts are light ochraceous buff instead of grayish white, and the tail is relatively much longer. Total length (type), 210 mm.; head and body, 95; tail, 115. Paratype (No. 37100, Guatsué), total length (from a well-filled skin), 220; head and body, 90; tail, 130; hind foot, 20; ear, 15. Skull, total length, 24; condylobasal length, 22.3; zygomatic breadth, 12.2; breadth of braincase, 11; length of nasals, 9; maxillary tooththrow, 3; palatal foramina, 4×1.3 ; diastema, 5.

This species is obviously different from the above-described *O. utiaritensis*. The underparts are strongly buffy instead of white, the upperparts have a rufous tone, and the tail is relatively longer — very much longer in the paratype. The type is from the same locality as the type of *O. utiaritensis*, and the paratype was collected at Guatsué, a nearby point, showing that both forms occur together. In so small a series (2 specimens of each form) it is possible that the differences are due to individual variation, but this does not seem at all probable.

***Zygodontomys tapirapoanus* sp. nov.**

Type, No. 37518, ♀ ad., Tapirapoan, Rio Sepotuba, Matto Grosso, Brazil, Jan. 19, 1914; Leo E. Miller (Roosevelt Expedition).

Upperparts yellowish brown minutely punctated with black; sides paler, without black punctation; underparts dull gray with a yellowish wash, usually faint but sometimes strongly developed, the basal portion of the hairs plumbeous, only the tips light; ears dark brown, nearly naked; upper surface of fore and hind feet dark brown, the extreme tips of the hairs grayish; tail dark brown above, slightly lighter below, thinly clothed with short fine bristly hairs, not concealing the annulations above but often quite concealing them below. In occasional specimens the scaling of the tail is wholly concealed by hairs, both above and below.

Type, total length, 210 mm.; head and body, 130; tail vertebræ, 80; hind foot, 25. Six young adult topotypes (the type and all of the series of 9 topotypes are young, with the teeth wholly unworn): Total length, 193 (190–200); head and body, 117 (110–120); tail 80 (70–90); hind foot, 24.3 (22–25). Six old adults from Utiarity and Tres Burity, with the teeth worn down so that no trace of the cusps remain: Total length, 212 (200–220); head and body, 117 (110–130); tail, 84 (80–90); hind foot, 25 (23–26).

Skull, type, and an old skull with greatly worn teeth, respectively, total length, 29.5, 30; zygomatic breadth, 15.8, 16; breadth of braincase, 12, 12.3; interorbital breadth, 5, 5; nasals, 9.5×3 , 11×2 ; maxillary tooththrow, 5, 4.3; palatal foramina, 7×2 , 7×2 ; diastema, 7.5, 8.

Represented by 33 specimens: Tapirapoan, 10; Utiarity, 16; Urucúm, 2; Tres Burity, 2; San Juan, 2; Vilhema, 1.

This species is strikingly similar in coloration to *Zygodontomys cherriei* (Allen), from Costa Rica — so strongly that when specimens of both are mixed in a tray they are not readily separable without recourse to the labels. On careful comparison there is a slight average difference in the yellowish brown tone of the upperparts, while the underparts are nearly pure gray in *cherriei* and usually faintly to strongly washed with fulvous in *tapirapoanus*. The feet, however, in the former are light brown and in the latter dark brown. There is also considerable difference in size, *cherriei* being much larger than *tapirapoanus*, as shown especially by the skulls. In *tapirapoanus* the palatal foramina are narrower and longer and extend further back, reaching nearly to the middle of m^1 instead of only to the end of the first third.

Zygodontomys tapirapoanus resembles *Akodon arviculoides montensis* Thomas, from Sapucay, Paraguay, with a series of which my specimens have been compared, but is paler and grayer and much smaller. Six adult topotypes of *montensis* (in U. S. National Museum, measured by William Foster, the collector) measure as follows: Total length, 233 (215–245); head and body, 132 (120–137); tail vertebræ, 105 (97–108); hind foot (s. u.), 23.7 (23–25). (Compare with the measurements of 6 old adults, from Utiarity and Tres Burity, given above.)

***Molossus cherriei* sp. nov.**

Type, ♀ ad., No. 36669, Tapirapoan, Matto Grosso, Brazil, Jan. 13, 1914; George K. Cherrie (No. 17664), for whom the species is named. (Roosevelt Brazilian Expedition.)

A small form of the *Molossus pygmæus* group, with very short pelage and very dark coloration.

Pelage short, very fine and velvety, the hairs on back only about 2 mm. in length. Upperparts blackish brown with a faint tone of dark chestnut, the hairs uniformly colored nearly to the point of insertion; underparts slightly paler, the hairs without trace of light tips; ears, membranes and feet black.

Total length (from a well made skin), 79 mm.; head and body, 56; tail, 23; forearm, 33; third metacarpal, 34; lower leg, 11; foot, 7. The skull is unfortunately lost.

Represented by only the type, taken at Tapirapoan, a few miles northeast of Cuyabá, on the Rio Sepotuba, the point of departure of the Roosevelt Expedition on the overland trip to the Rio Roosevelt.

This species appears to be, so far as can be determined from a single specimen, one of the smallest forms of the *M. pygmæus* group, with extremely short, velvety pelage, and a very small amount of whitish at the base of the hairs. Its nearest geographical allies are *M. burnesi* Thomas of Cayenne.

and specimens from Daule, Ecuador, formerly provisionally referred by me to *M. pygmæus* Miller, of which the type and only known specimen is from Curaçoa. *M. tropidorynchus* (Gray), from Cuba, and *M. coibensis* Allen, from Panama, are too obviously distinct to require special consideration.

Molossus daulensis sp. nov.

Molossus pygmæus ALLEN (not of Miller), Bull. Amer. Mus. Nat. Hist., XXXV, p. 125, May 11, 1916.

Type, No. 36257, ♂ ad., Daule, Ecuador, April 23, 1913; William B. Richardson.

Pelage soft, 5 or 6 mm. in length on the back, the basal half or two-thirds white. Upperparts light seal brown with a chestnut tone; underparts slightly lighter; ears, feet and membranes blackish brown.

Total length (approximate, from a poorly made skin), 80 mm.; head and body, 50; tail, 30; forearm, 36; third metacarpal, 38; tibia, 12; foot, 9.

Skull, total length, 16.2; condylobasal length, 15; lacrymal breadth, 5; zygomatic breadth, 10; mastoid breadth, 8; breadth of braincase, 8.3; maxillary tooth-row, 4.8.

Represented by 5 specimens from Daule and 1 from Puna Island.

The skull has about the same volume as that of *M. coibensis* but differs from it greatly in shape, being much longer and narrower and much lighter, the sagittal crest thinner and lower, in correlation with the more delicate structure, the braincase more inflated and the postorbital region less constricted. The coloration is similar to that of the dark phase of *M. coibensis*, lighter and less glossy than in *M. cherriei* from Matto Grosso, and with the basal half or more of the pelage white, as in *pygmæus* and *coibensis*.