

Article XXXIX.—NEW SOUTH AMERICAN MURIDÆ.

By J. A. ALLEN.

In working out the large collection of Muridæ recently received from the American Museum's collectors in northern South America the following species have been found which appear not to have been as yet described.

***Oryzomys helvolus* sp. nov.**

Type, No. 34578, ♂ ad., Villa Vicencio (altitude 1600 feet), about 50 miles south-east of Bogota, Colombia, March 15, 1913; coll. G. M. O'Connell.

Nearly related to *Oryzomys fulviventer* Allen from Quebrada Secca, northern Venezuela, but larger and rather paler in general coloration. Above ferrugineous finely varied with black; flanks yellowish orange, forming a broad and fairly well-defined lateral line; nose gray; ventral surface yellowish white; feet grayish flesh-color; tail naked, dark brown, paler below.

Measurements. Total length (type), 277; head and body, 134; tail, 143; hind foot, 27. Five adult specimens from Buenavista (5 or 6 miles further north and about 3000 feet higher), total length, 256 (252–262); head and body, 127 (122–131); tail, 129 (123–137); hind foot, 27 (26–28).

Skull (type), total length, 34; zygomatic breadth, 17; interorbital breadth, 6; breadth of braincase, 13; length of nasals, 12; palatal foramina, 6.5; upper toothrow, 6.2. The type is an old male with worn teeth. The Buenavista specimens are mostly young adults, with the teeth unworn, and the skulls naturally average smaller than the type, particularly in respect to the total length, which runs from 31 to 32.5 mm., and the zygomatic breadth from 16.5 to 17 mm.

Oryzomys helvolus is a typical *Oryzomys*, closely related to *O. fulviventer* from northern Venezuela, from which it differs in slightly larger size and paler coloration. It also closely resembles *O. flavicans* from Merida in coloration, but differs from it in having a very much shorter tail and in cranial characters. The length of the tail in *flavicans* averages 145 mm., in *helvolus*, 130 mm., while the head and body measurements and the skull are very much smaller in *flavicans* than in *helvolus*.

***Oryzomys o'connelli* sp. nov.**

Type, No. 34583, ♂ ad., Buenavista (altitude 4500 feet), about 50 miles southeast of Bogota, March 8, 1913; coll. G. M. O'Connell, for whom the species is named.

Upperparts ochraceous orange strongly varied with black-tipped hairs, much darker on the back than on the sides; top of head like back; ventral surface buffy gray, the hairs dark at base, the tips lighter, giving the effect of dark buffy gray; a small pectoral spot with the hairs white to the base; ears large, dark brown, nearly

naked; feet yellowish brown, thinly haired, the hind feet conspicuously squamose; tail dark brown above, lighter below, nearly naked, the very short hairs not concealing the annulations.

Total length (type), 302; head and body, 149; tail, 153; hind foot, 38. An adult male topotype, total length, 330; head and body, 150; tail, 180; hind foot, 38. The type has an imperfect tail, having been mutilated at the tip in life and subsequently healed. The topotype should be taken as the standard for external measurements, but as it lacks the skull it is not available as type.

Skull (type), total length, 36; zygomatic breadth, 18.3; interorbital breadth, 5.6; breadth of braincase, 14; length of nasals, 12; length of palatal foramina, 5.2; length of upper toothrow, 5.4. Teeth somewhat worn.

This species is closely related to *Oryzomys pectoralis*, differing from it in larger size, wider interpterygoid fossa and in the coloration of the underparts, which are white in *pectoralis* and strongly washed with buff in *o'connelli*. The type of *o'connelli* has a small pectoral oblong spot of wholly white hairs, but the topotype lacks this mark, which is always present and usually large in *pectoralis*.

***Oryzomys vicencianus* sp. nov.**

Type, No. 34584, ♂ ad., Villa Vicencio (alt. 1600 ft., about 50 miles southeast of Bogota), at base of Eastern Andes, Colombia; coll. G. M. O'Connell.

Size small; tail about as long as head and body; pelage long, about 15 mm. on back. Upperparts yellowish buff (near antimony yellow, Ridgway 1912), finely varied with black-tipped hairs; lateral line chrome yellow; throat white; rest of ventral surface pale buff; ears dusky, much darker than surrounding pelage, well haired, the outer border fringed with buff; feet pale buffy brown, the digits nearly naked and squamose; tail naked, blackish brown, nearly unicolor.

Total length (type), 250; head and body, 120; tail, 130; hind foot (in dry skin, with claws), 27. Skull, total length, 29; zygomatic breadth, 13.2; interorbital breadth, 5.5; breadth of braincase, 13; nasals 10×3.5 ; length of palatal foramina, 5; length of upper toothrow, 4.5; diastema, 6.5. Rostrum short and broad, supraorbital bead strongly developed; dentition as usual in the genus.

The type is an adult male with the teeth not worn. A single topotype is slightly younger and less fulvous.

In coloration this species closely resembles *Oryzomys* (*Oligoryzomys*) *stolzmanni*, but is much larger, with a relatively shorter tail and less fulvous underparts; it is not, however, a member of the subgenus *Oligoryzomys*.

***Oryzomys incertus* sp. nov.**

Type, No. 33756, ♂ ad., La Murelia (altitude 600 feet), Rio Bodoquera, Caquetá, Colombia, July 19, 1912; coll. Leo E. Miller.

Upperparts deep ochraceous orange, varied strongly with black throughout the dorsal region; flanks deep orange, forming a broad lateral line sharply defined against

the ventral surface, which is clear white superficially with the basal third of the pelage deep plumbeous; top and front of the head like the back, not *darker* nor *grayer*; ears large, nearly naked, dark brown, in strong contrast with the surrounding pelage; feet light yellowish brown; tail light brown, indistinctly bicolor on the basal third.

Total length, 270; head and body, 120; tail, 150; hind foot (in dry skin, with claws), 34. The skull has been lost.

The affinities of this species appear to be with the *O. subflavus*¹ group, particularly with *O. lamia* Thomas of southwestern Minas Geraes, but on geographical considerations it is not likely to prove the same. It is wholly unlike any of the described species from Colombia. On comparing recently the type specimen with the material in the British Museum I was unable to find any species to which it could be referred.

***Zygodontomys griseus* sp. nov.**

Type, No. 34592, ♂ ad., El Triunfo (altitude 600 feet), Magdalena Valley, Colombia, Feb. 7, 1913; coll. G. M. O'Connell.

Similar in general appearance to *Z. brunneus* Thomas, but grayer, less fulvous, and much smaller.

Upperparts gray in general effect, suffused with pale yellowish, finely varied with dusky-tipped hairs; flanks much paler, gradually passing into the gray of the ventral surface; underparts whitish gray, the basal portion of the hairs ash gray with whitish tips; ears pale brown; feet grayish flesh-color; tail brown, lighter below.

Total length, 234; head and body, 133; tail, 101; hind foot (in dry skin, with claws), 26. Skull, total length, 28.5; zygomatic breadth, 14; interorbital breadth, 5; breadth of braincase, 12; length of nasals, 11.4; length of palatal foramina, 6.3; length of upper tooththrow, 4.2; diastema, 7.3.

The type and only specimen is an old male with much worn teeth.

This species, in general features, is a small replica of *Z. brunneus*, which it closely resembles in general coloration but is about one third smaller.

A reëxamination of *Oryzomys obtusirostris* Allen (1900), from central Peru, shows that it is referable to *Zygodontomys* and should stand as *Z. obtusirostris*, although not quite typical of that group, the tail being considerably more than half of the total length.

***Zygodontomys fraterculus* sp. nov.**

Type, No. 32920, ♀ ad., Chicoral (altitude 1800 feet), Coello River, Tolima, Colombia, Oct. 9, 1911; coll. Leo E. Miller.

Smaller than *Z. griseus* and distinctly different in coloration.

¹ *Hesperomys subflavus* Wagner, Schreber's Säuget., Suppl., III, 1843, p. 534. Cf. Thomas, Ann. and Mag. Nat. Hist. (7), VIII, p. 528, Dec., 1901.

Upperparts gray suffused with fulvous, which is strongest on head and shoulders; sides gray faintly washed with paler fulvous than the back; underparts dingy gray, the tips of the hairs lighter; ears yellowish brown, nearly naked; feet flesh color; tail pale brown above, very light, nearly white below.

Type, total length, 198; head and body, 115; tail, 83; hind foot (in dry skin, with claws), 26. Skull, total length, 28; zygomatic breadth, 13.5; interorbital breadth, 4.8; breadth of braincase, 11.3; length of nasals, 12; length of palatal foramina, 5; length of upper toothrow, 4; diastema, 11.5. The supraorbital bead is very weakly developed.

The type is an adult female with the teeth slightly worn. The only other specimen is a young adult topotype.

In coloration this species is nearest to *Z. griseus*, but it is much more fulvous and nearly one fourth smaller. It is widely different from *Z. thomasi* and *Z. thomasi sanctæmartæ* in both size and coloration.

Akodon chapmani sp. nov.

Type, No. 34573, ♂ ad., Chipaque (altitude 8500 feet), Eastern Andes, Colombia, Feb. 22, 1913; coll. G. M. O'Connell.

Upperparts uniform olivaceous brown, the hair-tips forming a fine grizzle of dark brown and olivaceous; underparts lighter,—gray with a slight wash of olivaceous; anal region fulvous; ears concolor with the dorsal area, clothed with fine short hairs; feet dark brown; tail nearly unicolor, dark brown, clothed with fine short hairs, not quite concealing the annulations.

Type, total length, 171; head and body, 103; tail, 68; hind foot (in dry skin, with claws), 23. Two other specimens (from Buenavista), total length, 174, 182; tail, 68, 69.

Skull (type), total length, 26; zygomatic breadth, 14; interorbital breadth, 5; breadth of braincase, 13; length of nasals, 10; palatal foramina, 6; upper toothrow, 4.6; diastema, 6.

Represented by the type, from Chipaque, and 2 specimens from Buenavista, all adult.

Akodon chapmani is nearly related to *A. tolímæ* and *A. meridensis*, but is smaller, paler, and more olivaceous than either.

Named for Dr. Frank M. Chapman, who has organized and directed the mammalogical and ornithological explorations of this Museum in northern South America, begun in 1910 and still in progress.

Rhipidomys quindianus sp. nov.

Type, No. 32970, ♂ ad., El Roble (altitude 7200 feet), Central Andes, Colombia, Nov. 9, 1911; coll. Leo E. Miller.

Pelage soft, short, and woolly, both above and below. Upperparts russet, more intense on head and shoulders than on back and rump, and with a slight suffusion of fulvous on the sides; underparts clear white, the white extending to the roots of the

hairs on throat, chest, middle abdomen, anal region and inside of thighs, but basal half of hairs gray on the sides of abdomen; ears small, round, blackish brown, well haired externally; upper surface of feet brown edged with light flesh-color; tail mostly naked, dull brown, tufted at the end.

Total length (type), 208; head and body, 79; tail vertebræ, 129; hind foot (in dry skin,) 24. An adult topotype, total length, 220; head and body, 82; tail, 138; hind foot, 24.

Skull (type), total length, 28; zygomatic breadth, 14; interorbital breadth, 5; breadth of braincase, 13; length of nasals, 9; length of palatal foramina, 4.8; length of upper toothrow, 4.8. Supraorbital bead only slightly indicated.

The type is an adult male with unworn teeth; the skull of the topotype is lacking.

***Rhipidomys caucensis* sp. nov.**

Type, No. 32466, ♀ ad., Munchique (altitude 8225 feet), Western Andes, Cauca, Colombia, May 24, 1911; coll. Leo E. Miller.

Pelage a little longer and less woolly than in *R. quindianus*. Median upperparts ochraceous orange finely and sparsely varied with black-tipped hairs; sides of body clearer ochraceous, separated from the ventral area by an ochraceous lateral line sharply defined against the clear white of the ventral surface; ears dark brown, nearly naked; feet yellowish brown, the hind feet with a narrow blackish median band; tail uniform dull brown, nearly naked except apically, tufted at the tip.

Total length (type), 236; head and body, 103; tail vertebræ, 133; hind foot (in dry skin), 22. The external measurements of two topotypes are slightly less (respectively 8 and 13 mm. in total length).

Skull (type), total length, 27; zygomatic breadth, 14; interorbital breadth, 4; breadth of braincase, 13; length of nasals, 9; length of palatal foramina, 5; length of upper toothrow, 4. Interorbital region square-edged but not beaded. The type has the teeth slightly worn.

This species differs from *R. quindianus* in the golden instead of russet coloration of the upper parts, in its weaker dentition, narrower interorbital region, and smaller and less arched braincase. *R. caucensis* and *R. quindianus* both differ from *R. fulviventris* in the clear white instead of fulvous underparts. *R. caucensis* differs from *R. microtis*, from western Cundinamarca in its much brighter coloration (ochraceous orange instead of clay color), and more tufted tail. The type localities of these four forms are quite widely separated geographically.

***Rhipidomys venezuelæ yuruanus* subsp. nov.**

Rhipidomys nitela ALLEN, Bull. Amer. Mus. Nat. Hist., XXX, p. 254, Dec. 2, 1911. Not of Thomas.

Type, No. 30735, ♂ ad., Rio Yuruan, Venezuela, March 29, 1910; coll. M. A. Carriker, Jr.

Near *R. venezuelæ* in size and coloration but upperparts darker and more rufescent;

underparts similar, the pelage clear white to the base of the hairs; ears, feet, and tail as in *venezuelæ*, the latter rather less hairy; skull less heavy in structure, supraorbital ridges less heavily developed, nasals slightly less produced posteriorly, terminating slightly in advance of the premaxillæ instead of even with them or slightly posterior to them.

Total length (type), 310; head and body, 147; tail vertebræ, 163; hind foot, 26. An adult topotype, total length, 315; head and body, 145; tail vertebræ, 170; hind foot, 26. Skull (type), total length, 34; zygomatic breadth, 18; interorbital breadth, 5; breadth of braincase, 9.5; length of nasals, 10; palatal foramina, 7; upper toothrow, 4.7. The skulls of comparable topotypes of *venezuelæ* are about 1 mm. longer and wider, and the hind foot is 2 mm. longer than in *yuruanus*.

Represented by 12 specimens, all from the type locality, of which only 5 are fully adult. Half-grown young have the upperparts grayish brown.

This species was formerly (*l. c.*) referred to *R. nitela* Thomas, but a recent study of these specimens in connection with a considerable amount of allied material shows that they represent a subspecies of the *venezuelæ* group.

***Rhipidomys milleri* sp. nov.**

Type, No. 36332, ♂ ad., Minehaha Creek (altitude 500 feet), Lower Essequibo River, British Guiana, Aug. 31, 1913; coll. Leo E. Miller, for whom the species is named.

Upperparts uniform mummy brown (Ridgway); underparts clear white to the base of the hairs; a narrow ochraceous line sharply separates the white of the ventral surface from the dark brown of the upperparts; anal region and inside of hind legs blackish brown; ears dark brown in sharp contrast with the surrounding parts, nearly naked externally for the apical two-thirds, the basal third thickly clothed with long hairs of the same color as the adjoining parts; feet dark brown mesially, with the lateral borders and the toes white or flesh color, in strong contrast; tail more than half the total length, hairy throughout and heavily pencilled.

Total length (type), 295; head and body, 140; tail vertebræ, 155; hind foot, 25. Three adult topotypes, total length, 292 (290–295); head and body, 137 (135–140); tail vertebræ, 153 (150–155); hind foot, 24.3 (24–25).

Skull (type), total length, 30; zygomatic breadth 17; interorbital breadth, 5; breadth of braincase, 13.5; length of nasals, 9.5; interorbital foramina, 7; upper toothrow, 5. The type is an old male with worn teeth. Four other adult skulls range in total length from 29 to 30, and in zygomatic breadth from 16 to 17 mm.

Represented by 9 specimens, all from the type locality, of which three are young adults and one an adult with a mutilated tail. The type is an average representative of the series as regards coloration, and the largest as to size. Several of the adults are a little lighter and more fulvous than the type.

This is a member of the widely distributed *R. venezuelæ* group, of which it may prove to be merely a well-differentiated subspecies, characterized by small size and darker coloration, emphasized especially by the very dark (nearly black) metapoidals, anal region, and inside of hind legs. It is readily separable from both *R. v. fervidus* and *R. v. nitela*, as well as from *R. v. yuruanus*.

***Æcomys mincæ* sp. nov.**

Oryzomys illectus ALLEN, Bull. Amer. Mus. Nat. Hist., XX, p. 436, Nov. 28, 1904.
Not *Oryzomys flavicans illectus* Bangs, 1900.

Type, No. 15332, ♀ ad., Minca (altitude 2000 feet), Santa Marta region, Colombia, June 13, 1899; coll. H. H. Smith.

Similar in coloration to *Æcomys illectus* (Bangs), but body much smaller and the tail one third longer.

Upperparts fulvous, darker on the median area and lighter on the sides with a well-defined rather broad yellow lateral line; underparts buffy white; ears yellowish brown, well-haired; tail dull brown, lighter below on the proximal half; feet uniform buffy brown.

Total length (type), 286; head and body, 126; tail, 160; hind foot, 25. A young adult topotype is smaller, with the same relative proportions of tail length to head and body length. Five adult paratypes of *illectus* measure, total length, 285 (275–300); head and body, 139.3 (135–145); tail, 145.5 (140–155); hind foot, 25.5 (24–28). The skull of the type is unfortunately lacking.

This species is similar in general coloration to *Æ. illectus* (*Oryzomys flavicans illectus* Bangs, 1898), but paler and yellower above and less strongly suffused with buff below. It is, however, about one half smaller in bulk of body, with a tail longer even than that of *illectus*, the ratio of length of the tail to the length of the head and body being as 90 to 100 in *illectus* and as 127 to 100 in *mincæ*.

The youngest specimen (in grayish brown immature pelage) of *illectus* is larger than the adult type of *mincæ* in the size of the body, with a tail length of 125 mm. (160 mm. in the type of *mincæ*).

The altitude of the type locality of *mincæ* is 2000 feet, of *illectus*, 8000 feet.

In this connection I desire to express my great indebtedness to Mr. Samuel Henshaw, Director of the Museum of Comparative Zoölogy, for the opportunity to compare in this connection the Muridæ of the Bangs collection from the Santa Marta district of Colombia with other material from northern South America.

***Æcomys caicará* sp. nov.**

Type, No. 29875, ♀ ad., Caicara, Rio Orinoco, Venezuela, June 26, 1907; coll. George K. Cherrie.

Upperparts reddish fulvous, slightly lined with blackish-tipped hairs over the median area, lighter and clearer fulvous on the head and flanks; underparts clear white to the base of the hairs, sharply defined from the fulvous of the upper parts; ears dull brown on the nearly naked apical half, heavily clothed on the proximal half with long fulvous hairs; feet pale buff, the hairs at the base of the claws white; tail longer than head and body, buffy brown, covered with short hairs and slightly pencilled.

Total length (type), 274; head and body, 122; tail vertebrae, 152; hind foot, 25; ear, 16. Skull, total length, 30.2; zygomatic breadth, 13.6; interorbital breadth, 5; breadth of braincase, 13; length of nasals, 11; palatal foramina, 6; upper tooth-row, 5. The type is a middle-aged adult with the teeth worn.

The skull of an older topotype with the teeth greatly worn agrees with the type skull in measurements and differs from it only in features affected by age, as heavier ossification, slightly shorter toothrow, etc.

Represented by a series of 8 specimens (including three in the Brooklyn Museum), all collected at or near Caicara, Venezuela, by Mr. George K. Cherrie in June and July, 1907.

This species differs widely from *Æ. rosilla* (Thomas) from La Union, Lower Orinoco, in much larger size and in the coloration of both the dorsal and ventral areas, especially in the coloration of the head, grayish in *rosilla* and fulvous in *caicara*. It agrees in size and relative length of tail with *Æ. marmosurus* (Thomas) from Maipures, Upper Orinoco, but differs decidedly from it in coloration.