

Article XXVIII.—NEW MAMMALS FROM VENEZUELA
AND COLOMBIA.

By J. A. ALLEN.

Peramys brevicaudatus dorsalis, subsp. nov.

Type, No. 16126, ♂ ad., Ciudad Bolívar, Venezuela, Dec. 19, 1899; coll. S. M. Klages.

Three adults, taken at Ciudad Bolívar in December, have been compared with the type of *P. brevicaudatus orinoci* Thomas, from which they differ in the upper surface being dark brown instead of "pale grey," and the under surface deep buff instead of "pale buffy," the hairs dingy gray basally instead of "dark slaty."

The male type measures: Head and body, 219 mm.; tail vertebræ, 79; two adult females measure, respectively, 180 and 190 in total length; tail vertebræ, 67 and 69. The corresponding measurements for the type of *orinoci*, "a slightly immature male," are 111 and 75. Skull (type), basal length, 34 (in *orinoci*, 29); greatest breadth, 19 (17); nasals, 16 x 6.5 (14.5 x 5); m¹-m³, 6.3 (5.8).

Doubtless the difference in size between the types of *dorsalis* and *orinoci* is somewhat due to difference in the age of the specimens, but the important color differences can hardly be owing to the same cause, since two young specimens from Suapure (March and December) are as dark on the back as the adults.

Oryzomys klagesi, sp. nov.

Type, No. 16966, ♂ (?), El Llagual, Venezuela, Feb. 19, 1901; coll. S. M. Klages, for whom the species is named.

Pelage full and long. General color above ochraceous rufous slightly varied with black-tipped hairs on the back, darker and less ochraceous on the facial portion of the head; decidedly dusky around the eyes and over front of nose; sides deep, uniform ochraceous from cheeks to rump; below buffy white, the basal portion of the fur gray; ears small, light reddish brown, nearly naked; upper surface of fore feet buff, of hind feet pale yellowish gray; tail about equal to length of head and body, pale brown, slightly paler below on the basal half, nearly naked except on the apical fifth, where fine short hairs nearly conceal the annulations and form a slight pencil at the tip.

Skull rather short (especially the rostral portion), broad and very flat, with an exceptionally broad and heavy supraorbital ledge, continued posteriorly to the interparietal as a strongly developed parietal

ridge; anterior palatine foramina relatively long and narrow, and narrow posterior nares.

Total length, 248 mm.; head and body, 127; tail vertebræ, 121; hind foot, 25 (without claws, 23); ear (from crown, dry), 12. Skull, total length, 32; basilar length, 25; zygomatic breadth, 17; interorbital breadth, 5.6; greatest width of braincase, 14; nasals, 10 x 6; palatal length, 14; palatine foramina, 6 x 2; upper toothrow, 5.

Oryzomys klagesi is not closely related to any species known to me. It is a robust form, with the tail rather shorter than the body, broad stout feet, rather small ears, and long soft pelage. The skull is broad and very flat, with a short, thick rostrum, and very heavy supraorbital ledges, although the teeth are almost unworn. In coloration it is remarkably like *O. speciosus* All. & Chap., from Trinidad, except for the darkening of the facial portion of the head. It is, however, a larger, more robust species, with much heavier and broader skull and shorter tail, and rather long and narrow instead of broad and short palatine foramina, and narrower posterior nares.

Oryzomys tenuipes, sp. nov.

Type, No. 21330, ♀, Merida (alt. 1630 m.), Venezuela, Feb. 14, 1903; coll. S. B. Gabaldon.

In texture of pelage and coloration similar to *O. stolzmanni* Thomas, from Huambo, northern Peru, but much smaller and more delicate, with much narrower and slenderer feet, relatively shorter tail, slenderer rostrum, and shorter posterior nares.

General color above dark brown, with a tinge of rufous; sides lighter and grayer with a slight fulvous tinge; lower parts buffy whitish; ears blackish externally on the anterior border, in contrast with the color of the surrounding parts; feet very narrow and slender, upper surface of the fore feet yellowish brown, of the hind feet buffy gray; tail pale brown, apparently naked but on close inspection showing minute hairs, increasing in abundance apically until near the tip they nearly conceal the annulations and form a slight pencil.

Total length, 180; head and body, 80; tail vertebræ, 100; hind foot (with claws), 22; ear, 12. Skull, total length, 22.5; basilar length, 17; zygomatic breadth, 11.4; greatest width of braincase, 10; interorbital breadth, 3.5; nasals, 7.2 x 2; palatine foramina, 4 x 1.3; palatal length, 8.5; upper toothrow, 3. Interorbital region flat, with an angular border and slight parietal ridges; palatine foramina terminating on a line with the front molars, posterior nares very short, posterior border of palate deeply hollowed, extending well beyond the

last molars; rostral portion of skull long and narrow; bullæ pointed internally and hence subpyriform.

The skull is that of a young adult; compared with that of *stolzmanni* it is much slighter and more delicate, and fully one third less in bulk. Compared with *O. gracilis* Thomas, also from Merida, the dimensions are considerably less, especially of the skull and feet, and the pelage is not "short and velvety," but rather coarse and long, and the coloration is quite different, especially of the ventral surface, which is buffy white instead of clear white. Two other specimens agree essentially with the type. All were caught in banana plantations.

Akodon meridensis, sp. nov.

Type, No. 21328, ♀, Merida (alt. 1630 m.), Venezuela, Jan. 29, 1903; coll. S. B. Gabaldón.

In proportions and coloration apparently similar to *A. bogotensis* Thomas, but slightly larger and very different in cranial characters. Whole upper surface a fine grizzle or 'pepper and salt' mixture of black and fulvous, the black greatly predominating; front and sides of head more decidedly yellowish; ventral surface dingy blackish gray with strong wash of deep buff; ears of medium size, well-haired, colored like the surrounding surface; tail blackish brown above, slightly paler below, thinly clothed with blackish hairs, not quite concealing the annulations; feet blackish brown with a slight yellowish cast.

Total length, 180 mm.; head and body, 100; tail vertebræ, 80; hind foot (c. u.), 25 (dry, 23); ear, 12. Skull, total length, 26; basal length, 22.5; basilar length, 19.5; greatest breadth, 13.5; nasals, 9 x 3; interorbital breadth, 5.1; interparietal, 6 x 2; breadth of zygomatic plate, 2; diastema, 7; palatal foramina, 5 x 2; upper toothrow, 4.4. The palatal foramina reach to the middle instead of to "the front edge" of m¹, as in *A. bogotensis*.

With a general external resemblance to *A. bogotensis*, including size and proportions, *A. meridensis* has not only longer and more posteriorly produced palatine foramina, but a broader muzzle, a much broader zygomatic plate, and a longer upper toothrow. To this same group belongs also *A. frustrator* All. & Chap., from Trinidad, there being a very close agreement in size, proportions, and coloration between *A. frustrator* and *A. meridensis*, although the coloration is

distinctly not the same, and there are very obvious cranial differences, *A. frustrator* having a much narrower and more pointed rostrum, and at the same time a much broader palatal fossa.

Lives in irrigating ditches, vicinity of Merida.

20. *Holochilus venezuelæ*, sp. nov.

Type, No. 16973, a half grown female, El Llagual, Venezuela, March 20, 1901; cotype, No. 16964, a very old male, same locality and date; coll. Samuel M. Klages.

Adult male: General color above reddish brown, strongly varied with black along the mid-dorsal region, from nose to lower back; lighter and more fulvous on the sides, and reddish fulvous on lower back and rump; below buffy gray, the hairs gray basally with yellowish white tips, which are deep buff on the longer hairs; ears, in size, shape, and hairiness, about as in *Nectomys palmipes*; feet thinly haired, grayish flesh-colored; claws whitish with a subapical dusky ring, and fringed with whitish hairs at the base; tail dark brown, not appreciably lighter below, with short black bristles, increasing in length and abundance apically, the terminal fifth of the tail being well clothed with blackish bristly hairs, quite concealing the annulations.

The young specimen is still partly in first pelage, the middle of the back being clothed with the soft woolly first coat, of a dull rusty brown color; flanks, from cheeks to thighs, clothed with the coarser, longer, firm pelage of the mature animal, bright rusty fulvous varied slightly with black-tipped hairs; ventral surface grayish white with a slight buffy tinge superficially and gray basally. Ears rather more hairy than in the adult, the tail much less so.

Measurements. — Adult male: Total length, 409 mm.; head and body, 203; tail vertebræ, 206; hind foot (from dry skin), 50; without claws, 47; ear from crown (in dry skin), 16.

This species differs from *H. guianæ* Thomas, from the Kanucha Mountains, British Guiana, its nearest geographical representative, in being very much larger and more rufous as well as somewhat in cranial details. Represented by two specimens, one a very old male with the enamel pattern of the teeth obliterated, the other a young female with wholly unworn teeth. For this reason the younger specimen is designated as the type, the unworn teeth showing it to be a *Holochilus* and not a *Nectomys*; but there is no doubt that the two specimens are young and adult of the same species.

***Felis maripensis*, sp. nov.**

Type, No. 21308, ♂ ad., Maripa, Caura district, Venezuela, Dec. 7, 1901; coll. S. M. Klages.

Nape hairs directed forward. Ground color of upper parts deep tawny, nearly uniform over the whole dorsal region, the lower back and rump being scarcely paler than the neck and shoulders, but flanks slightly paler; whole upper surface heavily striped and blotched with black, the black greatly predominating over the lighter interspaces; the black markings are mostly solid, a few only, and these on the sides of the thoracic region, enclosing tawny areas, or forming rosettes; nape stripes five, very sharply defined, the middle one a narrow line, the outer pairs forming broad bands, 10 to 15 mm. wide, and extending from the top of the head to the shoulders; the narrow median stripe, except for slight interruptions at the shoulders, extends continuously to the base of the tail, with an average width of about 10 mm.; ventral surface and inside of limbs clear white, heavily blotched with black, which occupies fully half the area except on the lower abdomen; outer surface of limbs pale tawny, marked with small oval spots of black; ears externally black with the usual grayish white marginal spot; dorsal area of tail mostly black, broken by irregular cross lines of pale tawny, which divide into half rings of white on the sides and beneath.

External measurements (approximately from the softened skin): Total length, 1285 mm.; head and body, 935; tail, 350; ear, 48. The feet afford no measurements, they having been skinned out down to the toes.

Skull: Total length, 144; basal length, 130; basilar length (of Hensel), 121; zygomatic breadth, 90; breadth of rostrum at base of canines, 40; mastoid breadth, 57.5; width of braincase, 53; interorbital breadth, 27; postorbital breadth, 32.5; tip to tip of postorbital processes, 57; palatal length, 55; inner base of incisors to end of pterygoid processes, 78; width of palate at front of edge of p^3 , 32; nasals very broad at anterior border, uniform wedge-shaped, 33 x 18.5; audital bullæ, 26.5 x 15; length of p^3 on outer border, 17.5; width of p^3 , at front border, 9.5

Felis maripensis is a large, dark colored form of the *F. pardalis* group, but is very different from any of the Mexican or Central American forms, and from that of the Santa Marta district of Colombia. It is characterized by the deep uniform tawny ground color of the upper parts, which closely resembles that of the jaguar; the generally solid, very coarse black markings; and the very large size of the upper carnassial

tooth and the unusually great development of its internal tubercle.

It seems presumptuous to add a supposed new cat in the *Felis pardalis* group, but the present form differs so markedly from any of those hitherto described that there seems to be no other reasonable alternative. Most of the names given to members of this group rest on very unsatisfactory descriptions based on menagerie or other specimens from unknown localities. The present species is too large to belong to the *F. pardinoides* group, and is too deeply colored and otherwise too different to be referred to any of the recently recognized forms of the *F. pardalis* group. Its Colombian neighbor on the north is a pale form, with the ground color above pale fulvous gray, rather brighter on the anterior half of the body than posteriorly, fading out to buffy grayish white on the sides, and the black stripes and blotches are very narrow, enclose large areas of the ground color, and occupy only a relatively small portion of the dorsal surface. It is also much smaller, the total length of the skull being 117 mm. and the zygomatic breadth 76. It is, however, much larger than any member of the *F. pardinoides* group, and also has the nape hairs reversed, or directed forward. Being apparently undescribed it may be called *Felis sanctæmartæ*, as described below.

***Felis sanctæmartæ*, sp. nov.**

Type, No. 14857, ♂ ad., Bonda, Santa Marta district, Colombia, March 25, 1899; coll. Herbert H. Smith.

Nape hairs reversed (directed forward). Ground color of upper parts pale grayish fulvous, stronger on head, neck, and shoulders, fading to much paler posteriorly, and to grayish white on the flanks, latter elongate and enclosing rather broad patches of pale fulvous, between the markings; black stripes and blotches very narrow, the with the intervening spaces on the sides grayish white; median nape stripe a narrow broken line of black, the outer stripes (two on each side) broad and well defined; the median black dorsal stripe is interrupted and discontinuous except for about 175 mm. along the middle region of the back; black head stripes broken posteriorly into small transverse blotches; cheek and throat stripes as usual but very narrow; ventral surface and inside of limbs white, spotted with black;

a large white ear spot; tail above blotched very irregularly with black on a dingy white ground, the black massed so as to form transverse bands of varying width on the apical third.

Total length (as measured by the collector), 927 mm.; head and body, 571; tail, 356; hind foot, 138. Skull, total length, 117; basal length, 108; basilar length (of Hensel), 101; zygomatic breadth, 76; breadth of rostrum at base of canines, 24; mastoid breadth, 50; width of braincase, 47; interorbital breadth, 21.5; postorbital breadth, 28; tip to tip of postorbital processes, 47; palatal length, 44; inner base of incisors to end of pterygoid process, 66; width of palate at front edge of p^3 , 25; auditory bullæ, 26 x 16.5; length of p^3 on outer border, 14; width of p^3 at front border, 8.

This is a very small form of the *F. pardalis* group, characterized by pallid coloration, small size, and large, evenly convex, greatly inflated bullæ. A second specimen, about half grown and still retaining part of the milk dentition, is similar in markings and all other particulars except that the coloration is a little brighter.

Procyon proteus, sp. nov.

Type, No. 23492, ♂ ad., Bonda, Santa Marta district, Colombia; coll. H. H. Smith.

Coloration very variable. Type: Median dorsal region, from nape to tail, blackish varied with yellowish, the hairs being broadly tipped with black and subapically broadly ringed with fulvous; flanks golden ochraceous; ventral surface ochraceous yellow; head blackish varied with fulvous gray; a broad black band across the rostrum extends back to the eyes, and passing backward encloses the eyes, covers a broad space beneath them, and continues posteriorly to the front base of the ears, where it sends a broad arm upward to join the black area of the forehead; a broad yellowish white superciliary band, and a small oval light median spot behind the eyes; muzzle, upper lip and chin pale yellowish white; basal two thirds of ears externally dusky, the apical third and inner surface dull yellowish, heavily haired; legs dusky on the outer surface and yellowish brown on the inner; upper surface of feet pale brown, near "broccoli brown"; tail yellowish brown, strongest basally and paler apically, with above about seven black rings, and a black tip, the basal rings incomplete below.

A second male specimen is paler throughout but otherwise similar. Four females are similar in color pattern, but the dorsal area is much blacker and suffused with gray instead of fulvous, with the light facial markings white, and the flanks and ventral surface much paler, the flanks being pale fulvous instead of orange, and the ventral

surface pale yellowish white instead of yellow. In these specimens the head, neck, shoulders, and anterior half of the dorsal region are strongly blackish suffused with gray; but the amount and conspicuousness of the gray suffusion vary greatly in the different specimens.

The collector's measurements of the type are: Total length, 1041 mm.; tail vertebræ, 356; hind foot, 159; ear, 76. The four females are smaller, averaging, total length, 952 (914-991); tail vertebræ, 316 (305-330); hind foot, 138 (137-146). Skull, type: Total length, 132; zygomatic breadth, 86; m^1-m^2 , 25; m_1-m_2 , 29. The females are smaller, averaging 118 by 81.

The type locality of *Procyon cancrivorus* is Cayenne, to which probably the Trinidad animal is referable. A comparison of this species with a Trinidad specimen leads to the conclusion that there is very little difference in size, and probably very little in coloration, taking into account the wide variability in this respect of the Santa Marta series. But there is a striking difference in the dentition of the two forms, through the great reduction in massiveness of the teeth in *P. proteus*. This is especially noticeable in the great length of m_3 , which measures 13×7.5 in *P. cancrivorus* and 10.5×7.5 in *P. proteus*. The upper molar series has a length in *P. cancrivorus* of 28 against 25 in *P. proteus*; the difference is still greater in the lower molar series, which measures respectively 35.6 and 30. The premolar series is especially weak in *P. proteus*, being less than half as massive as in a Trinidad example of *P. cancrivorus*; the premolars are all separated by distinct diastemata in *P. proteus*, but in *P. cancrivorus* they are closely crowded, and in the lower jaw overlap on the alveolar line.

Nasua phæocephala, sp. nov.

Type, No. 17557, ♀ ad., Suapure, Caura district, Venezuela, Sept. 14, 1901; coll. S. M. Klages.

Front and sides of head gray tinged with blackish, without distinct facial markings of either black or white; top of head grayish fulvous; nape, shoulders, thoracic region, and side of body dingy reddish brown, more or less shaded with dusky; posterior half of dorsal region blackish slightly mixed with dark rusty brown hairs, the dark area passing forward on the median line in a point about to the shoulders; sides of breast and lower abdomen dull rusty fulvous; costal area dull rusty

brown like the flanks, the color of the upper parts encroaching upon the ventral surface and not sharply demarked; throat with the pelage dingy brown at base and tipped with grayish fulvous, becoming still lighter on the chin; proximal portion of limbs like the adjoining parts of the body; feet and apical part of limbs black; tail conspicuously ringed with black and pale fulvous,—about eight black rings and a black tip, the black rings about twice as wide as the light rings. Pelage coarse and harsh — not fine and soft as in *N. olivaceus meridensis*.

Total length (type), 814 mm.; head and body, 495; tail vertebræ, 319; hind foot (in dry skin), 82, with nails, 88; ear (dry), 26. Skull. Total length, 121; basal length, 119; basilar length (Hensel), 103; zygomatic breadth, 60; interorbital breadth, 25; postorbital breadth, 26; mastoid breadth, 42; width of braincase, 43; nasals — (imperfect in type); incisors to pterygoid process, 81; upper toothrow (c-m³). 46.5; middle molar (m²), 7 x 7; audital bullæ, very convex anteriorly, 15 x 9. This skull is practically of the same size as female skulls of corresponding age of *N. 'nasua'* from Chapada, Matto Grosso, Brazil, but the teeth are much larger, m² being 1 mm. larger in both diameters, and the bullæ are longer and narrower and more convex anteriorly.

This form of the *N. nasua* group appears to be well characterized by its gray head and the absence of facial markings, its coarse harsh pelage, general coloration, and heavy dentition. Represented by the type, an adult female, and a young but nearly adult male, both taken at Suapure on the same day. They agree very closely in all details of coloration.

