

Article VIII.—DESCRIPTIONS OF NEW MAMMALS
FROM WESTERN MEXICO AND LOWER CALI-
FORNIA.

By J. A. ALLEN.

For an important part of the material forming the basis of the present paper I am indebted to Mr. Oldfield Thomas, curator of mammals at the British Museum, who, in sending specimens of small mammals from the State of Sinaloa, Mexico, and the Cape region of Lower California for comparison with material in the American Museum of Natural History, has kindly given me permission to describe such as seemed to be new. Of the 14 species sent, 7 appear not to have been before described. The Museum is also indebted to Mr. Thomas for permission to retain a set of the duplicates of the species represented, including the types of the new species.

The rest of the material here reported upon was received a few months since from Mr. A. W. Anthony, being the results of his mammal collecting at numerous islands off the west coast of Lower California during 1897. This collection contains 103 specimens, representing about 18 species, of which 9 are here described as new. The others are as follows, with their localities:

Dorcelaphus hemionus eremicus Mearns, 2 ♀♀ ad.—Turtle Bay, June 26, and Playa Maria Bay, July 3.

Zalophus californianus (Lesson), ♂ ad., and additional female skull, Guadalupe Island, March 26.

Tamias leucurus peninsule Allen, 4 specimens, all adults; two from San José del Cabo, April 24, and two from San Juanico Bay, June 12.

Four specimens of *Peromyscus* are left undetermined, some of which, in all probability, represent undescribed forms, but the material is too limited to warrant such an assumption.

Marmosa sinaloæ, sp. nov.

Similar in general coloration to *M. canescens* Allen from the Isthmus of Tehuantepec, but much smaller and more slender. Skull 31 x 16.5 as compared with 35 x 20 in *M. canescens*. Teeth proportionately smaller and weaker.

*Measurements.*¹—Type, ♂ ad., total length, 242; tail, 130; hind foot, 16; ear, 22. Another male, total length, 215; tail, 122; hind foot, 18; ear, 25. A female, total length, 205; tail, 115; hind foot, 16; ear, 22.

Skull.—Total length, 31; basal length, 29; greatest zygomatic breadth, 16.5; breadth across postorbital processes, 6.2; width of brain-case, 11.2; length of nasals, 13.7; tip of premaxillaries to posterior border of palatal floor, 17; length of lower jaw (alveolar border to condyle), 22; height at condyle, 3; height at coronoid process, 7.

Type.—No. 448 (collector's number), ♂ ad., Tateales, State of Sinaloa, Mexico, May 14, 1897; collected by P. O. Simons.

This is a miniature of *M. canescens*, and one of the most diminutive of Opossums. In coloration its general resemblance to *M. canescens* is striking, being, however, a little browner above, and a little more strongly tinted with pale yellow below. The type and one other specimen (collector's No. 441) are from Tateales, and a third is from Rosario, Sinaloa, Mex., the latter taken April 23, and the two former May 13 and 14, 1897. The specimens are adult, but not old, and have been compared with specimens of *M. canescens* of corresponding ages.

***Lepus peninsularis* Thomas, MS., sp. nov.**

Similar in general features to *L. cinerascens* Allen, but much paler in coloration and rather smaller.

Above pale grayish brown, grizzled with black; darker and browner on dorsal region, grayer and much paler on sides; top of head like back; ventral surface white; upper surface of hind feet white, lower surface of same strongly yellowish grizzled brown; upper surface of fore feet brownish white, lower surface brownish yellow.

Measurements.—Type ♀ ad. (collector's No. 438); total length, 324; tail vertebræ, 20; hind foot, 73; ear, 61. Another specimen, ♂ ad. (collector's No. 439), total length, 319; tail vertebræ, 18; hind foot, 76; ear, 65.

Skull.—Total length, 61.5; basal length, 52; greatest zygomatic breadth, 30; breadth at postorbital constriction, 9.5; length of nasals, 26; width, posteriorly, 11, anteriorly, 7; length of molar series at alveolar border, 11.5; width of palatal floor at middle, 9; length of lower jaw, incisive border to angle, 43; height at condyle, 25.

¹ All measurements are in millimetres, and, when not otherwise stated, are, in the case of skins, the collector's measurements from the fresh specimens.

Type.—No. 438 (collector's number), ♀ ad., Santa Anita, Lower California, July 17, 1896; collected by D. Coolidge. Another specimen (collector's No. 439), ♂ ad., same date and place.

This species belongs to the *Lepus trowbridgei-cinerascens* group, of which it will doubtless prove only a subspecies. It differs little in size or proportions from *L. cinerascens*, but is markedly different in color, even when examples taken at the same season (July) are compared. The dark ashy gray cast of the upper parts seen in *cinerascens* is replaced in *peninsularis* by a paler buffy or brownish suffusion much like that of *L. arizonæ*; the feet are whiter above and much lighter below, and the grayish white of the ventral surface is replaced by clear white, which occupies a much larger extent of the apical portion of the hairs. In the two skulls of *peninsularis* the nasals are broader than in any skull of a large series of *cinerascens*, but in other respects the cranial characters are much the same in both species.

Lepus cerrosensis, sp. nov.

Above very pale fulvous brown, copiously grizzled with black-tipped hairs; sides pale fulvous gray; below white, the plumbeous underfur showing through the surface, owing probably to the worn condition of the coat; pectoral band pale yellowish brown; upper surface of fore feet pale fawn color; of hind feet, white tinged with pale yellowish; soles pale grayish brown with a fulvous tinge; tail dark gray above, white below; ears dull grayish brown.

Total length, 310; tail vertebræ, 25; hind foot (in skin), 54; ear (from notch), 46.

Skull.—Total length, 58; basal length, 49; greatest zygomatic breadth, 28.5; breadth at postorbital constriction, 10; breadth of nasals posteriorly, 9; length of nasals, 12.

Type, and only specimen, No. $\frac{18591}{18591}$, ♀ ad., Cerros Island, Lower California, April 17, 1897; collected by A. W. Anthony.

This species is represented by a single specimen from Cerros Island, collected April 17, 1897, by Mr. Anthony. It is in poor condition, being in the midst of the spring molt, but the new hair is sufficiently advanced to render description not difficult. It is apparently a young adult, but fully grown, as the size is quite equal to that of the other members of the *Lepus trowbridgei* group, of which this is an apparently well-marked insular form.

[May, 1898.]

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***Lepus arizonæ confinis*, subsp. nov.**

Coloration above much like that of *Lepus peninsularis*, the brownish suffusion of the upper parts being very much darker than in *L. arizonæ*, the sides of the body and cheeks especially darker, as are also the feet and the pectoral band, and the white of ventral surface is less pure—more of a grayish white—and less extensive.

Length, in comparison with *L. arizonæ*, 310 as against 375; hind foot, 61 as against 76; ear (from notch), 65 as against 70.

Skull (in comparison with *L. arizonæ*).—Total length, 60.5 as against 65; basal length, 53 as against 56; greatest zygomatic breadth, 29 as against 32; interorbital breadth (behind postorbital processes), 9.5 as against 11.5; breadth of nasals posteriorly, 10.5 as against 12.3; length of nasals, 24.5 as against 28.

Type, and only specimen, No. $\frac{13562}{11911}$, ♀ ad., Playa Maria, Lower California, July 8, 1897; collected by A. W. Anthony.

This is a small dark form of the *L. arizonæ* group, strikingly different in coloration from either *L. arizonæ* proper or *L. a. major* Mearns.

***Thomomys fulvus anitæ*, subsp. nov.**

Similar in coloration to *T. fulvus*, but with the rostral portions of the skull, particularly the nasals, much modified.

Coloration above strong yellowish brown, slightly darker along the median line; below buff, nearly to the base of the hairs. Region about the mouth and entrance to cheek pouches and ear patch blackish.

Measurements.—Male adult, total length, 250; tail vertebræ, 83; hind foot, 34; ear, 9. Female adult, total length, 222; tail vertebræ, 62; hind foot, 35; ear, 8.5.

Skull, ♂ ad.—Total length, 42; basal length, 38.7; greatest zygomatic breadth, 26.5; mastoid breadth, 21; least interorbital breadth, 8; length of nasals, 14.6; width of nasals posteriorly, 2.5. anteriorly, 4; extent of intermaxillaries beyond nasals, 2; interparietal, 3 × 4, ending anteriorly in an obtuse angle. The nasals broaden uniformly from the posterior border to the front—not abruptly from the beginning of the apical third anteriorly, as in *T. fulvus*.

Type.—Male adult, No. 129 (collector's number), Santa Anita, Lower California, May 29, 1896; collected by D. Coolidge.

In coloration *T. fulvus anitæ* is not different from average examples of *T. fulvus*, except that on the ventral surface the buffy tint is deeper and extends nearly to the base of the hairs,

the usual plumbeous basal zone being nearly obsolete in the three specimens examined. The chief difference between this form and true *T. fulvus* consists in the even, straight lateral outline of the nasals. It is, however, rather larger than topotypes of *T. fulvus* of corresponding age. Based on two specimens (♂ ad. and ♀ ad.) from Santa Anita, and an additional adult from San José del Cabo, Lower California.

***Thomomys fulvus martirensis*, subsp. nov.**

Size larger than typical *T. fulvus*, and coloration much less fulvous, being of a pronounced grayish cast, especially in old adults.

Above dull grayish brown, varied with blackish, especially along the median line, with a suffusion of pale fulvous, chiefly on the sides. Below grayish white, the hairs extensively plumbeous at base; sometimes the tips of the hairs with a faint yellowish tinge. Ear patch blackish, and the parts surrounding the mouth and openings to the cheek pouches dusky. Tail and feet dull grayish white.

Younger individuals are more suffused with fulvous, both above and below.

Measurements.—Adult male, total length, 248; tail vertebræ, 67; hind foot (in skin), 31. Adult female (average of 8 specimens), 230; tail vertebræ, 70.

Skull, adult male, total length, 44.5; basal length, 41; greatest zygomatic breadth, 25; mastoid breadth, 21; least interorbital breadth, 9; length of nasals, 16; width of nasals posteriorly, 2.5, anteriorly, 5. In females and young males the interparietal is subquadrate and of the usual size and form seen in *T. fulvus*; in old males it becomes much smaller, and in the type is quite obliterated, being overgrown by the lateral ridges for muscular attachment.

Type.—No. $\frac{8879}{8884}$, ♂ ad., San Pedro Martir Mountains (alt. 8200 feet), Lower California.

T. fulvus martirensis is based on a series of 14 specimens collected in the San Pedro Martir Mountains, Lower California, at varying altitudes from 7000 to 8200 feet, by Messrs. A. W. Anthony and E. C. Thurber, in May, 1893, and previously referred (Bull. Am. Mus. Nat. Hist., V, 1893, p. 183), with much hesitation, to *T. fulvus*. They are easily separated, however, by their large size and grayish coloration, only the younger individuals showing a very marked suffusion of fulvous. In cranial characters the two forms present no very marked difference, the nasals being of the usual type seen in *T. fulvus*, and thus very different from the nasals in *T. f. anitæ*.

Thomomys atrovarius, sp. nov.

Size medium, hind foot (from dry skin), 28. Nasals narrow, only slightly expanded apically; interparietal very small, triangular, the apex forming the anterior border; upper incisors with very slight curvature.

Plumbeous Phase.—Above plumbeous, slightly tinged with brown through a slight brownish tipping of the hairs; below plumbeous, the hairs very slightly grayish tipped; feet very thinly covered with whitish hairs; tail nearly naked, the hairs mixed plumbeous and gray, most abundant towards the base. (Two specimens.) A third specimen is slate black, the sides with the hairs faintly tipped with fulvous brown, most conspicuous posteriorly near the hips.

Measurements.—Young adult male (collector's number 452), total length, 210; tail vertebræ, 65; hind foot (from skin), 28; ear, 7. Adult female, total length, 200; tail vertebræ, 62; hind foot (from skin), 28; ear, 7. Another specimen, a very old male, without collector's measurements, is larger, measuring, in skin, total length, 240; tail, 76; hind foot, 29.

Skull, ♂ ad. (very old), total length, 40; basal length, ? (base of skull broken); greatest zygomatic breadth, 24.5; mastoid breadth, 19.5; interorbital breadth, 7; length of nasals, 9; width of nasals posteriorly, 2.4, anteriorly, 3.7; interparietal wholly concealed. Female (very old), total length, 37; basal length, 36; greatest zygomatic breadth, 25; mastoid breadth, 19; interorbital breadth, 7; length of nasals, 8; width of nasals, posteriorly, 2.2, anteriorly, 4; interparietal, triangular, 4.8×3 . Nasals widening evenly from posterior border anteriorly, without the usual sudden expansion towards the apical border. The young male skull is of the same size as that of the old female, but has still narrower nasals and a smaller interparietal ($3 \times 2\frac{1}{2}$).

Type.—No. 452 (collector's number), young adult ♂, Tatemales, State of Sinaloa, Mexico, May 15, 1897; collected by P. O. Simons.

This species is based on three adult specimens, two males (of different ages, as noted above) and a female, the latter from Rozario, the two males from the nearby locality of Tatemales, State of Sinaloa, Mexico, collected by P. O. Simons, respectively April 3 and May 15 and 17, 1897.

It apparently most resembles *T. orizabæ* Merriam, from Mt. Orizaba (alt. 9500 ft.), State of Puebla, Mexico, but as the localities are far apart, and the physical conditions very different, they are not likely to prove the same.

***Perognathus pernix*, sp. nov.**

In coloration similar to *P. fallax*, but one-third smaller, with the tail relatively much shorter, and without conspicuous thigh bristles. General color above yellowish brown profusely lined with blackish, paler on the sides, with a broad fulvous lateral line; below white to the base of the hairs; upper surface of fore leg pale fulvous to elbow; outer surface of hind leg strong fulvous to tarsus. Tail bicolor,—brown above and whitish below,—sparsely haired except towards the end, where it becomes moderately crested and penicillate at the tip.

Measurements.—Male adult (type), total length, 165; tail vertebræ, 90; hind foot, 22; ear, 9. Female adult, total length, 165; tail vertebræ, 88; hind foot, 22; ear, 10.

Skull.—Total length, 25; basal length, 19.6; greatest breadth (mastoid), 12; interorbital breadth, 6; length of nasals, 8.5.

Type.—No. 139 (collector's number), ♂ ad., Rosario, State of Sinaloa, Mexico, Feb. 22, 1897; collected by P. O. Simons.

This species is based on three specimens, two from Rosario, and one from Mazatlan, State of Sinaloa, Mexico. It resembles *Perognathus fallax* in coloration, but is less dark than average examples of that species. The tail is relatively shorter and much less crested, and appears to lack the bristles on the rump and thighs so characteristic of *P. fallax*. That the small size is not due to immaturity is shown by the very worn condition of the teeth in each of the three specimens.

A large series of *P. fallax* averages about 200 mm. in total length, as against 165 mm. in the three examples of *P. pernix*; the tail in *P. fallax* ranges from 92 to 130, averaging about 110, as against 89 in *P. pernix*.

***Neotoma sinaloæ*, sp. nov.**

Size medium, ears rather small, with small audital bullæ; molar series short and broad; strong sulcus on antero-interior border of m^1 ; palatal opening broad, considerably expanded anteriorly; rostral portion of skull rather broad.

Above (♀ adult, collector's No. 446), deep fulvous brown, sparingly varied with black-tipped hairs; top of head grayer, less fulvous; beneath white, the fur plumbeous basally; feet white; tail well haired, bicolor, blackish brown

above, much lighter below. Two other specimens (younger) are much less fulvous, and one of them is strongly varied with black-tipped hairs, especially over the posterior half of the dorsal area.

Measurements.—Two females measure respectively: total length, 332, 315; tail vertebrae, 160, 155; hind foot (in skin), 32, 31; ear, 27, 25. A male (somewhat younger) measures the same as the smaller female.

Skull (♀ ad., collector's No. 446). Total length, 41.5; basal length, 37; greatest zygomatic breadth, 21.5; mastoid breadth, 15.2; least interorbital breadth, 4.8; length of nasals, 15.4; greatest breadth of nasals anteriorly, 4.3; width of rostrum at base, 4; inner base of incisors to posterior border of palate, 17; length of upper tooth row, 7.

Type.—♀ ad. (collector's No. 446), Tatameles, State of Sinaloa, Mexico, May 14, 1897; collected by P. O. Simons. Two other specimens, sub-adult, same locality and collector, May 6 and 14.

This form greatly resembles *N. mexicana* in coloration, but has a rather longer tail, heavier dentition and a much deeper sulcus on the antero-interior border of m^1 , and very much smaller bullae, the bullae being about half as large as in *M. mexicana*.

***Neotoma arenacea*, sp. nov.**

Above grayish brown, sparingly lined with black-tipped hairs, and with a faint suffusion of dull fulvous brown, much lighter and grayer on the head; feet wholly white; underparts white, the fur grayish plumbeous for the basal half; tail very scantily haired, pale brown, indistinctly bicolor, the upper surface being but little darker than the dull grayish lower surface; ears large, pale brown, nearly naked.

Measurements.—Adult males, two specimens, respectively: total length, 351 and 349; tail vertebrae, 164 and 167; hind foot, 36 and 35; ear, 30 and 31. Adult female, total length, 330; tail vertebrae, 160; hind foot, 36.5; ear, 32.

Skull.—Rostral portion narrow, slender; ascending branches of intermaxillaries extending much (3 mm.) beyond the nasals; lateral border of frontals forming a sharp ridge or bead, extending from posterior termination of intermaxillaries to parietals and forming straight evenly diverging lines; anterior opening of infraorbital foramina narrow, the outer wall narrow and evenly rounded off on the upper anterior border; molar series narrowing posteriorly, m^8 being about one-third narrower than m^1 ; sulcus on antero-interior face of m^1 obsolete; palatal opening considerably broader anteriorly than between pterygoids; bullae of medium size. Total length (♂ ad., collector's No. 611), 46.2; basal length, 41; greatest zygomatic breadth, 23.5; mastoid breadth, 17.2;

least interorbital breadth, 5.3; length of nasals, 18.2; breadth of rostrum at base, 4.3; greatest breadth of nasals anteriorly, 5; inner base of incisors to posterior border of palate, 15; length of upper molar series (crown surface), 7. Female adult (collector's No. 509), total length, 44; basal length, 38.5; greatest zygomatic breadth, 22; mastoid breadth, 16.6; least interorbital breadth, 5.3; length of nasals, 16.8.

Type.—♂ ad. (collector's No. 611), San José del Cabo, Lower California, Aug. 6, 1896; collected by D. Coolidge.

This species is represented by three fine specimens, two of which are from San José del Cabo, July 28 and Aug. 6, and one from Sierra Laguna, L. Cal., June 16, 1896. All are adult, with the teeth moderately worn.

Neotoma arenacea is apparently related most nearly to *N. fuscipes macrotus*, but is rather smaller and very much paler in coloration, with less hairy and much lighter colored tail, and differs besides notably in the greater posterior extension of the intermaxillaries beyond the nasals, and the very different configuration of the frontals, especially in the sharp, heavy and straight supra-orbital bead. The dentition is lighter (the molars narrower); the anteorbital opening is narrower, but the palatal opening is similar in the two forms. It is evidently a member of the *N. fuscipes* group, differing from true *fuscipes* in the direction of *N. f. macrotis*, but with the distinctive features of the latter exaggerated, with other differentiations added.

***Neotoma anthonyi*, sp. nov.**

Size small, general coloration dark gray; posterior surface of hind legs conspicuously blackish; feet wholly white; front border of nasals strongly rounded.

Above grayish brown, moderately varied with blackish-tipped hairs, and faintly suffused with a very pale tint of brownish fulvous, rather stronger on the sides; top of head scarcely different from back; feet pure white; upper surface of fore arm and outer surface of hind leg blackish, in strong contrast not only with the white feet, but with the general coloration; below white, the under fur plumbeous, except along a narrow median band, where the white extends to the base of the hairs; tail bicolor, blackish brown above, grayish white below, fairly well clothed with short hairs.

Measurements.—Four adult males: total length, 329 (330–345); tail vertebræ, 139 (132–146); hind foot (from skin), 35 (34–36); ear (from skin), 24 (23–25). Adult female, total length, 324; tail vertebræ, 149.

Skull.—♂ ad. (No. $\frac{1155}{1111}$), total length, 46; basal length, 42; greatest zygomatic breadth, 25; mastoid breadth, 18.2; least interorbital breadth, 4.8; breadth of rostrum at base, 4.6; length of nasals, 18; greatest breadth of nasals anteriorly, 5; inner base of incisors to end of palate, 18; length of upper molar series, 8. The nasals are strongly rounded in front; palatal opening of moderate width, not expanding anteriorly; m^1 with sulcus on antero-interior border, supraorbital bead weakly developed.

This species is based on five adult specimens (3♂♂, 1♀), collected on Todos Santos Island, Lower California, May 1-12, 1887, by Mr. A. W. Anthony, in whose honor the species is named, in recognition of his important zoological work in Lower California and its outlying islands.

Type.—♂ ad. (No. $\frac{1155}{1111}$), Todos Santos Island, Lower California, May 11, 1897; collected by A. W. Anthony.

Neotoma anthonyi is too distinct, both in coloration and cranial details, to require comparison with any of its congeners.

***Neotoma bryanti* Merriam.**

Neotoma bryanti Merriam was described (Am. Nat., XXI, Feb., 1887, pp. 191-193) from a single specimen, in very bad condition, from Cerros Island, Lower California. A fine series of topotypes, numbering 18 specimens¹, all in good condition and representing various ages, renders it desirable to give some further account of this peculiar rat. The type specimen was driven from its nest by fire, and thus became badly singed. "This unfortunate circumstance," says Dr. Merriam, "together with the fact that the skin was preserved in brine, explains the very poor condition in which it reached me. Enough remains, however, to show that the species differs remarkably from all known representatives of the genus in possessing a very dark belly, which, in this individual at least, is absolutely concolor with the back and sides. It may be added that the dark color of the underparts is in no way due to the scorching above mentioned" (l. c., p. 191).

The fact remains, however, that not one of my 18 topotypes has the underparts as above described, they being white, the fur long, full and soft, with the usual plumbeous under fur seen in most

¹ Collected by Mr. A. W. Anthony, April 1-3 and July 4, 1897.

members of the genus. Owing to the imperfection of the original description (the only previous notice of the species) the species may be redescribed as follows :

Adult.—Above pale fulvous brown, moderately varied with black-tipped hairs; top of head and face grayer; sides paler grayish fulvous, with less black; below white, in some specimens with a faint tinge of buff; the middle portion of ventral surface, from the upper part of breast to tail, forming a broad band, with the white extending to the base of the hairs; sides of the ventral area with fur more or less plumbeous at base; feet wholly white; tail very light grayish brown above, lighter below, scantily haired.

Young Adult.—Grayish brown, strongly varied with black and slightly suffused with a pale tinge of fulvous, giving a faint olivaceous effect; below with the pure white median band narrower and sometimes interrupted by the intrusion of plumbeous under fur from the sides of the ventral area; feet and tail as in the adults.

Nursing Young.—Similar in general coloration to the young adults.

Measurements.—Six adult males: total length, 372 (352–387); tail vertebrae, 165 (153–177). Three adult females: total length, 352 (350–352); tail vertebrae, 154 (152–155). Hind foot, measured from the dry skin, 38–40; ear, 26–29.

Skull.—♂ ad., total length, 48; basal length, 44; greatest zygomatic breadth, 25; mastoid breadth, 20; least interorbital breadth, 5; breadth of rostrum at base, 4.7; length of nasals, 17.5; greatest breadth of nasals anteriorly, 5; inner base of incisors to posterior border of palate, 21; length of upper molar series (crown surface), 8.

Female ad., total length, 45; basal length, 42; greatest zygomatic breadth, 23; mastoid breadth, 19; least interorbital breadth, 5. The anterior molar (m^1) has a well-defined sulcus on the antero-interior border, palatal region rather narrow, including palatal opening, which is very slightly broadened anteriorly; the supraorbital border of frontal strongly beaded, leaving the surface of frontals deeply hollowed.

This species bears a much nearer relationship to *N. arenarius* than to the *N. fuscipes* group, especially as represented by *N. f. macrotis*. It is very much smaller than the latter, with a more naked and relatively shorter tail, much smaller ears, and very much paler coloration. It also differs very much from the latter in many cranial details.

The unusual coloration ascribed to the type of *N. bryanti* must have been due to the singed and otherwise bad condition of the specimen.

***Peromyscus eremicus propinquus*, subsp. nov.**

Similar to *P. eremicus fraterculus*, but less fulvous and much more strongly varied with black.

Above prevailing color blackish brown suffused with pale grayish fulvous, stronger on the sides, where it passes into a deep fulvous lateral line; below white, the under fur dusky plumbeous; feet white, lower part of tibia dusky; ears very large, naked; tail brownish above, a little lighter below, nearly naked except toward the tip.

Measurements.—Male adult (type), total length, 190; tail vertebræ, 100; hind foot (from skin), 18.5; ear (from skin), 19. Average of three specimens (1 ♂, 2 ♀♀), total length, 189; tail vertebræ, 100.

Type.—♂ ad., No. $\frac{18678}{1938}$, San Pablo Point (San Pablo Bay), Lower California, June 22, 1897; collected by A. W. Anthony.

This form is based on 4 specimens, from San Pablo Point, Pacific coast of Lower California, collected June 22, 1897, by Mr. Anthony. It is a dark form of the *P. eremicus* group, holding apparently the same relation to *P. eremicus fraterculus* that *P. texanus thurberi* holds to *P. texanus gambeli*, with the same relative distribution. Aside from coloration, however, *P. texanus propinquus* differs notably from *P. texanus fraterculus* in its conspicuously larger ears.

***Peromyscus cedrosensis*, sp. nov.**

Above brown, suffused with fulvous, and varied with blackish, passing on the sides into a broad ochraceous lateral line; below white, the under fur plumbeous, with a conspicuous longitudinal streak of fulvous on the breast, extending in some specimens to the abdomen; feet white, lower part of hind leg dusky; soles naked; ears large, pale brown, naked; tail pale brown, almost naked, nearly unicolor.

Measurements.—Adult male (type), total length, 194; tail vertebræ, 107; hind foot (from skin), 20; ear (from skin), 15. Three adults (1 ♂, 2 ♀♀), total length, 197 (194–204); tail vertebræ, 108 (106–117).

Skull.—♀ ad., total length, 26; basal length, 21; zygomatic breadth, anteriorly, 10, posteriorly, 13; mastoid breadth, 10.5; interorbital breadth, 3.5; length of nasals, 9.6.

Type.—♂ ad., No. $\frac{18588}{1938}$, Cerros Island, Lower California, April 1, 1897; collected by A. W. Anthony.

Peromyscus cedrosensis is based on 4 adult specimens (1 ♂, 3 ♀♀) from Cerros (or Cedros) Island, Lower California, of which 3 were taken April 1 and 2, and 1 July 4, 1897, by Mr. Anthony. They are practically identical in coloration, except that the fulvous pectoral streak is indistinct in the July specimen, which is in rather worn pelage.

This species is nearest *P. eremicus fraterculus* Miller in coloration, but is much darker, with the lateral line much brighter, and the pectoral streak stronger and apparently much more constant.

***Peromyscus cineritius*, sp. nov.**

Size large, coloration light ashy gray.

Above light ashy gray, sparingly varied with blackish-tipped hairs, with a very slight suffusion of pale fulvous; beneath white nearly to the base of the fur; feet white, thinly haired; tail bicolor, dorsal third dusky brown, the sides and below whitish, moderately haired, and with a slight pencil at the tip.

Measurements.—Adult male, type, total length, 191; tail vertebræ, 83; hind foot (measured from skin), 21; ear (from skin), 15. Four adults (3 ♂♂, 1 ♀), total length, 184 (171–191); tail vertebræ, 78 (75–83).

Skull (type).—Total length, 27.5; basal length, 23; mastoid breadth, 11; interorbital breadth, 3.3; length of nasals, 9.5.

Type.—♂ ad., No. $\frac{115588}{11888}$, San Roque Island, Lower California, June 21, 1897; collected by A. W. Anthony.

Peromyscus cineritius is based on 9 specimens, from San Roque Island, Lower California, taken by Mr. A. W. Anthony, 8 of them on June 21 and 1 on April 16, 1897. Four of them are fully adult, three others are nearly so; one is quite young and the other is an unweaned young. Seven of the nine specimens are practically identical in coloration; the two young ones are darker gray, more varied with black, and entirely without the slight buffy suffusion of the adults.

This species is a member of the *texanus* group, but differs strikingly from all other members of it in its large size and pale ashy-brown coloration.

***Peromyscus geronimensis*, sp. nov.**

Similar in general coloration to *P. texanus*; size large for a member of this group.

Above rather pale fulvous brown, varied with black, which in young adults forms an indistinct, rather broad dorsal band; sides clearer pale fulvous; below clear white, the fur plumbeous at extreme base; tail bicolor, the dorsal third dusky, the sides and lower surface whitish, thinly haired.

Measurements.—Male adult (type), total length, 175; tail vertebræ, 83; hind foot (from skin), 20; ear (from skin), 14. Eighteen adult males, total length, 170 (164–182); tail vertebræ, 75 (70–83). Six adult females, total length, 176 (170–184); tail vertebræ, 78 (71–86).

Skull.—Male adult (type), total length, 25; basal length, 21; mastoid breadth, 11; interorbital breadth, 3.8; length of nasals, 8.

Type.—♂ ad., No. $\frac{18816}{18880}$, San Geronimo Island, Lower California, March 17, 1897; collected by A. W. Anthony.

This very distinct species of the *P. texanus* group is based on 24 specimens (18 ♂♂, 16 ♀♀), all adult, taken by Mr. A. W. Anthony, March 15 and 17, 1897, on San Geronimo Island, Lower California. Four or five have a more or less distinct median blackish dorsal band, and are doubtless 'young adults'; the smallest specimen of the series is in perfectly adult pelage. The 6 females average slightly larger than the 18 males.

Peromyscus geronimensis is very distinct from its geographically nearest mainland ally, *P. t. thurberi*, through its much larger size and very much paler coloration. It differs still more, and in a similar way, from *P. clementis* Mearns, from San Clemente Island, as shown by a series of 17 topotypes, received also from Mr. Anthony.

There are four other specimens of *Peromyscus* in Mr. Anthony's Lower California collection, made in 1897, from as many scattered localities, that greatly resemble the present species in size and coloration. Some of them may represent distinct insular forms, but the present material does not seem to warrant their separation. They are the following: Ascension Island, April 18, 1897, ♂ ad.; Natividad Island, April 19, ♂ ad.; San

Juanico Bay, June 13, ♂ ad. ; Turtle Bay, April 13, ♂ ad. The San Juanico Bay specimen is pale grayish brown with very little fulvous suffusion ; the Turtle Bay specimen is clear pale fulvous.

***Peromyscus exiguus*, sp. nov.**

Similar in coloration to *P. clementis*, but smaller, with a relatively much shorter tail.

Measurements.—Male adult (type), total length, 154; tail vertebræ, 62; hind foot (from skin), 20; ear (from skin), 16. Five adult males, total length, 159 (154–168); tail vertebræ, 66 (62–72). The corresponding measurements, made by the same collector, of 6 adult males of *P. clementis*, are 164 and 82.

Skull.—♂ ad. (type), total length, 26.5; basal length, 22; mastoid breadth, 11.5; interorbital breadth, 3.5; nasals, 10.

Type.—♂ ad., No. $\frac{13874}{11938}$, San Martin Island, Lower California, March 14, 1897; collected by A. W. Anthony.

This form is represented by 6 adult males, collected on San Martin Island, Lower California, on March 14, 1897, by Mr. Anthony. As said above, in coloration it closely resembles topotypes of corresponding age of *P. clementis* Mearns, from San Clemente Island, off southern California (about three degrees north of San Martin Island), from which it differs mainly in smaller size and disproportionately shorter tail.

***Peromyscus dubius*, sp. nov.**

Above very dark brown—a grayish fulvous brown much varied with black, more suffused with fulvous and with less black on the sides, and a narrow brownish fulvous lateral line; beneath white, the fur plumbeous at base; feet soiled white; tail sharply bicolor, the dorsal third blackish brown, the sides and lower surface soiled white.

Total length, ♂ ad. (type and only specimen), 175; tail vertebræ, 82; hind foot (from skin), 18; ear (from skin), 15.

Skull.—Total length, 26; basal length, 21.5; zygomatic breadth (anteriorly), 12; mastoid breadth, 11; interorbital breadth, 3.5; length of nasals, 9.5.

Type.—♂ ad., No. $\frac{18586}{11938}$, Todos Santos Island, Lower California, March 11, 1897; collected by A. W. Anthony.

As represented by the single specimen above described, this is a very dark form, the skull showing full maturity. The *Neotoma* (*N. anthonyi*) from this island proves to be so distinct from all its congeners that it lends probability to the view that the *Peromyscus* found there is also a well-marked insular form of the *P. texanus* group.