

Article XIII.—ON A COLLECTION OF MAMMALS
FROM JALAPA AND LAS VIGAS, STATE OF VERA
CRUZ, MEXICO.

By J. A. ALLEN and FRANK M. CHAPMAN.

This paper is based mainly on a collection of some 250 specimens made by the junior author, with the assistance of Señor Mateo Trujillo, at a point distant one and a half miles east of the city of Jalapa, from March 28 to April 16, 1897. The country is here largely under cultivation in corn and coffee, but there are also grazing lands, tracts of scrubby bushes, young second-growth, and fairly large areas of fine old forests containing an occasional bit of first-growth timber. The region is by no means wild, and the larger mammals have long since disappeared, while even certain smaller mammals which rank as game—*e.g.*, Squirrels and Rabbits—are now comparatively rare. The representatives of the family Muridæ, however, are exceedingly abundant, the large quantity of corn raised annually doubtless proving an attraction, to which the seeds of weeds growing in the old cornfields probably adds.

Jalapa, at an altitude of 4400 feet, is in the *tierra templada* or temperate region of Mexico, where, in addition to certain indigenous forms, species characteristic of the adjoining tropical (*tierra caliente*) and alpine (*tierra fria*) regions are also found, as shown, for example, by the occurrence of *Marmosa* and *Microtus*.

April 20 to 26 was passed at Las Vigas, on the border of the table-land, 3600 feet above Jalapa. This locality is in the *tierra fria húmeda*, or humid alpine region, and possesses a fauna wholly unlike that of Jalapa. The faunal position and relationships of both localities, however, will be dwelt upon in a future paper on the birds of the region. Little time was here given to mammal work, and only the following species were secured: *Reithrodontomys saturatus*, sp. nov., *Peromyscus melanotis*, sp. nov., *Sciurus niger melanonotus*, *Cratogeomys estor*.

Acknowledgments are due Mr. John Brookes, of Jalapa, for kind permission to camp and hunt upon his estate, and especially to Señor Mateo Trujillo, of Jalapa, whose thorough knowledge of the ground, and skill as a collector, proved of the utmost value.

1. ***Sciurus niger melanonotus* Thomas.**—One specimen, ♂ ad., Las Vigas—a topotype of the species.

2. ***Sciurus deppei* Peters.**—Two specimens, both males, Jalapa, March 29 and April 14.

Apparently uncommon. The two specimens secured were the only ones observed.

3. ***Sciurus leucops* (Gray).**—Two specimens, both adult females, Jalapa, April 5 and 11.

These specimens are referred with some hesitation to *S. leucops*, with which they agree fairly well in all features except that the general color above is a darker, clearer gray than in true *leucops*. This, however, may be due to the condition of the pelage, which is mostly of the new coat, and rather short, being not fully grown.

Formerly abundant, but now not common in the immediate vicinity of Jalapa.

4. ***Mus musculus jalapæ*, subsp. nov.**

Middle of dorsal region, from front of head to base of tail, uniform deep black; sides yellowish gray or ordinary mouse color; ventral surface pale buffy gray; tail black; feet and ears dark brown.

Total length, 164; tail vertebræ, 82; hind foot, 13; ear, 14. (Average of 10 adults.)

Type, No. $\frac{12520}{16830}$, ♀ ad., Jalapa, April 14, 1894; Frank M. Chapman.

A series of 16 specimens, taken in the fields at Jalapa, conforms very closely to the above description, and represents the opposite extreme from the red phase of *M. musculus* met with so frequently in the southwestern parts of the United States, as notably at several localities in Texas and Arizona. The striking feature is the generally dark coloration, and the broad black dorsal band occupying one-third to one-half of the whole dorsal area.

A common inhabitant of old fields where it was associated with *Reithrodontomys mexicanus*, *R. rufescens*, *Peromyscus musculus brunneus*, *Oryzomys fulvescens*, and *Microtus quasiater*.

5. *Reithrodontomys mexicanus* De Saussure. — Represented by 14 specimens, 10 males and 4 females, all adult, taken at Jalapa, March 29–April 14. They present the following measurements :

	Total Length.	Tail Vertebrae.	Hind Foot.	Ear.
10 ♂♂	161.5 (153–169)	90 (80–100)	18.4 (18–20)	15.8 (15–17)
4 ♀♀	160 (155–165)	87 (85–88)	18.5 (18–19)	15.7 (14–17)

In this species the tail is dull light brown above, and much lighter, grayish white below, being sharply and distinctly bicolor. The dorsal half is practically naked, while the ventral half is so well clothed with whitish hairs that the annulations are wholly concealed.

The upper surface of the body is brown, rather darker medially as a rule, suffused to a slight extent with fulvous, passing gradually to a clear bright fulvous lateral band ; the ventral surface is dull grayish white, with often a barely perceptible wash of pale buff, and an indistinct pectoral area of fulvous.

A comparison of this large series of what is evidently true *R. mexicanus* with our *R. mexicanus gracilis* (antea, p. 9), from Yucatan, shows that the latter is specifically separable, and should stand as *Reithrodontomys gracilis*, characterized by its much smaller size, much paler and more yellowish coloration above, clear white underparts, and blackish, naked, and nearly unicolor tail.

Common in old weedy fields and the scrubby growth about cornfields.

6. *Reithrodontomys rufescens*, sp. nov.

Above rufous, varied with black, the black prevailing over the middle region of the back, forming a broad median blackish band ; sides orange rufous ; top of head rather lighter and more rufous than the back ; ventral surface orange buff, varying in different specimens from dull buffy gray to deep orange buff ; chin, throat and inside of fore limbs lighter, whitish ; ears very large, clothed thinly with fine dusky hairs, nearly black on both surfaces, lightening to dark horn color basally, especially within ; fore feet dusky, the toes whitish ; hind feet dusky with a grayish cast ; soles of hind feet brown, of fore feet flesh color ; tail blackish, almost unicolor, being only slightly lighter below than above, nearly naked.

Measurements.—Total length (of type), 177 ; tail vertebrae, 99 ; hind foot, 20 ; ear from notch, 17. Eleven adult males and 4 adult females measure as follows :

	Total Length.	Tail Vertebrae.	Hind Foot.	Ear.
11 ♂♂	175.5 (168-190)	95 (91-104)	19.5 (19-20)	16.5 (15-17.5)
4 ♀♀	172 (168-179)	96.5 (93-103)	19 (18-19)	17 (16-18)

Skull.—Total length, 23; basal length, 18.7; zygomatic breadth, 11.3; width of brain-case, 11; interorbital breadth, 3.5; length of nasals, 9; palatal length, 9; length of anterior palatine foramina, 5; upper tooth row, 3.6; diastema, 5.5.

Type, No. $\frac{18488}{10800}$, ♂ ad., Jalapa, April 5, 1897; Frank M. Chapman.

This species is based on a series of 17 specimens—13 males and 4 females, all adult except two, which are nearly full size. The young specimens are darker and much less ferrugineous than the adults. The latter are very uniform in coloration above, differing mainly in the shade of ferrugineous tint on the sides; below two or three specimens show much more whitish than the others, one being nearly clear white. In most examples the plumbeous tint of the under fur is mixed with and more or less obscured by the buffy wash that forms the prevailing hue of the underparts; in some specimens this buffy tint deepens into orange buff, and wholly conceals the plumbeous under fur.

Reithrodontomys rufescens differs from *R. mexicanus* in its much larger size, relatively as well as absolutely larger and blacker ears, much darker dorsal region, brighter, more orange rufous on the sides, and uniformly buffy ventral surface. The skull is also larger, but otherwise similar, except that the nasals are more pointed behind, ending in a V-shaped point, and the posterior border of the frontals is evenly convex instead of forming a sharp angle, as in *R. mexicanus*.

In some respects this species appears to strongly resemble *Reithrodontomys sumichrasti* De Saussure¹, which is described as being of the same size as *R. mexicanus*, and from the description does not seem to differ from that species, except in the darker and brighter yellowish rufous of the upper parts. It thus differs from *R. rufescens* in smaller size, in having white feet, and a bicolored tail. No definite type locality for *R. sumichrasti* is given—simply "Mexicana tellus." *R. rufescens* is further distinguished from both *R. mexicanus* and *R. sumichrasti* in the absence of red hairs on the inner surface of the ears, which are clothed with black hairs on both surfaces.

Common; associated with the preceding species.

¹ Rev. et Mag. de Zool. (2), XII, 1861, p. 3.

7. *Reithrodontomys saturatus*, sp. nov.

Above very dark brown, much varied with blackish near the median line, faintly suffused with grayish fulvous, which latter becomes the prevailing tint on the sides near the lateral line; below plumbeous washed with whitish, the hairs being for the most part plumbeous tipped with whitish; ears very large, dark brown, well haired on both surfaces, darker than the surrounding parts; fore and hind feet dull grayish white, the hind feet a little darker than the fore feet; soles of the hind feet dull brown, of the fore feet much lighter; tail well-haired, sharply bicolor, dark brown above, gray below, short, barely equalling the length of head and body.

Measurements.—Total length (of type), 148; tail vertebræ, 74; hind foot, 18; ear from notch, 18. Four specimens, two males and two females, all adult, measure as follows: Total length, 141 (129–149); tail vertebræ, 70.2 (63–81); hind foot, 17.2 (16–18); ear, 16.7 (15–18).

Skull.—No very marked cranial characters. Total length, 21; basal length, 17; zygomatic breadth, 11; width of brain-case, 10; interorbital breadth, 2.5; length of nasals, 8; palatal length, 8; length of anterior palatine foramina, 4.5; upper tooth row, 3.3; diastema, 5.

Type, No. $\frac{12502}{16818}$, ♂ ad., Las Vigas, State of Vera Cruz, April 26, 1897; Frank M. Chapman.

This species is based on 4 specimens, collected at Las Vigas, April 24–26, all adult.

Reithrodontomys saturatus belongs to the *R. megalotis* group, having for its nearest known ally *R. megalotis* (Baird); from which it differs externally in slightly larger size, larger ears, and very dark coloration, being in this respect very unlike other members of the *R. megalotis* group, being as dark even as the very darkest examples of *R. longicauda*. A comparison of the skulls of the two species shows no tangible differences.

The specimens secured were captured along the grassy banks of a dry arroyo.

8. *Peromyscus furvus*, sp. nov.

Above dark brown with a grayish wash and a rather faint suffusion of dull cinnamon fawn, darker, almost blackish, along the median line, more ruddy on the sides; below clear grayish white, with no trace of a fulvous or reddish pectoral spot; fore feet white with a tinge of flesh color, soles flesh color; hind feet soiled grayish white, soles blackish; both fore and hind feet quite thinly haired; ears dark brown, nearly naked (fine, short hairs can be seen under a lens); tail naked,

dark brown, scarcely lighter below than above, the extreme tip often whitish ; the annulations of the tail are not at all concealed by the very short hairs, which are scarcely visible except under a lens.

Total length (of type), 270; tail vertebræ, 131; hind foot, 28; ear, 23. Fourteen adult males and 8 adult females measure as follows :

	Total Length.	Tail Vertebræ.	Hind Foot.	Ear.
14 ♂♂	263 (248-282 ¹)	131 (123-145 ¹)	27.9 (26-29)	21.9 (20-23)
8 ♀♀	250 (243-260)	125 (120-130)	27.3 (26-28)	21.5 (21-22)

Skull.—Skull very large in comparison with the external measurements of the animal, and very strong and heavy for a *Peromyscus*, but it is nevertheless a true *Peromyscus* in dentition and cranial details, except in the rostral portion. Rostrum very broad, inflated anteriorly, and distinctly bell-shaped, the breadth across the tip of the nasals, in very old specimens, equalling the interorbital breadth, instead of narrowing to about one-half this width, as in most species of the genus. Posteriorly the nasals are pointed and extend considerably (about 2 mm.) beyond the intermaxillaries. Palate with a thickened, slightly upturned posterior border. Anterior palatine foramina very broad.

Total length (of type), 35; basal length, 29; zygomatic breadth, 16.7; width of brain-case, 14.3; least interorbital breadth, 5; breadth of nasals at anterior border, 5; length of nasals, 8; anterior palatine foramina, 6×3; upper tooth-row, 5; diastema, 9.5.

Type, No. $\frac{12459^a}{10789}$, ♂ ad., Jalapa, April 2, 1897; Frank M. Chapman.

This species is based on a series of 25 specimens—16 males and 9 females—collected at Jalapa; all are adult except 3, which are nearly full grown. They are very uniform in coloration; some are a little more ruddy than the average, and others are less so, and blacker. The younger specimens are nearly uniform blackish brown above, with a slight hoariness, most pronounced on the head and sides of the body.

Externally *Peromyscus furvus* greatly resembles *P. californicus*, the two agreeing almost exactly in external dimensions,² except that the ears are about one-third smaller in *P. furvus* than in *P. californicus*. They further differ in the tail being naked in *P. furvus*, instead of well clothed with hairs as in *P. californicus*. They agree in the general darkness of the coloration, though *P. furvus* is much the darker of the two, and the yellowish suffusion seen in *P. californicus* is replaced by a dull reddish tint in *P. furvus*. In both species there is the same tendency to a white-tipped tail.

¹ Exceptionally large; no other specimen exceeds 270 in total length, and only one other exceeds 135 in length of tail.

² For measurements of a large series of *P. californicus*, see this Bulletin, Vol. VIII, p. 267.

In cranial characters they are widely separated, the skull in *P. furvus* being very much the larger, with the rostral portion of the skull very broad and widening greatly at the anterior border, forming a bell-shaped nose. The nasals are thus very broad anteriorly, but taper posteriorly to a broad V-shaped point, and extend much beyond the zygomatic process of the intermaxillaries.

Found only in the heavier woods, where it lives in holes in the ground or beneath the roots of trees.

9. *Peromyscus melanotis*, sp. nov.

Similar to *P. rufinus*, but paler, with much larger and blacker ears.

Above pale yellowish brown, varied with darker, darkest along the median line, brighter and more brownish on the sides; beneath and feet white; ears large, black, narrowly edged with white; tail well haired, slightly penicillate, sharply bicolor, a line of blackish running down the median line above, leaving nearly four-fifths of the circumference of the tail dull white.

Two-thirds grown young are dusky plumbeous with a slight wash of gray, tinged slightly with pale fulvous.

Total length, 162 (160-164); tail vertebrae, 68.5 (66-71); hind foot, 20 (20-20); ear, 20 (20-20). (Average and extremes of two adults.)

Skull.—Total length, 27; basal length, 22; zygomatic breadth, 14; width of brain-case, 12; interorbital breadth, 4; length of nasals, 11.5; palatal length, 11; length of anterior palatine foramina, 5.5; upper tooth row, 4; diastema, 6.

Type, No. $\frac{125112}{108112}$, ♂ ad., Las Vigas, State of Vera Cruz, Mexico, April 30, 1897; Frank M. Chapman.

This species is represented by 3 specimens—1 ♂ ad., 1 ♀ ad., 1 ♂ juv.—taken at Las Vigas, April 23-26.

Peromyscus melanotis appears externally like a pale phase of *P. rufinus*, with larger and black ears. The skull, however, is relatively larger, and the rostral portion is more slender.

10. *Peromyscus musculus brunneus*, subsp. nov.

Similar to *Peromyscus musculus* (Merriam), but much darker and rather smaller, with smaller ears and shorter hind feet.

Above dark drab gray with a decided tinge of reddish, and slightly varied with black-tipped hairs, paler on the sides; lower parts grayish white with a strong tinge of buff; ears very dark brown, naked (very fine short hairs are visible under a strong lens); tail brown, nearly naked, a little lighter below than above; feet soiled whitish; soles of hind feet nearly naked, with conspicuous blackish tubercles.

Measurements.—Total length (of type), 120; tail vertebrae, 50; hind foot, 15; ear, 13. The averages and extremes of 38 adults are as follows:

	Total Length.	Tail Vertebrae.	Hind Foot.	Ear.
20 ♂♂	118 (110-130)	46.8 (40-51)	15.3 (14.5-16.5)	13 (12.5-15)
18 ♀♀	119 (110-126)	46.5 (40-53)	15.5 (14-16)	13.1 (12-15)

Skull.—Total length, 15; basal length, 12.5; zygomatic breadth, 11; width of brain-case, 10; interorbital breadth, 4; length of nasals, 7.5; palatal length, 7; length of anterior palatine foramina, 4.4; upper tooth row, 3.2; diastema, 4.5.

Type, No. $\frac{1255}{10848}$, ♀ ad., Jalapa, State of Vera Cruz, Mexico, April 13, 1897; Frank M. Chapman.

This subspecies is represented by 38 specimens (20 males and 18 females), all adult, taken at Jalapa, March 29–April 15. They are quite uniform in coloration. The range in measurements has been already indicated. It may be further stated that 17 of the 38 specimens fall below 120 mm. in total length, and 4 exceed 124 mm.; 7 specimens fall below 45 mm. in tail length, and 3 exceed 50 mm.

Peromyscus musculus brunneus differs from *P. musculus* in slightly smaller size, including a shorter hind foot and smaller ears, but more especially in its much darker coloration throughout.

We are indebted to Dr. C. Hart Merriam, Chief of the Biological Survey, U. S. Department of Agriculture, for 4 topotypes of *P. musculus*, loaned for examination in the present connection.

Common in weedy fields, and abundant in old cornfields from which the stalks had not been cleared.

11. *Peromyscus aztecus* (*De Saussure*).—An adult female was taken in a piece of heavy woodland, March 30.

12. *Rhipidomys sumichrasti* (*De Saussure*).—One specimen, from Jalapa, presented by Mr. John Brookes.

13. *Oryzomys fulvescens* (*De Saussure*).

Hesperomys fulvescens DE SAUSSURE, Rev. et. Mag. de Zool. (2), XII, March, 1860, p. 102. "Habite le Mexique."

This species is represented by a series of 37 specimens—19 males and 18 females—all practically adult, taken at Jalapa in April.

These specimens average slightly larger than the measurements given by De Saussure, though those of the half-dozen smallest specimens of the series practically agree with the measurements given by De Saussure.

	Total Length.	Tail Vertebrae.	Hind Foot.	Ear.
19 ♂♂	180.5 (168-200)	103.7 (96-116)	21.3 (19-23)	14.5 (13-16)
18 ♀♀	181 (169-205)	105 (96-116)	20.5 (20-23)	14.3 (13-16)

Of these 37 specimens 8 fall below a total length of 175 mm., and 5 exceed 190 mm.; the tail length falls below 100 mm. in 8 specimens, and exceeds 110 mm. in 6 specimens.

This species finds a near ally in *Oryzomys costaricensis* Allen, from Boruca, Costa Rica, which differs in being less dark above, and less strongly washed with fulvous below. They are perhaps, however, only geographical forms of the same species. *Oryzomys delicatus* Allen & Chapman, from Trinidad, and *Oryzomys gracilis* Thomas, from Colombia and Nicaragua, are also near allies.

Abundant in old fields, and occasional in small grassy swamps.

14. *Oryzomys melanotis* Thomas.

Oryzomys melanotis THOMAS, Ann. & Mag. Nat. Hist. (6), XI, 1893, p. 404.
Mineral, San Sebastian, Jalisco, Mexico.

This species is represented by 28 specimens, taken at Jalapa, March 30-April 13; only about one-half prove to be adult, and only four of these are old, the greater part of the series being more or less immature, although none are very young. One very old male greatly exceeds any of the others in size, and is the reddest specimen in the whole series.

Taking the 16 oldest specimens, although some are obviously under mature size, we have the following averages and extremes:

	Total Length.	Tail Vertebrae.	Hind Foot.	Ear.
11 ♂♂	222.4 (210-265 ¹)	119 (111-132 ¹)	25.2 (24-27)	17.5 (15.5-19)
5 ♀♀	219 (208-235)	116 (110-125)	24.6 (24-25)	17.6 (17-19)
Type of <i>O. melanotis</i> , {	224	127	28	18

Mr. Thomas states that the type of his *O. melanotis* is an old male, "with the molar teeth much worn down." The few specimens in the present series comparable with this as regards age, equal or exceed the size of Mr. Thomas's type, but the large

¹ The next largest specimen has a length of 238, and only two others reach 235 in total length. Two other specimens reach a tail length of 128.

proportion of 'young adults' among the Jalapa specimens, of which the measurements are above summarized, considerably reduces the average, as would be expected.

The large black ears, the grizzled rufous coloration of the upper parts, the whiteness of the lower surface, and the generally slender form, together with the size and proportions given as the distinctive features of *O. melanotis*, so clearly characterize the Jalapa animal that it seems advisable to accept Mr. Thomas's name for it in spite of the fact that the type locality of *O. melanotis* is on the western slope, and doubtless in a very different physiographic region. The cranial characters, however, do not agree so well, in *O. melanotis* the "anterior palatine foramina ending in front of $\frac{m1}{m1}$ a distance nearly equal to the length of $\frac{m3}{m3}$," whereas in the Jalapa specimens the anterior palatine foramina end on a line with the front edge of $\frac{m1}{m1}$.

An abundant inhabitant of the woods.

15. *Oryzomys jalapæ*, sp. nov.

Above dark brown, suffused with yellowish, and lined profusely with black, darkest along the median line, where forming an indistinct broad median dorsal band; chin and throat grayish white; rest of ventral surface buffy, varying in different specimens from pale buffy white to deep buff; ears dark brown, rather darker than the surrounding parts, thinly covered on both surfaces with short hairs; tail indistinctly bicolor, dark brown above, somewhat lighter below, apparently naked, but very short hairs can be seen under a lens; fore and hind feet pale grayish brown, very thinly haired; soles of hind feet dark brown.

Measurements (of type).—Total length, 278; tall vertebræ, 140; hind foot, 30; ear, 18. Four adult males measure as follows: Total length, 276.5 (260–288); tall vertebræ, 143.5 (134–155); hind foot, 30 (29–31); ear, 18 (17–20).

Skull.—Nearly as in *Oryzomys palustris*, differing mainly in somewhat larger size. Total length, 32; basal length, 27; zygomatic breadth, 16; width of brain-case, 12.4; interorbital breadth, 5; length of nasals, 13.4; palatal length, 13; length of anterior palatine foramina, 6.3; upper molar series, 4.5; diastema, 8.

Type, No. $\frac{188661}{108881}$, ♂ ad., Jalapa, April 16, 1897; Frank M. Chapman.

This species is based on 8 specimens, taken at Jalapa in April, of which 4 are adults and 4 young adults, all but one being males. The upper parts in all are characterized by a strong, deep yellow-

ish suffusion, more intense in some specimens than in others; below the color varies from grayish white faintly tinged with buff, to deep strong buff. The pelage is full and soft, but not wooly, as in *O. aquaticus* Allen and *O. fulgens* Thomas, which also have buffy underparts. In size, and texture of pelage, it more resembles *O. mexicanus* Allen, which has, however, wholly white underparts, and the upper parts are paler, more yellowish, and much less black.

Found only in certain small, wet grassy marshes or 'cienagas,' where it was apparently common.

16. *Sigmodon toltecus* (*De Saussure*).—Few animals are more easily trapped than *Sigmodon*, and the fact that but a single specimen was secured apparently indicates that the species is rare at Jalapa. This example was taken in a grassy marsh inhabited also by *Oryzomys jalapæ*.

17. *Microtus quasiater* (*Coues*).

? *Arvicola* (*Hemiotomys*) *mexicanus* DE SAUSSURE, Rev. et Mag. de Zool. (2), XIII, Jan. 1861, 3. ("Mexicana tellus.")

Arvicola (*Pitymys*) *pinetorum*, var. *quasiater* COUES, Proc. Nat. Acad. Nat. Sci. Phila. 1874, 191. (Jalapa, Mexico.)

Arvicola (*Pitymys*) *quasiater* COUES, Mon. N. Am. Rodent. 1877, 226.

This species, the type locality of which is Jalapa, Mexico, is represented by 53 specimens—21 males and 32 females—all taken at Jalapa in April. All except ten are adult; of these latter the greater part are nearly adult.

Respecting external characters, there is little to add to Dr. Coues's description. The general color above is ruddy blackish brown; the younger specimens are darker, while very old specimens are several shades lighter and more ruddy or 'auburn' than the average adult.

The adults of the series measure as follows :

	Total Length.	Tail Vertebrae.	Hind Foot.	Ear.
17 ♂♂ ...	130.3 (121-136)	19.6 (17-22)	17 (16-18)	14 (12-16)
24 ♀♀ ...	128.8 (120-135)	19 (16-22)	17 (16-18)	14 (12-15)

Only 6 specimens out of 41 fall below 125 mm. in total length, and only 6 exceed 134 mm.

It seems quite probable that De Saussure's *Arvicola mexicanus* may prove to be an earlier name for this species, to which

De Saussure's very unsatisfactory description seems to point, except that the species is referred to the subspecies *Hemiotomys*—whether of Baird or of De Selys-Longchamps is not stated, but which in either case would indicate only distant relationship with *M. quasiater* (Coues).

Abundant in weedy fields, and especially so in old cornfields, where it lives in holes in the ground.

18. *Cratogeomys estor* Merriam.—Three specimens (♂ ad., ♀ ad., and ♀ juv.), Las Vigas, April 24 and 25—topotypes of the species.

19. *Heterogeomys hispidus* (Le Conte).—One specimen, ♀ ad., Jalapa, April 13.

This specimen is peculiar in possessing a pure white transverse band, about 10 mm. broad, across the lower part of the back. There is also a large irregular area of white on the ventral surface, mostly confined to the right side of the median line. These large white markings are doubtless due to albinism.

Locally common.

19. *Marmosa murina mexicana* Merriam.

Marmosa murina mexicana MERRIAM, Proc. Biol. Soc. Washington, XI, 1897, 44. (March 16, 1897.)

Represented by 2 males and 4 females, collected in the heavier forest growth at Jalapa, March 29–April 4. All are young adults, except one very old male.

This subspecies is smaller, with relatively much smaller ears, than true *murina*, and the general color is a lighter, clearer rufous, but in the color of face between the eyes there is little difference, the rufous only exceptionally reaching forward to the nose. In true *murina* this part is much lighter than the general color of the upper parts.

M. murina mexicana was described from Juquila, Oaxaca, and its range given as the States of Oaxaca and Chiapas. The present locality therefore extends its range on the eastern slope considerably to the northward of Oaxaca. It is probable that the specimen recorded as *murina* by Mr. Thomas from Ventanos, Durango, is referable to this form.