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Mexico, by E. Raymond Hall**

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\*\*\* START OF THE PROJECT GUTENBERG EBOOK TWO NEW MEADOW MICE FROM MICHOCÁN  
MEXICO \*\*\*

**Two New Meadow Mice from Michoacán  
Mexico**

[Pg 423]

BY

**E. RAYMOND HALL**

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[Pg 424]

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**Two New Meadow Mice from Michoacán, Mexico**

[Pg 425]

By

**E. RAYMOND HALL**

In preparing a list of kinds of mammals of which specimens have been saved from the Mexican state of Michoacán, two heretofore unrecognized subspecies of the Mexican meadow mouse, *Microtus mexicanus*, have been found. Names for these and descriptions are given below.

***Microtus mexicanus fundatus* new subspecies**

*Type*.—Male, adult, skin and skull; No. 100637, Univ. California Mus. Vert. Zool.; 3½ mi. S Pátzcuaro, 7,900 ft., Michoacán, México; March 9, 1943; obtained by E. R. Hall, original no. 5882.

*Range*.—Known only from the vicinity of the type locality.

*Diagnosis*.—Size large (see measurements); color brown overlain with cinnamon; nasals expanded distally with premaxillary borders concave laterally; posterior border of orbit inclined posterolaterally; preorbital region and interparietal region depressed; incisive foramina narrow; zygomatic arches parallel; tympanic bullae much inflated.

*Comparisons*.—Among named subspecies of *Microtus mexicanus*, *M. m. fundatus* most closely resembles *M. m. mexicanus* but differs as follows: Larger in all parts measured; pelage with slightly less buffy color and with the buffy color that is present of a slightly lighter tint; posterior two-thirds of premaxillary border of each nasal concave rather than straight; posterior border of orbit forming more acute angle with sagittal plane of posterior part of skull; superior outline of nasals straight rather than depressed in posterior part; tympanic bullae more inflated both in vertical and horizontal planes.

From *M. c. salvus*, the subspecies next to the westward, *fundatus* differs as follows: Averaging larger in all parts measured; less reddish on upper parts; underparts with more reddish color but the reddish of lighter tint; perineal region buffy instead of plumbeous; nasals with premaxillary borders laterally concave rather than straight; superior outline of skull with nasal segment sloping anteroventrally and interparietal segment sloping posteroventrally rather than straight; posterior margin of orbit inclined posterolaterally thus forming an acute angle, instead of a right angle, with sagittal plane of braincase; zygomatic arches parallel rather than bowed outward; incisive foramina narrower; tympanic bullae more inflated in vertical plane.

Relying on Bailey's (N. Amer. Fauna, 17:55, 1900) description of *Microtus fulviventer*, *fundatus* differs in much larger tympanic bullae.

*Remarks*.—The series of 59 specimens includes individuals of several ages of both sexes. This has been a great advantage in making comparisons with individuals of geographically adjoining subspecies since individuals of the same age and sex could be compared. When the skulls are laid top-side down on a flat surface the occiput is much higher than in *salvus*. [Pg 426]

Our specimens, taken in the dry season, were trapped mostly in runways beneath a dense growth of grass underneath a rail fence.

*Specimens examined*.—Total, 59, distributed, with respect to the town of Pátzcuaro, as follows: 3½ mi. S, 7,900 ft., 9; 4 mi. S, 7,800 ft., 16; 5 mi. S, 7,800 ft., 26; 9 mi. SE, 8,000 ft., 8.

#### ***Microtus mexicanus salvus* new subspecies**

*Type*.—Female, adult, skin and skull; No. 52099, Chicago Natural History Museum; Mount Tancitaro, 11,400 ft., Michoacán, México; July 19, 1941; obtained by F. C. Wonder, original No. 1163.

*Range*.—Known only from Mount Tancitaro at elevations of 7,800 to 11,400 feet.

*Diagnosis*.—Size medium (see measurements); color brown overlain with cinnamon; premaxillary borders of nasals straight; superior outline of skull nearly straight; posterior margin of orbit at right angle with long axis of skull; zygomatic arches bowed outward; incisive foramina wide; tympanic bullae small.

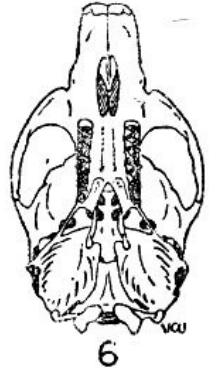
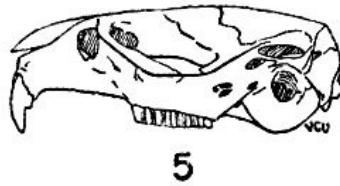
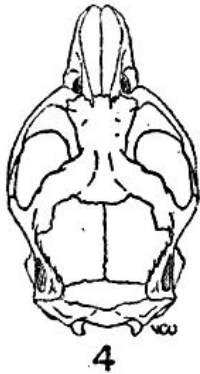
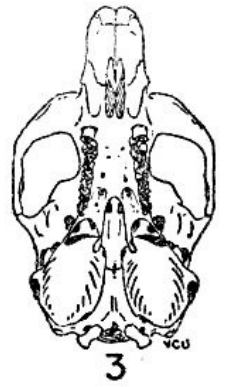
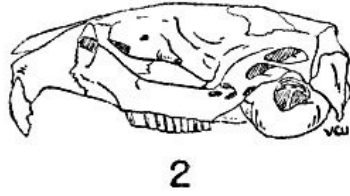
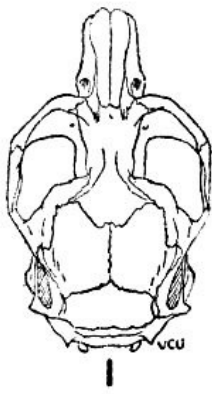
*Comparisons*.—From topotypes of its nearest relative, *Microtus mexicanus phaeus* Merriam, *salvus* differs as follows: Tail shorter; pelage with slightly more buffy (reddish) pigment which, nevertheless, is of a lighter tint; premaxillary borders of nasals straight rather than concave; superior outline of skull more nearly straight (less convex); inferior border of rostrum more nearly straight (less concave distally); palatal fossae uniformly shallower.

Comparison with *M. m. fundatus* is made in the account of that subspecies.

*Remarks*.—The degree of difference between *M. m. salvus* and *M. m. fundatus* exceeds that between *M. m. salvus* and *M. m. phaeus* or that between *M. m. fundatus* and *M. m. mexicanus*. [Pg 427]

*Specimens examined*.—Total, 14, from Mount Tancitaro, Michoacán, distributed, according to elevation above sea level, as follows: 11,400 feet, 8; 11,000 ft., 2; 7,800 ft., 1; no elevation recorded, 8.

*Measurements of the two subspecies*.—Average and extreme measurements of ten adult males of *M. m. fundatus* and eight adult males of *M. m. salvus*, are, respectively, as follows: Total length, 147 (135-158), 141 (134-146); length of tail, 33.4 (30-39), 29.6 (25-32); length of hind foot, 21.1 (20-22), 20.0 (18-21); condylobasal length, 27.7 (27.0-29.0), 25.9 (25.5-26.2); occipitonasal length, 27.5 (26.8-28.5), 25.7 (25.3-26.0); length of nasals, 8.0 (7.7-8.4), 7.5 (6.9-8.1); zygomatic breadth, 16.4 (15.9-17.2), 15.0 (14.6-15.3); interorbital breadth, 3.7 (3.5-3.9), 3.5 (3.3-3.6); mastoid breadth, 12.7 (12.2-13.2), 11.7 (11.7-11.7); alveolar length of upper molar series, 7.0 (6.8-7.3), 6.7 (6.5-6.9); width of rostrum, 5.7 (5.1-5.9), 5.3 (5.3-5.3); palatilar length, 13.3 (12.7-14.3), 12.6 (11.9-12.9). Of *M. m. salvus* only two specimens yield data for the first, second, sixth and eighth cranial measurements named above.



FIGS. 1-6. Skulls of the type specimens of two subspecies of *Microtus mexicanus*. XI.

FIGS. 1-3. *Microtus mexicanus fundatus*.  
 FIGS. 4-6. *Microtus mexicanus salvus*.

FIGS. 1-6. Skulls of the type specimens of two subspecies of *Microtus mexicanus*. XI.

FIGS. 1-3. *Microtus mexicanus fundatus*.  
 FIGS. 4-6. *Microtus mexicanus salvus*.

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