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A New Short-tailed Shrew and a New Free-tailed Bat from Tamaulipas, Mexico

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Among several collections of small mammals recently received from Mexico are two forms that apparently represent hitherto undescribed subspecies. I am indebted to the United States National Museum and the United States Fish and Wild Life Service, Washington, D. C., for the loan of comparative material.

Cryptotis mexicana madrea, new subspecies

TAMAULIPAS BLACK SHREW

TYPE: A.M.N.H. No. 147901, skin and skull, teeth slightly worn, adult male; Rancho del Cielo, 3500 feet elevation, 5 miles northwest of Gómez Farías, Sierra Madre Oriental, Tamaulipas, Mexico; collector, Marian Martin; July 7, 1951; original No. 325. The type skin, except for a small bare patch on the abdomen, is in good condition, and the skull is complete. Besides the type there is only one specimen, an adult male topotype with an incomplete skull.

GENERAL CHARACTERS: A large, nearly uniformly colored, blackish, short-tailed shrew, slightly smaller and less reddish than specimens of *Cryptotis m. mexicana* Coues from Jico, Veracruz, and differing from the typical form in some cranial details.

DESCRIPTION OF TYPE: The color of upper parts is a shade darker than Bone Brown¹; under parts scarcely lighter than back and near Chaetura Drab; feet and tail blackish.

The skull is smaller than in typical *C. mexicana*, with a smaller and flatter brain case, the superior outline nearly straight and scarcely elevated behind the orbits.

¹ Capitalized color terms are after Ridgway, "Color standards and color nomenclature," Washington, D. C., 1912.

MEASUREMENTS OF TYPE: Skin (taken in the field): total length, 99 mm.; length of tail, 24; length of hind foot, 11, after dampening, 12.2. Skull: greatest length, including incisors, 19.4 (19.5–19.8¹); condylo-basal length, 18.7 (19–19.2); greatest breadth of brain case, 9.5 (9.5–10.5); interorbital breadth (taken at posterior border of constriction), 5.1 (5.1–5.4); length of entire tooth row, 8.5 (8.5–8.6); maxillary tooth row, 6.9 (6.7–7); width of palate across molars, 5 (5.1–5.2); greatest over-all height of skull, 5.5 (5.8–6.3).

REMARKS: *Cryptotis m. madrea* is not a sharply differentiated form. It is only when comparison is made with the typical form of *mexicana* that such differences as smaller size, darker coloration, and flatter skull can be appreciated. According to the collector's field notes, one of the type series was trapped in an overgrown ditch which drains from a low section of a peach orchard and terminates in the cloud forest. The other specimen was taken in a different habitat, a stone wall separating the orchard from a pasture. Shrews must be uncommon at Rancho del Cielo, as, despite persistent trapping, no other specimens were taken.

Tadarida laticaudata ferruginea, new subspecies

TAMAULIPAS FREE-TAILED BAT

TYPE: A.M.N.H. No. 148683, skin and skull, adult male; taken in a cave 8 miles north of Antiguo Morelos, a village on the Atlantic slope of the Sierra Madre Oriental in southwestern Tamaulipas, Mexico; collector, William Z. Lidicker, January 2, 1952. The type is a skin and skull in good condition, prepared from a specimen in spirits. Besides the type, there are 10 topotypes, including three skins and skulls and seven specimens in spirits, seven of which are males and three of which are females.

GENERAL DESCRIPTION: A medium-sized, dark reddish brown, free-tailed bat with large ears that when laid forward reach to the end of the muzzle, and their margins are united in front for about 2 mm. from the base. *Tadarida l. ferruginea* is similar in color to *T. laticaudata* E. Geoffroy from Paraguay, but smaller. It is decidedly redder in color, smaller in size, and has smaller ears than specimens of *T. femorosacca* Merriam from southern California and Sonora, Mexico, which were examined.

DESCRIPTION OF TYPE: Color of upper parts Vandyke Brown, the hairs broadly white at base; under parts Bister, the hairs white at extreme

¹ Range of cranial measurements for six specimens of *C. m. mexicana* from Jico, Veracruz, given in parentheses.

base except on abdomen where they are Bister to base, tips of hairs Pinkish Buff; ears, feet, and membranes blackish.

The skull has a long narrow rostrum which is scarcely wider at any point than at the least interorbital breadth; sagittal crest well developed; premaxillae separated between upper incisors; upper incisors set close together at base and extending in a parallel position downward; four lower incisors crowded between canines; palate with anterior emargination very narrow. Upper molar teeth broad and strong; the inner posterior portion of the crown (hypocone) of first upper true molar is extended into a broad heel that makes this tooth broader posteriorly than at the front.

MEASUREMENTS OF TYPE: Skin: total length, 96.7 mm.; length of tail, 35.5; length of hind foot, 8.5; length of ear from notch, 16.4; width of ear, 15; length of forearm, 42.2 (dry), ranging from 43.3 to 44.8 in seven topotype spirit specimens. The forearm in *T. latacaudata* ranges from 45.6 to 48.6; in *femorosacca* from 45.6 to 49.2, and in *yucatanica* from 41.8 to 44.6. Skull: greatest length, 18.5; basal length, 14.5; zygomatic breadth, 10.1; interorbital breadth, 3.7; breadth of brain case, 8.5; breadth at m^2 , 7; breadth at canines, 4; length of maxillary tooth row, 6.8. Cranial measurements of topotypes do not vary more than a few fractions from the type.

REMARKS: Though *T. l. ferruginea* is exactly like specimens of *latacaudata* from Asunción, Paraguay, in color, it is readily distinguished from the typical form by its smaller size. Compared with a series of *T. yucatanica* Miller from Flores, Peten, Guatemala, *ferruginea* is similar in external measurements, but the color is a deeper red and the under parts are washed with a Pinkish Buff instead of Wood Brown. The skull of *ferruginea* is noticeably larger, with a larger brain case than the Yucatan form. *T. femorosacca* is larger than the Tamaulipas form, with longer forearm, and the specimens examined are like *T. mexicana* Saussure in color, between Bister and Sepia, instead of Vandyke Brown. The internal border of the first upper molar in *femorosacca* is squared instead of spreading posteriorly, and cranial measurements average larger than in *ferruginea*. The new form needs no comparison with the much larger bat, *Tadarida molossa* Pallas, which has a range from the southern United States to Brazil, Ecuador, and the West Indies. From *T. mexicana* and other members of the *braziliensis* group, *ferruginea* differs in having a long narrow rostrum instead of their broad flat muzzle.

