

PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON

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IDENTITY OF *THOMOMYS UMBRINUS* (RICHARDSON).

BY VERNON BAILEY.

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In 1829, Richardson described and named *Geomys umbrinus* from a specimen then in possession of Mr. Leadbeater, a London dealer in natural history specimens. The name has since been the cause of much confusion and has been applied to or placed in synonymy under various species of *Thomomys* or else rejected as undeterminable. This state of confusion has resulted from lack of a definite type locality. Richardson's statement that the specimen "came from Cadadaguois, a town in the southwestern part of Louisiana," is evidently an error, as the only use of such name in that region was for the Cadadaguois Indian settlements on the Red River in northeastern Texas. This place, however, is several hundred miles from the range of any species of *Thomomys*. Hence, if the name *umbrinus* is ever fixed it must be by identification of a known species with the original Leadbeater specimen, now in the British Museum. In March, 1905, Dr. Merriam sent to Mr. Gerrit S. Miller, Jr., then in London, specimens of *Thomomys fulvus*, *fossor*, and *lachuguilla*, the three species nearest in range to the region that in 1829 was comprised in southwestern Louisiana, for comparison with the type specimen of *umbrinus*. Mr. Miller found that none of these agreed in either cranial or external characters with the type, which he described in detail as follows :

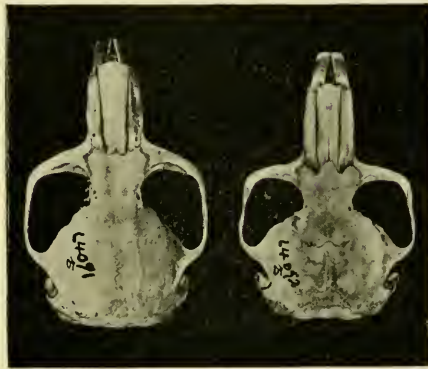
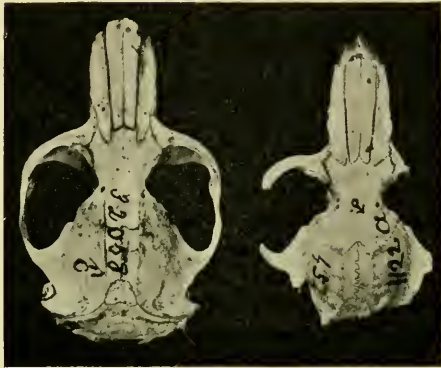
The type of *Thomomys umbrinus* is a formerly mounted specimen in the British Museum, No. 55. 12. 24. 205, a male in good condition, and with skull in good condition except for one zygoma, one bulla, and the right half of the occipital region. It is a *Thomomys* but not the same as any of those sent for comparison. Externally it is most like *fulvus*, but smaller and with more slender claws, especially in front. Color above about as in *fulvus*, but slightly darker, underparts entirely different, much as in *fossor* [pale buffy] but even paler, with almost a sharp line of demarkation along

sides; a white patch on chin and throat; tail as in *fossor*, but a little darker, apparently dirty, not bicolor as in *fulvus*; feet dull whitish.

*Skull* nearer that of *fulvus* than of *fossor* or *lachuguilla*, but smaller, the rostrum shorter and relatively broader, nasals and premaxillæ ending in line with each other; anterior base of zygoma, viewed from above, emarginate instead of rounded, lachrymal applied almost entirely to zygoma instead of frontal. [Description accompanied by rough drawing showing peculiarity of zygoma.]

*Measurements*.—Skin, measured dry: Total length 220; tail 45; hind foot 26. Skull: Greatest length 37.6; diastema 14; front of occiput to tip of nasals 34; nasals 13; interorbital constriction 6.4; zygomatic breadth (approximately) 26; upper tooth row (alveola) 7.8.

From this description it was evident that the type did not agree with any species of *Thomomys* from the United States, but that it did agree closely with an unrecognized species in the Biological Survey Collection, from Boca del Monte, Vera Cruz, Mexico. After Mr. Miller's return, one of the Boca del Monte specimens was sent to Mr. Oldfield Thomas, Curator of Mammals in the British Museum, for comparison with the type. Mr. Thomas kindly made the comparison and was not convinced that they were the same; but the discrepancies which he pointed out, namely, broad and strongly orange-colored incisors, longer nasals, broader posterior tip of premaxillæ, larger size, and much stronger color of the type specimen, are practically covered by individual variation in the series from Boca del Monte. The full size photograph of the skull of the type, furnished by Mr. Thomas and here reproduced, shows unmistakable characters, restricting *umbrinus* to a group of forms occurring only in southern Mexico. The strongly emarginate, instead of rounded, anterior base of the zygoma does not occur in any species of *Thomomys* from the United States. The combination of this character with a short wide skull, projecting incisors, wide posterior part of premaxillæ, and the peculiar position of the lachrymal which lies almost entirely against the jugal instead of mainly against the frontal, occurs only in *orizabæ*, *peregrinus* and the Boca del Monte form. External characters which still further restrict the name *umbrinus* to the Boca del Monte form are the white throat and light lowerparts, in strong contrast to the dark upperparts. Boca del Monte also has the advantage of being the farthest east and probably, previous to 1829, one of



SKULLS OF *Thomomys fulvus* and *umbrinus*. ALL NATURAL SIZE.

No. 32,058 *Thomomys fulvus* from Springerville, Arizona.

No. 1,122 *Thomomys umbrinus*. Photograph of type specimen in British Museum.

Nos. 64,091 and 64,092 *Thomomys umbrinus* from Boca del Monte, Vera Cruz, Mexico.

the most accessible localities in Southern Mexico from which any species of *Thomomys* is known.

The following description is based on 8 specimens from Boca del Monte, Vera Cruz, Mexico:

***Thomomys umbrinus* (Richardson).**

*Geomys umbrinus* Richardson. Fauna Boreali-Americana, I, pp. 190 and 202, 1829.

*General characters.*—Size medium, hind foot 27 to 28; colors dichromatic, dull umber brown or plumbeous black; skull short and wide with strongly projecting incisors.

*Color.*—Upperparts, in brown phase, dull burnt umber or Prouts brown, varying to nearly black in some specimens; lowerparts lightly washed with pale buff or whitish, in some specimens sharply contrasted with dark upperparts; feet, tip of tail, chin, and sometimes throat, white. In black phase slaty black all over except white chin, feet, and tip of tail.

*Skull.*—Short and wide with incisors projecting well beyond nasals; angle of frontal projecting into notched anterior base of zygoma; lachrymal applied for nearly its whole length to zygoma; premaxillæ of approximately the same length as nasals and widest near blunt posterior tips; incisors slender, in comparison with those of *fulvus*; color of incisors varying from light yellow to dark orange.

*Measurements.*—Average of seven adults from Boca del Monte: Total length, 193; tail vertebræ, 58; hind foot, 27. *Skull*, No. 64,091, ♂, from Boca del Monte: Greatest length, 36; diastema, 13.5; front of occiput to tip of nasals, 33; nasals, 12.5; interorbital constriction, 6.4; zygomatic breadth, 24; alveolar length of upper molar series, 7.5.