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**BY**

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**UNIVERSITY OF KANSAS**

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## A New Bat (Genus *Leptonycteris*) From Coahuila

BY

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In a collection of mammals obtained in Coahuila, México, there is a series of 24 long-nosed bats, *Leptonycteris nivalis*. These bats have a larger skull and a longer third finger than other bats of this species found to the south of Coahuila. On the basis of these distinctive characters, it seems appropriate to recognize these long-nosed bats from Coahuila as belonging to a new subspecies, named and described as follows:

### *Leptonycteris nivalis longala* new subspecies

*Type*.—Female, adult, skin and skull, No. 33087, Univ. Kansas Mus. Nat. Hist.; 12 mi. S and 2 mi. E Arteaga, 7500 ft., Coahuila; 11 July 1949; obtained by W. K. Clark, original number 787.

*Range*.—Southern Coahuila north to the Big Bend (Brewster County) of Texas.

*Diagnosis*.—Size large (see measurements); third finger long; color pale, upperparts Hair Brown (capitalized color terms are after Ridgway, Color Standards and Color Nomenclature, Washington, D. C., 1912), underparts Smoke Gray; skull large and broad.

*Comparisons*.—From *Leptonycteris nivalis nivalis* (specimens from Veracruz, Oaxaca, Distrito Federal, Hidalgo, Jalisco, and Sonora), *L. n. longala* differs as follows: color paler, more whitish and less brownish; third finger longer (*longala* from Coahuila averaging 111.3 mm.; *nivalis* from Sonora averaging 91.0, from Jalisco 96.4, from Hidalgo 98.0, from Veracruz 100.0, from Distrito Federal 100.2, and from Oaxaca 98.6); skull larger, breadth of cranium greater (*longala* from Coahuila averaging 10.7 mm.; *nivalis* from Sonora 9.8, from Jalisco 9.8, from Hidalgo 9.6, from Veracruz 9.9, from Distrito Federal 9.9, and from Oaxaca 9.8); mastoidal breadth greater (*longala* from Coahuila averaging 11.6 mm.; *nivalis* from Sonora 10.5, from Jalisco 10.8, from Hidalgo 10.6, from Veracruz 10.9, from Distrito Federal 10.8, and from Oaxaca 10.7); skull higher (*longala* from Coahuila averaging 10.0 mm.; *nivalis* from Sonora 9.3, from Jalisco 9.2, from Hidalgo 9.2, from Veracruz 9.3, from Distrito Federal 9.3, and from Oaxaca 9.1). The average of each dimension of *longala* listed above exceeds the maximum of the corresponding dimension in *nivalis*.

*Remarks*.—*Leptonycteris nivalis longala* inhabits the northeastern end of the Mexican Plateau. Bats from Brewster County, Texas, referred to *longala*, average slightly larger in all measurements taken than do specimens from southern Coahuila. Specimens from Cerro Potosí, Municipio de Galeana, Nuevo León, also are referred to *longala* on the basis of the length of their third fingers. Like the specimens from Texas, these bats possess longer forearms, on the average, than do bats from Coahuila.

Topotypes of *L. n. nivalis* from Mount Orizaba were not available, but 111 specimens referable to the subspecies *nivalis* were examined. These specimens were from the following places: *Sonora*: ¼ mi. W Aduana, 1600 ft., 4 specimens. *Jalisco*: Hda. San Martín, 5000 ft., 18 mi. W Chapala, 3; 11 mi. W Chapala, 5000 ft., 1; 5 mi. W Chapala, 5000 ft., 58; 8 mi. NE Ocotlán, 5100 ft., 1. *Hidalgo*: 6 km. NW Tasquillo, 500 ft., 1. *Veracruz*: 3 km. W Boca del Río, 25 ft., 22. *Distrito Federal*: Chicomostoc, Cerro Teutli, 2½ mi. NNW Milpa Alta, 2620 ft., 18. *Oaxaca*: Cuicatlán, 600 ft., 1; 3 km. WNW Dominguillo, 730 ft., 2. All these specimens are in the Museum of Natural History at the University of Kansas. Little discernible geographic variation was found in these specimens of *L. n. nivalis*. No specimens could, with certainty, be classed as intergrades between *longala* and *nivalis*, but it is thought that intergrades will be found in western San Luis Potosí or in Zacatecas or in both states. Dalquest (Mammals of the Mexican State of San Luis Potosí, Louisiana State Univ. Studies, Biol. Sci. Ser. No. 1, pp. 27-28, 1953) refers five specimens taken from Hda. Capulín, southeastern San Luis

Potosí, to *L. n. nivalis*. Measurements by Dalquest are in accordance with other measurements of *L. n. nivalis* listed above.

The name *L. n. yerbabuena* Martínez and Villa, was based on specimens from Yerbabuena in the state of Guerrero. The specimens, including the holotype, on which this name was based have been destroyed. Luis de la Torre (Fieldiana, 37:698, 1955) examined a topotype of *yerbabuena* and was unable to distinguish this specimen from a topotype of *nivalis* from Orizaba. Davis and Russell (Jour. Mamm., 33:236, 1952) identified as *L. n. nivalis* one bat from Morelos, taken approximately 32 miles NE of the type locality of *yerbabuena*, noting that its third finger was much shorter than in specimens from the Big Bend of Texas. I judge *L. n. yerbabuena* to be a synonym of *nivalis* as does de la Torre.

Acknowledgment is made to Dr. W. B. Davis of the Agricultural and Mechanical College of Texas and Mr. Colin C. Sanborn of the Chicago Natural History Museum for loan of comparative material. I am grateful also to the Kansas University Endowment Association and National Science Foundation for support of field work, and to Dr. Rollin H. Baker for guidance in my study.

*Measurements.*—The following measurements in millimeters include those of the type, and the average and extreme measurements of the type and 22 adult topotypes: total length, 79, 79 (73-86); length of hind foot, 16, 16 (14-17); length of ear, 16, 16.5 (15-17); length of forearm, 50.0, 50.6 (47.3-55.0); greatest length of skull, 28.1, 27.5 (26.1-29.0); zygomatic breadth, 9.2, 9.6 (8.6-11.2); interorbital constriction, 4.6, 4.8 (4.1-5.4); mastoidal breadth, 11.7, 11.6 (11.0-12.1); breadth of braincase, 10.5, 10.7 (10.1-11.2); greatest height of skull, 9.8, 10.0 (9.6-10.5); alveolar length of maxillary tooth-row, 8.9, 9.1 (8.5-9.6); and length of third finger, 110.8, 111.3 (106.9-116.1).

*Specimens of L. n. longala examined.*—Total number, 109, as follows: *Texas*: cave W side Emory Peak, Chisos Mts., Brewster Co., 7500 ft., 5 specimens (A and M College of Texas). *Coahuila*: 12 mi. S and 2 mi. E Arteaga, 7500 ft., 24 (KU). *Nuevo León*: Cerro Potosí, Municipio de Galeana, 11,500 ft., 80 (Chicago Nat. Hist. Mus.).

*Transmitted December 5, 1955.*

\*\*\* END OF THE PROJECT GUTENBERG EBOOK A NEW BAT (GENUS LEPTONYCTERIS) FROM COAHUILA \*\*\*

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