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*** START OF THE PROJECT GUTENBERG EBOOK A NEW BAT (GENUS MYOTIS) FROM
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A New Bat (Genus Myotis) From Mexico

(237)

BY
WALTER W. DALQUEST and E. RAYMOND HALL

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A New Bat (Genus Myotis) From Mexico ^[A]

(239)

By

WALTER W. DALQUEST AND E. RAYMOND HALL

While one of us (Dalquest) was in a dugout canoe that was being paddled up a small unnamed tributary of the Rio Coatzacoalcos, through dense jungle, he grasped a decayed and termite damaged tree-trunk projecting approximately three feet above the surface of the water to steady

the canoe. At that instant two bats were detected in one of the many small holes in the trunk, which was eight to nine inches in diameter. It was a simple matter to enlarge the hole and extract the animals. Superficially they resembled silvery-haired bats (*Lasionycteris*) but their naked interfemoral membranes and other features suggested that they belonged to the genus *Myotis*. Subsequently, study in the laboratory showed this to be the fact and revealed also that they are of an heretofore unnamed species which may be known as:

***Myotis argentatus*, new species**

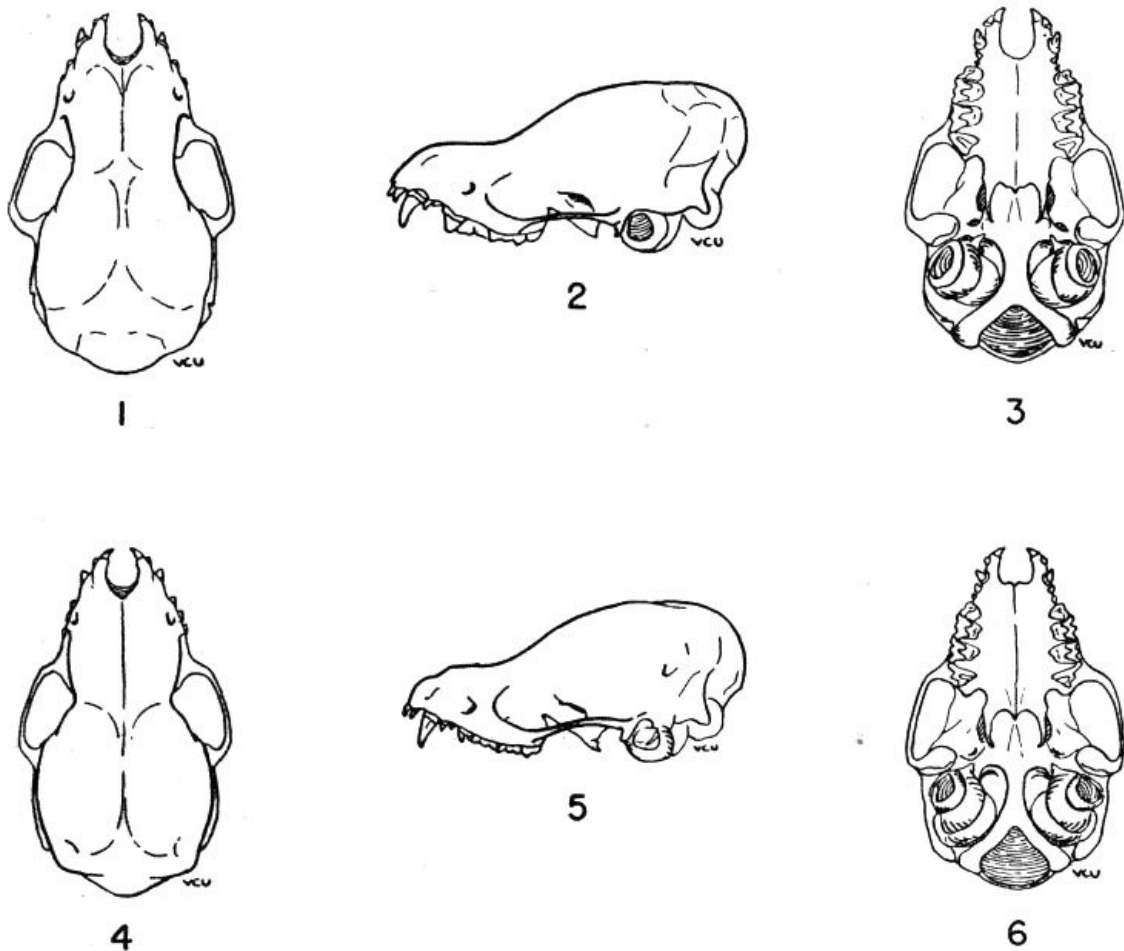
Type.—Male, adult, skin with skull, No. 19228, Mus. Nat. Hist., Univ. Kansas; 14 kilometers southwest of Coatzacoalcos, 100 feet elevation, Veracruz, Mexico; 2 February 1947; obtained by Walter W. Dalquest; original No. 7052.

Range.—Known only from the type locality.

Diagnosis.—Size medium for the genus (see measurements), tail short; foot long; ears and membranes black; pelage long (maximum length on middle of back 9 mm.) and black; upper parts with overhairs tipped with whitish especially on rump; underparts from posterior part of thorax posteriorly with all of the hairs tipped with this same whitish color; skull with preorbital part small in relation to brain case; teeth small in relation to total area of palate; brain case much inflated; ventral margin of foramen magnum evenly rounded.

Comparison.—From *Myotis albescens* (E. Geoffroy) known to us by specimens in the United States National Museum from Paraguay (Tacural), Panama (Tabernilla), and Nicaragua (Prinzapolca R. and Escondido R.), *argentatus* differs in: Body and foot longer; tail relatively shorter (57 and 58% of length of head and body versus 76 (62-83)% in *albescens*); tibia shorter; pelage longer, and black instead of brown; silver tipping of fur on hinder back markedly more conspicuous; precranial part of skull, when viewed from above, larger in relation to brain case; postorbital constriction less abrupt, that is to say, skull "longer-waisted"; occlusal surfaces of teeth of equal area and therefore occupying a relatively smaller percentage of total area of palatal surface; ventral margin of foramen magnum less deeply indented; ventrally prominent part of basioccipital twice as wide.

Remarks.—The relatively slight wear on the teeth of the female of *M. argentatus* and the large ends on the bones of the wings indicate that it is immature. Its measurements, recorded below, average smaller than those of the adult holotype, a male, and the silvery tipping on the upper parts is almost lacking from the pelage which is shorter than in the holotype. (240)



FIGS. 1-6. *Myotis*. From left to right, dorsal, lateral and ventral views. All $\times 2$.

FIGS. 1-3. *Myotis argentatus*, no. 19228, Univ. Kan. Mus. Nat. Hist., type.

FIGS. 4-6. *Myotis albescens*, no. 105664, ♀, U. S. Nat. Mus., from Tacuaral, Paraguay; obtained on November 13, 1900, by Wm. T. Foster, orig. no. 128.

FIGS. 1-6. *Myotis*. From left to right, dorsal, lateral and ventral views. All $\times 2$.

FIGS. 1-3. *Myotis argentatus*, no. 19228, Univ. Kan. Mus. Nat. Hist., type.

FIGS. 4-6. *Myotis albescens*, no. 105664, [F], U. S. Nat. Mus., from Tacuaral, Paraguay; obtained on November 13, 1900, by Wm. T. Foster, orig. no. 128.

Among at least American kinds of *Myotis*, *argentatus* is extreme in small area of occlusal surface of the upper molariform teeth in relation to the total area of the palatal surface of the skull. *M. albescens* previously was regarded as extreme in this feature. The distance across the third upper molars, from the outside of one tooth to the outside of the other, is 5.5 mm. in the holotype of *argentatus* and 5.4 mm. in a specimen of corresponding age and sex of *albescens*. The distance between the third upper molars, from the lingual side of one tooth to the lingual side of the other, is 2.9 mm. in *argentatus* and 2.8 mm. in *albescens*. (241)

In each of our two specimens there is no sagittal crest but instead a low ridge one millimeter wide which marks the space between the margins of the two temporal muscles.

Allusion already has been made to the resemblance of the newly named *Myotis argentatus* to the silvery-haired bat, *Lasionycteris noctivagans* (LeConte). The whitish tips of the hairs are slightly more yellowish in *argentatus* but the difference is so slight as to be detected by only the most careful comparison. The remainder of the pelage in *argentatus* is black as in the darkest individuals of *Lasionycteris*.

Among named kinds of the genus *Myotis*, the species *argentatus* most closely resembles *Myotis albescens* which, up to now has been recorded from as far south as Argentina, in South America, and as far north as Nicaragua, in Central America (Miller and Allen, Bull. U. S. Nat. Mus., 144:202, 203, 1928). The differences detected between the two species are indicated above in the paragraph of comparisons and some other differences can be detected by comparing measurements given below with those of *M. albescens* as recorded by Miller and Allen (*op. cit.*: 204-205). In initial comparisons with *albescens*, only Paraguayan specimens were employed. It was felt that specimens of *albescens* from the northernmost localities of occurrence might more closely resemble *argentatus*. Accordingly, we appealed a second time to Dr. A. R. Kellogg for comparative material and he lent us the specimens (alcoholics with skulls separate) in the U. S. National Museum from Central America. These also differ from our newly named bat in the same fashion as do the South American specimens. Further, the number and magnitude of the differences between *albescens* and *argentatus* greatly exceed any that can be pointed to between the American subspecies of any other one full species of the genus *Myotis*. Full specific, rather than mere subspecific, status, therefore, is suggested for the bat here named *Myotis argentatus*.

Measurements.—The adult, male type, and the immature female specimen measure, respectively, as follows: Head and body, 55, 51 mm.; tail, 32, 29; tibia, 13.7, 13.2; foot, 8, 9; forearm, 33.0, 34.5; thumb, 5.8, 5.7; third metacarpal, 32.2, 30.5; fifth metacarpal, 31.5, 30.3; greatest length of skull, 14.5, 14.0; condylobasal length, 13.8, 13.0; zygomatic breadth, 9.1, 9.0; interorbital constriction, 4.3, 4.0; breadth of brain case, 7.5, 7.4; occipital depth, 5.7, 5.7; mandible, 10.5, 10.0; maxillary tooth row, 5.3, 5.0; maxillary breadth at M3, 5.5, 5.7; mandibular tooth row, 5.6, 5.3. (242)

Specimens examined.—Two, from the type locality.

Transmitted October 20, 1947.

FOOTNOTE

[A] Assistance with field work is acknowledged from the University of Kansas Endowment Association.

*** END OF THE PROJECT GUTENBERG EBOOK A NEW BAT (GENUS MYOTIS) FROM MEXICO ***

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