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*** START OF THE PROJECT GUTENBERG EBOOK A SYNOPSIS OF THE AMERICAN BATS OF THE GENUS PIPISTRELLUS ***

Transcriber's Notes

The text presented in this file is that contained in the original printed version. Only one typographical error was noted in the conversion of the printed document to digital format.

Typographical Error

Page 598: P.h. veracrucis => P. s. veracrucis

A Synopsis of the American Bats of the Genus Pipistrellus

[Pg 591]

BY

E. RAYMOND HALL and WALTER W. DALQUEST

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A Synopsis of the American Bats of the Genus *Pipistrellus*

[Pg 593]

By

E. RAYMOND HALL AND WALTER W. DALQUEST

Four nominal species of the genus *Pipistrellus* are currently recognized in North America. They are *Pipistrellus subflavus* (F. Cuvier) of eastern North America, *Pipistrellus hesperus* (H. Allen) of western North America, *Pipistrellus veracrucis* (Ward) from Veracruz, Mexico, and *Pipistrellus cinnamomeus* Miller from Tabasco, Mexico.

In the past three years, specimens have been obtained in Veracruz (by Dalquest) of each of the southern species. One of these, *P. cinnamomeus*, previously was known from a single specimen; the other, *P. veracrucis*, was known only from six specimens which now are lost or misplaced. The results of our study of these recently acquired Mexican specimens constitute our principal contribution in this paper; we have done little more with the material from the United States and Canada than to codify the findings of other mammalogists with respect to the systematic status and geographic distribution.

Study of the available specimens reveals that there are only two species, *Pipistrellus hesperus* and *Pipistrellus subflavus*; *Pipistrellus veracrucis* proves to be only a subspecies (geographic race) of *P. subflavus*, and *Pipistrellus cinnamomeus* proves to be a species of another genus, *Myotis* (see Hall and Dalquest, page 583 of this volume).

Genus *Pipistrellus* Kaup

1829. *Pipistrellus* Kaup, Skizzirte Entw.-Gesch. u. natürl. Syst. europ. Thierw., Vol. 1, p. 98, Type, *Vespertilio pipistrellus* Schreber (not seen by us, after Miller, N. Amer. Fauna, 13:87, 1897).

Range in the New World.—In North America from southern Canada to Honduras (47 degrees to 5 degrees North Latitude) and from the Atlantic to the Pacific; not recorded from the West Indies or South America.

Characters.—Size small; tail approximately as long as outstretched leg; ears well developed with prominent tragus; dental formula: $i. \frac{2}{3}$; $c. \frac{1}{1}$; $p. \frac{2}{2}$; $m. \frac{3}{3}$; two upper incisors subequal and outer one lacking a concavity on surface facing canine; dentition otherwise essentially as in *Myotis* Kaup except that third premolar is always, instead of rarely, absent.

Remarks.—There are two species in North America. Their geographic ranges, as now known, meet, but do not overlap. Certain differences between the two species are listed in the parallel columns below. Most of these differences in the skull and teeth are illustrated in figures 22 and 23 on page 92 of Miller's "Revision of the North American bats of the family Vespertilionidae (N. Amer. Fauna, 13, 1897)."

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Structure	<i>P. hesperus</i>	<i>P. subflavus</i>
Color	Predominately gray	Predominately brown
Foot	Less than half as long as tibia	More than half as long as tibia
Thumb, length of	Less than 4.9 mm.	More than 4.9 mm.
Tragus	Blunt, terminal part bent forward	Narrow, straight
Skull (dorsal profile)	Nearly straight	Dish-faced
Braincase (viewed)	Small	Large

from above)		
Palate	Extending far behind molars; spine short, narrow at base	Extending short distance long, wide at base
I2	Unicuspidate	Bicuspidate
I3	Accessory cusp present on anterointernal face	Accessory cusp absent on anterointernal face
P1 (occlusal view)	Less than a seventh as large as canine	More than a seventh as large as canine
P1 (labial view)	Concealed by C1 and P4	Not concealed
P4	Touching canine	Not touching canine
i3	Touching i2 and c1	Separated by space from i2 and c1
p3	Lower than anterior cusp of canine	As high as anterior cusp of canine
Distance from c1 to m1	Less than length of m2; premolars crowded	More than length of m2; premolars less crowded

Pipistrellus hesperus
(Synonymy under subspecies)

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Range.—Arid Sonoran life-zones of western North America from Washington southward to Jalisco.

Characters.—Smoke Gray to Buff Brown (Capitalized color terms after Ridgway, Color Standards and Color Nomenclature, Washington, D. C., 1912) dorsally; total length, 60 to 86; foot less than half as long as tibia; tragus blunt with terminal part bent forward; skull nearly straight in dorsal profile; inner upper incisor unicuspidate; outer upper incisor with accessory cusp on anterointernal face; P1, viewed from occlusal face, less than a seventh of area of canine, and from labial aspect concealed by canine and fourth premolar; lower, third premolar lower than anterior cusp of canine; lower premolars crowded, distance between canine and first molar less than length of second lower molar.

Remarks.—In the United States and in the northern part of Mexico, *P. hesperus* is the smallest bat found. Little is known about its habits. It emerges earlier in the evening than other species of bats. The frequency with which it is seen near cliffs suggests that it finds concealment under rocks. In winter, in Nevada (Hall, Mammals of Nevada, p. 150, 1946), *P. hesperus* has been found singly in crevices in the roofs of mine tunnels.

In the United States National Museum in July, 1949, the specimen providing the easternmost record station of occurrence was examined by us. This is No. 23591, in alcohol, taken on August 24, 1890, by William Lloyd, original No. 88, at the mouth of the Pecos River in Texas. In the same collection there is a specimen of *Pipistrellus subflavus* providing the westernmost record of occurrence of that species. This specimen, a skin with skull, is No. 126729, ♂, taken on May 3, 1903, by Jas. H. Gaut, original No. 1271, at Comstock, Texas. The two localities concerned are in the Valley of the Rio Grande, and are only about five miles apart. Nevertheless, the two specimens are clearly referable to their respective species and show no tendency toward intergradation. Consequently, confidence is felt in treating *Pipistrellus hesperus* and *Pipistrellus subflavus* as two distinct species.

The most recent report upon geographic variation throughout the entire species, *Pipistrellus hesperus*, was that by Hatfield (Jour. Mamm., 17:257-262, August 14, 1936). Later, as explained below in the account of *P. h. australis*, Burt (Miscl. Publ., Mus. Zool., Univ. Michigan, 39:25, February 15, 1938) examined specimens from Sonora, Mexico, and for them and for specimens from southern Arizona proposed a different nomenclatural arrangement.

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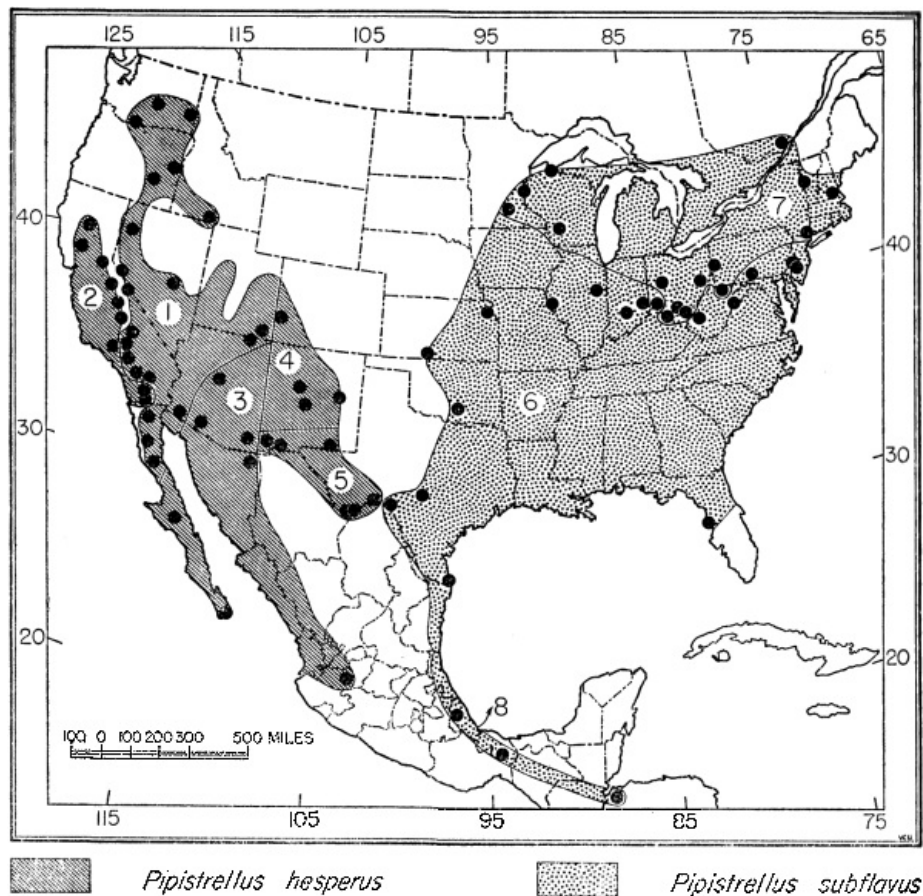


FIG. 1. Map showing the geographic ranges of species and subspecies of *Pipistrellus*.

- | | |
|-------------------------------------|--------------------------------------|
| 1. <i>Pipistrellus h. hesperus</i> | 5. <i>Pipistrellus h. santarosae</i> |
| 2. <i>Pipistrellus h. merriami</i> | 6. <i>Pipistrellus s. subflavus</i> |
| 3. <i>Pipistrellus h. australis</i> | 7. <i>Pipistrellus s. obscurus</i> |
| 4. <i>Pipistrellus h. maximus</i> | 8. <i>Pipistrellus s. veracruzis</i> |

***Pipistrellus hesperus hesperus* (H. Allen)**

Scotophilus hesperus H. Allen, Smithsonian, Misc. Coll., No. 165, Vol. 7 (art. 1): p. 43, June, 1864.

Vesperugo hesperus True, Proc. U. S. Nat. Mus., 7:602, 1885.

Pipistrellus hesperus Miller, N. Amer. Fauna, 13:88, October 16, 1897.

Type locality.—Old Fort Yuma, Imperial County, California, on right bank of Colorado River, opposite present town of Yuma, Arizona.

Range.—Intermontane region of the United States from south-central Washington south to Cataviñá, Baja California, and from southeastern California eastward to southeastern Utah. Marginal occurrences (unless otherwise indicated, after Hatfield, Jour. Mamm., 17:258, 1936) are: *Washington* (Dalquest, Univ. Kansas Publ., Mus. Nat. Hist., 2:165, 1948): Maryhill; Vantage; Almota. *Oregon*: Watson. *Idaho*: 8 mi. W Rogerson (Davis, Mamms. Idaho, p. 120, 1939). *Nevada*: Middle Stormy Spring (Hall, Mamms. Nevada, p. 151, 1946). *Utah*: Goodridge. *Arizona*: 11 mi. NW Kayenta; Tinajas Altas. *Baja California*: Cataviñá; San José; Laguna Hanson. *California*: Dos Palms Spring; Banning; Victorville; 12 mi. below (down river) Bodfish; Little Lake; 2 mi. S Benton Station. *Nevada*: 2 mi. NW Morgans Ranch; Deephole. *Oregon*: Princeton.

Diagnosis.—Size medium for the species; total length, 71.8(66-74); tibia, 12.0(10.7-13.5); forearm, 29.4(27.8-31.8); greatest length of skull, 11.9(11.5-12.3); breadth of braincase, 6.3(6.1-6.4). Color between Drab Gray and Smoke Gray, dorsally; between Smoke Gray and Pale Smoke Gray, ventrally (after Hatfield, Jour. Mamm., 17:257, 1936).

***Pipistrellus hesperus merriami* (Dobson)**

Vesperugo merriami Dobson, Ann. and Mag. Nat. Hist., 18(ser. 5): 124, August, 1896.

Pipistrellus hesperus merriami Grinnell, Proc. California Acad. Sci., 3(ser. 4):279, August 28, 1913.

Type locality.—Red Bluff, Tehama County, California.

Range.—California west of the Sierra Nevada; the Sacramento Valley, the San Joaquin Valley, and the Coast Range from San Francisco Bay south to San Diego County. Marginal occurrences (after Hatfield, Jour. Mamm., 17:260, 1936, unless otherwise noted) are: *California*: Dales on Paines Creek; Fyffe; Yosemite Valley; Shaver Ranger Station; Springville; Fort Tejon; Painted Gorge (P. H. Krutzsch, MS); Carrizo Creek; thence northward

up the coast probably to San Francisco Bay; in the Sacramento Valley west to Rumsey.

Diagnosis.—Size medium for the species; total length, 71.3(66-78); tibia, 11.2(10.6-11.7); forearm, 28.9(27.5-30.8); greatest length of skull, 11.8(11.3-12.2); breadth of braincase, 6.4(6.0-6.6). Color Buffy Brown to Army Brown, dorsally; Wood Brown to Buffy Brown, ventrally (after Hatfield, *op. cit.*: 258, 260).

Pipistrellus hesperus australis Miller

Pipistrellus hesperus australis Miller, N. Amer. Fauna, 13:90, October 16, 1897.

Pipistrellus hesperus apus Elliot, Field Columb. Mus., pub. 90, zool. ser., 3:269, March 8, 1904. Type from Providencia Mines, Sonora, Mexico.

Type locality.—Barranca Ibarra, Jalisco, Mexico.

Range.—Central Arizona south to Jalisco and including the southern half of Baja California. Marginal occurrences (after Hatfield, *op. cit.*: 261, unless otherwise indicated) are: *Arizona*: Camp Verde; Fort Bowie. *Sonora*: Pílares (Burt, Miscl. Publ., Mus. Zool., Univ. Michigan, 39:24, 1938). *Jalisco*: Barranca Ibarra (Miller, orig. descr.). *Baja California*: Miraflores; San Ignacio. *Arizona*: Bates Well.

Diagnosis.—Size small for the species; total length, 67.1(60-72); tibia, 11.3(10.1-12.3); forearm, 28.4(26.3-30.0); greatest length of skull, 11.7(11.3-12.0); breadth of braincase, 6.1(5.9-6.3). Color: between Cinnamon Drab and Drab, dorsally; Wood Brown to Light Drab, ventrally (after Hatfield, *op. cit.*:260).

Remarks.—Hatfield (*op. cit.*) examined no specimens from Mexico (Baja California excepted) and Burt (*op. cit.*) who did examine some specimens (from Sonora), referred one from northwestern Sonora to *P. h. hesperus* and those from northeastern Sonora to *P. h. merriami*. Since our treatment of subspecies of *Pipistrellus* (*P. s. veracruzis* excepted) aims merely to reflect the latest systematic treatment accorded the animals, we would follow Burt (*op. cit.*) were it not for the fact that he shows the geographic range of *P. h. merriami* separated by the range of *P. h. hesperus* into two parts. This is inconsistent with the ordinarily accepted concept of subspecies. Consequently, we have followed Hatfield (*op. cit.*). Clearly, a critical study is needed of adequate material of *Pipistrellus hesperus* of Mexico.

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Pipistrellus hesperus maximus Hatfield

Pipistrellus hesperus maximus Hatfield, Jour. Mamm., 17:261, August 14, 1936.

Type locality.—Dog Spring, Hidalgo County, New Mexico.

Range.—Southern New Mexico, western Texas and probably the adjoining parts of Mexico. Marginal occurrences (after Hatfield [*op. cit.*:261] except as otherwise indicated) are: *New Mexico*: Animas Valley; Florida Mountains; Carlsbad Cave. *Texas*: Mouth of Pecos River (Bailey, N. Amer. Fauna, 25:210, 1905); Boquillas (Borell and Bryant, Univ. California Publ. Zool., 48:9, 1942); Glen Spring (Borell and Bryant, *loc. cit.*).

Diagnosis.—Size large for the species; total length, 80.3(78-83); tibia, 12.3(11.7-13.1); forearm, 32.9(31.8-33.3); greatest length of skull, 12.7(12.3-12.9); breadth of braincase, 6.6(6.5-6.7). Color between Smoke Gray and Pale Drab (after Hatfield, *op. cit.*:261).

Pipistrellus hesperus santarosae Hatfield

Pipistrellus hesperus santarosae Hatfield, Jour. Mamm., 17:261, August 14, 1936.

Type locality.—Santa Rosa, Guadalupe County, New Mexico.

Range.—New Mexico (excepting southern part) and western Colorado. Marginal occurrences (after Hatfield, *op. cit.*:262) are: *Colorado*: Bedrock. *New Mexico*: Santa Rosa; Socorro; Laguna.

Diagnosis.—Size large for the species; total length, 82.0(80-86); tibia, 12.4(11.9-13.0); forearm, 32.8(31.7-34.1); greatest length of skull, 12.7(12.3-13.1); breadth of braincase, 6.6(6.3-6.8). Color between Buffy Brown and Wood Brown (after Hatfield, *op. cit.*:261, 262).

Pipistrellus subflavus (Synonymy under subspecies)

Range.—Canadian to Tropical life-zones of eastern North America from Quebec southward to Honduras.

Characters.—Sayal Brown to darker than Mummy Brown, dorsally; total length, 73-89; foot more than half as long as tibia; tragus tapering and straight; dorsal profile of skull convex in interorbital region; inner upper incisor bicuspidate; outer upper incisor unicuspidate (lacking accessory cusp on anterointernal face); P1 viewed from occlusal face more than a seventh of area of canine and visible from labial aspect; lower, third premolar as high as anterior cusp of canine; lower premolars less crowded than in *P. hesperus* and distance between canine and first molar less than length of second lower molar.

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Remarks.—In winter this species hibernates in caves in clusters of fewer than fifty individuals, but in summer fewer of the bats live there and at this season some have been captured as far as

thirty miles from any such retreat suggesting that the bats inhabit other types of shelter. The wide range of this species in respect to life-zones is noteworthy; it occurs in the Canadian Life-zone (Joliet, Quebec), the Tropical Life-zone (30 km. SSE Jesús Carranza, Veracruz) and in the intervening life-zones.

The longer thumb of this species, in comparison with that of *Pipistrellus hesperus*, was verified by measuring the thumb including its claw and the pad at the base of the thumb in 12 *P. s. veracruzis* and 10 *P. h. maximus*. In *veracruzis* the mean was 5.9 millimeters and the extremes were 5.5 and 6.4. In *maximus* the corresponding figures were 3.9, 3.6 and 4.3.

***Pipistrellus subflavus subflavus* (F. Cuvier)**

[Vespertilio]. subflavus F. Cuvier, Nouv. Ann. Mus. Hist. Nat. Paris, 1: 17, 1832.

Vespertilio erythroductylus Temminck, Monogr. de Mamm., II, 13me monogr., p. 238, 1835-1841 (not seen—after Miller, N. Amer. Fauna, 13:90, October 16, 1897).

Scotophilus georgianus H. Allen, Smithsonian Misc. Coll., No. 165, Vol. 7 (art. 1), p. 35, June, 1864.

Vesperugo carolinensis H. Allen, U. S. Nat. Mus. Bull. 43:121, March 14, 1894.

Pipistrellus subflavus Miller, N. Amer. Fauna, 13:90, figs. 22, 23, October 16, 1897.

Type locality.—Eastern United States, probably Georgia.

Range.—From approximately 40 degrees North Latitude in Pennsylvania and Kansas southward to central Florida and at least to extreme southern Texas; from the Atlantic Coast westward to south-central Kansas and Val Verde County, Texas. Marginal occurrences are: *Kansas* (K. U. Collection): 4½ mi. SW Sun City; Ft. Leavenworth. *Illinois* (Necker and Hatfield, Bull. Chicago Acad. Sci., 6(3):45, 1941): Quincy; Urbana. *Indiana* (Lyon, Amer. Midland Nat., 17:73, 1936): Monroe County; Franklin Co. *Ohio* (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., 5(6):115, 1942: Hamilton Co.; Smoky Creek. *West Virginia* (Kellogg, Proc. U. S. Nat. Mus., 84:449, 1937): Charleston; Smoke Hole Cave. *Pennsylvania* (Rhoads, Mamms. Pa. and N. J., p. 211, 1903): Carlisle; Germantown. *New Jersey*: Haddonfield (Rhoads, Mamms. Pa. and N. J., p. 211, 1903). *Florida*: Tarpon Springs (Sherman, Proc. Florida Acad. Sci., p. 107, 1936). *Texas*: Brownsville (Bailey, N. Amer. Fauna, 25:211, 1905); Comstock (Bailey, *loc. cit.*); Kerr Co. (Taylor and Davis, Game, Fish and Oyster Comm. Bull., 50:17, 1947). *Oklahoma*: 10 mi. S and 2 mi. E Sulphur (Blair, Amer. Midland Nat., 22:100, 1939).

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Diagnosis.—Size large; eight specimens from Barber and Butler counties, Kansas, measure in total length, 84(77-89); tibia, 14.8(14.5-15); forearm, 33.5(31.8-35.3); greatest length of skull (exclusive of incisors), 12.8(12.3-13.1); breadth of braincase immediately above roots of zygomatic arches, 6.5(6.4-6.7). Color ranging from Snuff Brown to Sayal Brown.

***Pipistrellus subflavus obscurus* Miller**

Pipistrellus subflavus obscurus Miller, N. Amer. Fauna, 13:93, October 16, 1897.

Type locality.—Lake George, Warren County, New York.

Range.—From southern Quebec and southern Ontario south to southern Ohio and West Virginia; from the Atlantic Coast west into Wisconsin. Marginal occurrences are: *Minnesota*: St. Peter (Swanson and Evans, Jour. Mamm., 17:39, 1936); Marine (Swanson, Tech. Bull. No. 2, Minnesota Dept. Conservation, p. 60, 1945). *Wisconsin*: Hurley (Greeley and Beer, Jour. Mamm., 30:198, 1949). *Quebec*: Joliet (Anderson, Nat. Mus. Canada, Biol. ser. No. 31, Bull. 102:30, 1946). *Vermont*: Brandon (Osgood, Jour. Mamm., 19:436, 1938). *Maine*: No locality more precise than the state (Allen, Occ. Papers Boston Soc. Nat. Hist., 7(3):35, June, 1904). *New York*: Hastings on Hudson (Rowley, Abstr. of Proc. Linnean Soc. N. Y., for yr. ending March 11, 1902, p. 57). *Pennsylvania*: Beaver (Rhoads, Mamms. Pa. and N. J., 1903, p. 211). *West Virginia*: Cornwall's Cave (Frum, Jour. Mamm., 25:195, 1944). *Ohio*: Cat Run (Bole and Moulthrop, Sci. Publ. Cleveland Mus. Nat. Hist., 5(6):116, 1942); Symmes Creek (Bole and Moulthrop, *loc. cit.*); Dry Cave (Bole and Moulthrop, *loc. cit.*); "Union County" (Rausch, Jour. Mamm., 27:275, 1946). *Wisconsin*: Devils Lake (Jackson, Jour. Mamm., 1:38, 1919).

Diagnosis.—"... color duller and less yellow, and dark tips of shorter hairs on back more conspicuous" than in *P. subflavus subflavus* according to the original description.

Remarks.—No one, as far as we know, has carefully studied the variation in *Pipistrellus subflavus* of the United States and Canada since Miller named *P. s. obscurus*. With the more abundant material now available, such an appraisal would be worth-while. The occurrences cited above for Minnesota and Wisconsin were recorded in the literature under the specific name without indication of subspecific affinity. The reference of specimens from these states to the subspecies *P. s. obscurus* is an arbitrary assignment on our part; we have not seen them. However, two specimens in the University of Kansas Museum of Natural History from Potosi (Snake Cave) Grant County, Wisconsin, are referable to *P. s. obscurus*. These provide the southwesternmost record station of occurrence in Wisconsin but are not shown on the distribution map because the specimens were received after [figure 1](#) was prepared.

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It is noteworthy that the species *Pipistrellus subflavus* has not yet, as far as we can ascertain, been recorded from Michigan, northern Indiana, northern Illinois, or Iowa. Probably the species occurs in these areas.

Pipistrellus subflavus veracrucis (Ward)

Vesperugo veracrucis Ward, Amer. Nat., 25:745, August, 1891.

Pipistrellus veracrucis Miller, N. Amer. Fauna, 13:93, October 16, 1897.

Type locality.—Las Vigas, 8,500 ft., Veracruz.

Range.—Eastern Mexico, certainly from the type locality southward into Honduras. Records of occurrence are: *Veracruz*: Las Vigas (13 specimens from 4 km. E Las Vigas, 8,500 ft., K. U.); 30 km. SSE Jesús Carranza, 1 (K. U.). *Honduras*: Jilamo Farm, Tela District, 3 (Univ. Michigan).

Diagnosis.—Size small for the species; measurements of 13 near topotypes are: total length, 78(73-85); tibia, 12.9(11.8-14.7); forearm, 31.8(29.5-33.1); greatest length of skull (exclusive of incisors), 12.2(11.8-12.6); breadth of braincase immediately above roots of zygomatic arches, 6.3(6.0-6.7). Color darker than Mummy Brown above and below.

Remarks.—The specimen from thirty kilometers south-southeast of Jesús Carranza, Veracruz, and the three specimens from Honduras agree in all respects with topotypes. The color of *P. s. veracrucis* is much darker than that of *P. s. obscurus* and is between black and the darkest brown in Ridgway's (*op. cit.*) color key. Rinker (Jour. Mamm., 29:179-180, 1948) described the three specimens from Honduras without assigning a specific name to them because he lacked topotypes of *P. s. veracrucis*. We find nothing in his description to correct, but can add that the upper tooth-rows in many, but not in all, specimens of *P. s. veracrucis* are straighter than in *P. s. subflavus*. Probably it was this feature to which Rinker referred when he said that in *veracrucis* "The tooth rows tend to be more convergent posteriorly." Rinker did not refer the three specimens from Honduras to *P. veracrucis* because Ward's original description states that *veracrucis* has evenly spaced lower incisors and a basal cusp on the lower canine on only its forward edge. Rinker's specimens from Honduras have the first incisors in contact with each other, the second incisors in contact with the first incisors and the third incisor on each side of the lower jaw separated by a space from the second incisor and from the canine. The specimens from Honduras have a basal cusp on the hinder edge of the lower canine. In these two features they agree with the specimens from Veracruz and with specimens of *Pipistrellus subflavus* from the United States and Canada. It is clear that Ward (Amer. Nat., 25:747, 1891) was mistaken in stating that the lower incisors of *veracrucis* were evenly spaced and that the canine had a basal cusp on only the forward edge. Ward (*loc. cit.*) was correct in regarding his *Vesperugo veracrucis* as "most closely related to *V. georgianus* [= *Pipistrellus subflavus*]," but for want of actual specimens of *P. subflavus* to use in comparison was incorrect in supposing that *P. subflavus* had only two bands of color on the fur, more hair on the legs, and a larger area of hair on the interfemoral membrane. In these respects we perceive no difference between specimens from Veracruz and the United States.

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Vesperugo veracrucis Ward, therefore, proves to be only a subspecies of *Pipistrellus subflavus*, but is well characterized by dark color and small size.

University of Kansas Museum of Natural History, Lawrence, Kansas.

Transmitted October 31, 1949.



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*** END OF THE PROJECT GUTENBERG EBOOK A SYNOPSIS OF THE AMERICAN BATS OF THE GENUS PIPISTRELLUS ***

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