

SMITHSONIAN INSTITUTION
UNITED STATES NATIONAL MUSEUM
BULLETIN 187

AN ANNOTATED CHECKLIST
AND KEY TO THE SNAKES
OF MEXICO

By

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UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1945

in Mexico from the states of Campeche, Chiapas, and Veracruz; probably occurs also in northern Oaxaca and in Tabasco).

IMANTODES SPLENDIDUS OLIVERI Smith

Imantodes splendidus oliveri SMITH, Proc. U. S. Nat. Mus., vol. 92, 1942, pp. 388-390; vol. 93, 1943, pp. 436-437.

Type.—Mus. Comp. Zool. No. 27800.

Type locality.—Tapanatepec, Oaxaca.

Range.—Pacific lowlands from western Chiapas northwestward probably to Nayarit (definite records are available only from Chiapas and Oaxaca; probably referable is a record from Colima and another from Nayarit).

IMANTODES TENUISSIMUS Cope

Himantodes tenuissimus COPE, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, 1866 (1867), pp. 317-318.

Imantodes tenuissimus HARTWEG and OLIVER, Misc. Publ. Mus. Zool. Univ. Michigan, No. 47, 1940, p. 24.

Imantodes gemmistratus SCHMIDT and ANDREWS (*nec* Cope), Publ. Field Mus. Nat. Hist., zool. ser., vol. 20, 1936, pp. 177-178.

Type.—U.S.N.M. No. 6563.

Type locality.—Yucatán.

Range.—Yucatán Peninsula (known only from a few localities in Campeche, Quintana Roo, and Yucatán).

Genus LAMPROPELTIS Fitzinger

Lampropeltis FITZINGER, Systema reptilium, 1843, p. 25.—BLANCHARD, U. S. Nat. Mus. Bull. 114, 1921, pp. 1-260, figs. 1-78 (generic revision).—SMITH, Proc. Rochester Acad. Sci., vol. 8, 1942, pp. 196-207, pl. 1 (brief summary of Mexican members of the *triangulum* group).

Bellophis LOCKINGTON, Proc. California Acad. Sci., vol. 7, 1876, p. 52 (type, *B. zonatus* Lockington=*Coluber zonatus* Blainville).

Oreophis DUGÈS, Proc. Zool. Soc. London, 1897, pp. 284-285 (type, *O. boulengeri* Dugès=*Ophibolus triangulus mexicanus* Garman).

Genotype.—*Herpetodryas getulus* Schlegel.

Range.—Extreme southern Canada (western part only) through most of the United States, Mexico, and Central America into South America.

Species.—In all, 43 species and subspecies are known, 24 of which occur in Mexico.

KEY TO MEXICAN FORMS OF LAMPROPELTIS

1. Pattern of very narrow, widely separated cross bands of black, some of the bands usually mixed or split with red..... **alternata**
 Pattern not as described above..... 2
2. Pattern without red, of two colors (black or brown, and white)..... 3
 Pattern with red, of three colors..... 9

3. A middorsal longitudinal stripe, complete or interrupted; no transverse markings 4
 No longitudinal stripes; cross bands present..... 6
4. Dorsal stripe white or yellow, sharply defined on a dark brown or black ground color..... *californiae*
 Dorsal stripe poorly defined, brownish..... 5
5. Dorsal stripe lighter than sides, belly uniformly stippled, brown..... *nitida*
 Body uniform brownish above, lateral scales with light centers; belly mostly black, marbled with whitish..... *catalinensis*
6. Most of scales in light cross bands with dark bases..... 7
 Most of scales in light cross bands entirely light..... *getulus boylii*
7. Light cross bands separating narrow dark blotches that do not reach ventral scales; lateral scales white-centered..... *getulus splendida*
 Light cross bands separating broader dark rings that are unmarked with white, even laterally (except on ventrals)..... 8
8. White bars on prefrontals occupying less than half area of these scutes; frontal plate uniform black, or with white restricted to a narrow, transverse bar at its anterior end; no white on parietals; infralabials usually 9..... *getulus yumensis*
 White bars on prefrontals occupying more than half area on these plates; frontal plate with prominent white markings, or at least with a central spot of white; each parietal with one or more white spots; infralabials usually 10..... *getulus conjuncta*
9. A zigzag lateral white line on third and fourth scale rows; red bands (blotches) numerous (70 in types), only a few broken by contact of adjacent black borders..... *knoblochi*
 No such lateral line; red bands (blotches) rarely so numerous, and when about 70, most are broken medially by contact of adjacent black borders 10
10. Pattern of dark-edged dorsal blotches of red, not reaching outer scale row..... 11
 Pattern in rings, or of blotches many of which reach outer scale row..... 12
11. No markings on sides of body; blotches on body 27, separated from each other by twice (or more) their own length, areas between covering four to seven scale lengths..... *leonis*
 Irregular markings on sides of body; blotches on body 31 to 47, space between covering one and one-half scale lengths (less than length of a single blotch)..... *mexicana*
12. White rings or cross bands on body and tail more than 40..... *pyromelana*
 White rings less than 40..... 13
13. Scales in red areas black-tipped..... 14
 Scales in red areas not black-tipped..... 17
14. Red rings narrowed middorsally by expansion of black rings, which sometimes meet across red areas; latter seldom longer than a single black ring middorsally..... 15
 Red rings not distinctly narrowed middorsally, longer than black rings.... 16
15. Snout entirely black or with reddish light areas; total white rings usually 33 or more..... 23
 Snout with irregular white patches, or a white transverse band; total white rings usually less than 33..... *triangulum arcifera*
16. Ventrals 208 to 239, usually 220 or more; white annuli on body and tail 18 to 35, usually 21 or more..... *triangulum polyzona*
 Ventrals 203 to 219; annuli on body and tail 17 to 22, usually 20 or less. *triangulum blanchardi*

Lampropeltis californiae VAN DENBURGH, Occ. Pap. California Acad. Sci., vol. 5, 1897, p. 172; vol. 10, 1922, pp. 265-267, pl. 83.

Type.—Mus. Hist. Nat. Paris.

Type locality.—California.

Range.—Northern Baja California northward through southern California to southern San Joaquin Valley.

LAMPROPELTIS CATALINENSIS Van Denburgh and Slevin

Lampropeltis catalinensis VAN DENBURGH and SLEVIN, Proc. California Acad. Sci., ser. 4, vol. 11, 1921, pp. 397-398.

Type.—Calif. Acad. Sci. No. 50514.

Type locality.—Santa Catalina Island, Gulf of California.

Range.—The type locality.

LAMPROPELTIS GETULUS BOYLII (Baird and Girard)

Ophibolus boylii BAIRD and GIRARD, Catalogue of North American reptiles, 1853, pp. 82-83.

L. [ampropeltis] getulus boylii BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 87, 1920, p. 3.—VAN DENBURGH, Occ. Pap. California Acad. Sci., vol. 10, 1922, pp. 752-756, pls. 81-82.

Type.—U.S.N.M. No. 1698.

Type locality.—El Dorado County, Calif.

Range.—California, southern Oregon, Nevada, Utah, western Arizona, and northern Baja California.

LAMPROPELTIS GETULUS CONJUNCTA Cope

Lampropeltis boylii conjuncta COPE, Proc. Acad. Nat. Sci. Philadelphia, vol. 13, 1861, pp. 301-302, 305.

L. [ampropeltis] getulus conjuncta BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 87, 1920, p. 4; U. S. Nat. Mus. Bull. 114, 1921, pp. 89-93, fig. 21.—LINSDALE, Univ. California Publ. Zool., vol. 38, 1932, p. 378.—KLAUBER, Herpetologica, vol. 1, No. 1, 1936, pp. 24-26.

Type.—U.S.N.M. No. 5288, three cotypes.

Type locality.—Cape San Lucas, Baja California.

Range.—Central and southern Baja California.

LAMPROPELTIS GETULUS SPLENDIDA (Baird and Girard)

Ophibolus splendidus BAIRD and GIRARD, Catalogue of North American reptiles, 1853, p. 83.

L. [ampropeltis] g. [etulus] splendidus WRIGHT and BISHOP, Proc. Acad. Nat. Sci. Philadelphia, vol. 67, 1915, p. 168.—BLANCHARD, U. S. Nat. Mus. Bull. 114, 1921, pp. 26-32, figs. 1, 3, 8, 29, 30, 31.

Type.—U.S.N.M. No. 1726.

Type locality.—Sonora.

Range.—Southern central Oklahoma and southeastern Arizona south into the extreme northern portions of Mexico; in Mexico from

northeastern Sonora east to northwestern Tamaulipas (recorded in Mexico only from "Sonora" and Río Santa María and San Diego, Chihuahua).

LAMPROPELTIS GETULUS YUMENSIS Blanchard

Lampropeltis getulus yumensis BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 70, 1919, pp. 6-11, pl. 1, fig. 2.

Type.—U.S.N.M. No. 61318.

Type locality.—Twenty-seven miles west of Indian Oasis, Pima County, Ariz.

Range.—Southern Arizona (except southeast corner) and southeastern California as far north as Blythe and as far west as Seeley, south into northeastern Baja California and northwestern Sonora (recorded in mainland Mexico only from Santo Domingo, Sonora).

LAMPROPELTIS KNOBLOCHI Taylor

Lampropeltis knoblochi TAYLOR, Copeia, 1940, No. 4, pp. 253-255, figs. 1-2.

Type.—E. H. Taylor-H. M. Smith Coll. No. 23017.

Type locality.—Mojarachic, Chihuahua.

Range.—Known only from the type locality.

LAMPROPELTIS LEONIS (Günther)

Coronilla leonis GÜNTHER, Biologia Centrali-Americana, Rept., 1893, p. 110, pl. 39, fig. A.

Lampropeltis leonis BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 87, 1920, p. 4.—SMITH, Proc. Rochester Acad. Sci., vol. 8, 1942, pp. 205-206.

Type.—Brit. Mus. Nat. Hist.

Type locality.—Nuevo León.

Range.—Known only from the type locality.

LAMPROPELTIS MEXICANA (Garman)

Ophibolus triangulus mexicanus GARMAN, Mem. Mus. Comp. Zool., vol. 8, No. 3, 1883, pp. 66, 155.

L.[ampropeltis] mexicana BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 87, 1920, p. 7; U. S. Nat. Mus. Bull. 114, 1921, pp. 245-247, fig. 77.—SMITH, Proc. Rochester Acad. Sci., vol. 8, 1942, pp. 202-203, pl. 1, figs. 2, 3 (dorsal and ventral views of *O. boulengeri*, type).

Oreophis boulengeri DUGÈS, Proc. Zool. Soc. London, 1897, pp. 284-285, figs. a-h (type locality, Sierra de Santa Rosa, Guanajuato; type in Mus. Alfredo Dugès, Univ. Guanajuato, Mexico).

Type.—Mus. Comp. Zool. Nos. 4652-3, two cotypes.

Type locality.—Near San Luis Potosí, San Luis Potosí.

Range.—Central Guanajuato to central San Luis Potosí (known from Sierra de Santa Rosa, Guanajuato, and Alvarez and San Luis Potosí, San Luis Potosí).

LAMPROPELTIS NITIDA Van Denburgh

Lampropeltis nitida VAN DENBURGH, Proc. California Acad. Sci., ser. 2, vol. 5, 1895, p. 143, pl. 14.—KLAUBER, Herpetologica, vol. 1, 1936, pp. 24-26.

L.[ampropeltis] californiae nitida BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 87, 1920, p. 3.—LINSDALE, Univ. California Publ. Zool., vol. 38, 1932, p. 378.

Type.—Calif. Acad. Sci. No. 800.

Type locality.—San José del Cabo, Baja California.

Range.—The Cape region of Baja California.

LAMPROPELTIS PYROMELANA (Cope)

Ophibolus pyromelanus COPE, Proc. Acad. Nat. Sci. Philadelphia, vol. 18, 1866 (1867), p. 305.

Lampropeltis pyrrhomelaena STEJNEGER, Proc. U. S. Nat. Mus., vol. 25, 1902, pp. 152-153.—BLANCHARD, U. S. Nat. Mus. Bull. 114, 1921, pp. 231-236, figs. 5, 62 (map), 71.

Lampropeltis pyromelana VAN DENBURGH, Occ. Pap. California Acad. Sci., vol. 10, 1922, pp. 746-748, pl. 79.

Type.—U.S.N.M. No. 7845, a cotype.

Type locality.—Fort Whipple, Ariz.

Range.—Northern Utah through southeastern Arizona to central Chihuahua and eastern Sonora (recorded in Mexico from Distrito Guerrero and San Diego, *Chihuahua*, and El Tigre Mountains, *Sonora*).

LAMPROPELTIS RUTHVENI Blanchard

Lampropeltis ruthveni BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 81, 1920, pp. 8-10, pl. 1, fig. 2.—TAYLOR, Univ. Kansas Sci. Bull., vol. 26, 1939 (1940), pp. 464-465.

Type.—U.S.N.M. No. 46558.

Type locality.—Pátzcuaro, Michoacán.

Range.—Mountains of central Michoacán (Pátzcuaro, El Sabino, and 15 km. east of Morelia).

LAMPROPELTIS THAYERI Loveridge

Lampropeltis thayeri LOVERIDGE, Occ. Pap. Boston Soc. Nat. Hist., vol. 5, 1924, pp. 137-138.—SMITH, Publ. Field Mus. Nat. Hist., zool. ser., vol. 29, 1944, pp. 140-142, fig. 18 (phylogenetic tree).

Type.—Mus. Comp. Zool. No. 19551.

Type locality.—Miquihuana, Tamaulipas.

Range.—Known only from the type locality and near Galeana, *Nuevo León*.

LAMPROPELTIS TRIANGULUM ANNULATA Kennicott

Lampropeltis annulata KENNICOTT, Proc. Acad. Nat. Sci. Philadelphia, vol. 12, 1860, p. 329.

L.[ampropeltis] triangulum annulata BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 87, 1920, p. 5.

Type.—Acad. Nat. Sci. Phila. No. 3613.

Type locality.—Matamoros, Tamaulipas.

Range.—Extreme southern Texas to central eastern Nuevo León and probably to southern Tamaulipas, west to central Coahuila (recorded in Mexico from Cadereita, Mamulique Pass, Montemorelos, and Monterrey, *Nuevo León*; Matamoros, *Tamaulipas*; and Músquiz, *Coahuila*).

LAMPROPELTIS TRIANGULUM ARCIFERA (Werner)

Coronella micropholis arcifera WERNER, Zool. Anz., vol. 26, 1903, p. 250.

Lampropeltis triangulum arcifera SMITH, Proc. Rochester Acad. Sci., vol. 8, 1942, pp. 198-199, pl. 1, fig. 1 (dorsal view).

Lampropeltis triangulum annulata BLANCHARD, U. S. Nat. Mus. Bull. 114, 1921, pp. 159-164 (part), fig. 66 (fig. is not of typical *annulata* but of *t. arcifera*).

Type.—Naturh. Mus. Brussels.

Type locality.—Mexico.

Range.—Mountains from Morelos and eastern Michoacán eastward to the edge of the plateau in central Veracruz; probably southward in central Oaxaca (recorded from Mexico (city), *Distrito Federal*; 15 km. west of Morelia, *Michoacán*; Cautla, *Morelos*; Necaxa, *Puebla*; Zacualtipán, *Hidalgo*; Orizaba and Mirador, *Veracruz*; and "Tehuantepec").

LAMPROPELTIS TRIANGULUM BLANCHARDI Stuart

Lampropeltis polyzona blanchardi STUART, Occ. Pap. Mus. Zool. Univ. Michigan, No. 309, 1935, pp. 1-6.—TAYLOR, Univ. Kansas Sci. Bull., vol. 26, 1939 (1940), p. 467, pl. 49.

Lampropeltis [*triangulum*] *blanchardi* DUNN, Occ. Pap. Mus. Zool. Univ. Michigan, No. 353, 1937, p. 8.

Type.—U. S. N. M. No. 68239.

Type locality.—Chichen Itzá, Yucatán.

Range.—Lowlands of Yucatán and the uplands and humid lowlands of Guerrero south of the Balsas Basin; apparently not continuous across the Isthmus of Tehuantepec (recorded from Acapulco, Amula, Chilpancingo, El Limoncito, San Luis Allende, Tierra Colorada, *Guerrero*; and several localities in *Yucatán*).

LAMPROPELTIS TRIANGULUM NELSONI Blanchard

Lampropeltis triangulum nelsoni BLANCHARD, Occ. Pap. Mus. Zool. Univ. Michigan, No. 81, 1920, pp. 6-8, table, pl. 1, fig. 1.

Type.—U. S. N. M. No. 46552.

Type locality.—Acámbaro, Guanajuato.

Range.—Mountains from eastern Guanajuato to Colima, northward to Sinaloa (recorded from one or two localities in each of the states of Colima, Guanajuato, Jalisco, Michoacán, Nayarit, Sinaloa, and Zacatecas, and from Isabel Island).

LAMPROPELTIS TRIANGULUM OLIGOZONA (Bocourt)

Coronella formosa oligozona BOCOURT, Mission scientifique au Mexique et dans l'Amérique centrale, Rept., livr. 10, 1886, pp. 614-615, pl. 39, fig. 8 (in color).
Lampropeltis triangulum oligozona SMITH, Proc. Rochester Acad. Sci., vol. 8, 1942, pp. 201-202.

Type.—Mus. Hist. Nat. Paris, two cotypes.

Type locality.—"Tehuantepec."

Range.—Foothills on Pacific slopes of southern Guatemala north-westward through the mountains of southern Chiapas to the Isthmus of Tehuantepec (only definite locality in Mexico is Huehuetán, *Chiapas*).

LAMPROPELTIS TRIANGULUM POLYZONA Cope

Lampropeltis polyzona COPE, Proc. Acad. Nat. Sci. Philadelphia, vol. 12, 1860, p. 258.—DITMARS, Snakes of the world, 1931, pl. 22 (lower fig.).

Lampropeltis triangulum polyzona DUNN, Occ. Pap. Mus. Zool. Univ. Michigan, No. 353, 1937, p. 1.—SMITH, Proc. Rochester Acad. Sci., vol. 8, 1942, pp. 200-202.

Type.—Acad. Nat. Sci. Phila. No. 9770.

Type locality.—Cuatupe, near Jalapa, Veracruz.

Range.—Central Veracruz southward into Guatemala and British Honduras (recorded from numerous localities in *Veracruz*, *San Cristóbal*, *Oaxaca*, *Macuspana* and *Teapa*, *Tabasco*, and *San Diego*, *Puebla*).

LAMPROPELTIS TRIANGULUM SCHMIDTI Stuart

Lampropeltis triangulum schmidti STUART, Occ. Pap. Mus. Zool. Univ. Michigan, No. 323, 1935, pp. 1-3.

Type.—Brit. Mus. Nat. Hist. No. 81.10.1.97.

Type locality.—Tres Mariás Islands.

Range.—The type locality and the adjacent mainland (known definitely only from *María Madre Island* and from *Tenacatita Bay*, *Jalisco*).

LAMPROPELTIS ZONATA ZONATA (Lockington ex Blainville)⁴²

?*Coluber (Zacholus) zonatus* BLAINVILLE, Nouv. Ann. Mus. Hist. Nat. Paris, ser. 3, vol. 4, 1835, p. 293 (type locality, California; type lost).

⁴² Klauber (Bull. Zool. Soc. San Diego, No. 18, 1943, pp. 44-46) shows that, although the coral kingsnake, of all known in western United States, fits best the description of *Coluber zonatus* Blainville, the information given is so scanty that association of the name with any species is dubious. In brief, Klauber considers Blainville's name unidentifiable as of 1943, although in 1936 Blanchard (in Burt, Copeia, 1936, pp. 96-97) accepted its identifiability with the coral kingsnake. Of the earlier reviewers of the species, Stejneger (Proc. U. S. Nat. Mus., vol. 25, 1902, p. 153) regards the name unidentifiable, while Van Denburgh (*loc. cit.*) accepts it. The preponderance of opinion and weight of argument, however, appear to favor consideration of Blainville's name as unidentifiable even as of the time of its publication.

Although rejected by Peters (Copeia, 1938, p. 93) the reasoning expressed by Hubbs (in Burt, *op. cit.*, pp. 95-96), based primarily on Opinion 97 of the International Commission on Zoological Nomenclature, is upheld by Opinion 126. The latter implicitly recommends that names not adequately diagnosed as of the time of publication can be used by any author for a later diagnosis of a species that may reasonably be the same as the original, and that only if the later name be applied to a clearly different species than the original can

- Bellophis zonatus* LOCKINGTON, Proc. California Acad. Sci., ser. 1, vol. 7, 1876, pp. 52-53.
- Lampropeltis zonata* VAN DENBURGH (part), Occ. Pap. California Acad. Sci., vol. 5, 1897, pp. 167-169; vol. 10, 1922, pp. 748-751, pl. 80.
- Lampropeltis zonata zonata* KLAUBER, Trans. San Diego Soc. Nat. Hist., vol. 10, 1943, p. 76.
- Coronella multifasciata* BOCOURET, Mission scientifique au Mexique et dans l'Amérique centrale, Rept., livr. 10, 1886, pp. 616-617, pl. 40, fig. 2 (type locality, California; type in Mus. Hist. Nat. Paris).
- Lampropeltis multicincta multifasciata* KLAUBER, Trans. San Diego Soc. Nat. Hist., vol. 10, 1943, pp. 75-82.

Type.—Destroyed.

Type locality.—Santa Barbara, Calif.

Range.—"The Coast Range of California from Del Norte County south to northern Lower California, where it intergrades with *L. m. agalma* in the Sierra Juarez."

LAMPROPELTIS ZONATA AGALMA Van Denburgh and Slevin

- Lampropeltis agalma* VAN DENBURGH and SLEVIN, Proc. California Acad. Sci., ser. 4, vol. 13, 1923, p. 2.
- Lampropeltis multicincta agalma* KLAUBER, Trans. San Diego Soc. Nat. Hist., vol. 10, 1943, pp. 75-82.
- Lampropeltis zonata agalma* KLAUBER, *ibid.*, p. 76.

Type.—Calif. Acad. Sci. No. 56856.

Type locality.—Alcatraz, San Pedro Mártir Mountains, Baja California.

Range.—The San Pedro Mártir Mountains, Baja California.

LAMPROPELTIS ZONATA HERRERAE Van Denburgh and Slevin

- Lampropeltis herrerae* VAN DENBURGH and SLEVIN, Proc. California Acad. Sci., ser. 4, vol. 13, 1923, p. 2.
- Lampropeltis multicincta herrerae* KLAUBER, Trans. San Diego Soc. Nat. Hist., vol. 10, 1943, pp. 75-82.

Type.—Calif. Acad. Sci. No. 56755.

Type locality.—South Todos Santos Island, Baja California.

Range.—The type locality.

Genus LEPTODEIRA Fitzinger

- Leptodeira* FITZINGER, Systema reptilium, 1843, p. 27.—DUNN, Proc. Nat. Acad. Sci., vol. 22, 1936, pp. 689-698 (brief review of North American species).—TAYLOR, Univ. Kansas Sci. Bull., vol. 25, 1938 (1939), pp. 315-342, pls. 30-34 (Mexican species).

it be considered a homonym suppressed by the earlier name. If the decision of the Opinions be followed, and Blainville's name be considered unidentifiable, then as Hubbs maintained Lockington's name is valid nomenclaturally and, under the circumstances, zoologically as well.

The style of authorship quotation used for this name is that recommended by Opinion 126.