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## Some Mexican Serpents

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ABSTRACT: The following species of Mexican snakes are discussed: *Loxocemus bicolor* Cope; *Loxocemus sumichrasti* Bocourt; *Natrix valida* (Kennicott); *Ninia sebae sebae* (Duméril and Bibron); *Ninia diademata* Baird and Girard; *Geophis semidoliatus* (Duméril and Bibron); *Geophis blanchardi* Taylor and Smith; *Enulius unicolor* (Fischer); *Adelphicos quadivirgatus* Jan; *Diadophis regalis dougessii* (Villada); *Conopsis frontalis* (Cope); *Dryadophis boddaertii mexicanus* Stuart; *Dryadophis sleveni* Stuart; *Spilotes pullatus mexicanus* (Laurenti); *Elaphe mutabilis* (Cope); *Elaphe laeta* (Baird and Girard); *Elaphe chlorosoma* Günther; *Elaphe flavirufus* (Cope); *Salvadora mexicana* (Duméril and Bibron); *Pituophis deppei deppei* (Duméril and Bibron); *Pituophis lineaticollis* (Cope); *Lampropeltis ruthveni* Blanchard; *Lampropeltis triangulum nelsoni* Blanchard; *Lampropeltis triangulum annulata* (Kennicott); *Lampropeltis polyzona blanchardi* Stuart; *Lampropeltis polyzona polyzona* (Günther); *Pseudoleptodeira latifasciata* (Günther); *Hypsiglena torquata torquata* (Günther); *Urotheca elapoides elapoides* (Cope); *Tropidodipsas guerreroensis* sp. nov.; *Sibon nebulatus* (Linné); *Trimorphodon tau* Cope; *Trimorphodon bi-scutatus* (Duméril and Bibron); *Trimorphodon latifascia* (Peters); *Leptodeira septentrionalis* (Kennicott); *Leptodeira splendida* Günther; *Tantilla bocourti* Günther; *Tantilla rubra* Cope; *Tantilla martindalcampoi* Taylor; *Tantilla calamaria* Cope; *Micrurus nuchalis* Schmidt; *Micrurus laticollaris* (Peters); *Micrurus fitzingeri* (Jan); *Micrurus affinis affinis* (Jan); *Agkistrodon bilineatus* Günther.

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### *Loxocemus bicolor* Cope.

(Figure 1)

*Loxocemus bicolor* Cope, Proc. Acad. Nat. Sci. Philadelphia, 1861, p. 76 (type description: type locality, La Union, Salvador). Günther, Ann. Mag. Nat. Hist. Ser. (3), 1862, IX, p. 55; and Zool. Record 1864, p. 123 (Identifies *Plastoseryx* (!) *bronni* of Jan with *bicolor*; Cope, Bull. U. S. Nat. Mus.; No. 32, 1887, p. 64. Bocourt, Etude sur les Reptiles, Miss. Sci. au Mexique et dans l'Amér. Cent., Livr. 8, 1882, pp. 515-516, pl. 30, fig. 5, 5a-c (part.). Boulenger, Cat. Snakes Brit. Mus., 2d Ed. 1, 1893, p. 74-75 (part.). (Southern Mexico. Tehuán-tepec); Günther, Biologia Centrali-Americana, Reptilia, July, 1895, pp. 179-180 (Colima, Tehuán-tepec; Guatemala).

Cumbres (Tres Marias) near the summit of the range between Mexico City and Cuernavaca at an elevation between 9,000-10,000 feet. The first two specimens, both young, have been crushed by automobiles. The third specimen presents the following characters:

Rostral narrowly visible above; nasal divided; loreal longer than high; one preocular; two postoculars; upper labials, 9-9, the fourth, fifth and sixth border orbit (on left side the fourth only and a large subocular, the latter apparently segmented from the fifth or sixth labial); 12-12 lower labials, 4-5 touching the first pair of chinshields which are larger than second pair; latter widely separated by two or three scale rows (on the left side one is broken in two); only one pair of prefrontals. Scale formula, 35, 27, 27, 25, 21; ventrals, 238; subcaudals, 65; anal single.

Head light brown above, yellow below; two longitudinal black lines separated by  $3\frac{1}{2}$  scale rows, begin on neck and continue back about one-fifth the length of body; here they break up into paired, elongated spots which become larger farther back, and unite to form still larger black spots with brown centers; toward the posterior part of the body, the spots are smaller, blacker and the centers of only a few scales of the spots have brown centers; twelve spots on tail. Anteriorly the venter is immaculate yellow-cream with brownish marks on the ends of ventrals; farther back blackish spots appear near the middle of the ventrals growing more numerous under tail.

*Lampropeltis ruthveni* Blanchard

*Lampropeltis ruthveni* Blanchard, Occ. Papers, Univ. Michigan, No. 81, p. 8, pl. 1, fig. 2 (type description; type locality, Pátzcuaro, Michoacán, Mexico) and Bull. 114, U. S. Nat. Mus., 1921, p. 221, fig. 74.

I obtained an adult specimen of this rare snake (apparently known heretofore only from type) about 15 km. east of Morelia, Michoacán, in 1938 (EHT-HMS No. 5511).

The specimen agrees with the type in most details of color and markings. The head is black as far back as the posterior fifth of the parietals where the color forms a very broad angle; lower edges of the lip with occasional yellow flecks; the prefrontal and internasals with lighter flecks; chin yellow save on anterior labial sutures; the first black band begins one and one-half scale rows back of the parietals; there are 25 grayish-white rings encircling the body, becoming somewhat widened ventrally and yellowish-white in color. These rings are bordered by black rings which narrow, as they cross the ventrals, to the width of one ventral; the red bands separating the triads are narrowed on the dorsal surface

and rarely (two bands in front of anus) have the red bands almost completely obscured. On the tail there are five triads, separated by red bands which are equal in width to the black and gray triad.

Ventrals, 190; anal single; subcaudals, 50; scale formula 27-21-23-23-19-17; nasal divided; upper labial, 7-7, the third and fourth entering orbit; lower labials, 9-9, four touching the anterior chinshields; posterior chinshields somewhat smaller than anterior, separated from each other by small scales; separated from the first ventral by about four scales; frontal rather long, longer than its distance from the end of the snout (7.4 mm.  $\times$  5.7 mm.); two postoculars; one preocular nearly as wide as high (loreal on one side elongated and entering eye). Rostral visible above for a distance equal internasal suture; temporals, 1 + 3, 2 + 3.

Total length, 932 mm.; tail, 137 mm.; length of head, 30.5 mm.; width of head, 19 mm.

EHT-HMS No. 5438, an incomplete skin, obviously of this species, was collected by Dr. Hobart M. Smith at El Sabino, Uruapan, Michoacán.

*Lampropeltis triagulum nelsoni* Blanchard

*Lampropeltis triangulum nelsoni* Blanchard, Occ. Papers Mus. Zoöl., Univ. Michigan, No. 81, p. 6, fig. 1 (type description; type locality, Acámbaro, Guanajuato, Mexico); and Bull. U. S. Nat. Mus.; No. 114, 1921, pp. 155-158, fig. 65.

EHT-HMS No. 5253, obtained by Dr. Hobart M. Smith at El Sabino, Uruapan, Michoacán, has a color pattern very similar to that depicted by the figure given by Blanchard *loc. cit.* It presents the following scale characters: Ventrals, 224, subcaudals, 54; scale formula, 28, 21, 21, 19, 19; one preocular, two postoculars; nasal apparently divided; temporals, 2 + 3; 7-7 upper labials; lower labials, 9-9; snout with a whitish band followed by a blackish band; labials with yellow-cream spots; anterior labials flecked with black, also some black spots on anterior chinshields. The bands encircle the body; the white (yellowish) bands narrow somewhat on the sides then widen on belly; red bands are not interrupted below and lack small black spots. There is a total of 18 triads on body; the tail banded with black and white bands, seven of each, the black twice as wide as the white. In this form the posterior chinshields are equally as long as the anterior.

A second specimen belongs to the variety of *nelsoni* which Blanchard believes suggests intergradation with *annulatus*. In this specimen (EHT-HMS, 15868, 15 km. west of Morelia, Michoacán) the red bands are encroached upon both dorsally and ventrally until the

red appears as spots on the sides (sometimes the red spots barely touching medially).

Ventrals, 107; tail with tip missing; 18 triads on body; one on head; proximal bands on tail show no red; anterior and posterior chinshields equal; 7-7 upper labials; 9-9 lower labials; 1 pre- and two postoculars; loreal large; nasal not divided; temporals irregular, 1 + 3, 2 + 3; preoculars, very large, nearly as long as high.

*Lampropeltis triangulum annulata* (Kennicott)

*Lampropeltis annulata* Kennicott, Proc. Acad. Nat. Sci., Philadelphia, 1860, p. 329 (type description; type locality, Matamoros (Tamaulipas, Mexico)).

A typical specimen of this species was taken at Mamulique Pass, Nuevo León, in June, 1936 (EHT-HMS No. 5254). Ventrals, 197; caudals, 51; anal single; scales, 28, 21, 21, 19, 19; nasal distinctly divided; upper labials, 8-7 (the first apparently abnormally divided on the right side); 10-10 lower labials; labials 4, 5 (3, 4) enter orbit; preocular narrow, nearly twice as high as long; 18 triads on body (one on head); six cream bands on tail; the triads are fused posteriorly, only the first two on tail being separated by red; ventrally the cream bands encircle body but the red bands are interrupted (save anterior one) on the ventral surface by large black areas which connect with the black bands. Snout and head black to near posterior part of the parietals; lower labials largely black; cream bands with some pigment laterally.

*Lampropeltis polyzona polyzona* Cope

*Lampropeltis polyzona* Cope, Proc. Acad. Nat. Sci. Phila., 1860, p. 258 (type description; type locality Quatupe, near Jalapa, Mexico); Blanchard, Bull. U. S. Nat. Mus. No. 114, 1921, pp. 139-148, fig. 64.

Two specimens (EHT-HMS Nos. 5252, 5510) were collected by Mr. Dyfrig McH. Forbes at Potrero Viejo and presented to me. The first is quite typical and has the neck band encroaching on the parietals and including seventh and part of the sixth labial; this is preceded by a very narrow semicircular band; remainder of head black above save for yellowish-cream spots tending to form a band behind nostrils. Twenty-four triads on body; eight on tail; however, the last two or three are coalesced, eliminating the red; red bands nearly as wide as the triads; all scales tipped with black; dorsally the cream bands between the black bands are about one scale wide; all bands encircle body, but rarely the cream band is interrupted by a black spot.

No. 5510. The head markings of this specimen are similar to the preceding. The light, narrow band across the snout is complete.

Twenty-three groups of bands (black-yellow-black) on the body, but only five on the tail, the last two, only, fused to eliminate the last red band.

Scale data on the two specimens follow: Ventrals, ♂ 222, ♀ 238; subcaudals, 62, 57, scale formulae, 25-21-21-19-17, 25-23-23-21-19; upper labials, 7-7, 7-7; lower labials, 9-9; 10-10; preoculars, 1-2, 1-1; postoculars, 2-2, 2-2; temporals 2-3; 2-3. The larger (♀) specimen measures, total length, 1,125 mm.; tail, 155 mm.

*Lampropeltis polyzona blanchardi* Stuart

(Plate XLIX)

*Lampropeltis polyzona blanchardi* Stuart, Occ. Papers Mus. Zool., Univ. Michigan, Nos. 309, March 26, 1935, pp. 1-6 (type description; type locality, Valladolid Trail near Chicken Itzá, Yucatán).

Two specimens of a *Lampropeltis* collected at El Limoncito, about 15 km. north of Acapulco are referred to this form tentatively. The specimens show no evidence of mixture with *Lampropeltis triangulum nelsoni*.

The specimens (EHT-HMS Nos. 5512, 5513) have the following scale characters respectively: Ventrals, 217, 219; anal single; subcaudals, 52, 41; scale formulae, 28-21-21-19-19, 28-21-21-19-19; upper labials, 7-7, 7-7; labials enter eye, 3 & 4-3 & 4, 3 & 4-3 & 4; lower labials, 9-9, 9-9; labials touch first chinshields, 4-4, 4-4; triads (2 black bands, one dirty cream) on head, 1-1; on body, 15, 15; on tail, 4, 4.

The nasal is definitely single without division above or below the nostril; the second pair of chinshields are one-half or less the length of the first pair; one-half of the chin and the head to the back part of the parietals, solid black. The plate shows the detail of markings. Black red and yellow bands encircle body. Some of the red ventrals have some darker pigment. The scales of the cream bands have brownish-black spots, as do all of the red dorsal scales.

*Pseudoleptodeira latifasciata* (Günther)

*Pseudoleptodeira latifasciata* Taylor, Univ. Kansas Sci. Bull., XXV, 1938 (1939), pp. 343-344, pl. XXXI, fig. 4 (made type of genus).

Another specimen of this rare species was obtained at Huajintlán, Southern Morelos (km. 133). It presents the following characteristics: Nine bands on body; four on tail; typical red spot on head; ventrals, 182; subcaudals, 78; anal divided; upper labials, 8-8; lower labials, 10-10; posterior chinshields a little the longer; five scales between first ventral and last lower labial; scale formula, 25, 21, 21, 17, 16; two postoculars, two preoculars; temporals, 1 + 2 + 3; posterior maxillary teeth without grooves.