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## MEXICAN HERPETOLOGICAL MISCELLANY

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STUDIES on the reptiles from Mexico in the United States National Museum have brought to light a number of unnamed races and species. Some of them have been diagnosed elsewhere, and the present compilation includes the remaining notes that appear worthy of preliminary publication in advance of the contemplated complete summary. A large portion of the material on which the present notes are based was collected and studied during my tenure of the Walter Rathbone Bacon Traveling Scholarship of the Smithsonian Institution, to whose authorities I am greatly indebted.

The following notes have been segregated under nine subtitles:

- 1.—Six new species and subspecies of *Sceloporus*, with a redefinition of the *formosus* group.
- 2.—A new horned lizard from Durango.
- 3.—A tentative arrangement and key to Mexican *Gerrhonotus*, with the description of a new race.
- 4.—An unnamed *Celestus* from Mexico, with a key to mainland species of the genus.
- 5.—New xantusiid lizards.
- 6.—The Mexican subspecies of *Drymobius margaritiferus*.
- 7.—Notes on Mexican *Imantodes*.
- 8.—Two new snakes of the genus *Olelia*.
- 9.—Additional notes on *Conophis*.

### 1.—SIX NEW SPECIES AND SUBSPECIES OF SCELOPORUS, WITH A REDEFINITION OF THE FORMOSUS GROUP

Material recently obtained in Mexico, particularly by my wife and me in 1939 and 1940, during my tenure of the Walter Rathbone Bacon Traveling Scholarship of the Smithsonian Institution, has



necessitated a redefinition of the entire *formosus* group, as well as of the subspecies of *jarrovi* in the *poinsettii* group. One other subspecies, anticipated when the review of the Mexican species was written,<sup>1</sup> has been defined on the basis of material collected by Dr. E. H. Taylor at Omilteme, Guerrero. Still another race, also anticipated previously, has been defined in *melanorhinus* of the *spinosus* group.

I am much indebted to Dr. Taylor for assistance in collecting numerous specimens, for the gift of several obtained by him in regions not visited by me, and for the loan of his own material. I am also greatly indebted to Dr. L. C. Stuart for permitting me to examine material recently collected by him in Guatemala, without which a satisfactory allocation of northern Central American members of the *formosus* group would have been impossible.

**SCELOPORUS STEJNEGERI, new species**

*Holotype*.—U.S.N.M. No. 112634, an adult male from Tierra Colorada, Guerrero.

*Paratypes*.—Twenty, including U.S.N.M. Nos. 112635–112648, and EHT-HMS Nos. 22285–22287, 27299–27301, all topotypes, collected by E. H. Taylor, Richard Taylor, and H. M. Smith.

*Diagnosis*.—A member of the *formosus* group, with a complete or very nearly complete, black nuchal collar, not light bordered; supraoculars large, seldom with an outer row of small scales, all separated from median head scales; frontonasals normal, in contact with each other; 2 canthals; dorsals 37 to 42; scales around body 45 to 50; femoral pores 16 to 21; generally 4 scales (minimum count) from median frontonasal to rostral.

*Description of holotype*.—Head somewhat elongate, not shortened and thickened as in *spinosus* group; interparietal relatively large, larger than entire frontal; parietal short, subtriangular, not reaching posterior edge of interparietal; a small, rectangular frontoparietal on each side; posterior section of frontal in contact with interparietal, less than a third size of anterior section of frontal; frontal ridges prominent; five large supraoculars, separated from median head scales by one row of small scales, from superciliaries by one complete row of small scales and by one or two tiny, extra scales; small, azygous scale separating prefrontals medially; frontonasals large, in contact with each other, median the largest; a large (mutilated), transversely elongate scale in front of median frontonasal; three scales from latter to rostral; two canthals; a subnasal, loreal, and single preocular; subocular elongate, followed by two keeled postoculars; six superciliaries, five visible from above.

<sup>1</sup> Field Mus. Nat. Hist., zool. ser., vol. 26, 1939.



Snout somewhat mutilated; labiomentals not reaching mental; gular scales notched posteriorly; temporal scales keeled, mucronate; no distinct auricular lobules.

Dorsal scales keeled, strongly mucronate, with several lateral mucrones, 39 from occiput to base of tail; 47 scales around middle of body; femoral pores 18–19; 20–21 lamellae under fourth toe.

Snout to vent 94 mm.; tail 128 mm.; snout to posterior border of ear 21 mm.; fourth toe 21 mm.

*Color.*—Bluish green above (yellowish where scales are not shed), unmarked save by a broad, black, nuchal collar, complete dorsally, and narrowly continuous around throat; digits and tail not notably barred. Throat greenish yellow anteriorly, becoming dark blue posteriorly; chest white; sides of belly dark blue, these areas reaching to groin and nearly to axilla but not onto thighs, and separated medially by a narrow light area only two or three scales wide; blue patches not dark bordered medially; ventral surfaces of limbs bluish.

*Variation.*—The 20 paratypes have the frontoparietals separated by contact of frontal and interparietal, except in one in which they are separated by a small azygous scale. The prefrontals are in contact in 3, separated by contact of frontal and median frontonasal in 3, and separated by an azygous scale in 14. The canthals are 2 in all, the anterior never above the canthal ridge. The frontonasals are normal except in 1, in which the median is separated from one of the laterals; the supraoculars are generally 5, sometimes 4 or 6, usually in 1 row, sometimes with a few small scales representing an outer row. The lorilabials are reduced to 1 row below subocular on 1 side in 4, on both sides in 8; the remainder have 2 complete rows below the subocular. The scales from the median frontonasal to rostral are 4 or 5 (4, 11; 5, 9). Other variations in scale counts are given in Table 1.

The young have faint, diagonal light and dark marks on the sides of the body. Both young and females have narrow, interrupted, transverse dark bands, about seven on the body and one or two on the neck. The nuchal collar is regularly present and complete in all, although sometimes not very well defined (in discolored specimens).

*Comparisons.*—This species has a higher femoral pore count than any other of the group. The only ones with which it may be compared are *m. acanthinus*, *formosus*, and *asper*. The first rarely has 16 femoral pores (its maximum count, occurring 3 times in 84 counts), the supraoculars are generally in contact with the median head scales, and the maximum dorsal scale count is 39. In *formosus* the dorsal scales reach their maximum count at 37 (4 in 52), the internasals are larger, there is no single large scale preceding the median frontonasal, and the coloration is considerably different. In *asper* the dorsals are 35 or less, and the coloration is much different.



*Habits.*—The species was found only on the boulders in the amazingly rugged canyon at the city limits of the small town of Tierra Colorada. They are not common, and are exceedingly wary; in fact, only one adult male has been obtained.

*Remarks.*—The name *stejnegeri* appeared as a nomen nudum in 1939<sup>2</sup>. It was a lapsus for some other name, the identity of which is not apparent. It is a pleasure to fix the name for a species so distinct from others.

TABLE 1.—*Variation in scale counts of stejnegeri*

Catalog number	Sex	Dorsals	Scales around body	Femoral pores
U.S.N.M. 112635-----	♂	41	48	17-17
U.S.N.M. 112636-----	+	39	48	17-19
U.S.N.M. 112637-----	♂	41	46	16-18
U.S.N.M. 112638-----	+	41	49	17-17
U.S.N.M. 112639-----	+	39	-----	18-?
U.S.N.M. 112640-----	♂	39	-----	16-17
U.S.N.M. 112641-----	+	42	50	18-?
U.S.N.M. 112642-----	+	41	49	17-17
U.S.N.M. 112643-----	+	40	45	17-17
U.S.N.M. 112644-----	+	37	48	19-19
U.S.N.M. 112645-----	+	37	45	18-19
U.S.N.M. 112646-----	+	40	46	16-19
U.S.N.M. 112647-----	♂	41	46	16-17
U.S.N.M. 112648-----	♂	-----	-----	-----
EHT-HMS 22285-----	+	38	48	19-21
EHT-HMS 22286-----	♂	37	47	17-17
EHT-HMS 22287-----	+	41	50	20-20
EHT-HMS 27299-----	+	38	48	19-20
EHT-HMS 27300-----	+	39	46	18-18
EHT-HMS 27301-----	+	-----	50	18-20

**SCELOPORUS FORMOSUS SCITULUS, new subspecies**

*Holotype.*—EHT-HMS No. 26962, an adult male from Omilteme, Guerrero, collected August 2 to 4, 1940, by Richard C. Taylor and E. H. Taylor.

*Paratypes.*—EHT-HMS Nos. 26956-26961, 26963-26975, and U.S.N.M. Nos. 111827-111828, same data as holotype; U.S.N.M. No. 47738, a topotype<sup>3</sup>; Mus. Comp. Zool. Nos. 34228, 34230, from Chilpancingo, Guerrero.

*Diagnosis.*—Similar to Veracruz and Oaxaca *f. formosus*, except: Males with large, scattered, light blue spots on head; dorsal surface brilliant green, save a dark line down the adjacent edges of the

<sup>2</sup> Ibid., p. 70.

<sup>3</sup> This is a very young specimen, once referred by me to *mucronatus omiltemanus* (Univ. Kans. Sci. Bull., vol. 24, p. 594, 1936), before I was aware that other large species of *Sceloporus* occur in the region.



dorsal scale rows; posterior portion of throat (males) black, scales in median area black-edged with blue centers, scales anteriorly pale blue; no yellow or orange on throat; females and young of both sexes with parallel, longitudinal, alternating light and dark lines on neck.

*Description of holotype.*—Dorsal scales 30; scales around body 39; femoral pores 14–14; 2 canthals.

*Color.*—Dorsal surface of body brilliant green; continuous, parallel, longitudinal black lines following the edges of the dorsal scale rows; dorsal surface of head black, with a light spot on each parietal, on the interparietal, posterior section of frontal, both prefrontals, lateral frontonasals, posterior pair of internasals, and on several of the supraoculars and superciliaries; a large, black shoulder patch on each side, the two separated from each other by six scale rows; the black of shoulder patches continuous around neck; scales on posterior part of throat edged with black or very dark blue, the centers light blue; scales on anterior part of throat and chin pale blue with darker edges. Chest, a broad line down middle of abdomen, ventral surfaces of limbs and tail and preanal region all slightly bluish; sides of abdomen dark blue, and these areas with a narrow, poorly defined, black median border.

*Variation.*—Females lack the brilliant green and blue color of the males, but may have light spots on the head.

In the young the back is more or less uniform gray or slate; on the neck is a median longitudinal light line extending from the upper edge or slightly above the ear to the upper edge of the black shoulder patches; these are bordered medially by a narrow dark line of similar extent; these in turn bordered by a light line, which is separated from its mate by a median dark line; another light line extends from the posterior portion of the supralabial region through the ear and terminates abruptly on the middle of the neck; below this is another light line from ear to the black shoulder patches.

Females are marked much like the young, except that the neck markings are not quite so distinct; most distinct is the dorsolateral light line and its bordering dark line, from upper edge of ear to upper edge of the shoulder patch. Some adult females have light marks on the head, similar to males.

*Comparisons.*—There are no well-marked differences between *f. formosus* and *f. scitulus* in scutellation. The latter form has a lower average dorsal count than the former, but the range of variation of the one form overlaps that of the other too extensively to permit separation of any population on the basis of this character. Twenty-six of *f. scitulus* show a range from 30 to 34 (30, 4; 31, 7; 32, 4; 34, 4),



average 31.9; while 49 *f. formosus* show a range of from 32 to 37 (32, 8; 33, 11; 34, 9; 35, 11; 36, 6; 37, 4), average 34.2.

The only difference of recognizable significance between the two races is in pattern; in this there is a very striking divergence between them. Males, females, and young of *f. formosus* lack the longitudinal light and dark lines on the neck, and the scattered light spots on the head, of *f. scitulus*; and the adult males of the former are blue, not green as in the Guerrero race, lack the longitudinal dark lines on the dorsal surface of the body and have a broad yellow or orange area on the middle of the throat. In males of *f. scitulus* yellow or orange on the throat is completely absent, the whole throat being blue.

*Remarks.*—The race *f. scitulus* is illustrated in The Mexican and Central American Lizards of the Genus *Sceloporus*.<sup>4</sup>

**SCELOPORUS PREZYGUS, new species**

*Holotype.*—U.S.N.M. No. 46881, from Conjab, 5,300 feet, Chiapas (between San Bartolomé and Comitán). Collected by E. W. Nelson and E. A. Goldman.

*Diagnosis.*—A member of the *formosus* group, with 31 dorsal scales, supraoculars in 2 rows, 13 to 14 femoral pores, 2 canthals and median frontonasals separated from lateral frontonasals.

*Description of holotype.*—Head somewhat flattened and elongate; interparietal about three times as large as a parietal; a single parietal on each side, but little larger than a frontoparietal; latter single on each side; frontal narrowly in contact with interparietal; supraoculars in two rows; the scales of the inner row about twice as large as those of outer row, which is composed of three scales; supraoculars separated from median head scales by a complete row of granular scales, from superciliaries by one complete and another incomplete row of small scales; frontal in contact with median frontonasal; latter considerably larger than lateral frontonasals, separated from them by a small scale; scales in internasal area large, keeled, pitted, three from median frontonasal to rostral; two canthals; a large, elongate subnasal; three small loreals; preocular longitudinally divided, a large upper and small lower scale; an elongate subocular and two keeled postoculars; two complete rows of lorilabials below subocular; four supralabials and five infralabials to a point below middle of eye.

Two rows of labimentals, the outer not reaching mental, the inner extending anteriorly to a point even with the suture between the second and third infralabials; posterior gulars notched; temporal scales keeled, very feebly mucronate; three small auricular lobules, upper largest; scales between ear and lateral nuchal pocket more strongly

<sup>4</sup> Field Mus. Nat. Hist., zool. ser., vol. 26, pl. 1, 1939.



keeled and mucronate, with a number of fine, lateral mucrones; scales between lateral nuchal pocket and foreleg keeled, rather strongly mucronate, the largest larger than scales posterior to ear or in temporal region.

Dorsal scales keeled, mucronate and denticulate to a moderate degree, 31 from occiput to base of tail; 36 scales around middle of body; 13 to 14 femoral pores; 22 lamellae under fourth toe; snout to vent 77 mm.; tail 112 mm.; snout to posterior margin of ear 19.9 mm.; snout to occiput 15.9 mm.; fourth toe 21.7 mm.; hind leg 55.5 mm.

*Color.*—Dorsal surface yellowish gray (slightly bluish where scales are shed); a narrow, black nuchal collar, complete on dorsal surface, scarcely visible on throat; collar not extending onto arm, not over two scales in width. Dorsal surface otherwise unmarked. Gular region and chin uniform blue, except a gray area about throat in front of chest; latter white; sides of abdomen apparently lavender, with a broad border covering a width of three scales; latter extending from groin nearly to a line even with axilla, but not extending laterally anteriorly to enter axilla. Ventral surfaces of limbs and tail white.

*Remarks.*—This specimen was referred by me in 1936<sup>5</sup> to *serrifer*, although several of its peculiarities were pointed out; and in 1939<sup>6</sup> it was referred to *mucronatus omiltemanus*. Recent material from Chiapas and Guatemala has shown that the characters previously considered as anomalous have considerable significance. This specimen does not belong to *serrifer*, although the belly pattern is the same, since it has the supraoculars in two rows and the frontonasals separated from each other. The latter species is the nearest one of the *poinsettii* group; the more remote *omiltemanus* and its relatives, although having similar supraoculars, have the frontonasals in contact and a different belly pattern. In fact, it is believed that *prezygus* belongs to the *formosus* rather than to the *poinsettii* group, since it has a very narrow collar not light bordered (apparently). It differs widely from others of the *formosus* group, however, in having large dorsals, the frontoparietals separated from each other, supraoculars in two rows, etc. It appears to be a link between the *formosus* and *poinsettii* groups, in the same manner as *lunaei* and *acanthinus* are obviously links between the *formosus* and *spinosus* groups. All members of the latter group can be traced to *acanthinus* and *lunaei*, while all of the *poinsettii* group can be traced to *prezygus* and *serrifer*. The name *prezygus* refers to the phylogenetic position of this species, near the ancestral type of the collared (*poinsettii*) group of the genus.

<sup>5</sup> Kansas Univ. Sci. Bull., vol. 25, pp. 561, 562, 1936.

<sup>6</sup> Field Mus. Nat. Hist., zool. ser., vol. 26, p. 221, 1939.



Lynch, John D. 1967. "Two new species of the eleutherodactylus from Guatemala and Mexico." *Proceedings of the United States National Museum* 70, 177–183.

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