

REPTILIA: SQUAMATA: TROPIDURIDAE

LEIOCEPHALUS BARAHONENSIS

Catalogue of American Amphibians and Reptiles.

Powell, R. 1999. *Leiocephalus barahonensis*.

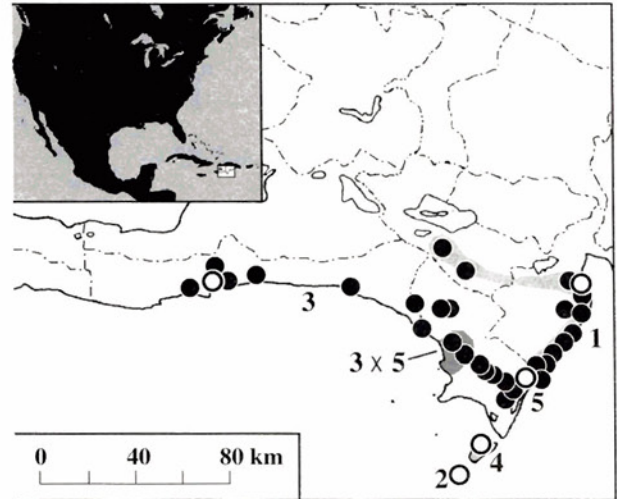
***Leiocephalus barahonensis* Schmidt**

Leiocephalus barahonensis Schmidt 1921:15. Type locality, "Barahona, [Barahona Province,] Santo Domingo [República Dominicana]." Holotype, American Museum of Natural History (AMNH) 2736, an adult male, collected by J.L. Phillips, 1912 (not examined by author).

[*Leiocephalus*], *p[ersonatus]*, *barahonensis*: Cochran 1932:177. *Leiocephalus personatus barahonensis*: Etheridge 1966:88. *Lapsus*.

• **CONTENT.** Five subspecies are currently recognized: *barahonensis*, *altavelensis*, *aureus*, *beatanus*, and *oxygaster* (but see Remarks).

• **DEFINITION.** *Leiocephalus barahonensis* is a medium-sized member of the genus (maximum SVL in males to 80 mm, in females to 65 mm) with the following combination of characters (Schwartz and Henderson 1991, Pregill 1992): nasal overlap of premaxillary spine complete, nasal-maxillary suture curved, nasal processes of frontal not exposed, frontal narrow, parietal table U-shaped in adults, supratemporal ventromedial, supratemporal process of squamosal indistinct, skull roof rugose, angular process of dentary well developed, transition to tricuspid crowns at tooth 10 or 11 on dentary, head scales smooth, 3 internasals with 2 usually in contact with rostral, 2 rows of scales between internasals and anterior pair of frontals and posterior row composed of 3 or a single pair of enlarged scales, supraoculars usually 6/6, supraorbital semicircles usually complete, single enlarged temporal scale, temporals 3–7, most lateral parietals larger than median pair, postparietals few or ab-



MAP. Distribution of *Leiocephalus barahonensis* (modified from Schwartz and Henderson 1991). Circles mark type localities, dots indicate other records.

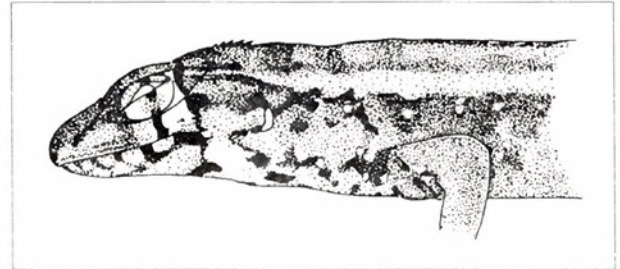


FIGURE 1. Lateral view of head and neck of the holotype of *Leiocephalus barahonensis oxygaster* (from Schwartz 1967).



FIGURE 2. Adult male *Leiocephalus barahonensis* from 3 km south of Los Tres Charcos, Provincia de Pedernales, República Dominicana.

sent, preauricular scale enlarged, loreals 2–8, 4 lorilabial scales anterior to enlarged subocular, lateral neck scales keeled and undifferentiated, lateral neck folds simple, nuchal fold transverse, dorsal scales imbricate and keeled, middorsal crest moderate with 42–57 dorsal crest scales in the distance from occiput to vent, lateral trunk scales not reduced, lateral fold on trunk absent, ventral scales imbricate and smooth, usually 4 postanal escutcheons, tricarinate scales of first and second toes enlarged into a prominent fringe. Males have two pairs of enlarged postanal scales.

A broad dorsal zone ranges from golden yellow to reddish brown, ashy gray, brownish orange, to a vivid orange-red (Schwartz and Henderson 1991). Dark median or paramedian lines may or may not be present (see subspecies definitions). Dorsolateral light stripes are absent to distinct. The throat is dark or pale with dark pattern elements ranging from a dark reticulum to black transverse bars or dark smudges. The venter is patternless in both sexes and ranges in color from bright orange to yellow-orange. No facial mask is present, but white-bordered, vertical black lines passing through the eyes are distinctive. Neck and shoulder patches are absent.

• **DIAGNOSIS.** *Leiocephalus barahonensis* may be distinguished from other Hispaniolan congeners by the following combination of characteristics (Henderson and Schwartz 1984): lateral folds absent (from *L. melanochlorus* and *L. schreibersii*), row of middorsal scales present (from *L. pratensis*), preauricular scale much larger than adjacent temporal scales (only moderately enlarged in *L. barahonensis altavelensis*) (from *L. vinculum*, *L. ritudira*, *L. lunatus*, and *L. personatus*), and orange venter (from *L. semilineatus*).

• **DESCRIPTIONS.** In addition to the original descriptions (Schmidt 1921, Noble 1923a, Noble and Hassler 1933, Cochran 1934, and Schwartz 1967), detailed descriptions are in Cochran (1941), Schwartz and Henderson (1991), and Pregill (1992).

• **ILLUSTRATIONS.** Line drawings are in Schmidt (1921, dorsal view of the head of the holotype), Cochran (1941, dorsal views of the heads of “*Leiocephalus personatus altavelensis*, *L. p. barahonensis*, and *L. p. beatanus*”), Schwartz (1967, scale features, lateral view of the head and neck, and ventral views of the throat in all subspecies), and Pregill (1992, premaxillary spine and nasal bones, dorsal and lateral views of the head, and toe scales). Black and white illustrations of dorsal, lateral, and ventral patterns are in Cochran (1941, as *L. personatus altavelensis*). Black and white photographs were included in Noble (1923b, of *L. b. beatanus*) and on the frontispiece of *Herpetological Natural History* 5(2) (1997 [1998]). Mertens (1939) provided a black and white photograph of representative habitat.

• **DISTRIBUTION.** An Hispaniolan South Island endemic (Schwartz 1980, Powell et al. 1999), the species is distributed from the lowlands of southeastern Haiti, across the Barahona Peninsula, north along the eastern coast of the peninsula, and then west in the xeric lowlands north of the Sierra de Baoruco. Insular populations occur on Cayo Pisaje, Isla Alta Velo, and Isla Beata. Habitat associations include *Acacia*-cactus, forest edges, *Cocos* groves, shaded hammock woods, and mangrove flats (Schwartz and Henderson 1991). Although generally xerophilic, these lizards often are found in less than the most rigorous situations, i.e., those that abut mesic areas. Generally considered a lowland inhabitant, individuals have been known to follow roads or other open areas into the mountains to elevations of over 600 m (R. Powell, pers. obs.). The range was illustrated in Schwartz (1967) and Schwartz and Henderson (1991, except Isla Alta Velo).

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** Gundy and Wurst (1976) noted the presence of a “parietal spot.” Wever (1978) examined a specimen in a study of reptilian ears. Greve and Powell (1989) and Powell et al. (1990) described parasitization by the nematode, *Skjabinoptera leiocephalorum*. Fobes et al. (1992), Schell et al. (1993), and Schreiber et al. (1993) noted sympatry with *Leiocephalus schreibersii* and the relative rarity of *L. barahonensis* in the city of Barahona, although this varies according to microhabitat, with *L. schreibersii* more commonly encountered in open habitats (e.g., beaches) and *L. barahonensis* in more shaded situations with greater structural diversity (e.g., rocky areas). Lang (1989) included this species in a phylogenetic study of basiliscine iguanians, and Titus and Frost (1996) included it in a study of oplurid iguanians. Micco et al. (1997 [1998]) described the natural history of two geographically proximate populations of *L. b. oxygaster*.

The species is included in checklists, guides, and keys by Barbour and Loveridge (1929), Barbour (1930, 1935, 1937), Böker (1939), Schwartz and Thomas (1975), MacLean et al. (1977), Henderson and Schwartz (1984), Henderson et al. (1984), Schwartz and Henderson (1985, 1988), SEA/SVS (1990), Frank and Ramus (1995), and Powell et al. (1996, 1999).

• **ETYMOLOGY.** The name *barahonensis* is in reference to the species’ range across the Barahona Peninsula; *aureus* is from the Latin meaning “golden,” in reference to the often golden brown dorsal coloration of this subspecies; *altavelensis* and *beatanus* refer to islas Alto Velo and Beata, respectively, the distributions of these subspecies; *oxygaster* is from the Greek *oxyx*, meaning sour or acid, and *gaster*, meaning belly, presumably in allusion to the resemblance of the ventral coloration to that of orange juice.

• **REMARKS.** Cochran (1928, 1941) and Schwartz (1967) suggested that *Leiocephalus barahonensis* was part of the *L. personatus* complex, but Pregill (1992) found no evidence to support the recognition of this association.

Pregill (1992) noted that *L. barahonensis altavelensis* “may prove to be distinct from *barahonensis*.” Powell (1993) listed *L. b. altavelensis* and *L. b. beatanus* among Hispaniolan subspecies that might warrant designation as full species. Schwartz (1967) struggled with the assignment of *L. b. altavelensis*, comparing available specimens with both *L. barahonensis* and *L. vinculum*, finally favoring the latter after considering the following possibilities: (1) an aberrant form of *L. barahonensis*, (2) a separate species, or (3) a subspecies of *L. vinculum*. Pregill (1992), however, based on character states not found in *L. v. vinculum* and distribution, favored the interpretation followed in this account.

1. *Leiocephalus barahonensis barahonensis* Schmidt

Leiocephalus barahonensis Schmidt 1921:15. See species synonymy.

L.[leiocephalus]. p[ersonatus]. barahonensis: Cochran 1932:177. See species synonymy.

Leiocephalus personatus barahoensis: Etheridge 1966:88. See species synonymy.

Leiocephalus barahonensis barahonensis: Schwartz 1967:35. First use of present combination.

• **DIAGNOSIS.** This subspecies is characterized by the following combination of characters (Schwartz 1967): a broad dorsal zone varying from golden yellow to reddish brown, indistinct dorsolateral light stripes, throat dark (gray, “dirty or-

ange," or with a bronze sheen) and with a black pattern of lines and smudges indistinct on the dark background, ventral ground color yellow-orange to bright orange, frontoparietals modally 5 (N = 18).

2. *Leiocephalus barahonensis altavelensis* Noble and Hassler

Leiocephalus altavelensis Noble and Hassler 1933:14. Type locality, "Alta Vela Island D[ominican]. R[epublic]." Holotype, American Museum of Natural History (AMNH) 51055, an adult male, collected by W.G. Hassler, 9–10 October 1932 (not examined by author).

Leiocephalus personatus altavelensis: Cochran 1941:220.

Leiocephalus vinculum altavelensis: Schwartz 1967:46. See Remarks.

Leiocephalus barahonensis altavelensis: Pregill 1992:40. First use of present combination (see Remarks).

• **DIAGNOSIS.** This subspecies is characterized by the following combination of characters (Schwartz 1967): yellowish brown dorsal zone not outlined by dorsolateral stripes and usually with a series of about 12 transverse bands, throat and chest dark blue-gray spotted with white, ventral ground color yellowish, frontoparietals modally 5 (N = 21).

3. *Leiocephalus barahonensis aureus* Cochran

Leiocephalus personatus aureus Cochran 1934:175. Type locality, "Jacmel, [Département du Sud-Est,] Haiti." Holotype, National Museum of Natural History (USNM) 75909, an adult male, collected by J.S.C. Boswell, 1928 (not examined by author).

Leiocephalus barahonensis aureus: Schwartz 1967:39. First use of present combination.

• **DIAGNOSIS.** This subspecies is characterized by the following combination of characters (Schwartz 1967): broad dorsal zone gray to golden, moderately prominent gray to cream dorsolateral stripes, throat white to gray with a pattern of scattered gray to black spots, seldom aligned into transverse rows, ventral ground color yellowish to bright orange, frontoparietals modally 5 (N = 127).

4. *Leiocephalus barahonensis beatanus* Noble

Leiocephalus beatanus Noble 1923a:5. Type locality, "Beata Island, Dominican Republic." Holotype, American Museum of Natural History (AMNH) 24330, an adult male, collected by G.K. Noble, 3 October 1922 (not examined by author).

Leiocephalus personatus beatanus: Cochran 1934:177.

Leiocephalus barahonensis beatanus: Schwartz 1967:41. First use of present combination.

• **DIAGNOSIS.** This subspecies is characterized by the following combination of characters (Schwartz 1967): broad ashy gray dorsal zone with paramedian and median dark stripes, dorsolateral light lines distinct and outlined medially by the dark paramedian stripes, throat light to dark gray with a pattern of 5–6 bold transverse bars followed by a few black flecks on the chest, ventral ground color orange (sometimes with a grayish or greenish cast), frontoparietals modally 5 (N = 42).

5. *Leiocephalus barahonensis oxygaster* Schwartz

Leiocephalus barahonensis oxygaster Schwartz 1967:36. Type locality, "13.1 mi. (21.1 km) SW Enriquillo, Pedernales Province, República Dominicana." Holotype, Museum of Com-

parative Zoology (MCZ) 81098 (original number ASFS X9417), an adult male, one of a series collected by A. Schwartz and R. Thomas, 22 July 1963 (not examined by author).

• **DIAGNOSIS.** This subspecies is characterized by the following combination of characters (Schwartz 1967): broad brown dorsal zone, usually dark but ranging to brownish orange and bright orange, dorsolateral stripes moderately distinct, throat pale cream to dark gray with a pattern of either 3–4 black crossbars or a bold black reticulum, ventral ground color golden yellow-orange to bright orange, frontoparietals modally 4 (N = 35).

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ROBERT POWELL, Department of Natural Sciences, Avila College, Kansas City, MO 64145, USA (powellr@mail.avila.edu).

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