

Catalogue of American Amphibians and Reptiles.

Powell, R. 1999. *Celestus badius*.

Celestus badius Cope

Celestus badius Cope 1868:126. Type locality, "Island of Navassa, W.I." Syntypes, National Museum of Natural History (USNM) 25817–8, adult males, dates of collection unknown, collected by W.J. Rasin (examined by author).

Celestus costatus badius: Mertens 1939:10 (by inference, see Pertinent Literature).

Diploglossus badius: Schwartz 1964:38.

Diploglossus costatus badius: Schwartz 1964:39.

• **CONTENT.** No subspecies are recognized.

• **DEFINITION.** *Celestus badius* is a moderately sized member of the genus with a maximum known SVL of 104 mm and 94–107 scales from mental to vent, 40–44 scales around midbody, 17–21 lamellae on the fourth toe, and 11–15 scales in the width of the dark dorsal band (based on descriptions of the syntypes by Schwartz 1964 and a series of 39 specimens described by Thomas 1966). An angular subocular scale lies between labials 6 and 7 in most specimens, although in one of the syntypes it lies between labials 5 and 6 (Schwartz 1964) and in 12 of 78 labial series examined by Thomas (1966) it was between labials 7 and 8.

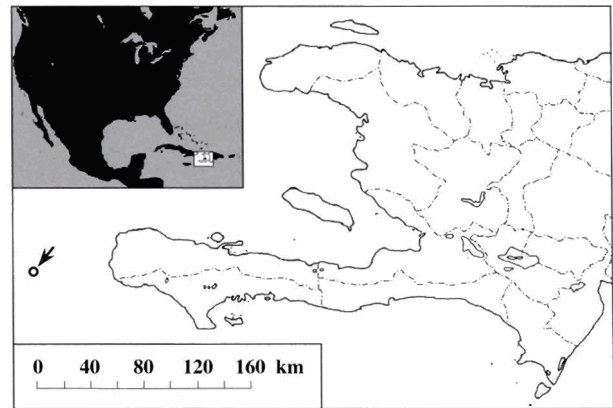
Both dorsal and ventral scales of juveniles (to SVL of ca. 35 mm) bear prominent median keels, and the rest of each scale is covered by "numerous, small knob-like structures which appear to be the precursors of the striae" of adult scales (Thomas 1966). The knob-like structures fuse in progressively larger individuals to form longitudinal striations; "the median keel loses its relative prominence and becomes equal in height to the other striations" (Thomas 1966).

Thomas (1966) noted that coloration was the species' "most striking feature." The ground color is light tan or bronze. A cream to gold dorsolateral stripe extends along the canthus rostralis over the eyes and onto the body and tail. The dorsal pattern consists of a fine, dark reticulum of numerous interrupted dark markings that form uninterrupted longitudinal lines in some specimens. These markings are most conspicuous on the neck, where dark nuchal lines exist only as broken traces. The center of each dorsal head scale is dark and the edges are light, although small light areas may be found invading the centers of larger scales. The sides are similar, but the pattern is lighter and more diffuse. The temporal region and sides of the neck are very dark brown with small white spots. The midventral region is light gray with yellow along the edges. The chin is white and the throat off-white to gray with a faint dark reticulum.

• **DIAGNOSIS.** *Celestus badius* is most similar to *C. costatus* of Hispaniola, with which it has been subspecifically linked and from which it can be distinguished by modal differences in scale counts (Thomas 1966, table 2) and the lack of distinct nuchal lines and prominent barring along the flanks.

• **DESCRIPTIONS.** In addition to the brief original description by Cope (1868), Schwartz (1964) described the syntypes and Thomas (1966) provided a definition.

• **ILLUSTRATIONS.** Cochran (1941) provided line drawings of the head of a syntype. Powell (1999) included a black and white photograph of an adult male.



MAP. The circle marks Navassa Island, throughout which *Celestus badius* is found.

• **DISTRIBUTION.** *Celestus badius* is ubiquitous on Navassa where it utilizes a variety of habitats from leaf litter in moderately xeric forest to dense grass in savannas, rock crevices, both horizontal and vertical, and buildings, ruins, and rubble. The range was illustrated in Schwartz and Henderson (1991).

• **FOSSIL RECORD.** None.

• **PERTINENT LITERATURE.** Schmidt (1921) included *Celestus badius* in a list of Navassan "species related to or identical with Jamaican forms." Mertens (1939), without comment ("*Celestus badius* [ist gewiß] von *costatus*" eine Rasse), indicated that this form was undoubtedly a subspecies of Hispaniolan *C. costatus*. Cochran (1941) suggested a possible relationship with Jamaican *C. impressus* (= *C. hewardii*) "instead of with the long-legged and heavily patterned Hispaniolan form," but preferred "to regard the Navassan population as a distinct species until fresh material can give a better idea of its range in color and scalation." Schwartz (1964) examined the syntypes and concurred with Mertens' subspecific assignment. Thomas (1966) agreed with Schwartz and recorded some observations of natural history. Powell et al. (1999) provided a historical perspective of Navassan herpetology in which they discussed *C. badius*. Powell (1999) discussed aspects of natural history and re-elevated this taxon to a full species.

The species was included in checklists by Barbour (1930, 1935, 1937), Schwartz and Thomas (1975), MacLean et al. (1977), Banks et al. (1987, as *Diploglossus costatus*), Schwartz and Henderson (1988), and Powell et al. (1996).

• **ETYMOLOGY.** The specific epithet, *badius*, is from the Latin, meaning brown or chestnut-colored, presumably in reference to the principal dorsal color of this form.



FIGURE. *Celestus badius* from near the lighthouse on Navassa Island.

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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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