

Catalogue of American Amphibians and Reptiles 914.

Torres, J., R. Powell, and A. R. Estrada 2018.
Tropidophis celiae.

***Tropidophis celiae* Hedges, Estrada, and
Díaz 1999
Canasí Trope**

Tropidophis celiae Hedges, Estrada, and Díaz 1999:376. Type locality, “from the northern (coastal) side of Loma Canasí [Canasí], at the mouth of Rio Canasí [Río Canasí], Santa Cruz del Norte Municipality, La Habana [currently Mayabeque] Province, Cuba, 23°08'37"N, 81°46'40"W, 3 m a.s.l.” Holotype, Museo Nacional de Historia Natural de Cuba (MNHNCu) 4474, an adult female, collected by Alberto R. Estrada and Luis M. Díaz on 7 June 1996.

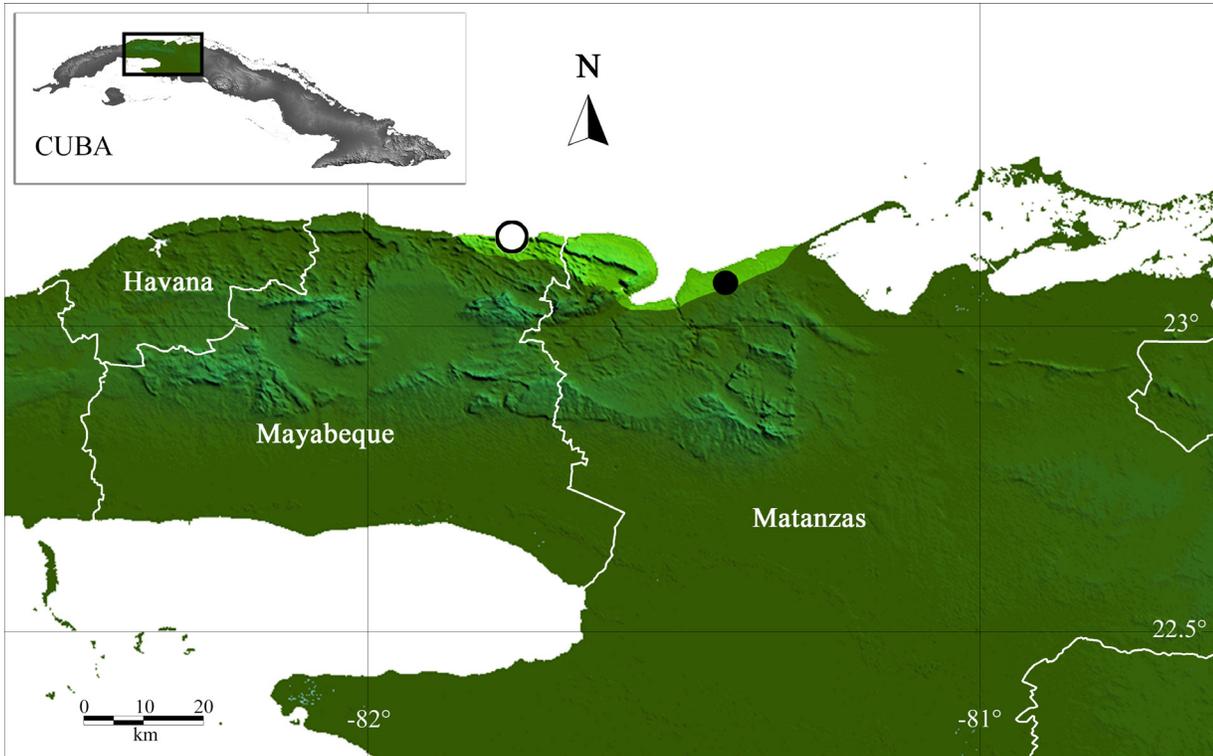
CONTENT. No subspecies are recognized.

DESCRIPTION. *Tropidophis celiae* is a medium-sized tropidophiid; the largest individual is an adult male with a snout-vent length (SVL) of 421 mm collected at Carboneras, Matanzas in 2004 (specimen lost, see **Remarks**) and the largest known female has a SVL of 350 mm (Torres et al. 2013). The following characters are based on the original description by Hedges et al. (1999) and data presented by Hedges (2002), Torres et al. (2013), and Torres López et al. (2016). The body is robust and the head is wider than the neck. Head scales include parietal scales in contact (separated by one scale in the holotype), 9–10 supralabials (4–5 in contact with the eye), 10–12 infralabials, 1 preocular, and 3 postoculars. Dorsal scales are smooth and in 25–27–19 rows (behind the head, at midbody, and immediately anterior to the vent, respectively). Middorsal scales are not enlarged except a few scales at



FIGURE 1. Adult *Tropidophis celiae* from Carboneras, Matanzas Province, Cuba; female (Colección Zoológica de la Academia de Ciencias de Cuba, Instituto de Ecología y Sistemática, La Habana, Cuba [CZACC] 4.5582) on the left and male (Museo de Historia Natural “Felipe Poey,” Facultad de Biología, Universidad de La Habana [MFP] 12.505) on the right. Photograph by Javier Torres (from Torres et al. 2013).

the posterior end of the body and on the tail. Ventrals number 196–203, subcaudals 30–35. Adult males have well-developed pelvic spurs that retract into small grooves. Dorsal color in life is brown or dark gray in the dark phase and yellowish-gray to tan in the light phase; the venter is pale and cream-colored. The head is yellowish and the tongue is red with a white tip. Head markings include two adjacent interocular bars (dark behind and yellow in the front), an hourglass-shaped mark extending from the interocular bars to the light nuchal band, and a brown band across the snout and nares. The dorsal pattern consists of 47–60 pairs of large, partially fused spots along the dorsal midline, and smaller, irregularly aligned, and less contrasting spots on the flanks, resulting in 8 ‘rows’ of spots around midbody. The tip of the tail is yellowish, reddish, or orange. The venter is immaculate or with sparse and widely spaced spots on the borders of some ventral scales.



MAP. The distribution of *Tropidophis celiae*: the open circle marks the type locality (Hedges and Garrido 2002) and the black dot marks the other known locality (Torres et al. 2013); the highlighted area (light green) representing the species' range is based on an assessment of suitable habitat.

DIAGNOSIS. *Tropidophis celiae* was included in the *Tropidophis melanurus* group by Hedges (2002); this group also includes *Tropidophis bucculentus*, *Tropidophis canus*, *Tropidophis caymanensis*, *Tropidophis curtus*, *Tropidophis melanurus*, *Tropidophis parkeri*, and *Tropidophis schwartzi*. The combination of high ventral count (196–203) and midbody scale row count (27) in *Tropidophis celiae* distinguishes it from all species in the genus except *Tropidophis caymanensis* and *Tropidophis melanurus* (Hedges et al. 1999). *Tropidophis celiae* (421 mm maximum SVL) is smaller than *Tropidophis caymanensis* and *Tropidophis melanurus* (470 mm and 957 mm maximum SVL, respectively; Hedges 2002; Hedges et al. 1999; Torres et al. 2013). *Tropidophis melanurus* and *Tropidophis caymanensis* also have dorsolateral stripes, which are absent in *Tropidophis celiae* (Echternacht 2004; Hedges et al. 1999; Hedges 2002; Torres et al. 2013). Although

Tropidophis celiae and *Tropidophis hendersoni* are assigned to different species groups (the latter was assigned to the *Tropidophis pardalis* group by Hedges 2002), they are quite similar in general appearance (Torres et al. 2017). The head is wider in *Tropidophis hendersoni* (1.45 head/neck width ratio versus 1.31 in *Tropidophis celiae*). The pale neckband (fused occipital spots) is more obvious in *Tropidophis celiae*, and *Tropidophis hendersoni* has a salmon-colored ventral ground color (Díaz et al. 2014), whereas the venter is cream in *Tropidophis celiae* (Hedges et al. 1999; Torres et al. 2013).

PHYLOGENETIC RELATIONSHIPS.

Based on unpublished molecular data, *Tropidophis celiae* was placed in the *Tropidophis melanurus* group by Hedges (2002) and Hedges et al. (1999). In an unpublished molecular phylogeny of nine species representing all Cuban species groups



FIGURE 2. Gravid female *Tropidophis celiae* from Canasí, Mayabeque Province, Cuba. Photograph by Raimundo López-Silvero Martínez (from Torres López et al. 2016).

(following Hedges 2002), Torres López (2009) determined that *Tropidophis celiae* and *Tropidophis melanurus* were sister species in a genetically distinct clade.

PUBLISHED DESCRIPTIONS. Detailed descriptions based solely on the holotype were provided by Hedges (2002) and Hedges et al. (1999). Descriptions based on additional specimens were published by Torres López (2009), Torres et al. (2013), and Torres López et al. (2016); descriptions of neonates were provided by Torres López et al. (2016).

ILLUSTRATIONS. A **black-and-white photograph** of the holotype was provided by Hedges et al. (1999). This same photograph was published in **color**, along with a close-up of the head, by Hedges (2017). The same color photograph of CZACC 4.5582 was presented by Rodríguez Schettino (2012), Rivalta-G. et al. (2013), and Rodríguez-S. et

al. (2015). Color photographs of MFP 12.505 and CZACC 4.5582 were published by Torres et al. (2013). Color photographs of an adult and two neonates were presented by Torres López et al. (2016).

DISTRIBUTION. *Tropidophis celiae* is known only from the type locality and one other location (Carboneras) about 36.5 km to the southeast. The region is a sub-coastal karstic area with abundant caves, many with sinkholes that allow sunshine to enter and shrubs and vines to grow in some chambers. The vegetation at the type locality of Canasí is predominantly succulent scrubland on coastal limestone bordered by a tree strip composed mainly of Seagrapes (*Coccoloba uvifera*) with abundant soil and leaf litter. Farther inland, semi-deciduous forest coincides with the increasing slope of the hills. Despite abundant soil and litter, most of the trees are small and palms are abundant. At Carboneras, the

vegetation near the collecting sites is semi-deciduous forest on karst, which appears to be more suitable for *Tropidophis celiae*. This forest persists only around cave entrances where temperatures are moderated and humidity is high (Torres López et al. 2016). The distribution was illustrated by Rodríguez Schettino (2012), Rodríguez Schettino et al. (2013), Uetz et al. (2016), and Hedges (2017).

FOSSIL RECORD. No fossils are known.

PERTINENT LITERATURE. In addition to the original description published by Hedges et al. (1999) and the revision of the genus by Hedges (2002), the morphology and coloration of additional individuals was described by Torres et al. (2013), who

also described a second locality. Data on parturition and husbandry were presented by Torres López et al. (2016).

The species was included in checklists, general works, articles focusing on other species, or faunal accounts by Anonymous (1999), Domínguez Díaz and Moreno García (2003), Estrada (2012), González Alonso et al. (2012), Hallermann et al. (2000), Hedges (2017), Henderson and Powell (2007, 2009), Hutchins et al. (2003), Rodríguez Schettino and Rivalta González (2003), Rodríguez Schettino et al. (2010, 2013) Rodríguez-S. et al. (2015), Uetz et al. (2016), and Wallach et al. (2014). See **Remarks** for information on the conservation status of the species.

REMARKS. A specimen (now lost) repre-



FIGURE 3. Female *Tropidophis celiae* with her clutch from Canasí, Mayabeque Province, Cuba. Scale bar = 10 mm. Photograph by Tomás M. Rodríguez Cabrera (from Torres López et al. 2016).



FIGURE 4. Neonatal female *Tropidophis celiae* from Canasí, Mayabeque Province, Cuba. Photograph by Raimundo López-Silvero Martínez (from Torres López et al. 2016).

senting the largest known male of this species was examined by JT and returned to the original collectors. Torres et al. (2013) indicated that this specimen is probably among the uncataloged material in the herpetology collection of the Instituto de Ecología y Sistemática (IES), La Habana, Cuba.

This species was listed as Critically Endangered (CR) in the Cuban Red List (Rodríguez Schettino 2012; Rodríguez-S. et al. 2015).

ETYMOLOGY. The specific epithet *celiae* is a patronym honoring Celia A. Puerta, wife of Alberto R. Estrada.

ADDITIONAL VERNACULAR NAMES. The vernacular name “Majasito” was applied to *Tropidophis celiae* by Rodríguez Schettino (2012); however, “Majasito” is the general name applied to all tropes in Cuba. “Canasí Dwarf Boa” (Midtgaard 2017) and “Canasi Dwarf Boa” (Tipton 2005) also were applied to this species; in general, “Dwarf Boa” is used for snakes in the genus *Tropidophis* (e.g., Midtgaard 2017).

COMMENT. Hoser (2013), based entirely on evidence presented in other studies, reassessed the family Tropidophiidae, in the course of which he assigned *Tropidophis celiae* to a new subgenus, thus creating the combination *Tropidophis (Tropidophis) celiae*.



FIGURE 5. Habitat of *Tropidophis celiae* in Canasí, Mayabeque Province, Cuba. Photographs by Javier Torres (from Torres López et al. 2016)

Although technically adhering to rules set out in the International Code of Zoological Nomenclature (1999), the journal in which these innovations appeared is not peer-reviewed and the author has a history of exploiting the work of others to create new names that do little more than complicate the taxonomy of those groups he chooses to address (Kaiser 2014; Kaiser et al. 2013). Consequently, we choose not to recognize his taxonomic innovations.

ACKNOWLEDGMENTS. We thank Raimundo López-Silvero Martínez and Tomás M. Rodríguez Cabrera for permission to use their photographs. This work was undertaken with the support of The Mohamed bin Zayed Species Conservation Fund (project no. 140510158 to JT).

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Primary editors for this account, Christopher J. Bell and Travis J. LaDuc.

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