REPTILES & AMPHIBIANS

# A New Locality and Reproductive Record for the Hispaniolan Gracile Boa, *Chilabothrus gracilis* Fischer 1888

Miguel A. Landestoy T.[1] and Piero Bello De Lillo[2]

[1]Instituto de Investigaciones Botánicas y Zoológicas, Universidad Autónoma de Santo Domingo, República Dominicana (hispanioland@gmail.com [corresponding author]; https://orcid.org/0000-0002-5072-5769)
[2]Grupo Jaragua, Inc., Santo Domingo, República Dominicana (pierobellodelillo@gmail.com)

Four species of Caribbean boas (*Chilabothrus ampelophis*, *C. fordii*, *C. gracilis*, and *C. striatus*) are endemic to Hispaniola and some of its satellite islands (Reynolds et al. 2023). The latter species is a large-bodied generalist, reaching a reported maximum snout–vent length (SVL) of 2,000 mm, whereas the other three species are smaller, with SVLs no longer than 905 mm, and more specialized (Henderson and Powell 2009; Reynolds et al. 2023). Of these, *C. gracilis* (Fig. 1) is considered the most specialized in both morphology and ecology, with a characteristic long, slender, and strongly laterally compressed body (Henderson and Powell 2002; Reynolds et al. 2016). The species is polytypic, with the nominate subspecies, *C. g. gracilis*, inhabiting largely coastal areas of much of the island (Fig. 2) and *C. g. hapalus* occurring basically along the Tiburon Peninsula in southwestern Haiti. The taxonomic status of the disjunct population from the Barahona Peninsula remains unknown. The species is listed as Near Threatened (NT) on the IUCN Red List of Threatened Species (Henderson et al. 2021) and as Vulnerable (VU) on the Dominican Lista Roja Nacional (MIMARENA 2018).

*New locality and distribution*.—We herein report a new locality in the Distrito Nacional, Dominican Republic, along the southern coast of the island (Fig. 3), where an adult female was captured (Fig. 1) on 6 September 2023 at Cuesta Hermosa II, Av. Jacobo Majluta next to the Rio Isabela (18.51481, -69.95282). This is the first record along the southeastern coast of Hispaniola. Photographic vouchers of the adult female and one of her neonates (see below) have been deposited in the Florida Museum of Natural History (UF:Herp:195940–1). The identity of the species was confirmed by Robert Powell.

Habitat at the new locality is adjacent to a mesic riparian forest with some level of disturbance, but the canopy cover is quite dense and a good portion of the area supports some undergrowth. Typical habitat of the species is thought to be lowland wooded forests, often associated with rivers

**Figure 1.** An adult female Hispaniolan Gracile Boa (*Chilabothrus gracilis*) (left) from Cuesta Hermosa II, Av. Jacobo Majluta next to the Rio Isabela, Santo Domingo, Dominican Republic; a neonatal Hispaniolan Gracile Boa (right), one of a litter of three born in captivity to the female collected in Santo Domingo. Photographs by Miguel A. Landestoy T.





Reptiles & Amphibians ISSN 2332-4961
https://doi.org/10.17161/randa.v32i1.24262

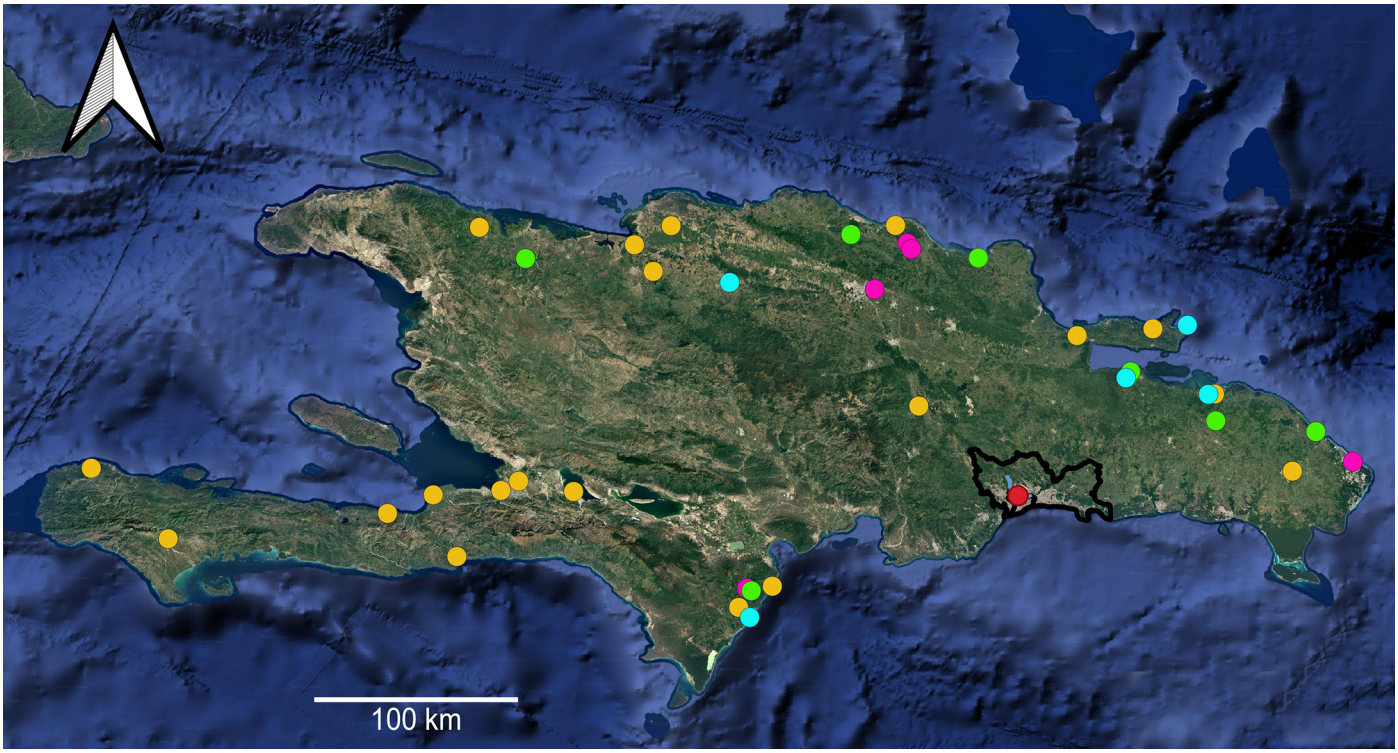


**Figure 2.** Map of Hispaniola showing that the distribution of the Hispaniolan Gracile Boa (*Chilabothrus gracilis*) is primarily coastal. Specimens in the Museo Nacional de Historia Natural in Santo Domingo (MNHNSD) are indicated by light blue dots, iNaturalist observations by green dots, preserved specimens by orange dots, additional localities marked in Henderson and Powell (2002) by pink dots, and the new locality reported herein by the red dot, approximately 65 km southeast of the nearest record of a historically collected (and overlooked) specimen (see text). Santo Domingo is outlined in black. Map by Piero Bello De Lillo.

and streams (Schwartz and Henderson 1991; Reynolds et al. 2023), essentially like that in which the individual reported herein was found. Nocturnal searches at the site yielded the following additional reptilian species: *Anolis baleatus*, *A. cybotes*, *A. distichus*, *A. semilineatus*, and *Tropidophis haetianus*.

In addition, we include what appears to be a long overlooked specimen (KU 260145) (examined from photographs) from 1 km SE of Bonao, Monseñor Nouel Province (18.92694, -70.40995), the most inland record for the species (60 km from the coast) approximately 65 km NW and the closest record to the new locality reported herein. We also plotted records of specimens in the process of formal inclusion in the collection of the Museo Nacional de Historia Natural Prof. Eugenio de Js. Marcano (MNHNSD) in Santo Domingo, Dominican Republic, and 13 citizen-science records posted on iNaturalist (2025). Because of iNaturalist policies, localities of some species are masked. We attempted to contact iNaturalist users for pertinent data; those for which users were not reachable were plotted by adjusting an approximation to a central point, departing from the iNaturalist masking threshold.

*Misidentified specimens at collections and by citizen science*.—A putative specimen (MCZ Herpetology R-154609) listed in GBIF from the Hotel Montaña near Jarabacoa, La Vega Province (19.18561, -70.58806), was confirmed as a young *C. striatus* after examining detailed photographs provided by MCZ staff (now uploaded to the online database). An entry in iNaturalist from southern Haiti (Reith 2019) also was a young *C. striatus*. The southwestern subspecies, *C. g. hapalus*, has a brown venter heavily clouded with dark gray, whereas the dead young snake illustrated in the single photograph included in the sighting had a very pale (light gray and white) and relatively patternless venter, matching descriptions of *C. striatus* (Reynolds et al. 2023). Furthermore, the lateral pattern of that individual comprises mostly vertically arranged markings, some forming stripes, instead of the typical pattern described for *C. gracilis*, which consists of small and diffuse scattered markings that are either blotch-like, dots, or diagonal and irregular dashes (Sheplan and Schwartz 1974; Schwartz and Henderson 1991; Reynolds et al. 2023). Unfortunately, no other photograph was taken of that specimen (M. Reith, pers. comm. 2025).

*Reproduction*.—The adult female (~700 mm SVL, 54.5 g) collected in Gran Santo Domingo gave birth to three neonates (255 mm SVL, 2.50 g; 255 mm, 3.11 g; and 262 mm, 3.14 g) (Fig. 1) on 20 September 2023. The date coincides with reports in the literature that document births during the months of September and October (Tolson and Henderson 1993; Henderson and Powell 2009; Reynolds et al. 2023). Previous information on reproduction was attributed in error


**Figure 3.** Detailed views of the new locality record for the Hispaniolan Gracile Boa (*Chilabothrus gracilis*) near the Río Isabela, Santo Domingo, Distrito Nacional, Dominican Republic. The snake was in a patch of riparian forest, surrounded by anthropogenic habitats that include equestrian facilities, an elementary school, and a mountain-bike track adjacent to the Avenida Jacobo Majluta, a major urban highway traversing the river. Maps by Piero Bello De Lillo.

to *C. g. hapalus* (Tolson and Henderson 1993), but actually applied to specimens obtained in northern Haiti (Limbé), which are *C. g. gracilis*. Data on reproduction in *C. g. hapalus* remains unknown.

*Conservation*.—Although *C. g. gracilis* remains locally common and has a broad distribution, the range of *C. g. hapalus* is restricted to a much smaller area. The most recent record of *C. g. hapalus* was in 1977 (Bentley and Brown 2025), and habitat loss in Haiti threatens most of its forest-dwelling species (Hedges et al. 2018). Much of the recent fieldwork within the range of *C. g. hapalus* was conducted in the highlands, which lack suitable habitat for this snake (MALT, pers. obs., S.B. Hedges, pers. obs. 2025), although local researchers/photographers also have failed to detect the species in the lowlands (A. Jean, R. Durocher, pers. comm. 2025).

## Acknowledgements

We thank Samantha Rivero from SAV Adventures, Elementary Forest School, for bringing to our attention the snakes found in the area. We also appreciate information shared by S. Blair Hedges, Martin Reith, Anderson Jean, and René Durocher, photographs provided by Javier Torres from which the identity of specimen KU 260145 was confirmed, and those shared by Matthew Gage and Stevie Kennedy-Gold from the MCZ that served to verify a misidentification. Coleman M. Sheehy III facilitated the deposition of the photographic vouchers in the Florida Museum of Natural History.

## Literature Cited

Bentley, A. and R. Brown. 2025. KUBI Herpetology Collection. Version 31.92. University of Kansas Biodiversity Institute. Occurrence dataset. https://doi.org/10.15468/ubdwdc accessed via <https://www.gbif.org/occurrence/686965175> on 28 May 2025.

Hedges, S.B., W.B. Cohen, J. Timyan, and Z. Yang. 2018. Haiti's biodiversity threatened by nearly complete loss of primary forest. *Proceedings of the National Academy of Sciences of the United States of America* 115: 11850–11855. https://doi.org/10.1073/pnas.1809753115.

Henderson, R.W. and R. Powell. 2002. *Epicrates gracilis*. *Catalogue of American Amphibians and Reptiles* 754: 1–4.

Henderson, R.W. and R. Powell. 2009. *Natural History of West Indian Amphibians and Reptiles*. University of Florida Press, Gainesville, Florida, USA.

Henderson, R.W., S. Inchaustegui, and M.A. Landestoy. 2021. *Chilabothrus gracilis*. *The IUCN Red List of Threatened Species* 2021: e.T15155194A15155225. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T15155194A15155225.en.

iNaturalist. 2025. Observations. Hispaniolan Gracile Boa. <https://www.inaturalist.org/observations?subview=table&taxon_id=539459>.

MIMARENA (Ministerio del Medio Ambiente y Recursos Naturales de la República Dominicana). 2018. *Lista de Especies de Fauna en Peligro de Extinción, Amenazada o Protegidas de la República Dominicana (Lista Roja)*. Gobierno de la República Dominicana, Santo Domingo, República Dominicana. <https://ambiente.gob.do/en/informacion-ambiental/lista-roja-de-especies/>.

Reith, M. 2019. Hispaniolan Gracile Boa (*Chilabothrus gracilis*). iNaturalist observation. <https://www.inaturalist.org/observations/19454194>.

Reynolds, R.G., D.C. Collar, S.A. Pasachnik, M.L. Niemiller, A.R. Puente-Rolón, and L.J. Revell. 2016. Ecological specialization and morphological diversification in Greater Antillean boas. *Evolution* 70: 1882–1895. https://doi.org/10.1111/evo.12987.

Reynolds, R.G., R.W. Henderson, T.M. Rodríguez-Cabrera, L.M. Díaz, and A.R. Puente-Rolón. 2023. *Boas of the West Indies: Evolution, Natural History, and Conservation*. Comstock Publishing Associates, Ithaca, New York, USA.

Schwartz, A. and R.W. Henderson. 1991. *Amphibians and Reptiles of the West Indies. Descriptions, Distributions, and Natural History*. University of Florida Press, Gainesville, Florida, USA.

Sheplan, B.R. and A. Schwartz. 1974. Hispaniolan boas of the genus *Epicrates* (Serpentes: Boidae) and their Antillean relationships. *Annals of the Carnegie Museum* 45: 57–143. https://doi.org/10.5962/p.330505.

Tolson, P.J. and R.W. Henderson. 1993. *The Natural History of West Indian Boas*. R&A Publishing Ltd., Taunton, UK.