

# Updated morphological and natural history data for the Caicos Trope, *Tropidophis greenwayi* Barbour and Shreve (Squamata: Tropidophiidae)

R. Graham Reynolds<sup>1</sup> 

<sup>1</sup> Department of Biology, University of North Carolina Asheville, Asheville, NC, USA

Email: R. Graham Reynolds (greynold@unca.edu)

**Edited by:** Robert W. Henderson. **Date of publication:** 6 October 2026.

**Citation:** Reynolds, RG. 2026. Updated morphological and natural history data for the Caicos Trope, *Tropidophis greenwayi* Barbour and Shreve (Squamata: Tropidophiidae). *Caribbean Herpetology* 101: 1–10.

**DOI:** <https://doi.org/10.31611/ch.101>

## Abstract

The Caicos Trope, *Tropidophis greenwayi* Barbour and Shreve, is a poorly known snake species endemic to the Caicos Bank in the Turks and Caicos Islands, part of the Lucayan Archipelago. The species comprises two nominal subspecies: *T. g. greenwayi* from Big Ambergris Cay and *T. g. lanthanus* from the larger islands of the Caicos Bank. Despite the foundational work of Iverson (1986), the natural history of *T. greenwayi* has received little subsequent attention, and the nominate subspecies has been poorly documented, with no live individuals reported between 1936 and 2009. Here, I present new morphometric data from 27 field-measured individuals between 2008 and 2025, including six individuals of *T. g. greenwayi*. Combined with available historical records, the morphometric dataset comprises 77 individuals. Adult females were significantly larger than males in snout-vent length and total length, but not in tail length or body mass. Adult snout-vent length (SVL) did not differ significantly between subspecies. One adult female from North Caicos had a longer SVL (355 mm) than any previously reported individual of the species. I also report well-hunting behavior on North Caicos, where snakes may exploit the introduced Hispaniolan treefrog (*Ossteopilus dominicensis*), and discuss the conservation status of *T. g. greenwayi*.

**Keywords:** Caribbean, Lucayan Archipelago, Squamata, Turks and Caicos Islands.

## Introduction

The Tropidophiidae Brongersma comprises a small group of viviparous constricting snakes distributed across the Caribbean and Central and South America (Underwood 1967; Hedges 2002; Zaher *et al.* 2024). The genus *Tropidophis* Bibron comprises 37 species (Zaher *et al.* 2024; Uetz *et al.* 2026), with as many as 29 species among the Caribbean radiation found across the Greater Antilles and Lucayan Archipelago (Hedges *et al.* 2026). The natural history of most *Tropidophis* species remains poorly studied owing to their cryptic nature; a number of species are known from only a handful of specimens or observations (Tolson and Henderson 1993; Henderson and Powell 2009).

*Tropidophis greenwayi* Barbour and Shreve (1936), the Caicos Trope (Figs 1–2), is endemic to the Caicos Bank, Turks and Caicos Islands (TCI) at the southern end of the Lucayan Archipelago (Fig. 3). The species was originally described as *T. pardalis greenwayi* by Barbour and Shreve (1936) based on two specimens from “Ambergris Cay” (MCZ 42051–52) and elevated to full species rank by Schwartz and Marsh (1960) in their review of the *pardalis-maculatus* complex. Schwartz (1963) subsequently described a new subspecies, *T. g. lanthanus* (MCZ 69630), based on 14 specimens from South Caicos and nearby Long Cay. The two subspecies are thought to differ slightly

in morphology (Schwartz 1963). *Tropidophis g. greenwayi* is completely mottled on the dorsal surface, with less distinct blotches. In contrast, *T. g. lanthanus* is considered to have a “dorsal pale zone,” making blotches more apparent. Schwartz (1963) also distinguished *T. g. greenwayi* as having a “salt-and-pepper” coloration on the head, versus more uniform brown in *T. g. lanthanus*, and Hedges (2002) further clarified that the coloration differences are owing to “interspace stippling” rather than the number of spots or patterns of spots. Schwartz (1963) suspected the subspecies *T. g. lanthanus* to have a higher number of ventral scales (157–165) than *T. g. greenwayi* (157–158). However, he had only two specimens of *T. g. greenwayi* for comparison, and Hedges (2002) wrote that there are no diagnostic scale count differences.



**Figure 1. Top)** Adult male *Tropidophis greenwayi lanthanus* from Providenciales, TCI (ID PRT1). **Bottom)** Adult female *T. g. lanthanus* from North Caicos, TCI (ID NT2). Photograph by Matthew L. Niemiller. See Appendix 1 for specimen data.



**Figure 2. Top)** Adult *Tropidophis greenwayi greenwayi* of unknown sex from Big Ambergris Cay, TCI (ID BACT3). **Bottom)** Adult female *T. g. greenwayi* from Big Ambergris Cay, TCI (ID BACT2). See Appendix 1 for specimen data.

*Tropidophis greenwayi lanthanus* is recorded from the larger islands of Providenciales, North Caicos, Middle Caicos, and South Caicos, as well as from the smaller islands of Long Cay and Middleton Cay in the TCI (Iverson 1986; Schwartz and Henderson 1991; Reynolds 2011). The subspecies might occur on East Caicos and West Caicos, although no records exist for either island (Buckner *et al.* 2012). The subspecies *Tropidophis g. greenwayi* is endemic to Big Ambergris Cay and was previously known from only two specimens (Barbour and Shreve 1936). The subspecies was not reported in the literature again until an individual was observed on 20 March 2009 (Reynolds *et al.* 2010), despite searches in January 1961 (Schwartz 1963), March 1972 (Schwartz and Crombie 1975), and March 1978 (Iverson 1986).

Iverson (1986) provided the only detailed treatment of the species' natural history, summarizing distribution, habitat, body size, growth, reproduction, diet, and antipredator behavior based on 74 specimens, including museum specimens and those he collected during 11 field visits between 1973 and 1979. All of these were representatives of *T. g. lanthanus*. The species is viviparous and reproduces at the beginning of the dry season,

January- February, and parturition commences in June. Litter sizes are small (mean 2.33 embryos per female) but increase with female SVL (Iverson 1986). Iverson (1986) found support for sexual size dimorphism (SSD) and estimated growth rates of approximately 8.4 mm snout-vent length (SVL) per month, suggesting that sexual maturity is reached in approximately 15–20 months.

No morphometric data on this species have previously been available since Iverson (1986), and no data have been available for *T. g. greenwayi* aside from the assessments of two individuals in Barbour and Shreve (1936). This study includes new morphometric data for *T. greenwayi* based on 27 field-measured individuals from four islands on the Caicos Bank, including six *T. g. greenwayi* from Big Ambergris Cay, the first reported since 1936. I calculate summary statistics for SVL, tail length (TL), total length (TOL), body mass, and relative tail length, test for sexual dimorphism in each of these characters, estimate body condition using mass-length regression, and compare these results with the published data from Barbour and Shreve (1936), Schwartz (1963), and Iverson (1986). I also provide an updated account of the species' natural history, distribution, and conservation status based on available literature.

## Methods

I collected data on *Tropidophis greenwayi* during countrywide herpetological field surveys of the TCI between 2006 and 2025 using diurnal turning of cover objects, nocturnal searches of appropriate habitats, and inspection of rock walls and rock water wells using flashlights. For each snake, I recorded SVL, TL, and body mass (Pesola® spring balance with 0.1 g precision). I determined sex via cloacal probing and/or visual inspection of the tail and vent region and age by comparison to SVL data from Iverson (1986). I held each snake in an individual cloth bag for <24 h before returning it to the capture site (always at night), and I recorded GPS locations using a Garmin® eTrex 20e.

In addition to these field data, I extracted morphometric data from Barbour and Shreve (1936) and Iverson (1986) based on the size-specific data points cited in those papers (where possible), as well as from data notebooks provided by J. B. Iverson. When these authors reported SVL or TL only for some snakes, I did not use any conversion to estimate the other length variables and instead treated them as missing data.

I conducted statistical analyses using R 4.6.0 (R Core Team 2026), with some R code refined using Claude Sonnet 4.6 (Anthropic PBC, San Francisco, CA). I calculated summary statistics (mean, standard deviation, range) for SVL, TL, mass, and relative tail length (tail length / TOL) separately for adult females, adult males, and separately by subspecies. I tested for sexual size dimorphism in SVL, TOL, tail length, relative tail length, and body mass using Welch's two-sample t-test, which does not assume equal variances and is appropriate for unequal sample sizes. I also tested for differences in adult SVL between the two subspecies using Welch's two-sample t-test, including unsexed adults. I used ordinary least-squares linear regression (reporting  $r^2$  and the F-test p-value) to describe the relationship between body mass and TOL. I did not apply a transformation, as the residuals showed no departure from linearity. I excluded one individual from tail length and relative tail length analyses because of a damaged tail tip (MT1, Middle Caicos). I excluded individuals whose sex was not recorded ( $n = 3$ , all from Big Ambergris Cay) and juveniles ( $n = 7$ ; Appendix 1) from sexual dimorphism analyses. All means are presented as mean  $\pm$  standard deviation (SD), and I assessed statistical significance at  $\alpha = 0.05$ .

## Results

I collected new data from 21 *T. g. lanthanus* from North Caicos ( $n = 19$ ), Middle Caicos ( $n = 1$ ), and Providenciales ( $n = 1$ ), and from six *T. g. greenwayi* from Big Ambergris Cay (Appendix 1). Among the *T. g. lanthanus*, I obtained data from three males, 17 females, and one juvenile. For *T. g. greenwayi*, I measured one male, two females, and three of undetermined sex (I did not have small enough cloacal probes when these individuals were found).

Iverson (1986) did not identify individual specimen accession numbers or island origin with his data; how-

ever, I extracted individual size information from 48 snakes from photographs of his original notebook data, which included 14 specimens he captured on the Caicos Bank as well as 34 museum specimens (Appendix 1), including 28 females, 14 males, and six juveniles. The two *T. g. greenwayi* from Barbour and Shreve (1936) consisted of one individual with complete measurements and one with SVL only. None of the individuals reported in the literature had deaggregated mass measurements; hence, the mass data came entirely from my specimens. Together, this represents 77 individuals of *Tropidophis greenwayi*, comprising 67 sexed adults (47 females, 20 males), three unsexed adults, and seven juveniles (Appendix 1). Sixty-nine individuals (62 adults, seven juveniles) represent *T. g. lanthanus* from the Caicos Islands (North Caicos, Middle Caicos, South Caicos, Long Cay, and Providenciales), and eight represent the subspecies *T. g. greenwayi* from Big Ambergris Cay (Appendix 1).

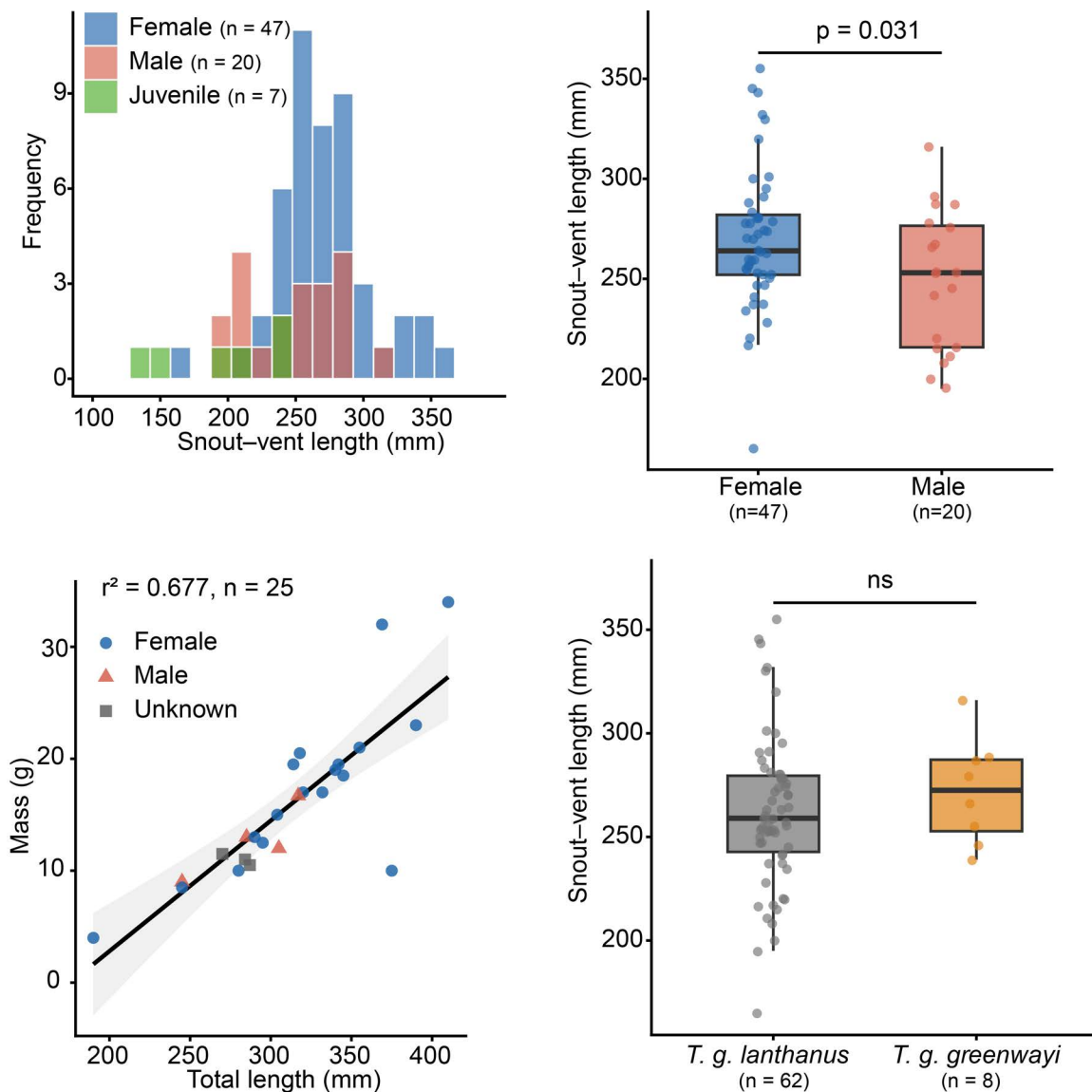


**Figure 3.** Map of the Turks and Caicos Islands, showing the locations of specimens of *T. greenwayi* used in this study. Locations from Schwartz (1963) and Iverson (1986) are roughly estimated from text descriptions in those publications but cannot be reliably assigned to specific specimen data.

Morphometric data for *Tropidophis greenwayi* are illustrated in Figure 4. Across both subspecies, adult females ranged from 165–355 mm SVL (mean  $\pm$  SD = 270.0  $\pm$  35.6 mm) and 190–410 mm TOL (302.7  $\pm$  40.6 mm). Adult males ranged from 195–316 mm SVL (248.9  $\pm$  34.8 mm) and 223–359 mm TOL (279.1  $\pm$  38.6 mm). Females were, on average, larger than males in both SVL and TOL ( $t = 2.250$ ,  $p = 0.031$ ;  $t = 2.210$ ,  $p = 0.034$ , respectively). Tail length did not differ significantly between sexes (females: 32.9  $\pm$  6.6 mm,  $n = 46$ ; males: 31.1  $\pm$  5.7 mm,  $n = 19$ ;  $t = 1.139$ ,  $p = 0.262$ ), nor did relative tail length expressed as a proportion of TOL (females: 10.9  $\pm$  1.4%,  $n = 46$ ; males: 11.2  $\pm$  1.6%,  $n = 19$ ;  $t = -0.729$ ,  $p = 0.472$ ). Body mass did not differ significantly between sexes (females: 17.2  $\pm$  7.5 g,  $n = 19$ ; males: 12.7  $\pm$  3.2 g,  $n = 4$ ;  $t = 1.920$ ,  $p = 0.080$ ), although this comparison is limited by the small number of males with mass data. Seven juveniles ranged from 110–235 mm SVL (mean  $\pm$  SD = 179.4  $\pm$  48.6 mm SVL), and overlapped in size with the smallest mature adults; the two largest (233 and 235 mm SVL) approach the minimum size at maturity estimated by Iverson (1986). The smallest (110 mm SVL) is well above the size at birth estimated by Iverson (1986) from two near-term embryos (57–68.5 mm SVL; 78–79 mm TOL).

I examined body mass and TOL across adults with complete measurements for both variables, including unsexed individuals ( $n = 25$ ). Mass increased significantly with total length (mass =  $0.1166[\text{TOL}] - 20.51$ ;  $r^2 = 0.677$ ,  $p < 0.001$ ; Fig. 4), indicating that total length explains approximately 68% of the variance in body mass across the sampled size range (190–410 mm TOL).

Adult SVL did not differ significantly between *T. g. lanthanus* ( $n = 62$ ; mean  $\pm$  SD =  $261.8 \pm 36.9$  mm; range 165–355 mm) and *T. g. greenwayi* ( $n = 8$ ; mean  $\pm$  SD =  $272.0 \pm 25.5$  mm; range 239–316 mm;  $t = -1.003$ ,  $p = 0.337$ ). For the eight individuals of *T. g. greenwayi*, the SVL ranged from 239–316 mm, with tail lengths of 25–43 mm, and the maximum TOL was 359 mm (the holotype, MCZ 42051, from Barbour and Shreve 1936). Mass ranged from 10.5–19.5 g (mean = 14.0 g). All six individuals of this subspecies that I observed were active on the ground surface at night.



**Figure 4.** Morphometric data for *Tropidophis greenwayi*. **(Top left)** Histogram of SVL in *T. greenwayi* partitioned by sex and age class (note that darker bars indicate overlap), inclusive of both subspecies. **(Top right)** Box-and-whisker plot of Welch's two-sample t-test of SVL between sexes for both subspecies combined. **(Bottom left)** Relationship between body mass (g) and total length (TOL, mm) for adult *Tropidophis greenwayi* from the field dataset ( $n = 25$  adults with complete mass and TOL data). Circles = females ( $n = 18$ ); triangles = males ( $n = 4$ ); squares = adults of undetermined sex ( $n = 3$ ). The regression line mass =  $0.1166(\text{TOL}) - 20.51$  ( $r^2 = 0.677$ ) is shown. The gray area indicates 95% confidence intervals. **(Bottom right)** Box-and-whisker plots of SVL by subspecies. Ns = not significant.

## Discussion

**Body size and sexual dimorphism.** My fieldwork yielded additional morphological data for *T. greenwayi* from North Caicos (n = 19), Middle Caicos (n = 1), Providenciales (n = 1), and Big Ambergris Cay (n = 6), of which 19 were adult females and four were adult males. This represented a sex ratio of 4.75:1, which is consistent with the female-biased sex ratio of 2.2:1 documented by Iverson (1986). I recorded three females from North Caicos with SVLs exceeding the previous size record for *T. g. lanthanus* of 332 mm SVL (Iverson 1986). One of these females measured 355 mm SVL (NT13, North Caicos), establishing a new species length record. This individual also had the longest recorded tail (55 mm) and the highest body mass (34 g) in the dataset. Both my data and those in Iverson (1986) showed a consistent pattern of females exceeding males in mean SVL, tail length, and body mass, consistent with female-biased SSD in body length, which is common among viviparous snakes (Shine 1994). Indeed, this larger dataset reflected statistically significant SSD in *T. greenwayi*, as in Iverson (1986). I did not recover significant SSD in relative TL, absolute TL, or mass. Additional male measurements would undoubtedly strengthen these findings, although both Iverson's (1986) and my data strongly suggest female-biased sex ratios, which could make finding male snakes challenging.

The mass-TOL regression explained approximately 68% of the variation in mass among adults. The moderate  $r^2$  value (compared to Iverson's  $r^2 \approx 0.86$  for mass vs. TOL; n = 7) likely reflects biological variation in body condition, potentially including variation in reproductive state, recent feeding, or seasonal fluctuations across a larger geographic sample. Several individuals, particularly some of the North Caicos females, had relatively low mass:SVL ratios (0.02–0.04), which could indicate undernourished snakes (but likely not post-parturition condition, as they were measured in October), whereas others had relatively high ratios (0.07–0.10).

**Concentration at wells.** I found five snakes over three nights (19–21 October 2009) inside an abandoned stone well dating to the mid-19th century on North Caicos (about 5 m deep). I also saw two additional snakes in the well walls, but I did not capture them before they retreated into rock crevices. Well hunting was described by Manco (2006) and Reynolds and Niemiller (2010), wherein snakes use the relatively mesic microhabitat inside the well perhaps to capture metamorphosing introduced Hispaniolan treefrogs (*Osteopilus dominicensis*; identification by S. B. Hedges, *pers. comm.*; see also Hedges *et al.* 2026) as they emerge from the water that collects in the well. This might represent a native predator exploiting a concentrated, seasonally predictable prey resource introduced relatively recently (within the last ~50 years; Manco 2008). Although Iverson's (1986) stomach content analysis found no *Osteopilus* in the diet, this could reflect the fact that *Osteopilus* was not widespread when Schwartz and Iverson collected snakes in the 1960s and 1970s, respectively.

**Coloration and the subspecies.** Albert Schwartz described squamate subspecies from the TCI based on coloration, including six subspecies of *Leiocephalus psammmodromus* (Schwartz 1967), which is probably an oversplit (Reynolds *et al.* 2012; Reynolds 2026). The six individuals of *Tropidophis g. greenwayi* that I documented did indeed have a more mottled appearance, with grays, blacks, and whites, whereas *T. g. lanthanus* was far more variable in coloration and included browns (Figs. 1, 2). However, mottling in *T. g. greenwayi* does not always effectively obscure the dorsal blotches, as shown in Figure 2. A closer examination of squamation or genetic variation would be needed to support the subspecies designations further.

**Conservation.** *Tropidophis greenwayi* is of conservation concern and is listed as Vulnerable on the International Union for Conservation of Nature Red List (Reynolds 2021). At one time, the species was collected for the international pet trade; a former TCI government official reportedly granted a permit to a reptile dealer to remove thousands of individuals from North Caicos, with the apparent suggestion that removing all the snakes would be acceptable (B.N. Manco, *pers. comm.*, cited in Reynolds 2011). Collection for the pet trade can devastate small-island snake populations (Webb *et al.* 2002), although the cryptic nature of *T. greenwayi* may make overcollecting challenging. The species is likely susceptible to introduced mammalian predators, although this is not documented. The subspecies *T. g. greenwayi* faces an especially uncertain future, as it was likely never abundant

(it took ~73 years to “rediscover” and only six have been observed in nearly 16 years of herpetological fieldwork there). Its range is apparently restricted to Big Ambergris Cay, which is currently undergoing heavy development (e.g., Reynolds et al. 2024).

## Acknowledgments

I thank Glenn Gerber, George Waters, and Joe Burgess for assisting with the majority of the fieldwork on Big Ambergris Cay. John Iverson graciously provided his original data notes from his 1986 study. Fieldwork was authorized by permits from the Department of Environment and Coastal Resources, Turks and Caicos Islands Government. All work was approved by Institutional Animal Care and Use Committees. The University of North Carolina Asheville, the San Diego Zoo Wildlife Alliance, the Mohamed bin Zayed Species Conservation Fund, and the University of Tennessee Department of Ecology and Evolutionary Biology Summer Research Program provided financial and logistical support. I thank John B. Iverson and the late Al Schwartz for foundational contributions to knowledge of this species and the TCI herpetofauna. Brian N. Manco provided invaluable field expertise for work on North and Middle Caicos, and Matthew Niemiller and Cory Deal provided field assistance on North and Middle Caicos.

## References

- Barbour T, Shreve B. 1936. New races of *Tropidophis* and of *Ameiva* from the Bahamas. *Proceedings of the New England Zoological Club* 16: 1–3.
- Buckner SD, Franz R, Reynolds RG. 2012. Bahama Islands and Turks & Caicos Islands. In: Powell R, Henderson RW, editors. Island lists of West Indian amphibians and reptiles. *Bulletin of the Florida Museum of Natural History* 51: 93–110.
- Hedges SB. 2002. Morphological variation and the definition of species in the snake genus *Tropidophis* (Serpentes, Tropidophiidae). *Bulletin of the Natural History Museum: Zoology Series* 68(2): 83–90. [Article](#)
- Hedges SB, Buehler AE, Anderson S. 2026. Caribherp: exploring the diversity, distribution, and biogeography of Caribbean amphibians and reptiles. *Caribbean Herpetology* 100: 1–10. [Article](#)
- Henderson RW, Powell R. 2009. Natural history of West Indian amphibians and reptiles. Gainesville (Florida): University Press of Florida.
- Iverson JB. 1986. Notes on the natural history of the Caicos Islands dwarf boa, *Tropidophis greenwayi*. *Caribbean Journal of Science* 22(3–4): 191–198.
- Manco BN. 2006. Our boa belongs. Times of the Islands, Fall 2006.
- Manco BN. 2008. Native fauna of the Turks and Caicos Islands. In: Mills CD, editor. A history of the Turks and Caicos Islands. Oxford, UK: Macmillan Publishers Ltd.
- R Core Team. 2026. R: a language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. [Article](#)
- Reynolds RG. 2011. Status, conservation, and introduction of amphibians and reptiles in the Turks and Caicos Islands, British West Indies. In: Hailey A, Wilson BS, Horrocks JA, editors. Conservation of Caribbean Island herpetofaunas, Vol. 2. Leiden (The Netherlands): Brill. p. 377–406.
- Reynolds RG. 2021. *Tropidophis greenwayi*. *The IUCN Red List of Threatened Species* 2021: e.T75606501A75608019. [Article](#)
- Reynolds RG. 2026. An annotated checklist and species accounts of the native terrestrial reptiles of the Turks and Caicos Islands. *ZooKeys* 1290: 1–33. [Article](#)
- Reynolds RG, Niemiller ML. 2010. Island invaders: Introduced reptiles and amphibians of the Turks and Caicos Islands. *Reptiles & Amphibians* 17: 117–121.
- Reynolds RG, Gerber GP, Burgess J. 2010. *Tropidophis greenwayi greenwayi* (Big Ambergris Dwarf Boa). Distribution

*Herpetological Review* 41: 520.

- Reynolds RG, Niemiller ML, Fitzpatrick BM. 2012. Genetic analysis of an endemic archipelagic lizard reveals sympatric cryptic lineages and taxonomic discordance. *Conservation Genetics* 13: 953–963. [Article](#)
- Reynolds RG, Reger ME, Peek KJ, Raphael BL, Colosimo G, Miller AH, Vanerelli AA, Gerber GP. 2024. Spatial ecology of the Turks and Caicos Boa *Chilabothrus c. chrysogaster*. *Herpetological Journal* 34: 22–34. [Article](#)
- Schwartz A. 1963. A new subspecies of *Tropidophis greenwayi* from the Caicos Bank. *Breviora* 194: 1–6. [Article](#)
- Schwartz A. 1967. The *Leiocephalus* (Lacertilia, Iguanidae) of the southern Bahama Islands. *Annals of the Carnegie Museum* 39: 153–185. [Article](#)
- Schwartz A, Crombie RL. 1975. A new species of the genus *Aristelliger* (Sauria: Gekkonidae) from the Caicos Islands. *Proceedings of the Biological Society of Washington* 88(27): 305–314. [Article](#)
- Schwartz A, Henderson RW. 1991. Amphibians and reptiles of the West Indies: descriptions, distributions, and natural history. Gainesville, Florida: University of Florida Press. 720 p.
- Schwartz A, Marsh RJ. 1960. A review of the *pardalis-maculatus* complex of the boid genus *Tropidophis* of the West Indies. *Bulletin of the Museum of Comparative Zoology* 123(2): 50–84. [Article](#)
- Shine R. 1994. Sexual size dimorphism in snakes revisited. *Copeia* 1994: 326–346. [Article](#)
- Tolson PJ, Henderson RW. 1993. The natural history of West Indian boas. Taunton, England: R&A Publishing.
- Uetz P, Freed P, Aguilar R, Reyes F, Kudera J, Hošek J (editors). 2026. The Reptile Database. <http://www.reptile-database.org>. Accessed: 28 April 2026.
- Underwood G. 1967. A contribution to the classification of snakes. London: British Museum (Natural History). 179 p.
- Webb JK, Brook BW, Shine R. 2002. Collectors endanger Australia's most threatened snake, the broad-headed snake *Hoplocephalus bungaroides*. *Oryx* 36: 170–181.
- Zaher H, Trusz C, Koch C, Entiauspe-Neto OM, Battilana J, Grazziotin FG. 2024. Molecular phylogeny and biogeography of the dwarf boas of the family Tropidophiidae (Serpentes: Alethinophidia). *Systematics and Biodiversity* 22(1): 2319289. [Article](#)

## Appendix 1

Complete dataset of *Tropidophis greenwayi* specimens used in this study (also see Figs. 1–3). Abbreviations are SVL (snout-vent length), TL (tail length), TOL (total length), M (mass), and N/A (not available). Specimens from Iverson (1986) are given “IV” identifications. Specimens reported in this study are indicated by BACT, MT, NT, and PRT.

| ID    | Taxon            | Island        | SVL | TL | TOL | M   | Sex  | Latitude | Longitude | Date |
|-------|------------------|---------------|-----|----|-----|-----|------|----------|-----------|------|
| IV-1  | <i>lanthanus</i> | “Caicos Bank” | 291 | 24 | 315 | N/A | male | N/A      | N/A       | N/A  |
| IV-2  | <i>lanthanus</i> | “Caicos Bank” | 287 | 40 | 327 | N/A | male | N/A      | N/A       | N/A  |
| IV-3  | <i>lanthanus</i> | “Caicos Bank” | 276 | 38 | 314 | N/A | male | N/A      | N/A       | N/A  |
| IV-4  | <i>lanthanus</i> | “Caicos Bank” | 267 | 36 | 303 | N/A | male | N/A      | N/A       | N/A  |
| IV-5  | <i>lanthanus</i> | “Caicos Bank” | 253 | 36 | 289 | N/A | male | N/A      | N/A       | N/A  |
| IV-6  | <i>lanthanus</i> | “Caicos Bank” | 253 | 32 | 285 | N/A | male | N/A      | N/A       | N/A  |
| IV-7  | <i>lanthanus</i> | “Caicos Bank” | 245 | 19 | 264 | N/A | male | N/A      | N/A       | N/A  |
| IV-8  | <i>lanthanus</i> | “Caicos Bank” | 242 | 33 | 275 | N/A | male | N/A      | N/A       | N/A  |
| IV-9  | <i>lanthanus</i> | “Caicos Bank” | 220 | 30 | 250 | N/A | male | N/A      | N/A       | N/A  |
| IV-10 | <i>lanthanus</i> | “Caicos Bank” | 215 | 29 | 244 | N/A | male | N/A      | N/A       | N/A  |
| IV-11 | <i>lanthanus</i> | “Caicos Bank” | 211 | 30 | 241 | N/A | male | N/A      | N/A       | N/A  |
| IV-12 | <i>lanthanus</i> | “Caicos Bank” | 208 | 28 | 236 | N/A | male | N/A      | N/A       | N/A  |
| IV-13 | <i>lanthanus</i> | “Caicos Bank” | 200 | 26 | 226 | N/A | male | N/A      | N/A       | N/A  |
| IV-14 | <i>lanthanus</i> | “Caicos Bank” | 195 | 28 | 223 | N/A | male | N/A      | N/A       | N/A  |

|       |                  |               |     |     |     |      |          |          |          |             |
|-------|------------------|---------------|-----|-----|-----|------|----------|----------|----------|-------------|
| IV-15 | <i>lanthanas</i> | "Caicos Bank" | 138 | 17  | 155 | N/A  | juvenile | N/A      | N/A      | N/A         |
| IV-16 | <i>lanthanas</i> | "Caicos Bank" | 332 | 38  | 370 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-17 | <i>lanthanas</i> | "Caicos Bank" | 283 | 34  | 317 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-18 | <i>lanthanas</i> | "Caicos Bank" | 281 | 35  | 316 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-19 | <i>lanthanas</i> | "Caicos Bank" | 278 | 29  | 307 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-20 | <i>lanthanas</i> | "Caicos Bank" | 274 | 32  | 306 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-21 | <i>lanthanas</i> | "Caicos Bank" | 274 | 30  | 304 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-22 | <i>lanthanas</i> | "Caicos Bank" | 272 | 31  | 303 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-23 | <i>lanthanas</i> | "Caicos Bank" | 270 | 33  | 303 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-24 | <i>lanthanas</i> | "Caicos Bank" | 270 | 30  | 300 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-25 | <i>lanthanas</i> | "Caicos Bank" | 264 | 32  | 296 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-26 | <i>lanthanas</i> | "Caicos Bank" | 263 | 29  | 292 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-27 | <i>lanthanas</i> | "Caicos Bank" | 263 | 21  | 284 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-28 | <i>lanthanas</i> | "Caicos Bank" | 259 | 32  | 291 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-29 | <i>lanthanas</i> | "Caicos Bank" | 259 | 31  | 290 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-30 | <i>lanthanas</i> | "Caicos Bank" | 257 | 30  | 287 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-31 | <i>lanthanas</i> | "Caicos Bank" | 256 | 30  | 286 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-32 | <i>lanthanas</i> | "Caicos Bank" | 255 | 31  | 286 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-33 | <i>lanthanas</i> | "Caicos Bank" | 254 | 31  | 285 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-34 | <i>lanthanas</i> | "Caicos Bank" | 253 | 32  | 285 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-35 | <i>lanthanas</i> | "Caicos Bank" | 250 | 30  | 280 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-36 | <i>lanthanas</i> | "Caicos Bank" | 247 | 30  | 277 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-37 | <i>lanthanas</i> | "Caicos Bank" | 247 | 29  | 276 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-38 | <i>lanthanas</i> | "Caicos Bank" | 241 | 32  | 273 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-39 | <i>lanthanas</i> | "Caicos Bank" | 237 | 28  | 265 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-40 | <i>lanthanas</i> | "Caicos Bank" | 237 | 25  | 262 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-41 | <i>lanthanas</i> | "Caicos Bank" | 235 | N/A | N/A | N/A  | juvenile | N/A      | N/A      | N/A         |
| IV-42 | <i>lanthanas</i> | "Caicos Bank" | 234 | 29  | 263 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-43 | <i>lanthanas</i> | "Caicos Bank" | 233 | N/A | N/A | N/A  | juvenile | N/A      | N/A      | N/A         |
| IV-44 | <i>lanthanas</i> | "Caicos Bank" | 228 | 29  | 257 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-45 | <i>lanthanas</i> | "Caicos Bank" | 220 | 28  | 248 | N/A  | female   | N/A      | N/A      | N/A         |
| IV-46 | <i>lanthanas</i> | "Caicos Bank" | 204 | N/A | N/A | N/A  | juvenile | N/A      | N/A      | N/A         |
| IV-47 | <i>lanthanas</i> | "Caicos Bank" | 188 | N/A | N/A | N/A  | juvenile | N/A      | N/A      | N/A         |
| IV-48 | <i>lanthanas</i> | "Caicos Bank" | 148 | N/A | N/A | N/A  | juvenile | N/A      | N/A      | N/A         |
| NT1   | <i>lanthanas</i> | North Caicos  | 320 | 35  | 355 | 21   | female   | 21.91906 | -72.0084 | 10 Aug 2008 |
| NT2   | <i>lanthanas</i> | North Caicos  | 330 | 39  | 369 | 32   | female   | 21.91937 | -72.013  | 10 Aug 2008 |
| NT3   | <i>lanthanas</i> | North Caicos  | 295 | 50  | 345 | 18.5 | female   | 21.91923 | -72.0133 | 16 Oct 2009 |
| NT4   | <i>lanthanas</i> | North Caicos  | 253 | 32  | 285 | 13   | male     | 21.91973 | -72.0127 | 17 Oct 2009 |
| NT5   | <i>lanthanas</i> | North Caicos  | 216 | 29  | 245 | 9    | male     | 21.91966 | -72.0128 | 17 Oct 2009 |
| NT6   | <i>lanthanas</i> | North Caicos  | 291 | 41  | 332 | 17   | female   | 21.91951 | -72.0126 | 17 Oct 2009 |
| NT7   | <i>lanthanas</i> | North Caicos  | 300 | 42  | 342 | 19.5 | female   | 21.91955 | -72.0133 | 17 Oct 2009 |
| NT8   | <i>lanthanas</i> | North Caicos  | 110 | 15  | 125 | 1.5  | juvenile | 21.91919 | -72.01   | 19 Oct 2009 |
| NT9   | <i>lanthanas</i> | North Caicos  | 343 | 32  | 375 | 10   | female   | 21.91965 | -72.0129 | 19 Oct 2009 |
| NT10  | <i>lanthanas</i> | North Caicos  | 252 | 38  | 290 | 13   | female   | 21.91953 | -72.014  | 19 Oct 2009 |
| NT11  | <i>lanthanas</i> | North Caicos  | 217 | 28  | 245 | 8.5  | female   | 21.91894 | -72.0135 | 19 Oct 2009 |
| NT12  | <i>lanthanas</i> | North Caicos  | 278 | 40  | 318 | 20.5 | female   | 21.91894 | -72.0135 | 20 Oct 2009 |
| NT13  | <i>lanthanas</i> | North Caicos  | 355 | 55  | 410 | 34   | female   | 21.91919 | -72.0145 | 20 Oct 2009 |
| NT14  | <i>lanthanas</i> | North Caicos  | 345 | 45  | 390 | 23   | female   | 21.91795 | -71.9935 | 20 Oct 2009 |
| NT15  | <i>lanthanas</i> | North Caicos  | 165 | 25  | 190 | 4    | female   | 21.91905 | -72.0083 | 21 Oct 2009 |

|                       |                  |                |     |     |     |      |        |          |          |             |
|-----------------------|------------------|----------------|-----|-----|-----|------|--------|----------|----------|-------------|
| NT16                  | <i>lanthanus</i> | North Caicos   | 252 | 28  | 280 | 10   | female | 21.91905 | -72.0083 | 21 Oct 2009 |
| NT17                  | <i>lanthanus</i> | North Caicos   | 301 | 39  | 340 | 19   | female | 21.91894 | -72.0135 | 21 Oct 2009 |
| NT18                  | <i>lanthanus</i> | North Caicos   | 260 | 35  | 295 | 12.5 | female | 21.91894 | -72.0135 | 21 Oct 2009 |
| NT19                  | <i>lanthanus</i> | North Caicos   | 280 | 40  | 320 | 17   | female | 21.91894 | -72.0135 | 21 Oct 2009 |
| MT1                   | <i>lanthanus</i> | Middle Caicos  | 280 | N/A | N/A | 12.0 | female | 21.83432 | -71.813  | 21 Oct 2009 |
| PRT1                  | <i>lanthanus</i> | Providenciales | 278 | 27  | 305 | 12.0 | male   | 21.7943  | -72.1738 | 26 Sep 2011 |
| MCZ42051 <sup>1</sup> | <i>greenwayi</i> | Ambergris Cay  | 316 | 43  | 359 | N/A  | male   | N/A      | N/A      | March 1936  |
| MCZ42052 <sup>1</sup> | <i>greenwayi</i> | Ambergris Cay  | 266 | N/A | N/A | N/A  | male   | N/A      | N/A      | March 1936  |
| BACT1                 | <i>greenwayi</i> | Big Ambergris  | 287 | 30  | 317 | 16.7 | male   | 21.32205 | -71.6325 | 20 Mar 2009 |
| BACT2                 | <i>greenwayi</i> | Big Ambergris  | 279 | 25  | 304 | 15.0 | female | 21.28796 | -71.6337 | 7 Mar 2022  |
| BACT3                 | <i>greenwayi</i> | Big Ambergris  | 246 | 38  | 284 | 11.0 | N/A    | 21.32324 | -71.6317 | 11 Mar 2022 |
| BACT4                 | <i>greenwayi</i> | Big Ambergris  | 255 | 32  | 287 | 10.5 | N/A    | 21.30429 | -71.6312 | 9 Mar 2024  |
| BACT5                 | <i>greenwayi</i> | Big Ambergris  | 288 | 26  | 314 | 19.5 | female | 21.30477 | -71.6299 | 13 Mar 2024 |
| BACT6                 | <i>greenwayi</i> | Big Ambergris  | 239 | 31  | 270 | 11.5 | N/A    | 21.32669 | -71.6342 | 14 May 2025 |

<sup>1</sup> Barbour and Shreve (1936)