speckled with isolated pale cream scales and the flanks between chevrons are still marked with diffuse pale cream spots. The blue base color is progressively obscured by dark gray on the tail, where the banding becomes less distinct with age. The alternating cream and black pattern on the dorsal crest is reduced but still evident.

The juvenile pattern changes to the adult form gradually, by further replacement of cream spots and speckling with the blue base color and the variable loss of the dark chevrons (some adults lose them entirely). Limbs also become blue, apart from the toes, which lose all banding and darken to black. The nuchal and dorsal crest scales all become bright blue, with no trace of the juvenile pattern. The lower half of the tail becomes darker, with banding either totally obscured or very indistinct. The sclera of the eye becomes redder and more exposed as the animal grows.

Having said all of that, a Blue Iguana is only blue when it wants to be blue. All that blue is masked in dark gray when an iguana is cold, sleeping, or just trying to remain inconspicuous. The gray color closely matches the surrounding carbonate karst rock, on which iguanas seem to vanish into the landscape. Watching these iguanas in the wild, they appear to use their color selectively and carefully, as signals to each other. In the greens and earth tones of Grand Cayman's dry shrublands, the bright blue of *C. lewisi* shines out like a beacon.

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# SPECIES PROFILE

## Ground Boas (Tropidophis) of the Cayman Islands

### A.C. Echternacht

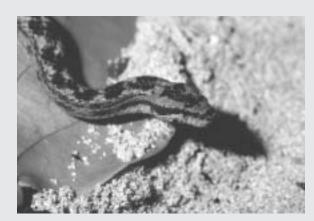
Department of Ecology & Evolutionary Biology University of Tennessee, Knoxville Photographs by the author.

ompared to their relatives in the families Boiidae and Pythonidae, the Ground Boas of the genus Tropidophis (Family Tropidophiidae) are relatively small and are sometimes referred to as "dwarf boas." The largest species reaches a total length of barely over a meter and the smallest less than a third of that length. Unlike most boas and pythons, Ground Boas lack infrared sensors in interlabial pits, but, like their larger relatives, they possess vestiges of hind limbs, which are visible externally as a pair of cloacal spurs. All are live-bearers. They are grounddwelling or semiarboreal and feed primarily on small vertebrates, mainly frogs and lizards. When disturbed, these snakes may exhibit autohemorrhaging from the eyes and mouth as well as cloacal discharge. On loose substrates, at least one species is known to employ sidewinding locomotion. Many (maybe all) species also are capable of physiological color changes, a phenomenon that is rare in snakes. Ground Boas apparently are unique among those snakes that can change colors in that they do so on a 24-hour cycle: they are lighter in color at night and darker during the day. All members of the genus are listed in CITES Appendix II and are rarely seen in the pet trade.

Species of *Tropidophis* are relatively broadly distributed in the West Indies and South America, but they are secretive. Consequently, many are not well-represented in museum collections and their taxonomy has been poorly understood. Previous



Adult Grand Cayman Ground Boa, Tropidophis caymanensis.



Subadult Little Cayman Ground Boa, Tropidophis parkeri.



classifications recognized 13–16 species, but a recent taxonomic study conducted by S. Blair Hedges elevated several subspecies to species rank and recognized 29 species. Three of these occur only in South America (Ecuador, Brazil, and Perú) and one is known only from a single specimen. The remaining 26 species occur in the West Indies, where most are restricted to single islands. Fifteen species are found in Cuba, and only in Cuba are the geographic ranges of multiple species (4–6 species, depending on the locality) known to overlap. Three species occur in Jamaica, two in the Bahamas, and one each on Hispaniola, Navassa, the Turks & Caicos Islands, Grand Cayman, Little Cayman, and Cayman Brac.

The local common name for the Ground Boas of the Cayman Islands is "lazy snake." The name is derived from their habit of balling up when first captured rather than trying to escape. This behavior is widespread within the genus and is most likely to be exhibited by juveniles. The three Caymanian species were, until recently, considered to be subspecies of *T. caymanensis*, each endemic (restricted) to a single island. Each is now considered a full species: *T. caymanensis* (Grand Cayman), *T. parkeri* (Cayman Brac), and *T. schwartzi* (Little Cayman). All three are relatively small snakes, usually less than 50 cm in total length.

In the Cayman Islands, Ground Boas are primarily active at night and, on Grand Cayman, Grant found them to be especially active late in the summer following periods of rain. Ground Boas may occur throughout Grand Cayman and Little Cayman, but on Cayman Brac they appear to be limited in distribution to the northern and western coastal areas. Most are found on the ground, but exceptions exist: they have been found in the leaf bases of epiphytes and Richard Thomas found one 2.4 m above the ground in the roof of an outhouse! They have been found in habitats ranging from beach to dry forest and in leaf litter, rotten tree stumps, cracks in the walls of houses, and under palm fronds, rocks, slabs of limestone, logs, and boards. The diet seems to consist mainly of lizards of the genus *Anolis* and Cuban Tree Frogs, *Osteopilus septentrionalis*. The ends of the tails of Caymanian Ground Boas are white to yellow in color, in stark contrast to the darker coloration of the rest of the snake. This pattern is usually seen in sit-in-wait (ambush) predators. As a snake lies quietly in wait, it wiggles the tip of its tail. This may attract the attention of a sight predator, like an anole or tree frog, that mistakes it for something to eat and ends up being eaten by the snake.

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