

Dwarf BOAS

Of the Caribbean

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A South American continental relative of the island-dwelling *Tropidophis*, *Trachyboa boulengeri* feeds on frogs and fish



Imagine relaxing at a lush Caribbean resort, beneath graceful palms on white sand beaches. Fresh seafood and rum-spiked drinks are standard fare. But the most interesting part of your tropical island vacation might be something that the travel brochures didn't dare to mention ... *snakes!*

The New World dwarf boas, Tropidophiidae, are an interesting lot. Within this family, the largest genus is *Tropidophis*, popularly known as the dwarf boas, wood snakes, or “tropes.” *Tropidophis*, consists of about 20 species, most found on islands of the West Indies, and a few on the South American continent. Another genus, *Trachyboa*, the rough or eyelash boas, consists of only two species found in northwestern South America. Two other genera — *Exiliboa*, the Oaxacan dwarf boa, found in southern Mexico; and *Ungaliophis*, the bromeliad or banana boa, found from southern Mexico to Colombia — have also been included in this family, but recent phylogenetic studies suggest

that they are more closely related to the family Boidae.

Distribution and habitat

Species of the genus *Tropidophis* are found on the Bahamas, Cuba, Hispaniola, Turks and Caicos Islands, Cayman Islands, and Jamaica. In addition, three species are known from disjunct locations in South America. The greatest diversity is

found in Cuba, which is home to at least 15 species. With the current rate of describing new species from this “hot bed” of dwarf boas, the total number of recognized species from Cuba alone could easily reach 20 or more.

Considered terrestrial to arboreal in habit, *Tropidophis* is found in a variety of natural habitats including rainforest, swamps, pine woods, and



Neonate *Tropidophis feicki* are extremely small, but readily feed on geckos (*Hemidactylus* sp.) in captivity

scrub, as well as in the vicinity of human habitation. It is usually found on the ground under rocks, logs, or palm fronds, but has also been seen among bromeliads in trees, as high as 10 meters above the ground. One record even cites a dwarf boa found on the roof of an outhouse, 2.5 meters above the ground.

The southeast Brazilian dwarf boa, *T. paucisquamis*, is believed to be especially arboreal. It has been found in trees near streams amid heavy congregations of chorusing frogs (CROMBIE, pers. comm.). Several of the more boldly patterned Cuban species — such as *T. feicki*, *T. semicinctus*, and *T. wrighti* — are especially strong climbers, and have been reported in trees, vines, caves, and even on cliff faces. The holotype specimen of *T. feicki* was collected in Cuba in a region full of steep-sided wooded hills called “mogotes” (GEHRMANN, pers. comm.).

In the Bahamas and Jamaica, dwarf boas are sometimes called “thunder snakes” or “water snakes,” possibly because they are frequently seen after heavy rains, and near swamps, wells, and water tanks.

Despite the relatively small size and cryptozoic nature of dwarf boas (making them difficult to find), there is evidence that some populations may be susceptible to extirpation. As the West Indies become increasingly accessible to vacationers, habitat alteration and destruction becomes an increasing threat to the survival of indigenous wildlife. Introduced feral animals (e.g., rodents, mongooses, cats, dogs, and goats) can also have a huge impact.

One species that is believed to be a casualty of human interference and introduced species is the Navassa Island dwarf boa, *T. bucculentus*. During the 1800s, large-scale mining operations existed on this tiny island about halfway between Cuba and Haiti. First described in 1868, *T. bucculentus* has not been seen for 100 years or so, and is now believed to be extinct.



Once grouped with dwarf boas in the family Tropidophiidae, the bromeliad boa, *Ungaliophis continentalis* is now thought to be more closely related to snakes of the family Boidae



Tropidophis maculatus, a terrestrial species found in western Cuba, is one of many spotted forms of dwarf boas

Description

Most dwarf boas average 30–60 centimeters in total length, but some, such as the Cuban *T. melanurus*, can attain lengths of nearly 1 meter. The majority of species are spotted or occasionally striped, usually in muted tones of brown, green, or gray. Some Cuban species, such as *T. feicki*, are

more attractive, characterized by alternating black and white bands or spots. Erythrism, an unusual red or orange coloration, is known to occasionally occur in several species.

Dwarf boas are capable of changing color between darker and lighter shades. When they are most active, generally at night or during the



Cuba is home to an amazing array of dwarf boas, including several banded forms such as this *Tropidophis fiecki*



Tropidophis greenwayi neonates are extraordinarily small



During mating attempts, a *Tropidophis haetianus* male usually coils its tail around the posterior part of the female

evening, many species of dwarf boas present a lighter color. During daytime periods of inactivity, they present a darker color. This physiological color change involves the movement of dark pigment granules, or melanosomes, in the skin: color darkens as melanosomes concentrate near the surface of the skin; color lightens as melanosomes move away from the surface. This physiological phenomenon is also seen in other snake species such as insular boa constrictors, *Boa constrictor imperator*.

Defense

Dwarf boas display interesting defensive strategies. They may coil into a tight ball, as seen in several other snakes — e.g., ball pythons, *Python regius*; burrowing pythons, *Charina* (= *Calabaria*) *reinhardtii*; rubber boas, *Charina bottae*; and bromeliad boas, *Ungaliophis* spp. On Andros Island in the Bahamas, the local name “shame snake” may refer to this behavior. Another defensive behavior displayed by species of *Tropidophis* is more unusual: when disturbed, the snake may bleed from the eyes, mouth, and nostrils. I have not witnessed this auto-hemorrhaging behavior in captive specimens, but it has been reported in *T. canus*, *T. caymanensis*, *T. haetianus*, *T. melanurus*, *T. pardalis*, *T. semicinctus*, and the South American *T. paucisquamis*. Auto-hemorrhaging is also known in other reptiles — e.g., horned lizards, *Phrynosoma* spp.; long-nosed snakes, *Rhinocheilus locontei*; eastern hognose snakes, *Heterodon platyrhinos*; and water snakes, *Nerodia erythrogaster*. Another defensive behavior, which dwarf boas share with most other snakes, is the emission of an unpleasant-smelling musk.

Diet

In the wild, dwarf boas take a variety of prey including lizards (*Ameiva*, *Anolis*, *Celestus*, *Leiocephalus*, and *Sphaerodactylus*) and frogs (*Eleutherodactylus*, *Hyla*, and *Osteopilus*), as well as small mammals and birds. These snakes are usually considered active hunters, but captive observations suggest that they may also hide in the substrate to ambush prey. Many species have a yellow or orange tail tip reportedly used to lure prey. It has also been suggested that the color of the tail may be for discouraging predators.

Captive maintenance

Although they are not often available in the pet trade, dwarf boas are generally easy to maintain in captivity. Because of their small size, they do not need large enclosures. They do need plenty of hiding places since they are shy and secretive. They should be provided pieces of cork bark, logs, and branches in addition to several inches of mulch or sphagnum moss substrate to burrow in. A spill-proof water bowl completes a basic setup.

Dwarf boas do well at temperatures of 23–29°C (73–84°F). It is best to provide a temperature gradient by heating one end of the enclosure with heat tape or incandescent light bulbs.

Feeding captive dwarf boas could present a problem. Being predominantly nocturnal, they are usually easiest to feed at night under dim light. Larger species such as the Cuban *T. melanurus* will take rodents, but many of the smaller species are steadfast lizard feeders. I have found that some species of dwarf boas, such as *T. haetianus*, can easily be tricked into taking pinkies. I rub the mouse with a lizard (dead or alive), or a small amount of pulverized lizard “paste,” to give it a lizard scent. On the other hand, *T. greenwayi*, which I have kept and bred, has proved to be an extremely difficult species to switch over to pinkies. Anoles, *Anolis* spp., and leaf-toed geckos, *Hemidactylus* spp., are ravenously devoured by most dwarf boas.

Reproducing *Tropidophis* is fairly straightforward. Research has shown that females in the wild have a distinctly seasonal ovarian cycle. I have successfully reproduced a couple of species (*T. greenwayi* and *T. haetianus*) by simply housing small groups together year-round, with minimal temperature fluctuations. However, long-term captive *T. feicki* kept together year-round did not exhibit reproductive behavior. Males and females were then separated and cooled down for a couple of months, after which the females were repeatedly placed into the male’s enclosure. Within a couple of months, both females were obviously gravid, and each gave birth to a litter of babies about 5 months later. Typical of many snakes, courtship behavior in dwarf boas involves the male wrapping the posterior third of its body in a tight coil around the female. Vigorous courtship bouts may ensue, with the pair tumbling over the substrate.

Brood size varies with species. Most give birth to 2–10 offspring, but females of larger species, such as *T. melanurus*, have been found with up to 36 ova, indicating that they are capable of producing larger broods.

Neonate dwarf boas measure 7.5–20 centimeters in total length. Feeding small neonates can be especially challenging. It is best to have a supply of small anoles, geckos, or treefrogs on hand. I have had success feeding anole limbs and tails (previously frozen to reduce the risk of parasites) to juvenile dwarf boas, and gradually moving on to larger food items as the snakes grow. In some species, sexual maturity can be reached in about 15–20 months.

The dwarf boas of the Caribbean are a varied group of snakes that have never garnered as much attention from hobbyists as have the larger, more colorful boas of the family Boidae. Because of the extremely restricted and insular distributions of dwarf boas, this inattention is probably a blessing with respect to conservation. It is hoped that encroachment by humans and introduced feral animals can be controlled so that future generations will be able to enjoy this assortment of tropical island gems. ■

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Tropidophis haetianus is a green spotted species found on Haiti and several offshore islands



Tropidophis greenwayi is found under rocks, leaf litter, and other debris