



*Photo Credit: Yuda Iyan

Asian Pipe Snakes (*Cylindrophis* spp.)

Snakes to Come Down the Pipeline?

Asian pipe snakes are a very unique, monotypic family of relatively primitive snakes found within the humid, lowland tropical areas of southern to southeastern Asia, and which also can tolerate brackish, semi-aquatic habitats within this range. Also sometimes known as the Asian Cylinder Snakes due to their round, uniformly cylindrical bodies lending to their names of “pipe” snakes, these very unique, secretive, and burrowing, fossorial species of snakes consist of approximately 14 species, depending on the taxonomy, with the Red tailed Pipe Snake (*Cylindrophis ruffus*) being perhaps the most commonly imported and kept of the species. A few other species also include, but are certainly not limited to the Aru Pipe snake (*C. aruensis*), Boulenger’s Pipe Snake (*C. boulengeri*), Burmese Pipe Snake (*C. burmanus*), Jodi’s Pipe Snake (*C. jodiae*), and the Island Pipe Snake (*C. opisthorhodus*). Ground coloration and patterning for these snakes can vary somewhat depending on the species, but generally can range from a glossy brownish to black, or bluish-black with variable yellowish to reddish to reddish-orange bands, vertical blotching, or rings circling the body. The undersides of their tails, which are displayed defensively, can have brighter yellow to reddish, or orange tips as well. Some specimens can also be striped, or patternless as well.

Pipe snakes are relatively small to medium sized snakes that can be identified by their thick, nearly uniformly rounded or cylindrical bodies giving them their common names, with quite indistinct and blunted heads and necks, and relatively small, indistinct eyes. Their tails are also fairly short, and quickly tapering, and with a lack of well-defined ventral scalation. Pipe snakes will engage in unique defensive behaviors when threatened, which can include flattening their bodies, and arching the posterior portions of their bodies and tails to display their oftentimes vibrantly colored and patterned ventral surfaces to startle potential predators. These snakes’ coloration and defensive behavior mimicry also sometimes lend to them resembling cobras (*Naja* spp.) or Southeast Asian coral snakes (*Calliophis* spp.) as well. Although pipe snakes still remain rather infrequently kept or bred in captivity here in the United States, and elsewhere, they can nonetheless make for very unique captives for the right reptile owner with moderate, or intermediate experience levels looking for a species to keep or work with that is just a bit different from any others!

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Reptilia

Order: Squamata

Suborder: Serpentes

Family: Cyliodactylidae

Genus: Cyliodactylus

Species: *Cyliodactylus spp.**

**Taxonomy subject to change and revision.*

Lifespan and Longevity

Captive longevity is uncertain, as many specimens may reach early mortality. However, Asian pipe snakes likely can attain potential captive longevity of at least 10 to 15 years or more with proper care and captive breeding techniques.

Distribution and Habitat

The Asian pipe, or cylinder snakes, are a very unique genus of primitive snakes indigenous to southern and southeastern Asia, ranging from Myanmar, Laos, Vietnam, Cambodia, and Thailand, to Malaysia, Singapore, and Indonesia. Range and distribution is dependent upon the exact species, and species can also range from Borneo and elsewhere in the Greater and Lesser Sunda Islands, to Sri Lanka and southeastern China. Within this range, pipe snakes are secretive and fossorial snakes, being found amongst the humid, tropical forests and woodlands, to rice paddies and agricultural areas, and swamplands often near water sources. These snakes also spend much of their time amongst the humid downed vegetation, burrows, and other debris and cover.

Origin/History

Cyliodactylus Wagler, 1828. Specific species would have other authors first describing them during different years.

Not much is known or documented about pipe snakes in the pet trade, although most, if not all are probably wild-collected imports. Relatively little is known about these snakes in the wild as well.

Experience Level Required

Intermediate/Moderate to Advanced.

Size

Asian pipe snakes can vary considerably in size as adults depending on the exact species. Depending upon the species, and their age, they may range anywhere in size from approximately 5 inches, to up to about 3 to 3 ½ feet, or 36 to 42 inches for the largest species.

Housing and Enclosure

Enclosure System: Fossorial to Somewhat Terrestrial. Housing must be sealed and escape proof. Newborn and juvenile pipe snakes can be housed in a 10 gallon terrarium or enclosure. Adult pipe snakes should be housed in a minimum of a 20 to 30 gallon long terrarium or enclosure. These snakes are highly fossorial and thus should be provided with at least 6 to 8 inches of substrate medium to allow burrowing, and to maintain adequate humidity levels. Substrates that can work well for this species can include cypress mulch, orchid bark, sphagnum moss, or peat moss. Substrate should be kept moist and be prevented from drying out, but also not be overly wet. Do not use pine or cedar shavings, as these substrates are toxic to snakes. Provide a shallow water bowl or dish and additional hide box at all times in the enclosure as well. Artificial foliage, driftwood, and other cage furnishings can provide additional hiding and

basking opportunities. Floor space is more important than height since pipe snakes are primarily terrestrial to fossorial.

Temperature, Lighting, and Humidity

Create a thermal gradient (or a warm side) in the cage/enclosure with an appropriate sized UTH (or tank heating pad), ceramic or radiant heat emitter, or incandescent, UVA/UVB, or other heat producing bulb. Ideal temperatures for pipe snakes range from 75 to 80 degrees F on the cool side and 80 to 88 degrees F on the warm side. Most species of snakes have fairly simple and undemanding heating and lighting requirements in captivity, and do not require additional UVA/UVB lighting, although providing it can be greatly beneficial for their health, immune system, and overall wellness. Also be sure to spot clean the enclosure for urates, feces, or uneaten food at least once per week. Be sure to periodically replace the substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months. These snakes require high relative humidity, and should be maintained at about 70 to 100% relative humidity overall. Providing sufficient humid hides or retreats can also assist with shedding and overall health. Also be sure to spot clean the enclosure for urates, feces, or uneaten food at least once per week. Be sure to periodically replace the substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Feeding, Diet, and Nutrition

Carnivorous; In the wild, relatively little is still known about the dietary and foraging of these Asian pipe snakes, although a variety of smaller, usually elongated vertebrates and invertebrates have been documented to be consumed, including small lizards, smaller snakes, and other smaller reptiles or amphibians such as caecilians, as well as eels and other elongated fish, large worms, insects, and other soft bodied invertebrates, and the occasional smaller rodent or other small mammals. At least a few species are believed to act as constrictors, and these snakes also have relatively unique and primitive jaw and skull bones allowing them to only ingest their prey in semi-rotational movements unlike the “pterygoid-walk” utilized by most other species of snakes. In captivity, pipe snakes have been recorded to eat feeder fish of appropriate size and nutritional value, as well as rodents such as rats or mice, although they may require scenting. In most circumstances, it is recommended to provide humanely pre-killed rodents acquired from a reputable source, as offering live rodents to any snake can carry risk of serious injury or even death to your snake when the rodent bites to defend itself or otherwise gnaws on your animal.

A general rule of thumb when selecting feeder rodent sizes for your snake is to provide prey items that are approximately the same width as the snake's widest point. It should also be noted that many snakes may refuse food for longer periods of time over several weeks or months, especially in the fall and winter months or if several other husbandry conditions are not being met, or, if in the case of these snakes, may be new or recent imports or acquisitions. While this can be alarming to new pet owners, it is oftentimes normal, but their overall health and weight should be monitored during these times to make sure they do not lose weight or otherwise deteriorate. Most snakes typically are fed whole prey items, and do not usually require additional calcium or vitamin D3 supplementation unless otherwise directed. Their feeding frequency will also depend on the age, size, and overall health of your animal. Use care as to not overfeed them, as obesity and other health related issues can become an issue. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

Pipe snakes are very unique snakes in that they possess very complex and intermittent mandibular and maxillary venom glands used to subdue their specialized, elongated prey. However, they are neither considered medically significant to humans or possess an efficient delivery system to do so, and rarely bite in self-defense. Instead, these snakes will flatten their bodies, and raise, or arch their tails and posterior portions of their bodies to display their bright and vibrantly colored and patterned undersides to startle would be predators. This is also performed while hiding their heads, and excreting noxious smelling musk and defecating. While these snakes may be unlikely to bite, they can still become stressed from frequent or overhandling, and should still be handled carefully and deliberately, as with any snake. However captive bred and born specimens, and those that fare importation can acclimate better to captivity and may be less inclined to perform defensive behaviors over time as they acclimate to their surroundings.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens****

Contact

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