

# MADAGASCAR HOGNOSE SNAKE CARE SHEET

(Genus *Leioheterodon*)

\*\*For generalized, background information on snake care and husbandry, please see the "General Snake Care Sheet" first\*\*

The Madagascar, or Malagasy hognose snakes consist of three species (Madagascar Giant, Blond, and Speckled), all endemic or native to the island of Madagascar off the coast of Africa. Much like the American hognose snakes (genus *Heterodon*), these medium sized to large heavy bodied colubrids use their upturned rostral scales at the end of their snouts for burrowing as a means of seeking refuge and for locating prey, which include frogs, toads, lizards, rodents, and bird and reptile eggs (all of which are consumed quite readily by these species). Some members of the genus *Leioheterodon* are also known to be the largest hognose snake species worldwide, sometimes reaching lengths of up to five feet. As with other hognose snakes, these species also possess enlarged rear fangs and mild venom utilized primarily for quickly subduing prey.

## \*Overall Difficulty Level: Novice-Intermediate

The Malagasy hognose species that are suitable for the novice to intermediate reptile enthusiast who possesses several previous years of solid knowledge and experience in maintaining relatively larger and more active snakes. Given the proper care, these hognose snakes can attain longevity of 15-25 years on average in captivity.

## Malagasy Hognose snake Taxonomy

Kingdom: Animalia

Phylum: Chordata

Class: Reptilia

Order: Squamata

Suborder: Serpentes

Family: Colubridae

Subfamily: Xenodontinae

Genus: *Leioheterodon*

## Species

**Madagascar Giant Hognose Snake (*Leioheterodon madagascariensis*):** This is perhaps the largest species in the genus, and among hognose snakes worldwide, sometimes reaching lengths of close to five feet (60"). This large species exhibits a yellowish, brownish yellow, to tannish brown ground color with large darker brown to black dorsal and lateral blotches. The neck and front third of the body typically exhibit the darkest coloration.

**Speckled Hognose Snake (*Leioheterodon geayi*):** Each dorsal and lateral scale of this species is heavily bordered in black, giving this species an overall dark and heavily speckled or mottled appearance over a tan, yellowish, to reddish brown ground color, therefore giving it an often "braided" appearance. Coloration often becomes a deeper red to reddish-orange at approximately one half to two thirds of the way down the body.

**Blond Hognose Snake (*Leioheterodon modestus*):** As its common name implies, this lightly colored *Leioheterodon* species is typically uniformly colored, with a ground color of tan, light brown, to pale yellowish. The lateral and labial scales are usually lighter whitish to cream colored than the dorsal scales.

## **Temperament and Handling**

Hatchling *Leioheterodon*, like many species of snake, are often initially more defensive as hatchlings or juveniles. As hatchlings or juveniles, they may exhibit the aforementioned hognose bluffing and/or death feigning behavior. However, with regular handling, most specimens in this genus of hognose snakes will become docile yet active and alert snakes when handled and will cease their likelihood to “perform”. It should be kept in mind however that even a supposedly docile snake may bite or react defensively if suddenly startled or frightened or when food is detected (resulting in a feeding response bite).

## **Enclosure/Housing**

The enclosure you choose must be secure to prevent the escape of the inhabitant and provide adequate ventilation. Hatchling to juvenile *Leioheterodon* can be maintained in a 15-20 gallon long glass terrarium with a secure screen top. Larger numbers of hatchling to juvenile hognose can be kept in commercially available rack systems consisting of appropriately sized plastic shoe box to sweater box sized containers with holes melted or punched in for ventilation. These containers are made by Iris, Rubbermaid, and Sterilite. Racks are usually heated with Flexwatt heat tape either installed along the back wall of the rack as back heat or on the rear half of the floor of each slot as belly heat, and should be monitored with a quality thermostat.

Adult *Leioheterodon* are relatively large and active colubrids that require at minimum a 40-gallon long glass terrarium or similar sized/larger commercially available plastic, wooden, melamine, or PVC enclosure with front opening sliding or hinged acrylic or glass doors. These types of enclosures provide increased security for snakes within them and space can be better utilized with them since they are stackable, and temperature and humidity can be relatively easy to control within them. Many of these types of caging are also available with built in lighting and heating elements as well. Adults can also be kept in commercially available rack systems consisting of appropriate sized sweater to blanket box sized containers (41 quart or larger), as previously described.

A hide-box for allowing the snake to retreat from view is recommended as part of a terrarium setup as well. Besides commercially available hide boxes, you could modify many things to serve as a hide box. They can include opaque plastic storage container, plastic litter pans for cats, and inverted flowerpots for example. A water dish should also be provided within the enclosure and be changed at least once weekly or sooner if fouled. The dish should be heavy enough so that it isn't easily tipped over (plastic or ceramic crock dishes work well). It should also be cleaned and disinfected periodically.

## **Temperature and Heating**

As with all reptiles, *Leioheterodon* are ectothermic animals, meaning it is important to provide them with an external heat source and thermal gradient for proper digestion and gestation. There should be a warm side and a cooler side to the enclosure. To create the warm side, you can use an under tank heater (UTH), Flexwatt heat tape, or a radiant heat panel on one half of the enclosure. Many commercially available plastic and PVC enclosures and racks come with their own heating elements. The warm side should remain around 87-90 degrees Fahrenheit. It is also important to disallow any snake to come into direct contact with any heating element, as thermal burns can result, and can sometimes be severe, requiring professional veterinary attention. UV or other overhead lighting is not required for most species of snakes. However, overhead UV lighting or fluorescent lighting can improve the cage's aesthetics as well as visibility within.

## **Substrate**

The substrate is the enclosure's bedding. Cypress mulch, aspen shavings, or aspen Sani Chips are all acceptable substrates for Malagasy hognose snakes. Avoid pine and cedar shavings, as these substrates are toxic to snakes. The substrate should be kept dry and be spot cleaned when needed to reduce the likelihood of bacterial outbreaks. A complete substrate change and replacement should be done periodically as well, with that interval depending on the substrate being used.

## **Feeding and Diet**

Being members of the Xenodontinae snake subfamily, Leioheterodon possess enlarged rear teeth and mildly toxic saliva designed primarily to seize and subdue small prey items such as small lizards, small rodents, and amphibians. Although not normally considered medically significant to humans, some caution nevertheless should be given when food is present.

Most Leioheterodon specimens feed readily and regularly on pre-killed, frozen thawed rodents of appropriate size. Pre killed chicks or quail will also be frequently and eagerly accepted by these species. Neonates can be started off two to three times weekly on hopper to small adult mice or even weanling rats. The size of the prey item should be increased accordingly as the snake grows. A general rule of thumb to follow is to offer prey items that are no larger than the widest point of the snake. Adult Leioheterodon can be offered large adult mice to small adult rats every five to seven days. It is important to not to overfeed your hognose snake, since obesity and compromised health of the snake can result over time. On occasion, some neonate or juvenile hognose snakes may be fussier eaters and may initially accept only frogs, toads, or lizard prey items. In these cases, if one wishes to switch the snake over to rodents, various scenting techniques may need to be performed. In some cases, mixing the rodent prey item within a bag of the preferred prey item will work. Other scenting options that are available include "braining" the pre-killed prey items as a means of enticing the snake to feed.

Most herpetoculturists and reptile keepers generally prefer and advocate to feed their snakes pre-killed and then frozen thawed rodents, which can easily be offered with the appropriate length tongs or hemostats (using your hands often leads to the snake mistaking your hand or fingers for food, resulting in being bitten). Pre killed prey items do not pose the risk of inflicting injury to the snake as would a live rodent and are widely available at many pet stores, reptile shows, and wholesale suppliers. If you (or the snake) insists on feeding live prey items, then at a minimum do not leave the snake and prey unattended in the same enclosure for extended periods of time. Serious injuries to the snake have been known to result. Sometimes during feeding, a snake may also get substrate bits in its mouth, leading to the concern that some have about the snake becoming impacted. Substrate ingestion is not typically a problem if only a small quantity of substrate is accidentally ingested and the snake is well-hydrated.

## **Summary**

Although all three of the Leioheterodon species (which include the largest species of hognose worldwide) have traditionally been wild caught and imported for the most part, these species seem to now have become kept and propagated in the herpetocultural hobby and industry in recent years with at least some regularity. For the novice to intermediate reptile enthusiast seeking a unique, active, and relatively less commonly kept opisthoglyphous (or rear fanged) colubrid, any of the Leioheterodon species can make for quite suitable captives that typically possess strong and reliable feeding responses towards pre-killed feeder rodents.