

# Care Cards

## Hognose Snakes



Hognose snakes make up the genus *Heterodon* of the family *Colubridae*. The three main species are the Southern hognose, *Heterodon simus*; the Eastern hognose, *Heterodon platyrhinus*; and the Western hognose, *Heterodon nasicus*. Currently, there are three recognized subspecies of the Western hognose. They are the plains hognose, *H. n. nasicus*, the dusky hognose *H. n. glyodi*, and the Mexican hognose, *H. n. kennerlyi*.

The hognose snake gets its name from the characteristic upturned rostral scale. The scale is a single undivided scale at the front of the head. The scale is found in all species, however it is the most noticeable in the Western hognose. The hognose snake is a short, stout snake. The overall size varies; the Eastern hognose reaching nearly three feet, the Western hognose averaging two feet, and the Southern hognose being the smallest at one and one half feet in total length. Some varieties are sexually dimorphic with the females being larger in overall size than the males. The snakes are marked with an alternating pattern of large rectangular spots down the dorsal midline and dark spots along each side. The underlying body color varies from yellow to olive. Occasionally, the underlying color will be so dark it gives the snake the illusion of being all black in color.

The hognose snake has two very different forms of defense. The first form involves flattening the head and neck, then inflating the body to almost twice the resting size. A loud hissing sound

and actually striking at the intruder follows this. Because of this size increase the snake has been called a "puff adder." The interesting thing is that the snake keeps its mouth closed when striking. These actions, along with the heavy keeling of the scales, give the hognose snake the appearance of a rattlesnake. If the aggressive act fails, the snake will simply roll over on its back with its mouth open and tongue hanging out and play dead. Often during this act the snake will defecate a foul-smelling feces and bleed slightly from its mouth. If the snake is turned over it will simple roll back over again. I was once told by a fellow veterinarian, occasionally some snakes will lower their heart rate during this act to a point where the snake will actually die. His theory on this was that it was nature's way of weeding out the dumb genes.

Hognose snakes do not require large enclosures. Their overall adult body length should not exceed three feet. Aquariums which are fifty gallons or larger make adequate enclosures. Of course if space is not limited, the larger the enclosure, the happier the reptile. Hognose snakes like to burrow and this should be considered when selecting a substrate item. Although newspaper, butchers paper and indoor-outdoor turf-type carpeting are inexpensive and easy to clean, your snake will not be comfortable with these choices. Preferred substrate items include child's play sand, crushed walnut or small wood shavings. Always use caution when feeding any reptile housed on these substrate items to prevent accidental ingestion. The substrate should be provided at a depth to allow the snake to burrow. A hide box should also be provided to insure a safe area for the snake. In general, hognose snakes do not climb and therefore do not require any branches within their enclosure.

A water bowl should be provided for soaking as well as drinking. Care should be used to prevent the enclosure humidity from getting too high. Hognose snakes exposed to high humidity levels, especially during hibernation, are prone to developing blister disease.



Hognose snakes are crepuscular animals (active at dusk and early morning). The daytime temperature should be between 83-93 degrees Fahrenheit. The nighttime temperature can drop to 73-78 degrees Fahrenheit. Hognose snakes do not bask like other snakes, therefore a temperature gradient should be provided for normal thermoregulation. The hognose snake is diurnal and just like any other snake should have a full-spectrum ultraviolet light provided in their enclosure. They will also benefit from a reptile night light during the dark cycle.

Hognose snakes will feed on a variety of items, although their primary food items are toads and frogs. Most species will also feed on lizards, salamanders, worms, insects, small mammals and birds. Hognose snakes appear to be immune to the poisons secreted by toads. They have elongated teeth in the back of their mouths to help puncture inflated toads and frogs to allow for easier swallowing. These teeth possess a small amount of venom that the snake uses to subdue the prey items. Because of these teeth, some consider them to be venomous and rear-fanged. Venom is basically modified saliva, and if the saliva is toxic the animal should be considered venomous. Of all the varieties of hognose snake, the eastern hognose is considered the most toxic. The genus name *Heterodon* means "different tooth," which many feel is a reference to their enlarged rear teeth. When compared to amphibians, mice have been shown to be superior food items and therefore should be fed whenever possible.

When using an exclusive amphibian diet, the snake should be routinely dewormed twice a year because of the high parasite load within most amphibians. Some hognose snakes will not eat in the winter regardless of their cage temperature and should be allowed to hibernate naturally.

Prior to breeding, the hognose snake should go through a cooling down or hibernation or brumation period of two to four months. Many experts feel that males used for regular breeding without hibernation have a decreased fertility rate. Additionally, females not allowed a hibernation period might either resorb their eggs or produce slug eggs. Most owners will hibernate their hognose snakes during the winter months. Following a post-hibernation warming period, courtship will begin. The normal hognose breeding cycle is from April to June. Approximately four weeks later, the female will deposit her eggs in an area of moistened soil. The gravid female will have a pre-laying shed approximately seven to ten days prior to egg deposition. Clutch size varies from five to thirty eggs, with the average being 12-15. Following incubation in standard medium at a temperature between 82-84 degrees Fahrenheit, the eggs will hatch in 53-63 days. New hatchlings are very small and must be fed appropriately sized prey items. Occasionally, prey items will need to be cut into smaller pieces and even force fed for some hatchlings. Sexual maturity is usually acquired by two years of age. The average captive longevity for a hognose snake is seven years.

Hognose snakes are good reptiles for experienced hobbyists. Their moderate size and ease of care makes them a good choice for herpers with limited space for their hobby. Care should always be taken when handling any adult hognose snake. Although the argument is still ongoing concerning their venomous versus non-venomous stature, there have been numerous documented cases of various reactions following hognose snake bites.

