

Western Hognose Snake (*Heterodon nasicus*)

Difficulty: Intermediate

Western hognose snakes are a fossorial (burrowing) species of snake native to the western half of the US, and in some parts of southern Canada and northern Mexico. They prefer shortgrass prairie (grassland), dry rocklands, and coastal inland areas with sandy soil. As a fossorial species, hognose snakes spend a significant amount of time underground.

Western hognoses grow up to 35" (89cm) long, with males being much smaller than females. Western hognose snakes typically have a blunt triangular head, an upturned nose, and keeled scales along the body. Wild western hognoses are fairly uniform in appearance, although there are many color and pattern variations (morphs) available in captivity. "Normal" types are sandy colored with darker brown round or oblong markings, occasionally reddish.

Hognose snakes are popular because of their compact size, but they can be tricky to keep because of their picky eating habits. More notably, hognose snakes are rear-fanged venomous. Their venom is not considered medically significant in humans, but it can cause significant discomfort in bite victims.

Hognose snakes generally live 10-15 years in captivity.

Shopping List

- 36" x 18" x 18" reptile enclosure (preferably front-opening)
- Mini dual dome heat lamp with ceramic sockets
- 75w reptile heat bulbs, x2 (white)
- Plug-in lamp dimmers, x2
- Flagstone or paver stone (for basking)
- Digital thermometer/hygrometer devices with probes, x2
- Infrared thermometer ("temperature gun")
- 22" T5 HO forest UVB bulb (Arcadia or Zoo Med brand)
- 24" T5 HO light fixture with reflector
- Pressure sprayer
- Surge protector with digital timer
- 4" of moisture-retentive naturalistic substrate
- Environmental enrichment items (caves, hollow logs, sturdy branches, live/fake plants, etc.)
- Water bowl
- Feeding tongs, at least 12"
- Frog/lizard scenting liquid

Housing

As a fossorial species, Western hognose snakes specialize in burrowing, so their enclosure needs to offer plenty of available floor space. It's best to keep them in no smaller than a 40 gallon (36" L x 18" W x

18"H) enclosure. Of course, using a larger enclosure than the minimum is strongly recommended, particularly if you have a large female. Bigger is always better!

Can multiple hognose snakes be housed together?

Hognose snakes are not social animals, and there is no significant benefit to the animal that would justify keeping two or more in the same enclosure. In fact, keeping multiple snakes together can cause competition for food, warmth, hiding places, and other resources, which is likely to prevent the snakes from thriving. So it's best to keep only one per enclosure.

Lighting & UVB

Unlike many snakes in the pet trade, hognose snakes are diurnal, which means that they are most active during the day, rather than at night. Because hognose snakes are diurnal, providing a source of light in the enclosure during the day is good for their mental health. For best results, use a timer to automatically turn them on and off. Provide around 12 hours of light per day.

UVB Lighting

UVB lighting can be tricky, because in order to get the right strength of UVB (UV Index, or UVI), distance and potential mesh obstruction must be considered. To provide appropriate UVB, you will need a T8 Zoo Med Reptisun 5.0 or T8 Arcadia D3+ Forest 6% bulb, long enough to span half of the enclosure and placed on the warm side of the enclosure, preferably not obstructed by mesh.

The basking area should be placed as follows:

- UVB mounted over mesh: basking branch 6-9" below UVB lamp
- UVB mounted under mesh: basking area 10-15" below UVB lamp

(These recommendations are approximations based on available data. For best results, use a Solarmeter 6.5 to determine the best placement to achieve a UVI of 2.0-3.0 in the basking area.)

Full-Spectrum Lighting

Bright light with a color temperature of 6000-7000K is suggested by experts to be particularly important to diurnal reptiles' mental health. Hognose snakes with additional "daylight" lighting in their enclosure are likely to be more alert and active than those without, as well as demonstrating better appetite.

Full-spectrum lighting is not the same as reptile UVB lighting, so you will need two separate lamps. A 22" T5 HO 6500K grow light is excellent for this purpose.

Heating

Humans are *warm-blooded*, which means that our body temperature is automatically regulated. Hognose snakes, however, are *cold-blooded*, which means that they have to move between areas of different temperatures in order to regulate their body temperature. Hognose snakes warm up by basking in warm patches of sunlight. In captivity, using a halogen flood heat bulb is the best way to replicate the type of warmth provided by sunlight.

- **Basking surface:** 90-95°F (32-35°C)
- **Cool zone:** 70-75°F (21-24°C)

Generally speaking, a couple of 75w white reptile heat bulbs should be plenty to achieve your target basking surface temperature on the basking area. If you notice that they're getting too hot, dial it down with a plug-in lamp dimmer. If your basking surface is too cool, you need higher wattage bulbs.

You will need multiple heat bulbs to create a large enough basking area to evenly heat your snake's coiled body. Two bulbs should be enough for an average Western hognose snake.

To measure the basking surface temperature, use an infrared thermometer (a.k.a. temperature gun). To measure the temperature of the warm hide, use a digital probe thermometer. The Etekcity 774 is a good infrared thermometer, and most reptile-brand digital probe thermometers function well.

The heat lamps should be turned off at night.

Humidity

Western hognoses prefer an average humidity of 30-50% in their enclosure, as measured by a digital probe hygrometer with the probe place in the middle of the enclosure. Humidity levels that are consistently higher or lower than this range can make your pet unwell, although it is normal for humidity to be higher on the cool end and lower on the warm end, as well as higher at night.

To raise humidity in your snake's enclosure, you can use a pressure sprayer to mist the habitat as needed. Placing a layer of leaf litter on top of the substrate helps maintain humidity and also provides a source of enrichment.

Substrate

As a fossorial species, hognose snakes are very dependent on the substrate element of their terrarium. They need to be housed on a substrate (a.k.a. "bedding") that imitates the conditions of their natural habitat, holds tunnels, and facilitates moderate humidity levels.

Zoo Med Reptisoil and Zilla Jungle Mix are the most soil-like commercial substrates and hold moisture well. In a pinch, you can use hemp bedding or shredded aspen. Alternatively, you can use a DIY mix of 80% organic, additive-free topsoil + 20% play sand.

Provide a substrate layer that is at least 4" deep, but if you can provide more, deeper is great for this species. Provide a generous layer of clean leaf litter on top to give your snake something to explore.

Feces and urates should be removed daily, and contaminated substrate should be scooped out and replaced. Substrate should be completely replaced once every 3-4 months.

Décor

Decorations play an important role in your hognose snake's enclosure as environmental enrichment. Enrichment items encourage exercise, stimulate your snake's natural instincts, and help promote overall wellbeing. And, of course, they make the enclosure look nice!

Décor ideas: additional hideouts/caves, cork logs, sturdy branches, sturdy live or artificial plants

Food

Hognose snakes are carnivores, which means that they need a diet of whole animal prey in order to get the nutrition that their bodies need. How much and how often they need to eat can be estimated by age:

- **Hatchlings:** Pinky mouse every 3-4 days
- **Adults:** 2-3 rat fuzzies/pups every 4-5 days

At each feeding, provide a prey item(s) which is approximately the same diameter as your snake's head. As the snake grows, gradually increase the size of the prey. If it is too large, your snake may regurgitate, which is extremely stressful for the snake and can be dangerous to their health.

Although mice are the most commonly available feeders, hognose snakes need to eat more than just rats and mice to truly thrive. In fact, in the wild they're toad specialists, and hognose snakes are known to have some trouble digesting prey with too much fur. Providing a variety of different prey keeps mealtime interesting and balances your snake's nutrition. Here are some alternative ideas:

Prey item ideas: young mice, young rats, quail eggs, green anoles, captive-bred frogs/toads, Reptilinks

It's best to offer frozen-thawed prey rather than live to your pet snake. This is safer for the snake and generally considered to be more humane as well. Prey should be thawed in a plastic bag in warm water before offering. Use soft-tipped feeding tweezers to reduce the risk of getting accidentally bitten when the snake strikes. If the snake refuses, try squirting some frog or lizard scenting liquid on the prey item.

Water

Your hognose snake should have free access to a bowl of fresh, clean water daily. It should be just large enough for the snake to curl up inside if it's in the mood for a soak.

Handling

Hognose snakes very rarely bite out of defense/aggression, preferring to bluff their way out of a threatening situation. But they're not the brightest bulbs in the box, and sometimes they will bite their keepers if they mistake a human hand for prey.

For a snake of this size, the bite itself is far from severe. However it's important to note that hognose snakes are rear-fanged venomous, and although their venom is not considered medically significant to humans, it can cause localized swelling and significant discomfort. For this reason, it is best to wear leather gloves or similar for handling your hognose snake.

For more detailed information about Western hognose snake care, read the full-length [Hognose Snake Care Guide](#) at ReptiFiles.com.