

Black / Texas Ratsnake (*Pantherophis obsoletus*)

Difficulty: Intermediate

Black ratsnakes (*Pantherophis obsoletus*) are also known as the western ratsnake and Texas ratsnake. They vary in appearance based on locality — they can be jet black with a bright white belly and lips, or they can have brown to gray base color with a pale underside and darker blotches down the length of their body. In some cases, they may be yellowish or reddish. The underside is likely to have a checkered pattern. Black ratsnakes typically grow to 3.5-6' / 1.1-1.8m long, but can get as big as 8.5' / 2.6m.

Black ratsnakes are diurnal, semiarboreal, and native to the central eastern United States. They can be found in a variety of different habitats, such as bayou, prairie, forested areas, and rock outcrops. This species is highly capable at both climbing and swimming, and often found in trees, particularly oak trees.

Black ratsnakes are not particularly common in captivity, but due to their lively nature and diurnal activity pattern, they can make good pets for the right keeper. With attention to good black ratsnake care practices, they can live 15 years or more.

Shopping List

- 6' x 3' x 4' reptile enclosure, front-opening, mesh top
- Dual dome heat lamp with ceramic sockets, x2
- 50w PAR30 halogen flood bulb, x2
- Two-socket rheostat, x2
- Thick, sturdy branch (for basking)
- Digital thermometer/hygrometer device with probes, x2
- 34" T5 HO forest UVB bulb (Arcadia or Zoo Med brand)
- 36" T5 HO light fixture with reflector
- 46" LED or T5 HO grow light
- Pressure sprayer
- Surge protector with digital timer
- 3-4" coconut fiber substrate (140-180 quarts)
- Sphagnum moss
- Reptile hides/caves (at least 2)
- Environmental enrichment items (hollow logs, sturdy branches, live/fake plants, etc.)
- Extra-large water bowl
- Soft-tipped feeding tongs, at least 12"

Housing

Black ratsnakes are active snakes that love to explore, so although they may seem small because of their slender build, they still need plenty of room. As a generalization, the minimum enclosure size for one average black ratsnake is going to be **6'L x 3'W x 4'H**. However, using a larger enclosure than the minimum is always strongly recommended. Bigger is always better!

Due to their length, it may be more practical to build your own enclosure for your black ratsnake rather than buy one. The DIY Reptile & Amphibian Enclosures group on Facebook is a good place to get tips on how to do this.

Can multiple black ratsnakes be housed together?

Black ratsnakes are not social animals, and there is no significant benefit to the animal that would justify keeping two or more in the same enclosure.

Lighting & UVB

As a general rule, lights should be on for 12 hours/day, but it's best to adjust according to your local sunrise/sunset times if possible in order to match seasonal cycles. The easiest way to do this is by using a smart timer (I've been happy with [Kasa](#)).

UVB Lighting

UVB lighting has also been proven to be beneficial to snakes' health. So although black ratsnakes can technically survive without UVB, we strongly recommend providing it in order to promote optimum welfare in captivity.

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 for a black ratsnake, you will need a [Zoo Med T5 HO Reptisun 5.0](#) or [Arcadia T5 HO 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 branch or platform should be placed according to the following, with distance being measured between the UVB lamp and the height of the snake when on the basking surface.

- With mesh obstruction: 9-12"
- Without mesh obstruction: 12-14"

Use an [Arcadia ProT5](#) or [Vivarium Electronics](#) fixture for best results.

(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.)

General Illumination

Black ratsnakes are known to be active during both day and night, which means that providing bright illumination during the day is likely to be beneficial in stimulating activity and natural behaviors. You will need a nice bright 6500K LED or T5 HO fluorescent grow light, long enough to span most of the enclosure's length. I prefer the [Arcadia Jungle Dawn LED Bar](#) and the [Bio Dude Glow & Grow LED](#).

These lamps are also great for supporting any live plants you may have in the setup.

Heating

Humans are *warm-blooded*, which means that our body temperature is automatically regulated. Black ratsnakes, however, are *cold-blooded*, which means that they have to move between areas of different temperatures in order to regulate their body temperature. Black ratsnakes typically 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 area: 85-90°F (29-32°C)**
- **Cool side: 72-77°F (22-25°C)**

Heat sources should be turned off at night so the enclosure can cool down.

Generally speaking, a cluster of 50w PAR30 halogen flood bulbs such as the [Arcadia Halogen Heat Lamp](#) or [Zoo Med Repti-Tuff Halogen Lamp](#) should be plenty to achieve your target basking temperature. If you notice that it's getting too hot, dial them down with a rheostat (although for more precise temperature control, I recommend the [Herpstat 4](#) thermostat). If your basking area 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 ratsnake's coiled body. You are likely to need a cluster of four bulbs for an average kingsnake. The easiest way to install this is with two dual dome fixtures such as the [Zoo Med Combo Deep Dome lamp](#).

To measure the temperature of the basking area, use a digital probe thermometer with the probe placed on the basking branch. To measure the temperature of the cool zone, use another thermometer with its probe placed on top of the substrate. Most reptile-brand digital probe thermometers function well.

Humidity

Black ratsnakes need an **average humidity of 50-70%**, as measured by a digital probe hygrometer with the probe placed in the middle of the enclosure. Humidity levels will naturally fluctuate lower during the day and higher at night.

To raise and/or maintain humidity in your snake's enclosure, use a pressure sprayer to mist the habitat as needed. It's also a good idea to place moistened sphagnum moss inside the cool hide to create a humid retreat. Check and change this moss regularly to prevent mold growth.

Substrate

Black ratsnakes are healthiest and happiest when they are housed on a substrate (a.k.a. "bedding") that imitates the conditions of their natural habitat and facilitates moderate humidity levels. Soil is generally best for meeting this need.

Here are some suitable substrate options for black ratsnakes: DIY temperate mix (40% plain topsoil + 40% Zoo Med Reptisoil + 20% play sand), [Zoo Med Reptisoil](#), [Zoo Med Eco Earth](#), [Exo Terra Plantation Soil](#), [Bio Dude Terra Firma Bioactive Kit](#)

Provide a substrate layer that is around 4" deep. For a 6x3 enclosure, that will take at least 180 quarts (6 cubic feet) of substrate. I also recommend laying down a generous layer of clean leaf litter on top to help retain humidity and give your snake an extra 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 kingsnake'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!

Environmental enrichment ideas for black ratsnakes: cork rounds, cork flats, grape wood, ghost wood, magnetic ledges, hammocks, artificial plants, sturdy live plants

The more hiding places your snake has access to, the more likely it will be comfortable hanging out in the open where you can see it. Hides should be small enough to provide a tight fit for the snake when coiled.

Food

Black ratsnakes are carnivores, which means that they need a diet of whole animal prey in order to get the nutrition that their bodies need. How often they need to eat can be estimated by age: Hatchlings every 5-7 days, juveniles every 5-7 days, and adults every 7-14 days.

The size of your snake's prey should be no more than 1.5x the width of the snake at its widest point, or if you're using multiple feeders, it should add up to no more than 10% of its body weight. If the snake seems to be getting fat, reduce the frequency of feedings or the size of the feeders.

The key to providing a healthy, balanced diet for your pet snake is VARIETY. Provide as varied of a diet as you possibly can, and you will be rewarded with a healthier, less picky pet!

Prey ideas for black ratsnakes: mice, rats, African soft-furred rats, hamsters, gerbils, young quail, quail eggs, chicks, chicken eggs, green anoles, house geckos, small snakes, Reptilinks

These can generally be purchased from high-quality breeders such as [Layne Labs](#), [RodentPro](#), and [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. Use soft-tipped feeding tweezers to reduce the risk of getting accidentally bitten when the snake strikes.

Supplements

Snakes can survive without vitamin or mineral supplements, but using them occasionally is a good way to help prevent nutritional deficiencies. Every once in a while, lightly dust the prey item with a 50/50 mix of calcium and multivitamin before thawing.

[Arcadia Revitalise D3](#) and [Repashy CalciumPlus](#) are both good supplements to use that come pre-mixed.

Drinking Water

Your ratsnake should always have access to a large bowl or tub of fresh, clean water. It should be large enough for the snake to curl up inside if it's in the mood for a soak. Scrub the water dish with veterinary disinfectant such as [Rescue](#) or [F10SC](#) weekly for good hygiene.