



*Mike Day

Eastern and Western Fox Snakes (*Pantherophis vulpinus*) and (*Pantherophis ramspotti*)

Midwestern Natives

Fox snakes are medium to large colubrid snake, and are specifically a ratsnake species with a brown, yellowish, to yellowish brown ground color with three rows of alternating dark dorsal and lateral blotches. Fox snakes are also strong climbers and may ascend posts, low trees and shrubs, and other outbuildings in search of food and shelter as well. The head of most adults is a rusty reddish-orange, which often leads to them being mistaken for a copperhead. As with many harmless, nonvenomous snakes, fox snakes will rattle their tails in dry vegetation and secrete a noxious smelling musk said to smell like that of a fox den, hence the common name. They are nevertheless harmless and very beneficial natural predators of rodents and other pest species, and are also often referred to as “pine snakes” in Wisconsin and other areas of the Midwest. True pine snakes, however, belong to the genus and species *Pituophis melanoleucus*, and are not naturally found in Wisconsin or the Midwest.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Reptilia

Order: Squamata

Suborder: Serpentes

Infraorder: Alethinophidia

Family: Colubridae

Subfamily: Colubrinae

Genus: *Pantherophis*

Species: *Pantherophis vulpinus** and *Pantherophis ramspotti**

*Taxonomy subject to change and revision.

Lifespan and Longevity

If provided the proper care, fox snakes can attain longevity of 15 to 25 years or more in captivity.

Distribution, Species, and Habitat

Fox snakes are medium to large sized colubrid snakes indigenous to the Midwestern United States and Southeastern Canada. Formerly, the Eastern fox snake (*P. gloydi*) was restricted in

range to Ontario and portions of the Midwestern U.S. (mainly Ohio and Michigan) where it was thought to have been found in the emergent marshes and wetlands along the Great Lakes Shorelines. The western fox snake (*P. vulpinus*) was more common and widespread, being found in marshes, wetlands, prairies, open meadows and fields, and woodlot edges. Recent taxonomic reclassification however has reclassified all fox snakes east of the Mississippi River as the eastern fox snake (*P. vulpinus*) and all fox snakes west of the Mississippi River as the western fox snake (*P. ramspotti*).

Origin/History

Pantherophis vulpinus (Baird & Girard, 1853); *Pantherophis ramspotti* Crother, White, Savage, Eckstut, Graham & Gardner, 2011.

Fox snakes have no specific history in herpetoculture or the pet trade, as they would be kept and bred in captivity for many decades, since at least the 1960's or 1970's. However, their comparatively small ranges in the U.S. could have led many to not even know or become aware of these species in herpetoculture.

Experience Level Required

Novice/Beginner to Intermediate/Moderate.

Size

Fox snakes range from 5 to 10 inches as hatchlings, and 3 to 5 feet, or 36 to 54 inches on average as most adults. Some very large fox snakes can reach up to 6 feet, or 72 inches.

Housing and Enclosure

Enclosure System: Primarily Terrestrial to Semi-Arboreal. Housing must be sealed, secure, and escape proof. Hatchling fox snakes can be housed in a 10 gallon terrarium or enclosure. Adult corn snakes should be housed in a minimum of a 20 to 40 gallon long terrarium or enclosure. Fox snakes are semi-arboreal, but floor space is more important than height. Provide a substrate that can enable burrowing or hiding such as fine aspen shavings, cypress mulch, or coconut fibers. Do not use pine or cedar shavings, as these substrates are toxic to snakes. Provide additional basking and hiding opportunities using live or artificial foliage, rocks, logs, driftwood, or other hides. Also be sure to include a sturdy water bowl or dish as well.

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 fox 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. 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. Fox snakes should be maintained at relatively moderate relative humidity levels, from about 40 to 50%, with additional humid hides or retreats to assist with shedding and overall health.

Feeding, Diet, and Nutrition

Carnivorous; In the wild, fox snakes are carnivorous, and will prey upon rodents and other small mammals, small birds, bird eggs, and other smaller vertebrates. Hatchlings and juveniles will

also occasionally eat smaller frogs, lizards, or other reptiles. In captivity, fox snakes can be given feeder rodents of appropriate size, such as rats or mice. 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. 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

As with many snakes, hatchling and juvenile fox snakes may initially be nervous and defensive. They may rattle their tails, musk or defecate, or bite when alarmed. Handle your fox snake gently and deliberately, but do not drop or injure the animal. Many fox snakes will become docile and easily handled species as they become more tolerant and accustomed to handling as they become older.

****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

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact:

Eric.S.Roscoe@gmail.com

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