



*Mike Day

Gopher Snakes (*Pituophis catenifer* ssp.)

Pine Snakes (*Pituophis melanoleucus* ssp.)

Mexican Pine Snakes (*Pituophis deppei* ssp.)

Nature's Sometimes Bullish Rodent Control

Bullsnakes, pine snakes, and gopher snakes are a genus of large, powerful colubrid snakes which are constrictors, and consume many rodents such as mice, rats, and gophers. This makes these snakes immensely beneficial to homeowners, gardeners, and farmers, as they serve as natural pest control. Coloration and pattern can vary depending on the species, subspecies, and locality. However, in general, these snakes are large colubrids with a tan, brown, yellowish, to gray ground color, and brown to reddish brown dorsal and lateral blotches often grading into rings on the tail. These large, primarily terrestrial snakes possess specialized flaps of cartilage within their epiglottas that enable them to produce a very loud, raspy sounding hiss when threatened or disturbed. This behavior, along with their habit of rapidly vibrating their tails in dried grasses or other vegetation, can often lead to these species being mistaken or confused with a rattlesnake, or other dangerously venomous snake and needlessly persecuted. Bullsnakes, pinesnakes, and gopher snakes are harmless to humans however, beyond their intimidating defensive displays. Their heads are relatively small and wedge shaped, and their rostral scales are slightly pointed and upturned for burrowing. Many species are popular as pets, and can become very docile, active, and impressive snakes to maintain, while some other individuals or subspecies can remain somewhat more defensive and irascible than others.

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: Pituophis

Species: *Pituophis catenifer**, *Pituophis melanoleucus**, and *Pituophis deppei**

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*Taxonomy subject to change and revision.

Lifespan and Longevity

If provided the proper care, gopher, bull, and pine snakes can attain longevity of 15 to 25 years or more.

Species:

Gopher snake subspecies include the Bullsnake (*P. catenifer sayi*), Sonoran Gopher snake (*P. catenifer affinis*), Great Basin Gopher snake (*P. catenifer deserticola*), Cape Gopher snake (*P. catenifer vertebralis*), San Diego Gopher snake (*P. catenifer annectens*), and Pacific Gopher snake (*P. catenifer catenifer*). Pine snake subspecies include the Northern Pine snake (*P. m. melanoleucus*), Florida/Southern Pine snake (*P. m. mugitus*), and Black Pine snake (*P. m. lodingi*). Mexican pine snake subspecies include the Mexican pine snake (*P. deppei deppei*) and Northern Mexican pine snake (*P. deppei jani*).

Distribution and Habitat

Gopher snakes range from southern Canada, throughout the western, central and parts of Midwestern United States, and northern Mexico. Pine snakes have patchy distribution in eastern and southeastern United States. These snakes can be found in a variety of sandy to loamy soiled habitats within their range depending on the species and subspecies, as well as geographic distributions, but these snakes may occupy prairies, open meadows, savannahs, arid to semi-arid deserts and scrublands, and sandy pine-palmetto scrubwoods, flatwoods, pine barrens, to coastal dunes habitats.

Conservation Status

Most species are IUCN Red List Least Concern (LC). *P. ruthveni* is IUCN Endangered (EN).

Experience Level Required

Novice/Beginner to Intermediate/Moderate.

Size

Gopher, bull, and pine snakes range from 12 to 18 inches as hatchlings, and about 4 to 7 feet, or 48 to 84 inches for most adults depending on the species, subspecies, and locality.

Housing and Enclosure

Housing must be sealed, secure, and escape proof. Hatchling and juvenile bull, pine, and gopher snakes can be housed in a 20 gallon terrarium or enclosure. Adult bull, pine, and gopher snakes should be housed in a minimum of a 40 to 55 gallon long terrarium or enclosure. These snakes are primarily terrestrial, and floor space is more important than height. Provide a substrate that can enable burrowing or hiding such as cage carpet or cage liner, 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 gopher, bull, and pine snakes range from 75 to 80 degrees F on the cool side and 80 to 90 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

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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.

Feeding, Diet, and Nutrition

Carnivorous; In the wild, gopher, pine, and bullsnakes 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, these 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 gopher and pine snakes may initially be nervous and defensive. They may rattle their tails and hiss, musk or defecate, or bite when alarmed. Handle your gopher/pine snake gently and deliberately, but do not drop or injure the animal. There is variability between temperaments of many individual, subspecies, and localities of these snakes. Many will become quite tame and tolerant of regular handling as they become older, while some others will remain irascible and will hiss, strike, or tail rattle at any provocation. **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 the Madison Area Herpetological Society at info@madisonherps.org

Disclaimer: Note that the information provided in these, or any care sheets, are not intended to be all-exhaustive, and further research and care should always be sought and provided when it comes to any species one may prospectively be interested in. These care sheets are also not intended to serve as substitutes for professional veterinary medical care and husbandry should any animal require it. Always seek proper and professional veterinary care for any animal should the need arise, and be prepared ahead of time for any and all husbandry costs and expenses that may occur with any animal beyond the initial purchase. Any animal owned is ultimately a matter of personal/individual care and responsibility.

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