



\*Photo Credit: Pamela Reese

## King Ratsnake (*Elaphe carinata*)

---

### The Ratsnake King

The king ratsnake is a large, arboreal to semi-arboreal Old World ratsnake species. This species is also well known as the “Stinking Goddess Snake” from its highly developed anal scent glands used to secrete a highly noxious smelling musk when frightened or disturbed. King ratsnakes undergo a drastic ontogenetic color and pattern change from hatchlings/juveniles to adults. Juveniles are typically tan, to light brown or grayish brown with varying amounts of darker dorsal blotches, bands, or stripes. As adults, king ratsnakes vary in ground color from blackish to dark brown or olive brown with a series of lighter yellowish to greenish yellow dorsal crossbands, blotches, or stripes, and dark edging surrounding each keeled scale, giving this species a heavily braided appearance (especially posteriorly towards the tail). As with other ratsnake species, king ratsnakes are very strong and agile climbers, often ascending trees, shrubs, barns, and other outbuildings in search of shelter and/or food in the form of small reptiles, birds, eggs, and mammals. This species can be irascible and defensive when disturbed, rapidly vibrating their tail tips, musking and defecating, and/or coiling into a defensive strike posture. Nonetheless, king ratsnakes are a hardy and easily maintained species in captivity for the more intermediate to advanced level enthusiast.

### 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:** *Elaphe*

**Species:** *Elaphe carinata*\*

\*Taxonomy subject to change and revision.

### Lifespan and Longevity

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

### Distribution and Habitat

King ratsnakes are a large, and impressive species of arboreal to semi-arboreal Old World ratsnake species indigenous to southern, southeastern and eastern Asia. More specifically, this species ranges from northern Vietnam, Taiwan, China, and Japan in the Ryukyu Islands. Within this range, King ratsnakes occupy primarily a variety of terrestrial to semi-arboreal environments, including open, tropical to sub-tropical forests and woodlands, savannahs, fields, meadows, and bamboo thickets, as well as agricultural and even suburban or residential areas near houses and other buildings and natural or manmade structures.

### **Origin/History**

*Elaphe carinata* (Günther, 1864).

King ratsnakes, as with many other of the Asian *Elaphe*, or ratsnake species, have existed in herpetoculture for at least the past couple of decades since the 1990's or 2000's. Most specimens, as would also be the case with most other Asian *Elaphe*, were imported and wild-collected animals which had bad temperaments, heavy parasite loads and other health issues. These things all, at least initially, made king ratsnakes somewhat difficult to keep in captivity, although as decades progresses, keepers would better understand their care and husbandry parameters, and these large Old World ratsnake species would also become captive-bred in small numbers as well.

### **Experience Level Required**

Intermediate/Moderate.

### **Size**

King ratsnakes are large species, ranging from 8 to 12 inches as hatchlings, and typically 5 to 6 feet as adults, or 54 to 72 inches, although this species can reach up to 8 feet, or 96 inches.

### **Housing and Enclosure**

***Enclosure System: Semi-Arboreal to Arboreal.*** Housing must be sealed, secure, and escape proof. Hatchling king ratsnakes can be housed in a 20 gallon long or tall terrarium or enclosure. Adult king ratsnakes should be housed in a minimum of a 40 to 55 gallon tall or long terrarium or similar enclosure. King ratsnakes are semi-arboreal, and height can be just as important as floor space for this species. Provide a substrate that can enable burrowing or hiding and that retains humidity well such as cypress mulch, orchid bark, 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, branches, driftwood, perches, or other hides. Also be sure to include a sturdy water bowl or dish as well. Additional humid hides can be provided as well for additional humidity.

### **Temperature, Lighting, and Humidity**

Create a thermal gradient (or a warm side) in the cage/enclosure with an appropriate sized under tank heating pad, ceramic, or radiant heat emitter. Overhead, incandescent lighting can also be used, but is not required for rat snakes, which are primarily crepuscular. UVA/UVB lighting is not required for most snakes, but providing it can greatly benefit their overall health and well-being. As with many of the Asian, old world rat snake species, king rat snakes originate from cooler climates of southeastern and eastern Asia, and husbandry should reflect this. This gradient should range from 70 to 75 degrees F towards the cool side and ambient temperature, and 80 to 82 degrees F on the warm end. Also 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. King ratsnakes should be maintained at moderate to

somewhat high relative humidity levels from about 60 to 80%, with additional humid hides or retreats to assist with shedding and overall health.

### **Feeding, Diet, and Nutrition**

**Carnivorous;** In the wild, king ratsnakes are carnivorous, and will prey upon rodents and other small mammals, small birds, bird eggs, smaller amphibians and reptiles, and other smaller vertebrates. Hatchlings and juveniles will also occasionally eat smaller frogs, lizards, or other reptiles. In captivity, king ratsnakes can be given feeder rodents of appropriate size, such as rats or mice, although some may require scenting with frogs or lizards. 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**

King ratsnakes are a large, attractive, and active species of old world colubrid that can be very enjoyable to maintain. King ratsnakes have held an undeserved bad reputation, but much of this is based on wild caught or farmed specimens. This species' temperament and disposition will often vary from individual to individual. Some specimens are rather shy, preferring to flee or retreat, while others are known to be more defensive, and will assume a traditional "S" shaped, coil, as well as gape and hiss in preparation to strike while rapidly rattling their tails. However, many king ratsnakes can respond well to gentle, deliberate handling. This large species can be a handful to handle, but can make for an excellent, and more unique pet or display snake species to maintain for the more experienced reptile keeper.

**\*\*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](mailto:Eric.S.Roscoe@gmail.com)

*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. We cannot make any claims or guarantees regarding any information in this care sheet therein. This care sheet may be reprinted or redistributed only in its entirety.*

\*Copyright, 2023