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Lampropeltis alterna

Gray-banded Kingsnake

The gray-banded kingsnake is a medium-sized nocturnal snake of rocky areas in the Chihuahuan desert. It receives its name from the variable, wide, irregularly shaped gray bands which extend the length of the snake. Within the United States, the range of the gray-banded kingsnake is almost entirely within the state of Texas. Recently, several have been found in southwestern New Mexico. In Texas, it occurs in the western panhandle (Trans-Pecos region) and southward into north central Mexico.

As mentioned above, rocky areas constitute the preferred habitat of this species. These areas are dominated by Chihuahuan Desert plants such as sotol, mesquite, several species of cacti, ocotillo, acacia, and creosote bush (Degenhardt et al., 1996).

The food of this rock crevice dweller in the wild consists of the following items: Eastern fence lizard, Sceloporus undulatus, crevice spiny lizard, S. poinsetti, canyon spiny lizard, S. merriami, whiptail lizards, Cnemidophorus sp., lizard eggs, canyon treefrogs, Hyla arenicolor, and juvenile pocket mice (Wright and Wright, 1957; Miller, 1979; Tennant, 1984, 1985; Switak, 1984; Cranston, 1991). Small snakes have also been listed as a food item by a number of authors (Behler and King, 1979; Tennant, 1981; Mehrtens, 1987) but this has not been widely confirmed. Tennant (1985) stated that this “was the only nonsnake-eating member of the kingsnake family.” It is now known, however, that captive gray-banded kingsnakes will consume other snakes. Both juvenile Trans-Pecos rat snakes and night snakes were readily consumed by captives (Salmon, pers. comm., 1995). In captivity, many other species of lizards have been consumed. See below.

Suspected predators of this species include carnivorous mammals and ophiophagous snakes such as the desert kingsnake. One herpetocul-
turist who has asked to remain anonymous accidentally placed his highly prized female gray-banded kingsnake in with his male Florida kingsnake. The commotion he heard was believed to be mating activity, but instead was feeding activity, as the Florida kingsnake consumed the smaller snake. When the keeper checked the cage later expecting to find a mating pair, he realized that he had placed his female gray-banded kingsnake in with the wrong male!

Observations of mating behavior in the wild have been rare. Noncaptive mating has been observed in late spring and early summer (Tennant, 1985; Cranston, 1991) that results in the deposition of eggs 1–2 months later (Trutnau, 1981; Mattison, 1988). These eggs, which may number 3–14 (Tennant, 1985; Mattison, 1988; Cranston, 1991) will generally hatch after an incubation period of 55–91 days (Mattison, 1988; Trutnau, 1981) at temperatures of 22–30°C (72–86°F) into young looking very similar to the adults but ranging in size from 17.7 to 30.5 cm (7 to 12 inches).

This is one of the most highly sought after North American snakes in the world. Herpetoculturists seem to lose their minds when it comes to this species. “Alternas,” as they are affectionately called by the hard-core herpers, have become so popular that to many they have become an obsession. Their worship has become almost cultish. So heavily are these snakes collected and bred that some people can even tell you exactly where another person has found a particular specimen! This has led to subcults espousing the beauty of their preferred locality types above all others. For instance, the hot item at the time of this writing appears to be the “Langtry alterna” (a specimen collected at Langtry, Texas, or bred from stock collected at or near that area). Others are enthralled with the “River Road alternas.” To make matters slightly more confusing, there are two color morphs that are referred to as “blairs” and “alternas.” Blairs morph has broad orange bands or saddles while the alterna morph has narrow orange saddles. The amount of orange within the saddles is also very variable. Dark morph blairs have almost no orange within the saddles while light morph blairs may have a

1Saddle = goes part way around body.
Band = goes all the way around body.
great deal of orange. Similarly, the alterna morph may have little or no orange in the saddles. Now, add to this that you can have anything in between the two morphs, and you begin to understand why no one understands the lingo of the gray-banded kingsnake at first.

Seriously, the gray-banded is a beautiful snake in all of its variable color patterns. It does very well in captivity in the most basic (simplest) of cages and attains a size of 51–90 cm (20–36 inches), average 81.3 cm (32 inches), with a record of 147.1 cm (57 3/4 inches) (Conant and Collins, 1991). Adults are usually not a problem to feed but hatchlings can be a real challenge.

The basic cage design discussed in the general care section will work very well for this species. The substrates that have worked well include artificial carpet/turf, newspaper, aspen and cypress chips, and others. Rocks, numerous hiding places (such as PVC pipes, small hide boxes, etc.), and a water bowl seem to be all that are required to complete the cage for this species. One alternative that has worked exceedingly well but does not appear necessary is the use of false bottoms, under which the snakes may hide. Plastic plants are a nice addition for the more decorative cages. Some keep these snakes in drawer-style cages with nothing but newspaper, however, and they seem to do fine. As with most other snakes, ventral heat is advisable. No special lighting is required. Air temperature may fluctuate quite a bit, but 25–30°C (77–86°F) during the daytime with a drop at night will work well.

Feeding is not a problem for the adults as they will usually readily accept small prekilled mice. Recently captured specimens may have a marked preference for lizards though and may have to be trained to take mice using scent-transfer techniques. Hatchlings on the other hand are notoriously difficult to get switched to pinkies. Some estimate that up to 50% of the babies will not consume anything but lizards voluntarily. Lizards of the following genera have been reported by various authors as food for captive juveniles and adults of this species: Sceloporus, spiny lizards, Cnemidophorus, racers, and whiptails, Eumeces, skinks, Holbrookia and Cophosaurus, earless lizards, and Uta, the side-blotched lizard (Wright and Wright, 1957; Assetto, 1978; Miller, 1979; Ten-
SPECIES: *Lampropeltis alterna*, Gray-banded Kingsnake

MAINTENANCE DIFFICULTY INDEX: Adults 1, Hatchlings 4 (1 = easiest, 5 = most difficult)

AVERAGE SIZE: 51–90 cm (20–36 inches)

FOOD: Lizards, mice

CAGE SIZE: 10–20-gallon long aquarium

SUBSTRATE: Indoor-outdoor carpet, artificial turf, or newspaper

VENTRAL HEAT: Yes

UV LIGHT: No

TEMPERATURE RANGE: 25–30°C (77–86°F)

SPECIAL CONSIDERATIONS: Although some hatchlings readily take pinkies, most prefer lizards for 6 months. Once started, they are beautiful, good-eating snakes.

...ing purposes, although not necessarily for general maintenance since this southern kingsnake may eat throughout the winter if it is not cooled down. The regular cage will not usually need modifications for this purpose; therefore, it is one of the best things to brumate many snakes in and gray-banded kings are no exception. Four months at temperatures of 15–20°C (50–59°F) have worked well for many authors, and temperatures below this have been well tolerated by those in our care (3.3°C, 38°F for several days during this time produced no ill effects). See the general care section on brumation.

As can be inferred from the breeding data listed above, captive breeding of this snake has become common. This can be accomplished in the usual manner (i.e., placing the female in the male’s cage) right after brumation ends.

A pair of 19-month-old snakes in our care mated on 26 May through 28 May and the female laid 4 eggs on 5 July, 38–40 days later. These eggs hatched on 29 August, a 55-day incubation which is well within the reported range. These snakes bred regularly in May for many years.

In summary, the gray-banded kingsnake is an attractive and generally mild-natured serpent that is relatively easy to maintain and breed. Hatchlings, on the other hand, may be extremely difficult to get to start feeding and are not advisable for beginners, especially in light of their relatively high price.

It is a shame so many herpetologists and herpetoculturists have become so involved with this species that they have apparently lost interest in most other species of snakes. There are so many other colorful and fascinating North American snakes that need to be studied.

Captive longevity for this species has been listed by Snider and Bowler (1992) at 15 years and 2 months and Slavens and Slavens (1992) at 15 years and 6 months, but Cranston (1991) believes they will survive more than 20 years in captivity.
About the Book

The authors have summarized the natural history and captive maintenance of all species of snakes found in the United States and Canada. They have spent years studying the captive maintenance of over 90% of these species and have researched the literature to provide a summary of natural history for each of the species discussed. Recent literature regarding the captive maintenance and propagation of many snakes is presented. The tremendous amount of detailed information makes this book unique. Convenient and easy to read, this book has over 100 color pictures and an extensive bibliography. It is an essential reference for all North American libraries, veterinary clinics that treat North American snakes, zookeepers, and herpetoculturists.

About the Authors

Dr. John V. Rossi is a small animal/exotic animal veterinarian in Jacksonville, Florida. He received his bachelor's degree in biology from the State University of New York at Albany in 1977, master's in zoology at the University of South Florida in 1981, and doctorate (DVM) from the University of Florida in 1986. Since his youth, he has devoted his time to studying all facets of herpetology, particularly the captive problems of native snakes.

His wife Roxanne Rossi, was born in New Smyrna Beach, Florida, as Roxanne Williams, and has had a fascination and love for animals since childhood. Her desire to provide excellent care for her animals made her a natural curator. Since 1989 her interests in the care of reptiles have increased steadily. She has coauthored a number of articles with her husband on the subject, and accepted the responsibility for day-to-day care of over 150 snakes, representing more than 80 species of North American snakes. This "first hand" experience is evident throughout this volume.