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SNAKES

Scarlet kingsnake

Lampropeltis elapsoides

Lampropeltis elapsoides is a small, slender kingsnake from the south-eastern USA with red, black and yellow rings that mimic a venomous coral snake. It is secretive and nocturnal, a skilled escape artist, and in the wild lives almost entirely on small skinks and other slender reptiles. Many animals refuse mice, so the species is one for experienced keepers.

Family: Colubridae

KEY FACTS

THE ANIMAL

Adult size	**40-76 cm** total length incl. tail
Lifespan	**15-20 years**
Active	**At dusk and at night**
Lifestyle	**Terrestrial and burrowing**
Habitat	**Temperate woodland and meadow**
Difficulty	**Experienced**

CARE

Min. enclosure	**60 × 30 × 30 cm** L × W × H for 1 adult
Temperature, day	**24-29 °C**
Temperature, night	**20-22 °C**
Humidity	**50-70%**
Water	**Water dish**
UVB	**Not required**
Diet	**Vertebrates**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**4-12 eggs**
Clutches per year	**1**
Incubation	**40-65 days** at 27-29 °C

PROTECTION AND PAPERWORK

CITES	**Not listed**
EU annex	**Not listed**
IUCN	**Least Concern (LC)**

About the species

Lampropeltis elapsoides is the smallest of the kingsnakes. Adults are most often 40-50 cm long, and the longest reach about 76 cm. The body is slender with smooth, glossy scales and a small, rounded head that is barely distinct from the neck. The ground colour is red, and the red fields are separated by black rings, each with a narrow white to yellow ring in the middle. The snout is red. Hatchlings are white, black and red. In populations with yellow rings, the yellow colour develops gradually from about three months of age through the first three years, and it darkens with age.

The pattern mimics the venomous coral snake *Micrurus fulvius*, which shares part of its range. The snake itself is non-venomous and kills its prey by constriction. The lifespan of 15-20 years is borrowed from close relatives and is not documented for the species.

The species name *elapsoides* means "like Elaps", the old genus to which the coral snakes were assigned. For a long time the species was regarded as a subspecies of *Lampropeltis triangulum* and still appears under that name in a good deal of older literature and in the trade. Today it is a distinct species and is closer to *Lampropeltis pyromelana* and *L. zonata* in the south-western USA than to *L. triangulum*.

Distribution and habitat

Lampropeltis elapsoides is found in the south-eastern USA: from Virginia through North and South Carolina, Georgia and all of Florida, and west through Tennessee, Alabama and Mississippi to southern Kentucky and eastern Louisiana.

> **Native range:** United States.

HABITAT

The species lives in pine forest, damp woodland, mixed pine and oak forest, open grassland and farmland, and also in gardens and suburbs. It is often found near water and in loose, sandy soil with many hiding places. The snake is secretive and nocturnal and spends much of its time underground. It hides under loose bark on rotting pines, in old stumps and under fallen timber, and it also climbs well.

The diet is unusually narrow for a kingsnake. Almost all prey (97 %) is elongated reptiles: about three quarters are skinks and 15 % are small snakes. Prey is swallowed head first and weighs on average about a fifth of the snake. Newly hatched young take almost only small skinks, especially *Scincella lateralis*. Females lay their eggs in June and July under rotting wood and between stones.

Care

THE ENCLOSURE

Little documented knowledge exists about the care of *Lampropeltis elapsoides*, because the species is rarely kept and bred only to a small extent. The figures here are based on the species' habitat and on the care of closely related kingsnakes, especially *Lampropeltis triangulum*. The species is one of the most difficult kingsnakes to keep, because its food is hard to obtain.

An adult snake needs an enclosure of at least 60 × 30 × 30 cm. Bigger is better, as long as there are many hides. The lid must fit absolutely tightly, because the snake can squeeze through very small gaps, and the ventilation holes must be so fine that it cannot get through. A tall enclosure with the lid at the top makes it harder for the snake to escape.

The substrate should be 5-10 cm deep and diggable. Unfertilised soil mixed with coconut fibre and a little sand works well, and a layer of leaves on top provides cover and retains moisture. Also add pieces of bark and cork bark for the snake to crawl under. The species becomes nervous without hides and likes to have several small, snug hides at both ends. Faeces are removed daily, and the whole substrate is replaced every 3-4 months. The snake is always kept alone.

TEMPERATURE

The species needs a stable, moderate temperature without strong heat sources. By day the temperature should be 24-29 °C, warmest at one end, and at night 20-22 °C. The snake does not bask but warms itself under objects that the heat has reached, and heat lamps can harm it.

A warm living room often provides enough heat. Otherwise, place a small heat mat under one end, controlled by a thermostat, so that there is about 28 °C under the hide there, while the hides in the cool end stay at about 24 °C. The temperature must not exceed 30 °C. Brumation is not documented for the species in captivity; in the wild it is inactive in the cold season.

Read more: Heat and temperature Read more: Brumation and the seasons

HUMIDITY AND WATER

The enclosure should be humid: 50-70 % relative humidity, measured in the middle of the enclosure. The substrate should be slightly damp but not wet, and ventilation good so that it does not go mouldy. Provide a wide, shallow dish of fresh water, changed often.

Place a humid hide with damp sphagnum in the cool end and change the moss regularly. It helps the snake shed its skin in one piece. If it sheds in pieces, the air is too dry.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is nocturnal and shy and does not like bright light. UVB is not necessary, and it is not documented whether the species benefits from it. Lighting in the enclosure should be dim, with plenty of shade and cover. Provide a clear day and night: about 14 hours of light in summer and 10 hours in winter, controlled by a timer. The night must be completely dark.

Read more: Lighting and UVB

FEEDING

Food is the most difficult thing about *Lampropeltis elapsoides*. In the wild the species takes almost only skinks and other slender lizards and, to a lesser extent, small snakes. Many animals, especially juveniles, take only live lizards and would rather starve than switch to mice, even when offered thawed lizards.

Some animals can be weaned onto pinkie mice if the mouse is given the scent of lizard: it is rubbed with the faeces of a lizard or placed in the body cavity of a dead lizard. Feed in the evening, before the lights go out. Switch to frozen-thawed prey as soon as the snake accepts it. Juveniles are fed every 5-7 days and adults every 10-14 days; these intervals are borrowed from other kingsnakes. Prey must not be wider than the widest part of the snake.

BEHAVIOUR AND HANDLING

Lampropeltis elapsoides is secretive and nervous and most often shows itself at dusk and at night. It is a skilled escape artist, so the lid must always be closed. Handle it only rarely and briefly, and let it crawl onto your hand rather than grabbing it. When threatened it first tries to flee and may strike, but it is small and harmless. Together with other snakes it risks being eaten, and it eats other snakes itself, including its own species. Always keep it alone.

Breeding

SEXUAL MATURITY AND SEXING

Age at sexual maturity is not documented for the species. The sexes look alike, so sexing should be left to an experienced keeper or a vet.

MATING

In the wild the species mates from the end of May to the beginning of June, and both males and females mate with several partners. There is no documented method for a cool period or for mating in captivity, and the species is rarely bred. Both animals must eat well and be in good condition before mating.

EGG-LAYING AND CLUTCHES

The female lays eggs in June and July. The clutch is 4-12 white, elongated eggs, which often stick together. In the wild they are laid under rotting wood and between stones. In captivity the female is given a laying box with damp sphagnum or vermiculite.

INCUBATION

The eggs are moved to a box with damp vermiculite at 27-29 °C. Humidity in the box must be high, but the eggs must not lie in water. The young hatch after 40-65 days, most often about two months. The temperature is borrowed from close relatives and is not documented for the species.

REARING THE YOUNG

The young are 8-18 cm long at hatching and may have difficulty starting to feed. They take almost only small skinks and other lizards, and many do not take mice. Keep them singly in small boxes with hides and damp sphagnum. Juveniles should be kept only by experienced keepers.

Health and common mistakes

No diseases specific to the species have been described; most problems are caused by husbandry. The typical faults are:

- Starvation and emaciation because the snake takes nothing but lizards. This is the species' biggest problem in captivity.
- Air that is too dry, which causes incomplete sheds.
- Mould and scale rot on a wet substrate with poor ventilation.
- Stress from strong lamps and too few hides.
- Mites and other parasites. Check the skin regularly.

Lethargy, emaciation and breathing difficulties are signs of illness. See a vet with experience in reptiles if the snake does not eat for several weeks or seems unwell.

Always ask someone who knows

This guide is a good place to start, but it cannot replace experience. Animals differ, and much of what matters most is learned from people who have kept the species for years. Talk to a breeder, an experienced keeper or a vet who knows reptiles and amphibians before you get the animal - and again if anything looks wrong.