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SNAKES

Desert Kingsnake

Lampropeltis splendida

Lampropeltis splendida is a medium-sized to large kingsnake from the desert regions of the south-western USA and northern Mexico, black or dark brown with yellow crossbands broken up into small spots. It reaches 90-115 cm, eats rodents, lizards and other snakes, and is robust and easy to keep. It is kept singly in a floor-type enclosure with a basking spot and moderate humidity and can live for over 20 years.

Family: Colubridae Former name: *Lampropeltis getula splendida; Ophibolus splendidus*

KEY FACTS

THE ANIMAL

Adult size	**90-115 cm** total length incl. tail
Lifespan	**15-25 years**
Active	**By day and at dusk**
Lifestyle	**Terrestrial**
Habitat	**Desert and semi-desert**
Difficulty	**Beginner**

CARE

Min. enclosure	**120 × 60 × 60 cm** L × W × H for 1 adult
Temperature, day	**21-26 °C**
Basking spot	**29-32 °C**
Temperature, night	**18-22 °C**
Humidity	**40-60%**
Water	**Water dish**
UVB	**Recommended** Ferguson zone 2
Diet	**Vertebrates**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**5-12 eggs**
Incubation	**60-70 days** at 26-29 °C

PROTECTION AND PAPERWORK

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

About the species

Lampropeltis splendida is a heavily built, completely smooth and glossy snake. The ground colour is black or dark brown, and yellow spots on the sides and along the back form remnants of crossbands, so that the back has a row of dark saddles, 42-97 in all. The head is usually dark, and the yellow spots can give the impression of a collar. Hatchlings are clearly marked with yellow cross-lines, which with age are broken up by more and more yellow spots. The pattern distinguishes the species from *Lampropeltis holbrooki*, which is black with a small spot on almost every scale, and from *Lampropeltis getula*, which has narrow, pale crossbands.

Adults are normally 90-115 cm, and the largest reach around 150 cm. The species was formerly regarded as a subspecies of *L. getula* but has been a species in its own right since 2009. In the hobby the name is therefore not always used consistently, so it is worth checking which species an animal actually is before buying it. Where the species meets *Lampropeltis californiae* in south-eastern Arizona and south-western New Mexico, the two can interbreed.

The animal is hardy and tolerates captivity well. When threatened it shakes its tail, releases foul-smelling secretions and faeces and occasionally strikes, and some animals play dead by turning onto their backs. It is normally calm and gets used to handling. The species eats other snakes, including rattlesnakes, to whose venom it is resistant, and this shapes how it is kept: the animals must be housed separately. Colour and pattern variants (morphs) exist in captivity. This guide deals with the species itself, not with genetics.

Distribution and habitat

Lampropeltis splendida lives in the Chihuahuan Desert and adjoining areas, from central Texas through southern New Mexico to south-eastern Arizona. To the south the range extends into northern and central Mexico, covering among others Chihuahua, Coahuila, Nuevo León, Tamaulipas, Durango, Zacatecas and San Luis Potosí. There are a few isolated records in northern New Mexico and southern Colorado. The type locality is given as Sonora in Mexico without a more precise place.

To the west the species is bounded by a natural barrier in the Cochise area of south-eastern Arizona, where it can interbreed with *L. californiae*. To the east it grades into *L. holbrooki* in a broad transition zone through Texas.

> **Native range:** United States and Mexico.

HABITAT

L. splendida occurs in almost all land habitats within its range: desert, scrubland, grassland and rocky terrain. Despite its name it is most often found in the wetter parts, especially at watering places and along watercourses. It often lies hidden under stones, boards and in rodent burrows.

Daily rhythm varies with the season: in spring and autumn it is often active by day, and in the hottest part of summer activity shifts to dusk and night. In the cold season it enters a winter rest. Its diet consists of rodents, lizards, birds, reptile eggs and other snakes, including young rattlesnakes. Prey is killed by constriction, and eggs are found by scent underground.

Care

THE ENCLOSURE

There is only a little species-specific knowledge about the care of *Lampropeltis splendida*. The figures here are borrowed from kingsnakes in general, especially *Lampropeltis californiae* and *Lampropeltis getula*, which have the same requirements.

An adult needs an enclosure of at least 120 × 60 × 60 cm (length × width × height). Bigger is better, because the species is active and explores the whole enclosure, and animals over 110 cm do best in 150 × 60 × 60 cm. Hatchlings live in a smaller enclosure or a ventilated box to begin with and are moved when they can no longer stretch out and move along the edge.

The lid must be lockable. The snake will find any weakness, and a front-opening enclosure with a lock or a lid with clips is the safe choice. Do not use tape.

The substrate should be a mix of play sand and topsoil or coconut fibre that stays dry to slightly moist, in a layer of around 8-10 cm, so that the animal can burrow. Pine and cedar should be avoided because of their aromatic oils. If you like, feed in a separate box so that the animal does not swallow substrate.

Furnish with at least two hides, one at the warm end and one at the cool end, small enough that the snake lies snugly in them. Branches, cork and rocks give exercise. Remove faeces daily, and replace the substrate completely every 3-4 months.

TEMPERATURE

The animal regulates its temperature by moving between warm and cool spots, so the enclosure must have a distinct gradient. The surface under the heat lamp should be 29-32 °C, measured with an infrared thermometer, and the cool end 21-26 °C. Use a halogen bulb over a light, flat rock as a basking spot, and a hide at the warm end. If the animal lies on the basking spot for long periods, it needs more heat. If it never uses it, it needs less.

Switch the heat off at night. The temperature follows the room and may fall to 18-22 °C, but not below 18 °C.

Never use heat rocks. The heat is too concentrated and causes burns. Heat mats can be used as a supplement, but only with a thermostat. Place the enclosure away from windows, where the sun can overheat it.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 40-60 %, measured with a digital hygrometer in the middle of the enclosure. It is higher at the cool end and at night and lower at the warm end, and that is normal. Persistently damp air causes respiratory infection. Put moist sphagnum in the hide at the cool end so that the animal can shed, and mist only lightly.

Always provide a bowl of fresh water, large enough for the animal to lie in. If the air becomes damp, the bowl should be smaller or removed a few days a week. Scrub the bowl every week with a reptile-safe disinfectant.

Read more: Humidity, misting and ventilation Read more: Quarantine and hygiene

LIGHTING AND UVB

The species is active by day and basks in the wild. It can manage without UVB, but UVB is recommended for the best welfare. This fits Ferguson zone 2. Use a T5 HO tube of 5-6 % UVB, covering around half the length of the enclosure and sitting over the warm side. The aim is a UV index of 2-3 at the basking spot. Over mesh, the distance between tube and animal at the basking spot is 25-30 cm, without mesh 35-45 cm. Check with a UV meter. Tubes are replaced every 12 months.

Supplement with a powerful 6,500 K LED bulb covering most of the length of the enclosure. The light is on for about 12 hours, and day length is adjusted to the season. There must be no light at night.

Read more: Lighting and UVB

FEEDING

L. splendida is a carnivore and needs whole prey animals. Mice are the standard food, and as the animal grows, young rats are used. Variety is important: quail, quail eggs, chicks and small snakes can be used, and a varied diet makes the animal healthier and less fussy. Feed thawed, frozen prey. It is safer, because live rodents can bite and injure the snake. Use soft feeding tongs.

The thickness of the prey must be no more than 1.5 times the snake's widest point, or about 10 % of its weight. Feeding frequency: - Hatchlings: every 5-7 days. - Juveniles: every 7-10 days. - Adults: every 10-14 days.

If the animal becomes too fat, feed less often or use smaller prey. Do not handle the animal until the bulge after the meal has gone. A light dusting of the prey with calcium and multivitamin now and then prevents deficiencies. Do not give fruit and vegetables: the snake cannot digest plant matter.

Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

L. splendida is robust and tolerant. Give a new animal about 2 weeks in peace, and only start handling when it is feeding regularly. Begin with short sessions of no more than 5 minutes, and lift the animal from underneath, with support under the body. A nervous animal coils up, hisses, shakes its tail and releases foul-smelling secretions and faeces. This is a natural defence that fades with time. Bites are harmless. Do not handle the animal when the eyes are bluish and milky before shedding, or straight after feeding. Wash hands before and after, because reptiles can carry salmonella.

Keep the animals separately. The species eats other snakes, including its own kind, and young animals can eat each other. For mating the male is put in with the female under supervision, and the animals are separated again afterwards.

Breeding

SEXUAL MATURITY AND SEXING

Age and size at sexual maturity are not documented for the species, and weight and body condition matter more than age. Males have a longer and wider tail base with room for the hemipenes. Sex is most reliably determined with a probe, which only an experienced person should use. The animals must be fully grown and in good condition before they are put to breed.

MATING

Mating follows the winter rest and takes place from March to June. The temperature and length of the winter rest in captivity are not documented for the species. The animals must be free of parasites and in good condition before they are cooled, and are not fed in the last couple of weeks before the rest, so that the gut is empty. Water must always be available. After the rest the animals are warmed gradually and fed well before they are put together.

Always put the male in with the female, not the other way round, and repeat the introduction a couple of days apart. Males fight over females, so do not keep two males together. Only feed when the animals are separated.

EGG-LAYING AND CLUTCHES

Lampropeltis splendida lays its eggs in late June or in July, and the clutch is 5-12 eggs with a sticky surface. In the wild the female buries them up to 30 cm deep so that they do not dry out. Give the female a laying box with moist vermiculite or sphagnum on the warm side. The female does not tend the eggs. She is exhausted after laying and needs plenty of food to rebuild her strength.

INCUBATION

Remove the eggs carefully, and do not turn them. If they are stuck together, do not separate them by force. Place them on moist vermiculite in a closed container with a couple of small air holes in the lid, and do not bury them. The vermiculite should be moist, but not so wet that water can be wrung out. The incubation temperature is not documented for the species and is borrowed from *Lampropeltis californiae*: 26-29 °C, ideally around 29 °C by day and 26 °C at night. The eggs hatch after 60-70 days. Check the eggs once a week for mould and collapse, and remove bad eggs. The young are 20-25 cm and stay in the egg for a day or two while they absorb the yolk sac. Do not help with hatching.

Read more: Incubating eggs

REARING THE YOUNG

Each hatchling is put by itself in a small enclosure or a ventilated box with a hide, water and a heat source. Hatchlings eat each other and must never be kept together. They stay in the nest for about a week, until the first shed, and only then are offered a newborn mouse every week; thawed, frozen animals are safest. Animals that will not eat can be helped by scenting the mouse with a lizard. As they grow, the size of the prey and the frequency are increased gradually. If a hatchling refuses to eat, check the temperatures and try again after a week.

Health and common mistakes

Most problems are caused by faults in the set-up. The typical ones are:

- Obesity from meals that are too large or too frequent.
- Shedding problems from air that is too dry: provide a moist hide when the eyes turn bluish.
- Burns from heat rocks and unguarded heat bulbs.
- Constipation from too low a temperature, too little water or ingestion of substrate.
- Mites and internal parasites, especially in wild-caught animals. Use captive-bred animals, and quarantine new animals.
- Respiratory infection from air that is too cold or damp: the animal breathes with its mouth open or has a runny nose.
- Bites from live prey animals. Use thawed animals.

A healthy animal has clear eyes, a plump body and eats regularly. Weigh the animal every week, because sudden weight loss is often the first sign of illness. Reptiles hide illness, so see a vet with reptile experience if the animal is not eating, is losing weight, is breathing with its mouth open or seems lethargic.

Read more: Common diseases and signs of illness Read more: Buying animals: captive-bred, wild-caught and transport

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.