herpy

SNAKES

Black kingsnake

Lampropeltis nigra

Lampropeltis nigra is a medium-sized to large kingsnake from the eastern USA, black, and in the southern part of its range each scale has a small yellow or white spot. It reaches 90-120 cm, eats rodents, lizards, frogs and other snakes, and is robust and easy to keep. It is kept singly in a terrestrial enclosure with a basking spot and moderate humidity and can live for over 20 years.

Family: Colubridae English name: Black Kingsnake Former name: *Lampropeltis getula nigra; Ophibolus getulus niger*

KEY FACTS

THE ANIMAL

Adult size	**90-120 cm** total length incl. tail
Lifespan	**15-25 years**
Active	**By day and at dusk**
Lifestyle	**Terrestrial**
Habitat	**Wetland and temperate woodland and meadow**
Difficulty	**Beginner**

CARE

Min. enclosure	**120 × 60 × 60 cm** L × W × H for 1 adult
Temperature, day	**21-28 °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	**5-15 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 nigra is a sturdily built, completely smooth and glossy snake. The ground colour is black, and the underside is often black and white like a chessboard. In the middle of each scale on the back sits a small yellow or white spot. The spots are clearest in animals from the southern part of the range and become fainter towards the north, where many adults are almost completely black. Faint traces of crossbands are rarely seen. The species name *nigra* refers to the predominantly black back.

Adults are normally 90-120 cm, and the largest reach about 180 cm. The species was formerly regarded as a subspecies of *Lampropeltis getula* but has been a species in its own right since 2009. It is distinguished from related kingsnakes by its colour pattern and range: the species lives east of the Mississippi River. In the hobby the names are not always used consistently, so it is worth checking which species an animal actually is before buying it.

Kingsnakes are hardy and tolerate captivity well. When threatened they shake their tails, release foul-smelling musk and faeces and occasionally strike, but they are normally calm and get used to handling. The genus eats other snakes, and this shapes how they are 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 nigra lives in the eastern USA. The range runs from southern Illinois, Indiana and Ohio and adjoining West Virginia through Kentucky and Tennessee and on south along the foot of the Appalachians and the Alabama River basin to the Gulf coast in southern Alabama and Mississippi and eastern Louisiana. To the west, the Mississippi River forms the boundary with *Lampropeltis holbrooki*. The type locality is Wheatland in Knox County, Indiana.

> **Native range:** United States.

HABITAT

Lampropeltis nigra lives in many kinds of landscape and is often found near people: on abandoned farms, in piles of rubbish and firewood, at the edge of floodplains and in dense scrub along streams and swamps. The animals lie hidden under logs, boards and stones. The diet consists of rodents and other small mammals, birds, eggs, frogs, lizards and other snakes, including venomous snakes, and prey is killed by constriction. Little has been described about the daily rhythm and annual cycle of the species itself; close relatives in the *L. getula* group are most active by day, brumate in the cold season and lay eggs in early summer.

Care

THE ENCLOSURE

There is little species-specific knowledge about the care of *Lampropeltis nigra*. 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 120 cm do best in 150 × 60 × 60 cm. Juveniles 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 clamps is the safe choice. Do not use tape.

The substrate should be soil that holds a moderate humidity. A mixture of 40 % topsoil without additives, 40 % ready-mixed reptile soil and 20 % play sand in a layer of about 10 cm works well, and a layer of dry leaves on top provides cover and helps with humidity. Pine and cedar shavings 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 in the warm end and one in the cool end, small enough that the snake lies snugly in them. Branches, cork and rocks provide exercise. Remove faeces daily, and replace the substrate completely every 3-4 months.

Read more: Humidity, misting and ventilation

TEMPERATURE

The animal regulates its temperature by moving between warm and cool spots, so the enclosure must have a clear 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 stone or a piece of wood as a basking spot, and put a dark hide in 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 can 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 in the cool end and at night and lower in the warm end, and that is normal. Clammy air must be avoided. Humidity is raised with a spray bottle, with damp sphagnum in the hide in the cool end and with a layer of leaves on the floor. Put out a humid hide when the animal is about to shed.

Always provide a dish of fresh water, large enough for the animal to lie in. If the air becomes clammy, the dish should be smaller or removed for a few days a week. Scrub the dish every week with a disinfectant for animals.

Read more: Quarantine and hygiene

LIGHTING AND UVB

The species is most active by day and basks in the wild. It can manage without UVB, but UVB is recommended for the best welfare. This corresponds to Ferguson zone 2. Use a T5 HO tube giving 5-6 % UVB, covering about half the length of the enclosure and mounted over the warm side. The aim is a UV index of 2-3 at the basking spot. Above mesh the distance between tube and animal is 25-30 cm, without mesh 35-45 cm, and this should be checked with a UV meter. Replace the tubes 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. nigra is carnivorous and needs whole prey. Mice are the standard food, and as the animal grows, young rats are used. Variety is important: quail, quail eggs and day-old chicks can be used, and a varied diet makes the animal healthier and less fussy. Feed frozen-thawed 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 widest part of the snake, 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 from the meal has gone. Lightly dusting the prey now and then with calcium and a multivitamin prevents deficiencies. Do not give fruit and vegetables: the snake cannot digest plant material.

Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

L. nigra is robust and tolerant. Give a new animal about 2 weeks in peace, and begin handling only when it eats regularly. Start with short sessions of no more than 5 minutes, and lift the animal from below, with support under the body. A nervous animal coils up, hisses, shakes its tail and releases foul-smelling musk 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 just after feeding. Wash your hands before and after, because reptiles can carry salmonella.

Keep the animals separately. The species eats other snakes, including its own species, and young animals can eat one another. For mating, the male is introduced to the female under supervision, and the animals are separated again afterwards.

Breeding

SEXUAL MATURITY AND SEXING

Sexual maturity is not documented for the species. In close relatives it normally occurs after 2-4 years, and weight and body condition matter more than age. Males have a longer and broader 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 brumation. The temperature and length of brumation in captivity are not documented for the species. The animals must be free of parasites and in good condition before they are cooled, and they are not fed for the last couple of weeks beforehand so that the gut is empty. Water must always be available. After brumation the animals are warmed up gradually and fed well before they are put together.

Always introduce the male to the female, not the other way round, and repeat the introduction a few days apart. Males fight over females, so do not keep two males together. Feed only when the animals are apart.

Read more: Brumation and the seasons

EGG-LAYING AND CLUTCHES

Clutch size is not documented for *Lampropeltis nigra*. In *Lampropeltis californiae*, the female lays her eggs about six weeks after ovulation, often after a shed, and the clutch is typically 5-15 eggs. Provide the female with a laying box with damp vermiculite or sphagnum on the warm side. The female does not guard 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 damp vermiculite in a closed container with a couple of small air holes in the lid, and do not bury them. The vermiculite should be damp but not so wet that water can be squeezed out. Incubation is not documented for the species. The figures are borrowed from *Lampropeltis californiae*: 26-29 °C, and the eggs hatch after 60-70 days. Check the eggs once a week for mould and collapse, and remove bad eggs. The young 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 young snake is put in a small enclosure or ventilated box of its own with a hide, water and a heat source. Young snakes eat one another and must never be kept together. They eat only after the first shed, about a week after hatching. Then they are offered a pinkie mouse every week, preferably thawed. Young that will not eat can often be tempted by rubbing the mouse with the scent of a lizard. As they grow, the size of the prey and the frequency are increased gradually. If a young snake 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 humid 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 nasal discharge.
- Bites from live prey. Use thawed prey.

A healthy animal has clear eyes, a full 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 experience in reptiles if the animal does not eat, loses weight, breathes 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.