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SNAKES

Red-tailed Green Ratsnake

Gonyosoma oxycephalum

Gonyosoma oxycephalum is a large, slender arboreal snake from the rainforests of South-East Asia, with an emerald-green body, a reddish-brown tail and a pointed head. It grows to about 2.4 m, is diurnal and lives in the tree canopy. It needs a tall, humid enclosure and a calm keeper, because its temperament can be unpredictable.

Family: Colubridae Former name: *Elaphe oxycephala; Coluber oxycephalus*

KEY FACTS

THE ANIMAL

Adult size	**150-240 cm** total length incl. tail
Lifespan	**15-20 years**
Active	**By day**
Lifestyle	**Arboreal**
Habitat	**Rainforest**
Difficulty	**Experienced**

CARE

Min. enclosure	**150 × 60 × 150 cm** L × W × H for 1 adult
Temperature, day	**25-29 °C**
Basking spot	**29-30 °C**
Temperature, night	**22-25 °C**
Humidity	**70-80%**
Water	**Water dish**
UVB	**Optional**
Diet	**Vertebrates**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**36-48 months**
Clutch size	**3-12 eggs**
Incubation	**90-125 days** at 25-29 °C

PROTECTION AND PAPERWORK

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

About the species

Gonyosoma oxycephalum is a powerful but slender snake with a pointed, distinct head, large eyes with round pupils and a long, supple body. The body is laterally compressed and has broad ventral scales with strong lateral keels, which give a firm grip on the branches: an adaptation to life in the trees. The back is light to dark green, often with a black net pattern between the scales, and the tail is reddish to brown. A black stripe runs through the eye. The tongue is black, often with brown and blue at the sides. The top of the head can be dark green to yellowish green. Some animals are grey, silvery or brown, and a grey form with a yellow head occurs on Panay in the Philippines.

Newly hatched young are 40-50 cm long and weigh about 20 g. Adults are typically 150-200 cm, and large females can reach up to about 240 cm. Males are slightly smaller and often more distinctly coloured.

The species was described by Friedrich Boie in 1827 from animals from Java. It was formerly called *Elaphe oxycephala*, and that name is still seen. The species name probably comes from the Greek oxys, "sharp", and kephale, "head", after the shape of the head. When the animal feels threatened, it inflates its throat to look bigger, and it can strike quickly. Temperament varies

from animal to animal. Some become calm with regular handling, while others stay defensive. The species is therefore not suited to beginners.

Distribution and habitat

Gonyosoma oxycephalum lives across large parts of South-East Asia. It is found in Thailand, Myanmar, Cambodia, Laos and Vietnam, on the Malay Peninsula, in Singapore and on Penang, in India on the Andaman Islands, in Indonesia on Sumatra, Java, Bali, Lombok, Borneo, Nias, the Mentawai Islands, Bangka, Belitung and many smaller island groups, and in the Philippines on Luzon, Palawan, Panay, Negros and Bohol, among others. The type locality is Java.

The species has also been reported from the Nicobar Islands and Pulau Tioman, but its occurrence there has not been confirmed.

> **Native range:** Indonesia, Malaysia, Singapore, India, Myanmar (Burma), Thailand, Cambodia, Laos, Vietnam and Philippines.

HABITAT

The species is a true tree-dweller that almost never goes down to the ground. It lives in primary and secondary lowland rainforest below 750 m. It lies on top of branches or hides in tree hollows, hunts in the tree canopy and is diurnal.

In the wild it eats almost only birds, bird eggs, lizards and bats. It hangs in the branches and seizes prey in the air. The climate in its range is warm and humid all year, with rain for most of the year and small temperature fluctuations, and only slightly cooler at night.

Care

THE ENCLOSURE

An adult needs a tall, spacious enclosure of at least 150 × 60 × 150 cm (length × width × height). The species is an active climber, and height matters more than floor area. Bigger is better, ideally 180 × 70 × 150 cm or more. Juveniles can start in a smaller plastic enclosure of about 45 × 25 × 25 cm with a water bowl, a hide and kitchen roll as substrate, but they must soon move to a tall enclosure. The enclosure must be well ventilated and lockable, because the species is strong and escapes easily.

Furnish it with thick and thin branches at several heights, horizontal resting places, climbing branches and plenty of foliage, live or artificial, to provide cover. Provide one dry hide and one humid hide low down, and ideally one hide high up. A suitable substrate is coconut coir or dust-free wood chips, which hold moisture and bind odour, because the species produces many foul-smelling droppings. Remove soiled substrate after every defecation and change the substrate thoroughly every month. The enclosure must not stay constantly wet, because stagnant moisture causes skin and lung infections. Keep one animal per enclosure, except when a pair is being mated.

TEMPERATURE

During the day the temperature should be 25-29 °C. A warm spot in the upper part of the enclosure may reach 29-30 °C, but no more. The species does not tolerate high heat, so beware of overheating, especially in summer. At night the temperature may fall a couple of degrees to 22-25 °C.

Use a ceramic heat emitter, a heating cable or a heat mat controlled by a thermostat, and position the heat source so that the snake cannot touch it. Measure with thermometers in both the upper and lower parts. Brumation is not necessary.

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

HUMIDITY AND WATER

Humidity should be 70-80 %, and it should fluctuate slightly between day and night. Mist the enclosure 1-2 times a day, so that it keeps the air humid and imitates the rainy season, and make sure the surfaces dry again. Constant condensation and stagnant air cause mould and infections.

Always provide a large water bowl that the snake can lie in, and change the water often. Some animals, especially recently wild-caught ones, prefer to drink from droplets on the leaves, so mist thoroughly to give them water as well. During a shed, a humid hide and extra misting help, and after every shed the eyes, tail tip and vent should be checked for retained skin.

Read more: Humidity, misting and ventilation Read more: Buying animals: captive-bred, wild-caught and transport

LIGHTING AND UVB

The species is diurnal, and a steady daily rhythm of about 12 hours of light and 12 hours of darkness all year is important, also for breeding. A room with daylight is enough; otherwise use LED or fluorescent tubes in the enclosure, so that the animal can tell day from night. UVB is not documented as necessary for the species. Without daylight in the room, a low-output UVB tube (Ferguson zone 1-2) can be used over part of the enclosure, so that the animal can choose to move towards or away from it. Keep heat lamps and UVB tubes out of reach, so that the snake cannot burn itself on them.

Read more: Lighting and UVB

FEEDING

Gonyosoma oxycephalum eats whole prey. In the wild this means birds, bird eggs, lizards and bats, and in captivity the species can be trained to take frozen and thawed rodents. Mice, rats and chicks are used, and chicks are often the preferred prey. Wild-caught animals can be difficult to get feeding. Live prey is not recommended, because the prey can injure the snake.

The prey should be about as wide as the thickest part of the snake. Thaw it in the fridge and warm it to about 38 °C before feeding. Juveniles are fed every 5-7 days, subadults every 7-10 days and adults every 10-14 days. A female that is to be bred is fed more often, up to every fifth day. In the run-up to the breeding season the female is best fed only chicks, as rodents contain more calcium and give harder eggshells. The species has a high metabolism and passes several large droppings after each meal. Leave the animal undisturbed for at least 48 hours after a meal.

Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

Gonyosoma oxycephalum is defensive and can be unpredictable. When it feels threatened, it inflates its throat, hisses and strikes. Bites are not venomous, but can be deep and painful. Some animals become calm with gentle, regular handling, while others stay nervous. Handle the animal only when necessary: for cleaning, moving and checks.

Always approach the snake calmly, support the body and avoid sudden movements. Never lift it by the tail. Do not bring your hand down over the head; approach from the side. New animals get two weeks of peace before they are handled, and wild-caught animals should preferably not be handled at first. The species is solitary and should be kept alone. It is strong and a climber, so the enclosure must be lockable.

Emaciated or lethargic newly acquired animals often have parasites and should see a vet.

Breeding

SEXUAL MATURITY AND SEXING

Males are slightly smaller than females and often more distinctly coloured. Sex is reliably determined by probing, which should be carried out by a vet or an experienced keeper. The species becomes sexually mature after 3-4 years.

MATING

A brief cool period with a drop in night temperature of 1-3 °C can trigger breeding, but is not necessary. With a steady daily rhythm and a good temperature gradient, healthy females also come into condition on their own. Give the female more food in the period before mating. If breeding has been triggered by temperature control, the pair must be kept apart until the temperature is back to normal, and only then brought together. A pair can also live together all year, but must be separated at feeding.

EGG-LAYING AND CLUTCHES

The female lays her eggs about 60 days after ovulation, shortly after a shed. A clutch is 3-12 eggs. The eggs are 60-70 mm long and often stick together in a mass; do not try to separate them. An established pair can have several clutches a year. Give her an enclosed nest box with damp sphagnum or vermiculite, so that she does not hold the eggs back. A female that has just laid needs plenty of food to regain strength.

INCUBATION

The eggs are taken out carefully without turning them and placed on top of, not into, a damp substrate of perlite and water at a weight ratio of 1:1. The humidity around the eggs must be high, 85-95 %. At 25-29 °C the young hatch after 90-125 days; the lower the temperature, the longer the incubation. Do not incubate warmer than 29 °C, because too high a temperature produces more deformed and dead young.

Read more: Incubating eggs

REARING THE YOUNG

Newly hatched young are 40-50 cm and weigh about 20 g. They are placed singly in small enclosures of about 45 × 25 × 25 cm with a water bowl, a hide and kitchen roll as substrate, and are moved to larger enclosures with branches as they grow. The first food is small thawed mice matched to the thickness of the young snake, and the young are fed every 5-7 days. Young snakes are often nervous and strike.

Health and common mistakes

Wild-caught animals are often emaciated, dry and full of parasites, while captive-bred animals are normally hardy if the conditions are right. The typical problems are:

- Skin and lung infections from a constantly wet substrate, condensation or stagnant air. Signs are wheezing breathing, mucus and an open mouth.
- Overheating at temperatures above 30 °C. Make sure the enclosure does not get too hot in summer.
- Parasites and mites, especially in wild-caught animals. Have a faecal sample examined.
- Poor sheds due to low humidity. Provide a humid hide and mist more during a shed.
- Feeding problems in wild-caught animals and animals that are stressed.
- Injuries from heat sources and from live prey.

A healthy animal has clear eyes, a firm grip and a rounded body with no visible ribs. Weigh the animal monthly. Contact a vet with reptile experience if the snake does not eat for several weeks, loses weight, has breathing problems or shows changes in the skin.

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.