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CAECILIANS

Gaboon Caecilian

Geotrypetes seraphini

Geotrypetes seraphini is a medium-sized, limbless, burrowing amphibian from West and Central Africa. It lives down in the soil, eats mostly earthworms and gives birth to live young without depending on water. The species is kept in a deep, moist substrate, and little is known about its care.

Family: Dermophiidae

KEY FACTS

THE ANIMAL

Adult size	**24-40 cm** total length incl. tail
Weight	**7-26 g**
Lifespan	**4-5 years**
Active	**At night**
Lifestyle	**Burrowing**
Habitat	**Rainforest**
Skin toxins	**None known**
Difficulty	**Experienced**

CARE

Min. enclosure	**50 × 30 × 35 cm** L × W × H for 1 adult
Temperature, day	**22-26 °C**
Temperature, night	**20-23 °C**
Humidity	**90-100%**
Water	**No water dish**
UVB	**Not required**
Diet	**Insects and worms/snails**
Kept	**Singly or in groups**

BREEDING

Reproduction	**Live-bearing**
Development	**Live-bearing**
Litter size	**3-4 young**
Parental care	**None**

PROTECTION AND PAPERWORK

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

About the species

Geotrypetes seraphini is a caecilian: a limbless amphibian with a ringed body that looks like a large earthworm. The colour is purplish grey to dark grey with paler lines running down the sides towards the belly. The eyes are completely hidden under the skin, and the tentacles sit far forward under the nostrils. The head is used like a drill, and the animal lives almost its whole life underground.

Adults are normally 24-33 cm long and can reach about 40 cm. The females grow largest: they typically weigh about 17 g and up to 26 g, the males about 7 g. In the wild the animals live only 4-5 years; in captivity they can live at least 5 years.

No skin toxicity has been described in the species. Like other amphibians, it has glands in the skin, so wash your hands after handling, and do not touch your eyes or mouth.

Distribution and habitat

Geotrypetes seraphini lives in West and Central Africa from Guinea and Sierra Leone along the Gulf of Guinea to Cameroon, Equatorial Guinea, Gabon and the Democratic Republic of the Congo. Records from Angola and the Republic of the Congo are uncertain and are not shown on the map. The species is not threatened (IUCN: LC); it is common and tolerates degraded habitats.

Native range: Guinea, Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon, Equatorial Guinea, Gabon and Congo - Kinshasa.

HABITAT

Geotrypetes seraphini lives in moist lowland rainforest, but is also found in plantations, village gardens, urban areas, heavily degraded forest and flooded farmland. The animals dig in soil, most often wet soil, under logs and occasionally under leaf litter, and they occasionally come up to the surface. The burrows are also a refuge when snakes hunt them.

The adults eat mainly earthworms, while the young eat earthworms and ants. The species lives side by side with *Herpele squalostoma*, which mostly eats hard prey such as land crustaceans and beetles.

Care

THE ENCLOSURE

Little is known about keeping *Geotrypetes seraphini*, but the species is kept and bred in captivity. *G. seraphini* is kept in a tight-fitting box of thick-walled plastic or a terrarium with a secure lid and a deep substrate to dig in. An adult needs at least 50 × 30 × 35 cm, so that there is room for 20-30 cm of substrate and an air space above. The lid must close tightly and have a weight on top: an animal that can reach the lid will escape through the smallest gap, and feeder worms also crawl out. Provide ventilation with small holes in the sides just below the rim, covered with fine mesh; there must be no holes in the lid.

The substrate is the most important decision. Unbleached paper fibre (unscented paper-based bedding) is well proven: it holds moisture, the worms live in it, and caecilians clearly prefer it to coconut fibre. Sterilised, unfertilised topsoil can also be used. Coconut fibre alone is not recommended: it is dusty, clings to the skin and can compact into a hard, fatal plug in the gut. Replace the substrate every 4-5 months, or sooner if it becomes dirty, and check the animal at the same time.

Place a flat piece of heat-treated bark or wood on the surface. The animals like to lie just under it, and it makes it easy to check on them without digging. Live plants are not necessary.

TEMPERATURE

Keep 22-26 °C by day and 20-23 °C at night. The temperature must be stable and vary by no more than about 3 °C; rapid and large fluctuations are poorly tolerated. If the box is kept in a room with an even temperature, heating is rarely needed. A heat mat under one end provides a temperature and moisture gradient that the animal can choose from; the substrate dries out a little over the heat, so keep an eye on the moisture. If the animal stays on the surface instead of burrowing, the temperature, moisture or substrate is wrong.

Read more: Heat and temperature

HUMIDITY AND MISTING

The substrate must be evenly moist, but not so wet that water can be squeezed out of a handful, and there must never be standing water at the bottom of the box. The air in the box is practically saturated (90-100 %). Maintain the moisture by misting and turning the substrate now and then, and leave one end slightly drier than the other. Use bottled water, rainwater or tap water that has stood for a day.

WATER AND WATER QUALITY

There should be no water bowl. The animal gets water from the moist substrate and from condensation on the walls of the box, and a water bowl easily makes the substrate too wet. The water is used only to moisten the substrate.

LIGHTING AND UVB

The species lives underground and does not need UVB or any special lighting. An ordinary day-night rhythm in the room with 10-14 hours of light is enough. The box should not stand in direct sunlight.

Read more: Lighting and UVB

FEEDING

Earthworms are the staple food and are taken by almost all terrestrial caecilians. Use small to medium earthworms, such as compost worms, and cut them into pieces for juveniles. Put 10-15 worms in the box every other week. In a moist paper substrate the worms stay alive without rotting. Small crickets, live or killed, and mosquito larvae in a shallow dish can supplement the worms.

The animal finds its food by smell and with its tentacles and is rarely seen eating. Dig through the substrate regularly: many worms left over mean overfeeding or an animal that is not eating. Count the worms in and out when an animal is new. The nutritional value of the worms can be increased by dusting their soil with calcium and vitamin powder 4-6 days before feeding.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements

BEHAVIOUR AND HANDLING

Geotrypetes seraphini lives hidden and spends almost all of its time buried. If the animal lies on the surface a lot, the substrate is too wet, too dry, too cold, too warm or chemically unpleasant, or there is no hide on the surface; in that case, replace the substrate and check the temperature.

One animal per box makes it easy to monitor weight and health and rules out conflict. Several animals of the same species can also be kept together if you check regularly for bites and injuries, and this gives a better chance of young. Handle the animal as little as possible and only with clean, wet hands free of cream and soap residue.

Breeding

SEXUAL MATURITY AND SEXING

The males become sexually mature in their first year and the females a year later. The sexes cannot be told apart reliably from the outside, but the females are on average larger and heavier, and the males have a differently shaped cloacal region.

MATING

Fertilisation is internal, as in all caecilians, but mating has not been described in detail for the species. The species breeds in captivity in groups of both sexes without needing water, and a stable group gives the best chance.

EGGS AND LARVAE

Geotrypetes seraphini does not lay eggs but gives birth to live young. The foetuses develop in the oviducts, first on the yolk and then on nourishment from the wall of the oviduct, which they scrape with special spoon-shaped foetal teeth. The gills disappear shortly after the foetuses have left the egg membrane. The female carries 3-4 young, and large females carry more than small ones. The length of gestation is not known.

METAMORPHOSIS

There are no larvae and no metamorphosis in water. The young are born on land as small versions of the adults, 7-8 cm long, corresponding to about a third of the mother's length. The foetal teeth are replaced by adult teeth just before or shortly after birth.

Read more: Rearing tadpoles

REARING THE YOUNG

The young are small at birth and probably stay with the mother for a time, so leave them in the box. When they are eating on their own, they can be moved to a small box with the same substrate as the adults and fed small earthworms or pieces of worm. Keep them moist and stable, and weigh them regularly.

Health and common mistakes

Illness is noticed late in an animal that lives buried. The most important problems are:

- The animal lies on the surface: wrong moisture, temperature or substrate, or a missing hide. Correct the conditions.
- Plug in the gut: coconut fibre can compact into a fatal plug in the gut. Use paper fibre or sterile soil.
- Skin problems: fungal and bacterial infections, often after a dirty substrate or injuries. Requires a vet.
- Parasites: roundworms, tapeworms and single-celled parasites are common in caecilians in captivity. Have a faecal sample examined.
- Escape: the animal gets out through small gaps and dries out. Use a tight lid with a weight.
- Chytrid fungus: has been detected in the species and can be treated with an antifungal from the vet.

The chytrid fungus *Batrachochytrium dendrobatidis* (Bd) occurs in caecilians. New animals are quarantined and tested, and equipment and hands are washed between boxes. Keep a new animal in a small box for the first month, where you can count worms in and out and see whether it is eating. See a vet with experience of amphibians if the animal does not eat for several weeks, loses weight, develops sores or stays on the surface.

Read more: Quarantine and hygiene

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.