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GECKOS

Striped leaf-toed gecko

Goggia lineata

Goggia lineata is a tiny, pale grey and striped gecko from the western part of South Africa and the far south of Namibia. It reaches only about 4 cm including tail and is one of the smallest lizards in southern Africa. It is nocturnal and lives hidden under stones and vegetation. Almost nothing is known about its care, so this guide is based on the climate and habitat.

Family: Gekkonidae Former name: *Phyllodactylus lineatus*

KEY FACTS

THE ANIMAL

Adult size	**4 cm** total length incl. tail
Lifespan	**5-8 years**
Active	**At night**
Lifestyle	**Rock-dwelling and terrestrial**
Habitat	**Semi-desert and rocky terrain**
Difficulty	**Experienced**

CARE

Min. enclosure	**30 × 20 × 20 cm** L × W × H for 2 adults
Temperature, day	**18-28 °C**
Temperature, night	**10-18 °C**
Humidity	**50-70%**
UVB	**Optional**
Diet	**Insects and small invertebrates (springtails, fruit flies)**
Kept	**In pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**2 eggs**
Incubation	**60-90 days** at 24-27 °C

PROTECTION AND PAPERWORK

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

About the species

Goggia lineata is a pale grey, delicate and fragile gecko, usually with several dark stripes down the back. The whole animal is about 4 cm long including tail, so it is among the very smallest lizards in southern Africa. The genus name comes from the Afrikaans word "gogga", meaning creepy-crawly, and the species name from the Latin "linea", line.

The species was described in 1838 by the British zoologist John Edward Gray as *Phyllodactylus lineatus* and in 1997 became the type species of the new genus *Goggia*. On the same occasion two former subspecies were raised to separate species, and in 2017 a southern population was split off as *Goggia incognita*. The genus today contains about ten small, closely related species. The type specimens may have been lost.

The species is nocturnal and lives hidden. It is too small and delicate to be handled.

Distribution and habitat

The species is found in the western part of South Africa, in the provinces of Western Cape and Northern Cape, and in the far south of Namibia south of Warmbad. The range extends up along South Africa's west coast and through Namaqualand to Namibia.

The type locality is given as Namaqualand and the Cape of Good Hope.

> **Native range:** South Africa and Namibia.

HABITAT

Goggia lineata lives hidden under stones, rubble and vegetation and readily shares hiding places with larger geckos such as *Afrogecko porphyreus*. It hunts small insects, especially ants and termites, at night. The eggs are laid in summer in a humid, warm place. Near human settlement, house cats can wipe out the species locally.

The area has a Mediterranean climate with rain in winter and a dry, hot summer. In Cape Town the mean daytime temperature is 27 °C in January-February and 18 °C in July-August, and at night 16-17 °C in summer and 7-8 °C in winter. Relative humidity is 71-81 %, and just under 500 mm of rain falls per year. Further north, in Springbok in Namaqualand, summer is slightly warmer at 29-30 °C by day, and only about 210 mm of rain falls per year.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

There is no documented care for *Goggia lineata*. This guide is based on the climate in the species' range, the habitat and the animal's size of about 4 cm.

A pair can be kept in an enclosure of 30 × 20 × 20 cm (length × width × height). The species lives on the ground under stones, so floor area matters more than height. Larger is an advantage, because it provides more hides and a more stable climate. The substrate is a mixture of sand and soil. Build hides of flat stones and cork bark lying close to the floor, so that the animal can crawl in under them as in the wild. Also set up a dry area.

The enclosure must have a completely tight lid, because the animal is so small that it can escape through even narrow gaps. At the same time there must be a little ventilation so that the air does not become stagnant.

TEMPERATURE

Temperature has not been measured on the animals themselves, but follows the climate in the species' range: 24-28 °C by day and 16-18 °C at night in summer and a cool winter with 18-20 °C by day and 10-12 °C at night. A small enclosure overheats quickly, so use a thermostat-controlled heat mat on one side of the floor, not a powerful spotlight, and measure with a digital thermometer at both ends.

Keep the enclosure away from direct sun. If the animal hides all the time or lies limp, check the temperature.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity inside the animal's hide is not documented. The coastal climate is humid, the interior drier, and winter is the wet season, so 50-70 % suits. Leave one corner of the substrate slightly moist and the rest dry, so that the animal can choose for itself. Mist lightly now and then so that droplets form to drink, and let the surfaces dry out between each time.

Place a flat lid with a few pebbles in it as a water dish. A deep dish can drown such small animals.

LIGHTING AND UVB

The species is nocturnal and hides by day. UVB is not documented as necessary and is optional. A weak UVB tube for shade-dwelling animals can be used over part of the enclosure if there are dark hides where the animal can avoid the light. Ordinary daylight from a room or a fluorescent tube for 10-12 hours a day is enough. At night it must be dark.

Read more: Lighting and UVB

FEEDING

In the wild the species eats mainly ants and termites, so offer the very smallest feeder insects: fruit flies, springtails and the smallest newly hatched crickets. Prey must be smaller than the animal's head. Offer food every second to third day in the evening, and remove feeder insects that are not eaten.

Dust the feeder insects lightly with calcium, and keep a small dish of crushed cuttlebone available so that the female can take extra calcium. Keep springtails as a permanent part of the enclosure floor so that there is always something to eat.

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

BEHAVIOUR AND HANDLING

Goggia lineata is small, shy and fast and is not suitable for handling. It stays under cover most of the time and comes out at dusk and at night. In the wild it shares hiding places with other geckos, so a pair can probably be kept together, but the best way of keeping them is not documented. Provide many hides and watch for biting.

Breeding

SEXUAL MATURITY AND SEXING

Sexual maturity and sex differences are not documented. Wait with breeding until the animals are fully grown and in good condition, and the female's calcium needs are covered.

MATING

Mating has not been described. The eggs are laid in summer, so a seasonal rhythm as in the wild, with a cool and slightly more humid winter and a warm, dry summer, is a reasonable starting point, but it is an estimate.

EGG-LAYING AND CLUTCHES

The female lays two tiny eggs in a humid, warm place in summer. Provide her with several hidden, slightly moist laying sites, for example pockets of moist soil under flat stones. The number of clutches per year is not documented.

INCUBATION

The incubation period is not documented; in similar small geckos the eggs hatch after 60-90 days at 24-27 °C. Move the eggs carefully to a small box with slightly moist substrate, without turning them, and keep the temperature stable.

Read more: Incubating eggs

REARING THE YOUNG

The young are extremely small and need micro feeders such as springtails and the smallest fruit flies. Keep them in a small, completely tight enclosure with hides. Rearing is not documented.

Health and common mistakes

The lifespan is not documented; other small geckos live 5-8 years. The animal is so small that illness quickly becomes serious. The typical problems for small, dry-climate geckos are:

- Dehydration from air that is too dry or heat that is too strong. A small enclosure overheats quickly.
- Mould and skin problems if the substrate is constantly wet. Keep it dry in most of the enclosure.
- Calcium deficiency, which causes soft bones. Dust the feeder insects and keep a cuttlebone available.
- A lost tail after attempts to pick the animal up.
- Escape through narrow gaps in the enclosure.

See a vet experienced with reptiles if the animal loses weight or will not eat.

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.