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GECKOS

Morocco lizard-fingered gecko

Saurodactylus brosseti

Saurodactylus brosseti is a very small, ground-dwelling gecko from western Morocco. The body measures about 3 cm from snout to vent, and it is active during the day and at dusk. The species is a complex of cryptic species and almost unknown in captivity, so the guide is based on the climate of its range.

Family: Sphaerodactylidae Former name: *Saurodactylus mauritanicus brosseti; Saurodactylus fasciatus brosseti*

KEY FACTS

THE ANIMAL

Adult size	**3 cm** snout-vent length
Lifespan	**5-10 years**
Active	**By day and at dusk**
Lifestyle	**Terrestrial**
Habitat	**Semi-desert and rocky terrain**
Difficulty	**Experienced**

CARE

Min. enclosure	**40 × 30 × 30 cm** L × W × H for 2 adults
Temperature, day	**22-28 °C**
Basking spot	**30-32 °C**
Temperature, night	**12-18 °C**
Humidity	**40-60%**
UVB	**Recommended** Ferguson zone 1
Diet	**Insects and small invertebrates (springtails, fruit flies)**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1 eggs**
Incubation	**60-90 days** at 24-28 °C

PROTECTION AND PAPERWORK

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

About the species

Saurodactylus brosseti is a very small gecko in the family Sphaerodactylidae. It measures up to about 31 mm from snout to vent. The back colour varies from beige to dark brown. The species lacks the large white or yellow spots on the back that other species in the complex have; the spots are very small or entirely absent. The tail is usually covered in irregular yellow spots on a brown background, and on top of the head there is usually a white, V-shaped line that does not reach down onto the neck.

The species was described in 1957 as a subspecies of *Saurodactylus mauritanicus* and is now regarded as a separate species. It is named after the ornithologist and mammalogist André Brosset, who helped collect the animals. Genetically, *S. brosseti* as formerly defined contains five distinct lineages, which were split into five species in 2019: *Saurodactylus brosseti* in the narrow sense (the northern lineage), *Saurodactylus elmoudenii*, *Saurodactylus harrisii*, *Saurodactylus slimanii* and *Saurodactylus splendidus*. Most of the lineages cannot be told apart by appearance, so older information on the species may apply to the whole complex.

The species lays eggs. Sexual differences are not documented, and the lifespan in the box (5-10 years) is an estimate for a small gecko.

Distribution and habitat

Saurodactylus brosseti lives in western Morocco, and the type locality is the Souss Valley in the south-west. In the narrow sense the species occurs from a little south of Agadir and northwards. South of Agadir and further down the Atlantic coast to Western Sahara lives the closely related *Saurodactylus harrisii*, and the area around Agadir is a contact zone between the two. The species occurs from the coast up to about 1,100 m above sea level.

The species is assessed as Least Concern on the global IUCN Red List.

> **Native range:** Morocco.

HABITAT

Saurodactylus brosseti lives in the western parts of Morocco, where the climate is Mediterranean to semi-arid, with hot, dry summers and cooler, damper winters. The habitats are forest, rocky terrain, farmland and grazing land. The species lives on the ground and is active during the day and at dusk.

Temperatures and humidity in the habitats are not documented, so the figures in the box are based on the climate.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

Almost nothing is known about keeping *Saurodactylus brosseti*. The climate in its range is Mediterranean, with hot, dry summers and mild, damper winters, and the species is a very small, ground-dwelling gecko. *Euleptes europaea* is another small gecko in the same family and lives in a similar Mediterranean climate.

A pair can be kept in an enclosure of 40 × 30 × 30 cm. Floor area matters more than height. Use a substrate of sand mixed with loamy soil in a layer of 4-5 cm, and place flat stones, cork bark and dry leaves as hides in both the warm and the cool end. The stones must stand directly on the floor of the enclosure, not on top of the sand, so that they cannot slip down onto the animal. All gaps and openings must be sealed, because the animal is very small.

TEMPERATURE

By day the floor is kept at 22-28 °C with a small warm spot of 30-32 °C under a weak spotlight controlled by a thermostat. At night the temperature falls to 12-18 °C.

In winter the day length and temperature can be lowered a few degrees for a couple of months, so the annual rhythm resembles the mild winters of the Mediterranean climate. A true winter rest is not documented for the species. Measure the temperature with digital thermometers at both the warm and the cool end.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 40-60 %. Mist the enclosure lightly every two to three days, so there are droplets on stones and leaves for the animal to drink, and let it dry out between mistings. Provide a damp hide, e.g. a small box with damp coconut fibre, so the animal can choose for itself. A water bowl is not necessary.

LIGHTING AND UVB

Saurodactylus brosseti is active during the day and at dusk. A weak UVB tube at one end of the enclosure with plenty of shade and hides is recommended; Ferguson zone 1 suits a small gecko that mostly stays in shade and at dusk, but the zone has not been measured for the species. Also dust the feeder animals with calcium and vitamin D3.

Keep the light on for about 12-13 hours a day in summer and 10 hours in winter, controlled by a timer.

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

FEEDING

In the wild the species lives on small arthropods. The feeder animals must be very small, no larger than the animal's head: springtails, fruit flies, newly hatched crickets and small woodlice.

Feed every second day with as much as the animal eats in about five minutes, and dust the feeder animals lightly with calcium at every feeding and with vitamins at every second to third feeding. Make sure you have a stable supply of small feeder animals before acquiring the animal.

BEHAVIOUR AND HANDLING

The species hunts as a sit-and-wait predator: it sits still and strikes when a small insect passes by. Behaviour in captivity is not documented. Keep the animal singly or a pair in a roomy enclosure with many hides. Two males must not be kept together. The animal is too small and fragile to be handled and is moved by letting it crawl into a small container.

Breeding

SEXUAL MATURITY AND SEXING

Age at sexual maturity and sexual differences are not documented for the species. In geckos this small, the sex is hard to see without a magnifier; look for the hemipenal bulges at the base of the tail. A pair therefore cannot be put together with certainty.

MATING

Mating and breeding in captivity are not documented for the species. A pair in a roomy enclosure with many hides and a clear seasonal rhythm, with shorter days and slightly cooler temperatures in winter, is a reasonable starting point.

EGG-LAYING AND CLUTCHES

The female lays one egg at a time. The figure dates from before the complex was split up and may apply to several of the species. How many eggs she lays per year is not documented. Give her a slightly damp spot under a flat stone or a piece of bark, and check regularly for eggs. An egg is removed carefully, without turning it.

INCUBATION

Incubation is not documented for the species. The 60-90 days at 24-28 °C in the box is an estimate based on other small geckos. Place the egg in a small ventilated box with slightly moist vermiculite, and do not turn it.

Read more: Incubating eggs

REARING THE YOUNG

Rearing is not documented for the species. The young are very small and need springtails and newly hatched fruit flies every day, dusted with calcium, in a small, secure box furnished like the adults' enclosure.

Health and common mistakes

No diseases specific to *Saurodactylus brosseti* are documented. As in other very small geckos, the typical problems are:

- Too little calcium and vitamin D3, which can cause soft bones and tremors.
- A one-sided diet or feeder animals that are too large.
- An enclosure that is too dry without a damp hide, which causes problems with shedding, or one that is too wet, which causes skin infections.
- Stones and pieces of wood that slip because they sit on top of the substrate.
- Fights between males.

See a vet with experience in reptiles if the animal loses weight, does not eat or seems lethargic.

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.