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GECKOS

Termite hill gecko

Hemidactylus triedrus

Hemidactylus triedrus is a small, sturdily built night gecko from southern India and Sri Lanka, with white crossbands on a brown back and rows of pointed tubercles on the back. It lives on the ground and low tree trunks, hunts termites and other small insects and is a robust but somewhat specialised species for the keeper who has kept enclosures before.

Family: Gekkonidae Former name: *Gecko triedrus; Hemidactylus subtriedrus*

KEY FACTS

THE ANIMAL

Adult size	**6-8 cm** snout-vent length
Lifespan	**5-8 years**
Active	**At night**
Lifestyle	**Rock-dwelling and terrestrial**
Habitat	**Dry forest**
Difficulty	**Intermediate**

CARE

Min. enclosure	**45 × 30 × 30 cm** L × W × H for 2 adults
Temperature, day	**24-27 °C**
Basking spot	**29-32 °C**
Temperature, night	**21-23 °C**
Humidity	**55-65%**
UVB	**Optional**
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-2 eggs**
Incubation	**50-80 days** at 26-29 °C

PROTECTION AND PAPERWORK

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

About the species

Hemidactylus triedrus is a medium-sized, sturdy gecko of the genus *Hemidactylus*. Adults measure 6-8 cm from snout to vent, with the tail on top of that. The back is light brown to chocolate brown with narrow white bands edged in black, and along the body run 19-20 fairly regular rows of enlarged, keeled, triangular tubercles. The fine transverse lamellae under the toes make it a skilled climber, but it is more ground-dwelling than many others in the genus.

The species was described by Daudin in 1802 as *Gecko triedrus*. The name *triedrus* refers to the triangular tubercles on the back. For many years it was split into several forms, including *Hemidactylus subtriedrus*, but in 2018 it was merged with the main species. At the same time, the population on Sri Lanka, formerly regarded as the subspecies *lankae*, is now considered a separate species, *Hemidactylus lankae*. Animals from Gujarat and other parts of northern India have also been assigned to other species. Termites are an important part of the diet.

Lifespan is not documented; 5-8 years is an estimate based on other *Hemidactylus* species of the same size. The species is rarely kept, and some of the advice on care and breeding is based on closely related *Hemidactylus* species.

Distribution and habitat

Hemidactylus triedrus lives in southern India, in Andhra Pradesh, Karnataka, Tamil Nadu and Kerala, and on Sri Lanka. The type locality is restricted to Nellore in Andhra Pradesh. There are also many registered records from Tamil Nadu, Kerala, Karnataka and Maharashtra.

The animals on Sri Lanka have been described as a separate species, *Hemidactylus lankae*, but its status is unresolved, and Sri Lanka is still counted as part of the range. Pakistan is also mentioned, including in a single report from 2003, but is not confirmed and is therefore not shown on the map. Registered records outside India and Sri Lanka may be due to confusion with closely related species. The exact range is still under debate, because several related species look very similar.

> **Native range:** India and Sri Lanka.

HABITAT

Hemidactylus triedrus lives in forest, where it moves on the ground and on the lower parts of tree trunks. By day it hides in crevices and holes in the leaf litter, between stones and under bark. At night it comes out and hunts.

The climate in southern India is warm and semi-arid with a pronounced monsoon. It is therefore a species that is used to drying out between downpours, and not a rainforest gecko. Precise figures for temperature and humidity at individual sites are not documented.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

A pair can be kept in an enclosure of at least 45 × 30 × 30 cm (length × width × height). Floor area matters more than height, because *Hemidactylus triedrus* mostly moves down near the ground and on low branches. Bigger is better, especially if you want to keep several females.

A mixture of coconut fibre and dry soil works as substrate, preferably as a bioactive substrate with springtails and woodlice, which can tolerate the relatively dry environment. Lay a layer of dry leaves on top. Even small oak leaves are used as hides. Add cork bark with many crevices, flat stones and low driftwood, so that the animals can both hide and climb. Provide both humid and dry hides.

The enclosure must have good ventilation, so that it dries out between mistings. Mesh openings in the sides and top are best. The gecko is fast and can sneak out, so the lid must fit tightly.

Read more: Terrarium construction and bioactive substrate Read more: Feeder animals: keeping and breeding

TEMPERATURE

By day the enclosure should be 24-27 °C, and a small warm spot may reach 29-32 °C. At night the temperature should be 21-23 °C.

Use a heat bulb or a heat mat on one side, controlled by a thermostat, and measure with a digital thermometer both at the hotspot and in the cool end. Give the gecko a choice, so that it can retreat into the shade if it gets too warm. For breeding, the animals can be given a cooler period in winter of one to two months with night temperatures of around 18-20 °C.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity should be around 55-65 %, but *Hemidactylus triedrus* is a semi-arid animal, so the humidity should fluctuate and the enclosure should be allowed to dry. Mist the enclosure lightly every other day, so that there are droplets on leaves, stones and glass for the gecko to drink from. It should be dry again after a few hours.

A shallow bowl of fresh water is a good safeguard, although the animals often manage with droplets. Always keep parts of the substrate dry. The female prefers to lay eggs in dry soil, and conditions that are too wet can make her egg-bound and cause mould and skin problems.

LIGHTING AND UVB

Hemidactylus triedrus is nocturnal, and UVB is optional. A weak UVB light at one end of the enclosure, with plenty of shade, can give more reliable calcium metabolism, especially for breeding animals.

Provide ordinary daylight or an enclosure light on for 11-13 hours, controlled by a timer, and keep it completely dark at night. Coloured night lighting is unnecessary.

Read more: Lighting and UVB Read more: Calcium, vitamins and supplements

FEEDING

Hemidactylus triedrus is an insectivore. In the wild it eats termites and other small insects such as grasshoppers, beetles and spiders. In the enclosure, crickets, small grasshoppers, dubia roaches and springtails work as staples. The insects should be smaller than the distance between the gecko's eyes. For small young the crickets must be quite small, about 3 mm, and for adults about 12 mm.

Feed adults 2-3 times a week and young every day or every other day. Waxworms, butterworms and small hornworms are good as a treat, but they are fatty and should only be given now and then. Dust the insects with calcium, and use a multivitamin preparation with D3 at every second or third feeding. Breeding females need extra calcium, and you can put out a small dish of calcium powder. Do not leave live insects in the enclosure overnight.

BEHAVIOUR AND HANDLING

Hemidactylus triedrus is fast and nervous, especially when young, and it is not an animal to be handled much. Short, calm handling over a low surface is best, and never grab the tail, which it can drop. It does become used to you in time. By day it stays hidden and comes out when the light is switched off.

Several females can live with a male, but how well the species tolerates company has not been thoroughly studied. Preferably keep a single animal or a pair, therefore, and only add more in a large enclosure with many hides. Always watch for bites, missing tails and falling weight. Males should not be kept together. Many geckos in the genus *Hemidactylus* are territorial.

Breeding

SEXUAL MATURITY AND SEXING

Males can be recognised by the distinct bulge at the base of the tail and by a row of pores in front of the vent. In the row in front of the vent, *Hemidactylus triedrus* has seven to nine pores, separated by a short gap in the middle. Females lack the bulge and are usually slightly smaller and slimmer.

Age and weight at sexual maturity are not documented. Wait to breed until the animals are fully grown and the female is in good condition with a plump tail. The thickness of the tail shows her condition.

MATING

Breeding usually succeeds without major problems when the animals are healthy. A cooler period in winter of one to two months with night temperatures of around 18-20 °C kick-starts breeding. Always let the animals have water during this period.

After the rest period, temperature and day length are raised again, and the animals are fed well. Put the male in with the female and keep an eye on them for the first nights. If the female is harassed or gets bitten, they must be separated. Take the female out of breeding if her tail becomes thin.

EGG-LAYING AND CLUTCHES

The female buries her eggs in the substrate roughly every third to fourth week during the season. She lays 1-2 white, fragile eggs at a time, like other geckos in the genus.

Give the female a laying box with slightly moist, but not wet, coconut soil or vermiculite, and make sure there are dry spots elsewhere on the floor. Females that cannot find a good site become egg-bound. The eggs are very delicate, and must not be turned or shaken if they are moved.

INCUBATION

Move the eggs carefully to a small box with slightly moist vermiculite or perlite, and place them so that the side facing up stays facing up. At 26-29 °C the eggs hatch after 50-80 days, as in other *Hemidactylus* species.

A stable temperature in a small incubator is best. Keep the substrate slightly moist, and check the eggs without moving them. Eggs that collapse and turn dark are usually dead. If in doubt, wait a little longer before removing them.

Read more: Incubating eggs

REARING THE YOUNG

The young are about 4 cm long at hatching and should have their own small box or a small enclosure with kitchen roll or slightly damp coconut substrate, hides and a shallow bowl for water. Mist lightly every day. For the first few days they live off the yolk sac and then begin to hunt.

Offer the very smallest crickets or springtails daily or every other day, dusted with calcium and vitamins. Weigh them and follow growth, and move them up to a larger enclosure gradually. The young are fast and can sneak out, so be careful with the lid. Preferably keep them separately if they begin to bite one another's tails. The precise growth and age at sexual maturity are not documented.

Health and common mistakes

There is almost no species-specific health knowledge, but the problems resemble those in other ground-dwelling geckos. The typical mistakes are:

- Too little calcium and vitamin D3, especially in breeding females and young. It causes soft jaws, bent limbs and tremors. Dust the insects.
- Too damp a substrate and poor ventilation, which cause fungus, mould and skin problems. *Hemidactylus triedrus* is a semi-arid animal and needs dry patches.
- Egg binding, when the female does not find a suitable, dry place to lay eggs. She becomes lethargic and gets a swollen belly.
- Shed skin on the toes and tail tip after shedding. Provide a humid hide, and loosen it with lukewarm water.
- A dropped tail after bites or rough handling. It only partly grows back.

A healthy animal has clear eyes, a plump tail and a good grip. See a vet experienced with reptiles if the gecko loses weight, does not eat for several weeks or seems limp.

Read more: Common diseases and signs of illness

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.