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GECKOS

Natterer's gecko

Tropiocolotes nattereri

One of the smallest geckos in the world, only 4-6 cm including the tail, from the coasts around the Gulf of Aqaba on the Sinai and in the far south of Israel and Jordan. It is nocturnal and lives on stony ground. Little is known about its care, but it is kept like the better-known species of the genus in an enclosure of at least 20 × 20 × 20 cm.

Family: Gekkonidae

KEY FACTS

THE ANIMAL

Adult size	**4-6 cm** total length incl. tail
Lifespan	**5-10 years**
Active	**At night**
Lifestyle	**Terrestrial**
Habitat	**Desert and rocky terrain**
Difficulty	**Experienced**

CARE

Min. enclosure	**20 × 20 × 20 cm** L × W × H for 2 adults
Temperature, day	**26-30 °C**
Basking spot	**35-45 °C**
Temperature, night	**20-24 °C**
Humidity	**30-50%**
Water	**Water dish**
UVB	**Optional**
Diet	**Insects and small invertebrates (springtails, fruit flies)**
Kept	**Singly, in pairs, one male with several females or in groups**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1 eggs**
Incubation	**60-90 days** at 28-30 °C

PROTECTION AND PAPERWORK

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

About the species

Tropiocolotes nattereri is one of the smallest geckos. It measures 17-30 mm from snout to vent and about 4-6 cm including the tail, and a large animal weighs less than 1 g. The body is slender, the eyes large, and the legs long and thin. The toes are free and without adhesive lamellae, and the lamellae under the toes have a single keel, where *Tropiocolotes steudneri* has three. The colour is pale cream to sandy brown with light and dark crossbands and pale dots on the back; animals from Israel have a darker head than animals from the Sinai. The eyes have vertical pupils.

The species was described by Franz Steindachner in 1901 from two animals from opposite sides of the Gulf of Aqaba and is named after the ornithologist Johann Natterer. For a long time it was counted as part of *T. steudneri*. In 2022 the species complex was revised: the populations from the Judean Desert, the Dead Sea, the Negev and the Arava Valley down to the Gulf of Aqaba were described as the new species *Tropiocolotes yomtovi*, and *T. nattereri* is now restricted to the southernmost part of the area. The two species partly live side by side in the far south of Israel. Older descriptions of the species' way of life therefore most often concern *T. yomtovi*.

The IUCN assesses the species as Least Concern (LC). Lifespan is not documented; 5-10 years is an estimate based on other small geckos.

Distribution and habitat

Tropiocolotes nattereri lives along the south and east coast of the Sinai Peninsula out to the Gulf of Aqaba in Egypt, on the islands of Tiran and Sanafir in the Red Sea (Saudi Arabia), in the far south of Israel, where it occurs in the southern part of the Arava Valley north to Yotvata and in the mountains near Eilat, and in south-western Jordan. Records from Libya belong to *Tropiocolotes steudneri*, and the more northerly populations in Israel, Jordan and Saudi Arabia are now *Tropiocolotes yomtovi*. The map's records from before 2022 may include both species.

> **Native range:** Egypt, Israel, Jordan and Saudi Arabia.

HABITAT

Tropiocolotes nattereri lives in stony desert and on flat gravel and stone plains, but never on loose sand. It is nocturnal and stays mostly on the ground, but occasionally climbs onto low rocks and bushes and onto the lower parts of acacia trunks. During the day it hides. The climate at the Gulf of Aqaba is extremely dry with almost no rain. In summer it is about 40 °C by day and 27 °C at night, in winter about 21 °C by day and 10 °C at night. Temperature and humidity in the hiding places have not been measured.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

Little is known about the care of *Tropiocolotes nattereri*. The climate at the Gulf of Aqaba is hot and extremely dry, and *Tropiocolotes steudneri* and *Tropiocolotes tripolitanus*, which are the most commonly kept species in the genus, have the same requirements. The figures are borrowed from them.

A pair needs an enclosure of at least 20 × 20 × 20 cm (length × width × height), and larger is an advantage: the animals are very active, and more floor area gives room for more hiding places and a clear difference between the warm and the cool end. The species of the genus thrive best in a group, and up to six adults can be kept together in an enclosure 50 cm long. Floor area is more important than height, but a little height with rocks gives variety.

A glass enclosure with mesh in the lid is fine, so that the heat from the lamp can escape and the floor stays cool. *T. nattereri* lives on stony ground and not on loose sand, so use a firm substrate of sand mixed with clay or fine gravel with many flat stones and slabs, and keep one corner slightly damp as a laying site. Put hiding places in both the warm and the cool end. Heavy stones must stand directly on the floor of the enclosure so that they do not shift when the animals dig under them. A hide with damp moss provides a place for shedding. The lid must close tightly, as the animals are small and fast.

TEMPERATURE

Keep 26-30 °C by day and a small hot spot of 35-45 °C at one end, measured on a flat stone under the lamp. The genus is very heat-loving: with a spot from above the animals are more active, eat more and lay better-calcified eggs than with a heat mat alone. In a small enclosure the spot must be weak, such as a small halogen bulb, and controlled by a thermostat, and the cool end must stay below 30 °C so that the animals can always move away from the heat. At night the heat is switched off, and the temperature may fall to 20-24 °C. Measure with a digital thermometer at both ends and with an infrared thermometer on the hot spot.

Winters in the range are mild with nights around 10 °C. Whether the species needs a cooler winter period is not known; the kept species of the genus breed without one.

Read more: Heat and temperature

HUMIDITY AND WATER

The air must be dry, about 30-50 % and not above 60 %. Mist part of the enclosure two to three times a week in the evening or early in the morning: the animals lick the droplets from stones and hides, as they lick dew in the wild. Keep the moss in one hide and the substrate in one corner slightly damp, so that the animals can choose between damp and dry and shed without problems. Also provide a very shallow water dish or a bottle cap with fresh water.

LIGHTING AND UVB

Tropiocolotes nattereri is nocturnal, but the species of the genus gladly use the hot spot, and a fixed daily rhythm is important. Use an LED or a fluorescent tube for 12-14 hours in summer and slightly shorter days in winter, and keep the enclosure dark at night. Position the light so that the hides lie in shade.

UVB is not necessary when the insects are dusted with calcium with D3. A weak UVB tube does no harm, however, and lets the animals produce some of the vitamin D3 themselves.

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

FEEDING

Tropiocolotes nattereri lives on very small arthropods. Feeding follows the better-known species of the genus: the staple is pinhead crickets and flightless fruit flies, and for variety you can give aphids, springtails and small cockroach nymphs. The prey must not be longer than the gecko's head. Feed a little and often, preferably daily, with a few animals at a time, and remove insects that are not eaten.

Dust the food with calcium at most feedings and with calcium with D3 and a multivitamin once a week. Egg-laying females use a lot of calcium.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

The behaviour of *Tropiocolotes nattereri* in captivity has not been described. The kept species of the genus are small but very active, hunt eagerly in the evening and are peaceful towards each other. They are best kept in groups, preferably with several males, and an animal can also be kept alone. Dominant animals stand high on stretched legs, subordinate ones hold the body low, and a waving tail is a sign of nervousness.

Handle the animals as little as possible: they are very small, jump unpredictably, and the tail must never be grabbed. Watch whether individual animals are being pressured in the group.

Breeding

SEXUAL MATURITY AND SEXING

Sex differences and age at sexual maturity are not documented for *Tropiocolotes nattereri*. In the kept species of the genus the males call at night, and as in other geckos adult males have two bulges at the base of the tail. In gravid females the egg can be seen through the belly.

MATING

Breeding of *Tropiocolotes nattereri* in captivity is not documented. The kept species of the genus do not need a winter rest, and several males in the group give more fertilised eggs than a single male with several females.

EGG-LAYING AND CLUTCHES

The female lays one hard-shelled egg at a time and lays two or more times a year. The egg is large relative to the female and can be seen through the belly before it is laid. Keep one corner of the floor slightly damp as a laying site, and move the egg to an incubator without turning it, so that other females do not dig it up. The number of eggs per year in captivity is not documented.

Read more: Incubating eggs

INCUBATION

Incubation is not documented for *Tropiocolotes nattereri* and follows the kept species of the genus. Place the egg in a small closed box on dry or only slightly damp vermiculite or sand. At 28-30 °C the egg hatches after 60-90 days, fastest at the high temperature. Whether temperature affects the sex of the young is not known.

REARING THE YOUNG

Rearing has not been described for the species. In the kept species of the genus the young can grow up with their parents under the same care, when there is plenty of food of the right size. First food is springtails, aphids, flightless fruit flies and newly hatched crickets, dusted with calcium with D3. The young can also be raised separately in a small box set up like the adults' enclosure with heat from above and a damp hide.

Health and common mistakes

There are no documented special diseases in the species or the genus. The typical problems are the same as in other small desert geckos:

- Dehydration in a set-up that is too hot and dry without a damp hide. Provide a damp hide, mist regularly, and always keep water available.
- Overheating in a small enclosure if the spot is not controlled by a thermostat or there is no cool end.
- Crushed eggs and squashed animals if heavy hides and stones stand on sand that the animals dig under. Place them directly on the floor.
- Too little calcium and vitamin D3, especially in egg-laying females. Well-supplied animals have clearly visible white calcium sacs on the neck; if they are missing, or the eggs become thin-shelled, more calcium is needed.
- Parasites, especially in wild-caught animals. Have a faecal sample examined.
- Stress in newly acquired animals. Give them peace, darkness and hiding places for the first period.
- Malnutrition in young that are outcompeted by larger animals.

A healthy animal is lively in the evening and at night and has a plump tail. Seek a vet experienced with reptiles if the gecko loses weight, does not eat for several weeks or seems limp.

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

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.