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GECKOS

Arabian sand gecko

Trigonodactylus arabicus

Trigonodactylus arabicus is a small, slender sand gecko from the Arabian Peninsula. It lives on loose, wind-blown sand, buries itself during the day and hunts insects at night. The species is rare in captivity, and little is known about its care.

Family: Gekkonidae Former name: *Stenodactylus arabicus*

KEY FACTS

THE ANIMAL

Adult size	**6-8 cm** total length incl. tail
Lifespan	**5-10 years**
Active	**At night**
Lifestyle	**Terrestrial and burrowing**
Habitat	**Desert**
Difficulty	**Experienced**

CARE

Min. enclosure	**40 × 30 × 25 cm** L × W × H for 1 adult
Temperature, day	**25-30 °C**
Basking spot	**33-36 °C**
Temperature, night	**18-22 °C**
Humidity	**20-40%**
UVB	**Optional**
Diet	**Insects and small invertebrates (springtails, fruit flies)**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1 eggs**
Incubation	**60-90 days** at 27-30 °C

PROTECTION AND PAPERWORK

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

About the species

Trigonodactylus arabicus is a small, delicate gecko with a flat, elongated head and a body that is pressed close to the ground when it moves. The skin is translucent and pinkish, and the back has no tubercles. The fingers and toes are long and slender, with fringed edges of triangular scales and thin, compressed claws. The toes have no adhesive lamellae, so the species cannot climb vertical surfaces. The tail is round in cross-section and about as long as the body.

The species was described in 1957 by Georg Haas and is named after its type locality in Arabia. It was long placed in the genus *Stenodactylus* as *Stenodactylus arabicus*, but in 2018 it regained its own genus, *Trigonodactylus*, because it is smaller and slimmer than *Stenodactylus*, has a flatter body and moves differently. Some authors still use the old name.

Animals of the genus are under 4 cm from snout to vent, and the tail is about as long, so adults are roughly 6-8 cm in total. The figure is calculated from body measurements and not measured directly. Lifespan in captivity is not documented; the figure in the box is an estimate based on related desert geckos. The species is rarely kept in captivity.

Distribution and habitat

The species is found on the Arabian Peninsula and in neighbouring countries: Saudi Arabia, Qatar, the United Arab Emirates, southern and central Oman, Bahrain, Kuwait and central Yemen. It has also been recorded in Iran and Jordan. The type locality is given as the Trucial Coast at 24° 10' north and 53° east, an area that today belongs to the United Arab Emirates.

The range is large, and the species is not regarded as threatened. The map shows a rough outline of the area.

> **Native range:** Saudi Arabia, Qatar, United Arab Emirates, Oman, Bahrain, Kuwait, Yemen, Iran and Jordan.

HABITAT

The gecko lives on loose, wind-blown sand in dunes and sand flats with sparse vegetation, from sea level up to 500-600 metres in altitude. It is also found on firmer ground and on salt flats. The climate is a desert climate with very hot summers, mild winters and almost no rain.

The species is exclusively ground-dwelling and nocturnal. During the day it hides in holes in the sand or under stones. It does not climb. Its food is small insects and other small animals.

Care

THE ENCLOSURE

Little is known about the care of *Trigonodactylus arabicus*. The recommendations are based on the climate and habitat in its range. The closely related *Stenodactylus petrii* and *Stenodactylus sthenodactylus* have similar requirements. The species is therefore only for the experienced keeper.

An adult needs a low enclosure of at least 40 × 30 × 25 cm (length × width × height). Floor area is the most important, because the gecko lives on the ground. The substrate is a deep layer of loose, clean play sand or sand mixed with a little clay, at least 10 cm, so that the animal can dig tunnels. Place flat stones and cork bark as hides, so that there is a dry, firm hiding place. Branches and plants are not necessary.

TEMPERATURE

During the day the temperature should be 25-30 °C, with 33-36 °C at a basking spot at one end, so that the animal can choose. At night the temperature may fall to 18-22 °C. The sand is warmed by a lamp or a heat mat at the side, controlled by a thermostat. The figures are based on the climate in the range and are not documented for the species itself. Measure with a digital thermometer both at the basking spot and at the cool end.

Read more: Heat and temperature

HUMIDITY AND WATER

The air should be dry: 20-40% during the day. The sand should be dry at the surface. A small corner deep down in the sand can be kept slightly moist, so that the animal has somewhere to rest when shedding. Provide a shallow dish of fresh water, changed regularly, even though the gecko rarely drinks. Ventilation should be good.

LIGHTING AND UVB

The species is nocturnal and lives hidden during the day. No UVB requirement is documented. A weak UVB light for shade-dwelling animals (Ferguson zone 1) over one half can be used as an optional supplement, and the animal must always be able to dig down into shade. The light is on for 12 hours a day, and the night is dark.

Read more: Lighting and UVB

FEEDING

Its food is small live insects: small crickets, small roaches, springtails for young animals and small mealworms in small amounts. The insects should be smaller than the distance between the animal's eyes. Adults are fed every second or third day in the evening. Dust the food with calcium, and use a vitamin supplement with D3 once every two weeks. Remove uneaten insects in the morning.

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

BEHAVIOUR AND HANDLING

Trigonodactylus arabicus is shy and fast and moves with the body pressed down against the sand. The animal should not be handled, because it is fragile and easily stressed. It spends most of the day buried and is not seen; in the evening it comes out and hunts. Whether the species can be kept in pairs or groups is not documented, so keep the animals separately.

Breeding

SEXUAL MATURITY AND SEXING

Sexual differences and age at sexual maturity are not documented for *Trigonodactylus arabicus*. The genus has distinct bulges at the base of the tail, where the hemipenes lie, and two or three small spurs on each side; in geckos these are the male characteristics. The sex can only be seen reliably once the animals are adult.

MATING

Mating in captivity is not documented. The species lives in an area with very hot summers and mild winters, and the eggs are laid in the warm half of the year. A slightly cooler winter period, following the climate in the range, is therefore a natural trigger, but it has not been tried.

EGG-LAYING AND CLUTCHES

In the wild the female lays one oval egg per clutch in the warm months from May to October. She digs a hole in the sand for the egg. The number of clutches per year is not documented.

INCUBATION

Incubation is not documented for *Trigonodactylus arabicus*. The figures in the box, 60-90 days at 27-30 °C, are borrowed from related desert geckos and are an estimate. The egg is placed in slightly moist vermiculite or sand and kept in an incubator with a stable temperature.

Read more: Incubating eggs

REARING THE YOUNG

Rearing of juveniles is not documented. The young are very small and need springtails and fruit flies as first food, deep sand and small hides. Keep them separately.

Health and common mistakes

No diseases are documented for the species in captivity. The general risks for desert geckos are:

- Sand that is too damp, which causes fungal infections and skin problems.
- Lack of calcium and vitamin D3, which causes soft bones.
- Ingestion of sand when feeding, which can cause constipation. Feed on a flat stone or in a dish.
- Stress from too much handling or too few hides.

Go to a vet with reptile experience if the animal stops eating, becomes very thin or has problems shedding.

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.