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GECKOS

Mediterranean house gecko

Hemidactylus turcicus

Hemidactylus turcicus is a small, pale, warty gecko that accompanies humans all around the Mediterranean and hunts insects on house walls at night. It is hardy and easy to keep, but an experienced hand at the enclosure helps, because many facts about its care in captivity are only sparsely documented.

Family: Gekkonidae Former name: *Lacerta turcica; Gekko turcicus; Hemidactylus verruculatus*

KEY FACTS

THE ANIMAL

Adult size	**10-13 cm** total length incl. tail
Lifespan	**3-9 years**
Active	**At night**
Lifestyle	**Rock-dwelling**
Habitat	**Semi-desert and rocky terrain**
Difficulty	**Beginner**

CARE

Min. enclosure	**45 × 30 × 60 cm** L × W × H for 1 adult
Temperature, day	**24-28 °C**
Basking spot	**28-32 °C**
Temperature, night	**18-22 °C**
Humidity	**50-70%**
UVB	**Optional**
Diet	**Insects**
Kept	**Singly or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**5-12 months**
Clutch size	**1-2 eggs**
Clutches per year	**1-4**
Incubation	**40-60 days** at 29-31 °C

PROTECTION AND PAPERWORK

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

About the species

Hemidactylus turcicus is a small, slender gecko with a broad head, large eyes without eyelids and a vertical slit as pupil. The skin is thin and pale, often almost translucent, in colours from whitish and light greyish-brown to pinkish and sandy yellow, with dark spots on the back and dark bands on the tail. The back is covered with rows of large, angular tubercles, and the belly is whitish and so thin that one can sometimes make out eggs inside. The toes have adhesive pads that do not reach quite to the tip, and it is these that the genus name *Hemidactylus* (half-finger) refers to. They enable the animal to walk on vertical glass and hang from the ceiling.

Adults typically grow to 10-13 cm including the tail and in rare cases can reach 15 cm. The body alone, from snout to vent, measures about 4-6 cm. Males have a row of pores in front of the vent and a slightly broader head than the females. There are no reliable weight figures for adults. In captivity the species can live 3-9 years, and animals of up to 9 years have been found in the wild. The tail can be dropped and grows back, but the new tail is smoother and does not look like the old one.

The species was described by Linnaeus in 1758 as *Lacerta turcica*, named after the Turkish part of its range, and has since been called, among other names, *Gekko turcicus* and *Hemidactylus verruculatus*. There are many closely related *Hemidactylus* species, and a number of animals in the Mediterranean region that formerly went under this name are today regarded as other species.

It is a calm and adaptable species that has never been a widespread enclosure animal. It is fast and shy and suits best the keeper who wants to observe a small night hunter, not hold it in the hand. Animals in the trade are often wild-caught or of unclear origin, so ask for captive-bred animals.

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

Distribution and habitat

Hemidactylus turcicus occurs naturally around the Mediterranean. In Europe it is found in Portugal and Spain, southern France, Italy, on Malta, along the Adriatic coast in Croatia, Bosnia and Herzegovina, Montenegro and Albania, in Greece and on many of the islands, on Cyprus and in Turkey. In North Africa it extends from northern Morocco through Algeria and Tunisia to Libya and Egypt, and in the Middle East it is found in Israel, Palestine, Lebanon, Jordan and Syria. The species has also been found in parts of Arabia and north-eastern Africa, but there it is unclear what is native, and the map shows only the Mediterranean region.

The species is a good example of a commensal of humans. It has been carried with shipping and cargo to the Balearic Islands and the Canary Islands, to Mexico and Central America, Cuba and Puerto Rico and to large parts of the southern USA, where it is particularly well established along the Gulf Coast and has spread further north and west. Records on the map outside the Mediterranean region come from such introduced populations.

> **Native range:** Portugal, Spain, France, Italy, Malta, Croatia, Bosnia & Herzegovina, Montenegro, Albania, Greece, Cyprus, Turkey, Morocco, Algeria, Tunisia, Libya, Egypt, Israel, Palestinian Territories, Lebanon, Jordan and Syria.

HABITAT

Hemidactylus turcicus lives in coastal and lowland regions with a mild, dry Mediterranean climate. In the wild it sits on rocks, in stone walls and in crevices and caves, and it has been found in scrub and up into mountain regions. Most people know it from towns and villages, however, where it lives in crevices in old walls, behind shutters and under roof tiles and hunts at outdoor lamps, where insects gather.

It is nocturnal. It is most active at around 2 a.m. Temperature and humidity at the hiding places are not documented, but the climate in the regions where it lives has warm, dry summers and cool, rainy winters, and the breeding season runs through spring and summer, from April to August. The rhythm of a cooler winter is worth keeping in mind in the enclosure.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

The care of *Hemidactylus turcicus* in captivity is not scientifically documented. A single animal can be kept in an enclosure of 45 × 30 × 60 cm (length × width × height). Height matters more than floor area, because the gecko is a climber. Several animals need more space, especially more floor area.

Furnish with cork bark, branches and pieces of slate or stone that form narrow crevices where the animal can press itself in with its back and belly against the surface. The animal needs several hides at different heights, including one on the warm side and one on the cool side. Artificial or live plants provide cover. Kitchen roll, which is easy to change, or a mix of sand and unfertilised soil works as substrate. Avoid loose particles that the animal can swallow when it takes insects.

The gecko is an escape artist. Use a tight-fitting lid of mesh or fine ventilation openings, and close doors carefully every time.

TEMPERATURE

By day the enclosure is kept at 24-28 °C, and a small warm spot can reach 28-32 °C. At night the temperature may fall to 18-22 °C. These figures are based on experience in captivity and the species' natural climate, and they have not been measured in the wild. *Hemidactylus turcicus* is nocturnal and spends much of the day in hiding, so give it a clear gradient, so that it can choose for itself.

Warm the hide from the side with a weak heat mat or a low-wattage bulb, controlled by a thermostat. Do not put the heat source in the middle of the enclosure. Measure with digital thermometers at both the warm and the cool end, and switch off the heat at night if the room is above 18 °C. The difference between day and night is healthy. A cool winter with slightly lower temperatures and shorter days has not been documented as necessary for the species in captivity.

Read more: Heat and temperature

HUMIDITY AND WATER

Keep humidity between 50 and 70 %. *Hemidactylus turcicus* comes from dry to semi-arid regions and manages with moderate humidity. Mist the enclosure lightly once a day, preferably in the evening, so that droplets sit on stones and leaves, and let it dry out again. The gecko drinks droplets from surfaces.

Still provide a shallow bowl of fresh water, changed every few days. Persistently high humidity and still air cause fungus and respiratory problems, so ventilation must be good. A humid hide, for example a small box with lightly dampened moss, helps the animal shed, including on the toes.

LIGHTING AND UVB

Hemidactylus turcicus is nocturnal and, to all appearances, does not need UVB to manage. A weak UVB tube can nevertheless give a clear daily rhythm, and it does no harm if there is shade and cover throughout the enclosure. No Ferguson zone has been set for the species.

Set the lighting to 10-12 hours a day on a timer, and keep it completely dark at night. The gecko is most active in the evening and the first hours of the night, so look in on it when the light goes out. Do not use strong spotlights over the enclosure.

Read more: Lighting and UVB

FEEDING

Hemidactylus turcicus is an insectivore. In the wild it takes moths, cockroaches, caterpillars, grasshoppers, earwigs, mosquitoes, cicadas, ants, spiders and woodlice, and it prefers live prey to dead. In captivity you can give crickets, dubia roaches, mealworms and occasionally waxworms. The prey should be no wider than the animal's head. Give the insects a couple of days of good food before they end up in the enclosure.

Adults can be given 4-5 insects 3-4 times a week. That is a reasonable rule of thumb, but adjust to the animal's condition. The base of the tail and the body should be plump, but not fat. Young animals are fed more often with smaller insects, preferably every day.

Dust the insects with calcium and vitamin D3 at about every second meal, otherwise the gecko will in time develop deficiency diseases. The species does not take plants or fruit. Nothing suggests that it needs prepared food.

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

BEHAVIOUR AND HANDLING

Hemidactylus turcicus is calm and can become used to the hand, but it is fast, shy and not an animal to be handled regularly. Give a new animal a couple of weeks in peace. Let your hand rest in the enclosure, and only pick up the gecko when it comes over by itself. Keep sessions short, 2-3 minutes, and never grab the tail, which it drops at once. Hold it over a low surface, because it bolts.

The males are territorial and may fight, so keep only one male together with one or more females, or keep the animals singly. Both males and females can chirp and click, and persistent chirping in a group is a sign of unrest. If an animal is bitten or tailless, separate them at once. By day the gecko is hidden and looks inactive, so judge it by how it behaves in the evening.

Breeding

SEXUAL MATURITY AND SEXING

The sexes can be told apart by the male having a short, angular row of pores in front of the vent, and often a broader head. Males are sexually mature after at most one year. Females become sexually mature after four to five months up to a year, depending on when in the year they hatched. In the northern part of the range, for example in Turkey, it can take 2-3 years. Let females reach a reasonable size and weight before breeding.

MATING

The breeding season follows spring and summer, from about April to August. The male lures with clicks, and the female answers with small peeps. During mating he bites the female on the neck, and the harder the bite, the greater the chance of fertilisation. The female can store sperm for up to five months in a special organ, so one encounter can give several clutches. The animals are polygamous, and the sex ratio in the wild is about 1:1.

There is no documented advice on winter rest or other preparation for mating in captivity. A cool period in winter corresponds to the wild, but has not been proven necessary.

EGG-LAYING AND CLUTCHES

The female lays an average of two eggs per clutch, and laying takes place from mid-May to August. The female can lay up to four clutches in a season. The eggs have a hard shell, which becomes damp and translucent when the young is close to hatching, and they are small, 10-12 mm long and weigh around 0.3-0.6 g. The female provides no parental care, and the males may bite the young.

Give the female a humid place to lay the eggs, for example a small box with damp vermiculite or moss. How many clutches a female can manage in captivity is not documented, so expect 1-4. Follow the female's body condition closely.

INCUBATION

Incubate the eggs at 29-31 °C. At 31 °C they hatch after around 40 days, and allow for up to 60 days. Only 31 °C has been tested, so proceed carefully with lower temperatures.

The eggs are placed in damp vermiculite or perlite in a small box with air holes, without turning them. There is no published information that sex depends on temperature in this species, and there are no recommendations for humidity during incubation.

Read more: Incubating eggs

REARING THE YOUNG

The young are small, about 3 cm from snout to vent and weighing approximately 0.3-0.6 g at hatching. Keep them in a small faunarium with kitchen roll and a hide, and mist lightly every day. Give them the smallest crickets, fruit flies or springtails, lightly dusted with calcium, every day.

Keep the young singly or in small groups of the same size. Adult males can be aggressive towards the young, so never put them together. There are no growth curves for the species in captivity. Weigh them now and then if you have scales with a precision of 0.1 g, and move them to a larger enclosure when they approach adult size.

Health and common mistakes

Hemidactylus turcicus is hardy, and most problems are caused by care. There is no species-specific veterinary literature, so the following is based on general gecko care:

- Too little calcium and D3, especially in young animals and egg-laying females. It causes soft bones and tremors. Dust the insects.
- Respiratory infection with constantly high humidity and stagnant air. The signs are laboured breathing and mucus around the nostrils.
- Remnants of skin stuck on the toes and tail tip. Provide a humid hide and gently loosen the remnants with lukewarm water.
- Swallowed substrate, which can cause constipation. Use kitchen roll for young animals.
- Parasites in wild-caught animals. Buy captive-bred animals, and have a faecal sample examined with new animals.
- Dropped tails after fights or handling. It is not dangerous, but the tail looks different when it grows back.

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

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.