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GECKOS

Common fan-footed gecko

Ptyodactylus hasselquistii

A slender, yellowish-brown rock gecko from Egypt and the Middle East with fan-shaped toes and retractable claws. It lives on stones and rock faces in dry regions, is a well-known visitor on house walls in Israel and is kept in pairs. There is little reliable information on the care of this particular species, so many figures are borrowed from the genus.

Family: Phyllodactylidae Former name: *Ptyodactylus lobatus*

KEY FACTS

THE ANIMAL

Adult size	**7-10 cm** snout-vent length
Lifespan	**8-12 years**
Active	**At dusk and at night**
Lifestyle	**Rock-dwelling**
Habitat	**Desert and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 40 × 60 cm** L × W × H for 2 adults
Temperature, day	**27-32 °C**
Basking spot	**32-38 °C**
Temperature, night	**18-22 °C**
Humidity	**30-50%**
UVB	**Optional**
Winter rest	**10-21 °C** 8-12 weeks
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**12 months**
Clutch size	**2 eggs**
Clutches per year	**5-6**
Incubation	**45-100 days** at 27-30 °C

PROTECTION AND PAPERWORK

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

About the species

Ptyodactylus hasselquistii is a slender, medium-sized rock gecko. The toes are flat and fan-shaped, with adhesive lamellae that radiate out to the sides. In the middle of each toe there is a small notch into which the claw can be retracted. The shape of the toes has given the genus *Ptyodactylus* its name, which comes from the Greek words for fan and finger. The pupil is a vertical slit, and the back is covered in distinct, spine-like conical scales. The tail is ringed in light and dark bands, and in the genus there are 8-14 longitudinal stripes on the back. The colour varies a great deal, and the animals can change shade.

It reaches up to 10 cm from snout to vent, with the tail on top of that. Outside the breeding season the sexes are hard to tell apart, because both lack femoral and anal pores. Mature males do, however, have distinct hemipenal bulges at the base of the tail.

The species was described in 1798 and is named after Frederic Hasselquist, a Swedish physician and explorer who was a pupil of Carl von Linné. The type specimens came from Cairo. Besides the nominate form, the subspecies *P. h. krameri* from Lebanon is recognised, while *P. guttatus* and *P. ragazzii* are now regarded as separate species. Animals in the trade are often sold as *P. hasselquistii*, but are more often *P. guttatus*. The two can be told apart by the markings: *P. guttatus* has spots, *P. hasselquistii* crossbands.

In Israel the species is a well-known visitor on house walls, where it hunts insects. The males chirp.

Distribution and habitat

Ptyodactylus hasselquistii is found in Egypt, including Sinai, and onwards through Israel, Jordan, Syria and Lebanon. To the east it reaches western Iraq, and to the south it occurs in Saudi Arabia, including on the Farasan Islands, and in Sudan. The type locality is Cairo.

Many older records from North Africa west of Egypt, from Mauritania, West Africa, Oman and Iran are based on errors or confusion with other species in the genus. In California the species has been introduced, but that population is not shown on the map.

> **Native range:** Egypt, Israel, Jordan, Syria, Lebanon, Iraq, Saudi Arabia and Sudan.

HABITAT

Ptyodactylus hasselquistii is a rock dweller. The genus lives first and foremost on rocky ground in deserts and their margins, and this applies to this species as well. The animals hide in crevices and under stones and sit on rock faces. They also enter and frequent houses, where walls with crevices provide the same kind of shelter.

It is hot, and most species in the genus prefer over 30 °C. The temperature varies greatly between day and night and between summer and winter, and winter nights can be cold. The females in the genus share egg-laying sites and glue the eggs to stones. When during the day the species is active is not documented; the genus contains both diurnal and nocturnal species.

Care

THE ENCLOSURE

There is little reliable information on the care of *Ptyodactylus hasselquistii* specifically. Most of what is given here is based on experience with the genus *Ptyodactylus* as a whole, and the figures are cautious. A pair should have at least 60 × 40 × 60 cm (length × width × height), and bigger is better. Young can be kept in a smaller enclosure of at least 20 × 20 × 30 cm. It should be fairly tall, so the lamp does not overheat them. Three to four young of the same size can be kept together.

Furnish with rock slabs, stacked stones, cork bark and flat hides, so the animal can squeeze in between the surfaces and climb on vertical sections. The stones must stand stably, so they cannot slip and crush the animal. The substrate is sand or a sandy mix. Plants are not necessary. Provide ventilation, so the air does not become stagnant.

TEMPERATURE

The enclosure must have a clear temperature difference. By day the enclosure should be 27-32 °C, and under the heat lamp one spot should reach 32-38 °C. At night the temperature falls to 18-22 °C. The daytime figures are borrowed from the genus, and the night figure is an estimate.

In a cool winter rest the temperature is lowered to about 21 °C by day and 10 °C at night for 2-3 months, and the light is on at most for as long as it is light outside. Then raise the temperature gradually back over a few days. The animals eat less during the rest period. Use digital thermometers both at the hot spot and at the cool end.

HUMIDITY AND WATER

Ptyodactylus hasselquistii comes from dry regions and thrives at low to moderate humidity, 30-50 %. The figure is an estimate. The enclosure must not be wet, and the substrate must be able to dry out.

Mist lightly, so the animal can drink droplets from the stones. During the winter rest the misting can be cut back to every second day. Preferably put a shallow dish of fresh water alongside, but it is not documented that the species uses it.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

Use a heat lamp or spot over a flat stone, so that the animal can bask. The need for UVB is not documented for the species. A weak UVB tube for desert species can be used when there is shade in the rest of the enclosure. If the species is kept without UVB, the food must be supplemented with calcium with D3.

The light is on for about 12 hours a day in the season and, during the winter rest, for no longer than it is light outside. At night it must be dark.

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

FEEDING

Ptyodactylus hasselquistii feeds on insects and other small arthropods. Crickets, grasshoppers, mealworms and cockroaches are good feeder insects, and they must be smaller than the distance between the animal's eyes. Precise amounts and frequency are not documented for the species.

Young are fed every day with the same food as the adults, only in smaller sizes. Adults can be fed a few times a week and during the winter rest only about twice a week. Dust the insects lightly with calcium, and regularly give a supplement with D3 and vitamins. Keep an eye on the weight, so the animals do not become fat.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Ptyodactylus hasselquistii is a lightning-fast and shy rock dweller and is not suited to handling. Give it peace to settle in after a move. Never grab the tail, because it can be dropped.

The species is kept in pairs or singly. Pairs bond to each other and can be kept together all year round, but animals outside the pair are often bitten and chased. Therefore do not put several males or several pairs in the same enclosure. Whether several females can be kept together is not documented. The males chirp and nod their heads at the female.

Breeding

SEXUAL MATURITY AND SEXING

Males can be recognised by distinct hemipenal bulges at the base of the tail when they are sexually mature. Females have no such bulges. There are no femoral or anal pores in either sex, so outside the breeding season it is hard to sex the animals reliably. In the genus the animals are regarded as sexually mature at about 12 months. The hatchlings begin to chirp when they are about six months old.

MATING

Established pairs are kept together all year. Breeding is triggered by a cool rest period in winter of at least two months, as described under temperature. When spring comes, the temperature is raised gradually, and the male begins to chirp and bob more vigorously at the female. Most females in established pairs are receptive. If the female rejects the male, she may attack him, and the pair should then be separated.

EGG-LAYING AND CLUTCHES

Two to three weeks after mating, the female glues two eggs to a rock surface and uses her feet to place them. If the surface is colder than the sand, she buries the eggs. In the wild the females share an egg site. This amounts to five to six clutches or more per season, with intervals as short as two weeks. Give the female a flat stone with a hide beneath and a box with damp sand, and plenty of calcium and food throughout the season.

INCUBATION

The eggs are stuck fast and must not be moved. Leave them where they are and hatch them at the enclosure's temperature. After a few days blood vessels can be seen in the eggs, within the first couple of weeks they turn pink, and after 30-40 days the eyes can be made out. At 27-30 °C the eggs hatch after 45-100 days, the warmer, the faster. The figures are borrowed from the genus.

REARING THE YOUNG

The parents do not eat the hatchlings immediately, but may do so later, and the hatchlings are easily outcompeted for food. The hatchlings are therefore moved to a small, relatively tall enclosure of their own. Three to four hatchlings of the same size can live together. Give them the same food as the adults every day in smaller sizes, and the same temperatures as the adults.

After about a year they are sexually mature and should each have their own adult-sized enclosure. There are no reliable figures for growth and weight in the species.

Health and common mistakes

There is no reliable information on diseases in *Ptyodactylus hasselquistii* in particular. The most likely problems resemble those of other desert geckos in captivity:

- Too little calcium and vitamin D3, especially in hatchlings and in females during the breeding season. This causes soft bones and tremors. Dust the insects and give supplements.
- An enclosure that is too humid, causing skin problems and fungus. Keep the substrate dry.
- Too low a temperature, which causes poor food intake and poor digestion. Use a thermometer and thermostat.
- Bites and stress if animals outside an established pair are kept together.
- Dropped tail after handling. It is not dangerous, but the new tail is never like the old one.

See a vet experienced with reptiles if the animal loses weight, stops eating or looks limp. Wild-caught animals may carry parasites, so have a sample examined shortly after purchase.

Read more: Heat and temperature 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.