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GECKOS

Persian spider gecko

Agamura persica

A slender, long-legged gecko from the stony semi-deserts of Iran, without adhesive pads on the toes and with dark crossbands over the back and tail. It is nocturnal, feeds on insects and is regarded as hardy in a dry rocky enclosure, but it is rare in captivity, and experience with breeding is limited.

Family: Gekkonidae Former name: *Gymnodactylus persicus*

KEY FACTS

THE ANIMAL

Adult size	**7-14 cm** total length incl. tail
Lifespan	**5-10 years**
Active	**At night**
Lifestyle	**Rock-dwelling and terrestrial**
Habitat	**Semi-desert and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 60 × 40 cm** L × W × H for 1 adult
Temperature, day	**22-27 °C**
Basking spot	**37-43 °C**
Temperature, night	**18-22 °C**
Humidity	**20-40%**
Water	**Water dish**
UVB	**Optional**
Winter rest	**16-22 °C** 6-8 weeks
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**18-24 months**
Clutch size	**1-2 eggs**
Incubation	**65-70 days** at 28-30 °C

PROTECTION AND PAPERWORK

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

About the species

Agamura persica is a small, slim gecko with long, thin legs and a thin tail, which give it a slightly spider-like appearance. The toes are narrow, clawed and bent at an angle, and they have no adhesive pads, so the species does not climb glass but runs quickly and high on its legs over rocks. Above the eye there is a fixed, immovable brow, which probably protects against the sun.

The base colour is pale grey with yellow tones and a finely speckled grey belly. Across the back there are about five dark crossbands, almost as wide as the spaces between them, and the tail has nine to ten narrow bands. The appearance varies slightly from place to place. Older literature divided the species into an eastern and a western subspecies with different numbers of dorsal bands. Since 2017 the eastern form has been regarded as the separate species *Agamura cruralis*, and in 2018 yet another species, *A. kermanensis*, was described from southern Iran. Older descriptions and photos therefore often mix several species.

Females measure 42-77 mm from snout to vent with a tail a further 34-59 mm, while males are slightly smaller at 35-65 mm in body length. Overall the animal therefore reaches 7-14 cm. The male is recognised by a distinct hemipenal bulge at the base of the tail, best seen from the side, and by two to four pores in front of the vent. The female has neither. In captive-bred males the pores may be fewer or missing altogether.

The species name *persica* refers to Persia, the old name for Iran. The species was described in 1856 by Duméril, at that time as *Gymnodactylus persicus*. It is not common in captivity, and there is little reliable knowledge about it under captive conditions.

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

Distribution and habitat

Agamura persica lives in Iran, where it is found in the dry, stony areas of the Iranian plateau in the western and central parts of the country.

Afghanistan and Pakistan were previously included as well. Since the eastern form was separated as *Agamura cruralis* in 2017, *A. persica* is now regarded as occurring only in Iran. *A. cruralis* lives in eastern Iran, western Pakistan and Afghanistan, and records from those areas on the map therefore probably belong to the closely related species. Where the boundary between the two species lies has not been fully clarified.

> **Native range:** Iran.

HABITAT

The gecko lives in semi-desert on stony, rocky terrain: slopes, rock terraces, gravelly river deposits and barren plains with scattered shrub vegetation. It keeps to rocks and crevices and hunts for insects at night.

The climate is harsh, with very hot summer days and cold winter nights. The species is mainly nocturnal but can be seen in the morning, sitting still on rocks and taking up warmth at an air temperature of around 17 °C. It is active at surface temperatures of up to 44 °C. The air is dry. Mating takes place from March to May, eggs are laid in June, and the first young are seen in September.

Care

THE ENCLOSURE

The species is ground-dwelling and climbs on rocks, so floor area matters more than height. An adult needs an enclosure with a floor of at least 60 × 60 cm. A height of around 40 cm leaves room for rock structures, but the height is an estimate. A glass enclosure with mesh in the lid provides the ventilation that dry conditions require. Keep only one animal or a pair, as males cannot be kept together.

Furnish the enclosure as rocky terrain: stacked slate, flat stones and roots that form passages and hiding places, so the animal can choose its own spot. Build the rocks stably so they cannot slip and crush the animal. A couple of snug hides for daytime rest are important, and a hide with a little damp substrate helps during shedding.

For general care, slate or another non-ingestible base is best, because it reduces the risk of impaction. For breeding, fine quartz sand can give the female the chance to dig her egg-laying site. Juveniles are kept in a small box with kitchen roll as the base, so they easily find their food.

TEMPERATURE

Give the terrarium a clear temperature gradient. The cool side is kept at 22-27 °C, and on a flat stone under a heat lamp a warm spot of 37-43 °C is created where the gecko can bask. At night the temperature should fall to 18-22 °C; the figure is an estimate, as the night temperature is not documented.

The species tolerates large fluctuations and in the wild is active at high surface temperatures, but that is no reason to keep the terrarium warm around the clock. Measure with digital thermometers both at the warm spot and on the cool side, and switch off the heat at night. If the animal constantly sits in the coolest hide or well away from the heat, the setup is wrong.

For breeding, a cool winter period is used (see breeding). It also gives the animal's rhythm a natural turn of the year.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity should be low to moderate. A precise figure is not documented for the species, but 20-40 % corresponds to the dry semi-desert it comes from, and high humidity easily causes problems. A hygrometer shows whether the level holds.

Provide a shallow dish of fresh water, changed regularly. The dish must be shallow, especially if there are juveniles in the enclosure, because they can drown in deep water. Mist the enclosure lightly once a week, so the animal can also drink droplets and get a little moisture for shedding. Let the substrate dry out completely in between.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is nocturnal, but regular daylight from an ordinary fluorescent tube or an LED lamp gives a clear daily rhythm and makes it possible to see the animals. Keep the light on for about 12 hours in summer, and cut down to 8-10 hours in the cool winter period.

UVB is not documented as necessary, but in the wild the species is exposed to strong sunlight and may sit out in the open in the morning. A weak UVB light over part of the enclosure is therefore a sensible choice, as long as there is plenty of shade to retreat to. Make sure that the calcium and vitamin D3 in the food cover the need.

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

FEEDING

The species is an insectivore. The staple diet is crickets and mealworms, and wax moth larvae are given only as an occasional treat, because they are fatty. Adults are fed about three times a week in amounts that suit the animal's size, while fast-growing juveniles are fed daily with small insects such as newly hatched crickets.

Gut-load the insects with fruit, vegetables or prepared feed, and dust them with calcium. Once a week a vitamin powder is used to prevent bone disease. Females that are breeding or about to lay eggs have a greater need for calcium, and a small dish of pure calcium in the enclosure lets them take what they need. If the female lacks calcium, she may begin to eat the substrate.

The insects should be smaller than the distance between the animal's eyes. Remove dead or uneaten insects the next day.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Agamura persica is fast, somewhat shy and best as an animal to watch. It can leap and climb on rocks and is hard to catch if it escapes, so open the enclosure calmly. Limit handling to what is necessary, and never grab the tail, which it can drop if frightened.

Males are incompatible with each other and must be kept separately. One pair can be kept together if there is space and several hides, but it is a good idea to have a spare enclosure ready in case the female is chased. Whether several females can be kept together is not documented. The animals are nocturnal and hide by day, so they are most often seen at dusk.

Breeding

SEXUAL MATURITY AND SEXING

The male is recognised by a distinct bulge at the base of the tail, best seen from the side, and by two to four pores in front of the vent. The female has neither. In juveniles the difference is not visible at first. In males the bulge begins to show at about 8-12 weeks of age, when the juvenile is 7-8 cm long, but it may also appear only after four to six months.

The species reaches breeding size after 18-24 months. Wait until the female is fully grown and in good condition, because egg-laying takes a toll on her.

MATING

Breeding can be triggered by imitating winter. Gradually shorten the day length, down to 8-10 hours, and lower the daytime temperature to 20-22 °C and the night temperature to 16-18 °C for 6-8 weeks. Then slowly bring conditions back to normal.

Once the animals are back at normal temperature, the male and female can be put together. The male normally begins mating quickly. Keep watch on them, and separate them if the female is chased or bitten. In the wild, mating takes place from March to May. Experience with captive breeding is limited, and it is not documented how many times a female can mate without

being harmed.

EGG-LAYING AND CLUTCHES

The female lays a clutch of normally two eggs a couple of weeks after mating. It is not documented how many clutches she lays per season in captivity, so monitor her condition and stop breeding if she loses weight. In the wild the eggs are laid around June.

Give the female a lay box or a corner with fine, slightly damp sand or a sand-mixed substrate where she can dig. She buries the eggs after laying. Have plenty of calcium and insects available throughout the period. A lack of calcium can cause difficult laying and loss of eggs.

INCUBATION

Carefully move the eggs to an incubation container and lay them half-buried in fine sand or vermiculite. Do not turn them, and mark the top. Keep the temperature at 28-30 °C. Under these conditions the eggs hatch after about 65-70 days.

In the wild, about three months pass from egg-laying in June to hatching in September. The best humidity during incubation is not documented; a slightly damp, not wet, substrate is a cautious choice. Eggs that collapse, turn yellow or go mouldy are usually infertile, but leave them until you are sure.

Read more: Incubating eggs

REARING THE YOUNG

The hatchlings are kept in small boxes with no substrate or with kitchen roll, so they easily find their food and do not swallow substrate material. Give them hides and a very shallow water dish, because they can drown in deep water.

The hatchlings are fed daily with small mealworms or newly hatched crickets, dusted with calcium at every feeding. Give each juvenile its own box when the sexes begin to show, so that males do not fight. Weigh and measure them regularly. Adult females must not be bred too hard: egg-laying takes a toll on the body, and overbreeding can cause malnutrition and, in the worst case, death.

Health and common mistakes

Agamura persica is regarded as hardy when given a dry, warm set-up. The typical mistakes are:

- Too high humidity and poor ventilation, which cause skin problems and respiratory infections.
- Calcium and D3 deficiency, especially in juveniles and breeding females. It shows as soft bones, tremors and poor egg-laying. Dust the insects with calcium.
- Swallowed substrate such as sand or wood chips, which can cause impaction. Use slate or another non-ingestible base if you are not breeding.
- Shed skin stuck on toes and tail tip. Provide a slightly damp hide, and gently loosen the remnants with lukewarm water.
- Fights between males, which cause bites and dropped tails.
- Drowning accidents among juveniles in water dishes that are too deep.

There is only limited documented experience of illness in the species. A healthy animal has clear eyes, a plump tail and a firm grip. See a vet experienced with reptiles if the gecko loses weight, does not eat for several weeks or looks 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.