herpy

AGAMAS

Sahara Mastigure

Uromastyx geyri

Uromastyx geyri is a small, slender spiny-tailed lizard from the rocky uplands of the Hoggar and Aïr mountains in the central Sahara. The male is vermilion, orange or bright yellow, the female paler. It reaches about 36 cm, is almost purely herbivorous and digs into a deep substrate. It needs a large, hot, dry enclosure with strong UVB and is a lizard to watch rather than to handle.

Family: Agamidae Former name: *Uromastix geyri; Uromastyx temporalis*

KEY FACTS

THE ANIMAL

Adult size	**30-36 cm** total length incl. tail
Lifespan	**15-25 years**
Active	**By day**
Lifestyle	**Rock-dwelling, terrestrial and burrowing**
Habitat	**Desert and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**120 × 60 × 60 cm** L × W × H for 1 adult
Temperature, day	**28-35 °C**
Basking spot	**45-55 °C**
Temperature, night	**20-22 °C**
Humidity	**20-40%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 3
Winter rest	**14-16 °C** 10-13 weeks
Diet	**Plants**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**8-22 eggs**
Clutches per year	**1**
Incubation	**91-96 days** at 30.5 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Least Concern (LC)**

About the species

Uromastyx geyri is a fairly small and slender spiny-tailed lizard by the standards of the genus, but like the other species it has a compact body, short legs and a broad, flat tail covered in whorls of spiny scales. The largest known total length is about 36 cm, of which the tail makes up just under half, and the average is around 34 cm. Adults weigh about 200-250 g.

The species is among the most colourful in the genus. Males are either vermilion to orange or bright yellow with dark brown vermiculations, which is why a "red" and a "yellow" form are distinguished in the trade; the only difference is the colour. In the male, the dorsal colour and pattern continue onto the belly. The female is paler and more sand-coloured, with light orange markings on the back and a pale, uniform belly. The colours intensify when the animal is warm.

The species was described in 1922 and is named after the German ornithologist Hans Geyr von Schweppenburg, who brought the first animals to Europe. For a long time it was treated as a subspecies of *Uromastyx acanthinura*, but since 2001 it has been regarded as a species in its own right. The status of the name *Uromastyx temporalis* is unresolved.

The animals are calm, diurnal and sedentary. They rarely become truly tame and are best kept as animals to watch rather than handle. Care itself is fairly simple once temperature, UVB and diet are right, and the species is one of the spiny-tailed lizards most often seen in the trade. It rarely breeds in captivity.

Read more: Lighting and UVB

Distribution and habitat

Uromastyx geyri lives in the central Sahara: in the Hoggar Mountains in southern Algeria, in the Aïr Mountains in northern Niger and in north-eastern Mali. The type locality lies in the Hoggar.

The species is tied to rocky terrain at altitudes of 500-2,000 metres and has a fairly small, restricted range.

> **Native range:** Algeria, Mali and Niger.

HABITAT

Uromastyx geyri lives in rocky desert, where it occupies rocky outcrops and stony slopes in the central Saharan mountains. It is terrestrial and diurnal and feeds almost exclusively on plants. Like other spiny-tailed lizards, it shelters in crevices and burrows among the rocks, where it is cooler and more stable than on the surface.

The species does not need a long winter rest. In winter the animals are active for a shorter part of the day, but they still bask and feed. How long the cool period lasts in the wild is not documented.

Care

THE ENCLOSURE

An adult needs an enclosure of at least 120 × 60 × 60 cm (length × width × height), and bigger is better. That is larger than ordinary glass terrariums offer, so choose an enclosure made of wood, PVC or plastic with a glass front. Three solid sides give calm, especially for newly acquired animals.

The substrate is dug in and must therefore be deep: at least 10 cm, preferably more, of fine sand or sandy soil. A mix of half sand, 30 % unfertilised soil and 20 % clay keeps the tunnels up. Keep the top couple of centimetres dry and moisten only slightly at depth. Avoid calcium sand and crushed walnut shell, which can cause impaction. Droppings and urates are removed daily, and the substrate is replaced completely every 3-4 months. Sick or injured animals are moved temporarily onto kitchen paper.

The enclosure must open at the front and have good ventilation, preferably with a mesh lid. Build the basking area from flat stones or sandstone at different heights under the heat lamp, preferably as a stack with gaps so that the animal can crawl in and choose its temperature. Fix the stones so that they do not topple when the animal digs under them. A few branches or roots higher up, but away from the basking area, provide extra climbing space. Provide at least three hides per animal, e.g. curved pieces of bark, spread between the warm and the cool side. Heat lamps are shielded so that the animal cannot touch them. As a rule keep one animal per enclosure; a pair needs at least double the area. Never keep different *Uromastyx* species together.

Read more: Calcium, vitamins and supplements

TEMPERATURE

The basking spot should have a surface temperature of 45-50 °C, measured with an infrared thermometer directly under the lamp, and the hottest stones may reach 55 °C. The rest of the enclosure sits at 28-35 °C during the day. The heat must come from above, for example from a halogen spotlight or a powerful UVB lamp that also gives off heat, never from a heat mat under the substrate: the animal does not move away from an overly hot floor in time and can be burned. If there is more than one animal in the enclosure, there must be several basking spots set well apart, so the animals do not fight over the heat.

At night the heat is switched off, and the temperature may fall to 20-22 °C. The animal must always be able to retreat from the heat.

U. geyri does not need a long, cold winter rest. From November to January the night temperature is lowered gradually to 14-16 °C, while the day stays unchanged, with 12 hours of light and a full basking spot. The animals are then active for a shorter part of the day, start basking only around midday and eat less. In February the night temperature is raised again over a couple

of weeks. Give the cool period only to healthy, well-nourished animals, and weigh them before and during it.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be low, 20-40%, measured at substrate level on the cool side. Persistently high humidity makes the animal ill. A light misting of the substrate once a week is enough; it briefly raises the humidity, and the animals occasionally drink from the droplets. The substrate is moistened a little at depth so the burrows hold, while the top few centimetres stay dry.

The animal gets almost all its water through its food. A small dish of fresh water does no harm in a well-ventilated enclosure. Change the water daily.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is diurnal and needs strong light. Use an LED lamp or a fluorescent tube of about 6500 K as daylight in addition to the heat lamp. UVB is essential: the species belongs to Ferguson zone 3, and the UVB source should give a UV index of 4.5-6 at the basking spot and preferably 6-8 where the animal lies closest to the lamp. Check with a UV meter, and replace tubes and bulbs according to the manufacturer's instructions. The day is 12 hours all year round.

FEEDING

Uromastyx geyri is herbivorous and easily becomes too fat in captivity. From spring to autumn, fresh wild plants make the best food: dandelion leaves and flowers, plantain, sow thistle and clover, always free of pesticides. In winter these are replaced by endive, coriander, cress, mustard greens, chicory and a little grated carrot. Adults are fed 4-5 times a week in summer and 3-4 times a week in winter, and the portions are halved during the cool period.

Pulses and grains, for example a mix of beans, peas and lentils soaked for 48 hours, are given only every 3-4 weeks, because otherwise they lead to obesity. Insects are eaten with great enthusiasm, especially grasshoppers, and can be given every other week. Fruit is a rare treat. It is better to give less and less often than too much: a slim, active animal is healthier than a fat one.

Dust the food with a combined calcium and vitamin supplement with D3 once a week. Juveniles are fed every day.

BEHAVIOUR AND HANDLING

Adults are calm and sedentary, but males are territorial towards each other. In the breeding season they bob their heads, hiss, arch their backs and bite each other on the neck and flanks. Never keep two males together. Keep the animals singly or as a pair; a pair needs an enclosure at least twice the minimum size, and even then there is no guarantee. Juveniles can be kept together until they approach sexual maturity.

A new animal needs peace for the first few weeks. Captive-bred animals settle in fastest, while wild-caught ones can take up to six months. If the animal has not eaten after two weeks, a vet should see it. Do not handle the animal during settling in, apart from weighing, and cover any glass sides. Afterwards you can offer food from your hand. Approach slowly and always from below, never from above, as that looks like a bird of prey. Keep the animal out of the enclosure for no more than an hour at a time, because it needs the heat. Weigh the animal once a month, and see a vet if there is significant weight loss. Wash your hands after contact, as reptiles can carry salmonella.

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

Breeding

SEXUAL MATURITY AND SEXING

In the male, the dorsal colour and pattern continue onto the belly, while the female has a pale, uniform belly and usually paler colours. If the tail is gently bent upwards, hemipenal bulges can be seen at the base of the tail in the male. Newly hatched young are too small for the sex to be determined reliably.

The age and size at sexual maturity are not documented for the species. In the closely related *U. acanthinura*, the animals are sexually mature at around four years old. Breed only well-nourished, fully grown animals.

MATING

The cool period in winter starts the breeding cycle. The males become restless as early as November and display with head-bobbing, hissing and circling, and mating takes place once the night temperature has been raised again in February. Mating happens only at one time of year, so the female can stay with the male after egg-laying. Make sure the female is not injured, and separate the animals if it goes too far.

EGG-LAYING AND CLUTCHES

The female lays her eggs up to about two months after mating, typically in April. Before laying she basks earlier and for longer than usual and holds her body temperature at 45-48 °C, and the eggs can be seen through her flanks when she lies under the lamp. The clutch is 8-22 eggs.

Provide a laying box well in advance, for example an opaque plastic box of 30 × 20 × 20 cm with a hole in the lid and 15 cm of damp coconut fibre. Build stones up around the box so the female can get in easily, and cover the entrance with bark. The temperature in the box should be 28-32 °C. The female sometimes digs for a few days before she lays, and the laying itself takes about an hour and a half.

After laying, the female is emaciated. Feed her every day until she is in good condition again, and preferably remove the male meanwhile so you can monitor how much she eats. With good care she can breed every year.

INCUBATION

The eggs are very soft, so move them gently. Place them half submerged in an airtight box with vermiculite mixed with water in a ratio of 3:1. Too much water in the incubation medium leads to mould and cracked eggs. It helps to put a plastic grid between the eggs and the medium, so the medium can be kept wet without the eggs lying directly in the moisture. Place damp sphagnum in the corners; the humidity in the box should be 90-95%. Lift the lid every 3-4 days to air the box, and candle the eggs after a couple of weeks to see whether there are blood vessels.

At 30.5 °C the eggs hatch after 91-96 days. The hatchlings may take a day or more to get completely out of the egg.

Read more: Incubating eggs

REARING THE YOUNG

Newly hatched young weigh 5.6-6.5 g. Let them lie on damp kitchen paper for a couple of days until the navel has dried up, and then move them to an enclosure of at least 90 × 45 × 45 cm with the same temperatures, basking spot and UVB as the adults.

From 5-7 days after hatching, the young are fed every day with the same plants as the adults, finely chopped and scattered over the stones so that all of them can reach the food. Small grasshoppers and soaked, crushed pulses are also eaten. Dust the food with a calcium and vitamin supplement every 7-10 days. Mist the stones every day for the first couple of months, because the young drink from the droplets. Separate the young before they become sexually mature.

Health and common mistakes

Most problems are caused by too little heat or UVB, too high humidity and the wrong diet:

- Metabolic bone disease (secondary nutritional hyperparathyroidism) from too little UVB, calcium and D3.
- Respiratory infection and mucus in constantly high humidity.
- Obesity from portions that are too large and too many pulses, seeds and insects.
- Impaction from calcium sand, walnut shells and too low a temperature.
- Burns from heat mats and unprotected lamps.
- Bites and wounds when two males are kept together.
- Parasites in newly imported animals. Quarantine new animals for 3-6 months.
- Crusty sores on the lips and skin, which may be caused by the bacterium *Devriesea agamarum*. It spreads between agamids and can be controlled only with veterinary treatment and thorough disinfection of the enclosure.
- Egg-laying difficulties (dystocia) in females without a suitable laying site.

A healthy animal is plump and firm, has clear eyes and eats regularly. Weight loss, loss of appetite and lethargy call for a vet with experience of reptiles.

Read more: Common diseases and signs of illness

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.

The full guide with map and updates: herpy.org/en/agamas/uromastyx-geyri