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AGAMAS

Ocellated Spinytail

Uromastyx ocellata

Uromastyx ocellata is a small, compact spiny-tailed lizard from the rocky deserts around the southern part of the Red Sea. The back is adorned with pale eye-spots, and the male is more colourful than the female. The species reaches 25-30 cm, feeds on plants and digs into a deep, dry substrate. It needs a hot, dry enclosure with strong UVB and is easily confused with its closest relatives.

Family: Agamidae Former name: *Uromastyx ocellatus; Aporoscelis princeps*

KEY FACTS

THE ANIMAL

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

CARE

Min. enclosure	**120 × 60 × 60 cm** L × W × H for 1 adult
Temperature, day	**27-32 °C**
Basking spot	**50-55 °C**
Temperature, night	**18-22 °C**
Humidity	**20-30%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 3
Diet	**Plants**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**36-60 months**
Clutch size	**4-20 eggs**
Incubation	**60-70 days** at 33-34 °C

PROTECTION AND PAPERWORK

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

About the species

Uromastyx ocellata is one of the smaller species in the genus: a heavily built agamid with a short, broad body, short legs, a rounded head and a flat tail with whorls of spiny scales. The tail is used as a shield and to block the entrance to the burrow. The claws are strong and suited to digging. Adults reach 25-30 cm in total, of which the tail is just under half, and weigh about 225 g.

The back has pale eye-spots, which gave the species its name: Latin *ocellus* means 'little eye'. Males are more colourful than females, with blue, green or reddish tones and yellow or orange spots, while females are paler and duller and often slightly larger. The colours change with heat and light.

The species was described in 1823. It formerly included *U. macfadyeni* and *U. ornata* as subspecies, but both are now regarded as separate species. Animals sold in the trade as *U. ocellata* may therefore belong to one of the other two. Origin is the best guide: *U. ornata* lives in eastern Egypt, on Sinai and on the Arabian Peninsula, and *U. macfadyeni* lives only in north-western

Somalia, where it overlaps with *U. ocellata* but is smaller, up to about 22 cm. Check the animal's origin and appearance before you buy.

Adults are calm and sit in the sun for much of the day. The species is best kept as an animal to watch rather than one to handle much. Care of this particular species is only sparsely documented, so the figures for climate, breeding and incubation are borrowed from the closely related *U. ornata*, with which it was formerly grouped.

Read more: Incubating eggs

Distribution and habitat

Uromastyx ocellata lives in north-eastern Africa: in south-eastern Egypt, northern Sudan, Eritrea, Djibouti, eastern Ethiopia near the Somali border and north-western Somalia. The type locality is given as 'Nubia', an area that today lies mostly in Sudan.

The range follows the Red Sea and the Gulf of Aden and extends into the arid regions behind the coast. The size of the population is not known; the species is regarded as not threatened (LC).

> **Native range:** Egypt, Sudan, Eritrea, Djibouti, Ethiopia and Somalia.

HABITAT

The species lives in hot, dry rocky deserts and stony semi-deserts, where summer days are very hot and rainfall is scarce. It is diurnal, digs burrows in firm ground or among rocks and gets most of its water from plants. It lives singly or in small groups.

The burrow gives shelter from the midday heat and from predators and has a cooler and more humid microclimate than the surface. In the closely related *U. aegyptia* it is on average 6 °C cooler 30 cm below the entrance than outside. The food is almost exclusively plants.

The species does not go into true hibernation but is less active in the winter months. How long the rest period lasts is not known.

Read more: Brumation and the seasons

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 most glass terrariums offer, so choose an enclosure made of wood, PVC or plastic with a glass front or open doors. Three solid sides give a sense of security, especially for newly acquired animals. Juveniles do well in the same size, because they need the same temperature gradient as the adults.

The animal digs, so the substrate must be deep: at least 10 cm of fine sand or sandy soil. A mix of half sand, 30% soil without fertiliser and 20% clay keeps the burrows from collapsing. Keep the top few centimetres dry and moisten only a little at depth. Avoid calcium sand and crushed walnut shells, which can cause impaction. Remove faeces and urates daily, and replace the substrate completely every 3-4 months. Sick or injured animals are temporarily moved onto kitchen paper.

The enclosure should be well ventilated, ideally with a mesh lid. Build the basking spot from flat stones or slate under the heat lamp, preferably as a stack with gaps, so the animal can crawl in and choose its temperature. Fix the stones in place so they do not topple when the animal digs underneath them. Provide at least three hides per animal, spread between the hot and the cool side. Shield heat lamps so the animal cannot touch them. Keep one animal per enclosure, and never keep different species of *Uromastyx* together.

Read more: Heat and temperature Read more: Calcium, vitamins and supplements

TEMPERATURE

The basking spot should have a surface temperature of 50-55 °C, measured with an infrared thermometer directly under the lamp. The cool side sits at 27-32 °C. The heat must come from above, for example from a 100 W halogen spotlight about 25-30 cm above the basking spot, 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 the basking spot is too hot or too cold, adjust it with a dimmer or by raising or lowering the stones.

At night the heat is switched off, and the temperature may fall to room temperature, about 18-22 °C. The animal must always be able to retreat from the heat.

A true winter rest is not necessary. If you want to give a quiet period in the winter months, shorten the day length to 8-10 hours and let the basking spot sit at 40-45 °C for a few weeks, without forcing the animal to fast. Always keep an eye on the weight.

HUMIDITY AND WATER

Humidity should be low, about 20-30%, measured at substrate level on the cool side. Persistently high humidity makes the animal ill, so do not mist the enclosure. The substrate is moistened only a little at depth, so the burrows hold and get a more humid microclimate, while the top few centimetres stay dry.

The animal gets almost all its water through its food and rarely drinks. A small dish of fresh water does no harm in a well-ventilated enclosure and can help thin or newly acquired animals. 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, separate from the heat; the animals are more active and eat better with it. UVB is essential: the species belongs to Ferguson zone 3, and a 12-14% T5 HO tube over roughly half the length of the enclosure on the hot side should give a UV index of 4.5-6 at the basking spot. The tube's distance depends on whether it sits above or below the mesh; check with a UV meter. Replace the tubes after 6-12 months or according to the manufacturer's instructions. The day is 12 hours in summer and shorter in winter.

Read more: Lighting and UVB

FEEDING

Uromastyx ocellata is herbivorous. About 90 % of the diet should be leafy greens and flowers, about 5 % hard vegetables and about 5 % dry food. Vary between salad mixes, rocket, dandelion leaves, endive, pak choi, turnip greens and a little kale, and give edible flowers such as dandelion, hibiscus, rose petals and nasturtium, preferably from your own garden and always free of pesticides. Hay and grass are also eaten. Hard vegetables such as squash, carrot and peas are grated finely.

Seeds and pulses are a natural part of the diet: dried, crushed lentils and white millet provide protein and fat. Give them no more than once a week and in small amounts, otherwise they lead to obesity. Juveniles under six months get no seeds. Fruit is a rare treat, at most a small piece once a month. Insects are not necessary; a single dusted mealworm or superworm can be given now and then.

Juveniles are fed every day with as much as they can eat, and adults are fed 4-5 times a week. Sprinkle the food with calcium and a vitamin supplement twice a week. Bee pollen is often given in far too large amounts; let the flowers cover the need instead.

BEHAVIOUR AND HANDLING

Adults are calm and sedentary, but territorial towards conspecifics, especially males towards males. Keep them singly. A pair can be kept together only in an enclosure at least twice the minimum size, and even then there is no guarantee. Juveniles are less territorial and 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. 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. Pick the animal up by gently lifting it from below and supporting the body. 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

The male is more colourful and usually has a broader head, while the female is paler and often slightly larger. Adult females become pear-shaped. The male's colours are strongest in the breeding season.

The species becomes sexually mature at 3-5 years of age. Breed only well-nourished, fully grown animals.

MATING

The pair is kept together all year in a large enclosure, or the female and male are put together for a period when both are in good condition. A cool period with shorter days and lower temperatures normally triggers the urge to mate in spiny-tailed lizards; whether it is necessary for this particular species is not known.

The male bobs his head or wags his hindquarters and then circles the female. A female who is not ready turns over onto her back. During mating the male bites into the female's nuchal fold; mating itself lasts a few minutes. 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 4-6 weeks after a successful mating. The clutch is 4-20 eggs depending on the female's size, age and health; for a small species like this it is probably at the low end. Place a laying box with a mix of sand and soil on the cool side well in advance, so the female gets used to it. If she does not use it, move it to the hot side. The soil should be damp enough for the tunnel to hold.

After laying, the female is clearly thinner. Give her peace, plenty of food and, if needed, an unflavoured electrolyte solution. She usually regains most of her weight and eats and basks normally within 1-2 weeks.

INCUBATION

Dig the eggs up carefully wearing gloves and place them in the same orientation as they lay in a closed container with damp perlite that is just damp enough to clump when squeezed. Place them a couple of centimetres apart. After 1-2 days there should be condensation on the sides of the container; otherwise add a little water. Weigh the containers once a week to monitor evaporation.

At 33-34 °C the eggs hatch after 60-70 days. A higher temperature gives a shorter incubation time.

REARING THE YOUNG

The young are kept singly or in small groups in enclosures with the same basking spot and temperature gradient as the adults, or in large plastic boxes. Give them plenty of hides. The substrate is kitchen paper, tiles or bare floor until the young are at least a year old.

The young get the same green plants and flowers as the adults, chopped finely, and are fed every day. Seeds and dried pulses are given only from six months of age. Thin or dehydrated young can be offered water. 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 too many seeds and too much protein.
- Impaction from calcium sand, walnut shells and too low a temperature.
- Burns from heat mats and unprotected lamps.
- Parasites in newly imported animals. Quarantine new animals for 3-6 months.
- Crusty sores on the lips and skin, which in spiny-tailed lizards may be caused by the bacterium *Devriesea agamarum*. It spreads between agamids and requires 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.