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IGUANAS

Common Chuckwalla

Sauromalus ater

Sauromalus ater is a broad-bodied, flattened iguana from the deserts of the south-western USA and north-western Mexico. It grows to 35-50 cm, is diurnal and feeds almost exclusively on plants. It needs a dry enclosure with a very hot basking spot, strong UVB and stable rock structures with crevices it can wedge itself into.

Family: Iguanidae Former name: *Euphryne obesus; Sauromalus australis; Sauromalus interbrachialis; Sauromalus obesus; Sauromalus shawi; Sauromalus townsendi*

KEY FACTS

THE ANIMAL

Adult size	**35-50 cm** total length incl. tail
Lifespan	**9 years**
Active	**By day**
Lifestyle	**Rock-dwelling and terrestrial**
Habitat	**Desert and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**120 × 60 × 60 cm** L × W × H for 1 adult
Temperature, day	**26-35 °C**
Basking spot	**43-50 °C**
Temperature, night	**16-24 °C**
Humidity	**20-35%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 4
Diet	**Plants**
Kept	**Singly or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**24-84 months**
Clutch size	**5-16 eggs**
Clutches per year	**1**
Incubation	**85-95 days** at 27-28 °C

PROTECTION AND PAPERWORK

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

About the species

Sauromalus ater is a large, sturdy and flattened iguana with a round belly, small scales and a broad tail with a rounded tip. The skin feels rough like sandpaper, and the species lacks the dorsal crest that most other iguanas have. The body measures 13 to just over 20 cm from snout to vent, and the tail is about as long. Adults therefore grow to 35-50 cm, and the largest weigh about 900 g. Males are clearly larger than females and have a broader head with small spines at the back of the head.

The colour varies with age, sex and origin. In adult males the head, shoulders and pelvic region are often black, while the middle of the body is pale, reddish or greyish brown with brown spots. Some populations have entirely black males with a white, orange or red tail. Females are brownish with scattered dark red spots and retain the juveniles' broad crossbands to a greater extent. Juveniles have four to five distinct bands across the body and three to four on the tail, and the adult colours appear during the first two years of life.

The species was long called *Sauromalus obesus*, and the name still appears in much literature. In 2004 the International Commission on Zoological Nomenclature ruled that the older name *Sauromalus ater* has priority. Five subspecies are recognised. The other species of the genus live on islands in the Gulf of California.

When threatened, the animal crawls into a rock crevice, pumps its lungs full of air and wedges itself in so tightly that it can hardly be pulled out. The animal is calm and easily becomes trusting in captivity, and the species is bred regularly.

Distribution and habitat

Sauromalus ater lives in the Sonoran and Mojave Deserts in the south-western USA and north-western Mexico. The range extends from south-eastern California, southern Nevada, southern Utah and western Arizona south through Baja California to La Paz and into western Sonora. The species is also found on a number of islands in the Gulf of California.

It is found from the lowlands up to about 1,400 m and is most common in rocky terrain.

> **Native range:** United States and Mexico.

HABITAT

Sauromalus ater lives in dry desert with scattered bushes, large rocks, lava fields and rock crevices, often where the creosote bush grows. The animals bask on large stones in the morning and seek shade and crevices when it gets too hot. They are active at air temperatures of up to about 39 °C, and the body temperature of active animals is 36-38 °C. At night they sleep in the crevices.

Males are territorial in the breeding season and show it with push-ups, head-bobbing and an open mouth. A large male often dominates an area with several smaller males around him. In winter the animals brumate in rock crevices and emerge again around February.

The diet is flowers, leaves and fruit from the desert's bushes and herbs, preferably annual herbs and grasses. The animals also climb into low bushes for leaves. Now and then an insect is taken.

Care

THE ENCLOSURE

An adult needs an enclosure of at least 120 × 60 × 60 cm (length × width × height). Floor area matters most, and height is less important. For each additional female, add about 0.2 m² of floor space. Ventilation should be good, because the enclosure quickly becomes dangerously hot under the basking spot if the air stands still.

Furnish with stable rock structures: flat basking stones and crevices of different widths that the animal can wedge itself into. Crevices suit the species better than a hide box. Stones must stand directly on the bottom or be glued together with aquarium silicone so that they cannot shift when the animal digs under them. Artificial rocks are easier to keep clean. The substrate is sand and soil in a ratio of 2:1 at a depth of at least 5-8 cm. Gravel can be swallowed and cause constipation, and bark chips, coconut fibre and the like retain moisture. Remove droppings regularly, and replace the whole substrate at least twice a year. Young animals need many hiding places.

There must be only one male. One male can be kept with one or more females when each animal has its own crevice and there is more than one basking spot, so that the dominant animals do not keep the others away from the heat.

Read more: Heat and temperature

TEMPERATURE

The air should be 26-35 °C during the day with a clear gradient. The basking spot should be 43-50 °C measured on the surface with an infrared thermometer, and the animal must always be able to withdraw from the heat. At night the heat lamp is switched off. In summer the night should be 21-24 °C and in winter 16-18 °C. The lamp must be positioned so that the animal cannot touch it.

Herbivores digest best at a high body temperature, and the animal eats only after it has basked for about an hour. An animal that eats poorly usually gets too little heat. Measure the temperature at the basking spot and in the cool end every day.

A cool period in winter with 16-18 °C at night, about 27 °C during the day and the basking spot switched off makes the animals brumate. It is usually necessary for breeding.

HUMIDITY AND WATER

The air in the species' range is very dry, and the enclosure should be kept dry: 20-35 % is suitable. The species does tolerate ordinary room air, however, so it is not necessary to control humidity. The enclosure should not be misted. Place the water bowl in the cool end so that it does not raise the humidity of the whole enclosure.

Read more: Humidity, misting and ventilation

WATER AND WATER QUALITY

The animal needs a low, stable water bowl that cannot tip over, with fresh water every day. Most of the fluid comes from the food, but the animal drinks now and then, and the bowl should be available at all times. Clean it when it is full of sand.

LIGHTING AND UVB

Sauromalus ater is diurnal and basks intensely. It belongs to Ferguson zone 4, and UVB is essential. Use a 10-12 % T5 tube over the basking spot, and keep the distance to the animal at about 30 cm unless the manufacturer advises otherwise. UVB does not pass through glass or plastic. Replace the tubes according to the manufacturer's instructions, even if they still light up.

The light should follow the season: 16 hours in summer and 12 hours in winter, with gradual changes in spring and autumn. Supplement with a powerful heat lamp over the basking spot and a lamp that lights up the rest of the enclosure.

Read more: Lighting and UVB

FEEDING

Sauromalus ater is herbivorous. The basic diet is dark green leaves every day: dandelion leaves, Belgian endive, chicory, rocket, mustard greens and turnip greens. Romaine lettuce and other leafy vegetables can be given as a supplement. Yellow flowers such as dandelion flowers are a favourite food, and hibiscus and nasturtium flowers and cut-up prickly pear pads are also suitable. Fruit is given only sparingly. Collect only plants that have not been sprayed.

Feed every day. Some animals take crickets, waxworms or mealworms, but insects are unnecessary and should be at most a rare exception. Dust the food with calcium without D3 once a week, even if the UVB light is in order. Animals in captivity easily become overweight, so keep an eye on weight.

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

BEHAVIOUR AND HANDLING

Sauromalus ater is calm and can become nearly tame if handled gently and regularly from a young age. It can react violently the moment it is grabbed, so take hold calmly. If the animal is wedged into a crevice, do not pull on it; that can injure the animal. Lift it from underneath, support the body, and do not take hold of the tail. It is normal for the animal to puff its body up a little in the hand. Wash your hands after every contact with the animal and the enclosure, because reptiles can carry *Salmonella*.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

Males are larger and have a broader head, more distinct spines at the back of the head and large femoral pores on the underside of the thighs. The sex can be seen reliably when the animals are 6-12 months old; before that, newly hatched juveniles cannot be sexed, and probing is not recommended. If you buy juveniles, extra males must be moved before they become sexually mature. In the wild the animals become sexually mature after 2 years or more, in some populations only after 5-7 years.

MATING

Breeding requires brumation. When the animals emerge in spring, the male bobs his head and performs push-ups to put the female in the mood for mating. In the wild mating takes place from April to July. The male can be rough with the female, so a pair needs a roomy enclosure with many crevices.

Read more: Brumation and the seasons

EGG-LAYING AND CLUTCHES

The female lays about 30 days after mating. The clutch is 5-16 eggs, most often 6-8, and one clutch is laid a year. Give her a laying box with damp vermiculite, sphagnum or perlite; some females lay under a stone in the enclosure instead. Watch for any digging. Loss of appetite, digging without laying and a swollen abdomen require a vet immediately.

INCUBATION

Carefully move the eggs, with the same side up, to a closed container with vermiculite mixed with water in a ratio of 0.75:1 by weight. Air the container by opening the lid twice a week. At 27-28 °C the eggs hatch after about 90 days. In the wild they hatch in September.

REARING THE YOUNG

The juveniles have distinct bands and are kept and fed like the adults, with finely chopped greens, heat, UVB and calcium from the first day. They can live together in a small group with many crevices, but extra males must be moved before they become sexually mature.

Health and common mistakes

Most problems are caused by too little UVB, too little heat and an incorrect diet:

- Metabolic bone disease from too little UVB and calcium. Signs are tremors, swollen limbs and a soft jaw.
- Obesity from too much fruit and too little exercise.
- Constipation in a setup that is too cold, or if the animal swallows gravel or small leaves from artificial plants.
- Burns from unguarded heat lamps and stones that are too hot.
- Bacterial and fungal infections from a damp substrate.
- Crush injuries from stones that shift.
- Parasites in wild-caught animals.
- *Salmonella* without symptoms, which can infect humans.

A healthy animal has a plump tail base, firm legs and clear eyes and twists in the hand. The greatest known age in captivity is just over 9 years. The figure is based on few animals, and the species can probably live longer. Weight loss, changed appetite, swellings, discharge and abnormal droppings require a vet with reptile experience.

Read more: Common diseases and signs of illness 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.