herpy

AGAMAS

Southern Tree Agama

Acanthocercus atricollis

Acanthocercus atricollis is a sturdy, tree-dwelling agama from the savannahs and dry woodland of southern and eastern Africa. Males develop a blue head in the breeding season, and the animals sit on branches and trunks waiting for prey. Little is known about its care: the species needs a tall enclosure with sturdy branches, a very hot basking spot, UVB and only one male per enclosure.

Family: Agamidae Former name: *Agama atricollis; Stellio atricollis; Laudakia atricollis*

KEY FACTS

THE ANIMAL

Adult size	**25-35 cm** total length incl. tail
Lifespan	**10-15 years**
Active	**By day**
Lifestyle	**Arboreal**
Habitat	**Savanna and dry forest**
Difficulty	**Intermediate**

CARE

Min. enclosure	**120 × 60 × 100 cm** L × W × H for 1 adult
Temperature, day	**24-32 °C**
Basking spot	**38-43 °C**
Temperature, night	**18-21 °C**
Humidity	**30-50%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 3
Diet	**Insects**
Kept	**Singly or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**11 eggs**
Clutches per year	**1**
Incubation	**56-90 days** at 26-29 °C

PROTECTION AND PAPERWORK

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

About the species

Acanthocercus atricollis is a sturdy, broad-headed agama with a long tail and the only tree-dwelling agama in southern Africa. The back is brown to greyish-brown with paler spots, and the colour makes the animal hard to see against bark. In the breeding season males develop a blue head and a dark throat, while females and young animals keep the brown, camouflaging colours. The species name comes from Latin ater, black, and collum, neck, although the neck is seldom more than dark.

Adults measure on average 11-13 cm from snout to vent. Including the tail they reach an estimated 25-35 cm; total length has not been measured. Males and females are about the same size and have tails of equal length, but adult males have a distinctly larger head, which they use in fights over territories. Females are sexually mature at a snout-vent length of around 10 cm and males at around 8 cm.

A. atricollis belongs to a group of closely related species, and its delimitation has changed several times. Animals from Namibia and Angola, which were formerly included, now belong to other species, among them *Acanthocercus cyanocephalus* and *Acanthocercus margaritae*. The species in the complex look very similar and are best told apart by the males' colours in the breeding season. Animals sold under the name may therefore belong to closely related species, so ask for the collection locality.

It is a calm sit-and-wait hunter that spends only around 4 % of its time moving. It readily adapts to life near human habitation. As a terrarium animal it suits a keeper who wants to observe behaviour rather than handle the animal.

Distribution and habitat

Acanthocercus atricollis lives in southern and eastern Africa: in South Africa, Eswatini, Botswana, Zimbabwe, Malawi and Mozambique and on north to Kenya. The largest continuous range lies in south-eastern Africa, and the species is very dense in Kruger National Park. The type locality is Durban.

The limits of the range have not been established, because the species belongs to a group of closely related species, in which records from Namibia, Angola and parts of East Africa have been assigned to other species. Records in south-eastern Congo are provisionally included in the species, but lie outside the main area.

> **Native range:** South Africa, Eswatini, Botswana, Zimbabwe, Malawi, Mozambique and Kenya.

HABITAT

The species lives in savannah and dry woodland, where it sits on thick trunks and horizontal branches in shady trees with dense foliage. Adults sit on side branches 42 % of the time, on trunks 35 % and on the ground 23 %. The animals are active by day, but can also be active at night.

The animals live in colonies with one dominant male, several females and young. Males defend a territory and fight over it. Around villages populations are often denser, because there are fewer predators such as snakes and birds of prey, and because the animals prefer thick trees with a dense crown.

Breeding follows the seasons. The males' testes are largest in August-September, and the females' yolks grow in August-December, that is, in the spring and early summer of southern Africa.

Care

THE ENCLOSURE

Little is known about the care of *Acanthocercus atricollis*. The recommendations are based on the habitat and the animal's size. The figures for temperature, humidity, UVB, incubation time and lifespan are borrowed from *Agama agama*, which lives in the same kind of savannah but is more ground-dwelling, and the enclosure dimensions are an estimate.

An adult needs an enclosure of at least 120 × 60 × 100 cm (length × width × height). Height is important, because the species spends most of its time on trunks and branches. A male with two or three females needs at least 150 × 70 × 100 cm. Keep only one male in the enclosure, because males defend territory and can seriously injure each other.

Furnish with sturdy, sloping branches and a cork or bark back wall, so that the animal can sit on a vertical surface, as it would on a trunk. Provide several perches at different heights and at least two hiding places, one at the warm end and one at the cool end. Everything must be firmly fixed. The substrate can be sand mixed with a little soil at 5-8 cm, so that the female can dig when she is going to lay eggs. A mesh lid gives good ventilation, and the lid must be lockable, because the animal is fast. Remove uneaten insects before the light goes off, and replace the substrate completely every 3-4 months.

New animals must be quarantined, and wild-caught animals must be checked for parasites.

Read more: Lighting and UVB Read more: Humidity, misting and ventilation Read more: Incubating eggs Read more: Buying animals: captive-bred, wild-caught and transport

TEMPERATURE

By day the temperature in the enclosure should be 24-32 °C, and the basking spot high up should have a surface temperature of 38-43 °C, measured with an infrared thermometer. Use a halogen spot or another heat lamp over a branch or a flat rock, and make sure the animal can get away from the heat at the cool end. At night the heat is switched off, and the temperature

should fall to 18-21 °C; ordinary room temperature is usually enough.

Check the basking spot regularly, because bulbs lose output over time. An animal that sits on the basking spot all day with its mouth open is too hot, and an animal that hides and does not eat is too cold.

In southern Africa the winter is cool and dry, and breeding follows the seasons. A slight reduction of day length and daytime temperature in winter is a good habit, but a proper winter rest is not documented and is not necessary.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 30-50 %. This suits the savannah and dry woodland where the species lives. The enclosure must have good ventilation, so that it dries out between mistings.

Always put a shallow bowl of fresh water in the enclosure, and change the water when it is dirty. Many tree-dwelling agamas drink best from water droplets on leaves and branches, so mist branches and leaves lightly every morning. The substrate must not become constantly wet.

LIGHTING AND UVB

The species is active by day and needs strong light and UVB corresponding to Ferguson zone 3: a T5 HO tube of 10-12 % in a reflective fitting over the basking spot, so that UVB covers the warm half of the enclosure. The distance from tube to perch is normally 25-40 cm, depending on mesh and lamp, and it should be checked with a UV meter. The cool end must have shade, so that the animal can withdraw from the UV light.

Have the light on 12-14 hours a day in summer and 10-12 hours in winter, using a timer. UVB tubes lose their output long before the light visibly weakens, so replace them according to the manufacturer's instructions, usually every 12 months.

FEEDING

Acanthocercus atricollis lives on arthropods. In the wild its food consists mostly of ants, beetles and locusts. Ants make up by far the most prey items, but it is locusts and beetles that make up the most bulk. The animal also eats millipedes, which many other lizards avoid. Juveniles take mainly ants and smaller prey.

In the enclosure give a varied diet of well-fed insects: crickets, locusts, cockroaches such as *Blaptica dubia*, silkworms and occasionally mealworms or morio worms. Prey should be about as large as the distance between the animal's eyes. Do not feed only mealworms, because they are fatty and make for a one-sided diet. Plant food is not documented for the species, and it is not given greens as a regular part of its diet.

Juveniles are fed daily, adults every other day, as much as they eat in 10-15 minutes. The animal is a sit-and-wait hunter, so put the food out in a small bowl with smooth sides, or release a few insects at a time into the enclosure. Lightly dust the insects with calcium without D3 at most feedings and with a vitamin and mineral supplement once or twice a week. Give the insects nutritious food for at least a day before they are used. Use captive-bred insects, not wild-caught.

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

BEHAVIOUR AND HANDLING

Acanthocercus atricollis is a calm and watchful species that spends most of the day sitting still on a branch watching its surroundings. The male occupies a fixed spot and defends it against other males, and in the breeding season males show off their blue head.

Keep only one adult male in each enclosure. Two males fight, and the weaker may be injured or stressed into illness. A male can be kept with two or three females if the enclosure is large enough and has many perches at different heights, so that the females can avoid him. Watch for signs of stress: an animal that hides, loses weight or does not eat must be separated.

The animal is shy and fast when frightened and may bite if picked up. Give a new animal a couple of weeks in peace, and handle it only when necessary. Like all reptiles, agamas can carry salmonella, so wash hands with soap after all contact with animals, enclosure and food, and do not let small children touch the animal unsupervised.

Read more: Quarantine and hygiene

Breeding

SEXUAL MATURITY AND SEXING

Males and females are about the same size, but adult males have a larger head, and males develop a blue head in the breeding season. Females are sexually mature at a snout-vent length of around 10 cm and males at around 8 cm. The age at sexual maturity is not documented. Males have preanal glands, which release a fatty secretion that is presumably used as a scent signal.

MATING

Mating is seasonal, and in the wild it takes place in the spring of southern Africa, from August onwards. A cool, dry winter followed by increasing day length and temperature is therefore a good starting point for breeding. The male defends his territory and mates with several females. Do not put the male with a female that is not in good condition, and have a hide ready for the female, so that she can avoid him.

There are no detailed descriptions of mating in captivity.

EGG-LAYING AND CLUTCHES

Females lay one clutch a year. The clutch averages 11 eggs, and larger females lay more eggs than smaller ones. The female digs a tunnel in the substrate and lays the eggs there, so the enclosure must have a sufficiently deep substrate of moist sand-soil mix, preferably a separate laying box. Without a suitable spot she may retain the eggs, which is life-threatening. Give her plenty of food both before and after laying.

INCUBATION

The incubation time is not documented for the species; expect 56-90 days at 26-29 °C. Place the eggs in a closed container with moist perlite or vermiculite, without turning them, and keep the temperature even.

REARING THE YOUNG

There are no descriptions of rearing the species. Newly hatched young have the same needs as adults, but are smaller and more nervous. Give them an enclosure with many hides and perches, UVB and small insects, dusted with calcium. Feed them daily. Keep young of different sizes apart if they begin to chase each other, and divide them as they approach sexual maturity, because the males become territorial.

Health and common mistakes

There are no descriptions of diseases in the species in captivity, so the advice is the same as for other diurnal agamas. Most problems are caused by faults in the set-up, especially too little heat, too little UVB and too one-sided a diet. The typical problems are:

- Bone fragility (metabolic bone disease) from too little UVB and calcium. Provide UVB and dusted insects.
- Obesity from too many fatty feeder animals such as mealworms and too little exercise.
- Mites and internal parasites, especially in wild-caught animals. Quarantine new animals for at least three months.
- Shedding problems from air that is too dry.
- Egg-laying difficulties in females without a suitable laying site. It is life-threatening and requires a vet.
- Stress and sores in animals kept with a rival male.

A healthy animal has clear eyes, a plump tail and a sturdy body and is alert and active. It eats regularly and keeps its mouth closed. Weigh the animal regularly, because sudden weight loss is often the first sign of illness. Reptiles hide illness, so see a vet with reptile experience if the animal loses weight, does not eat or seems lethargic.

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.