herpy

AGAMAS

Ornate Crevice-dragon

Ctenophorus ornatus

Ctenophorus ornatus is a flat, rock-dwelling agamid from the granite outcrops of south-western Australia. The animal reaches up to about 29 cm, has a distinctly banded tail and basks on warm rocks, where it bobs its head. It shelters under granite flakes and in crevices. The species needs a dry enclosure with rockwork, strong heat and UVB, and little is known about the care of this particular species.

Family: Agamidae Former name: *Amphibolurus ornatus; Grammatophora ornatus; Amphibolurus tibialis*

KEY FACTS

THE ANIMAL

Adult size	**29 cm** total length incl. tail
Lifespan	**1-11 years**
Active	**By day**
Lifestyle	**Rock-dwelling**
Habitat	**Semi-desert and rocky terrain**
Difficulty	**Experienced**

CARE

Min. enclosure	**100 × 50 × 50 cm** L × W × H for 2 adults
Temperature, day	**25-30 °C**
Basking spot	**35-40 °C**
Temperature, night	**18-22 °C**
Humidity	**20-40%**
Water	**Water dish**
UVB	**Essential** Ferguson zone 3
Diet	**Insects and plants**
Kept	**In pairs or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**2-4 eggs**
Incubation	**55-80 days** at 28-32 °C

PROTECTION AND PAPERWORK

CITES	**Appendix III**
EU annex	**Annex C**
IUCN	**Least Concern (LC)**

About the species

Ctenophorus ornatus is a small to medium-sized agamid with a very flattened body, which allows it to get in under granite flakes and down into narrow crevices. The whole animal measures up to about 29 cm, and the body is about 10 cm from snout to vent. The tail is distinctly banded. The species belongs to the so-called rock dragons in the genus *Ctenophorus*.

Males and females differ in colour. The back is patterned to resemble granite, and in females it is almost impossible to spot against the rock. The colour of the throat contrasts strongly with the granite and also reflects ultraviolet light, which humans cannot see; it is probably a signal when the animal bobs its head and does push-ups. The throats of females vary a great deal. The species falls into two lineages that have been separated for more than four million years. In the large southern part of the range the back is almost black to deep brown, and males have a row of white blotches along the back. In a small northern population in the Murchison district the back is reddish-pink, and the blotches are replaced by a white stripe down the middle of the back.

In the wild most animals live about a year and a half, and the oldest known animals have reached 11 years. Lifespan in captivity is not documented for the species; several other species in the genus live more than 10 years in captivity. The scientific name comes from Latin *ornatus*, adorned, and refers to the markings. Older literature uses the names *Amphibolurus ornatus* and *Grammatophora ornatus*.

The animal is wary and fast and is not suited to handling. In return it is an attractive and interesting species for anyone who wants to build a rocky enclosure and watch the behaviour. Australia does not allow the export of wild reptiles, so animals outside Australia come from captive breeding.

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

Distribution and habitat

Ctenophorus ornatus lives in south-western Australia. The range extends from the Goldfields to the Darling Range and down to the south coast, and the species is also found in the Recherche Archipelago and on offshore granite islands. A small, separate population lives further north, around Paynes Find and Sandstone. The type locality is given as Western Australia.

The species is tied to granite outcrops in a landscape where large areas have been cleared for farming. The outcrops are separated like islands, and animals from different rocks exchange little. The species is common where suitable rocks exist and is not assessed as threatened.

> **Native range:** Australia.

HABITAT

Ctenophorus ornatus lives on granite outcrops in scrub and open country, both on undisturbed outcrops and on rocks in the middle of farmland. The animal shelters under loosened granite flakes and boulders and in crevices, especially where there has been no disturbance, and comes out to bask on warm rocks. It bobs its head at other animals. The males hold territories and defend the rock.

The climate is dry, with hot, dry summers and cooler, wetter winters. The animal sometimes loses toes to predators or to injuries on the rock. The female lays eggs; the sex is determined by the incubation temperature.

Read more: Incubating eggs

Care

THE ENCLOSURE

Little is known about the care of *Ctenophorus ornatus*. The figures in this section and the following ones are borrowed from *Ctenophorus pictus* and other species in the genus and adapted to a species that lives on rocks.

A pair needs an enclosure of at least 100 × 50 × 50 cm (length × width × height). Three animals, that is a male with two females, need at least 120 × 50 × 50 cm. The species is rock-dwelling and flat, so floor area and rockwork matter, not height alone. Fit a secure lid.

Build a structure of flat stones, slate and cork bark so that crevices and caves form where the animal can squeeze in. The stones must stand firmly on the bottom and be glued or packed with sand so that they cannot slip and crush the animal. Give each male a tall, warm lookout rock. The substrate is a mix of sand and fine gravel, no more than a few centimetres deep. Keep males apart, because they are territorial; a male with two females works well.

Provide ventilation with mesh in the top. Remove droppings regularly, and replace parts of the sand as needed.

TEMPERATURE

The species is a sun-loving rock dweller and needs a large temperature difference. The air in the cool end should be 25-30 °C by day, and the surface of the basking spot, a flat stone under a heat lamp, should be 35-40 °C. Measure the surface temperature with an infrared thermometer and the air temperature at both ends. The basking spot should not exceed 43 °C.

At night the temperature should fall to 18-22 °C; the figure is an estimate based on the climate. In winter both temperature and day length are lowered, because the species has a cool winter in the wild. The animal must always be able to get away from the heat into a crevice. If the whole enclosure is too warm, it can suffer heatstroke.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity should be low, 20-40 %; the figure is an estimate based on the habitat. Keep the enclosure dry and well ventilated, and let only a small part of the sand become damp at the laying site. Mist lightly a few times a week so that the animals can drink the droplets from the stones, and also provide drinking water in a shallow, heavy bowl, changed every day.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

A diurnal rock species needs strong light and UVB. Ferguson zone 3 is a good starting point; the zone has not been established for the species. Use a high-output UVB tube or a combined heat lamp with UVB over the basking spot so that the animal can get close. In summer the light should be on for about 13 hours and in winter 8-10 hours. Replace UVB tubes every 6-12 months and combination lamps after 12-18 months.

Read more: Lighting and UVB

FEEDING

The species eats insects and other small arthropods; in the enclosure crickets and cockroaches are the staple, with mealworms and silkworms for variety. Feeder animals must not be larger than the width of the animal's head. Dust the feeders with calcium at every feeding and with a multivitamin once a week, no more often. Also offer a little plant food such as dandelion leaves and flowers, and see whether the animal takes them; plant food is not documented for this particular species.

Adults are fed two to three times a week with as much as they can eat in about 20 minutes. Young animals are fed almost daily. Remove uneaten food, because cockroaches and crickets can bite the animal at night. Choose only plants that have not been sprayed with pesticide.

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

BEHAVIOUR AND HANDLING

The animal is wary and fast and withdraws into a crevice at the slightest fright. Handling is not necessary and stresses the animal.

The male marks his territory with head bobbing and push-ups and defends a rock. Two males in the same enclosure fight and can seriously injure each other. Keep only one male, therefore, and give him one or two females. The females are peaceful and can be kept together if there is space and plenty of cover.

Young animals should be kept apart from adults, because the older animals may take them as prey.

Breeding

SEXUAL MATURITY AND SEXING

Males and females differ in colour, including on the throat: the male has white blotches or a white stripe along the back, and the female's back blends in even better with the granite. The age at sexual maturity is not documented. Only breed fully grown animals in good condition.

MATING

The male displays with head bobbing and push-ups and defends his rock. The male prefers females with certain throat colours, and a female's colour may also reveal when she is receptive. What triggers mating in the enclosure is not documented; a cool winter and increasing day length in spring are a cautious starting point.

Separate the males, and look for wounds on the female. Give the females extra calcium and plenty of food before and after mating.

EGG-LAYING AND CLUTCHES

The species lays eggs. Clutch size is not documented for the species; 2-4 eggs is borrowed from *Ctenophorus pictus*. Provide the female with a laying box of moist, loose sand at least 15 cm deep, and cover it partly so that she feels secure. Without a suitable site she can retain the eggs, and that can become life-threatening; contact a vet if she seems strained or does not manage to lay. Females can lay infertile eggs without a male.

INCUBATION

The sex is determined by the incubation temperature, so keep the temperature stable. Lift the eggs out carefully without turning them, and place them half buried in damp vermiculite in a closed box at 28-32 °C. The incubation period is not documented for the species. Allow 55-80 days; the figure and the temperature are borrowed from *Ctenophorus pictus*.

Check the box regularly for mould, and remove eggs that go mouldy or collapse.

REARING THE YOUNG

The hatchlings are independent from the first day. Put them in an enclosure with sand, flat stones and many hiding places, and provide UVB and heat as for the adults. Feed them almost every day with small insects, dusted with calcium. Keep young males apart when they begin to show territorial behaviour.

Health and common mistakes

Most problems in *Ctenophorus ornatus* are caused by the husbandry: too little heat, too little UVB, an enclosure that is too damp or a one-sided diet. Typical problems are:

- Brittle bones (metabolic bone disease) with too little UVB and calcium.
- Heatstroke if the animal cannot get away from the heat.
- Injuries from stones that slip; build firmly.
- Injuries after fights between males.
- Skin and respiratory infections in an enclosure that is too damp.
- Egg-laying problems in females without a suitable laying site.
- Intestinal worms and other parasites. Quarantine new animals, and have a faecal sample examined.

A healthy animal has clear eyes, a full tail and smooth skin. It eats regularly and basks. Reptiles hide illness for a long time, so contact a vet experienced with reptiles if the animal loses weight, does not eat, has wounds or swellings, or sits with its mouth open.

Read more: Quarantine and hygiene 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.