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GECKOS

Western beaked gecko

Rhynchoedura ornata

Rhynchoedura ornata is a small, slender, nocturnal gecko from the sandy deserts of western and central Australia. It has a pointed snout with a beak-like look, lives on the ground and eats mostly termites. Almost nothing is known about its care, so the guide is based on the habitat and on relatives from the same regions.

Family: Diplodactylidae Former name: *Diplodactylus paraornatus*

KEY FACTS

THE ANIMAL

Adult size	**4-6 cm** snout-vent length
Lifespan	**5-8 years**
Active	**At night**
Lifestyle	**Terrestrial**
Habitat	**Desert and semi-desert**
Difficulty	**Experienced**

CARE

Min. enclosure	**40 × 25 × 25 cm** L × W × H for 2 adults
Temperature, day	**25-28 °C**
Basking spot	**30-34 °C**
Temperature, night	**16-22 °C**
Humidity	**30-45%**
UVB	**Optional** Ferguson zone 1
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**10-12 months**
Clutch size	**1-2 eggs**
Incubation	**46-60 days** at 27-29 °C

PROTECTION AND PAPERWORK

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

About the species

Rhynchoedura ornata is a small, slender gecko with a narrow body, a long, thin tail and short, slight legs. The head is small and narrow with protruding eyes and a short, pointed snout, where the large scales at the tip of the upper and lower jaw form something that looks like a beak. This is the genus's hallmark, and the name *Rhynchoedura* means "beak-like *Oedura*", after the genus *Oedura*, which it resembles in body build. The species name *ornata* is Latin and means "adorned" and alludes to the pattern.

The ground colour is dark, often with a paler stripe along the spine with crossbands. The head and body are covered in small to large white or yellow spots, which in some animals sit all over the back and in others only on the sides. The lips and the scales around the eye are whitish to yellow, and the belly is a uniform pale colour. The toes have sharp claws and no expanded adhesive pads, so the species cannot climb up smooth glass.

The species reaches 4-6 cm from snout to vent, at most about 57 mm, and the newly hatched young measure about 24 mm. Lifespan is not documented; 5-8 years is borrowed from *Diplodactylus galeatus* and is only an estimate.

R. ornata was described by Albert Günther in 1867. The genus was long regarded as one species but was split in 2011: four species were described as new, and *Rhynchoedura ormsbyi* was lifted out of synonymy. Today the genus has six species, which differ only in small features and are separated especially with the help of genetic material. Older information under the name *R. ornata* may therefore cover several of them.

Distribution and habitat

Rhynchoedura ornata is found only in Australia. After the genus was split in 2011, the name applies to the populations in the western and central part of the arid zone: Western Australia excluding the Kimberley and the humid south-western part, the southern part of the Northern Territory, for example the Tanami Desert, and western South Australia. The type locality is Nickol Bay in Western Australia.

The eastern populations now belong to other species: *Rhynchoedura eyrensis* around Lake Eyre, *Rhynchoedura angusta* and *Rhynchoedura ormsbyi* in inland New South Wales and Queensland and *Rhynchoedura mentalis* in Queensland, while *Rhynchoedura sexapora* lives in the Kimberley. The boundaries between the species follow old river systems and watersheds and are not sharply mapped, so the frame of the map is an approximation. The species is common within its range.

> **Native range:** Australia.

HABITAT

Rhynchoedura ornata lives in Australia's inland deserts on sandy and gravelly plains, sand ridges and flats with scattered shrubs and tussock grass. Rainfall is low and irregular, summers are very hot, and nights are cooler, especially in winter.

The species is nocturnal and lives on the ground. By day it hides in holes, crevices and under cover. At night it hunts small insects on the ground, first and foremost termites and also ants. Active animals have a body temperature of about 27-34 °C.

Care

THE ENCLOSURE

Little is known about the care of *Rhynchoedura ornata*, so the recommendations here are based on the habitat in the Australian desert and on the closely related *Diplodactylus galeatus*, which lives in the same type of landscape. The figures are borrowed from there.

A pair needs an enclosure of at least 40 × 25 × 25 cm (length × width × height). More floor space is an advantage, because the species lives on the ground, while height is irrelevant. A single gecko can manage with a little less.

The substrate is 3-5 cm of sand, not too fine, so the animals can dig a small burrow. Place flat pieces of cork and stone, and upturned hides with an entrance at the side, at both ends of the enclosure, so the gecko can choose its temperature and sleep undisturbed. Plants are not necessary. The species cannot climb glass, but the lid must still fit tightly, because the animals are small and quickly find a gap. Provide good ventilation.

TEMPERATURE

The daytime temperature is 25-28 °C, with a warm spot of 30-34 °C, for example under a small lamp above a flat stone. Always measure with a digital thermometer, because the heat of a bulb varies a great deal. The figures match the body temperature of active animals in the wild, around 27-34 °C.

At night the temperature may fall to 16-22 °C. The desert cools sharply after sunset, and a night that is cooler than the day suits the species.

A cool, dry winter rest with shorter days at around 16-18 °C and no warm spot for a few weeks is probably an advantage if you want the animals to breed.

HUMIDITY AND WATER

Rhynchoedura ornata comes from dry regions and must be kept dry: aim for 30-45 % humidity. The enclosure must be well ventilated, and the substrate must be dry.

Offer a small, shallow dish of fresh water, and mist a small part of the enclosure lightly a couple of times a week, so the animals can drink droplets. Let the misting dry completely before misting again. A small humid hide with lightly dampened moss or coconut fibre in one spot helps with shedding, so the skin does not stick to the toes and tail tip.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

Rhynchoedura ornata is nocturnal and has no documented need for UVB. If you provide UVB anyway, it must be a weak light (Ferguson zone 1) with plenty of shade, so the gecko can withdraw completely.

Calcium with D3 on the food covers the need. Keep the light on for about 12 hours a day in the summer half of the year and slightly shorter in winter. Avoid direct sun, which quickly overheats a small enclosure.

Read more: Lighting and UVB Read more: Calcium, vitamins and supplements

FEEDING

In the wild *Rhynchoedura ornata* feeds mostly on termites and also on ants. Termites are rarely available as feeder insects, so offer small, soft feeder insects: newly hatched and small crickets, fruit flies, springtails and small cockroaches. Prey must be smaller than the distance between the eyes, because the gecko is small and has a narrow mouth.

Feed adults two to three times a week and juveniles every other day. Dust the insects with calcium, regularly with calcium with D3 and occasionally with a multivitamin powder. Breeding females and juveniles need extra calcium. Remove insects that are not eaten.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Rhynchoedura ornata is a calm, secretive and nocturnal animal. By day it is hardly seen, and at night it can be seen running around on the sand hunting. It is fast and can easily escape from the hand, and the tail is shed at danger. Therefore pick the animal up only when necessary.

The species can be kept singly or as a pair. Behaviour in a group is not documented, so start with one pair and provide more hides. Do not keep two males together.

Breeding

SEXUAL MATURITY AND SEXING

In the wild *Rhynchoedura ornata* reaches sexual maturity in under a year: young that hatch in midsummer are gravid the following summer. The genus has 2-6 pores in front of the vent and 1-3 pointed scales, cloacal spurs, at the vent. In most geckos the male is recognised by two small bulges on the underside of the tail base, and this is the best starting point for sexing adult animals. Differences between the sexes have not been described in more detail for the species.

Breeding animals must be adults, robust and in fine condition.

MATING

There is no information on the mating of *Rhynchoedura ornata* in captivity. In relatives in Australia the breeding season falls in the warm months, roughly October-March, after a cool, dry winter. Start with a winter rest with shorter days and lower temperature, and then raise temperature and light again in spring. Put a male together with a female and separate them if the male is too persistent.

EGG-LAYING AND CLUTCHES

The female lays 1-2 eggs at a time, almost always 2. The number of clutches per year is not documented. Place a shallow plastic box with a lid and an entrance in the side and a couple of centimetres of slightly damp sand or vermiculite in the enclosure, so the female can lay the eggs in shelter. Give the female calcium and plenty of insects throughout the season, and check the box regularly.

INCUBATION

Move the eggs carefully to a small box with damp vermiculite (about 1:1 by weight) and do not turn them. At 27-29 °C the eggs hatch after 46-60 days. The eggs are small and fragile, and they must not dry out.

It is not known whether temperature determines the sex of the young.

REARING THE YOUNG

Rearing of *Rhynchoedura ornata* has not been described. The young measure about 24 mm from snout to vent at hatching and must be kept on kitchen paper, so you can see food and droppings, with a small humid hide for shedding. Offer them fruit flies, springtails and newly hatched crickets, lightly dusted with calcium, every day or every other day. Keep the young separate from adults and mist lightly, but let the enclosure dry between mistings. Follow the animals' condition closely.

Health and common mistakes

There are no documented health problems in *Rhynchoedura ornata* in captivity. The typical mistakes are the same as in other small insectivorous geckos:

- Lack of calcium and D3, especially in juveniles and breeding females. It causes soft jaws, bent limbs and tremors. Dust the insects regularly.
- Remnants of skin on toes and tail tip if the air is too dry. Provide a humid hide and loosen the remnants with a damp cloth.
- Humidity that is too high. The species comes from dry regions, and a constantly damp substrate causes mould and bacteria.
- Sand of too fine a grain, which can lodge in the eyes and mouth. Preferably use a slightly coarser sand.
- Loss of weight and appetite, often because of temperatures that are too low or too few insects.

The gecko must have clear eyes, a thick tail and a good grip. See a vet with reptile experience if it loses weight, does not eat for several weeks or seems limp.

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.