herpy

GECKOS

Gargoyle gecko

Rhacodactylus auriculatus

A sturdy, calm climber from the scrub of New Caledonia, with bumps on the back of the head like a little Gothic gargoyle and a tail that can grip the branches. It tolerates room temperature, lives on prepared diet and insects, and is a good choice for anyone who wants a robust gecko with a bit more weight and personality.

Family: Diplodactylidae Former name: *Platydactylus auriculatus; Ceratolophus hexaceros*

KEY FACTS

THE ANIMAL

Adult size	**18-23 cm** total length incl. tail
Weight	**35-70 g**
Lifespan	**15-20 years**
Active	**At dusk and at night**
Lifestyle	**Arboreal**
Habitat	**Rainforest and montane forest**
Difficulty	**Beginner**

CARE

Min. enclosure	**45 × 45 × 60 cm** L × W × H for 1 adult
Temperature, day	**22-27 °C**
Basking spot	**26-28 °C**
Temperature, night	**18-22 °C**
Humidity	**50-80%**
UVB	**Recommended** Ferguson zone 1
Diet	**Insects, fruit and complete diet**
Kept	**Singly or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**15-24 months**
Clutch size	**2 eggs**
Incubation	**60-90 days** at 22-27 °C

PROTECTION AND PAPERWORK

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

About the species

Rhacodactylus auriculatus has small, pointed bumps at the back of the head, which resemble the carved gargoyles on Gothic churches. Some animals have two distinct bumps, others a whole row, and they develop with age. Newly hatched young have a smooth, rounded head. The head is broad and triangular and the body stocky,. Under the toes there are lamellae that grip well, and the thin tip of the tail can grip the branches.

The species was described in 1869 by the French pharmacist and naturalist Arthur Bavay as *Platydactylus auriculatus* and has been known as *Rhacodactylus auriculatus* since 1883.

An adult measures 18-23 cm including the tail, of which the body from snout to vent makes up to about 12 cm. Weight is typically 35-70 g. The colours range from grey and brown through red to yellow and orange, often with stripes, spots or marbling, and many morphs have been developed. The tail can be dropped if the animal is grabbed or frightened. Unlike in *Correlophus ciliatus*, it grows back, but the new tail is seldom as handsome.

The species is robust and calm and usually tolerates handling well. Males are territorial and fight, so they must be kept separately.

Distribution and habitat

The species is found only in New Caledonia in the south-western Pacific, and only on the main island of Grande Terre. It is tied to the ultramafic areas, where the soil is rich in nickel and other heavy metals. It is widespread in the mountains in the southern part of the island and is also found on isolated massifs along the west coast and in the central eastern part, reaching north as far as Dôme de Tiébaghi.

The area in which the species occurs is estimated at just under 11,000 km², but the places where it actually lives cover only about 250 km².

> **Native range:** New Caledonia.

HABITAT

Rhacodactylus auriculatus lives in maquis, the low, dense scrub on the nickel-rich soils, and in humid forest and montane forest, especially at the forest edge. It has been found up to an altitude of about 1,100 metres. At night it forages on the trunks and branches of shrubs and small trees and, occasionally, on the ground. By day it hides in dense vegetation near the ground or in hollow trees. It is first and foremost a climber, but it comes down to the ground more often than the other large geckos from the island.

The climate is subtropical, with warm summers and cooler nights and winters. There are no precise measurements of the temperature in the animals' retreats, so the enclosure values are based on experience from captivity.

The species is not threatened as a whole, but it is locally under pressure from nickel mining, repeated fires in the maquis, the invasive ant *Wasmannia auropunctata* and introduced rats, cats and pigs. Illegal collection was once a problem, but has declined since the species became common in captive breeding.

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

Care

THE ENCLOSURE

An adult needs an enclosure of at least 45 × 45 × 60 cm (length × width × height). 60 × 60 × 60 cm is a good size, and because *Rhacodactylus auriculatus* comes down to the ground more often than *Correlophus ciliatus*, extra floor area is worth more than extra height. Juveniles under about 12 g do best in a smaller rearing box, where they easily find their food.

Furnish it with sloping and horizontal branches, cork tubes and cork bark at several heights, and dense planting so the animal can slip out of sight. Live or artificial plants such as pothos and bromeliads provide both cover and humidity. A damp mix of coconut fibre, soil without fertiliser and a little sphagnum is suitable as substrate. If you want the female to use a laying box, a coarse substrate that she cannot dig in, such as orchid bark, can help.

The enclosure needs good ventilation, preferably with mesh openings both at the top and at the bottom. The dimensions are for one animal. If you keep a male with females, the enclosure must be correspondingly larger.

Read more: Humidity, misting and ventilation

TEMPERATURE

During the day the enclosure should be 22-27 °C, and a small area at the top may reach 26-28 °C. At night the temperature should fall to 18-22 °C, and in winter the animal tolerates nights down to 16-18 °C.

Heat is the greatest danger. Air temperatures above approx. 28 °C should be avoided, and in heatwaves the animals can be moved to a cooler room. In most homes extra heat is unnecessary. If it is cold in winter, a low heat bulb or a heat mat on the side, controlled by a thermostat, can help. Measure with a digital thermometer both high up and low down, and leave part of the enclosure unheated.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity should fluctuate between about 50 and 80%. Mist the enclosure in the evening so that the humidity rises to 70-80%, and let it fall to around 50-60% during the day so the substrate can dry out. Constant dampness causes mould and skin problems.

Rhacodactylus auriculatus drinks droplets from leaves and glass, but also provide a shallow dish of fresh water, changed daily. A hygrometer shows whether the rhythm is holding. If there is stuck shed on the toes and tail, the air is too dry.

LIGHTING AND UVB

The species is active at dusk and at night and can manage without UVB when the diet contains vitamin D3. Low-level UVB lighting is nevertheless regarded today as good practice, because it gives more reliable calcium metabolism and more active animals. Use a weak tube for shade-dwelling animals (Ferguson zone 1), for example a T5 tube of 2.4-5%, with at least 15 cm down to the uppermost branches, and leave the rest of the enclosure in shade.

Keep the light on for about 12 hours a day in summer and 10-11 hours in winter, preferably controlled by a timer. Do not use coloured night lights. The night must be dark.

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

FEEDING

The staple diet is a prepared powdered diet for fruit-eating geckos, mixed with water into a thick paste. Brands such as Repashy and Pangea are developed for this group of geckos and contain fruit, protein, calcium and vitamins. Offer a small dish every 2-3 days for adults and daily or every other day for juveniles under a year. Remove leftovers after one to one and a half days. The dish is best placed on a holder some way up.

In addition, give live insects about once a week for adults and 1-2 times a week for juveniles: crickets, locusts, dubia roaches or waxworms as a treat. The insects should be no larger than the distance between the animal's eyes and must be dusted with calcium with vitamin D3. *Rhacodactylus auriculatus* likes live food more than *Correlophus ciliatus* does, and it can be given insects more often.

Ripe fruit without citrus can be given as a treat, but the prepared diet should be the staple.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Rhacodactylus auriculatus is calm and can become quite tame, and most animals tolerate being handled well. Keep sessions short, 5-10 minutes a couple of times a week, and give new animals a couple of weeks in peace to settle in. Sit low, so that a leap does not end on the floor. Never grab the tail.

Males must be kept separately because they fight, and even during mating a male can be rough. A male can be kept with one or more females, but keeping them singly is the safest solution. The species readily eats smaller lizards, so do not keep it with other species or with conspecifics of very different size. By day the animal sleeps in the foliage, and most only become properly active in the evening.

If it feels threatened, it may hiss and open its mouth wide, but as a rule it stops at the threat.

Breeding

SEXUAL MATURITY AND SEXING

Males can usually be used for breeding from about one year of age, if they are large enough. Females need longer, and the female should be at least 18 months old and in good condition, typically 35 g or more, before she is bred. Males are recognised by a bulge at the base of the tail and a row of pores in front of the vent. Young females can have a similar bulge, and small animals can have indentations that look like pores, so use a magnifying glass, and wait to determine the sex until the animal is approaching sexual maturity.

MATING

The species is not bound to a particular season, but most eggs are laid from spring to autumn. A cooler winter, for example around 20 °C by day and 17 °C at night, kick-starts breeding and gives the female time to rebuild her calcium reserves.

Put the male in with the female in her enclosure, and watch them closely for the first few days. Mating can be violent, and the male bites the female on the neck. The eggs come 30-60 days after mating, or only a few months later, depending on where the female is in her cycle. Separate the animals if the female is injured or chased.

EGG-LAYING AND CLUTCHES

The female lays two eggs at a time, one from each ovary. Under good conditions she can lay many clutches in a season, up to eight or nine a year, but the number depends greatly on her condition and age.

Place a laying box with damp sphagnum or coconut fibre in the enclosure, otherwise the female buries the eggs in the substrate. She needs plenty of calcium and insects throughout the season. Stop breeding if she loses significant weight.

INCUBATION

Carefully move the eggs into a small box with damp perlite, vermiculite or an artificial substrate, without turning them. Mark the upper side with a pencil. The box must have small air holes.

The eggs are usually incubated at room temperature, about 22-27 °C, and hatch after 60-90 days. Cool incubation takes longer, but appears to produce larger and faster-growing young. Warmer incubation shortens the time, but above about 28 °C the risk of the embryos dying increases. Eggs that collapse or turn yellow and mouldy are usually not fertilised. Leave them until you are sure.

Read more: Incubating eggs

REARING THE YOUNG

The young measure about 3 cm from snout to vent and weigh around 3 g at hatching. They shed within the first day. Move them to a small box with kitchen roll or sphagnum, branches and a plant, and mist daily. They live off the yolk remnant for the first few days and begin to eat after a couple of days.

Give the same powdered diet as for the adults daily or every other day, and small insects 1-2 times a week, dusted with calcium with vitamin D3. Young nip each other's tails readily, so keep them singly or in small groups of 2-4 of the same size, and separate them at once if one lags behind or loses its tail. Weigh them regularly. They are fully grown after one and a half to two years.

Health and common mistakes

Rhacodactylus auriculatus is hardy, and most problems are caused by incorrect heat, humidity or diet. The typical mistakes are:

- Too high a temperature, for example in an enclosure by a window in summer. This causes stress, loss of appetite and, in the worst case, death.
- Too little calcium and vitamin D3, especially in young animals and breeding females. This causes soft jaws, bent limbs and tremors. Use a good prepared diet, and dust the insects.
- A constantly wet substrate and poor ventilation, which cause mould and skin problems.
- Stuck shed on the toes and tail tip. Provide a humid hide, and gently loosen the remains with lukewarm water.
- Dropped tails after handling or fights. The tail grows back, but is seldom as handsome as before.
- Bites and injuries when males are kept together, or when a male is too rough with the female.

A healthy animal has clear eyes, a plump tail base and a good grip. Seek a vet with experience in reptiles if the gecko 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.