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GECKOS

## Ringed thin-tail gecko

# *Phyllurus caudiannulatus*

*Phyllurus caudiannulatus* is a small, nocturnal leaf-tailed gecko from the forests around Bulburin in central eastern Queensland, Australia. The tail is narrow and round with pale rings. The species has a very small range and is near threatened in the wild.

Family: Carphodactylidae

KEY FACTS

### THE ANIMAL

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|---|---|
| Adult size | **10-11 cm**<br>snout-vent length |
| Lifespan | **5-10 years** |
| Active | **At night** |
| Lifestyle | **Arboreal** |
| Habitat | **Rainforest** |
| Difficulty | **Experienced** |

### CARE

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|---|---|
| Min. enclosure | **50 × 50 × 50 cm**<br>L × W × H for 2 adults |
| Temperature, day | **20-25 °C** |
| Temperature, night | **15-19 °C** |
| Humidity | **55-100%** |
| UVB | **Not required** |
| Winter rest | **10-16 °C**<br>9-13 weeks |
| Diet | **Insects** |
| Kept | **Singly or in pairs** |

### BREEDING

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|---|---|
| Reproduction | **Egg-laying** |
| Sexually mature | **18-36 months** |
| Clutch size | **2 eggs** |
| Clutches per year | **2-4** |
| Incubation | **90-110 days**<br>at 21-25 °C |

### PROTECTION AND PAPERWORK

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|---|---|
| CITES | **Appendix II** |
| EU annex | **Annex B** |
| IUCN | **Near Threatened (NT)** |

## About the species

*Phyllurus caudiannulatus* is a small, slender, nocturnal gecko that reaches about 10-11 cm from snout to vent. The species name *caudiannulatus* probably means "ring-tailed" and refers to the pale bands on the tail. The genus name *Phyllurus* means "leaf tail", but in this species the tail is narrow and cylindrical, not broad and flat as in *Phyllurus platurus*. It lives on trees, has claws on its toes and lacks the adhesive lamellae of other leaf-tailed geckos.

The species was described in 1975 and may be a composite species covering several populations. It is assessed as near threatened, and it is very rarely kept in captivity.

## Distribution and habitat

*Phyllurus caudiannulatus* lives only in a small area of central eastern Queensland, Australia: the Bulburin area in the Dawes Range and Many Peaks Range south-west of Miriam Vale. The type locality is Bulburin, about 24 km south-west of Miriam Vale. The records lie close together between about 24.2 and 24.8 degrees south and 151.4 and 151.8 degrees east.

The narrow range is part of the reason the species is assessed as near threatened.

> **Native range:** Australia.

### HABITAT

*Phyllurus caudiannulatus* is a nocturnal tree dweller. The Bulburin area holds the largest remnant of subtropical rainforest in central Queensland, and this is where the species lives. Forest type, altitude and climate at the species' own localities are not described in detail.

The species lays eggs and eats insects. The clutch size is two eggs.

## Care

### THE ENCLOSURE

Almost nothing is known about the care of *Phyllurus caudiannulatus*, so this guide is based on the close relatives *Phyllurus platurus* and *Saltuarius salebrosus*. The dimensions are borrowed from *P. platurus*: a pair is kept in an enclosure of at least 50 × 50 × 50 cm (length × width × height). Height and climbing opportunities are important.

Furnish the enclosure with vertical pieces of rigid bark and a few branches so the animal can move around. The species sits on bark, and hides on the floor are not necessary. Damp coconut fibre or a thin mix of fine sand and coconut humus can be used as substrate. The enclosure needs good ventilation with openings both at the top and at the bottom. Females about to lay need a deep egg-laying substrate (see breeding).

### TEMPERATURE

By day the temperature should be 20-25 °C and at night 15-19 °C. The figures are a cautious estimate, so keep the enclosure at the cool end. Heat is the greatest risk for leaf-tailed geckos, so place the enclosure in shade and mist on warm days.

A cool rest period is part of the routine (see breeding).

### HUMIDITY AND WATER

Mist the enclosure thoroughly in the evening so that humidity rises towards 100 %, and let it fall to about 55-60 % between mistings. During the rest period, mist every evening so that the animals can drink the droplets. The substrate must not be constantly wet.

Read more: Humidity, misting and ventilation

### LIGHTING AND UVB

The species is nocturnal and hides during the day, and UVB is not necessary. Give the enclosure a fixed daily rhythm with dim daylight and darkness at night. Do not use strong spotlights or coloured night lights, and provide shaded areas throughout the day.

Read more: Lighting and UVB

### FEEDING

The species eats insects, and common feeder insects such as crickets and cockroaches can be used. Feeders should be no larger than the animal's head. Give two to three insects per animal at a time, and dust them regularly with calcium and multivitamin. Remove leftovers the next morning. The tail stores fat and shows the animal's condition.

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

### BEHAVIOUR AND HANDLING

*Phyllurus caudiannulatus* is a secretive, nocturnal species that sits still on bark during the day. It should be handled as little as possible, and never by the tail, which it drops.

Keep it singly or in pairs with only one male per enclosure, as with its close relatives.

## Breeding

### SEXUAL MATURITY AND SEXING

Males have a distinct hemipenis bulge at the base of the tail, which females lack. The age at sexual maturity is not documented for *Phyllurus caudiannulatus*. Do not start breeding the animals until they are at least 18 months old; in close relatives it can take up to 3 years.

### MATING

In close relatives, breeding is triggered by a cool rest period. The animals are not fed for a week, and the daytime temperature is then lowered by 2-3 degrees a day to 10-16 °C. The rest period lasts two to three months, and the enclosure is misted every evening. The temperature is then raised to normal over a week. Take an animal out of the rest period if it loses more than a few grams.

### EGG-LAYING AND CLUTCHES

The female lays two eggs at a time. She probably lays two to four clutches per season at intervals of about a month. She needs an 8-10 cm deep, damp substrate of peat moss or coconut fibre that clumps but is not wet and must never dry out. She digs a nest, lays the eggs and covers them. After laying she is clearly thinner.

### INCUBATION

Remove the eggs from the nest and incubate them in a mixture of perlite and water at a ratio of 1:1 by weight. Incubate at 21-22 °C; above 25 °C the embryos may die. The eggs hatch after about 90-110 days.

The influence of temperature on sex has not been clarified. The young shed their skin almost immediately after hatching.

### REARING THE YOUNG

The hatchlings are kept in a small box, for example 30 × 20 × 20 cm, with kitchen paper as substrate and a piece of cork bark as a hide. Mist every other day, and offer the first food two to ten days after hatching. Give small insects, no larger than the animal's head, dusted with calcium and multivitamin. The young eat little in the first weeks and then thrive. Hatched siblings can usually be kept together, but separate them if one grows larger or becomes dominant.

## Health and common mistakes

There is no documented overview of diseases for *Phyllurus caudiannulatus*, so the list is based on the close relatives. The main risks are:

- Excessive temperatures, especially on hot summer days. Keep the enclosure cool and shaded.
- Air that is too dry, which causes problems with shedding, where bits of skin stick to the toes and tail tip.
- A constantly wet substrate and stagnant air, which cause mould and skin problems.
- Calcium deficiency, if the food is not dusted.
- Weight loss during the resting period. Take the animal out of the period and build it up again.

The tail shows the animal's condition. See a vet with reptile experience if the animal loses weight, does not eat or looks 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.