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GECKOS

Southern leaf-tailed gecko

Phyllurus platurus

Phyllurus platurus is a brown, marbled, nocturnal leaf-tailed gecko from the sandstone cliffs around Sydney. The broad, leaf-shaped tail and the camouflage make it vanish against rock and bark. It reaches only about 15 cm, is calm to keep and needs a cold winter rest in order to breed.

Family: Carphodactylidae

KEY FACTS

THE ANIMAL

Adult size	**15 cm** total length incl. tail
Lifespan	**5-10 years**
Active	**At night**
Lifestyle	**Arboreal and rock-dwelling**
Habitat	**Rocky terrain and temperate woodland and meadow**
Difficulty	**Intermediate**

CARE

Min. enclosure	**50 × 50 × 50 cm** L × W × H for 2 adults
Temperature, day	**22-26 °C**
Temperature, night	**19-21 °C**
Humidity	**55-100%**
UVB	**Optional**
Winter rest	**10-16 °C** 9-13 weeks
Diet	**Insects**
Kept	**In pairs or in groups**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**18 months**
Clutch size	**1-2 eggs**
Clutches per year	**2-4**
Incubation	**56-110 days** at 21-22 °C

PROTECTION AND PAPERWORK

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

About the species

Phyllurus platurus is a small, heavily camouflaged gecko with rough skin and a brown or grey marbled pattern that resembles the sandstone it lives on. The body is covered with low, rounded tubercles. The most characteristic feature is the tail: it is broad, flattened and leaf-shaped and serves both as a fat store and as a decoy: a predator that grabs it is left holding only the tail. The original tail has large, faintly spiny tubercles, while a regrown tail is smoother and more compactly marbled.

It grows to about 15 cm including the tail, and the body alone (snout to vent) measures at most about 10 cm. The tail can be dropped if the animal is grabbed, and it grows back. Because the tail also holds the animal's fat reserves, it is a good place to judge whether the animal is in good condition.

The species was described in 1790 by George Shaw and has since borne many other scientific names. The genus name is formed from the Greek words for leaf and tail, and the species name from the words for broad and tail, both referring to the shape of the tail. The species can be confused with *Phyllurus caudiannulatus* from Queensland, which however has an ordinary, round tail, and the two live far apart. Animals without a tail are difficult to tell apart.

P. platurus is regarded as an easy species to keep when it gets its cold winter rest. It is quiet and steadfast, hunts by lying in ambush and is more an animal to watch than to handle. Lifespan is not documented; the 5-10 years in the fact box is an estimate.

Distribution and habitat

The species is found only in eastern Australia, in the state of New South Wales. The bulk of the population lives in the Sydney Basin and the surrounding sandstone areas, and the range extends north towards Newcastle and south to Illawarra.

It is common in and around Sydney, where it is also found in urban areas. The type locality is given simply as New South Wales, and the core of the range is the Hawkesbury sandstone around Sydney.

> **Native range:** Australia.

HABITAT

Phyllurus platurus lives first and foremost on rock faces, boulders and in narrow crevices, but is also seen on trees, even where there are no rocks nearby. It makes use of many kinds of habitat, from humid gorges with temperate rainforest to dry ridges with sclerophyll forest and coastal heath on sandstone. It has adapted to humans and is found in garages, on fences, in retaining walls and in houses.

It is nocturnal and hunts from a retreat, where it lies still and waits for prey. By day it sits in crevices or under stones, and several animals may share the same crevice, while at night they are most often seen alone. The food is large, nocturnal invertebrates such as spiders, moths, beetles and cockroaches. Winter is cool, and the nights can come close to freezing point. For this reason the species needs a cold period in order to breed.

Care

THE ENCLOSURE

A pair of adults can be kept in an enclosure of about 50 × 50 × 50 cm (length × width × height), and bigger is better. The species sits on rock and bark, so the enclosure should be furnished accordingly: flat pieces of cork bark, stones and branches that the animal can sit under and climb on. Provide many hides, so that the animals can withdraw by day, and make sure that some of them are vertical or sloping.

They are often found several together in a crevice by day, so a pair or a small group does well, as long as there is only one male per enclosure. If the animals are kept in pairs, it is easier to follow lineage and the individual matings. Juveniles can be kept in a small box of about 30 × 20 × 20 cm with kitchen roll as substrate and a single piece of cork bark lying at an angle to provide cover. A laying substrate must be deep enough, see the section on breeding.

The substrate can be damp coconut fibre or peat moss. Keep it clean, and change the kitchen roll when it is soiled.

TEMPERATURE

Phyllurus platurus thrives at ordinary room temperature. By day the temperature should be 22-26 °C, and at night it may fall to about 19-21 °C. There is no documented need for a warm hotspot.

Winter is important for breeding. After a week of fasting the temperature is lowered gradually, 2-3 degrees a day, to 10-16 °C, and the animals are kept cool for two to three months. Colder is better, and a single night right down towards 9 °C is not a problem. The animals are still active at about 10 °C and can even mate at 12 °C. After the period the temperature is raised over a week to normal. The animals must never be cooled with food in their stomachs, because the food may then rot and be fatal. If an animal in winter rest is clearly thinner, it is taken out of the cold.

Read more: Heat and temperature

HUMIDITY AND WATER

Mist the enclosure every evening with lukewarm water. Right after misting the humidity is close to 100 %, but between mistings it should fall to about 55-60 %, so that the enclosure can dry out. The animals drink droplets from the surfaces.

Misting continues every evening during the winter period as well, so that the animals have water to drink and the humidity does not fall too low. There is no documented need for a water bowl.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

There are no documented UVB requirements for the species. It is nocturnal and hides in crevices by day, so it receives only little light in the wild. Provide a fixed daily rhythm with light by day and dark at night, and let the enclosure have both bright and shaded areas. Do not use strong spotlights.

Read more: Lighting and UVB

FEEDING

Phyllurus platurus takes live insects. The hunting strategy is ambush, so the prey must move. Crickets can be used as a staple diet; in the wild it is spiders, moths, beetles and cockroaches. A particular feeding frequency or supplement has not been documented, so follow the animal's weight and the fullness of the tail, and adjust the amount.

Juveniles first eat two to three days after hatching and eat only a little in the first weeks, but offer food anyway. After a few weeks they begin to eat heavily. The insects should be at most as large as the animal's head. Remove leftovers the next morning.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

The species is quiet and steadfast and often sits motionless and well camouflaged. It is not an animal to be handled much. Never grab the tail, because it is dropped, and the new tail becomes smoother and less characteristic.

In the wild the animals are usually seen alone at night, but several may share a crevice by day. A pair or a small group can be kept together if there is only one male per enclosure. Watch for unrest in the group.

Breeding

SEXUAL MATURITY AND SEXING

Males have a distinct hemipenal bulge at the vent, which females lack. The animals should be at least 18 months old and weigh at least 18 g before they are bred. It takes time to reach maturity, so be patient.

MATING

The key to breeding is a cold winter rest of two to three months, see the section on temperature. After the rest, when the animals are eating normally and look healthy, the male and female can be put together, if they have not already been cooled together. Mating is seldom seen, so do not worry if you see nothing.

One to two months later the eggs can be seen clearly through the female's semi-transparent belly as two large white ovals.

EGG-LAYING AND CLUTCHES

Two to three months after the animals are put together, the female lays one or two eggs per clutch, usually two. The female lays two to four clutches a year at intervals of about a month.

She needs an 8-10 cm deep, damp substrate of peat moss or coconut fibre that is damp enough to clump but not wet. She digs a bowl-shaped nest that resembles a bird's nest, lays the eggs in the middle, fills it in again and often stays sitting on top of the nest. The eggs are laid during the day. She is often seen on the ground instead of in her hide. After laying she is clearly thinner.

INCUBATION

The eggs are removed as soon as they are laid and placed in a mixture of perlite and water at a ratio of 1:1 by weight. Incubate at 21-22 °C. Temperatures above 25 °C can kill the embryos. It is unclear whether temperature determines sex, and clutch mates are often a male and a female.

The eggs hatch after 8-16 weeks, most often after 90-110 days, depending on the temperature.

REARING THE YOUNG

The hatchlings shed their skin almost immediately after hatching, and this usually goes without problems. Rear them like the adults, but with smaller insects that are at most as large as the head. Give the first food two to three days after hatching. Leftovers are removed the next morning.

The hatchlings can be kept together as clutchmates, but separate them if one becomes larger than the other or dominates. Change the kitchen roll when it is soiled.

Health and common mistakes

There is only little documented information on diseases in the species. Watch for these things:

- Weight loss. The tail stores fat and is the best indicator of the animal's condition. An animal that loses weight during the winter rest must be taken out of the cold and fed up.
- Undigested food when the animals are cooled down. It can rot in the gut and be fatal, so let the animals fast for a week before the temperature is lowered.
- Dropped tail. It grows back, but takes on a different and smoother shape.
- Sick animals must not be put into winter rest.

See a vet experienced with reptiles if an animal loses weight, stops eating or seems listless.

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.