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GECKOS

Ocellated velvet gecko

Oedura monilis

Oedura monilis is a slender, nocturnal climber from eastern Australia with a pattern of dark eye-spots and broad toes that resemble little suckers. It lives in trees and on rocks, readily takes feeder insects and is a calm, robust gecko for anyone who wants to try the genus *Oedura*.

Family: Diplodactylidae Former name: *Oedura ocellata; Oedura attenboroughi*

KEY FACTS

THE ANIMAL

Adult size	**8-10 cm** snout-vent length
Lifespan	**10-15 years**
Active	**At night**
Lifestyle	**Arboreal and rock-dwelling**
Habitat	**Savanna, rainforest and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**50 × 30 × 40 cm** L × W × H for 3 adults
Temperature, day	**24-27 °C**
Basking spot	**29-33 °C**
Temperature, night	**18-22 °C**
Humidity	**40-60%**
UVB	**Optional** Ferguson zone 1
Diet	**Insects**
Kept	**Singly, in pairs or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-2 eggs**
Clutches per year	**3-5**
Incubation	**55-70 days** at 27-29 °C

PROTECTION AND PAPERWORK

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

About the species

Oedura monilis is a slightly flat, slender gecko with a large head, large eyes without eyelids and skin that feels soft as velvet. The genus name *Oedura* means "swollen tail" and refers to the thick tails of the genus, but in this species the tail is only medium-length and roughly round in cross-section. The back has a pattern of eye-spots, and the species name *monilis* probably comes from the Latin *monile*, necklace or string of beads, as an allusion to the markings. The toes are broad, with fine lamellae, so the gecko can climb vertical surfaces, including glass.

Adults reach 8-10 cm from snout to vent; the average is about 8 cm. The original tail is 55-83 % of the body length, so an adult with an intact tail measures about 12-18 cm in total. Lifespan is not known; 10-15 years is a cautious estimate, and the closely related *Oedura tryoni* can still lay eggs at the age of 22. The species is very variable in colour and markings, and some populations live mostly on trees, others almost exclusively on rocks.

The species was described by C. W. De Vis in 1888. It has in part been listed under *Oedura ocellata* and later under *Oedura attenboroughi*, but those names are no longer used. In 2019 a new review of the group described three new *Oedura* species from the interior of eastern Australia, some populations of which had previously been counted as *O. monilis*. Older care

information under the name may therefore cover several closely related species, and animals in the trade are not always identified according to the new boundaries.

Oedura species are calm animals that rarely bite, but they are quick and can leap from the hand. It is best to pick them up only when necessary. As in other geckos, the tail can be dropped, and it does not grow back in the same form.

Distribution and habitat

Oedura monilis occurs only in Australia, in eastern Queensland and north-eastern New South Wales. The type locality is given simply as Queensland, and the type specimen of the old name *Oedura attenboroughi* comes from the area west of Emerald in central Queensland. By far the most records lie in Queensland.

The distribution is not sharply delimited. After the 2019 review of the group some records from the interior have been assigned to new, closely related species, and a few records further south and west are probably due to misidentification. The frame of the map is therefore a rough estimate.

> **Native range:** Australia.

HABITAT

Oedura monilis lives in many kinds of habitat, from open woodland and rainforest margins to dry, dense rainforest scrub with lianas. It is half arboreal and half rock-dwelling. In some populations it sits mostly on trees, in others almost exclusively on rock faces, and in some it uses both. By day it hides behind loose bark, in crevices and under stones and fallen timber.

After dark it comes out and hunts insects on trunks, rocks and dead branches. The climate in the area is hot in summer and cooler in winter, and good breeding results go with a cool, dry winter rest.

Care

THE ENCLOSURE

A single *Oedura monilis*, a pair or one male with two females can be kept in an enclosure of at least 50 × 30 × 40 cm (length × width × height). More space is a good choice.

The gecko is a climber, so give the enclosure height and many vertical and slanting surfaces: cork sheets set at an angle of 45-80 degrees, pieces of tree branch and rock-like slabs. Tree-fern trunks suit the species well, and the substrate can be a mixture of 70 % peat-based compost and 30 % sand or of roughly 60 % play sand and 40 % sieved peat moss. A layer of 3-5 cm gives a substrate that holds a little moisture.

All *Oedura* species are skilled climbers, including up glass, so the lid must fit tightly. At the same time, ensure good ventilation. Provide several hides, so that each gecko can retreat. Do not keep two males together.

TEMPERATURE

Give the species an ambient daytime temperature of about 24-27 °C and a warm spot of 29-33 °C, for example under a small incandescent bulb heating a cork board. The heat from a bulb varies greatly from brand to brand, so always measure with a digital thermometer. In Australia extra heat can be dispensed with if the room is warm enough.

At night the temperature should fall to 18-22 °C.

If you want to breed them, a cool winter rest is the most important thing. Lower the temperature to about 16-18 °C with no warm spot for four weeks, mist only once or twice a week, and do not feed. Then raise the temperature again. Without breeding, a rest is not necessary. Lack of winter cooling is the most common reason for poor breeding results.

HUMIDITY AND WATER

Oedura monilis thrives at medium humidity. Aim for 40-60 %. Mist the enclosure 3-4 times a week. A water bowl can be used, but can also be left out if you mist so that the animals can drink droplets from walls and decorations.

Let the enclosure dry between mistings, so that the substrate does not become constantly wet. A humid hide with moss helps during shedding. After the winter rest, mist daily for the first three weeks, which the animals seem to appreciate.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

Oedura monilis is nocturnal and has no known need for UVB, and UVB makes no visible difference. If you give it anyway, it should be a weak light with plenty of shade (Ferguson zone 1), and the animals must be able to retreat completely.

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

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

FEEDING

Oedura monilis feeds on insects and takes almost all feeder insects of a suitable size: crickets, locusts, cockroaches, small mealworms and black soldier fly larvae. Prey must not be longer than the gecko's head is wide. Give 3-4 crickets per gecko at a time.

Adults are fed two to three times a week and juveniles three to four times, and in the cool season feeding is cut back to every seven to ten days. The rule is borrowed from the closely related *Oedura gemmata*.

Dust the insects with calcium, regularly with calcium with D3, and occasionally with a multivitamin powder. Breeding females and juveniles need extra calcium. Remove uneaten insects so that they do not disturb the gecko while it sleeps.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Oedura monilis is a calm and secretive animal that is mostly active after dark, but it can occasionally be seen out in the daytime. If it feels threatened, it arches its back and waves its tail. In several species of the genus it is also seen that they wag the tail before snapping at prey.

The species is kept singly, as pairs or in small groups of one male and two females. Males must be kept apart, as they fall out. As with *Oedura tryoni*, the young can live together for the first six to eight months, but divide them as soon as the males show signs of sexual maturity. Give all animals several hides. Pick the gecko up only when you must, and let it run from hand to hand rather than grabbing it.

Breeding

SEXUAL MATURITY AND SEXING

Males of *Oedura monilis* are recognised by two small bulges on the underside of the tail base, the hemipenal bulges. The species also has one cloacal spur on each side of the vent. In the close relative *Oedura tryoni* the bulges become visible after six to eight months. Age and weight at the start of breeding are not known.

The female is usually slightly smaller and slimmer. Breeding animals should be sturdy, adult and in good condition. Pay particular attention to calcium for the females.

MATING

In *Oedura monilis* the breeding season follows the Australian summer months from about October to February. This is the period in which the females lay eggs, and the closely related species follow the same pattern. Start with a cooler and drier winter with shorter days. When temperature, light and misting rise again in spring, the animals begin to mate.

Keep one male with one or two females. Some years the females lay many eggs with good fertility and other years almost none, and insufficient winter cooling is probably the explanation.

EGG-LAYING AND CLUTCHES

The female of *Oedura monilis* lays two eggs at a time. Expect 3-5 clutches per season at intervals of 28-35 days; the figures are borrowed from the closely related *Oedura tryoni* and *Oedura gemmata*.

Place a small plastic box with an entrance in the lid and 3-5 cm of moist sphagnum, coconut fibre or sand in the enclosure. As long as the material does not dry out completely, it does not matter if the eggs are only found after a couple of days. Give the female calcium and plenty of insects throughout the season.

INCUBATION

Move the eggs of *Oedura monilis* carefully to a small box of vermiculite mixed with water 1:1 by weight, and do not turn them. Use an incubator that holds 27-29 °C. At 27-29 °C the eggs hatch after 55-70 days.

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

Read more: Incubating eggs

REARING THE YOUNG

In the close relatives the young shed within the first 48 hours and begin to take small crickets after a couple of days to a week. Keep the young of *Oedura monilis* on kitchen roll, so that you can see food and droppings, and give them a humid hide. Mist lightly, but let the enclosure dry between mistings.

Feed them every day or every other day with tiny insects dusted with calcium, and let them eat their fill. A few young can live together for the first months, but separate them when the sexes show. If a youngster has difficulty shedding, a day in a small box with a damp cloth helps.

Health and common mistakes

Oedura monilis is robust, and the typical faults are the same as in other insectivorous geckos:

- Lack of calcium and D3, especially in the young 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.
- Obesity if fed too often on fatty insects such as mealworms and superworms.
- Mould and bacteria in a constantly wet substrate. Ensure ventilation and let the substrate dry between mistings.
- Poor breeding results without a sufficiently cool winter rest.

The gecko should have clear eyes, a plump tail and a good grip. See a vet experienced with reptiles 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.