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GECKOS

Marbled Velvet Gecko

Oedura marmorata

Oedura marmorata is the type species of the genus: a nocturnal gecko from the Top End of northern Australia with marbled markings and a short, swollen tail, living on rocks and trees. Since 2016 the name has applied only to the animals from the Top End, so older husbandry information under the name may concern other species.

Family: Diplodactylidae English name: Marbled velvet gecko Former name: *Oedura verrillii; Oedura fracticolor*

KEY FACTS

THE ANIMAL

Adult size	**9-11 cm** snout-vent length
Lifespan	**10-15 years**
Active	**At night**
Lifestyle	**Arboreal and rock-dwelling**
Habitat	**Savanna and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**45 × 45 × 45 cm** L × W × H for 2 adults
Temperature, day	**24-27 °C**
Basking spot	**29-33 °C**
Temperature, night	**18-22 °C**
Humidity	**40-60%**
UVB	**Optional** Ferguson zone 1
Winter rest	**16-18 °C** 4 weeks
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 marmorata is a medium-sized, somewhat flattened gecko with a large head, large eyes and soft, velvety skin. The species name *marmorata* means "marbled" and refers to the irregular pattern of light and dark patches on the back. The genus name *Oedura* means "swollen tail", and the animals from the Top End in particular have a short, thick, onion-shaped tail when it is intact. The toes have a pair of large, flat lamellae at the tip that give a good grip on rock and bark.

The species reaches about 11 cm from snout to vent. The measurements date from before the species was split and may also cover the closely related species. Lifespan is not documented for the species; 10-15 years and most of the husbandry figures are borrowed from the other species of the genus, especially *Oedura monilis*.

O. marmorata was described by John Edward Gray in 1842 and is the type species of the genus *Oedura*. In 2016 the marbled *Oedura* from Australia's arid and semi-arid regions, which had previously been regarded as the same species, were revised. The four populations there proved to be other species: *Oedura cincta* in the central and eastern interior, *Oedura fimbria* in the

Pilbara and Gascoyne, and *Oedura bella* around the Gulf of Carpentaria. Only the animals from the Top End of the Northern Territory are *O. marmorata*, and they all have the short, swollen tail, whereas the other species have a long, tapering tail. Husbandry information from before 2016 therefore often concerns the other species, and animals in the trade are not always identified according to the new boundaries.

As in its relatives, the tail can be dropped and does not grow back in the same form. The species is calm but fast, and it can jump from the hand.

Distribution and habitat

Oedura marmorata is found only in Australia, in the Top End of the Northern Territory, the tropical northern corner of the country. The type locality is Port Essington on the Cobourg Peninsula.

The older records from Western Australia, central Australia, Queensland and New South Wales now belong to *Oedura cincta*, *Oedura fimbria* and *Oedura bella*. The distribution in the Top End is not sharply delimited, so the frame of the map is an estimate.

> **Native range:** Australia.

HABITAT

Oedura marmorata lives in the Top End, where the climate is tropical with a hot, wet summer and a dry, slightly cooler winter. It lives on rocky outcrops, in crevices and on stony slopes in savanna and open woodland and also climbs on trees. By day it hides in crevices, under loose stones and under bark.

After dark it comes out and hunts insects. The dry winter is probably important for breeding.

Care

THE ENCLOSURE

A pair of *Oedura marmorata* needs an enclosure of at least 45 × 45 × 45 cm (length × width × height). A single gecko can be kept slightly smaller, but the species is larger than many of its relatives, so a bigger enclosure is an advantage.

Furnish the enclosure with flat slabs of slate and cork standing at an angle or vertically, so that the gecko can sit in narrow crevices and press its back and belly against the surface. Provide several hides at both ends. A mix of about 60 % play sand and 40 % sifted peat moss in a layer of 3-5 cm suits as substrate. A background of artificial rock gives calm.

The species of the genus also climb up glass, so the lid must fit tightly. Ensure good ventilation.

TEMPERATURE

The daytime temperature is 24-27 °C, with a warm spot of 29-33 °C, for example under a small lamp over a cork board or flat stone. The heat from a bulb varies a great deal, so always measure with a digital thermometer.

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

If you want to breed them, a cool winter rest is the most important thing. Lower the temperature to 16-18 °C with no warm spot for four weeks, mist only 1-2 times a week, and do not feed. Then raise the temperature again. Too little winter cooling is the most common reason for poor breeding results in the genus. Without breeding, the winter rest is not necessary.

HUMIDITY AND WATER

Humidity is 40-60 %. Mist the enclosure 3-4 times a week so that the animals can drink droplets from the slabs, and preferably keep a small water bowl. 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 pause, mist every day for the first three weeks.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

Oedura marmorata is nocturnal and has no documented need for UVB. If you provide UVB, it should be a weak light (Ferguson zone 1) with plenty of shade, so that the animals 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 if you want to give the animals a winter pause. Avoid direct sun, which quickly overheats an enclosure.

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

FEEDING

Oedura marmorata feeds on insects and takes most 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 adults 3-4 insects per animal 3-4 times a week, and juveniles a little every day or every other day. No food is given during the winter rest. 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 marmorata is a calm and secretive animal, mostly active after dark, but it can occasionally be seen out by day. If it feels threatened, it arches its back and waves its tail. Several species of the genus also wag their tails before snapping at prey.

The species can be kept singly, as a pair or in small groups with one male and two females. Do not keep two males together. Give all animals several hides. Pick the gecko up only when necessary, and let it run from hand to hand rather than grabbing it.

Breeding

SEXUAL MATURITY AND SEXING

Males of *Oedura marmorata* are recognised by two small bulges on the underside of the tail base, the hemipenal bulges, and by distinct pores in front of the cloaca. The female is usually slightly smaller and slimmer. Age at sexual maturity is not documented for the species; in the genus the animals are typically sexually mature after 1-3 years. Breeding animals must be sturdy, adult and in good feeding condition. Pay particular attention to calcium for the females.

MATING

The breeding season follows the Australian summer, from about October to February. Start with a cool, dry winter rest 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. Without sufficient winter cooling, the females often lay few eggs or none.

EGG-LAYING AND CLUTCHES

The female lays 1-2 eggs at a time, usually 2. Expect 3-5 clutches per season. Place a small plastic box or flowerpot with an entrance and 3-5 cm of moist material, for example half sand and half coconut fibre, 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 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. 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

The young shed shortly after hatching and then begin to take small crickets. Keep the young on kitchen paper 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. Separate the young when the sexes show. If a young one has difficulty shedding, a day in a small box with a damp cloth helps.

Health and common mistakes

Oedura marmorata is robust, and the typical errors are the same as in other insectivorous geckos:

- Lack of calcium and D3, especially in young and breeding females. This causes soft jaws, bent limbs and tremors. Dust the insects regularly.
- Retained shed on the 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 with 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 pause.

The gecko should have clear eyes, a plump tail and a good grip. Contact 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.