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GECKOS

Reticulated velvet gecko

Hesperoedura reticulata

Hesperoedura reticulata is a small, nocturnal, tree-dwelling gecko from the interior of south-western Western Australia, where it lives under loose bark on eucalypts in open woodland and scrub. It is almost unknown in captivity, so its care is based on the climate of its range and on relatives in the same family.

Family: Diplodactylidae Former name: *Oedura reticulata; Amalosia reticulata*

KEY FACTS

THE ANIMAL

Adult size	**12-15 cm** total length incl. tail
Lifespan	**8-12 years**
Active	**At night**
Lifestyle	**Arboreal**
Habitat	**Semi-desert and temperate woodland and meadow**
Difficulty	**Experienced**

CARE

Min. enclosure	**45 × 30 × 45 cm** L × W × H for 1 adult
Temperature, day	**22-28 °C**
Basking spot	**28-32 °C**
Temperature, night	**15-18 °C**
Humidity	**30-50%**
UVB	**Optional** Ferguson zone 1
Winter rest	**10-15 °C** 6-10 weeks
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-2 eggs**
Incubation	**60-80 days** at 25-28 °C

PROTECTION AND PAPERWORK

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

About the species

Hesperoedura reticulata is a small gecko with a distinct net-like pattern of light and dark markings on the back and tail. It belongs to the family Diplodactylidae and was described in 1969 as *Oedura reticulata*. It was briefly placed in *Amalosia*, but otherwise stood in *Oedura* until a genetic study in 2012 moved it to a genus of its own, *Hesperoedura*, of which it is the type species. The genus contains only this one species. The species name refers to the net-like pattern, and the genus name means "western thick tail", because the genus is found only in the south-western corner of Australia.

The species is small and slender, about 12-15 cm including the tail. This figure is an estimate based on related Australian geckos of the same size; precise measurements are not documented. The eyes are large with vertical pupils, and the toes have lamellae that give a good grip on bark and rock. The tail can be shed when threatened, as in most geckos.

The species is rare in captivity, and very little has been written about its care. Australia does not allow the export of wild reptiles, so animals outside the country are captive-bred, and there are few of them.

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

Distribution and habitat

Hesperoedura reticulata is found only in the south-western part of Western Australia, in the inland Wheatbelt and eastwards into the Goldfields region. The type locality lies in the southern Wheatbelt, at about 33 degrees south. The known records lie between about 29.5 and 33.5 degrees south and 116 and 123 degrees east, that is, in a belt east of Perth.

The species reaches neither the west coast nor the south coast, and it does not occur outside Western Australia.

> **Native range:** Australia.

HABITAT

Hesperoedura reticulata lives in open eucalypt woodland and scrub, including the remnants of woodland left standing between the fields of the Wheatbelt, where it hides by day under loose bark and in crevices on trunks and branches. At night it comes out and hunts in the trees. Its way of life is similar to that of relatives such as *Amalosia rhombifer*.

The climate of the Wheatbelt is Mediterranean and semi-arid, with hot, dry summers and cool, rainy winters. Summer days are often above 30 °C, while summer nights are far cooler. In winter, days are around 15-20 °C, and nights can approach freezing. Rainfall is a few hundred millimetres a year and falls mainly in winter.

Care

THE ENCLOSURE

Very little is known about the care of *Hesperoedura reticulata*. The recommendations are based on the climate of its range and on arboreal Australian geckos in the same family, such as *Amalosia rhombifer*, *Oedura marmorata* and *Strophurus ciliaris*. The figures are borrowed from them.

A single adult needs an enclosure of at least 45 × 30 × 45 cm (length × width × height). Make use of the height, because the species is arboreal. Furnish with cork bark standing at an angle or upright, so the gecko can hide in narrow crevices, along with dry branches and a few flat stones. A dry mix of sand and soil without fertiliser, topped with a layer of dry leaves, suits as substrate. Ventilation must be good, and the enclosure must never be left stagnant and damp.

TEMPERATURE

By day the enclosure should be 22-28 °C, and a small warm spot under a lamp or on a rock may reach 28-32 °C. At night the temperature should fall to 15-18 °C, as in the inland climate, where nights are markedly cooler than days.

In winter the species can be given a cool rest period of 6-10 weeks at 10-15 °C with no warm spot, corresponding to the cool winters of its range. The figures are borrowed from related species and from the climate. Always measure with a digital thermometer, and avoid sustained heat above 32 °C.

HUMIDITY AND WATER

The air should be fairly dry, about 30-50 %. Mist bark and leaves lightly in the evening 1-2 times a week so the gecko can drink from the droplets, and let the furnishings dry out again during the day. The substrate should be dry. Also provide a shallow dish of fresh water, changed regularly.

Persistent damp and stagnant air cause mould and skin problems and do not suit an animal from a semi-arid climate.

LIGHTING AND UVB

Hesperoedura reticulata is nocturnal and lives hidden by day, so it has no great need for UVB. A weak UVB light for shade-dwelling species (Ferguson zone 1) over part of the enclosure is optional and may be beneficial, as long as there is plenty of shade and cover. Day length follows the seasons: about 12-13 hours in summer and 10 hours in winter, controlled by a timer. The night must be dark.

Read more: Lighting and UVB

FEEDING

Hesperoedura reticulata feeds on insects and other small arthropods. In captivity, crickets, small locusts, cockroaches and moths work well. Prey must not be wider than the distance between the animal's eyes.

Give adults 2-3 insects 2-3 times a week, and juveniles a little every other day. Dust the food with calcium, regularly with calcium with D3, and occasionally with a multivitamin powder. Insects that are not eaten are removed the next morning. The exact feeding rhythm is not documented for the species and is borrowed from relatives.

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

BEHAVIOUR AND HANDLING

Hesperoedura reticulata is shy and quick, and is best kept as an animal to watch, not one to handle. It is nocturnal and only shows itself once the light is off. Keep each gecko on its own, or a pair in a larger enclosure, and only if there is plenty of cover. Two males must not be kept together. Handling should be rare and brief, because the tail can be shed and does not regrow in the same way.

Breeding

SEXUAL MATURITY AND SEXING

Sexual differences and age at sexual maturity are not documented for *Hesperoedura reticulata*. In related geckos the males have a bulge at the tail base and pores in front of the vent, and the same can be expected here, but this is not confirmed. Only breed animals that are fully grown and in good condition.

MATING

The mating season is not documented. The climate of the Wheatbelt has cool winters and warm summers, and in relatives from the cooler regions a cool winter rest of a few weeks gives better breeding results. After the rest, temperature and feeding are raised again, and the pair is put together in the female's enclosure. Watch for biting, and separate the animals if the female becomes stressed.

EGG-LAYING AND CLUTCHES

Clutch size is not documented for the species. Relatives in the family usually lay 1-2 leathery-shelled eggs per clutch, and the same is assumed here. The number of clutches per season is not documented. Place a small plastic box with an entrance and 3-4 cm of slightly moist sand and coir in the enclosure as a laying site. Give the female plenty of calcium and insects throughout the season.

INCUBATION

Incubation time is not documented for the species. In closely related geckos the eggs hatch after about 60-80 days at 25-28 °C, and those figures are borrowed here. Place the eggs half-buried in slightly moist vermiculite or perlite in a closed box with small air holes, without turning them, and keep the temperature steady.

Read more: Incubating eggs

REARING THE YOUNG

Rearing of young is not documented for *Hesperoedura reticulata*. In relatives the hatchlings are a few centimetres long and live on the yolk at first, then take small insects such as fruit flies and small crickets dusted with calcium. Keep the young singly in small boxes with dry hides, and mist lightly every other day.

Health and common mistakes

There is no specific knowledge about diseases in *Hesperoedura reticulata*. The typical problems in dry-country geckos are:

- Excessive humidity and stagnant air, which cause fungal and skin problems.
- Too little calcium and vitamin D3, which cause soft bones and tremors, especially in juveniles and breeding females.
- Stuck shed on toes and the tail tip. Provide a slightly moist hide during shedding.
- A shed tail after handling or fighting.
- Sustained heat above 32 °C, which stresses an animal from a region with cooler nights.

See a reptile-experienced vet if the gecko loses weight, does not eat for several weeks or seems lethargic.

Read more: Humidity, misting and ventilation

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.

The full guide with map and updates: herpy.org/en/geckos/hesperoedura-reticulata