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GECKOS

Zigzag Velvet Gecko

Amalosia rhombifer

Amalosia rhombifer is a small, nocturnal gecko from northern Australia with a pale, jagged zigzag pattern along the back. It lives in trees in open forest and savanna and hides under loose bark during the day. Little is known about its care, so the guide is based on the habitat and on related species.

Family: Diplodactylidae English name: Zigzag velvet gecko Former name: *Oedura rhombifer*

KEY FACTS

THE ANIMAL

Adult size	**12-16 cm** total length incl. tail
Lifespan	**8-12 years**
Active	**At night**
Lifestyle	**Arboreal**
Habitat	**Savanna**
Difficulty	**Intermediate**

CARE

Min. enclosure	**45 × 30 × 45 cm** L × W × H for 1 adult
Temperature, day	**24-28 °C**
Basking spot	**30-33 °C**
Temperature, night	**18-22 °C**
Humidity	**40-60%**
UVB	**Optional** Ferguson zone 1
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**2 eggs**
Clutches per year	**3-5**
Incubation	**60-65 days** at 27-29 °C

PROTECTION AND PAPERWORK

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

About the species

Amalosia rhombifer is a small, slender gecko of up to about 16 cm including the tail. The back is light brown, the sides are darker brown, and the underside is white or almost white. The boundary between the two browns forms a jagged zigzag edge along the body and tail, and it has given the species its name: *rhombifer* is probably formed from the Latin *rhombus* (rhombus) and *-fer* (bearing). The legs are brown, plain or speckled. Fingers and toes have adhesive pads, so the gecko can climb trunks and rocks.

The species was described in 1845 and has been called *Oedura rhombifer*. The genus *Amalosia* has been in use since 2012. The taxonomy is in flux: a revision from 2023 showed that the eastern populations in Queensland and New South Wales are other species, including *Amalosia queenslandia*, *Amalosia saxicola* and *Amalosia hinesi*, and as early as 2007 the south-eastern form from Queensland was described as *Amalosia jacovae*. The name *A. rhombifer* therefore now covers only the populations in northern Australia west of Queensland and in the far north-west of Queensland. Animals in the trade may have been sold under a name that does not fit exactly.

The species is shy and mostly an animal to look at. It is fast, can drop its tail and is not suited to regular handling.

Distribution and habitat

Amalosia rhombifer lives in northern Australia: northern Western Australia, including the Kimberley, the Northern Territory and the far north-west of Queensland around Mount Isa, Cloncurry, Boulia and Doomadgee. The type locality is given only as "northern Australia" and lies outside Queensland.

The populations in eastern Queensland and in New South Wales have belonged to other species since 2023. The populations in the Northern Territory and Western Australia have not yet been revised, so the delimitation may change. The records on the map also include eastern populations, which today belong to other species.

> **Native range:** Australia.

HABITAT

Amalosia rhombifer lives in forest and open woodland. During the day it hides under loose bark on dead and decaying trees and in hollows in trunks, and it is also found in and near buildings. It is mostly in the trees but occasionally seeks shelter under leaves and fallen branches on the ground and can also be seen on rocks.

Most of the range has a tropical climate with a warm rainy season in summer and a long dry season in winter; to the south it becomes drier. Temperature and humidity at the gecko's own hiding places have not been measured.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

Little is known about the care of *Amalosia rhombifer*. The figures in the guide are borrowed from *Oedura* species such as *Oedura monilis*, *Oedura castelnaui* and *Oedura tryoni*, which are of the same size and way of life and are commonly kept. *Amalosia robusta* is a close relative.

A single adult needs an enclosure of at least 45 × 30 × 45 cm (length × width × height). A pair can be kept in 60 × 30 × 45 cm. The enclosure must have a tightly fitting lid, because the gecko climbs on glass and finds every gap.

Furnish with cork bark, flat cork tubes and slanted branches, so the gecko can squeeze in under something with light contact with back and belly. A back wall of cork with crevices provides good hiding places. A mix of unfertilised soil and sand, covered with dry leaves, is suitable as a substrate. The enclosure should have good ventilation and a dry end.

TEMPERATURE

By day the terrarium is kept at 24-28 °C, and under a heat source at one end it can be 30-33 °C, so the animal can choose for itself. At night the temperature may fall to 18-22 °C.

A small heat mat under one corner or a low heat bulb controlled by a thermostat is usually enough. In the cool period in winter the hotspot can be lowered to about 30 °C. Measure with a digital thermometer both at the hotspot and in the cool end.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be moderate: 40-60 %. Mist one half of the enclosure lightly every second to third day, so bark and substrate dry out again within a day. In summer, in the rainy season, a little more misting can be done. Constantly wet conditions cause mould and skin problems.

Place a shallow water bowl with fresh water in the cool end, and change the water every second day. The gecko also drinks droplets from the walls and leaves. In the cool period in winter the enclosure is kept drier.

LIGHTING AND UVB

The species is nocturnal and does not require UVB, but a weak UVB tube for shade-dwelling animals (Ferguson zone 1) over one side of the enclosure gives a more reliable calcium metabolism and does no harm when there is plenty of shade. Let the day length follow the seasons, for example 12 hours in summer and 10 hours in winter, controlled by a timer. Do not use coloured night light.

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

FEEDING

The gecko eats insects and other small arthropods: crickets, grasshoppers, small cockroaches, moths and small mealworms. Prey should be smaller than the distance between the animal's eyes.

Adults are fed 2-3 times a week and subadults 3-4 times a week. Dust the food with calcium, and give a multivitamin 1-2 times a month. In the cool period in winter feeding is cut down to once every 7-10 days. Insects that are not eaten are removed the next morning.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Amalosia rhombifer is shy and fast and should not be handled more than necessary. It can drop its tail when it feels threatened, and the tail regrows in a different form. Never hold it by the tail.

It is best kept singly or as a pair. Males are territorial and must not be kept together. During the day the animal sits in its hiding place and emerges only when the lights are out.

Breeding

SEXUAL MATURITY AND SEXING

The males have pores in front of the vent, distinct bumps at the base of the tail (hemipenial pouches) and large, pointed spurs behind the vent; in the females the spurs are small and rounded. Age and weight at sexual maturity are not documented for the species. The females must be fully grown and in good condition before they are put into breeding.

MATING

The animals probably mate in late spring after the cool, dry winter period, and the females lay eggs through the summer and rainy season, from October to February. Introduce the male to the female in her terrarium, and remove him again if she is chased or bitten.

EGG-LAYING AND CLUTCHES

The female lays two leathery-shelled eggs per clutch. A new clutch probably follows every 4-5 weeks, and 3-5 clutches per season. Place a small plastic box with an entrance hole and 3-4 cm of damp sphagnum, coconut crumb or sand in the terrarium. Never let the substrate dry out completely; then the eggs come to no harm, even if they are only found after a few days.

INCUBATION

Carefully move the eggs without turning them to a small box with damp perlite or vermiculite, and incubate them at 27-29 °C. At that temperature the eggs hatch after about 60-65 days. Eggs that collapse and turn mouldy are infertile or dead. Whether temperature determines sex in *A. rhombifer* is not documented.

REARING THE YOUNG

The juveniles shed within the first two days and begin to eat after five to eight days. Give tiny crickets dusted with calcium, and mist lightly so the juveniles get water, but let the box dry out between mistings. The juveniles can be kept together for the first 6-8 months, but the males must be separated as soon as the hemipenial bumps are seen.

Health and common mistakes

There is no species-specific documentation of diseases in *Amalosia rhombifer*. The typical problems in small, nocturnal geckos are:

- Too little calcium and vitamin D3, which causes soft jaws and bent legs. Dust the food.
- Constant moisture and poor ventilation, which cause fungus and skin problems.
- Remnants of old skin on the toes and tail tip. Provide a moist hiding place, and loosen the remnants with lukewarm water.
- Lost tail after handling or fighting. It is not dangerous, but the tail regrows in a different form.

See a vet with reptile experience if the animal loses weight, does not eat for several weeks 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.