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GECKOS

Pilbara barking gecko

Underwoodisaurus seorsus

Underwoodisaurus seorsus is a slender, nocturnal ground gecko from the rocky gorges of the Hamersley Range in the Pilbara of Western Australia, reddish brown with scattered pale tubercles and a long, pointed tail. The species was only described in 2011, is rare and is known from just a small area.

Family: Carphodactylidae

KEY FACTS

THE ANIMAL

Adult size	**8-10 cm** snout-vent length
Lifespan	**10-15 years**
Active	**At night**
Lifestyle	**Rock-dwelling and terrestrial**
Habitat	**Semi-desert and rocky terrain**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 40 × 30 cm** L × W × H for 1 adult
Temperature, day	**22-26 °C**
Basking spot	**28-32 °C**
Temperature, night	**15-20 °C**
Humidity	**30-50%**
UVB	**Optional** Ferguson zone 1
Diet	**Insects**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-2 eggs**
Incubation	**58-65 days** at 27-29 °C

PROTECTION AND PAPERWORK

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

About the species

Underwoodisaurus seorsus is a nocturnal gecko with a large, triangular head, a long snout and long, slender legs and toes. The ground colour is light to medium brown with a reddish tinge and many small, pale tubercles that form irregular cross-bands, and a narrow pale band runs across the nape. The head is almost without markings, and the belly is pale and unpatterned. The young are darker than the adults.

Adults measure 8-10 cm from snout to vent, and the largest animals are females. The original tail is 78-95 % of the body length, broad at the base and gradually tapering to a fine point. It is dark reddish brown with five broken, pale bands. The tail can be shed and regrows, but a new tail is more marbled and without the regular bands. Weight is not documented, and lifespan is unknown; 10-15 years is borrowed from *Underwoodisaurus milii*.

The species was described in 2011 by Paul Doughty and Paul Oliver. Until then the animals from the Pilbara were counted as *U. milii*, but *U. seorsus* is far slimmer, has a longer snout, legs and toes and simpler markings. The species name *seorsus* means separate and alludes to the more than 450 km that separate it from the nearest populations of *U. milii*.

Distribution and habitat

Underwoodisaurus seorsus is known only from the Hamersley Range in the Pilbara of Western Australia: from north of Tom Price in the western part of the range to West Angelas near Newman in the south-east. The type locality is Packsaddle Range, 638 metres above sea level. The finds lie at 580-860 metres elevation.

The nearest populations of *Underwoodisaurus milii* live about 450 km to the south-east at Wiluna and 600 km to the south-west at Shark Bay. The range is small, and the species is known from only a few animals.

> **Native range:** Australia.

HABITAT

Underwoodisaurus seorsus has been found only in rocky terrain in the Hamersley Range, including in gorges and ravines and under rock slabs. The plant cover is low and sparse: small eucalypts, low acacia shrubs and spinifex grass tussocks. The climate in the Pilbara is hot and dry with rain in summer. The deep rocky gorges in the mountains are cooler and damper than the plains around them, and the species probably lives precisely there as an isolated remnant of a once more widespread population. Its long legs probably make it a good climber on the rocks.

Care

THE ENCLOSURE

Little is known about the care of *Underwoodisaurus seorsus*. The figures here are borrowed from the better-known relative *Underwoodisaurus milii*, which is of the same size and also often lives among rocks.

An adult needs a low enclosure of at least 60 × 40 × 30 cm (length × width × height). Floor area matters more than height, but flat stones in several layers provide room to climb. Keep the animals singly; if a male and a female are to be together, the enclosure must be larger, and each animal must have its own hiding place.

The substrate is a mixture of fine sand and a little clay or soil in a layer of 3-5 cm, so that hides and burrows hold their shape. Provide at least two hides with a single opening, one at each end, and a humid hide with slightly damp sand or moss. Flat stones, cork bark and pieces of pottery give a rocky look. Stones must stand directly on the bottom of the enclosure so that they do not topple when the animal digs. The lid must close tightly, and ventilation must be good.

TEMPERATURE

Keep the background at 22-26 °C by day and a warm spot at one end at 28-32 °C. At night the temperature can fall to 15-20 °C.

Heat from below with a heat mat under one end, controlled by a thermostat, and measure with a digital thermometer at the floor. Lamps from above are not necessary. A cooler period in winter with shorter days is probably beneficial, but is not documented for the species.

Read more: Heat and temperature

HUMIDITY AND WATER

Keep the enclosure dry at a humidity of 30-50 %. Mist once or twice a week, and let the surfaces dry again. There must always be one humid hide with slightly damp sand or moss so that shedding goes easily. A shallow bowl of fresh water can be left out, but many geckos prefer to drink droplets from walls and hides.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is nocturnal and does not need strong light. UVB is optional; a weak UVB light, corresponding to Ferguson zone 1, over part of the enclosure can be used when there are plenty of hides, so that the animal can always hide from the light. Keep 12 hours of light and 12 hours of dark.

Read more: Lighting and UVB

FEEDING

The species lives exclusively on insects and other small arthropods. Give crickets, small cockroaches and soldier fly larvae as the staple and occasionally mealworms or waxworms. Prey must not be wider than the distance between the animal's eyes, and the insects must have been fed nutritious food for the last day.

Young are given small insects every day or every other day, and adults are given four to five insects three to five times a week. Dust the insects lightly with calcium with vitamin D3 and give a multivitamin once a week. A plump tail shows that the animal is getting enough; if the tail is thin, it needs more, and if it is very broad, cut back.

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

BEHAVIOUR AND HANDLING

Behaviour has not been described for *Underwoodisaurus seorsus*. Treat the animal as one to watch rather than to hold. Keep handling short and close above the floor, and do not pick it up during the day, when it sleeps.

The tail can be shed, so never grab it. *Underwoodisaurus milii* rears up, opens its mouth wide and barks when it feels threatened; whether *U. seorsus* does the same is not documented.

Breeding

SEXUAL MATURITY AND SEXING

Age and weight at sexual maturity are not documented. Males have a clear bulge at the base of the tail and 11-13 enlarged spurs on each side of the tail base, while females have 4-6. Neither sex has pores in front of the vent. Wait to breed a female until she is fully grown and in good condition.

MATING

Breeding is probably triggered by a cooler winter with shorter days followed by warmer and longer days, as in *U. milii*. Put the female with the male in a spacious enclosure with many hides, and separate them if there is unrest.

EGG-LAYING AND CLUTCHES

The species is egg-laying. The female probably lays 1-2 eggs at a time and several clutches during the season, as *U. milii* does. Provide a laying box with damp sand or sphagnum, e.g. a plastic box with a hole in the lid, and give the female plenty of calcium and insects.

INCUBATION

Move the eggs carefully, without turning them, to a small box with damp vermiculite or perlite, and incubate at 27-29 °C. The eggs hatch after about 58-65 days, as in *U. milii*. Whether temperature determines sex has not been studied.

REARING THE YOUNG

Keep each hatchling on its own in a small box with fine sand, a small hide and a slightly damp corner at the same temperature as the adults. Offer small insects every day, dusted with calcium, and weigh the young regularly.

Health and common mistakes

No diseases have been described in the species itself. The typical problems in nocturnal ground geckos from dry regions are:

- Too much moisture, which causes fungal and skin problems. Keep the enclosure dry with one humid hide.
- Stuck shed on the toes and tail tip if the humid hide is missing.
- Too little calcium, especially in young animals and egg-laying females. Dust the insects.
- Stress from strong light or too much handling, which can cause loss of appetite.

A healthy animal has clear eyes and a plump tail and is active at night. See a vet with reptile experience if the animal loses weight, does not eat for several weeks or seems lethargic.

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.