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GECKOS

Border thick-tailed gecko

Uvidicolus sphyrurus

Uvidicolus sphyrurus is a small, thick-tailed ground gecko from the highlands on the border between New South Wales and Queensland in eastern Australia. It is nocturnal and lives under shaded rocks and logs in open woodland in a climate with hot summers and frosty winter nights. In captivity it is hardy and breeds readily when given a properly cold winter.

Family: Carphodactylidae Former name: *Gymnodactylus sphyrurus; Heteronota walshi; Phyllurus sphyrurus; Underwoodisaurus sphyrurus; Nephrurus sphyrurus*

KEY FACTS

THE ANIMAL

Adult size	**6-8 cm** snout-vent length
Weight	**10-12 g**
Lifespan	**10-15 years**
Active	**At night**
Lifestyle	**Rock-dwelling and terrestrial**
Habitat	**Rocky terrain and temperate woodland and meadow**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 30 × 30 cm** L × W × H for 5 adults
Temperature, day	**20-25 °C**
Basking spot	**28-34 °C**
Temperature, night	**12-18 °C**
Humidity	**40-60%**
UVB	**Optional** Ferguson zone 1
Winter rest	**5-15 °C** 8-9 weeks
Diet	**Insects**
Kept	**Singly, in pairs or in groups**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**30 months**
Clutch size	**2 eggs**
Clutches per year	**1-2**
Incubation	**59-73 days** at 27-29 °C

PROTECTION AND PAPERWORK

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

About the species

Uvidicolus sphyrurus is a compact, ground-living gecko with a large head, large steel-blue eyes and long, slender legs with claws. The toes have no broad adhesive lamellae, so the animal moves on soil and rock and not on smooth surfaces. It rarely exceeds 75 mm from snout to vent, that is 6-8 cm, and weighs up to about 12 g. Females are generally slightly larger than males.

The body and head are light brown with black and white spots, which are largest on the raised tubercles. In the southern part of the range the ground colour has a pinkish tinge that matches the pink rocks there, while animals further north are predominantly grey. The original tail is almost black with three or four white rings. It is narrow at the base, quickly becomes broad and ends in a thin tip. A regenerated tail is dull brown, more rounded and without rings.

The species was described in 1892 as *Gymnodactylus sphyrurus* and has since been placed in several genera, including *Phyllurus*, *Underwoodisaurus* and *Nephrurus*. In 2011 it was given its own genus, *Uvidicolus*, in which it is the only species. The genus name is formed from Latin and means roughly "the one that dwells in the damp", referring to the relatively humid and cool highlands it lives in. *Underwoodisaurus milii* is a close relative and resembles it in build and way of life.

If the animal feels threatened, it rises high on stretched legs, slowly waves its tail, opens its mouth and may lunge forward with a hoarse squeak. It is a fast hunter that strikes lightning-fast both forwards and sideways.

Distribution and habitat

Uvidicolus sphyrurus occurs only in eastern Australia, in the highlands of the upper Murray-Darling Basin. The range extends from the Granite Belt in south-eastern Queensland southwards across the tablelands of northern New South Wales to just south of Tamworth.

Within the area the species is very local. Forest clearing, grazing and fires have destroyed much of the habitat, especially in the south, but where undisturbed patches remain it is relatively common. The type locality originally given in New South Wales is regarded as an error. The map shows an approximate range.

> **Native range:** Australia.

HABITAT

Uvidicolus sphyrurus lives at altitudes of 500-1,200 metres in open woodland and woodland savanna with boulders. The rocks are often granite, but the species also occurs on sandstone and basalt. It hides under stones and fallen logs that lie in the shade of vegetation and where the soil beneath is damp all year; thin white fungal threads often grow there. A deep leaf litter and a tree canopy covering at least half of the sky are also part of the habitat. At night it hunts small insects, and it can be heard rustling in the dry leaves.

The climate is harsh: down to -15 °C in winter and above 40 °C in summer. Deep crevices in the rocks provide shelter from both cold and heat, and in the coldest and hottest periods the animals are almost impossible to find.

Care

THE ENCLOSURE

Uvidicolus sphyrurus is rare in captivity, but hardy and easy to keep. The animals are small and take up little room: up to five adults, including several males, can live in an enclosure of 60 × 30 × 30 cm (length × width × height). Floor area matters more than height. Good ventilation is important, e.g. mesh across the whole lid and a couple of holes low in the back wall.

The substrate is about 2 cm of fine, washed sand. Place three inverted clay saucers with a notch as an entrance in the enclosure, and keep the sand under them differently moist: one constantly damp, one moistened and allowed to dry, and one completely dry. That way the animals can choose for themselves, and the damp one is used for egg laying. A flat stone lying half-buried above the heat source is often used as a basking spot. Put a small water dish in the cool end.

Read more: Heat and temperature

TEMPERATURE

Heat *Uvidicolus sphyrurus* from below with a heat mat or heat tape under one end, controlled by a thermostat, so there is a mild warm spot of 28-34 °C in the summer half of the year. The rest of the enclosure follows room temperature, about 20-25 °C by day, and at night the temperature may fall to 12-18 °C. Measure with a digital thermometer at both ends. Long periods above 30 °C throughout the enclosure should be avoided.

Winter is decisive for breeding. Lower the temperature gradually from late October, and switch off light and heat at the end of November. The animals then hibernate for about eight weeks, from December to late January, at 8-10 °C at night and about 15 °C by day; a brief drop to 5 °C is tolerated. A cool, frost-free room, for example a cellar or an unheated outbuilding, can be used. Warm winter days above 20 °C can prevent egg-laying the following season. Then raise the heat gradually again.

HUMIDITY AND WATER

Uvidicolus sphyrurus needs a damp hide, but not humid air throughout the enclosure. The sand under one saucer is kept constantly damp, so the animals can always find a humid microclimate, while the rest of the floor is dry. Mist the enclosure lightly several times a week in spring and summer, and very rarely during hibernation. A humidity of 40-60% in the rest of the

enclosure is an estimate.

If the animal has difficulty shedding, especially around the toes, keep the damp hide a little wetter for about a week. Provide a low, stable water dish, and change the water regularly.

Read more: Humidity, misting and ventilation Read more: Brumation and the seasons

LIGHTING AND UVB

Uvidicolus sphyrurus is nocturnal and lives hidden by day, so UVB is not necessary, but a weak UVB tube (Ferguson zone 1) above the enclosure can be used without problems when there are plenty of hides. Let the light follow the seasons: about 14 hours in summer and shorter in winter, controlled by a timer. During hibernation the light is off. Do not place the enclosure in direct sun.

Read more: Lighting and UVB

FEEDING

Uvidicolus sphyrurus is not fussy. The staple food is crickets of suitable size, preferably supplemented with cockroaches. Give 2-3 insects per animal twice a week in the warm part of the year, and gradually cut down in autumn, so the animals receive no food during the roughly eight weeks they hibernate. The insects must be no larger than the distance between the animal's eyes.

Feed the insects well before they go into the enclosure. Dust them with calcium and vitamins at every second feeding, and at every feeding for pregnant females and growing young. The tail stores fat and shows the animal's condition: a thick tail is a good sign, a thin tail means the animal needs more food. Remove uneaten insects after a couple of hours.

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

BEHAVIOUR AND HANDLING

Uvidicolus sphyrurus is nocturnal and spends the day hidden. When disturbed, it shows its threat display with stretched legs, a waving tail and a hoarse squeak. Handling is unnecessary, and the animal should never be picked up by the tail, which can be shed. The new tail becomes shorter and more rounded than the original.

The species can be kept singly, in pairs or in small groups. Several males can usually live together in a group for years, but watch for biting and for animals that lose weight or withdraw from the others, and split the group if there is unrest.

Breeding

SEXUAL MATURITY AND SEXING

Male *Uvidicolus sphyrurus* have distinct hemipenal bulges below the tail base, and the female lacks them. Females are generally slightly larger than males. The young grow slowly: about 58 mm from snout to vent after one year and 70 mm after two years. Sexual maturity is probably reached at about 30 months of age, so wait until the female is fully grown before breeding her.

MATING

Mating in *Uvidicolus sphyrurus* has not been observed, but it probably takes place in mid-spring, after hibernation. The cold winter is the key: without a period at 8-10 °C at night and about 15 °C by day, the females often lay no eggs.

The sexes can stay together all year. The females must be in good condition and have calcium and insects throughout the egg-laying season.

EGG-LAYING AND CLUTCHES

The first clutch comes 3-4 months after hibernation; in Australia that corresponds to November-December. The female lays two eggs at a time under a saucer with constantly damp sand and scrapes sand over them. The eggs measure about 23 × 12 mm and weigh 1.5-2 g, and a clutch weighs about 30-35% of the female's weight. Expect 1-2 clutches per season.

The eggs are soft and very vulnerable to drying out, so the sand under the laying hide must never dry out. The female becomes slim after laying. Give her extra calcium and insects.

INCUBATION

Lift the eggs out carefully and place them in a small closed box with damp sphagnum from which most of the water has been squeezed (about 9 parts water to 1 part moss by weight). Do not pack the moss too tightly, so there is air between the fibres, and do not turn the eggs. At 27-29 °C they hatch after 59-73 days. It has not been investigated whether temperature determines the sex.

REARING THE YOUNG

The young measure 35-39 mm from snout to vent and weigh 1.2-1.7 g at hatching. They resemble the adults, but the tail pattern is more contrasting. Clutch-mates can grow up together in small boxes, for example 18 cm in diameter and 10 cm high, with fine sand and an upturned saucer as a hide, where the sand under it is kept damp.

The young begin to eat about a week after hatching. Give them small crickets 2-3 times a week, dusted with calcium and vitamins at every feeding. They grow slowly.

Health and common mistakes

No particular diseases have been described in *Uvidicolus sphyrurus*. The usual risks in small ground geckos apply:

- Shedding problems, where pieces of skin stick to the toes if there is no damp hide. Remove them with a lukewarm, damp cotton bud.
- Drying out of eggs and newly hatched young. Keep the laying hide and the incubation box constantly damp.
- Too little calcium and vitamin D3, especially in females in the egg-laying season. This causes soft bones and egg-laying problems.
- A winter that is too warm. Without a cold hibernation, breeding fails.
- Persistent heat above 30 °C throughout the enclosure. The species comes from cool highlands and must always be able to find a cooler spot.

A healthy gecko has a thick, round tail. Consult a vet with experience of reptiles if it loses weight, does not eat in the warm part of the year or seems limp.

Read more: Common diseases and signs of illness Read more: Incubating eggs

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.