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GECKOS

Satanic leaf-tailed gecko

Uroplatus phantasticus

A small, nocturnal leaf-tailed gecko from the rainforests of Madagascar, whose flat, notched tail looks like a withered leaf. It is a master of camouflage and one of the most remarkable animals for the terrarium, but it is delicate and requires cool nights, high humidity and an experienced keeper.

Family: Gekkonidae Former name: *Uroplates phantasticus; Uroplatus schneideri*

KEY FACTS

THE ANIMAL

Adult size	**5-8 cm** snout-vent length
Lifespan	**6-10 years**
Active	**At night**
Lifestyle	**Arboreal**
Habitat	**Rainforest and montane forest**
Difficulty	**Experienced**

CARE

Min. enclosure	**30 × 30 × 45 cm** L × W × H for 1 adult
Temperature, day	**21-25 °C**
Temperature, night	**15-18 °C**
Humidity	**60-100%**
UVB	**Optional** Ferguson zone 1
Diet	**Insects**
Kept	**Singly, in pairs or one male with several females**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**2 eggs**
Clutches per year	**2-5**
Incubation	**67-130 days** at 20-25 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Least Concern (LC)**

About the species

Uroplatus phantasticus has horn-like scales above the eyes, and the species name simply means the fantastic. The tail is flat and angular and looks like a half-decayed leaf with notches and spots, and the body is covered in small spines. George Albert Boulenger described the species in 1888.

Camouflage is its strength. By day it sits on a twig or trunk, often head-down and with its body pressed flat against the surface. The colour is brown, grey, olive or reddish, sometimes with purple or yellow tones, and the pattern imitates bark, moss and dead leaves. Females often have a pale central stripe like the midrib of a leaf. If the camouflage fails, the gecko opens its mouth wide, makes threatening noises and may ultimately shed its tail. The tail regrows, but rarely in its old shape.

Adults measure 5-8 cm from snout to vent and typically 7-10 cm including the tail. The species belongs to the small *Uroplatus ebenaui* group and was for a time regarded as the same species as *U. ebenaui*. Genetic studies have since shown that the group contains more species than previously thought, and several new ones have been described from northern Madagascar. Older reports may therefore concern related species.

It is a quiet animal, one to watch and not to handle. It requires experience with cool, humid and well-ventilated enclosures and is not a species for beginners.

Distribution and habitat

The species is found only on Madagascar, in the rainforests of the central and south-eastern part of the eastern belt. The best-known localities are Andasibe (Perinet) in the east and Ranomafana further south, and there are scattered records from the forests between and south of them.

Older records from northern Madagascar, for example Marojejy, Tsaratanana and Anjanaharibe, probably belong to other, closely related species according to recent genetic studies. This applies, among others, to the larger *Uroplatus finaritra*, which was described from Marojejy in 2019. The map therefore shows only the central and south-eastern part. The species is assessed as Least Concern, but collection for the pet trade and deforestation are the greatest threats.

> **Native range:** Madagascar.

HABITAT

The gecko lives in undisturbed and older regrown humid forest from about 400 to 1,300 metres above sea level. It stays in the low vegetation and undergrowth, where it rests on thin branches and trunks, often only a few metres above the forest floor. At night it hunts insects and other small animals.

The climate is humid and cool compared with the lowland rainforest. By day it is typically 20-25 °C, and at night the temperature can fall below 15 °C, especially at altitude and in the cool season. The rainy season falls in the southern hemisphere's summer, and in the dry, cool season the animals are less active. The species does not tolerate the forest being felled or thinned out.

Care

THE ENCLOSURE

An adult can be kept in a tall enclosure of at least 30 × 30 × 45 cm (length × width × height). A pair or a male with a pair of females needs at least 40 × 40 × 60 cm, and more space is almost always better. Ventilation should be good, preferably with mesh both at the top and at the bottom. Juveniles do best in a small faunarium, where they easily find their food.

Furnish with many thin and sloping branches, cork bark on the back wall and plenty of leaves from live or artificial plants. The gecko prefers thin twigs and dense vegetation to thick trunks, and it needs many places where it can sit still and camouflaged.

A 5-7 cm layer of damp coconut fibre, sphagnum or unfertilised soil works as a substrate, preferably with a layer of dry leaves on top and springtails and woodlice as a clean-up crew. Remove droppings and food remains regularly.

Read more: Feeder animals: keeping and breeding

TEMPERATURE

The species tolerates heat very poorly. By day the temperature should be 21-25 °C, and at night it should fall to 15-18 °C. The clear drop at night is an important part of the animal's rhythm.

There should be no heat lamp or warm spot. Even 27 °C can be dangerous, and a longer time at a higher temperature can kill the animal. Therefore place the enclosure somewhere cool, never in the sun or by a radiator, and keep an eye on the temperature on hot summer days. An animal that sits with its mouth open or hangs limply is often too warm.

In winter the animals are given a cool rest period with about 20-21 °C by day and 16-18 °C at night; see the section on pairing. Always measure with a digital thermometer both at the top and at the bottom.

HUMIDITY AND WATER

Humidity should fluctuate as in the rainforest: high at night, up towards 90-100 %, and lower by day, down towards 60 %. Mist thoroughly with room-temperature water in the evening, just before the light goes out, and preferably lightly again in the morning. The gecko drinks droplets from the leaves, so the two mistings are important. During the day the enclosure should dry out partially, because constantly wet conditions without air exchange cause fungal and respiratory infections.

Use soft water or reverse-osmosis water if the tap water is hard, so that limescale spots do not form on the glass and leaves. A water bowl is not necessary. A hygrometer shows whether the routine is holding.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is nocturnal and can live without UVB when the food is dusted with vitamin D3. Even so, it is good to provide a weak UVB tube for shade-dwelling animals (Ferguson zone 1), e.g. a 5 % T5 tube that lights part of the enclosure and leaves plenty of shade. It is especially beneficial for breeding animals. There must be no glass or plastic between the tube and the animal, because it blocks the UVB radiation.

Keep the light on for 10-12 hours a day, controlled by a timer. Do not use hot spotlights, and keep the enclosure dark at night.

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

FEEDING

The gecko feeds on live insects, which it hunts at night. Offer small crickets, locusts, roaches, flies and the like, smaller than the distance between the animal's eyes. Adults get 3-5 insects every second or third day, juveniles smaller portions more often. Feed in the evening, and remove insects that are not eaten.

Feed the insects well a day or two beforehand, and dust them with calcium. If you use UVB, the calcium should be without D3, otherwise with D3. Also give a multivitamin powder every week or every other week.

Breeding females can usefully be given 60-80 % of the food as small, thin-shelled snails. This gives calcium-rich, healthy eggs and stronger juveniles. Juveniles and newly acquired animals can be fussy, so be patient and keep an eye on their weight.

BEHAVIOUR AND HANDLING

The gecko is a quiet, secretive animal that sits motionless and camouflaged all day and only becomes active when it is dark. It should be handled only when necessary, because stress and the heat of the hand can harm it. If frightened, it opens its mouth wide and may shed its tail. Never grab the tail.

Males must never be kept together. A male can be kept with one or more females, but he can stress them, and in the breeding season he can exhaust himself. The animals are therefore often kept separately outside the breeding season. Always provide plenty of hides and dense planting.

Breeding

SEXUAL MATURITY AND SEXING

Males are recognised by the two bulges at the base of the tail, where the hemipenes sit, and they become visible from about six months of age. The males' tails often have several notches that make them look like a chewed leaf, while the females are more uniformly coloured and often have a pale central stripe. There are no reliable figures for when the species reaches sexual maturity. Breed females only when they are fully grown and in good condition.

MATING

Breeding is triggered by a cool winter rest of about 20-21 °C by day and 16-18 °C by night. It is important that the rest is neither too short nor too long, and that you keep an eye on the animals' condition throughout. After the rest the temperature is raised again, and the females receive plenty of food, preferably small snails.

One male can be placed with a group of females. The male will mate constantly and can become so exhausted that he dies. Therefore remove him no later than three days after a female has laid eggs, whether or not the eggs are fertile.

EGG-LAYING AND CLUTCHES

The female usually lays two round, white eggs at a time. On average 34 days pass between two clutches (12-64 days). This typically amounts to 2-5 clutches in a season, and some females lay up to 7. In the wild the eggs are laid in the leaf litter on the forest floor at the start of the rainy season.

Give the female a laying box or a corner with a few centimetres of damp sphagnum under dry leaves. Females that receive too little calcium become weakened and lay eggs with thin shells. Stop breeding if a female loses weight.

INCUBATION

Carefully move the eggs into a small box with damp, but not wet, substrate, e.g. perlite, vermiculite or Seramis. The eggs must not be turned or lie in water, and the humidity in the box must be above 70 %.

At 24-25 °C by day and 20-21 °C by night, the average incubation time is 94 days (67-130 days). At a constant temperature of about 20 °C it takes longer. Keep the temperature below 25 °C.

Read more: Incubating eggs

REARING THE YOUNG

The young are small and need damp surroundings and many hides. Put them in a small, tall faunarium with kitchen paper or sphagnum, thin branches and leaves, and mist daily. There are no reliable figures for weight at hatching.

Give small insects such as fruit flies, small crickets and springtails, dusted with calcium, every other day. Keep the young singly, and weigh them regularly. They need the same cool nights as the adults and must be protected from heat.

Health and common mistakes

The species is delicate, and most problems are caused by too much heat, wrong humidity or wrong food. The typical mistakes are:

- Overheating. Even about 27 °C can be dangerous. Keep the enclosure cool and well ventilated.
- Too little calcium and vitamin D3, which causes soft jaws, bent limbs and tremors. Breeding females are most at risk. Dust the food, and consider UVB.
- Constantly wet conditions without air exchange, which cause fungal, bacterial and respiratory infections.
- Dehydration if the animal cannot drink droplets from the leaves. Mist morning and evening.
- Stress from handling, moving or too close contact with other animals.
- Lost tail, which rarely regrows neatly.

There is little veterinary literature on the species. Seek a vet with experience in reptiles if the gecko loses weight, stops eating, sits with its mouth open 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.