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GECKOS

Mossy leaf-tailed gecko

Uroplatus sikorae

A medium-sized leaf-tailed gecko whose skin is patterned like bark with moss and lichen. By day it hangs head-down on a trunk in the Madagascan rainforest and is almost impossible to spot. It is smaller than its large relatives, but just as sensitive to heat and drought and best kept by an experienced keeper.

Family: Gekkonidae Former name: *Uroplatus fimbriatus sikorae*

KEY FACTS

THE ANIMAL

Adult size	**15-20 cm** total length incl. tail
Weight	**10-30 g**
Lifespan	**5-10 years**
Active	**At night**
Lifestyle	**Arboreal**
Habitat	**Rainforest and montane forest**
Difficulty	**Experienced**

CARE

Min. enclosure	**45 × 45 × 60 cm** L × W × H for 1 adult
Temperature, day	**21-25 °C**
Temperature, night	**16-21 °C**
Humidity	**60-100%**
UVB	**Recommended** Ferguson zone 1
Diet	**Insects**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**1-2 eggs**
Incubation	**60-120 days** at 20-25 °C

PROTECTION AND PAPERWORK

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

About the species

Uroplatus sikorae is the master of moss camouflage. The skin is greyish brown to black or greenish brown with patterns that imitate bark right down to lichen and moss. Along the body, legs and head there are skin flaps, which the gecko lays against the trunk by day, so that the shadows disappear and the outline becomes almost invisible. The eyes are large and lidless, with a yellow sclera and vertical pupil, and the tail is flat and leaf-shaped. The gecko can also change colour slightly to match the surface.

The species is smaller than its large relatives *Uroplatus fimbriatus* and *U. henkeli*. Adults reach about 15-20 cm including the tail and weigh roughly 10-30 g. This is the total length, although it is sometimes given as the length from snout to tail base.

The species was described by the German zoologist Oskar Boettger and published in 1913, three years after his death. It is named after the Austrian collector Franz Sikora, who explored Madagascar, and was long regarded as a subspecies of *Uroplatus fimbriatus*. It belongs to the group of large leaf-tailed geckos together with, among others, *Uroplatus fimbriatus*, *Uroplatus giganteus* and *Uroplatus henkeli*.

The closely related *Uroplatus sameiti* was formerly regarded as a subspecies and is often sold under the same name. They have been distinguished by the colour of the mouth lining, dark in *U. sikorae* and pale in *U. sameiti*, but some *U. sikorae* also have a pale mouth lining, so the colour is not a reliable distinguishing feature. The species complex needs a taxonomic review and probably contains several undescribed species, so ask about the collection locality when you buy.

It is a quiet and shy gecko that you mostly watch. It is far from as hardy as, for example, *Correlophus ciliatus*, and many animals in the trade are still wild-caught. This is one of the reasons the species requires experience.

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

Distribution and habitat

The species is found only on Madagascar, in the rainforests of the eastern and central part of the island. It is known, among other places, from the Analamazaotra forest near Andasibe and the Vohimana reserve, and it has also been found in Montagne d'Ambre National Park in northern Madagascar.

The IUCN assesses the species as Least Concern (LC), but deforestation is a serious threat on Madagascar, and the animals are also collected for the trade. The precise limits of the range are uncertain, precisely because the species complex has not been finally resolved.

> **Native range:** Madagascar.

HABITAT

The gecko lives in primary and secondary rainforest, especially in mid-altitude montane forests. By day it rests head-down, pressed against the bark of a trunk, and at night it hunts insects, snails and other small animals.

The climate in the eastern forests is humid all year round, and in the higher-lying forests it is not as warm as you might think. The gecko also sits in the shade beneath the canopy. The enclosure should therefore be moderately warm, about 21-25 °C by day, with cool nights and humidity close to 100 % at night.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

An adult needs a tall enclosure of at least 45 × 45 × 60 cm (length × width × height). A pair can also be kept in the same size, but a larger enclosure gives more peace and a better temperature difference. Height is more important than floor area, because the gecko lives on trunks.

Furnish with vertical branches, cork and roots of different thicknesses, so that the gecko can sit head-down as in the wild. Live plants such as bromeliads and pothos provide cover and hold the humidity. Hide boxes are unnecessary, because the gecko hides by resembling the bark, not by creeping into hiding places.

Coconut fibre or unfertilised soil, preferably mixed with sphagnum so that it holds moisture, works as a substrate. Avoid cedar and pine bedding, which give off irritating fumes. The enclosure should have mesh openings so that the air does not stand still, but not so much mesh that the humidity disappears. Males must not be kept together, and there is little experience with keeping several females together.

TEMPERATURE

The species is sensitive to heat. By day the temperature should be 21-25 °C and by night 16-21 °C. The temperature must not exceed 25 °C for any length of time, and above 27 °C is dangerous.

There should be no hotspot, and in a room at ordinary temperature a heat lamp is unnecessary. Instead, make sure the enclosure is not in the sun or by a radiator. On hot summer days cooling is more important than heating.

A drop in temperature at night is normal, and a seasonal variation with slightly cooler nights in winter is important, especially for animals that are to breed. Measure with two digital thermometers, one at the top and one at the bottom.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be high: about 60-80 % by day and close to 100 % at night. Mist thoroughly every evening and preferably in the morning too, 2-3 times a day in total, and keep the substrate damp, but not wet.

The gecko drinks droplets from leaves and branches, but provide a bowl of fresh water all the same. The moisture must not become stagnant, so ventilation should be good enough for plants and trunks to dry out a little during the day. A hygrometer is necessary, and an automatic fogger is a great help.

LIGHTING AND UVB

The species is nocturnal and lives in shade, so it needs only a little UVB. A weak UVB light is nevertheless recommended, for example a 5 % T5 tube, because it gives a clear daily rhythm and helps D3 metabolism. Keep the UV level in Ferguson zone 1, and make sure the gecko can always retreat into shade. For the larger *Uroplatus henkeli* the UV index may reach 3 right up under the lamp, but for this smaller species from shady forest, zone 1 is plenty.

Use a timer so that the day is of equal length, typically 10-12 hours. The light must not heat the enclosure above 24-25 °C. At night it should be completely dark.

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

FEEDING

The gecko feeds on live prey: crickets, dubia roaches, locusts, silkworms, caterpillars and preferably small snails, which the females especially like. Use captive-bred snails, not wild ones, which can carry poison and parasites. Prey must not be wider than the distance between the gecko's eyes. Adults are fed every other day.

Dust the food with calcium containing vitamin D3 once a week, and alternate between calcium and multivitamin. Breeding females need extra calcium, and their calcium pouches, the small white sacs on the neck, should be visible and well filled. The right amount depends on the animal, so follow its weight and shape, and adjust accordingly.

Juveniles are fed small crickets of about 6 mm three to four times a week and dusted with calcium at every feed for the first few weeks.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

The gecko is quiet and withdrawn. By day it sits without moving, and at night it becomes active. It is not suited to daily handling, because stress lowers appetite and weakens the immune system, and it may shed its tail. If you must handle it, keep it brief, and let it walk from hand to hand.

Males must not be kept together, because they fight. A pair can work in a spacious enclosure. There is little experience with small groups. The species is thus less peaceful than *Uroplatus henkeli*. Wild-caught animals are often shy and need peace to settle in.

Breeding

SEXUAL MATURITY AND SEXING

Males are recognised by the hemipenal bulges at the base of the tail and the pores in front of the vent, once the animals are large enough. The age at sexual maturity is not known. Sex is determined by chromosomes, and throughout the genus males probably have ZZ and females ZW.

A female that is to be bred must be fully grown, in good condition and have visible calcium pouches. Many animals in the trade are wild-caught and arrive gravid, so juveniles more often come from a newly acquired female than from planned breeding.

MATING

Mating and the breeding cycle in captivity are poorly known. Give the animals a cool period with night temperatures of about 18-21 °C before they are put together. The male is introduced to the female and removed again once mating has been seen.

Keep an eye on the female's weight. Breeding takes a heavy toll on her, and calcium deficiency after laying can be fatal, so she must be given plenty of food and calcium throughout the season.

EGG-LAYING AND CLUTCHES

The female lays the eggs in the leaf litter or on the floor and does not tend them. As in the rest of the genus, a clutch normally consists of two eggs and sometimes only one. The eggs are white, round and just under 2 cm in diameter. Fertile eggs stay firm and white, while infertile ones turn yellowish and soft.

Probably 15-30 days pass between clutches. Place a tray of damp coconut fibre or sphagnum in the enclosure so the female has somewhere to lay, and look for eggs every morning, as they are easily overlooked.

INCUBATION

The eggs are placed in a small box with damp coconut fibre, sphagnum or perlite and must never lie in water. Keep the temperature at 20-25 °C, and avoid anything above 25-26 °C. Humidity should be high, but water droplets must not collect on the eggs.

The eggs hatch after 60-90 days, sometimes only after 120 days. In *Uroplatus henkeli* it can take 100-230 days, so very long incubation periods are possible in the genus. Be patient before you give up on an egg. How temperature affects hatching is not known. In *Uroplatus lineatus* the eggs hatch better when the females get UVB light, but this has not been shown for this species.

Read more: Incubating eggs

REARING THE YOUNG

Keep the young singly in a small tub or mini enclosure of about 5-20 litres with kitchen paper or sphagnum as substrate, a few vertical branches and small plants. The temperature should be about 21-22 °C and humidity 80-85 %. Juveniles tolerate heat poorly.

Give small crickets of about 6 mm, dusted with calcium at every feed for the first 20-30 days and then twice a week. Juveniles can have difficulty shedding. If so, place them in a small tub with damp kitchen paper for 20-30 minutes, and gently remove the remnants. The growth rate is not known.

Health and common mistakes

The species is more vulnerable than most geckos, and most problems are caused by heat, drought or wrong feeding. The typical mistakes are:

- Heat above about 27 °C, which stresses the animal and can be fatal. The upper limit lies between 25 and 27 °C.
- Too low humidity, which causes poor sheds, especially in juveniles.
- Calcium deficiency, especially in females after laying, which can end in convulsions and death. Use calcium with D3, and keep an eye on the calcium pouches.
- Parasites in wild-caught animals. Keep the enclosure clean, and have a faecal sample examined by a vet with reptile experience.
- A constantly wet substrate without air exchange, which causes mould and fungus.
- Stress from too much handling.

A healthy animal is plump, has clear eyes and hangs calmly on its trunk. Seek a vet with experience in reptiles if the gecko loses weight, does not eat for several weeks, seems lethargic or cannot get rid of its skin.

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.