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GECKOS

Masobe gecko

Paroedura masobe

A rare, dark, white-spotted gecko with large eyes from the humid forests of eastern Madagascar. The species is shy, needs a cool and humid climate and is threatened in the wild, so it suits the experienced keeper who is content to watch and not handle.

Family: Gekkonidae

KEY FACTS

THE ANIMAL

Adult size	**16-20 cm** total length incl. tail
Lifespan	**8-10 years**
Active	**At night**
Lifestyle	**Arboreal and terrestrial**
Habitat	**Rainforest**
Difficulty	**Experienced**

CARE

Min. enclosure	**45 × 45 × 45 cm** L × W × H for 1 adult
Temperature, day	**23-25 °C**
Temperature, night	**18-22 °C**
Humidity	**60-80%**
UVB	**Not required**
Diet	**Insects, small invertebrates (springtails, fruit flies) and worms/snails**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**12 months**
Clutch size	**1-2 eggs**
Clutches per year	**3-5**
Incubation	**60-240 days** at 28 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Endangered (EN)**

About the species

Paroedura masobe is a medium-sized nocturnal gecko with a dark, almost blackish-brown ground colour sprinkled with white spots, and with very large eyes. The species name comes from the Malagasy words maso, eye, and be, large. The gecko has adhesive pads under the toes and can therefore climb low branches and shrubs, but it also spends time down on the ground and is therefore regarded as semi-arboreal.

The species was first described in 1994 by Nussbaum and Raxworthy and quickly became sought after in the vivarium hobby. It belongs to the genus *Paroedura*, which is distributed in Madagascar and the Comoros. The genus contains both ground-dwelling and climbing species.

An adult *P. masobe* grows to 16-20 cm including the tail and lives 8-10 years in captivity. It is regarded as the largest species in the genus. The animal is cautious and is easily stressed by disturbance and moves. It may stop eating if it is handled or moved too often. By day it hides under bark and in leaf litter.

The species is threatened in the wild and is listed on the IUCN Red List as endangered (EN). Breeding in captivity is still rare and requires experience, so the species is not a place to begin.

Distribution and habitat

Paroedura masobe is found only in Madagascar, in the rainforests of the central part of the east coast. It is known from lowland forest in Zahamena, at the northern end of the corridor between Zahamena and Ankeniheny, at Betaikankana in the south-eastern part of the corridor and in the Betampona reserve.

The total area in which the species may occur is estimated at about 410 km², but the forest is so fragmented that the actual range probably lies below 100 km². The species is seldom seen, and the population is declining. It lives between 300 and 600 metres above sea level.

> **Native range:** Madagascar.

HABITAT

The gecko lives in humid primary rainforest in the lowlands and on the lower slopes, from about 300 to 600 metres above sea level, but has also been found in heavily disturbed forest at Betaikankana. By day it hides under bark and in leaf litter. At night it hunts insects on low vegetation and on trunks, most often 1-4 metres above the forest floor.

The climate in the area is cooler than on the tropical coasts. The temperature typically lies between 16 and 27 °C in summer and between 9 and 20 °C in winter, with clear differences between day and night. The air is humid, especially at night. This is precisely the climate the enclosure should imitate: moderate warmth by day, cooler nights and high humidity. The forest is disappearing to agriculture, logging and the collection of other forest products, and this is the main reason the species is threatened.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

An adult needs at least 45 × 45 × 45 cm (length × width × height) in glass or acrylic. Bigger is better, because the species uses both the floor and the low branches. Keep the animals singly, or a pair in a larger enclosure with many hides. Juveniles are kept separately.

Furnish the enclosure like a dense rainforest understorey, with branches, cork bark, cork tubes and many dark, humid hides both high up and at the bottom. Live plants provide both cover and humidity. A mixture of peat-based compost, coconut fibre and sandy soil makes a good substrate, because it retains moisture and at the same time drains. Remove faeces and urates regularly, and change the substrate as needed. The enclosure must have ventilation so that the air does not stand still.

TEMPERATURE

By day the temperature should be 23-25 °C, and at night it may fall to 18-22 °C. The species does not need a heat lamp or a hotspot, and it tolerates cold better than heat: in winter the night may fall a little below 18 °C.

Heat above 30 °C for a longer time must be avoided, because it can cause dehydration, organ failure and death. Place the enclosure somewhere cool, away from south-facing windows, and use a digital thermometer. In hot summers active cooling may become necessary. Animals that hide all the time, do not eat and seem listless are often too warm.

Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 60-80%. Mist the enclosure in the evening, so it is damp at night when the animal is active, and let it dry out a little during the day. A hygrometer shows whether the level holds.

Provide a damp hide, e.g. a small box with damp sphagnum, so shedding goes completely. A shallow dish of fresh water can be left out, but it is not necessary when misting every evening. Constantly wet conditions cause mould, so the substrate should not be soggy, and ventilation must be in order.

LIGHTING AND UVB

The species is nocturnal and lives on the forest floor and in the foliage, so UVB is not necessary. An ordinary day and night rhythm is enough, ideally with 12 hours of light and 12 hours of dark. Use a timer.

Live plants may benefit from a fluorescent plant tube. Keep the light weak and diffuse, so that the animal has shade and dark places to retreat to. At night it must be completely dark.

Read more: Lighting and UVB

FEEDING

The species eats insects. Give crickets, roaches and mealworms. The insects must be matched to the size of the gecko, because both prey that is too large and prey that is too small is often ignored. Feed the insects fruit, vegetables or a feed mix for a couple of days before they are passed on, and dust them with calcium and a multivitamin so that the bones hold up.

Juveniles and subadults get 4-5 small insects daily or every other day. Adults are fed 3-4 times a week with about 4-6 insects at a time. Feed in the evening or at night, when the animal is most active, and remove insects that have not been eaten.

A diet of crickets alone gives unbalanced nutrition, so vary it. Breeding females need extra calcium and benefit from captive-bred snails or woodlice at least twice a month. Never use wild-caught feeder insects, because they may carry parasites.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements Read more: Buying animals: captive-bred, wild-caught and transport

BEHAVIOUR AND HANDLING

Paroedura masobe is shy and sensitive. It is best suited to being observed, not handled. Frequent disturbance and moving stress the animal and can make it refuse food, so keep handling to a minimum.

The gecko is most active at night and hides during the day under bark and in leaf litter. Experience with several animals together is limited, but a pair can be kept and bred in a larger enclosure. Young must, however, be kept separately to avoid aggression from the adults. Always provide many hiding places, and separate the animals if unrest arises.

Breeding

SEXUAL MATURITY AND SEXING

The animals become sexually mature after about a year in captivity. Sexual differences and weight in the species are little known, so use the same methods as for other geckos in the genus: males have a distinct bulge at the base of the tail where the hemipenes lie. Give the female good condition and calcium before she is bred, because egg-laying puts a strain on her.

MATING

Successful breeding in captivity is still rare and difficult. The animals are sensitive, and mating can easily be disturbed by changes in the surroundings or by handling. No particular breeding season or rest period is known, so keep the animals in stable conditions and see how they react.

Breeding should be attempted only by experienced keepers. The female may become worn out or die if she lays too many eggs without enough calcium and nutrition.

EGG-LAYING AND CLUTCHES

The female lays 1-2 hard-shelled, almost round eggs at a time, about 18 × 17 mm. This may happen 3-5 times a year. Infertile eggs are common, especially in the first year, when three of four eggs can be unfertilised.

Offer a laying site in a hidden corner with damp peat or coconut fibre. The eggs must be moved gently to an incubation box, and they must not be turned, because this can harm the embryo. Give the female extra calcium and nutrition throughout the season.

Read more: Incubating eggs

INCUBATION

The eggs are laid in a closed box with damp substrate and incubated at about 28 °C and 60-80% humidity. Do not turn them. Incubation time varies greatly, from 60-90 days to about six months and rarely over eight months. Therefore be patient, and do not discard eggs too early.

Eggs that are clearly bad are yellow, mouldy or collapsed. If in doubt, leave them a little longer and check them carefully.

REARING THE YOUNG

The hatchlings are about 5 cm long at hatching. Keep them separately in a small, humid box, so that they are not bothered by the adults or by each other. Give them small insects such as fruit flies, and ensure high humidity so that shedding goes properly.

Move the juveniles to a larger enclosure as they grow, and keep the temperature stable. Survival is closely linked to the mother's health, so make sure that she is in good condition before breeding.

Health and common mistakes

Paroedura masobe requires stable conditions, and most problems come from the wrong climate or feeding. Typical mistakes are:

- Too high a temperature, especially above 30 °C, which causes dehydration, organ failure and death. This is the most serious danger.
- Too little calcium and vitamins, especially in breeding females. It causes soft, brittle bones. Dust the food and give snails or woodlice.
- Too low humidity, which causes incomplete shedding. Use a humid hide.
- Stress from too much handling or moving, which can cause refusal of food.
- A one-sided diet of crickets only.

Diseases in the species are little known, and an animal that is unwell can decline quickly with little warning. A healthy animal has clear eyes, a plump tail and eats regularly. See a vet experienced with reptiles if the gecko loses weight, refuses to eat or seems 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.