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GECKOS

## Grandidier's Madagascar ground gecko

# *Paroedura androyensis*

*Paroedura androyensis* is the smallest species in the genus of Madagascan ground geckos: a small nocturnal hunter from the forest floor of southern Madagascar. It reaches only 6-8 cm, wags its tail eagerly when hunting and does well in a small enclosure. That makes it a good choice for beginners who want a small, active gecko.

Family: Gekkonidae  Former name: *Phyllodactylus androyensis*

KEY FACTS

### THE ANIMAL

| | |
|---|---|
| Adult size | **6-8 cm**<br>total length incl. tail |
| Lifespan | **5-7 years** |
| Active | **At dusk and at night** |
| Lifestyle | **Arboreal and terrestrial** |
| Habitat | **Dry forest** |
| Difficulty | **Beginner** |

### CARE

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|---|---|
| Min. enclosure | **30 × 30 × 30 cm**<br>L × W × H for 2 adults |
| Temperature, day | **24-28 °C** |
| Temperature, night | **21-24 °C** |
| Humidity | **50-70%** |
| Water | **Water dish** |
| UVB | **Optional** |
| Diet | **Insects and small invertebrates (springtails, fruit flies)** |
| Kept | **Singly, in pairs or one male with several females** |

### BREEDING

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|---|---|
| Reproduction | **Egg-laying** |
| Sexually mature | **5-6 months** |
| Clutch size | **2 eggs** |
| Incubation | **60-90 days**<br>at 25-26 °C |

### PROTECTION AND PAPERWORK

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|---|---|
| CITES | **Appendix II** |
| EU annex | **Annex B** |
| IUCN | **Vulnerable (VU)** |

## About the species

*Paroedura androyensis* is a small, compact gecko built to vanish into the forest floor. The body is covered in rough scales in muted shades of brown, light brown, grey, white and charcoal. On the back there are large blotches or irregular bands, while the belly is pure white. The throat often has dark crossbars. The eyes are large, and the gaze is alert.

The tail is shorter than the body and covered in pointed, cone-shaped scales above and larger, rounder scales below. It is often carried curled up over the back and can move when the animal is hunting or restless. As in many other geckos, the tail can be shed, and a new tail is smoother and lacks the pointed scales.

The species was described in 1867 by Alfred Grandidier and was formerly called *Phyllodactylus androyensis*. The scientific species name refers to Androy, a region in southern Madagascar. *P. androyensis* is regarded as the smallest species in the genus, and adults reach 6-8 cm including the tail. The female is slightly larger than the male.

The animal is calm and slow in its movements, but can break into short sprints when hunting or startled. It is most interesting to watch in the evening and at night, when it creeps up on its prey and strikes.

## Distribution and habitat

*Paroedura androyensis* occurs only on Madagascar. The type locality is given as "Sancta Maria" and is interpreted in some places as the island of Sainte-Marie off the east coast. The original description, however, concerns species found on the south-west coast, and the place is probably Cape Sainte-Marie, the southern tip of the island. The species name refers to the Androy region in the south.

Records and museum specimens lie almost entirely in the southern and south-western part of the island: from Cape Sainte-Marie, Berenty and Tolagnaro in the south via Tsimanampetsotsa and Ranobe to the Zombitsy forest and north along the west coast to about 19° south. The map is drawn from these records. The species is assessed as Vulnerable (VU) on the IUCN Red List.

> **Native range:** Madagascar.

### HABITAT

The species lives in the leaf litter in forest. It is seen among roots and at the foot of tree trunks and also climbs a little up the lower parts of the trunks, so it is half terrestrial and half arboreal. Most localities lie in the dry south and south-west, where the landscape is characterised by dry deciduous forest and spiny forest with a long dry season.

By day the animal lies hidden under leaves, bark and other debris or in crevices. When darkness falls, it comes out to hunt insects. Temperature and humidity in the species' habitats are not documented, so care should be seen as a guideline for a warm, but not dry, environment with a moist leaf layer.

Read more: Humidity, misting and ventilation

## Care

### THE ENCLOSURE

The species is small, and an enclosure of 30 × 30 × 30 cm (length × width × height) is enough for a single animal or a pair. More animals need more floor space: a male with two or three females needs at least 40 × 40 × 40 cm with many hiding places.

Coconut fibre, preferably mixed with bark and sphagnum, works well as substrate, holding moisture and providing cover. Put a thick layer of leaves on top, because the animal itself uses small leaves as hides. Add cork bark, especially pieces with many crevices, cork tubes and driftwood, so the animal can hide and climb. Live plants provide extra cover and damp microclimates.

Keep the substrate damp, but leave dry patches, especially when the animals are to breed. A bioactive substrate with springtails and small isopods works well and gives the animal extra food. Ventilation must be good enough for the enclosure to dry out within a few hours. Fit a tight-fitting lid, because the animal is small and escapes easily through holes.

Read more: Terrarium construction and bioactive substrate Read more: Feeder animals: keeping and breeding

### TEMPERATURE

During the day the temperature should be 24-28 °C, and at night it may fall to 21-24 °C, but no lower. If the room is warm enough, no heat source is needed. If it is cooler, a weak heat mat or a low-wattage bulb at one side can provide a gradient, so the animal can choose how warm it wants to be.

Overheating is the greatest risk in such a small enclosure, and the eggs tolerate heat even worse than the adults. Measure the temperature with a digital thermometer, and check it especially on hot summer days.

Read more: Heat and temperature

### HUMIDITY AND WATER

Humidity should be 50-70 %. Mist the enclosure lightly every day or every other day, so there are water droplets on leaves, glass and decoration for the animal to drink. Let the enclosure dry out between mistings, and ensure good ventilation so mould does not develop.

A shallow bowl of fresh water can be left out, but is not necessary if you mist regularly. Use a hygrometer to keep an eye on humidity. Live plants help create humid zones, while the rest of the enclosure can be drier.

### LIGHTING AND UVB

The species is nocturnal and does not need UVB, but a weak UVB light does not harm it. A weak light source on a timer, giving about a 12-hour day, ensures a fixed daily rhythm.

Do not use strong spotlights, which quickly overheat a small enclosure. At night it must be dark, and a basking spot is unnecessary.

Read more: Lighting and UVB

### FEEDING

*Paroedura androyensis* lives on insects, and because of its size the prey must be small. Newly hatched young get newly hatched crickets and after a few weeks 3 mm crickets, preferably supplemented with fruit flies, springtails and small woodlice. Adults get crickets of 3-6 mm, fruit flies, small flies and bean beetles, and small mealworms and black soldier fly larvae can be given in limited amounts. The animal responds best to moving prey, so live food works best.

Young are fed daily because they grow quickly, while adults can be fed every second to third day. Feed in the evening, when the animal is active. The feeder insects must be gut-loaded before feeding and dusted with calcium and vitamin D3: calcium at every feeding and a multivitamin once a week. Breeding females should also have a small dish of calcium in the enclosure.

The prey must not be too large, as it can cause digestive problems or choking.

Read more: Calcium, vitamins and supplements

### BEHAVIOUR AND HANDLING

The species is calm and slow in daily life, but can run fast when startled or hunting. It is best suited to watching and is handled only rarely and carefully. Never grab the tail.

Males are territorial and must not be kept together. A male can be kept with two or three females if the enclosure is large enough and has many hides. Watch for bites and lost tails, and separate the animals if there is unrest. Young can be raised in a group only if they are fed often; otherwise there is a risk of fights and lost tails, so it is safest to keep them separately. Kept alone or as a pair the species thrives. The animal is most often seen in the evening and at night, when it hunts with the tail arched over the back.

## Breeding

### SEXUAL MATURITY AND SEXING

Males can be recognised by two distinct bulges at the base of the tail, just behind the cloaca. The female is slightly larger and has a sturdier body and a thicker tail base. The animals become sexually mature quickly, typically after five to six months. Preferably wait until the female is fully grown before breeding her, because egg-laying drains her calcium and energy.

### MATING

The species is easy to breed and suitable for beginners. Females can lay all year if they get enough food, and no fixed resting period or winter pause has been described for the species. Put the male together with one or more females in an enclosure with many hides, and keep an eye on them for the first few days.

The female can store sperm after mating, so a single mating can last a whole season. The male can therefore be moved out again if unrest arises.

### EGG-LAYING AND CLUTCHES

The female lays two hard-shelled eggs at a time. They are buried in damp substrate or hidden under leaves and bark. Clutches come three to four weeks apart. A female typically lays three to five clutches a year, and with plenty of food she may lay all year round.

The female will not lay in substrate that is too wet and may in the worst case become egg-bound. Therefore provide dry patches in the substrate. She must have constant access to food and calcium. The thickness of the tail shows how she is doing: a plump tail means the female is in good condition, while a thin tail means she must be taken out of breeding and given time to recover.

### INCUBATION

The eggs are small and fragile. Move them carefully with a soft brush or a small spoon rather than with fingers or tongs. Put them in a small box with slightly moist coconut fibre mixed with fine sand, and close it with a lid with a couple of ventilation holes.

The best temperature is 25-26 °C, and the humidity in the box should be 60-80 %. Above 28 °C development often fails, and the eggs do not hatch. Incubation lasts about 60-90 days.

Read more: Incubating eggs

### REARING THE YOUNG

The young begin to eat after a few days and need very small insects such as fruit flies and newly hatched crickets. Because they grow quickly, they must be fed daily and given calcium. Keep them separately so they do not injure one another, especially at the beginning.

Mortality among the young can be quite high, and some die without an obvious cause, so be prepared for losses. Give each young a hide and a substrate that is moist but not wet.

## Health and common mistakes

*Paroedura androyensis* is an easy species to keep, and most problems are caused by husbandry. The typical mistakes are:

- Calcium deficiency, which can cause bone loss. Dust the feeder insects with calcium and D3, and give breeding females calcium in a dish.
- A substrate that is too wet, which can make the female unwilling to lay and at worst leave her egg-bound. Provide dry patches.
- A thin tail in a female that lays a lot. It is a sign that she is exhausted and needs peace, extra food and calcium.
- Overheating, especially in small enclosures and on hot summer days.
- Lost tails after fights, especially in young kept together without enough food. The tail grows back, but is smoother and lacks the pointed scales.
- Unexplained losses of young, which occur in the species.

A healthy animal is alert, has a plump tail and eats willingly. See a vet with reptile experience if the animal loses weight, stops eating or becomes 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.