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GECKOS

Mniarogekko jalu

Mniarogekko jalu is a large, nocturnal, tree-dwelling gecko from the far north of New Caledonia and the Belep Islands, closely related to *Mniarogekko chahoua*. The species was first described in 2012, is endangered and is only sparsely known, also in captivity.

Family: Diplodactylidae

KEY FACTS

THE ANIMAL

Adult size	**14 cm** snout-vent length
Lifespan	**15-20 years**
Active	**At night**
Lifestyle	**Arboreal**
Habitat	**Rainforest**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 60 × 90 cm** L × W × H for 1 adult
Temperature, day	**22-26 °C**
Basking spot	**27-29 °C**
Temperature, night	**18-22 °C**
Humidity	**60-80%**
UVB	**Recommended** Ferguson zone 1
Diet	**Insects, fruit and complete diet**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Clutch size	**2 eggs**
Incubation	**65-120 days** at 22-26 °C

PROTECTION AND PAPERWORK

CITES	**Not listed**
EU annex	**Not listed**
IUCN	**Endangered (EN)**

About the species

Mniarogekko jalu is a large diplodactylid gecko that measures up to 14 cm from snout to vent. It is the sister species of *Mniarogekko chahoua* and resembles it, but the males have far fewer pores in front of the vent. The length of the tail and the weight of the animal are not documented; in *M. chahoua* the total length is 25-31 cm.

The species was described in 2012 by Aaron Bauer, Anthony Whitaker, Ross Sadlier and Todd Jackman, when the large New Caledonian geckos were revised. Before then the animals were counted as *M. chahoua*. The species name comes from *jâlu*, which means spirit, a being from the spirit world, in the language Nyêlâyu, spoken in northern New Caledonia. The name thus corresponds to *chahoua*, which means "devil" in a Kanak language. Throughout New Caledonia the large geckos are associated with the spirit world.

Very little is known about the species, and it is hardly kept in captivity. The size of the young, sexual differences beyond the pores and lifespan are not documented. In the close relatives *Mniarogekko chahoua* and *Correlophus ciliatus* the animals live 15-20 years.

Distribution and habitat

The species lives only in New Caledonia, in the far north of the Northern Province: from the Diahot River on the main island of Grande Terre to Île Art in the Belep Islands. The type locality lies on Île Art, 230 metres above sea level. On the main island the species has been found north and north-west of Koumac, including at the Néhoué River, in the Forêt d'Ougne and on the Tiébaghi massif, from sea level to about 360 metres.

The range is small and lies north of the range of *Mniarogekko chahoua*. The species is known from four localities. The total area in which it occurs is estimated at about 1,340 km², but it inhabits only about 24 km² of this.

> **Native range:** New Caledonia.

HABITAT

Mniarogekko jalu apparently lives only in the trees, in old, closed forest with large canopy trees. At night it forages among the twigs and outermost foliage in the crowns or on the trunks in the upper layers of the forest. By day it hides in crevices and holes in branches and trunks and often goes all the way down near the forest floor to find a hiding place. The records range from the coast to about 360 metres in a tropical area with a humid and a drier season of the year.

The species is Endangered (EN). The threats are forest fires, loss of forest through nickel mining on the Tiébaghi massif, the invasive ant *Wasmannia auropunctata*, feral cats and illegal collection.

Care

THE ENCLOSURE

Little is known about the care of *Mniarogekko jalu*. The figures here are borrowed from *Mniarogekko chahoua*, which is a close relative of the same size and with the same way of life. An adult animal needs a tall enclosure of at least 60 × 60 × 90 cm (length × width × height); larger is better, and height is more important than floor area.

Furnish with vertical and diagonal branches, cork tubes, magnetic ledges and plants at several heights. Provide solid, horizontal perches and hides high up, but also crevices and cork tubes further down, since in the wild the species often goes down towards the forest floor to sleep. A damp mixture of soil without fertiliser and coconut fibre with a layer of dead leaves on top works as a substrate. For juveniles, kitchen paper is the safest. Good ventilation is important.

TEMPERATURE

The daytime temperature is 22-26 °C in most of the enclosure, and there should be a resting place of 27-29 °C under a weak lamp high up. At night the temperature should fall to 18-22 °C. Above 29-30 °C is too hot, so let all heating be controlled by a thermostat. Measure the temperature at the branch under the lamp with a digital thermometer, and provide branches and hides at all heights, so that the animal can choose for itself.

Read more: Heat and temperature

HUMIDITY AND WATER

Keep the humidity at 60-80 %, measured in the middle of the enclosure. It should rise at night and fall during the day, but never go below 50 %. Mist the enclosure thoroughly every evening, so that the animal can drink droplets from the leaves, and provide a dish of fresh water. The enclosure must be able to dry out between mistings.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

The species is nocturnal. As in *Mniarogekko chahoua*, weak UVB light is an advantage: a tube for shade-dwelling animals (Ferguson zone 1), so that the UV index is 1-2 on the uppermost branches, and shade in the rest of the enclosure. Keep the light on 10-12 hours a day, controlled by a timer, and let the night be dark.

Read more: Lighting and UVB

FEEDING

The diet is borrowed from *Mniarogekko chahoua*, which eats both fruit and insects. Give a prepared mix for fruit-eating geckos, made up into a thick puree, in a dish on a wall-mounted ledge, and alternate between several flavours. In addition come live insects such as crickets, cockroaches, grasshoppers and silkworms, which must not be longer than the distance between the animal's eyes. Adults get puree 2-3 times a week and insects 1-2 times a week. Dust the insects with calcium.

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

BEHAVIOUR AND HANDLING

Behaviour has not been described for *Mniarogekko jalu*. *Mniarogekko chahoua* is shy and jumpy when young, often becomes calmer with age and has a powerful bite. Give a new animal two weeks in peace, and handle it only when it is eating. Keep sessions short, and never grab the tail, because it can be shed.

The animal is best kept alone. Whether a male can be housed with females is not documented; in *M. chahoua* a male can be kept with several females, but two males must never be housed together.

Breeding

SEXUAL MATURITY AND SEXING

Age and weight at sexual maturity are not documented for *Mniarogekko jalu*. The males have a row of pores in front of the vent, but far fewer than in *Mniarogekko chahoua*. The animals should be fully grown before they are put to breed.

MATING

Mating has not been described. In *Mniarogekko chahoua* a cooler period of a couple of months with shorter days gets the animals going, after which temperature and day length are raised again.

EGG-LAYING AND CLUTCHES

The species is egg-laying. The number of eggs and clutches per year is not documented. *Mniarogekko chahoua* lays two eggs at a time. Give the female an egg-laying box with at least 10 cm of damp substrate, so that she can dig.

INCUBATION

Incubation has not been described for *Mniarogekko jalu*. The figures are borrowed from *Mniarogekko chahoua*: the eggs lie in damp vermiculite or perlite at 22-26 °C and hatch after 65-120 days. Above 28 °C is risky. Whether the sex depends on temperature is not known.

Read more: Incubating eggs

REARING THE YOUNG

Rearing of young is not documented. In *Mniarogekko chahoua* the young are kept in small boxes with kitchen paper without a heat lamp and UVB and get daily misting, prepared food and small insects until they are large enough for a tall enclosure.

Health and common mistakes

There are no health data for *Mniarogekko jalu*. Typical problems in the large New Caledonian geckos are caused by care:

- Persistently too high or too low humidity, which causes skin and respiratory problems.
- Too much heat. Keep the temperature below 29-30 °C.
- Lack of calcium and vitamin D3. Dust the insects with calcium.
- Loss of the tail. Never grab the tail.

See a vet with reptile experience if the animal loses weight, does not eat for several weeks 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.