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GECKOS

Standing's day gecko

Phelsuma standingi

Phelsuma standingi is one of the largest day geckos: a stout, diurnal climber from the dry spiny forests of south-western Madagascar, with a green, dark-spotted neck and head, a greyish body and a turquoise-blue tail. The young bear distinct crossbands. The species is robust and long-lived, but it is aggressive and needs a tall, spacious enclosure.

Family: Gekkonidae

KEY FACTS

THE ANIMAL

Adult size	**20-26 cm** total length incl. tail
Lifespan	**20-28 years**
Active	**By day**
Lifestyle	**Arboreal**
Habitat	**Savanna and dry forest**
Difficulty	**Beginner**

CARE

Min. enclosure	**75 × 75 × 110 cm** L × W × H for 1 adult
Temperature, day	**24-28 °C**
Basking spot	**30-32 °C**
Temperature, night	**19-23 °C**
Humidity	**40-80%**
UVB	**Recommended** Ferguson zone 2
Diet	**Insects, fruit and nectar**
Kept	**Singly or in pairs**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**14-24 months**
Clutch size	**1-2 eggs**
Clutches per year	**4-6**
Incubation	**60-65 days** at 25-28 °C

PROTECTION AND PAPERWORK

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

About the species

Phelsuma standingi is one of the largest species in the genus *Phelsuma*. It can grow up to 26 cm including the tail, of which the body makes up about 15 cm, and weighs up to 75 g. The head is green with small dark dots and a yellow eye ring, the body greyish to silver-grey with irregular, worm-like markings, and the tail blue to turquoise. The underside is uniformly light grey. The colours can darken or fade with the animal's condition and the light, but the animal does not change colour like a chameleon.

The young look completely different from the adults: green with distinct crossbands. The pattern disappears when the young are eight to ten months old. The bands are thought to stop the adults from eating the young. The skin is firmer and harder to damage than in most other day geckos.

The species was described in 1913 by Paul Methuen and John Hewitt after an expedition to Madagascar in 1911, and the name *standingi* honours H. F. Standing of Antananarivo. The male is recognised by distinct pores in front of the vent and a bulge at the base of the tail. In the female, calcium sacs sit on the sides of the neck, which are stores of calcium for the

eggshells.

P. standingi is a calm and hardy gecko that is less shy than many other day geckos. On the other hand, it is quarrelsome, both towards its own kind and towards other lizards of the same size, so it suits a keeper who is content with one animal or one carefully chosen pair. With good care it can live to over 20 years, a few up to 28.

Read more: Calcium, vitamins and supplements

Distribution and habitat

Phelsuma standingi is found only on Madagascar, in the dry south-western part of the island. The main range probably lies between the rivers Onilahy and Mangoky. The type locality is forest at the Onilahy near Maroamalona, and the species is also known from Andranolaho and Tongobory and from the area between Morombe, Toliara and the Isalo massif, among other places in the Zombitse-Vohibasia National Park.

In the wild it lives high up in large, old trees such as tamarind and acacia and can in some places also be seen on wooden and stone houses. The range is limited and under pressure from forest clearance, grazing cattle and growing settlements. The species is listed as Vulnerable on the IUCN Red List, and for more than ten years there have been no export quotas for wild-caught animals.

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

> **Native range:** Madagascar.

HABITAT

The habitat is dry forest and thorn scrub, in large parts of the range more like savanna with isolated, large trees. It is the hottest and driest region of Madagascar. At Toliara the annual mean temperature is about 24 °C, the highest temperature is 39 °C, and only about 340 mm of rain falls a year. The rainy season lasts roughly from December to March, and the rest of the year is dry; then the animals live off fat reserves and morning dew.

The nights are far cooler than the days. 15 °C and 80 % relative humidity have been measured at night close to the coast, and elsewhere the humidity at night rises to nearly 90 %. This pattern, with dry, hot days and cool, humid nights, is what you should imitate in the enclosure. By day the animals sit in the sun on the highest, most open branches and take insects, small geckos and probably nectar and fallen fruit.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

An adult needs a tall enclosure of at least 75 × 75 × 110 cm (width × depth × height). Bigger is better, and height is important, because the species is strongly arboreal. If you are in doubt about the space, choose the biggest you can have. Do not keep the animal together with other lizards of the same size.

Furnish it with coarse branches with a rough surface and ideally bamboo canes at different heights and angles, so the animal can climb, bask and hide. Live plants provide cover and raise the humidity. Use a simple substrate that is easy to keep clean and can hold moisture, for example orchid bark pieces or newspaper. The enclosure needs good ventilation, so the air does not become stagnant.

TEMPERATURE

The temperature should be 24-28 °C by day, with a warm basking spot of 30-32 °C at the top under a lamp mounted outside the enclosure. This gives a gradient that the animal can choose from. At night it should be 19-23 °C, that is, a drop of about 5 °C. In the wild the difference is far greater, and the nights can fall to about 15 °C.

Check the temperature with a digital thermometer both at the top and at the bottom. Put the lamp on a thermostat. Do not let the temperature stay above about 32 °C for long, and keep the lamp far enough from the branches that the animal cannot burn itself.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity should be 40-80 %. Even though the species comes from a dry area, the air is humid at night, and the enclosure should therefore be misted thoroughly in the evening, so the humidity rises while the gecko rests. Let the enclosure dry out during the day. Constantly wet conditions cause mould and skin problems.

The animal should always have access to fresh water. A drip system is a good solution, because it imitates dew and rain, and the animal can also lick droplets from leaves and branches. A shallow bowl of fresh water, changed daily, can supplement. A hygrometer shows whether the humidity fluctuates as it should.

LIGHTING AND UVB

The species is diurnal and lives in full sun, so it needs strong daylight in the enclosure. Use a UVB tube for basking species that gives Ferguson zone 2 on the uppermost branches, and shade at the other end of the enclosure so that the animal can choose. The set-up is borrowed from the genus *Phelsuma*.

Keep the light on for about 12 hours a day, preferably controlled by a timer, and keep it completely dark at night. Replace the UVB tube when the manufacturer recommends it, because the radiation declines long before the tube stops lighting.

Read more: Lighting and UVB

FEEDING

The species is primarily insectivorous. Offer varied live insects such as crickets, grasshoppers, flies, moths and other flying and crawling insects of a size the animal can easily swallow. Flying insects are particularly good, because in the wild the species snaps its prey out of the air. The animals also take sweet nectar and fruit juice, so a small dish of diluted fruit purée or nectar can be given as a supplement a couple of times a week.

The insects must be well fed and dusted with calcium and vitamins, and calcium must be available to the animal at all times, especially to breeding females. Young are fed daily and adults every other day. Adjust the amount to the animal's body condition. Large animals can also take small lizards, so keep them apart.

Read more: Feeder animals: keeping and breeding

BEHAVIOUR AND HANDLING

Phelsuma standingi is a robust day gecko that is not particularly shy, but it is not an animal to be handled. Males are territorial and fight each other; females are just as aggressive towards other females. Therefore keep only one animal, or a pair in a very large enclosure with many hiding places, and separate them at the slightest unrest. Never keep two males together.

Too much handling stresses the animal, so leave it in peace, and do not grab the tail. The skin is firmer than in many other day geckos, but the animal must still be treated gently. The young can be kept together until they become sexually mature in their second year.

Breeding

SEXUAL MATURITY AND SEXING

The male has distinct pores in front of the cloaca, which become visible after about 14 months, and a yellow colouring around the cloaca. The female has well-developed calcium sacs on the sides of the neck. The animals become sexually mature in their second year, so wait until both are fully grown before you put them together. Females should be in good body condition with good calcium reserves before they lay eggs.

MATING

In the wild the animals mate in the rainy season from December to March, when there is most food, and in the enclosure too the mating season typically begins in December. Introduce the male to the female in a large enclosure with many hiding places, and watch them for the first few days, because the species is quarrelsome. If there are signs of serious aggression, the animals must be separated at once. If no mating is under way, the animals should not be kept together.

The need for a winter rest has not been documented, but a cooler period with shorter days after the breeding season corresponds to the dry season in the wild and is a good idea.

EGG-LAYING AND CLUTCHES

A little under six weeks after mating, the female lays two round, white eggs, sometimes only one. After that a new clutch comes about every four weeks. A female lays at most about twelve eggs in a season, on average nine. In the wild the eggs are laid in dark leaf axils. In the enclosure the eggs may be stuck to bamboo or branches.

Give the female plenty of calcium and insects throughout the season, and stop breeding if she loses weight.

INCUBATION

The eggs are moved carefully to an incubator without being turned. At 25 °C they hatch after about 65 days, and at 28 °C after about 60 days. Use slightly damp substrate and a box with air holes, as for other egg-laying geckos.

Do not examine the eggs too often. Eggs that collapse or go mouldy are usually infertile or dead.

Read more: Incubating eggs

REARING THE YOUNG

The young are green with distinct crossbands. They are compatible with each other until sexual maturity, and the adult animals leave them alone, probably because the crossbands deter them from eating the young. Still, keep them in a small enclosure with branches and plants, give them small insects dusted with calcium and vitamins and fresh water daily, and provide even warmth and humidity.

The markings disappear when the young are eight to ten months old. Rearing and feeding are uncomplicated. Divide the young by size, and take them out if some begin to fight.

Health and common mistakes

Phelsuma standingi is hardy, and most problems are caused by calcium deficiency, wrong temperature or too little humidity at night. The typical mistakes are:

- Too little calcium and vitamin D3, especially in breeding females. This causes soft bones and tremors. Dust the insects and provide UVB.
- Too little humidity at night, which causes skin problems and difficult sheds. Mist thoroughly in the evening.
- Fights between animals kept together, with bite marks, lost tails and stress.
- Too much heat under the lamp or contact with hot bulbs, which causes burns.
- Females that cannot lay their eggs (egg binding) sit lethargically and must go to a vet.

See a vet experienced with reptiles if the animal loses weight, refuses to eat for several days or becomes limp. Diseases specific to the species are not documented.

Read more: Common diseases and signs of illness

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.