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CHAMELEONS

Fischer's Chameleon

Kinyongia fischeri

Kinyongia fischeri is a large, green montane chameleon from the Nguru and Nguu Mountains in Tanzania. The male has a flattened rostral appendage and a crest of cone-shaped scales along the back. The species lays eggs and needs a cool, humid climate and a large, densely planted enclosure. Only a few animals of the true species have ever been exported, so its care is based on its closest relatives, and it suits the experienced keeper best.

Family: Chamaeleonidae Former name: *Chamaeleon fischeri; Bradypodion fischeri; Chamaeleon tornieri*

KEY FACTS

THE ANIMAL

Adult size	**30-40 cm** total length incl. tail
Lifespan	**6-7 years**
Active	**By day**
Lifestyle	**Arboreal**
Habitat	**Rainforest and montane forest**
Difficulty	**Experienced**

CARE

Min. enclosure	**60 × 60 × 120 cm** L × W × H for 1 adult
Temperature, day	**20-25 °C**
Basking spot	**27-29 °C**
Temperature, night	**12-16 °C**
Humidity	**70-100%**
Water	**No water dish**
UVB	**Recommended** Ferguson zone 2
Diet	**Insects**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**9-12 months**
Clutch size	**12-20 eggs**
Incubation	**240-330 days** at 17-25 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Near Threatened (NT)**

About the species

Kinyongia fischeri is a large chameleon in the genus *Kinyongia*. The male has a flattened rostral appendage of up to 20 mm that is equally broad from base to tip and has only a few serrated scales, and a straight upper edge. Along the back sits a crest of cone-shaped scales that in the male reaches to the middle of the tail and in the female only to the front third of the body. The female has a small rostral appendage of a few millimetres and a few knob-like scales on the front part of the back.

Throughout the group, males are white, yellow, light green to olive green, grey, brown and black in shifting patterns, while females are mostly green with yellow markings.

The largest animals reach a total length of about 40 cm, and females are smaller. The length is taken from the whole *K. fischeri* group and has not been measured separately for the true species.

The species name *fischeri* honours the German herpetologist Johann Gustav Fischer. In the trade the species name has for decades been used for the whole group, but most of the animals belong to other species, especially *Kinyongia multituberculata*, *Kinyongia matschiei* and *Kinyongia vosseleri*. All three are now separate species, as are *Kinyongia uluguruensis* and *Kinyongia tavetana*. An animal sold under the name *K. fischeri* is therefore usually a different species. The rostral appendage and the dorsal crest are the clearest features for telling the species apart.

Distribution and habitat

Kinyongia fischeri is known only from the Nguru and Nguu Mountains in eastern Tanzania. It is found neither in the Usambara nor in the Uluguru Mountains, where the related species live, and its range does not overlap with any of them.

The species is assessed as near threatened (NT). Since 2016 Tanzania has not allowed the export of wild-caught live animals, and until 2013 only three animals of the true species had been confirmed as exported to the trade.

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

> **Native range:** Tanzania.

HABITAT

Kinyongia fischeri lives in humid montane forest up to about 1,500 m in altitude. The animals sit mostly in bushes and small trees, especially at the forest edge. The climate is moderate and humid, the temperature varies only a little through the year, and the nights are cool. As a montane chameleon, the species is adapted to a stable, cool and humid forest climate and does not tolerate persistently high temperatures, unlike the drought-tolerant chameleons of the lowlands.

Care

THE ENCLOSURE

Almost nothing is known about the care of *Kinyongia fischeri* itself, because only a very few animals of the true species have been kept in captivity. Its care is therefore based on the climate in its range and on the closest, better-known relatives in the *Kinyongia fischeri* group, especially *Kinyongia matschiei* and *Kinyongia multituberculata*. The figures here are borrowed from them or estimated from the climate.

An adult needs an enclosure of at least 60 × 60 × 120 cm (length × width × height), and larger is better, because the species in the group move a great deal and are quick and curious. The species is kept singly, and males must not be able to see each other.

Furnish the enclosure very densely with plants, twigs and branches at several heights, so that the animal can withdraw into the foliage. The animals are shy, so opaque sides and an opaque back are an advantage. An enclosure of glass and mesh gives ventilation while retaining humidity, and a drain in the base removes excess water. A substrate layer is not necessary, but a female needs a laying site (see Breeding).

Read more: Humidity, misting and ventilation

TEMPERATURE

The temperatures are estimated from the montane climate. During the day it should be 20-25 °C with a basking spot of 27-29 °C, and at night the temperature should fall to 12-16 °C. Heat above 30 °C must be avoided, so in hot summers the enclosure should stand in a cool place.

Keep the air moving so that it does not become stagnant. Measure the surface temperature on the basking branch with an infrared thermometer.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity should be high, 70-100%, and highest at night and in the morning. The animal drinks droplets and should not be given a water bowl. Use a fogger for a couple of hours before the light comes on in the morning, and mist briefly in the morning and again in the afternoon. Branches and leaves must dry out during the day, so that mould and foot sores do not develop. Distilled or reverse osmosis water keeps foggers and nozzles clean.

LIGHTING AND UVB

The species is diurnal and needs a bright, but not too hot, enclosure. UVB is recommended, and Ferguson zone 2 is an estimate for a montane chameleon. Position the tube so that the animal can choose between light and shade, and keep the light on for 10-12 hours a day. Unfiltered sunlight outdoors is an advantage in summer, as long as the animal has shade and does not become too hot.

Read more: Lighting and UVB

FEEDING

Kinyongia fischeri eats insects such as crickets, roaches, silkworms, hornworms and locusts. The species in the group take anything that fits in the mouth, including smaller lizards. The feeder insects should be bred for the purpose and gut-loaded with nutritious food.

Adults get a couple of insects every other day, and young are fed daily. Montane chameleons are sensitive to supplements: dust the food with calcium about once a week, and give D3 only in winter, when the animal gets no sunlight. Wild-caught animals should be examined and treated for parasites.

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

BEHAVIOUR AND HANDLING

Kinyongia fischeri is shy and is stressed by handling. Do not pick the animal up without reason, and give a new animal a few weeks in peace before it is handled.

The species is kept singly, and males are territorial. If the animal stops eating, it needs a vet with reptile experience.

Breeding

SEXUAL MATURITY AND SEXING

Males are recognised by the long, flattened rostral appendage and the stout dorsal crest. Females have only a small rostral appendage. In the *Kinyongia fischeri* group the animals are sexually mature after 9-12 months, but females should only breed when they are 14-16 months old.

MATING

The female is placed with the male. If she is receptive, she tolerates the male's advances without aggression. If she rejects him, the animals must be separated at once. Without seasonal change in temperature, the group breeds all year round.

EGG-LAYING AND CLUTCHES

The female is gravid for about eight weeks. A few days before laying she begins to wander around and eat less, and then she digs a tunnel and lays the eggs at the end of it. The clutch is 12-20 eggs. Give the female a layer of at least 20 cm of slightly moist soil and sand at about 18-20 °C, and feed her daily and in a balanced way during gravidity to avoid egg-laying problems.

INCUBATION

The eggs are moved to a closed container with vermiculite, which must not be too wet (water and vermiculite 1:1 by weight). They are placed two thirds down in the substrate and must not be turned. Incubate at 22-23 °C by day and 17-18 °C at night for the first six months and then 1-2 °C warmer. The eggs then hatch after 8-11 months. The figures apply to the *Kinyongia fischeri* group; nothing is documented for the true species.

REARING THE YOUNG

The young can be reared in small groups for the first 2-3 months, but must then live separately. The temperature should be slightly lower than for adults, and the humidity high. Offer small insects with calcium and vitamins.

Health and common mistakes

There is no documented knowledge about diseases in *Kinyongia fischeri* itself. Typical problems in montane chameleons are:

- Overheating and burns from lamps that are too hot and temperatures that are too high.
- Dehydration from humidity that is too low and too few drinking opportunities.
- Intestinal parasites, especially in wild-caught animals.

- Respiratory infections in stagnant air.
- Metabolic bone disease from too little UVB and calcium.
- Overdosing of vitamins A and D.
- Sores and mould from branches that are wet all day.

Contact a vet with reptile experience if the animal stops eating, becomes dark and lethargic or breathes with its mouth open. Lifespan is not documented for the true species. In the *Kinyongia fischeri* group the animals live at most about 6-7 years in captivity.

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.