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CHAMELEONS

Graceful Chameleon

Chamaeleo gracilis

Chamaeleo gracilis is a medium to large, green to yellowish brown chameleon with a low casque, almost no lobes and a pale stripe along the flank. It lives in forests, scrub and savannas across large parts of Africa south of the Sahara and is one of the most common chameleons in the trade, where almost all animals are wild-caught. It needs a tall mesh enclosure with UVB, drinks only droplets and must live alone.

Family: Chamaeleonidae Former name: *Chamaeleo burchelli; Chamaeleo granulosus; Chamaeleo simoni*

KEY FACTS

THE ANIMAL

Adult size	**30-40 cm** total length incl. tail
Lifespan	**3-5 years**
Active	**By day**
Lifestyle	**Arboreal**
Habitat	**Savanna, dry forest and rainforest**
Difficulty	**Intermediate**

CARE

Min. enclosure	**60 × 45 × 90 cm** L × W × H for 1 adult
Temperature, day	**21-26 °C**
Basking spot	**26-32 °C**
Temperature, night	**15-20 °C**
Humidity	**50-70%**
Water	**No water dish**
UVB	**Essential** Ferguson zone 3
Diet	**Insects**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**4-5 months**
Clutch size	**20-40 eggs**
Clutches per year	**1-2**
Incubation	**210-365 days** at 22-27 °C

PROTECTION AND PAPERWORK

CITES	**Appendix II**
EU annex	**Annex B**
IUCN	**Least Concern (LC)**

About the species

Chamaeleo gracilis is a slender chameleon of 30-40 cm including the tail. The species name is Latin and means slender. The head is flat, sometimes slightly concave, with a low casque that projects only a few millimetres behind the head, and with distinct lateral ridges. The lobes at the back of the head that are known from *Chamaeleo dilepis* are very small or absent altogether. The scales are uniform apart from larger, cone-shaped scales that form a low crest along the back and a somewhat more distinct crest under the throat and belly.

The ground colour is green, yellow or light brown, often with a pale stripe along the lower part of the flank from the armpit to the groin. Under stress or when threatened, dark vertical bands can appear on the body and tail, and ray-like dark lines radiate from the eye. The skin between the scales of the chin is orange or red and is visible when the animal threatens. The body can be covered in small dark spots, which in receptive females are yellow to orange. Colour change follows mood, health and temperature and is not an adaptation to the background.

Females are usually larger than males, while males have a slightly taller casque and a thicker tail base (the hemipenal bulge). In the nominate form the male also has a small tarsal spur on the hind foot. The species is aggressive towards conspecifics but shy towards humans.

The form *etiennei* from Angola and Congo, whose males lack the tarsal spur, was formerly treated as a subspecies but is now regarded as a separate species. Almost all animals in the trade are wild-caught, and they often carry many internal parasites. With good care, the species typically lives 3-5 years in captivity.

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

Distribution and habitat

Chamaeleo gracilis has a very large range in tropical Africa. From west to east it occurs in Senegal, Gambia, Guinea, Sierra Leone, Liberia, Ivory Coast, Burkina Faso, Ghana, Togo, Benin, Nigeria, Cameroon, the Central African Republic and the Democratic Republic of the Congo, and onwards in Sudan, South Sudan, Ethiopia, Somalia, Uganda, Kenya and Tanzania. The type locality is in Liberia.

The species occurs neither in Gabon nor in Equatorial Guinea. The record from the island of Bioko, which underlies one of the species' old names, is probably an error. The species is common and classified as Least Concern.

> **Native range:** Senegal, Gambia, Guinea, Sierra Leone, Liberia, Côte d'Ivoire, Burkina Faso, Ghana, Togo, Benin, Nigeria, Cameroon, Central African Republic, Congo - Kinshasa, Sudan, South Sudan, Ethiopia, Somalia, Uganda, Kenya and Tanzania.

HABITAT

Chamaeleo gracilis lives in dry and humid forests and in savannas, and also tolerates scrub near plantations. The animals are diurnal and hunt in the morning and late in the afternoon, resting in the shade in the middle of the day when the sun is strongest. Males are territorial and threaten each other with colourful displays.

The diet is insects. The species breeds twice a year: in the dry season and again at the end of the rainy season. The range spans many climate zones, so animals in the trade can come from places with very different conditions. Dry savannas have large swings between day and night, while coastal forests are more uniformly humid and warm.

Care

THE ENCLOSURE

Chamaeleo gracilis is not a beginner species. Care is the same as for the closely related *Chamaeleo dilepis* and *Chamaeleo senegalensis*, and where figures are missing for the species itself, they are borrowed from them.

An adult needs a mesh enclosure of at least 60 × 45 × 90 cm (length × width × height), because females reach up to 40 cm. Bigger is always better. Juveniles can be kept in 40 × 40 × 75 cm. Only one chameleon should live in each enclosure: the animals are very territorial and are stressed by other chameleons, including those of the same sex and females nearby.

Mesh at the top and on the sides provides the ventilation the species needs. Lamps hang outside, on top of the mesh. Furnish the enclosure with many branches of different thicknesses and dense, sturdy, non-toxic planting, so the animal can retreat into foliage. The branches must be far enough from the mesh that the animal cannot get up under a heat source and be burned. The floor should have no loose substrate; live plants stand in pots.

TEMPERATURE

By day the temperature in the enclosure with *Chamaeleo gracilis* should be 21-26 °C, and on a basking branch it should be 26-32 °C. Start with a 60 W bulb and adjust according to the readings: a lamp that is too strong can cause serious burns, even through the mesh. Measure on the branch with an infrared thermometer, and place a probe down in the enclosure. The animal must be able to choose between warm and cool.

At night the temperature should fall to 15-20 °C; the figure is borrowed from *C. dilepis*. The species tolerates nights down to 10 °C, so night heating is only necessary below that. In that case use a ceramic heater or a room heater, and never a bulb, not even a red or black one.

HUMIDITY AND WATER

Humidity for *Chamaeleo gracilis* should be 50-70%. This is achieved by misting several times a day over all surfaces and with live plants; in a dry room, a cool-mist fogger or a timer-controlled rain system can help. The surfaces must dry completely between mistings, so that mould or stagnant water does not develop.

The species does not recognise standing water as drinking water and drinks only droplets from leaves. Use a drip placed on top of the enclosure so that the drops run down over the leaves, or mist the animal gently and let it drink until it stops. Bowls and waterfalls are not used. Dehydration is one of the most common causes of death in chameleons.

Read more: Humidity, misting and ventilation

LIGHTING AND UVB

Chamaeleo gracilis is diurnal and needs 12 hours of light and 12 hours of darkness. A UVB tube or UVB bulb is necessary, because the animal synthesises D3 in its skin and needs it to absorb calcium. Place the UVB source outside, on top of the mesh, so that the basking branch gets a UV index of around 3-4, corresponding to Ferguson zone 3. The zone is borrowed from *C. dilepis*.

Check with a UV meter. UVB sources emit UVB for only 6-8 months, even when they still light up, and must be replaced at least twice a year. A heat bulb that is too powerful can burn the animal badly, even at a distance and through the mesh.

Read more: Lighting and UVB Read more: Calcium, vitamins and supplements

FEEDING

Chamaeleo gracilis eats live insects: crickets, silkworms, hornworms, cockroaches such as *Blaptica dubia* and the occasional superworm. Mealworms and waxworms are fatty and are given only as a change. The insects must be no longer than the width of the animal's head, and they should be fed on calcium-rich greens for several hours before being given. Feed in the first half of the day, so the animal can warm up and digest.

Newly hatched juveniles get as many small insects as they can eat, several times a day. Juveniles of 3-6 months get 10-12 small insects daily, and juveniles of 6-12 months 10-12 medium-sized ones every other day. Adults get 5-7 small to medium-sized insects every other day. Uneaten insects are removed, because they stress the animal when they crawl around on it.

Dust the insects lightly with calcium without D3 at nearly every feeding, with a multivitamin every other week and with calcium with D3 every other week. Calcium deficiency causes metabolic bone disease, which is serious.

Read more: Feeder animals: keeping and breeding Read more: Common diseases and signs of illness

BEHAVIOUR AND HANDLING

Chamaeleo gracilis is shy but relatively calm around humans. It is an animal to look at, not to pick up. Handling stresses it and should only be done when necessary. Give a new animal plenty of time to settle in, and place the enclosure so that people are not constantly walking past.

The species is solitary. Males must never live together, and the sexes must live apart except when they are to mate. Dark colours, an inflated body and an open mouth are signs of threat or stress. The animal must never be picked up by the tail. It becomes brightly coloured when it is impressing or threatening, and then shows the orange or red skin under the chin.

Breeding

SEXUAL MATURITY AND SEXING

The male of *Chamaeleo gracilis* has a thicker tail base (the hemipenal bulge) than the female and a tarsal spur on the hind foot. Females are usually larger. The animals become sexually mature after 4-5 months, but females should not breed until they are at least a year old, so they have enough calcium for both eggs and their own growth.

A female can produce eggs without having met a male, so an adult female must always have access to a laying container, even without a male. An unfertilised clutch is just as large as a fertilised one.

MATING

Chamaeleo gracilis breeds twice a year in the wild. In *Chamaeleo dilepis*, a period of about three months with heavier misting, during which the male is kept apart, makes the animals receptive to mating, and the same can be used here. A cold period is not necessary.

A receptive female shows bright yellow to orange spots. Only put them together under supervision and separate them immediately after mating, because the male is aggressive and the female may attack him. A single mating can produce several clutches from the same male.

EGG-LAYING AND CLUTCHES

The female of *Chamaeleo gracilis* lays 20-40 eggs in a clutch, and there are 1-2 clutches a year. The laying container must be ready in good time. It should be at least 40 × 40 × 40 cm with at least 30 cm of washed play sand or a mixture of sand and soil, moist enough for a tunnel to hold its shape. Place a branch from the enclosure down to the container. The female digs a tunnel head first, backs into it, lays the eggs and closes it again.

She needs complete peace during egg laying, and the enclosure can be covered with a cloth with a peephole. Egg laying can take from a few hours to several days. Eggs that cannot be laid (egg binding) are life-threatening and require a vet immediately. After laying, she needs at least a week of peace, extra water and calcium-rich food.

INCUBATION

The eggs of *Chamaeleo gracilis* are carefully lifted out and placed in the same orientation as they were laid, without being turned. They are placed half buried in moist, coarse vermiculite in a tightly closed container with a few small holes. The substrate should be moist enough that only a few drops come out when you squeeze a handful, and the lid must fit tightly.

The incubation temperature is 22-27 °C, and the eggs hatch after 7-12 months. The figures apply to *C. gracilis*, *Chamaeleo dilepis* and *Chamaeleo senegalensis* taken together. Remove eggs that turn grey or go mouldy.

Read more: Incubating eggs

REARING THE YOUNG

The young of *Chamaeleo gracilis* are small and easily become thirsty. Mist each juvenile separately until it stops drinking. Set up a small mesh enclosure with many branches and plants, UVB and the same temperatures as for the adults, and give small insects several times a day, dusted with calcium. Juveniles that seem stressed should be removed and reared alone. The size of the young at hatching and their growth are not documented for the species.

Health and common mistakes

Most problems are caused by care and can be avoided with the right heat, UVB, humidity and airflow. The typical ones are:

- Internal parasites and stress in wild-caught animals, which almost all animals in the trade are. Have a new chameleon examined with a faecal sample by a vet before it comes into contact with other animals.
- Dehydration, one of the most common causes of loss. Signs are sunken eyes and wrinkled skin.
- Bone loss (metabolic bone disease) from too little UVB or calcium. Provide UVB and calcium.
- Respiratory infection in humid, stagnant air: mucus in the mouth, open mouth, lethargy. Ensure ventilation.
- Egg binding in females, which is acute and life-threatening and requires a vet. Avoid overfeeding.
- Burns from lamps if the branches are too close to the heat source.

A healthy animal has open, clear eyes, plump skin, grips the branch firmly and eats. See a vet with reptile experience if the animal is not eating, is losing weight, has its eyes closed by day or sits dark and 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.