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CHAMELEONS

Oustalet's Chameleon

Furcifer oustaleti

Furcifer oustaleti is one of the largest chameleons in the world. The male reaches up to 68 cm in total length, the female about 40 cm. The male is grey and brown with a tall casque, while the female may show red, yellow and green markings. The species is highly adaptable in the wild, but requires a large, tall enclosure, strong UVB and a keeper with chameleon experience.

Family: Chamaeleonidae Former name: *Chamaeleo oustaleti*

KEY FACTS

THE ANIMAL

Adult size	**40-68 cm** total length incl. tail
Lifespan	**3-5 years**
Active	**By day**
Lifestyle	**Arboreal**
Habitat	**Savanna, dry forest and rainforest**
Difficulty	**Experienced**

CARE

Min. enclosure	**90 × 90 × 120 cm** L × W × H for 1 adult
Temperature, day	**24-30 °C**
Basking spot	**35-40 °C**
Temperature, night	**16-21 °C**
Humidity	**60-100%**
UVB	**Essential** Ferguson zone 3
Diet	**Insects**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**6-12 months**
Clutch size	**20-40 eggs**
Clutches per year	**2-4**
Incubation	**243-365 days** at 20-28 °C

PROTECTION AND PAPERWORK

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

About the species

Furcifer oustaleti is among the largest chameleons in the world. The male reaches almost 70 cm in total length, about half of which is tail, and the female grows to about 40 cm. The body is slender for its length. Large males weigh 400-500 g, but many weigh less, and females are always lighter.

The male is mostly grey or beige and has a tall, rounded casque. Young males are often green. The female is more colourful than the male and may show red, yellow and green in her pattern and sometimes blue eyelids. The casque is less developed in the female. In the west, males often have red feet and an orange belly. The male can also be recognised by his broader tail base.

The species can be confused with *Furcifer verrucosus*. The name honours the French zoologist Jean-Frédéric Émile Oustalet. The species has been kept in captivity for decades, but its subdued colours and large size make it less popular than its more colourful relatives.

Distribution and habitat

Furcifer oustaleti is native to Madagascar and occurs almost everywhere on the island, including Nosy Faly. The species is one of the island's commonest chameleons and lives in both dry and humid regions.

It is rare deep inside undisturbed forest, but common at forest edges, in scrub, gardens, plantations and villages, and it is even seen on walls in the middle of towns.

Introduced populations exist in Florida and near Nairobi in Kenya. They are not part of the species' natural range.

> **Native range:** Madagascar.

HABITAT

The species lives in dry deciduous forest, humid evergreen forest, montane savanna, disturbed forest and farmland. It prefers forest edges and open, sunlit margins to dense forest and is highly adaptable.

It is diurnal and hunts from branches and bushes, sometimes close to the ground. Its prey is large insects, but also small vertebrates such as lizards and birds, and the species regularly eats fruit, even in the rainy season. In the coastal lowlands, where the species is abundant, humidity is above 70 % even in the dry season, and dew forms every day. The species is therefore not a desert chameleon, even though it also lives in dry areas.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

An adult needs an enclosure of at least 90 × 90 × 120 cm (length × width × height), and more is better, especially in height. The species grows large, and dimensions that suit smaller chameleons are far too small. A mesh enclosure provides the fresh air the species requires. Use strong mesh that rodents cannot chew through. Chicken wire should be avoided because it injures the toes.

Furnish with a robust, non-toxic bush such as a *Ficus* that can bear a heavy animal, and add sturdy branches at many angles, both at the top near the heat and low down in shade. A gravid female digs, so the floor must be built so that she cannot dig her way out. Kitchen paper is a good substrate. Avoid loose substrate, which can stick to the tongue.

A large outdoor enclosure in summer is good for the animal's wellbeing. It must offer both direct sun and shade all day, and the animal must be able to retreat from rain and cold.

TEMPERATURE

The daytime temperature should be 24-30 °C, with a basking spot of 35-40 °C measured as surface temperature with an IR thermometer. The figures for the basking spot, the night and the UVB zone are borrowed from *Furcifer pardalis*. A clear gradient is important, so the animal can choose for itself how warm it wants to be.

The temperature in the enclosure can rise to about 32 °C when the air is humid at the same time. Dry heat is more dangerous than humid heat. If the animal opens its mouth and turns pale, it is too hot. At night the temperature falls to 16-21 °C when all lamps are off. Use a powerful halogen bulb with a dimmer for the basking spot, and connect all lamps to a timer.

Read more: Lighting and UVB Read more: Heat and temperature

HUMIDITY AND WATER

Humidity should be 60-100 %, with the highest values at night and after misting. The species is often considered to like dry conditions, but this is wrong: it has a high need for water.

Offer water every day. Mist plants and animal twice a day when humidity is above 70 %. If it is lower, the animal also needs a thorough watering once a week. This can be done with a gentle shower-like rain for 30-60 minutes while the animal sits on a plant or a stand. A drip or sprinkler system and a cold-mist humidifier running at night help. The animal drinks droplets from the leaves, not from a bowl. Standing water in the substrate should be avoided.

LIGHTING AND UVB

The species is diurnal and sun-loving and requires strong light and UVB. Use a T5 HO tube of 6500 K and a UVB tube that gives Ferguson zone 3 at the basking spot. Give the animal the chance to seek shade. Ordinary LED lamps do not give usable UVB.

Give 12-13 hours of light a day, preferably a little less in winter. Replace UVB tubes according to the manufacturer's instructions, because the output falls with age. Natural sunlight is the best, but not through glass, which removes UVB and can overheat the animal.

FEEDING

F. oustaleti is primarily an insectivore. Offer a varied selection: crickets, grasshoppers, cockroaches, mealworms and superworms. Large animals will also readily take larger prey. The insects should themselves be fed a rich diet of fresh greens and fruit, and they are dusted with calcium, D3 and vitamins according to a fixed schedule. A few pieces of fruit can be offered now and then.

Young animals are fed every day, adults every other day. Three to five suitably sized insects per meal are enough; 10-20 crickets a day is too much. Chameleons may eat less for periods, especially when it is cooler, and before egg laying.

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

BEHAVIOUR AND HANDLING

The species is kept singly. The male is territorial, and the animals are moderately aggressive towards conspecifics. Towards the keeper most are calm, but some are defensive and bite.

Handling stresses the animal. Do not pick it up without reason, and do not force an animal that jumps away. Wild-caught and imported animals often carry many parasites and are highly stressed. Once the parasites have been treated, the species is on the other hand hardy.

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

Breeding

SEXUAL MATURITY AND SEXING

The male has a broader tail base than the female, and the female is smaller and slimmer. In the female the casque is smaller, and the colours are often stronger. Sexual maturity is reached after 6-12 months.

MATING

Bring the female to the male's enclosure and leave them together for a few days. If either shows violence, they must be separated and tried again after a few days. One mating provides enough sperm for several clutches, but fertility declines if the female is not mated again. A healthy female can usually be put with the male again two weeks after laying.

The female can be felt for eggs with a gentle pressure on the belly 3-4 weeks after mating. The eggs are the size of small beans.

EGG-LAYING AND CLUTCHES

The female lays the eggs about 40 days after mating. A clutch is 20-40 eggs, and large females can lay over 60. In captivity the female lays 2-4 clutches a year.

A female that is ready to lay walks restlessly back and forth and digs trial holes. Give her a deep laying container, for example a bin of about 100 litres, filled with moist soil to a depth of twice the female's length. The soil must be able to hold a tunnel and be moist without being wet. The female often digs for hours or days. When the holes have been covered over and she is back in the bush, the eggs are dug up carefully. The female is thinner after laying.

INCUBATION

The eggs are placed in a closed tub with moist vermiculite, so they are half covered. The vermiculite should give off only a couple of drops when squeezed.

The incubation period is long, 8-12 months, and the lower the temperature, the longer it takes. Incubate the eggs at 24-27 °C by day and 14-17 °C at night. At a constant 28 °C they hatch after about 274 days. After about seven months a little extra water can be added as a spring shower.

Open the tub once a week to check temperature and humidity. When the eggs begin to swell and sweat, hatching is near.

Read more: Incubating eggs

REARING THE YOUNG

The young weigh about 0.8 g at hatching and have a good appetite. Offer fruit flies and small crickets, and feed daily. The young are separated within a week or two. Care is otherwise the same as for the adults on a smaller scale. Mist the plants, and keep the young at stable warmth and humidity.

Health and common mistakes

Typical problems and husbandry errors:

- Intestinal parasites, which are common in imported animals and can be difficult to get rid of. Have a faecal sample examined by a vet, and repeat it as a check.
- Dehydration, if the animal does not get water daily or the air is too dry.
- Overheating from dry heat, an overly powerful lamp or sun through glass.
- Metabolic bone disease (MBD) from too little UVB or calcium.
- Injuries to the toes from chicken wire or overly fine mesh.
- Egg-laying problems, if the female has no suitable place to dig.

Longevity in captivity is short: the oldest animals reach about 5 years, and the average is much lower. Contact a vet with reptile experience if the animal stops eating, turns dark and listless or breathes with its mouth open.

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.