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CHAMELEONS

Spectral Pygmy Chameleon

Rhampholeon spectrum

Rhampholeon spectrum is a small, leaf-like chameleon of 7-10 cm from the forest floor of West and Central Africa. It is greenish brown to grey like a dead leaf, with two slanting dark stripes on the sides and a small, soft flap of skin on the snout. It is kept in a small, humid, densely planted enclosure with a thick layer of leaf litter. Its care is little known, so the figures are based on close relatives.

Family: Chamaeleonidae Former name: *Brookesia spectrum; Chamaeleo spectrum; Rhampholeon affinis*

KEY FACTS

THE ANIMAL

Adult size	**7-10 cm** total length incl. tail
Lifespan	**2-4 years**
Active	**By day**
Lifestyle	**Arboreal and terrestrial**
Habitat	**Rainforest and montane forest**
Difficulty	**Experienced**

CARE

Min. enclosure	**40 × 30 × 40 cm** L × W × H for 1 adult
Temperature, day	**20-25 °C**
Temperature, night	**16-20 °C**
Humidity	**70-95%**
UVB	**Recommended** Ferguson zone 1
Diet	**Insects and small invertebrates (springtails, fruit flies)**
Kept	**Singly**

BREEDING

Reproduction	**Egg-laying**
Sexually mature	**3-9 months**
Clutch size	**2-5 eggs**
Incubation	**150-210 days** at 18-23 °C

PROTECTION AND PAPERWORK

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

About the species

Rhampholeon spectrum is a small chameleon of 7-10 cm in total. The body measures at most about 6 cm from snout to vent, and the tail is short, blunt and not prehensile. The body is compressed from the side and resembles a leaf, with a low casque, small horns above the eyes and scattered, enlarged scales that give the skin a rough, almost spiny appearance. On the snout sits a small, soft flap of skin.

The colour varies from greenish brown to pale grey and can have a reddish-orange tinge. Two parallel dark lines run obliquely across the sides and imitate leaf veins, and irregular light and dark spots give a lichen-like look. The belly is often paler than the sides. The male is recognised by a distinctly broader tail base, where the hemipenes lie.

The genus name *Rhampholeon* comes from Greek and means 'beak lion'; it refers to the flap of skin on the snout. The species was described in 1874 and is the type species of the genus. The East African form *boulengeri* was formerly regarded as a subspecies but is now treated as a separate species, *Rhampholeon boulengeri*. Even the current *R. spectrum* consists of several genetically distinct populations in the lowlands, in the mountains and on Bioko and may turn out to cover several species.

Distribution and habitat

Rhampholeon spectrum is native to West and Central Africa: Nigeria, Cameroon, Equatorial Guinea (including the island of Bioko), Gabon, the Republic of the Congo and the Central African Republic. The type locality is in Cameroon, at Bonjongo near Limbe. The species is the only one in the genus found in West and Central Africa; the other species live in eastern and south-eastern Africa.

Older records from East Africa cover *R. boulengeri* and other related species, which are now separated from *R. spectrum*.

> **Native range:** Cameroon, Congo - Brazzaville, Equatorial Guinea, Central African Republic, Gabon and Nigeria.

HABITAT

The species lives in rainforest, both in the lowlands and in the montane forests along the Cameroon Line, for example on Mount Cameroon, Mount Kupe and Mount Manengouba. It stays in the leaf litter and in the low vegetation. The animals are diurnal and hunt by sitting still and waiting for prey. By day they stay close to the ground, and at night they sleep up in bushes and small trees.

The climate in the range is warm and humid all year with a distinct rainy season, and in the mountains it is cooler. Temperature and humidity at the animals' resting places have not been measured.

Read more: Humidity, misting and ventilation

Care

THE ENCLOSURE

Little is known about the care of *Rhampholeon spectrum*. The care is based on the closest, better-known relatives from East Africa, *Rhampholeon spinosus*, *Rhampholeon temporalis* and *Rhampholeon acuminatus*, which have the same way of life and size, and the figures are borrowed from them.

A single adult needs an enclosure of at least 40 × 30 × 40 cm (length × width × height); 40 × 40 × 40 cm is better. A mesh enclosure or a glass enclosure with large ventilation areas at the front and in the lid is best, but the air exchange must be moderate, so the humidity is retained. Preferably make one of the sides solid with a panel.

The substrate must be deep and damp: 5-8 cm of soil mixed with sand (about 2:1, without perlite) and covered with moss and a thick layer of dry leaves. Plants such as ferns, *Ficus benjamina* and small creeping plants provide cover and droplets to drink from. Place thin branches at many angles, both near the floor and higher up. A water dish is not necessary.

TEMPERATURE

The daytime temperature must be 20-25 °C and the night temperature 16-20 °C. The drop at night comes by itself when the lamps are switched off. The species does not need a basking spot; a weak spotlight is optional, but the surface under it must reach at most 28 °C, measured with an IR thermometer. The species does not tolerate heat, and above 30 °C is dangerous.

In a cool room no extra heat is needed at night. Measure the temperature both at the bottom and at the top, because it can vary by several degrees between the two levels.

Read more: Heat and temperature

HUMIDITY AND WATER

The humidity should be 70-95 % by day and 80-95 % at night. Mist the enclosure thoroughly at least twice a day, in the morning and again in the evening, with lukewarm water. The animals drink droplets from the leaves and water running down over the head, and not from a dish.

The surface of the soil and the leaf litter must be able to dry a little between mistings, and the droplets must be gone after 2-3 hours. Stagnant humidity without air exchange causes fungus and skin problems.

LIGHTING AND UVB

The species is diurnal and lives in shade, so the light must resemble the forest's subdued light. Use a weak T5 tube with UVB over about half of the lid (Ferguson zone 1), so the UV index at the uppermost branches is about 1 and the rest of the enclosure is in shade, and a daylight-coloured LED light for the plants. Switch the lights on for 10-12 hours a day.

UVB tubes must be replaced according to the manufacturer's instructions, because the output falls with age. Plants and hides ensure that the animal can always choose shade.

Read more: Lighting and UVB

FEEDING

The species eats small insects and other arthropods: fruit flies, small crickets, bean beetles, grain weevils, small cockroaches and springtails for the youngest. Prey may be at most about 20 % of the animal's body length. The feeder insects must themselves have good food, and insects that are not eaten are removed before night, so they do not bother the animal while it sleeps.

Adults are fed 3-4 times a week, preferably in the morning, when they are most active. Dust the insects with a calcium and vitamin supplement 1-2 times a week. A shallow dish can keep the prey together. Newly bought, wild-caught animals are often weakened and dehydrated and may have intestinal parasites, so a faecal sample at the vet is recommended.

Read more: Feeder animals: keeping and breeding Read more: Calcium, vitamins and supplements Read more: Buying animals: captive-bred, wild-caught and transport

BEHAVIOUR AND HANDLING

The species is kept singly. Aggression between conspecifics is low, but two animals together easily stress the subordinate one, so they are put together only for mating. The animals are quiet and do not want to be touched: touch makes them vibrate and stresses them. Use your hand only when necessary.

When stressed or faced with unwanted mating attempts the animal turns darker. Dense vegetation and hides reduce stress.

Breeding

SEXUAL MATURITY AND SEXING

The male has a broader tail base and a distinct hemipenal bulge. The female is rounder and becomes very spherical when carrying eggs. The animals can be sexually mature as early as 3 months, but the closest relatives do not mature until 8-9 months, so allow 3-9 months.

MATING

Place the male with the female. A receptive female remains pale and still; a female that is not ready turns dark and threatens with an open mouth. Remove the male if the female rejects him repeatedly. Mating probably takes place at dusk. Take the male out again after mating, so the female gets peace.

EGG-LAYING AND CLUTCHES

The clutch is 2-5 eggs. The female goes down to the ground and lays the eggs in moss, under the leaf litter or in the uppermost centimetre of the soil. The soil layer must be damp and at least 5 cm deep. How many clutches the species lays per year is not documented; the close relatives lay several clutches a year, often in the same place. The female becomes slim again once she has laid.

INCUBATION

The eggs can stay in the enclosure and develop at the natural temperature of 18-23 °C with a slight drop at night, or they can be moved to a small box with damp vermiculite (about 9 g of vermiculite to 12 g of water) with small air holes in the lid. The incubation period is not documented for the species; in the close relatives it is about 5-6 months, so 150-210 days is an estimate. The young most often hatch at night or early in the morning.

Read more: Incubating eggs

REARING THE YOUNG

The young are about 30 mm long and weigh about 0.3 g. Move them to a small container of about 20 × 20 × 20 cm, furnished like the adults', with thin branches and small ferns, so they easily find their food. Give fruit flies, springtails and other small insects every other day. After about four months they can move to an enclosure of the adults' size. When the sexes can be told apart, each animal must have its own enclosure.

Health and common mistakes

Typical problems and mistakes in care:

- Dehydration from misting too seldom or humidity that is too low.
- Heat stress at temperatures above 30 °C; the animal turns dark and limp.
- Intestinal worms in newly bought animals, especially wild-caught ones. Have a faecal sample examined at the vet.
- Bone loss (MBD) from too little UVB or calcium.
- Fungus and skin problems if the soil and leaf litter never dry.
- Stress from touch, from being kept together with conspecifics and from disturbance.

Lifespan in captivity is not documented; 2-4 years is an estimate based on other small stump-tailed chameleons. Contact a vet with reptile experience if the animal stops eating, is limp or breathes with an open mouth.

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.