

CAPTIVE CARE AND BREEDING OF THE CARPET CHAMELEON

BY PETR NEČAS



Furcifer lateralis



The carpet chameleon, *Furcifer lateralis* (Gray, 1831), also known as the jewel chameleon, is endemic to Madagascar.

It is one of the few chameleon species not seriously affected by ecological devastation. In fact, due to its ability to invade disturbed areas, this chameleon has adapted to living in new, highly utilized agricultural lands. It is widespread throughout Madagascar, except for the northern tip and north-western area, occurring at elevations from sea level to 2,000 meters.

The systematics of this taxon is simple, as most authors have recognized its species status. Only one other name, *Chamaeleo lambertoni* described by Angel in 1921, was later synonymized with *Chamaeleo lateralis*. Klaver and Böhme placed the carpet chameleon in the genus *Furcifer* in 1986. The subspecies *Furcifer lateralis major* seems to represent a separate species.

Adult carpet chameleon. Photos: P. Nečas



Large terrariums for *Furcifer lateralis*. Photo: M. Vilella

Description

The carpet chameleon is one of the small chameleon species. Although males can grow to 28 centimeters in total length, they usually measure about 20 centimeters. Specimens from lowland areas are generally larger than those from higher elevations. The head of this chameleon bears a low casque with a sharp convex parietal crest. The body is more or less homogeneously scaled, and only the throat and back have small crests composed of conical scales. Occasionally there may be some slightly enlarged plate-like scales scattered on the body.

The main colors seen in this species are gray, brown, green, and yellow, but the range of colors also includes pale blue, red, and orange. The irregular pattern on the body is reminiscent of an oriental carpet—hence the common name of the species. A dark, diverging radiant pattern of stripes originates on the eyelids and continues over the surrounding head. A narrow stripe, which is usually white, stretches from the casque to the tail base, and is decorated with three or four ocelli resembling necklaces. The head crests are often white. Females are generally more colorful than males; the most colorful patterns can be seen in gravid females or during the mating season.

Habitat

Furcifer lateralis inhabits wet savanna, as well as both dry and humid forest. It can be found in the canopies of trees, on shrubs, and in grass meadows, but perhaps most frequently in bushes and hedges. The climate of the large and heterogeneous range cannot be easily described. Knowledge of the exact



Shooting out its tongue. Photo: M. A. Pérez

locality for a particular animal, therefore, is helpful in establishing appropriate captive conditions.

Daytime temperatures in the region generally range between 18 and 25°C (65–77°F), and at lower elevations can go as high as 35°C (95°F). Nighttime temperatures



Furcifer lateralis. Photo: M. Vilella

range between 10 and 20°C (50–68°F), and at higher elevations can go as low as 2°C (35.5°F).

Humidity in the daytime is generally above 60 percent and rises to at least 90 percent at night. The average yearly precipitation is 2,000 mm (950–3,500 mm) with a well-defined rainy season in winter.

Behavior

Furcifer lateralis is a nervous and aggressive species. Captive specimens must be housed individually. These chameleons direct their aggression toward all animal species, not just their own kind. When approached, a carpet chameleon flattens its body laterally, holds its front feet together in a “pinching” position, and lifts the forelegs, grasping the branch with its hind limbs and tail. It may open its mouth and hiss, and may bite if the other animal continues approaching. When attacked or frightened, the carpet chameleon sometimes falls into a state of akinesis.

Captive housing

The terrarium for a carpet chameleon should accommodate the climbing activity of this species: it must be spacious, measuring about 40 x 30 x 60 centimeters (L x W x H) or more.

Daily temperatures can range from 25 to 30°C (77–86°F), but most carpet chameleons seem to feel best at about 28°C (82.5°F). The tolerated maximum is 32°C (89.5°F). Normal room temperature at night is satisfactory, but it can also be a little lower.

High humidity (above 60 percent) may be achieved by misting the terrarium several times a day, planting vegetation, and by maintaining relatively low ventilation.

Feeding

Carpet chameleons can be difficult feeders. They eat newborn mice, yellow mealworm larvae, or cockroaches only after several days of fasting. Otherwise, crickets and wild-caught insects are usually readily accepted. Carpet chameleons tend to consume large amounts of food, but obesity is



Furcifer lateralis eggs being incubated. Photo: P. Nečas



Eggs hatching. Photo: M. A. Pérez

rare in this species. With frequent misting, water intake is satisfactory through licking droplets from vegetation. Additional water may be offered once a week with a syringe or pipette.

Reproduction

When a male carpet chameleon sees a female, it inflates its body and quickly approaches while shaking its head. Males are nearly always ready to mate, and care little about the intimidation reaction of the female. A female can seriously bite the male, but he can also bite her back.

A receptive female is easily recognized by her unusually bright col-



Furcifer lateralis hatchling. Photo: M. A. Pérez

oration, as well as by showing no signs of intimidation while slowly moving away from the male. The male quickly catches up and mounts



Carpet chameleon in a terrarium. Photo: M. A. Pérez



Baby carpet chameleon. Photo: M. Villena

her back, and the partners join cloacas. Copulation lasts from 5 to 20 minutes. Mating usually occurs just once, after which the female immediately chases the male away.

Gestation lasts 30 to 52 days. A female carpet chameleon lays 4 to 23

eggs (usually about 10). In the wild, the female lays her eggs in a nest burrow about 10 centimeters deep. In captivity, however, the eggs are often scattered on the ground — the female may deposit them while perching on a branch. This behavior could be due

to low substrate temperature. When the substrate is heated to about 25°C (77°F) the female almost always buries her eggs. A female can mate again about 2 weeks after laying eggs. In the wild, female carpet chameleons apparently lay eggs up to 5 times a year.



Furcifer lateralis. Photo: M. Villena

The incubation period lasts from 154 to 378 days, depending on the temperature regime. Incubation has been known to be problematic as eggs do not develop when kept at a constant temperature.

Following is a safe way of incubating eggs. The eggs should be transferred to moist vermiculite immediately after they are laid, and the temperature in the incubator should be set to 25°C (77°F) for the first 45 days. The temperature must then be lowered to 10-15°C (50-59°F) for about 40 days to allow the eggs to hibernate. Thereafter, the temperature is raised to about 27-28°C (81-82.5°F). Increasing the temperature after a period of hibernation initiates a phase of rapid embryonic development.

A detailed study of these phenomena showed that eggs can be maintained at rest for up to 230 days and development still resumes. This certainly has its purpose in the wild. All eggs, no matter when they are laid, can develop at climatic conditions that are most favorable for the survival of offspring. The young chameleons hatch at the beginning of the warm and humid summer — 80 to 120 days after the embryos have resumed development after the cool resting period. Neonates measure 22-35 millimeters in total length.

Because of their aggressive nature, juvenile carpet chameleons need to be housed individually. Humidity should be high, and the best temperature is 25°C (77°F). With good conditions, and plenty of food and water, the young thrive and grow remarkably fast. Within 2 months, they measure about 60 millimeters in total length; within 3 months, 100 millimeters. The carpet chameleon reaches sexual maturity at 4-6 months of age. A female can lay eggs at 5 months of age.

This species has an extremely short life span, living only about a year in the wild. In captivity, with good care, a carpet chameleon can live for 2-3 years. Females cease reproductive activity after 4-9 clutches, but may live for another year. ■



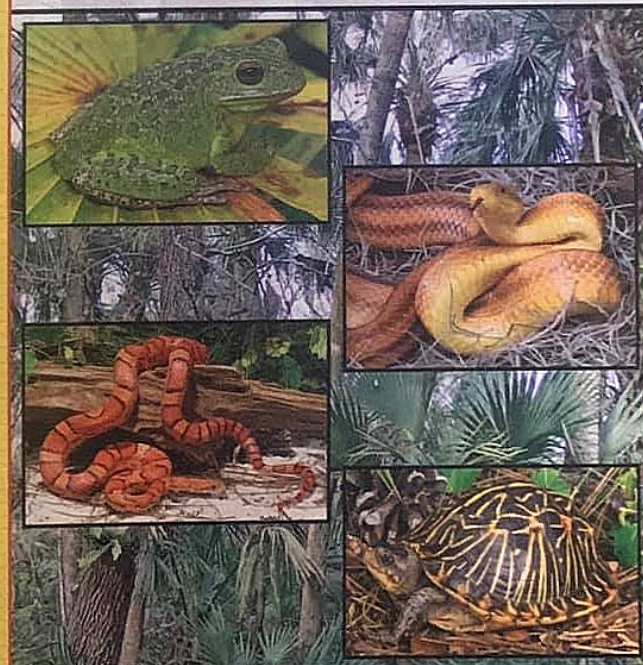
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