

# Keeping and Breeding the Panther Chameleon

By Petr Nečas

## FURCIFER PARDALIS



*Furcifer pardalis* adult male in a terrarium. Photo: H. Diez Bosch



The panther chameleon, *Furcifer pardalis* (Cuvier, 1829), is found on the island of Madagascar (including the offshore islands Nosy Be and Nosy Boraha), and on the islands of Réunion and Mauritius. In Madagascar, the species is distributed along the entire eastern coast, and along the north-western coast southward to the island of Nosy Be.

The panther chameleon has been known by various scientific names, including *Chamaeleo ater* Lesson, 1832; *Chamaeleo niger* Dumeril & Bibron, 1836; *Chamaeleo guentheri* Boulenger, 1888; *Chamaeleon longicauda* Günther, 1891; *Chamaeleon axillaris* Werner, 1899; and *Chamaeleon krempfi* Chabanaud, 1923. All of these names are currently considered synonyms of *Furcifer pardalis*. Kläver & Böhme placed this chameleon in the genus *Furcifer* in 1986.





*Furcifer pardalis* adult male. Photo: N. Diez Bosch

Although no subspecies of *Furcifer pardalis* are recognized, various populations are well differentiated, not so much in morphology but by coloration. The various forms are popular in captivity, and are known by unofficial and taxonomically invalid names, mainly from the localities of their origins—e.g., Ambanja, Nosy Be, etc.

#### Habitat

The panther chameleon lives exclusively in coastal lowlands. These areas are warm and humid, with average temperatures ranging from 22 to 28°C (72–82°F) throughout the year, and daily temperature fluctuations of 6 degrees Celsius (about 11 degrees Fahrenheit). Temperatures in the summer can reach 40°C (104°F). The relative humidity is generally between 70 and 100 percent. The yearly climatic cycle is

characterized by a long rainy season lasting from November to March, and a dry season for the rest of the year. The coastal air remains humid



*Furcifer pardalis* adult female. Photo: N. Diez Bosch

even in the dry season. Annual precipitation is about 2,000 millimeters. This species has no particular habitat preference. It is found almost anywhere, including on shrubs, trees, palm trees, electrical wires, cultivated plants, beaches, etc. The only limiting factors seem to be availability of food and sufficient warmth and light. Because the panther chameleon has a low degree of habitat specificity, it is also able to invade agricultural land. In such altered areas it replaces other lizard species, and particularly other chameleons, that are not so ecologically adaptable.

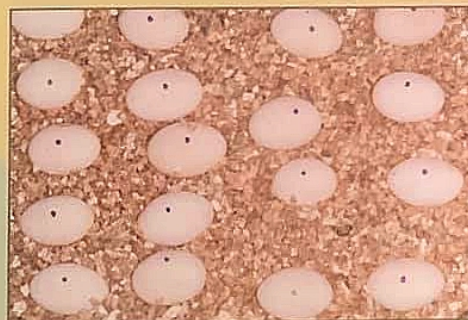
#### Description

*Furcifer pardalis* is one of the largest chameleons. Males are known to reach more than 52 centimeters in total length (although most are under 40 centimeters); females are significantly smaller. The entire body is covered with various oval scales. Only medial scales are conical, forming the dorsal and gular crests. In males, two flattened bony protuberances arise from the fusion of rostral crests and are covered with enlarged scales. These two horn-like structures are absent in females and juveniles.

The coloration of males is different from that of females, but this is difficult to describe due to the high degree of variation. Females are mostly gray, brown, pink, orange,



Copulation. Photo: N. Diez Bosch



*Furcifer pardalis* eggs. Photo: P. Heles



Hatching emerging. Photo: J. Fernandez Pacheco

red, or reddish, whereas males are more colorful, showing a higher degree of contrast, and displaying more blues, greens, and yellows. Both sexes have color patterns consisting of about five pale and five dark bands extending over the dorsum to the belly. They also have similar banding on the tail and limbs. There are radiant stripes on the head, and there is a longitudinal stripe extending from the shoulder to the pelvis on each side. Sexual dimorphism is apparent, with males being distinguished by their "horns" and broader tail base.

#### Behavior

*Furcifer pardalis* is an agile, fast moving (and even jumping) chameleon. Most specimens adjust well to captivity and do not react to the presence of humans. Males are intolerant of one another, however, and their fights can result in serious injury. In any case, aggressive behavior is displayed only when the males get too close, coming within a critical distance. Male-female interaction is not entirely neutral, and more often it is the female that bites the male.



*Furcifer pardalis* adult shedding and eating. Photo: N. Diez Bosch





Hatchling panther chameleon. Photo: J. Fernández Pecheco

Panther chameleons live in dense populations — one individual for every couple of square meters — so visual contact is common.

#### Captive housing

The terrarium for an individually housed *Furcifer pardalis* should mea-

sure about 80 x 60 x 80 centimeters (L x W x H). The substrate should consist of moist sand and moss, and there should be potted plants and branches for climbing. Light can be provided with a white fluorescent tube, and a diagonally mounted spot lamp for extra heat. Daytime temperatures in

the enclosure should be about 30°C (86°F). Normal room temperature is adequate at night, but it is important not to let these animals get too cool. Even only a few days exposure to temperatures near 20°C (68°F) can cause irreversible metabolic damage. Slow airflow through a well-planted terrarium seems to be more appropriate than intense ventilation, which is not required. Misting regulates the humidity, with frequency depending on the simulated season.

#### Diet

The panther chameleon feeds on practically any animal of appropriate size, including crickets, grasshoppers, locusts, yellow worm larvae, greater waxmoth larvae, scarab larvae, small mice, and so on. In the wild, this species even eats small geckos and snakes. On the other hand, some snakes (e.g. *Lioheterodon madagascariensis*) are known to prey on these chameleons occasionally.

Vegetation also forms part of the diet. Panther chameleons have been observed feeding on leaves — e.g., spiderwort, *Tradescantia*; and pothos, *Epipremnum aureum*) — and pink flowers. However, plants are eaten only occasionally, usually during periods of water shortage. These chameleons can be taught to drink from a syringe or pipette, but

prefer to lick water droplets from surfaces. For proper nutrition, the food and water given to captive panther chameleons must be saturated with plenty of vitamins and minerals.

#### Reproduction

Breeding panther chameleons is not difficult, and this species is quite frequently reproduced in captivity. Males can mate at virtually any time of year, but mating behavior in the wild is periodic. It is the female that decides whether mating takes place. She expresses her readiness by displaying certain colors (mostly orange in the Nosy Be populations), and tolerant behavior toward the keeper, without signs of intimidation (hissing, inflating the body, tail whisking, swinging, opening the mouth, etc.) or biting. In this case, the male and female can be placed together — either loose in a room, or by placing the female into the male's enclosure.

A male that is ready to mate displays bright colors and swings from side to side while slowly approaching the female. If the female is not receptive, the male retreats. If she is receptive, the male mounts her back and grasps her tail with his hind leg, massaging it for a few minutes. The two animals then join cloacas and stay together for another few minutes.



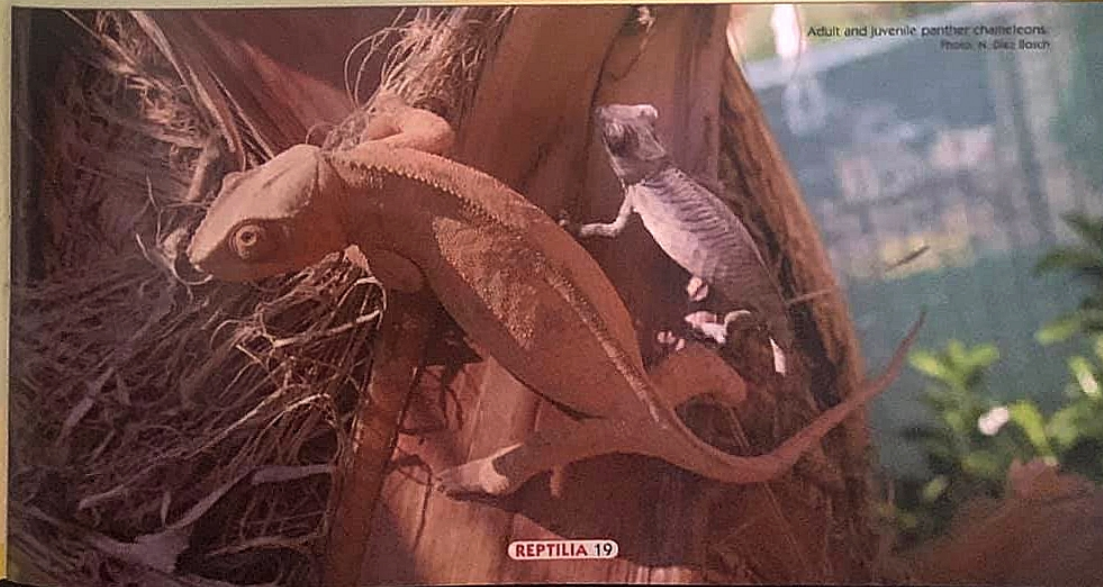
*Furcifer pardalis* juveniles of different ages. Photo: N. Díez Bosch



Adult and juvenile panther chameleons. Photo: N. Díez Bosch



Baby panther chameleon. Photo: J. Fernández Pecheco



Adult and juvenile panther chameleons. Photo: N. Díez Bosch



*Furcifer pardalis* using its prehensile tail.  
Photo: P. Nečas



After about a month of gestation (20-45 days), the female lays from 20 to 30 (maximum 46) white, oval eggs, covered with thick membranes. She buries the eggs about 15 centimeters deep in a moist substrate. The eggs should be transferred to a container of moist vermiculite. If the eggs are incubated at a temperature of 28°C (82.5°F), hatching takes place within 159-362 days. Hatching can take

as long as 2 months from the first to the last neonate in a single clutch.

Care of offspring is also not difficult in this species. The babies can be kept individually in small enclosures or placed together in a large terrarium. Initially, the temperatures should not exceed 27°C (80.5°F).

Sexual maturity in this species is reached when the animals are about 20 centimeters in total length. At that point, the juveniles must be separated because males will no longer tolerate one another. Also, copulation might occur too soon. ■



Colorful adult panther chameleon. Photo: J. Fernández Pacheco



Ready ... aim ... Photo: N. Diez Bosch

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