**Photo Credit: LLLReptile*

Parson's Chameleon *(Calumma parsonii)*

Madagascan Giants of the Forest

The Parson's chameleon is a large species of chameleon species indigenous to isolated pockets of humid, tropical forests of northern and eastern Madagascar, where they can be characterized by their green, to turquoise, olive-green or brownish-green, to yellowish-green with darker vertical lateral stripes. Two subspecies are currently recognized, *Calumma parsonii parsonii*, and *Calumma parsoni cristifer*, which can be distinguished slightly by their differing sizes and morphology. Parson's chameleons are among the largest species of chameleons in the world, and can also be identified by their prominent ridges running above their eyes to the snouts, forming two knobby horns or projections that are especially prominent in adult males. This species's eyelids are also often yellow to orangish in color as well. The purpose and function of these casques and projections remains to be fully known and understood, although it is likely used, and tends to be most prominent in male chameleons, for sexual selection, courtship, and reproductive behaviors and displays, as well as possibly to assist in further distorting the chameleon's outline to potential predators. As with most other chameleon species, Parson's chameleons are sexually dimorphic in terms of their sizes and coloration and color intensity, with females and juvenile chameleons typically becoming less vibrantly colored than males. Parson's chameleons are perhaps one of the largest and most sought after species chameleons in the pet trade, and can provide years of enjoyment and satisfaction for those ready to take on a chameleon, but are best suited for the more intermediate to experienced reptile enthusiast. Chameleons in general are a highly diverse and specialized family of Old World lizards with several extremely unique features and adaptations for survival. Perhaps best known are their color and/or pattern changing abilities. The skin and scales of chameleons possesses a thin, superficial layer of color changing pigments, with another deeper layer consisting of guanine cells. In order to change their coloration, chameleons rely on changing the space and distance between these guanine cells, thereby changing the wavelengths of light reflected from the skin and scales. While it is popularly believed that chameleons change their colors and patterns for camouflage or crypsis, and while it is true that this has functions in concealing the animal from predators and prey, this is not the primary reason for their color changes. Instead, they will change color as a means of social signaling, to display territoriality and dominance, displaying defensive behaviors, and/or to aid in thermoregulation. Most chameleons also have highly specialized zygodactylus feet and prehensile tails for climbing and gripping branches as well. They also have highly modified and rapidly extrudable sticky tongues used and designed for capturing prey. Chameleons also possess a pair of highly mobile, independently operating eyes, giving them excellent depth perception and motor coordination as well. These are only some of the many unique features chameleons possess, making them popular and unusual pet reptiles to maintain in herpetoculture.

Taxonomy

Life: All living, physical, and animate entities
Domain: Eukaryota
Kingdom: Animalia
Phylum/Sub Phylum: Chordata/Vertebrata
Class: Reptilia
Order: Squamata
Suborder: Lacertilia
Infraorder: Iguania
Family: Chamaeleonidae
Genus: Calumma
Species: *Calumma parsonii**
**Taxonomy subject to change and revision.*

Lifespan and Longevity

If provided the proper care, Parson's chameleons can attain longevity of 4 to 8 years, or slightly more, on average in captivity.

Distribution and Habitat

The Parson's chameleon is a relatively large species of arboreal to semi-arboreal chameleon indigenous only to isolated pockets and localities of northern and eastern Madagascar near coastal southeastern Africa, where they occur primarily in cool, humid montane to primary, tropical to sub-tropical forests within this range. This species of chameleon is arboreal to semi-arboreal, and can tolerate wide range of temperatures within its range, where they occupy low to high vegetation and canopies, including trees, bushes, and shrubs.

Origin/History

Calumma parsonii (Cuvier, 1824).

Because of their striking appearance, Parson's Chameleons were once imported to the United States of America in fairly large numbers. Sadly, because of their delicate nature, susceptibility to stress, and lack of care on the part of the importers, nearly all of these animals died shortly after arrival in the USA. Between January of 1988 and June of 1994, over 4000 C. parsonii were reported to have been imported to the USA. Most would agree that the actual number of animals entering the country was significantly higher. Not accounted for are animals smuggled on the black market or which were not accounted for in shipping documents.

In 1994 an import ban went into effect, protecting all but four of the chameleon species native to Madagascar. C. parsonii have been protected from importation since that time (Michael Fry 2000).

Experience Level Required

Intermediate/Moderate to Advanced.

Size

Adult Parson's chameleons are large chameleons, which are among the largest, and can range in size from approximately 18.5 to 28.0 inches on average in total snout-to-tail length. Males and females are also dimorphic, with males being more vividly colored and patterned, and with more prominent crests, casques, and horns than females. Average snout-to-vent length (SVL) ranges from about 7.8 to 11.8 inches.

Housing and Enclosure

Enclosure System: Primarily Arboreal. Housing must be sealed, well ventilated, and escape proof. Parson's chameleons are large chameleons and require accordingly large and spacious housing and enclosures. Hatchling and juvenile chameleons up to around six to eight months can be maintained in roughly a 20 gallon tall enclosure, but be sure to not use too large of enclosures as they can become stressed and have greater difficulty finding their food. Adult Parson's chameleons should be kept in a minimum of a 48" X 24 X 48" tall or equivalent sized enclosure, although larger enclosures for this species are better. Glass or screen enclosures can be used depending on your household's ambient temperature and humidity. Providing a substrate is optional as chameleons are arboreal and will seldom use it, but substrates that can be provided can include cypress mulch, sphagnum moss, chemical and pesticide free potting soils, or coconut fiber. Chameleons are highly arboreal and specialized lizards that require additional climbing, basking, and hiding opportunities by providing additional vertical artificial foliage, driftwood, branches, logs, and other furnishings. Most chameleons also will not recognize standing water, and should be misted, by hand or with a commercially available misting and/or fogging system to ensure they receive adequate moisture and hydration.

Temperature, Lighting, and Humidity

Provide an ambient lighting and temperature gradient for Parson's chameleons from 75 degrees F to 88 degrees F and preferred basking temperatures of around 80 to 85 degrees F. Use an infrared night time bulb to create nighttime temperature gradients which may be as low as 55 to 65 degrees F. Providing the correct amounts of UVA/UVB overhead incandescent and florescent lighting, and calcium-to-phosphorus ratios is essential for ensuring the health and overall well-being of veiled chameleons in captivity. Without UVA/UVB, or adequate amounts of it, they can be susceptible to the abnormal bone growth and development known as Metabolic Bone Disease (MBD), and other health and development maladies. Also be sure to spot clean the enclosure for urates, feces, or uneaten food at least twice per week. Be sure to periodically replace the substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well. Maintaining the correct relative humidity is a very important component of chameleon care, and Parson's chameleons require high levels at, or around 60 to 90%.

Feeding, Diet, and Nutrition

Insectivorous to Omnivorous; In the wild, Parson's chameleons are primarily insectivorous to omnivorous, feeding on insects and other invertebrates they can locate and capture using their specialized eye-sight and long sticky tongues. They will also consume many other smaller vertebrate animals and even some fruit and vegetable material they can catch. In captivity, feed Parson's chameleons a variety of appropriately sized feeder insects such as crickets, roaches, mealworms, superworms, and waxworms. Feeder insects should be gut-loaded in order to increase their optimal nutritional value. Parson's chameleons also require additional calcium and vitamin D3 supplementation 1 to 2 times weekly or as otherwise directed for optimal health and development. This is in order to prevent Metabolic Bone Disease (MBD) and other growth and nutritional deficiencies. Their feeding frequency will depend on the age, size, and overall health of your animal. Food can be given by hand or in a small dish mounted off of the enclosure's floor for arboreal animals. Use care as to not overfeed them, as obesity and other health related issues can become an issue. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

As with most other chameleon species, Parson's chameleons will generally not tolerate frequent or prolonged handling, and handling should be kept to low levels. Should a chameleon be

handled, it is important to remember to not forcefully pick up the animal, which may lead to further stress and/or injury. Allow a chameleon to walk onto your hands or gently coax them to do so if possible. When it comes to Parson's chameleons, some individuals can become rather docile and handleable, while other can remain relatively finicky or irascible chameleons capable of delivering a strong bite, and thus should be handled with some care. Generally, chameleons are better suited as display animals.
Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens

Contact

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