Veiled Chameleon (Chameleo calyptratus) Care Sheet

Description: Veiled chameleons (Chameleo calyptratus) are native to humid mountain sides and valleys in Yemen and southern Saudi Arabia. There are two subspecies of C. calyptratus, C. calyptratus calyptratus and C. calyptratus calcarifer. The main difference in the subspecies is the appearance of their casque. The C. calyptratus calyptratus has a larger casque (around 3-4 1/2 inches tall) than the C. calyptratus calcarifer (around 2-2.5 inches tall). An adult male of both subspecies reach a length of around 17-24 inches from tip of snout to tip of tail. Their color is variable, but usually consists of a green or turquoise body with yellow, orange, blue, tan, brown, or black blotches and stripes. Like all true chameleons, veiled chameleons will change color depending on their mood and surrounding environment. An angry or scared veiled chameleon can turn a dark brown or black color with yellow and green blotches, while one that is relaxed will stay a solid light green with occasional blue, tan, or yellow spots and stripes.

Selection: The color of a chameleon is generally a good indicator of its condition. Dark and drab colors are generally indicative of stress or improper temperature. A healthy chameleon will have straight limbs. If you see a chameleon that looks "bowlegged", has difficulty grasping onto branches or walking, or has a crooked back or jaw, do not purchase it. These symptoms often indicate an animal that has developed metabolic bone disease, a preventable calcium deficiency. Healthy chameleons have their eyes open during the daytime and are constantly surveying their environment. Chameleons that have their eyes closed for long periods of time during the day are usually sick. Sunken eyes generally indicate a dehydrated and stressed animal. There should be no elongated lumps beneath the skin (possible filarial worms). Look for any visible cuts bruises or broken skin. The skin should look well hydrated, not dry or withered. Large black or gray areas can be fungal infections.

Sexual dimorphism: Veileds can be positively sexed at birth. Males have a "spur" on their rear feet which looks like an extra toe. Females lack this. Adult males are larger than females.

Sexual maturity: Sexual maturity is reached around 6 months, but it is recommended for females that any breeding wait until 9 - 12 months.

Average life expectancy: Male veiled chameleons generally live between five and eight years in captivity, while females have a shorter lifespan and often only live to two or three years.

Size: Males can grow to 20 inches (50.8 cm) in length while females mature to a smaller size of 12 to 14 inches (30.5 to 35.5 cm).

Growth and Breeding: A common misconception with chameleons is that if a female chameleon is not mated she will die egg bound. If she is not given a suitable place to lay her eggs then this is possible. Female chameleons will produce eggs 2-3 times a year whether they have been mated or not. Although females are able to breed at about 6 months of age it would not be in their best interest to put demands for egg production on them until they are fully mature. When the time to mate her comes, the female may be shown to the male from outside his cage. If she is receptive she will remain calm. If she is not ready, she will sway, hiss, and show aggression. Be prepared to provide a nesting area for her after mating. She will become restless and constantly wander about her cage looking for a place to nest when she is ready to lay her eggs. Egg laying occurs 20-30 days after copulation. A five gallon bucket half filled with damp sandbox sand makes a good nest. The sand should be damp enough to build a sand castle, but not saturated. Once she lays the eggs, carefully remove the sand until you can see the eggs. Using a spoon remove the eggs and place them in a Tupperware type container half filled with damp vermiculite or perlite (Mix 1 1/2 parts vermiculite or perlite to 1 part water by weight). Leave 50% of egg showing. Put the lid on it loosely and place it in a room temperature closet. Check the eggs weekly. If they shrivel up or turn dark and look moldy, they are no longer viable. It takes 150-200 days to hatch at a fluctuation of 80-85 f days down to 70-75 nights.
Temperament: Veiled chameleons are very aggressive chameleons. They should be kept separately and out of sight of each other. Males will go through a mean period during puberty and should be handled as little as possible during this time.

Diet: Veiled chameleons are primarily insectivores, but have been known to eat flowers and leaves from the plants in their enclosures. They seem to be particularly fond of hibiscus flowers. It is imperative that they receive enough calcium to prevent MBD. Babies take 5-10 two-week-old crickets 1-2 times per day. Feeder insects should be gutloaded with a high calcium diet and periodically dusted with vitamin supplements. Don't overfeed. This is especially critical with females. Overfeeding females causes larger clutch sizes (number of eggs per laying) and can greatly reduce their life expectancy. While crickets are the staple of their captive diet, meal worms (Tolebrio molitor) super worms (Zoophobus morio) waxworms (Galleria mellonella), and captured insects (from safe pesticide free fields) provide great variety in their diet. They really seem to jump on any green insect, but black and red colors usually indicate toxic if not distasteful.

Hydration: Clean water should be provided daily via a drip bottle dripping over the foliage within the enclosure. Chameleons will typically not recognize water unless it is moving i.e. rolling off the foliage after misting or dripping. A drip bottle can be purchased at about any reptile supply site on the Internet or at your local pet store. They can also be easily made from a cup with a pin hole poked in the bottom. Just misting the enclosure for a primary water source is inadequate. It will cause problems in the long run; the chameleon will not get sufficient water.

Enclosure: Their enclosure should allow air circulation which is typically achieved by two or more sides made of screen. Only one chameleon should be kept per enclosure because they are solitary animals and stress easily. Stress can lead to health problems.

Enclosure temperature: Reptiles are ectothermic (cold-blooded). They do not manufacture their own body heat and rely on environmental elements to regulate body temperature. In order to raise or lower their body temperature, reptiles move from hot or cold area as needed. Chameleons also use color change (darker colors absorb heat, while lighter colors repel heat) and slight body shape manipulation (they flatten themselves out to absorb more heat). In captivity, we need to provide reptiles with a range of temperatures so that the animals may thermoregulate as they would in the wild. For veiled chameleons, that means one end of the cage should be the preferred ambient temperature, and one end should be at the basking temperature. If the enclosure is large enough, there may also be temperature differences at different heights. If you keep your veiled in a large enclosure, it is best to put the basking site at the highest point of the cage, so that the vertical temperature change mimics what occurs in nature. Veiled chameleons like hot basking spots. It is not uncommon to see veileds basking even when the ambient temperature is 80 to 90 degrees F. It is critically important that the owner provide a heating lamp to create a basking spot of 90-105 degrees F at one end of the enclosure. The ambient air temperature in the rest of the cage should be 80's over the course of the day with a preferred drop to the 70's at nighttime. There is no need for heat rocks or warming pads.

Enclosure lighting: The lighting should include a basking light (any bulb placed near the top to create a warmer area) and ReptiSun 5.0 or similar UVB output bulbs. Make sure the chameleon cannot come into contact with the bulbs!!!

Enclosure humidity: The enclosure should be misted with warm to hot water several times daily. This aids in shedding and adds a little humidity. Baby chameleons (and adults) will usually lap the water off the foliage. Fifty to sixty percent humidity is desirable and fresh airflow is mandatory to prevent bacterial growth.

Enclosure size: Because of their large size, a screen cage of at least 24"x24"x36" is recommended but 24"x24"x48" is more preferable. As a guide cage dimensions should meet these criteria:

A good formula for calculating this is:
(HBL=snout to vent length)

For arboreal (height loving tree dwellers) species:
short side of bottom = 3 x HBL - long side of bottom = 4 x HBL - height = 6 x HBL

For terrestrial (ground dwellers) species i.e. Brookesia:
short side of bottom = 4 x HBL - long side of bottom = 6 x HBL - height = 4 x HBL
So a Veiled measuring 10 inches HBL would need an enclosure measuring 30" X 40" X 60"

Enclosure plants: There are many plants suitable for chameleon cages. The plant must have similar temperature and humidity requirements, and must not be considered toxic. This is a short list of the acceptable and unacceptable plants for chameleon enclosures:
Acceptable - Weeping fig *Ficus benjamina*, Hibiscus *rosa-sinensis*, pothos or devil's ivy *Epipremnum aureum*, Dwarf Umbrella *Schefflera arboricola*
Unacceptable - Octopus Tree or Queensland Umbrella Tree *Schefflera actinophylla*, Rubber Tree or Rubber Plant *Ficus elastica*

**Health problems and veterinary care:** Dystocia (egg binding) is a relatively common problem in reptiles. Dystocia can occur in live-bearing and ovoviviparous (reproducing by eggs which the female carries in her body until they hatch) species. Parasites are common in wild caught specimens. Metabolic Bone Disease is another common health problem. Improper diet and poor lighting or lack of UVB light contribute to MBD. Symptoms are described under the "Selection" heading. Salt crystals may form on their nostrils. This is not uncommon but could indicate a need for more water.

**Sources:**

7. Petra Spiess-Rocky Mountain Herpetoculture *The Veiled Chameleon (Chamaeleo calyptratus) Purchase and Captive Care* Reptiles Magazine July 1997