Veiled Chameleon Care

General information

Native Habitat: Arabian Peninsula in Yemen and Saudi Arabia  
Scientific Name: Chamaeleo calyptratus  
Lifespan: 5-8 years  
Adult Length: Male 14-21”, Female 10-13”

Housing

For veiled chameleons, it is ideal to have a well ventilated enclosure that is very tall. Cages that are entirely screen are ideal. Lack of ventilation can predispose them to respiratory illness and the reflective nature of glass can often stress chameleons.

Juveniles can be kept in enclosures approximately 16 x 16 x 30 inches tall. The minimum size for an adult veiled chameleon is 24 x 24 x 36 inches tall but a bigger enclosure is desired, especially for males.

Substrate

Many particulate substrates such as orchid bark, moss and compressed fiber material can help with humidity but make the enclosure prone to mold formation. These types of substrates can also be accidentally ingested during feedings. For these reasons I recommend not having any particulate substrate and instead opting for reptile carpet, newspaper or paper towel.

Furnishings

Veiled chameleons are arboreal and thus should be provided with many structures to climb on. I prefer artificial vines that are appropriately sized for your chameleon to comfortably climb on. A variety of live or artificial plants can be used in the cage as well to help provide your chameleon with places to hide. Be sure to repot all plants with plain top soil that does not have any fertilizer in it that your chameleon could accidentally ingest. Some plant species that are safe for chameleons are Pothos, Ficus, Schefflera, Hibiscus, and Dracaena. Be sure all fixtures are securely attached to prevent anything from falling.
**Lighting**

A gradient of 70-85 degrees Fahrenheit should be provided with a basking spot that reaches 90-95 degrees Fahrenheit. This may require multiple heat fixtures, especially for larger cages. The heating elements should always be outside of the cage and the perch closest to the basking spot should be at least 6-12" away to prevent burning. Measure the temperature with an infrared temperature gun or temperature probe. The measurement should be done at the point where the chameleon will be basking, or even on the chameleon’s casque during basking to be sure that it is not getting too hot. They are prone to getting casque burns due to their basking spots being too close to the basking bulb. Day lights should be kept on a 12 hour cycle.

During the nighttime it is OK if the temperatures drop to 65-70 degrees. A night heat bulb may be required if temperatures drop too much at night during winter seasons.

**UVB Lighting**

Ultra-violet light is absolutely necessary for your chameleon’s health. It is needed in order for the chameleon to utilize the calcium ingested for appropriate bone and bodily function. UVB light cannot penetrate through any glass or plastic, so this light must be directly provided through a separate light fixture that sits on or within your screened enclosure. These lights should be kept on a 12 hour cycle. Linear UVB fluorescent tubes are desirable for maximum coverage of the enclosure. In general UVB bulbs need to be replaced every 6 months as the UVB levels degrade overtime even if the bulb remains bright.

**Water and Humidity**

Veiled chameleons typically drink by lapping up water that is on leaves. As kidney disease is a common problem in chameleons, it is important we provide many options for drinking to keep them well hydrated.

Misting can be done by hand or with a misting machine that mists the cage at intervals during the day. Spraying of the enclosure should be done 2-4 times daily for 30-60 seconds or until the leaves and cage are well saturated. Ideal humidity is 50-65% which can be measured with a hygrometer. Live plants can assist with keeping the humidity up between mistings.

Drip systems consisting of a container attached to tubing that drips throughout the day are another way to provide water to your chameleon. I recommend having a drip system or even multiple drip systems as well as misting. Some chameleons will actually drink from the drip tube, so I recommend having the tube reach inside the enclosure for this reason.

**Nutrition**

A varied diet should be provided for your chameleon. Young chameleons can be fed daily while adults can be offered food 3-4 times a week. Options for staple feeders include dubia roaches
and crickets. Less often they can be provided with waxworms, hornworms, mealworms and super worms. Some veiled chameleons will eat certain plants including Ficus leaves, Pothos leaves, kale and other dark leafy greens. These should be discarded daily to prevent mold formation.

Calcium powder that contains no phosphorous should be used to dust the food 3 times weekly. A multivitamin containing Vitamin A such as Nekton-Rep should be used to dust the bugs once weekly.

Handling

Chameleons in general are not often fond of handling. It can often cause extreme stress to the animal. Stress in chameleons is characterized by fleeing, changing colors (especially darkening), hissing, attempting to bite, and puffing up. You can try to handle your chameleon often when it is young to see if it can become desensitized to handling. However, the more stress caused on the animal, the more risk of health issues. These are animals that typically do better with minimal to no handling.

Common Health Issues

- **Casque Burns**: Veiled chameleons are especially prone to casque burns, which is the top most point of their head. This occurs in chameleons due to improper distance of the basking point to the heat lamp. Be sure when measuring temperatures that you measure at the point where a chameleon’s casque will be sitting, as this area will receive the brunt of the heat. If this spot is too hot, the casque will often turn darker colored and will regress due to necrosis from the burn. Branches and areas the chameleon can sit on should be at least 6” away from the heat source and should be closely monitored for temperature fluctuations to prevent this from happening. If you notice discoloration of your chameleon’s casque, check your enclosure’s temperatures and bring your pet to a veterinarian for evaluation. Your veterinarian will assess the extent of the damage and make recommendations for therapy.

- **Non-Obstructive Dystocia (Egg binding)**: Female chameleons should be closely monitored for behavior that indicates they are gravid with eggs. This includes changes in behavior which may be spending more time on the bottom of the cage, digging and being otherwise restless. Female reptiles can often produce eggs without exposure to a male. Chameleons can be very particular about the area they lay their eggs in, and often need a very deep area of substrate to dig into for the purpose of laying eggs. Chameleons that are stressed, have improper husbandry, or improper laying areas will generally not lay their eggs. This can lead to a condition where the eggs continue to sit in their reproductive tract. If husbandry is altered and a lay box is provided occasionally the chameleons will go on to lay their eggs. However if the eggs have been present for some time in the reproductive tract, they can start to adhere to the walls of the tract and may need surgical intervention. If your pet is showing signs of being gravid, seek out
a veterinarian for confirmation and advice. Radiographs are typically able to show follicular and egg development.

- **Intestinal parasites:** Many of the feeder insects that reptiles carry can harbor intestinal parasites that may be transmitted to your reptile. They can also obtain gastrointestinal parasites by contacting other reptiles. A small number of these parasites may normally inhabit your reptile’s gastrointestinal tract without any problems. However with overgrowth of these parasites they can cause a problem. They can cause malabsorption of nutrients, inappetence, lethargy and abnormal stool production. A few of the common parasites encountered include pinworms, coccidia, and flagellated protozoa. A fecal exam is recommended yearly for your reptile to screen for any abnormal amounts of GI parasites.

- **Secondary Nutritional Hyperparathyroidism:** This disease process is caused by improper husbandry with some possibilities including lack of calcium or vitamin D3 in the diet, excess phosphorous in the diet and absence of a UVB light source. A majority of reptiles need calcium added to their diet in the form of a Calcium powder (no phosphorous) used to dust the insects a few times weekly. In order to process this calcium, a UVB light source is required. When there is an imbalance in the calcium and phosphorous, the body increases the breakdown of calcium stores from the animal’s bones in order to maintain appropriate calcium levels. In an animal this can cause significant deformation of the skeleton including bowing of the legs, shortening of the snout, and stunting of growth. The bones become fragile and are prone to fractures. As calcium is needed for many bodily functions, such as muscle contraction, the animal may become weak, lethargic, and anorexic when the body can no longer maintain its calcium levels. This is a process that can typically be remedied with improvement in husbandry and long term calcium supplementation under veterinary supervision. In severe cases, hospitalization may be required to give the animal the best chance at recovery.

- **Gout:** Gout is a condition that relates to the excretion of uric acid in reptiles. Uric acid is the waste byproduct that is excreted by the kidneys. When there is overproduction of uric acid, or if there is disease of the kidneys that causes it to not be excreted, it can build up in the blood stream and deposit in tissues throughout the body. These deposits form most commonly at joints and show as white, nodular areas. They lead to painful inflammation and arthritis in the articular form of gout. In the visceral form of gout there can be deposits in the organs of the reptile which has a much poorer prognosis and often results in death. Your veterinarian will likely want to run some bloodwork to evaluate your pet’s kidneys if they are suspicious of this disease. Treatment includes providing medication to lower the circulating uric acid, managing the pain of the disease, and lowering the protein content in the diet depending on the species.