

Veiled Chameleon Care (*Chamaeleo calytratus*)

Veiled chameleons have become increasingly popular pets due to their jewel coloration and popularity in movies. Typically, chameleons are an observation only pet and tolerate handling poorly, though some individuals when raised from a young age are accepting of more frequent handling. Veiled chameleons are frequently given up due to their extensive husbandry requirements.

Natural History

Veiled chameleons are found primarily in the grasslands and plateau of Yemen. This species is still abundant in the wild and are considered invasive in Hawaii after individuals escaped homes of owners. Veileds, like most chameleons, rarely venture on to the forest floor where their specially designed feet and body shape hinder any version of fast locomotion. This is one of the hardiest chameleon species available.

Description

Veiled chameleons typically range between 10-17 inches with the males being larger than the females. Color changing is a form of communication that relays invaluable information to the owner (and other chameleons) regarding sexual readiness, health, and the environment. Chameleons have amazing adaptations especially concerning the eyes which pivot on turrets and can look in two different directions at once! The tongue of the Veiled is roughly two and a half times the length of the body during full extension to secure food. Care must be taken with feeding though. If a chameleon were to extend its tongue and hit a glass or plastic wall rather than the insect it could potentially sprain or severely injure the tongue. These serious injuries could potentially be permanent disabilities for your pet and require hand feeding for the rest of their life. The tail is prehensile and acts as a fifth leg for the lizard offering stabilization and a more secure hold on branches. The feet have toes that are bundled together thus offering a very strong and secure grip when coupled with the sharp nails.

Sexing

Males possess a tarsal spur on the rear feet. Tarsal spurs are small fleshy triangles found on what would typically be considered the ankle. The casque, the appendage found on the top of both the male and the females' heads is larger in males. Males are brighter colored, typically displaying bright greens and yellows. Females are usually green with little to no pattern being displayed. Males are also typically larger in size than females in general.

Grouping

Chameleons in general are notorious for being intolerant towards other chameleons, including their own species. Males will stress themselves to the point of illness if in constant visual contact of another male. When a chameleon meets another chameleon, threat displays (the amazingly bright patterns) light up their bodies and fighting will begin shortly after. Glass aquariums are avoided with chameleons, males in particular, due to the reflection causing some lizards to

perceive another male. If an aquarium must be used for very young or sick individuals, cover three sides and the top of the cage with a towel or newspaper to keep the reflections at bay.

Enclosure

An adult chameleon needs space to roam and an enclosure with screen sides is best. The minimum recommended cage is 24 inches long by 24 inches wide and 36 inches tall to allow for a full range of vertical movements. As with all animals, safety is important. An enclosure with a locking mechanism is strongly recommended.

Enclosure Accessories

Branches should be of varying shapes, lengths, and wood. Cotton rope avian perches are not a good branching system for your chameleon as their long toe nails start to fray and unravel pieces of the rope. If a piece of that string gets around your chameleons toes, a constriction can occur and the toes could potentially be lost. Place the branches in such a way that the chameleon has access to the greatest amount of climbing opportunities. Slightly springy wooden perches should be used to allow the feet to stretch and rest a bit on a softer surface. For this purpose, reptile vine products are an excellent idea. Live non-toxic plants such as pathos and ficus can be used for enrichment in the enclosure and to provide nice young branches for your Veiled to climb around. Foliage is a must for chameleons to feel secure, and should be added to all enclosures. The foliage, whether artificial or real, will not only provide excellent coverage, but also a water drip system as most chameleons will not drink from standing water.

Temperature

Normally in the wild, chameleons, like most reptiles, bask in the sun to warm up and retreat to a cooler, shady area to escape high temperatures. A basking light can be provided using a reptile heat lamp, spot light or ceramic heat emitter. The basking spot will be around 90-95 F but care should be taken to make sure your pet can not access the bulb or the lamp. The ambient temperature (air temperature) should range between the mid 70's and mid 80's during the day and decrease to the mid-70's at night. A photoperiod of 10-12 hours is essential for normal behavior. A chameleon with the lights constantly on can become overly stressed and possibly fall ill.

UVB Lighting

Along with heat lamps and regular day lights, a UVB (ultra-violet) should be supplied. These bulbs give off UVB rays which help the chameleon to synthesize vitamin D into vitamin D3. Vitamin D3 is necessary to properly metabolize calcium. Without these bulbs your chameleon may succumb to abnormal behaviors, metabolic bone disease (MBD), fractured legs, etc. One bulb will make a world of difference to your pet! Fractures occur at the joints of the limbs first.

Juveniles need a stronger amount of UVB than adults in theory. Healthy adults, especially ones

allowed 1-2 hours of natural unfiltered (no glass or plastic between sun light and your chameleon) sun light can be maintained with a 5.0 UVB such as Repti-Sun. Juveniles and ill or debilitated chameleons will require a 10.0 UVB bulb. Regardless of bulb strength, all UVB bulbs must be replaced every 6 months. Even though the bulb still emits light it may not be emitting the proper amount of UVB.

Substrate

Substrate for chameleon cages is easily maintained if newspaper, butcher paper, or indoor/outdoor carpet. If particulate substrate is used there is a risk that the chameleon will accidentally ingest the substrate along with the prey item. Solid substrate also affords easier visualization of the chameleons' feces and urate output.

Humidity

The humidity in the enclosure should be 80-90% since Veileds receive most of their body fluids from breathing in humid air. Hatchlings should have access to water droplets twice a day if not more. Adults can be misted several times a day taking care to leave droplets on the leaves of foliage. Hand misters work well enough but a fog or mist system is preferred. There are many products geared towards humidifying chameleon enclosures including drip systems to help provide water at all times. Remember to clean your humidifiers and/or drip systems weekly to prevent the build-up of bacteria and molds. Soaking your chameleon one to two times a week for 10 minutes a piece helps with hydration and reduces the risk of kidney diseases caused by chronic dehydration. Gout is the end product of kidney disease and appears as raised lumps under the skin. This has been associated with inappropriate humidity (too low) among other causes.

Handling

It is best to approach Veiled chameleons with deliberate slow movements. Position one hand under the front half of the body and carefully unwind the tail with the other hand. Chameleons do not have the autonomy ability (ability to self amputate the tail) and if the tail is injured or broken it will not regenerate. Push your fingers under the front feet and once the chameleon is grasping your fingers lift up. Never pull your chameleon off a branch or your hand forcefully!

Feeding

Veileds eat vegetation and invertebrates (crickets, mealworms, etc.) in the wild. As with all reptiles, variety is key to a balanced diet and a healthy animal. Some chameleons may eat dark leafy green vegetables two to three times a week in a dish or hanging from the side with a clip. Leafy greens to consider are mustard and collard greens as well as romaine lettuce and green leaf lettuce.

The invertebrate portion of the diet should consist of high-quality crickets, earth worms (may need to be cut up), meal worms, silk worms and even cockroaches such as the Madagascar

Hissing cockroach. All insects, except earth worms, must be “gut loaded” (fed a high calcium diet to negate the naturally high phosphorous level in insects). Gut loading is simple enough. Offer the live prey high calcium greens (collard, mustard, endive) and vitamin A rich vegetables (carrots, squash) for 24 prior to feeding your pet. Gut loading can also be accomplished with enriched chicken feed or cricket diets created for the purpose of gut loading although it is generally recommended to offer a fresh diet.

Offering the prey items in a plastic cup or container is considered the best feeding method. Container feeding allows visualization of prey consumed and helps decrease the number of invertebrate escapes. The tongue of the chameleon is long enough to reach in and grasp the insect without as many escaped insects. This will also allow for easier food consumption monitoring. It should be noted that chameleons are prone to over eating and will do so whenever the opportunity presents itself. Most chameleons will eat every day with larger ones able to eat every other day.

Hatchlings and juveniles are typically fed pinhead crickets. These are harder to keep confined and escapes are likely. Small plastic container may help but the hatchlings may be less inclined to use the feeding station. Close monitoring of consumption in the cage is essential.

Calcium and multivitamin supplements are key to a healthy reptile – please provide a calcium supplement with no phosphorous or D3 3 times weekly, a multivitamin weekly, and a calcium +D3 supplement every 2 weeks.

See our ‘Reptile Supplements handout for more information.

Sources and Suggested Reading

Reptiles Magazine

Chicago Exotics Animal Hospital Care Sheets

The Chameleon Handbook, *Francois LeBerre (2000)*

Chameleons: Their Care and Breeding, *Linda J. Davison (1997)*

Care and Breeding of Chameleons, *Philippe de Vosjoli and Gary Ferguson (1995)*

Masters of Disguise: A Natural History of Chameleons, *James Martin (1992)*

If you have any questions, please feel free to call us at 303-757-5638.