

Veiled Chameleons

Chamaeleo calytratus



LIFE SPAN: 3-8 years
Males live much longer than females

AVERAGE SIZE: females – up to 14 inches
males – up to 24 inches

CAGE TEMPS: Day Temps – 80-85 °F
Basking – 90-95 F
Night Temps – 70-75 F

HUMIDITY: 80%

* If temp falls below 70° at night, may need supplemental infrared or ceramic heat.

WILD HISTORY: Veiled chameleons are native to the mountain regions of Yemen and Saudi Arabia. In the wild, the veiled chameleon can be found in widely different environments, from tropical and subtropical plateaus to semi-desert valleys.

PHYSICAL ATTRIBUTES: When young, veiled chameleons are pastel green, but as they mature they develop bands of bright gold, green and blue mixed with yellow, orange and black. Males are more brightly colored than females. Veiled chameleons have many unusual adaptations that have allowed them to thrive in their natural environment. For example, their turret-shaped eyes can swivel independently to cover 180° of their surroundings on each side, so they can follow moving prey without turning their heads. They also have feet that are very well adapted to clinging to branches, although they walk awkwardly on flat surfaces. Both males and females have a casque – a raised ridge on the top of the head. Males have a much larger casque than females. Male chameleons also have a small “spur” on the heels of their back feet.

All veiled chameleons have prehensile tails.

Well known for their ability to blend into their environment, veiled chameleons also change their skin color with their mood, transforming most rapidly when startled. Colors become brighter and/or darker when stressed, angry or trying to attract a potential mate. They can also change from light to dark depending on whether they are hot or cold. When cold they can darken to attract more heat, and when hot, they can lighten to reflect the heat. An ill chameleon will be a sickly color – dark and cold.

The veiled chameleon's body has flattened sides, giving it a leaf shape, which makes it more difficult to see when it perches on tree branches. This allows them to hide from both predator and prey.

Once prey has been spotted, the chameleon will focus both eyes on it in order to measure depth, then it will quickly unroll and release its long, sticky tongue which sticks to the insect and pulls it back into the chameleon's mouth. The tongue that is 1.5 times the length of the chameleon's body can release and catch in the blink of an eye!

NORMAL BEHAVIOR & INTERACTION: Chameleons are generally docile and intelligent lizards, but generally do not enjoy being handled. However, there are always exceptions!

Chameleons are solitary lizards that can easily become stressed if housed with other animals, including other veiled chameleons. Never keep two males together, since they will invariably fight. Females should also be separated from one another and from males.

NOTE: Do not house chameleons with other species due to the differences in environment, temperatures, and the fact that some species can be highly stressed in the presence of other species. Each species may also harbor different parasites/protozoans/bacteria (even a healthy reptile harbors a small amount at all times), which may make each other ill.

FEEDING: Veiled chameleons are omnivores; which means they eat both meat and vegetation. However, they usually eat leaves only as an additional source of water and it is not necessary for the diet. A few leaves of kale or spring mix can be offered from time to time.

PROTEIN: Protein sources such as: gut-loaded crickets, mealworms, wax worms dusted with a supplement should also be part of their diet.

Wild caught insects should never be fed, since they can carry disease. All insects should be gut loaded (fed a nutritious diet about 24-hours before being offered to your lizard – see our cricket care sheet).

Be careful to feed the proper size prey for your chameleon's size. A good rule of thumb is that a cricket should be never be larger than the distance between the lizard's eyes, or the distance from its eyes to its nose.

When feeding larger insects to your pet, try to make sure the insects have recently molted, as an insect with a large, hard exoskeleton is difficult to digest and may cause impactions.

LIGHTNING BUGS MUST NEVER BE FED, AS THEY ARE POISONOUS.

Adults should be given insects 2-3 times a week.

All uneaten insects should be removed from the enclosure as they can bite your chameleon and cause injury, especially to the eyes.

SHEDDING: Unlike snakes, lizards shed their skin in patches, not all in one piece. Your pet will become an overall dull color, and the skin over the eyelids may 'pop' at a certain point and make your lizard look like a bug-eyed bullfrog. Do not peel off the skin if it is not ready to come off. This can be dangerous and painful.

Most lizard species will shed every 4-6 weeks. If the enclosure environment is ideal, the keeper often has no idea that their pet has shed, as it will happen more quickly and the lizard will often eat its own shed skin.

In the wild, reptiles have a much easier time with their sheds, as they are generally in a more naturally humid environment and have access to pools or bodies of water in which they can soak at will. Even reptiles from arid areas find humid places to go during the shedding process, such as cold, moist burrows under the sand or caves.

The shedding process happens when the lizard's body begins to grow a new layer of skin; that new layer begins to separate from the old and a very thin layer of fluid forms between the two layers. If your pet's enclosure is too dry, this fluid layer will not form properly, making it difficult for your reptile to shed properly.

To create more humidity, the entire tank can be lightly spray misted twice a day during shedding time. Spray once in the morning and once later in the day. Make sure the later spray dries completely before lights go off for the night, as the droplets may not have time to dry and may contribute to respiratory disease.

Some lizards may also benefit from a 'moist box' during shedding time. This can be a Tupperware-like container (with the cover on) containing a bed of moist reptile terrarium moss. The container should be big enough for the entire lizard to be inside with an entry door cut in the side just large enough for the lizard to come and go at will. Keep the moss moist but not watery, and place the box on the heating pad in the tank.

If your lizard still has a hard time getting the shed completely off its toes, tail or head; help him by spraying the area with water and gently massaging the skin until it peels off. If the retained shed is severe and cannot be removed easily, see your exotic veterinarian.

SUPPLEMENTS: Dust food with calcium supplement and vitamin supplements. As a rule, a growing juvenile's food (and a pregnant/gravid female's) should be dusted more often than an adult's. Follow your veterinarian's instructions for applying supplements to avoid over-supplementing food.

Our veterinarian recommends dusting insects with a good quality calcium supplement fortified with vitamin D3, 2-3 times a week. (Avoid using a calcium supplement with added phosphorous, unless specifically directed by your veterinarian, since this can promote kidney disease.)

Always consult your veterinarian for specific directions on supplementing your pet's food, since there are many variables that go into determining the best supplementing regimen for each given animal.

WATER: A large bowl of clean fresh chlorine-free water must always be available. Place it on the cool side of your reptile's enclosure. Chameleons don't seem to recognize standing water as water, so the water source must be "moving". This can be accomplished with a water "bubbler" or aerator by using an air pump, plastic tubing and an air stone or by outfitting your enclosure with a reptile waterfall. However, most chameleons drink their water from water droplets on leaves. A daily misting or two with chlorine-free water will also be appreciated. However, care should be taken not to allow the enclosure to become damp. Also, do not mist less than two hours before turning the heat lamps off for the day, as the droplets may not have time to dry and may contribute to respiratory disease.

Change the water daily, or as needed, as your pet will most likely bathe in it as well. Reptiles will often defecate in their water bowl, as the water seems to have a laxative effect on reptiles! All water given to reptiles for drinking, as well as water used for misting, soaking or bathing must be 100% free of chlorine and heavy metals. (Not all home water filtration

systems remove 100% of the chlorine and heavy metals from tap water). We recommend that you use unflavored bottled drinking water or bottled natural spring water; never untreated tap water. If tap water is used, you should treat it with a de-chlorinating treatment. Do not use distilled water, which can cause severe medical problems, since it lacks minerals that are essential to important body functions. If only tap water can be used, at least de-chlorinate the water. De-chlorinator is available in the pet store fish department

RECOMMENDED SUPPLIES:

*Cage size should be at least
4' long x 3' wide x 4' high

*Lg. dome and 100 watt bulb for heat.

*Under tank heater – placed under same side of tank as
basking light

*Temperature / humidity gauge – do not stick to side of
tank

*At least one dry hide house

*Coconut fiber substrate, moistened

*Large water bowl – with bubbler

*Fluorescent UVB Bulb and housing

HOUSING & ENVIRONMENT: Reptiles are ectothermic, or cold-blooded, which means they are dependent on the temperature of their immediate environment to regulate their body temperature. Therefore, we must create an environment with heat gradients – warm on one end and cool on the other. With this set-up, your pet can go to either end depending on whether he needs to be warmer or cooler.

ENCLOSURE SIZE: The chameleon enclosure needs to be tall enough for climbing, yet spacious enough to provide a thermal gradient. For an adult chameleon, the minimum size should be 4' long x 3' wide x 4' high. Enclosures made entirely of glass, such as aquarium tanks, should be avoided even if they have a screen top. A veiled chameleon needs the cross-ventilation provided by a wire mesh enclosure.

Several types of mesh chameleon enclosures are available from reptile supply manufacturers and are carried at the pet store.

IT IS NOT TRUE THAT A REPTILE WILL ONLY GROW AS LARGE AS ITS ENCLOSURE ALLOWS!!

COVER: Make sure the cage has an escape-proof metal mesh top. It should fit snugly onto the tank and have strong clips locking it on. It is important that the top is METAL mesh, as you will place the heat lamp directly on top of this cover.

HEAT PAD: Reptile heat pads can be adhered directly onto the underside of the glass bottom of the tank. Stick it directly on the glass on one of the very far ends of the tank (opposite the water dish). For safety reasons, make sure to attach the rubber feet (contained in the box) at all four corners of the underside of the tank. This will allow air to circulate underneath the tank and prevent the heat from being trapped under the tank. Leave the heat pad ON 24 hours a day.

Heat pads specifically manufactured for reptiles are safe to leave on 24 hours a day (which should be done for these enclosures). DO NOT use reptile heat rocks. They heat unevenly and have caused severe thermal burns in reptiles. A human-grade heat pad may be used on the low to medium setting. Do be sure to allow for proper ventilation for safety reasons. ***Be sure to purchase a heat pad without automatic shut-off, which are still available.

*** Although your chameleon will most likely NOT spend much time on the floor of the enclosure, the heat pad will help contribute to the overall humidity and ambient temperature of the enclosure.

HEAT LAMP: Place the heat dome with the basking bulb on top of the cage directly over where the reptile heat pad has been placed on the underside of one end of the tank. The heat lamp should be turned on in the morning, and off at night. (See “Day/Night Light Cycles” below).

Follow directions carefully with all products – READ THE INSTRUCTION SHEET!!

Always choose fixtures with ceramic sockets and be careful to choose the socket that is properly rated for the wattage bulb that you will be using. Do not place the fixtures by dry wood or flammable fabrics.

All heaters should be placed out of the reach of children and all pets – including cats and dogs.

Be very careful to make sure that your caged pet cannot reach and touch the heating device in its own cage. A thermal burn to the face or body can be painful and life threatening.

BASKING AREA: A warmer basking area matching the temperature listed at the top of this care sheet must be established on the warm side of the cage. This area is directly under the basking bulb and will be higher in the cage for arboreal species. The basking area should be the warmest area in the enclosure. Maintaining the proper temperature in this spot is extremely important to the health of your pet.

UVB LIGHT: Exposure to UVB (ultraviolet B) light is critical in allowing an animal to synthesize vitamin D₃ in their skin and metabolize calcium in their body.

If an animal is not exposed to an adequate level of UVB light, it will gradually develop physical problems from the result of mineral deficiencies such as low blood calcium (hypocalcaemia), soft eggs (females), stunted growth and metabolic bone disorder, which can be fatal if left untreated. In addition, recent studies have linked sub-optimal vitamin D levels with poor immune system function.

All day-active (diurnal) indoor reptiles, amphibians, birds and hermit crabs should be allowed self-selected exposure to UVB lighting for up to 8-12 hours a day. This means they should be able to bask in the light but also get away if desired, much as they might in the wild. Many twilight-active (crepuscular) and night-active (nocturnal) species do get some exposure to the sun and may also benefit from low levels of UVB, which helps regulate their photoperiod and vitamin D levels as well.

Please see our additional “UVB Lighting for Companion Birds and Reptiles” for specific instructions for your particular pet and the UVB bulb that we recommend for him or her.

WATER BOWL: The large water crock can be placed on the opposite end of the cage, along with another hide house, if desired. Remember: chameleons don't seem to recognize standing water as water, so the water source must be “moving”. This can be accomplished with a water “bubbler” or aerator by using an air pump, plastic tubing and an air stone or by outfitting your enclosure with a reptile waterfall.

SUBSTRATE: We recommend a loose coconut fiber substrate, available in the reptile department and made by several companies. It is made from the husks of coconuts. This substrate is ideal for chameleons, as it will help hold humidity in and is also a perfect substrate for plants. Keep the substrate slightly damp, but not watery. Placing large, smooth pebbles over the surface of the bedding will prevent the chameleon from picking up and consuming the coconut fiber when hunting prey.

BRANCHES & PLANTS: Being arboreal (tree-dwelling creatures), veiled chameleons must be provided with plenty of climbing branches since their feet are shaped to cling to branches and they dislike walking on flat surfaces. Provide enough branches to offer sleeping spots, basking spots and perches. The basking area can consist of branches and a platform positioned under the basking light so the chameleon can sit about six inches under the lamp.

To offer adequate support, all climbing branches should be at least as wide as the lizard's body. Smaller branches can be lashed together with cable ties, cutting off the excess so that the animals are not injured by sharp edges.

Sand blasted grape vine branches are available in the pet store; these serve as good sturdy climbing branches.

Be careful of bringing in branches from outside, as they can house parasites.

Live plants can help increase the humidity in your chameleon enclosure and also offer cover for hiding. Be sure to include only reptile safe plants such as pothos, aloe, philodendrons, spider plants, ficus, and dracena. They can be planted directly into the enclosure substrate.

TEMPERATURES: Cage temperatures should be monitored daily and kept at the temperatures listed at the top of this page. Use your reptile thermometer to check the temperatures in different places in the cage regularly to make sure they continually match the listed proper temperatures.

* If the room temperature falls below 70 degrees at night, a supplemental infrared or ceramic heat fixture may be necessary. (These fixtures do not emit a light spectrum that is visible to the lizard, so it will not disturb him at night, but they WILL provide the necessary supplemental heat.)

If your lizard does not receive the proper heat at the proper temperatures along with UVB light, he may become sick with issues such as respiratory disease and will probably stop eating, as lizards have a hard time digesting their food without proper heat and light.

DAY/NIGHT LIGHT CYCLES AND HEATING: All reptiles must have distinct day and night periods in their enclosure to maintain their biological rhythms. Veiled chameleons need 8-12 hours of daytime and 8-12 hours of nighttime. However, as the daylight hours change seasonally outside, daylight hours inside the tank should reflect the same.

The day period must be light, and the night period must be dark.

A timer should be used to set day/night periods.

HABITAT MAINTENANCE: Daily maintenance should consist of spot cleaning by removing soiled substrate, cleaning water bowl thoroughly and wiping glass clean.

The entire cage should be cleaned thoroughly at least once every month with:

- A mild dishwashing liquid (a weak dilution) in warm water,

THEN

- Vinegar & water (1:8)
OR bleach and warm water (1:32)
- Cage “furniture” should also be scrubbed clean with the same dilution.
- RINSE OFF ALL SOAP AND BLEACH THOROUGHLY WITH PLAIN WATER BEFORE RE-INTRODUCING YOUR PET TO ITS ENCLOSURE!!
- NEVER MIX VINEGAR AND BLEACH – IT CREATES A TOXIC SOLUTION
- NOTE: water used for cleaning does not need to be de-chlorinated, as your pet will not be drinking it or bathing in it.

GROOMING & HYGIENE: To reduce the risk of contracting and spreading salmonella poisoning, all handlers should wash their hands after handling any reptile.

SIGNS OF A HEALTHY ANIMAL: smooth, even skin; no traces of mites (small, reddish brown spots around nostrils, near ears and eyes); clear eyes, rounded, full body; strong, even, smooth jaw line; bright eyes; regular record of healthy feeding and defecating.

It is very important to keep a journal for each animal that records feeding, refusal, defecation, shedding, unusual behavior, changes in behavior and dates of bulb changes. This will help your veterinarian trouble-shoot any health issues.

We recommend physical exams every year or two years with an exotic pet veterinarian for pet reptiles and amphibians. If your vet sees your pet regularly, many common conditions that afflict pet reptiles and amphibians can be caught and treated early. If not caught early enough or if left untreated, many of these conditions can become far worse if not fatal.

SIGNS OF ILLNESS: Irregular scales; small reddish brown spots (mites) around mouth, eye area, ear area; irregular jaw line, ‘dents’ in mouth with or without cottage cheese-like material (mouth rot); cloudy eyes or dull colored body when not in a shed; thinned body; irregular feeding and defecating habits. Limp, thin body, lethargy, sunken eyes, pinkish patches or spots on belly or sides; obvious bite marks or wounds from cage mate or prey. Red, fluid filled patches may indicate thermal burns.

SOME COMMON PROBLEMS INCLUDE:

HEALTH ISSUE:	SYMPTOMS:	TREATMENT:
Calcium/phosphorus imbalance (MBD – Metabolic Bone Disease)	Failure to grow, weakness, limb deformities and fractures, seizures	See exotic pet veterinarian, ensure optimal diet with proper calcium supplementation and UV light
Intestinal parasites (coccidia and pinworms are common)	Failure to grow, loss of appetite, abnormal stools	See exotic pet veterinarian (fecal parasite evaluation and appropriate medication)
Skin infections (fungal dermatitis is common)	Discoloration (esp. blackening) of the skin	See exotic pet veterinarian. Optimizing cage set-up, topical and systemic medications
Egg binding in females	Abdominal enlargement, decreased appetite, difficulty defecating	See an exotic pet veterinarian immediately .
Stomatitis / Snout Damage	Dented, shortened snout. May have blisters or sores present	See an exotic pet veterinarian immediately.
Respiratory Infections	Labored breathing, moisture or crust around nostrils, closed and/or crusty eyes. Whistling with breathing	Increase heat and see an exotic pet veterinarian immediately.

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In conjunction with Pet Supplies “Plus”
10882 Main Street Clarence, NY 14031
Ph (716) 759-0144
www.buffalobirdnerd.com