General Information

CLEANLINESS! Chameleons are very sensitive animals. They should be kept perfectly clean, with the cage being spot cleaned when needed and the whole cage cleaned and sterilized once a month. Cleanliness is next to water at the top of the list of things chameleons need. A captive bred chameleon with a spotless cage, good clean water and properly supplemented and varied food will be safe from 95% of health problems.

Chameleons aren't pets to be played with. They are fragile and dropping one (or even having one accidentally jump off of you) can do major damage to it. Obviously, some handling is necessary to move the chameleon or clean the cage, and a little handling will be ok, but try to keep it to a minimum. They are beautiful animals and very interesting to watch and to have climb on you, but they are not sturdy and easy to stress. Over-handling them and restraining their movements will stress them. Stressing a chameleon will lead to a loss of appetite, lack of drinking, and once those two stop, everything else does with it.

No chameleon is hardy. Panther and Veileds are probably the easiest OF CHAMELEONS to keep alive and well, but the easiest chameleon is more work than the hardest of other reptiles. You constantly need to be monitoring them, cleaning cages, keeping systems working (lights, water etc.) and making sure all is well. If you cannot commit to daily care and the expense that comes with it, do not buy a chameleon.

Certain female chameleons (mostly with veiled chameleons) can develop eggs at a very young age without breeding. This happens most when an animal is kept at optimal conditions (which they all should be). This won't do damage to the female, as long as she is healthy and able to lay them properly and go on with life. The best way to stop this from happening is to cut back slightly on the food offered to her. Scroll down to feeding for more information. If you're looking for a chameleon to keep simply as a pet, a male animal would be a better choice.

If you're planning on breeding your chameleons, make sure you buy unrelated chameleons.

Selection

Before buying a chameleon, you should have the complete chameleon setup waiting at home. That includes the cage, lights, cage furniture, and a nice quiet environment for him or her to live in, as described below. You should also have at least one type of food that is the right size ready to go. By now you should also know if you want a boy or a girl. This will usually be pointed out by the seller, but most sellers or breeders are hesitant to guarantee the sex of a panther chameleon until at least 4 or 5 months. If you think you know that one is a boy or girl (whatever you're looking for), feel free to choose it, but at least get the opinion of the seller/breeder. The easiest ways to determine sex of a young panther chameleon is the color. Panther Chameleons won't get the beautiful colors they're known for until about 6 months, with the colors improving until about 18 months to 2 years. By 3 months old, the males are usually more of a gray color than the females and have a more defined white stripe running the length of their body. Males also tend to be a little lighter color on their belly. Females will be more of a brownish color and the stripe will be less defined and broken up more. They also will usually have more red under their throat, in the gular area. Another way to tell, that takes some practice, is with the tail base. In males, the top of the tail, just below the vent is slightly thicker than in females. This is the beginning of the development of hemipenes, their reproductive organ. Choosing a female by this way is harder, because males can develop it late and not be noticeable at that time. Male panther chameleons are the ones with the bright colors they are so famous for. Especially in panther chameleons, as
the females will all look similar no matter what morph they are, just a light brownish color with some vertical darker brown stripes. Sometimes they can be light orange or pinkish. A female panther chameleon, for example, say from Nosy Be, will look the same as a female chameleon from Sambava, but they still hold the bloodline for that particular color. So if a Nosy Be female was bred to a Sambava male, the babies would be some sort of blue and green probably with purple or dark blue stripes. To get babies that look the same as their father and to keep a morph pure, you will have to find a female with similar color traits (locale). For this reason, when you're looking at panther chameleons, it is usually a picture of the father that is shown (if the breeder has them), as looking at the mother wouldn't really do you any good, since they all look similar. When choosing the chameleon, you will be looking for a few signs of good health. The first thing is the eyes. They should both be open and should be constantly looking around in all directions. The animal should be active and not just curled up in a ball sitting in a corner of the cage. If a chameleon is on the bottom of a cage it's usually a bad sign, unless he or she is running to get up a tree or branch. Look for the body's shape. It should be smooth and "full" looking. If you can see hip-bones or ribs sticking out the animal is probably not eating well or not being taken care of properly. The simple sight of ribs is normal (you will probably always see the animals ribs a bit, they just shouldn't be sticking out abnormally). If looking at adult male animals, you should look for all these signs but include the top of the head. It should be rounded and large and look like a brain sitting on top of his head. Age is another factor. The older the animal is, obviously the better started it is before it gets to you. Younger chameleons are cheaper than older ones, but chameleons under 2 months old or so are still at a high chance of dying. If you're choosing, get the largest of the babies you see that is the sex you want. It's also easier to find food items for older chameleons than younger ones. If possible ask to have the animal eat in front of you. It should focus both eyes on the prey, and shoot it's tongue out (usually farther than you think) without problems or hesitation and should hit it's target about 95% of the time (newborn babies rarely hit what they're going for on the first try, but by 3 months of age they should). Also ask to hold the chameleon (actually it's more like they're holding you). It should be balanced and usually will be running one way or another. The legs should be straight and smooth, with no unusual bumps or swellings on them or on their feet. Try to get a picture of the father of the animal. It will give you a good idea of what to expect in a year or more. The seller or breeder should not pressure you into buying it and always give you other options or suggestions, if you want them. Let the chameleon settle into it's new home without handling it for about 2 or 3 weeks.

---

**Housing**

Chameleons should be housed in screen sided cages from the age of 2 months and up. Before 2 months of age, some breeders use glass aquariums to keep in humidity and reduce the escape of the tiny food insects. Screen cages should have screen on at least 2 sides (preferably more), plus the top. This will allow some cross-ventilation and keep water evaporating and prevent musty air or mold from developing. These cages can be either built by you, purchased either on the internet, at pet stores, or reptile shows. The cages should be as large as you can get, with the minimum size for an adult male panther chameleon being 2x2x3' tall, but the larger the better. Smaller panthers should have smaller cages. A panther purchased at 3 months old should be moved into a cage that is about 12"deep x 18" long x 18" tall. They can remain in a cage this size until about 5 to 6 months old, at which time they should be moved to an adult cage. A small panther immediately put in a large cage can have a hard time tracking down the food it needs and could become "lost," not remembering where the water normally is or where the cage furniture leads to. Some observation is all it takes to determine these factors. If they are eating, drinking and basking normally, then they'll be ok in a larger cage. Some of the purchased screen cages have 2 opening doors on the front, top and bottom, which makes cleaning very easy, since you can open a small door at the bottom and slide out the plastic base for cleaning. If building the screen cage, resist using fiberglass screen. fiberglass screening gets dry and can come apart and crickets can and will chew through it. Also, large chameleons with a strong grip can simply
tear the screening apart. I've had personal experience with all of these things. Aluminum screen used to screen doors (from hardware stores) is much safer from crickets and falling apart, but it's so thin and fine that if a chameleon climbs on it too much and slides his feet on it, it can and will "file" down his toenails, making it impossible for him to climb on other screens at all and possibly making it hard for him to maneuver well in trees. The aluminum screening used in commercially built cages is thicker, reducing this problem. If you are putting a sealer or stain on the wood of your cage (usually 2 by 2's), let it dry for a long time (a week) before putting a chameleon in it and even then, rinse it down very well. Strange or strong smells of any kind will stress a chameleon out and can be very detrimental to them or even deadly. Cages should also not include glass or Plexiglas sides. A chameleon seeing it's reflection will be stressed and will constantly be putting on a "display" to itself, thinking it is threatened. For this reason you should also have no mirrors where a chameleon would be able to see itself or any other animal. If you have the space, it is recommended to have a cage that you can either take outside or keep outside to let your chameleon get some sun in. A few hours a week of sun is very good for your chameleon and will help him to get the UVA and B rays from the sun. No light bulb has perfectly replicated this. Any time it's between 65 and 90° outside, your panther chameleon can be outside during the day. If it doesn't drop below 55° at night, they can be outside during the night too. Make sure the cage they are in is predator proof, meaning that cats or wild animals cannot get in. A small lock is also a good idea, just in case. Cage furniture should consist of various sized sticks crisscrossing the cage, making it possible to access all parts of the cage. We like to use sandblasted grapevine branches and/or tree roots that have been cleaned and soaked in soapy water. Make sure they are all secure and not able to fall and crush a chameleon. The cage should also consist of at least one live plant. It should be thick enough for the chameleon to hide itself behind but thin enough that the chameleon can easily navigate through it. We like to use china doll or ficus benjamin for our younger chameleons and various species of hibiscus or larger ficus trees for our older ones. Ivy also makes a good additional plant to have in a cage, to either thicken up the foliage or simply to make it look better. Having a live plant will be a good way to add humidity to the cage, beautify it, have somewhere for the dripping water to go and keep the chameleon in as natural a place as possible. A new plant will need to be washed very good, either by spraying it down with a soap and water solution or soaking it upside down in a bucket of soapy water. Spray it off, let it dry and do it again. The plant should be pruned of all small twig-like sticks and unnecessary branches to keep it open and neat looking. Rinse it down after this and wait a few hours before putting it in a cage, as ficus plants will leak a sap from the cuts that can be dangerous if it gets in a chameleon's eye. It dries quickly, but just a precaution. The top 2 inches of potting soil in the pot should be replaced with a perlite free potting soil, to keep a chameleon from accidentally eating the perlite (little white water absorbency rocks added to potting soil). The bottom of the cage should be either completely bare (preferable) or have a very thin layer of a fine and dust free sand or potting soil. The chameleon will accidentally eat small amounts of this from time to time and if it's got anything large in it (twigs, rocks etc.) he can either choke on it, or get it clogged up in his system probably causing death. Bare floors are more sanitary and you can clean them easy if they remove, and sand floors are easier to spot clean and keep waste from sticking to a non-removable bottom. They also absorb water, preventing crickets and other feed items from drowning in standing water. We use mostly bare floors, but we have both and have had no problems with either. We usually put a paper towel (or two, depending on cage size) or a sheet of drawing paper on the bare floored cages so you can simply change that instead of pulling out the PVC base.

CLICK HERE for a list of safe plants to use.

Environment

The temperatures in a panther chameleon habitat should be a range from 75 to 95° during the day. This can be done by keeping the chameleon in a room temperature area, and then including a heat light at the top or on one side of the top of the cage (see lighting section below). That will allow the chameleon to freely go to an area where the temperatures are suitable to him or her. If
he gets hot, he can move to a cooler area and vise versa. This is called thermoregulation. The nighttime temperature, if possible, should be in the mid to high 60's. If you can't cool an area down that much, just make sure the lights are off and it will get the temperature to the coolest it can be. All of these temperatures should be checked with a thermometer, both at the "hot spot" and the bottom or coolest part of the cage. The room and cage should be completely dark at night. Humidity is another factor. Ideally, panther chameleon humidity should be 60-80%. This can be done by having live plants in the cage (or around the cage), by misting it regularly (see watering section below) and by setting a humidifier in the room, near the chameleon's cage. Putting the humidifier on a timer is useful to get it to turn on and off during the day. Humidity can also be added by draping a wet washcloth over the top of the cage, hanging down one side. Slowly dripping (warm if possible) water on the top of the cage onto the washcloth will keep it moist. A chameleon should be kept in a room that is the least used by people. There should be no mirrors that a chameleon could see itself or other chameleons in and the room should be peaceful, meaning no ceiling fans that they can see and no loud music (the vibrations can scare them more than the noise). They shouldn't be able to see any animals, whether it's the dog, cat, or pet birds. In Madagascar, the main predator of chameleons is birds, and even captive bred animals will be scared by them. Chameleons have very good vision and for their size, it's much better than ours. They can easily see another chameleon in a tree 25-30 feet away.

Lighting / Heating

All arboreal chameleons need specific lights to properly absorb calcium from their food and to grow and develop properly, while fighting off the ever present metabolic bone disease. The florescent lights we use for indoor cages are by ZOOMED (on links page) and are the 5.0 Reptisun bulbs. These are great for producing UVA and B. There are other brands to choose from. This light will need a hood to be mounted in and is sold separately. Make sure the hood you get matches the bulb(s) you are getting. The chameleons will also need a heat light. These will brighten up the cage and provide the "hot spot" they need to thermoregulate. This consists of a clamp light with a spot bulb in it. Ceramic based clamp light fixtures can handle a hotter bulb than plastic. Plastic-based clamp lights can only handle about a 75 watt bulb. We also use ZOOMED's spot bulbs for our large chameleons. We range anywhere from 50-100 watts for adult chameleons depending on species, how close to the cage top the bulb is, and the season. We use smaller bulbs for our smaller chameleons, usually about 25-40 watts depending on age. As a general rule, the more light the better. During the summer, the lights should be on for 12-14 hours a day. In the winter, cut it back to 10. At night, the room should be completely dark, and unless the room gets lower than 60° at night, no additional heat source is needed. We keep the room and cage temperature slightly cooler in the winter than in the summer. Room temperatures in the summer are around 75-78° and in the cage it's between 75-95° (gradient). In the winter it's closer to 70° in the room and 90° at the "hot spot" in the cage.

Feeding / Supplements

No subject of chameleon keeping is more controversial that this. Noone knows for sure what chameleons need in their diet and how much of it. But these are the basics everyone agrees on. Crickets have become the staple diet that everyone has and everyone uses. A few years ago it was mealworms, because crickets weren't mass produced yet. Crickets are more nutritious for a chameleon than a mealworm is and I don't recommend using regular mealworms at all for any chameleon. They can cause constipation and are harder to digest, making it hard for a chameleon to get any nutrients out of them. Any food item kept by the chameleon keeper should
be gutloaded with a good diet. This will make for a healthier insect and pass the nutrition on to the chameleon. More of this is covered in the FOOD ITEMS link on the main page. Food insects can be presented to a chameleon in a few ways. The most common way is called "free range" where insects are merely dumped into a chameleon's cage and the chameleon will hunt for his own food. This is natural, quick and easy. The problems with this is the occasional escapee cricket or housefly to get out and that if most worms and roaches get to the potting soil you have in your plant they will burrow in and both not get eaten and grow either into a large 3-4 inch non-edible roach or a beetle (superworms or mealworms). Also, certain insects can and will nibble at your chameleon (crickets, superworms) if they can get to them at night. Crickets are escape artists so keep an eye on them. You could also feed the chameleons out of a small bowl or cup, mounted beneath a branch they are frequently on so they can see the insects. If you do this, you need to make sure the chameleon is eating from the bowl. Many chameleons won't eat from one at all, even if they're hungry. A third way to do it, usually if you have the time to do it, is to train them to eat from your hand. Most panther chameleons will do this, it just takes a little practice. When you know a chameleon is hungry, hold an insect out 8 or 10 inches in front of him or her and let it wiggle (chameleons will only eat moving prey items). Usually the chameleon will quickly turn it's head to check it out and usually as soon as both eyes are on the item, it's gone (their binocular vision and focus is how they determine distance so they know how far to shoot their tongue). Doing this once or twice a day for a few weeks will usually get them to do it from then on. When training, wait until the chameleon is about 4 to 5 months old to begin. Chameleons should be given as varied of a diet as possible. In nature, they eat dozens of different species of insect and get different nutrients from them all. In captivity, if a panther chameleon is eating 5 different species of insect on a regular basis, they're one in a hundred doing so. The best way to overcome this problem is to "gut load" these insects with planned out meals and get them to the best of health, while also making sure the insect eats a good meal right before offered to a chameleon. Most insects will completely empty out their gut in 24 hours, so it should be soon after for the best results. More about what to feed the insects is in the FOOD ITEMS link. The other way which still needs to be perfected, is supplementation. This is adding a vitamin, calcium or mineral dust to the insects before feeding. The best way to do it is to put the insects in a tall cup, put a pinch of the dust in with them and swirl it around until it completely coats the insect. You need to make sure you only put a pinch of the dust on them. When it's done properly, you should barely even notice that the insect has been dusted. It will be just very slightly lighter in color than before. Too much supplementation can be very bad for a chameleon, especially the multivitamin. This is the schedule we use to keep track of what our chameleons are getting and what they need and a list of the supplements we use:

Male panther chameleon or adult female (non-breeding) 6 months and up:

Monday- Insects with no supplements. Tuesday- Rep Cal Calcium with D3. Thursday- Herptivite Multivitamin. Saturday- MinerAll O. Wednesday, Friday and Sunday they don't get food. This keeps them healthy and keeps them from getting overweight since they are no longer growing rapidly. It also helps them to be excited about eating, and they won't get tired of the usual food insects.

Gravid female panther chameleon:

Monday and Thursday- Herptivite Multivitamin. Tuesday and Friday- Rep Cal Calcium with D3. Wednesday and Saturday- MinerAll O. Sunday- Rep Cal Calcium.

2 month old panther chameleon up to 6 months:

As you can see from this schedule, gravid females have the highest requirements for supplements. They are developing eggs and that takes everything their body can come up with to do. In the wild, a panther chameleon eats nowhere near as much as they eat in captivity. It won't hurt an adult chameleon to cut back it's diet a little bit if you think it's getting overweight or lazy. If a chameleon won't eat anymore, try giving it something it hasn't had before. It's amazing what switching a food item will do to get a chameleon going again. They will get bored of crickets or whatever else if that's all they are offered. A good way to get them back into whatever you were feeding before (usually crickets) is to totally stop offering them and give it other insects for a month or so. Then go back to the original food item and they usually will take it again. It's even better if you can offer different foods on a daily basis.

*To most chameleon keepers, this list of supplements seems like a heavy supplement schedule. When supplements are used this often in this manner, it's very important to dust VERY LIGHTLY!

---

**Watering**

Water is one of the most important things in keeping chameleons. They need to be supplied with fresh, dripping water daily. They should also be misted at least once a day as adults and 2-3 times as juveniles or sub-adults. The water provided to them must be clean and chlorine free. Chlorinated water can be treated by simply setting it out uncovered overnight or boiling it first to evaporate the chlorine. There are also additives you can put in it made just for reptiles that will eliminate chlorine and other unwanted substances in water. Misting and dripped water should be no colder than room temperature and if possible a very warm water is probably preferred by the chameleon. The simplest way to drip water for a chameleon is to get a small styrofoam or plastic dixie cup and poke a VERY small hole in it. Styrofoam seems to work better since in plastic the hole is almost always too big. After poking a hole in styrofoam, it closes up somewhat. Water should drip at a rate of about 1 drop every 2 seconds. The drips should be aimed at leaves underneath them and should be contained in the bottom by either a shallow dish or by dripping the water directly through the plant into the pot. The plant will probably need to be drained every few days, or a saucer underneath the plant will let you know when it's got too much water. Chameleons will drink the water from the leaves as they fall. It usually takes a few minutes for a chameleon to recognize the water and move in to drink, so for that reason the drip should last quite a while. They can drink for a long time, and water should be provided twice a day for at least an hour each time. Keeping humidity levels at their preferred range (60%+ for panthers) will also keep them from getting dehydrated. Cage bottoms should never have standing water and any soil or substrate should never be more than slightly moist. Dry is best. Suspending a dripper 6 inches or more above the cage will cause the drips to break apart when traveling through the screen and make the drips spread out more, preventing too much flooding and making more of the cage accessible for drinking. There are commercial drippers available with an adjustable valve which can be easy and convenient. All they really are is a container with an aquarium air-valve through the bottom that can be opened or closed. With a little work, they're very easy to make. Misting should be done at least once daily. Mist should be aimed at the leaves in the cage and not the chameleon. A blast of mist will usually make the chameleon run for cover and not want to come back to drink. Mist lightly on the top of the plant and do it for as long as possible, so that water is dripping from leaves. Usually the chameleon will begin licking the dripping leaves. Hand manual misters are easy, but if you've got several chameleons, they can be tiresome. Most major grocery stores with a garden center or nurseries have pump sprayers used for spraying insecticides or chemicals and these can be a great convenience. Just make sure the mist isn't too thick and powerful. Never use a pump mister that has been used for anything besides water.
Baby Care

When babies come, sometimes it can be unexpected. This is especially true with certain live-bearing species such as Jackson's Chameleons, since one day you have one lizard, sometimes that you don't even know is pregnant, and the next day you have 10 to 40 babies crawling around. Babies don't have to eat the first 2 or 3 days of their life, so don't panic if you're a little unprepared. As soon as you can, get the babies put into either a small screen cage, small glass aquarium or even into a tupperware bin. Babies should be put about 10 to each 10 gallon sized container. You can also put each baby into it's own 2 gallon container, which is a good way to monitor them and keep track of eating habits, and keep them from having to compete with eachother for food. Babies should be kept at less extreme temperatures than adults. Staying within a 65-80°F range is acceptable. The container should have several small branches crisscrossing it, making it possible for the babies to spread out and have their own path across the cage. Plastic or silk plants are recommended since the babies could easily choke on any soil they accidentally ate from a live plant. Babies will need to be lightly misted at least 3 times a day, and they will lick the leaves to get moisture. Dripping water should not be used for the first 6 weeks. Tiny food should be provided such as fruit flies or pinhead (less than a week old) crickets (see FOOD ITEMS page). Newly hatched silkworms can also be used, although few would find it worth it to go through all the work of breeding them just to feed them when they finally arrive. All food should be gutloaded (see FAQ page) instead of dusting until the babies are 4 to 6 weeks old. Supplements on a tiny food item (with so much surface area and so little mass) make the supplements too strong for the baby chameleon. Baby cages (with more than a few babies) should be cleaned every other day. Some screen cages have a small door across the front bottom of them where the plastic base slides out, making this much easier. Don't use any chemicals to clean their cages as babies are very sensitive to any leftover smells.

Suggestions in Keeping a Chameleon

Letting a chameleon get at least a few hours of natural unfiltered sunlight a week is very beneficial to them. Anytime it's between 65° and 90°, a panther chameleon can be outside. Sunlight is the best source of heat and light you can provide and as much time as you can give them outside the happier and healthier they will be. It is also great for sick or recovering chameleons and provides them with the best source of UVB, which will help them absorb calcium. Having a second cage built outside is a great way to keep them safe while outside.

Weighing your chameleon(s) is a good way to keep track of health. They should have a steady increase in weight until about 2 years of age. Losing weight (more than a few grams) is a bad sign and can mean they are sick or have stopped eating. It can also tell you if a female is carrying eggs or not, as there will be a sharp increase in weight in the month after breeding.

Wild caught insects can potentially be dangerous to chameleons. While they are very good for them and a new diet item, if an insect has been exposed to any chemicals or pesticides it can be very harmful to a chameleon. Certain wild insects can also introduce parasites to a chameleon and other insects can be harmful if they have eaten something that can't be eaten by a chameleon, like a green hornworm eating tomato plants, which are toxic to chameleons. Overall, it's a safer bet to use commercially raised insects exclusively for your chameleons.

A dehydrated chameleon can be treated by putting the animal in a small tree in the yard and gently "raining" on them with a hose. They will usually lick drops from the leaves and even if they don't they will start to lick their lips, and will get water from that. Another way if the animal is not responding to that is to set them in a small container with ¼ inch of warm water and keep the
container at 80-85°. Chameleons will soak up water through their skin and this will help to hydrate them. Leave them there for 2-4 hours and repeat it for 3 days in a row. If a chameleon is in very bad shape, fresh Pedialite can be offered, usually by forcing small amounts into the back of their throat. A vet can show you how.

*All information provided in this site is from personal experience. It is what I have done and what has worked for us. Not everyone will agree on the information in this site, as much of the basics of chameleon keeping are opinions. If you have a better way of doing something, learn from it and pass the information on to others.