Ball Python Care Information

Ball Pythons are one of the most popular snakes being kept and bred in captivity. There are many reasons for their popularity. They are very small for a python species. Most individuals only reach 3-4 feet in length as adults. They are very docile and not fast-moving like most snakes, which makes them easy to handle. They rarely strike out of aggression. Ball Pythons are also very easy to breed and the babies are usually great feeders and easy to raise. They live a long time. Balls will commonly live for 20-30 years, with some having lived 40 years +. Finally, ball pythons are extremely popular because they come in well over 100 different color and pattern combinations. There's a ball python out there for everyone's tastes!

<u>Imports and Farm-Raised vs Captive Bred:</u>

In the past, most ball pythons that were available for purchase as pets were wild-caught normals, usually adults. Imported adult ball pythons can be very difficult to acclimate. They don't always adjust to captive conditions and often are very picky feeders. Wild Ball Pythons tend to prefer rodents that live in their natural environment in West Africa. They will sometimes refuse to each the mice and rats that are bred in captivity. However, some breeders do produce African Soft Fur Rats, which are similar to what they feed on in the wild. Overall, buying imported adults can be more trouble than they are worth. They may take several years to fully acclimate to captive conditions and may or may not ever reproduce.

Every year in Spring and early Summer, thousands of baby ball pythons are imported from Africa. Dealers in Africa capture gravid, wild females and hold them until they lay eggs. The eggs are hatched and the babies are shipped into the US. These babies generally do much better than the adults, but they can still have issues. Often, they will sit and wait for days or weeks with the exporter, importer, or dealer before they are sold. These snakes are not always kept in ideal conditions, which can cause health problems.

True captive bred and born ball pythons are by far the best snakes to work with, whether you are buying one as a pet or a future breeder. They acclimate to captive conditions extremely well and they are usually excellent feeders. We produce hundreds of babies each year and only about 1% of ours tend to be really difficult feeders. They tend to grow faster and breed more consistently than wild-caught or farm-raised ball pythons.

<u>Acclimation:</u>

When you receive a new ball python, it is important to set it up in the correct environment so it can acclimate and begin feeding. Our ball pythons are raised in plastic boxes within a rack system. These boxes are usually not very big. Babies are housed in 6 quart boxes. Larger juveniles and subadults are housed in 12-20 quart

boxes. These boxes are opaque so only diffused light enters them. These conditions are actually perfect for ball pythons. In the wild, these snakes spend most of their time in rodent burrows, rock crevices, hollow logs, etc. They feel secure when in close quarters and get stressed when they are in big, open spaces. The best way to set up a new ball python is to replicate how it was housed at the breeder's. Once feeding has resumed, the snake can be slowly transitioned to it's permanent home. Most people that are keeping an individual, or perhaps several ball pythons, prefer to house them in larger display cages in a naturalistic setup. That way, they can more easily observe the snake's feeding and behavior. It is not difficult to acclimate ball pythons to this kind of setup, but it does take a little patience. First, it is best to cover all 4 sides of the cage with black construction paper or cardboard. That way, the snake cannot see out into the room. It will feel more secure that way. Next, make sure there are several good hiding places. The snake will probably spend most of its time in these hiding places. Make sure there is one on the warm side of the cage and another on the cool side.

Newly acquired ball pythons normally begin feeding within the first week or two. However, the stress from shipping and being placed in an unfamiliar environment can sometimes make the snake go into a non-feeding mode. This is nothing to panic about, as long as there are no other health issues with the snake. Ideally, it's best to get babies, about 100 grams or less, to start feeding within 1-3 weeks. They don't have the fat reserves to survive as long as larger balls do. Older juveniles, subadults, and adults, can go much longer. We received a 250 gram clown ball python in January of 2003, that didn't eat its first meal for us until July 2003. He didn't lose much bodyweight, if any, and he went on to be a fine breeder for us. Ball pythons sometimes take lots of patience! It's important not to panic when a new ball python refuses to feed. See the section below on feeding for more information and tips.

<u>Handling:</u>

Ball Pythons are one of the best species of snakes as far as handling is concerned. They rarely strike out of aggression. Most bites occur because of a feeding response. If you bring feeder rodents into the same room that a ball python is kept in, the snake will smell them and become interested in feeding. If you open the snake's cage and stick your hand in, it may assume its feeding time and strike. If caution is used when opening the snake's cage, bites are very unlikely.

Newly acquired ball pythons should not be handled unless absolutely necessary for the first couple of weeks, or until it has fed several times. Handling is somewhat stressful to a ball python, even if they don't show any signs of stress. Ball pythons that are stressed tend to go off-feed. Allow the new snake to adjust to its new environment slowly.

<u>Cage Setup:</u>

Ball pythons can be kept in a variety of cages. For display purposes, glass aquariums or reptile cages are generally used. Babies can be housed in small cages, equivalent to a 20 gallon aquarium. Adults need to be housed in cages at least the size of a 40 gallon aquarium. The main benefit of a display cage is that you can actually observe the snake's behavior. If branches, logs, or other props are used, you can see the snake climbing on these. The drawback is that glass cages tend to make ball pythons feel less secure, which could cause feeding and behavior issues. Another housing method is rack systems using plastic boxes. These are generally used for housing larger numbers of ball pythons. Many snakes can be kept in a relatively small area. The individual boxes are set up so that each snake requires a minimum amount of time and labor. The drawback to this kind of caging is that you have to slide the box out of the rack to see the snake. It's very difficult to observe natural behavior in this kind of setup. Whatever cage type is used, make sure it is very secure with no way for the snake to escape. Non-locking cage tops or racks that don't have tight enough spacing are very easy for ball pythons to escape from.

Regardless of the type of caging you choose, it is important to create a proper environment for the snakes. Ball pythons do very well in captivity if they are given the correct conditions. The ambient cage temperature should be 82-85 during the day, with a slight drop at night. A hot spot should be given that stays a constant 90 degrees. It is very important to make sure there is a temperature gradient, so the snake can choose whether it wants to warm up or cool down. Rack systems are generally heated with heat tape or heat cables. Most racks have tape or cable on each shelf in the rack. This must be connected to a high quality thermostat to control the temperature. A thermostat is probably the most important piece of equipment you can buy. Don't risk using a low quality, cheap thermostat. A thermostat that fails could lead to the deal of your snakes. We use and recommend the Herpstat made by Spyder Robotics. These can be purchased at www.spyderrobotics.com. Another very important piece of equipment is a temperature gun. This small device will measure the temperature of anything you point it at, at the click of a button. It is much more accurate than a stick on cage thermometer. You can also use it to measure temperatures anywhere in the cage (or room for that matter). They are very inexpensive and can be purchased at www.tempgun.com. Heating a display cage is a little more complicated. A combination of heat lamps and a heat pad usually works best. Use a heat pad, covering 1/4-1/3 of the bottom of the cage as a 24 hour heat source. This will supply the belly heat that the snake needs to digest its food. For additional heat, a lamp placed above the cage will work. The wattage will depend on the cage size, amount of ventilation, and room temperature. You'll have to experiment a bit with the wattage to see what provides the correct temperature. It is best to use a red or blue nocturnal reptile bulb in the heat lamp. Ball pythons don't like bright light. These darker bulbs will not disturb the snake as much.

Ball pythons require a fairly high humidity. 60-75% works well for them. Conditions that are too dry can result in health problems. Ball pythons will have a

difficult time shedding, and may retain patches of old skin over their body and eyes. You will know when the humidity is high enough when the snake sheds all in one piece. That is a great site for a ball python keeper! Low humidity can also cause respiratory infections (RI). Signs of RI are wheezing or foamy discharge from the mouth. Minor cases can be cured by raising the temperature and humidity in the cage. However, most RIs should be treated with medication from a veterinarian. If your cage has a lot of ventilation, such as a screen top, you'll want to make sure to provide plenty of extra moisture to help keep the humidity level high enough. Some types of bedding, such as cypress mulch, retain water fairly well. Wetting it down once or twice a week will help keep the cage humid. A humid hiding place is also very effective. We use a plastic box with a hole cut in the lid large enough for the snake to enter and leave. Moistened paper towel or sphagnum moss is kept inside. The paper towel should be changed once or twice a week. If sphagnum moss is used, it should be re-wetted once or twice a week. The snake will spend a lot of time hiding in the box where the humidity will be higher than in the rest of the cage.

There are several types of bedding that can be used with ball pythons. Newspaper and paper towel are good choices. It is cheap or free to replace. You can replace it whenever the snake defecates or as needed. The drawback to this type is that it doesn't look natural. Newspaper and paper towel work best for rack systems. Aspen bedding is another popular choice. It is very clean and easy to see when it needs to be changed. However, it tends to mold easily when wet. Since the humidity level of a ball python's cage is fairly high, this can sometimes cause problems. Pine and cedar shavings should never be used. These produce a gas that can be toxic to reptiles. Cypress mulch is an excellent choice. It retains humidity very well and is very unlikely to get moldy. It also has a very natural appearance and looks great in display cages.

<u>Shedding:</u>

All snakes shed their skin several times a year. It is easy to see when a ball python is preparing to shed. Their colors get dull and their eyes become a cloudy, blue-grey color. Their eyes get cloudy because liquid is forming underneath the eye scale, which allows it to separate from the eye itself. This process will take several days. Its best not to handle them at this time. They cannot see very well and may get frightened if they are picked up. It is important to make sure the humidity is correct at this time. If the humidity is too low, the snake may not be able to shed its skin properly, leaving patches of dry skin on the body and eyes.

If the snake does retain skin or "eye caps", there is a relatively easy way to remove it. Place the snake in a plastic box with just enough water to barely cover the snake's body. It shouldn't have to swim to stay afloat. The water temperature should be 80-85 degrees. It should feel slightly cool to your touch, as your body temp is about 98.6 degrees. The box should be covered with a lid to prevent the snake from escaping. Make sure the box has a few airholes so the snake doesn't suffocate. Let the snake soak for at least an hour. At that point, remove the snake

and gently rub the old skin off the snake's body. This is a good way to remove the retained skin. However, it is important to adjust the humidity in the snake's cage so it doesn't become a consistent problem.

<u>Feeding and Growth Schedules:</u>

Ball pythons in captivity eat mice and rats. They can be fed frozen-thawed rodents or live rodents. The benefit to frozen-thawed is that you can purchase a large supply at one time and use them at your convenience, rather than have to get a supply of live rodents every week. Also, a dead, thawed out rodent does not pose any threat to a snake. Live rodents have been known to injure or even kill the snake that was supposed to eat it. There's no danger of that with a dead rodent. The drawback to using frozen-thawed is that some ball pythons can be picky feeders when it comes to these. When our collection was smaller, only about 100 snakes, we used to feed them thawed rodents. However, there were always a few that would just not eat them. We had to feed those live rodents. Also, a lot of the snakes that did eat thawed were inconsistent. As our collection grew, we decided to switch over all our ball pythons to live rodents. When we fed thawed, only about 40-50% of them would eat on a weekly basis. After we switched to live, about 90% of them would eat each week. More consistent feeding leads to better growth rates in our babies. It also allows the breeders to gain weight faster, which leads to more consistent reproduction.

Ball pythons, especially babies or juveniles, that are feeding on live rodents, can be switched to frozen-thawed if you have a little patience. The best way to do this is to let the snake go an extra week without feeding. Thaw a rodent out to room temperature, then place it under a heat lamp for several minutes. This will raise the body temperature of the rodent, which will fool the snake into thinking the rodent is live. Offer it to the snake on tongs. Usually, it will strike the rodent and constrict it, as if it were a live rodent. This method works well, but sometimes takes several attempts to work. Ball pythons can be more stubborn than their owners sometimes.

If live rodents are use, it is very important to never leave it in the cage with the snake unattended. Baby mice and rats cannot injure a snake, but larger ones can injure, or even kill a snake. Ball pythons won't kill a mouse or rat to defend itself. Keep a close eye on them to make sure the snake does not have any problems.

We feed our hatchlings mouse crawlers, which are a little bigger than fuzzies, but not as large as a hopper or weanling. Once a particular snake has eaten several times, we offer it a small rat fuzzy instead of a mouse. We try to get our babies to take rats at an early age. Ball pythons raised on rats tend to grow faster than those that are raised on mice. Once a baby has started feeding on rats, we no longer offer it mice.

We feed most of our ball pythons once a week. This includes our babies, juveniles, subadults, and breeders. If there are any individuals that we want to grow and

mature quicker, we will sometimes offer them an extra couple of feedings each month. The size of the food item should be roughly the same diameter as the thickest part of the snake. On an average feeding schedule a 60-75 gram hatchling can easily reach 600-700 grams by the time it is a year old. Many ball pythons go off-feed for several months after they are a year old. This is normal behavior for this species. When ours do this, we continue to offer food every week or two. After several months, most of them will resume feeding.

If a particular snake is a stubborn feeder, and absolutely refuses to each, it is best to try to figure out why. Is the cage setup ideal? Is something causing the animal stress? Does it want a different type of food? It sometimes takes trial and error to figure out the problem. We've had ball pythons that would refuse to eat anything. Then, we moved them from one rack to another, and they fed within a few days. One trick we've learned with feeding picky babies is placing them in a deli cup (with airholes) with a crawler mouse and leave them overnight. Sometimes, being in close contact with the prey item for several hours does the trick. If all else fails, we may resort to force-feeding, or assist-feeding. We virtually never do this with adults- they have the body fat reserves to go for months without feeding. However, hatchlings cannot survive as long and it is important that they don't go too long without nutrition. To assist-feed, gently hold the snake on either side of the head with your thumb and index finger. Take a pre-killed mouse fuzzy, one that is smaller than what would normally be fed to the snake. Use the nose of the fuzzy mouse to stick into the slight gap in the center of the mouth, where the snake's tongue flicks in and out. Use the fuzzy's nose to pry the snake's mouth open. Gently push the fuzzy as far back into the mouth as possible, so that most of the body is in. Gently, but quickly set the snake down and don't make a move. Usually, if the snake doesn't immediately spit it out, it will realize there is food in it's mouth, and will begin swallowing. Don't move until the mouse has been swallowed. This procedure takes some practice and patience, but works great. Wait 4 or 5 days, then offer the snake a live meal. If it doesn't eat by the following day, assist-feed it again. Most baby ball pythons will start taking food on their own after 3 or 4 assist-feeds. We did have a pastel female that hatched here that refused to take a meal on its own for over 6 months. One day, it started to feed on its own and did fine after that. Patience, patience!

<u>Breeding:</u>

Ball pythons are generally very easy to breed. Most males are ready to breed at one year of age and about 600-700 grams. Females generally will breed at about 1500 grams or more. This usually takes 2.5-3 years under normal feeding schedules. We have had some outstanding females lay large, fertile clutches by the time they were 2 years old. These individuals usually did not go into an off-feed mode for several months while they were growing. Overall, its usually best to let the females get larger and older. By giving a female more time to mature, she may lay larger clutches of eggs in the future.

We put our breeders into a cool-down prior to breeding. In late October or early November, we reduce the ambient daytime temperatures in our room to 79-80 during the day and 75 at night. We also reduce the hot spots in the racks to about 85. About 3 weeks after doing this, usually in late November, we start introducing our males to our females. We place the males in the female's cage. We generally try to breed each male to about 5 females. Every 1-2 days, we remove the male from one female, and place him in with the next. After about a week, the male has visited every female we intend to breed him with. If we observe breeding, we make a note of it on the cage. That way, we will make sure to get him back in with her often over the next few weeks. If a male is breeding a female when we intend to move him to another's cage, we leave him until the following day. Never interrupt breeding! We continue to rotate the male in with a particular female for the next couple of months or more. We don't stop until we realize she's either not going to develop egg follicles that year, or we see obvious signs she's gravid.

The most obvious sign a female is gravid is when you observe ovulation. This is a mid-abdominal swelling that looks like she's swallowed a huge meal. It only lasts for 1-2 days. Once that occurs, no further breeding is necessary. The eggs have been fertilized at that point. Any breeding done after that will not matter. Better to have the male spend time of the females that are not yet gravid.

The coloration of a gravid female tends to lighten up several shades. That is one of the best indicators if you miss ovulation. She will also tend to spend most of her time in a tight coil. A few weeks before laying her eggs, she will usually dig a crater in the substrate. She'll remain there until her clutch is laid. We mark every cage that contains a female that is close to laying eggs. Those females are checked on daily.

Females lay eggs within her coiled body. She will usually coil completely around them. In the wild, a female ball python will stay coiled on her eggs until they hatch. We gently remove the mother from her eggs. Most females are very aggressive, protecting her eggs, so care must be taken to not be bitten. Fertile eggs are usually large, about the size of a jumbo chicken egg. They are normally white, but can sometimes have discolored spots or patches. They usually feel leathery and firm. Infertile eggs are usually much smaller, often being yellowish. They will sometimes be very soft and spongy. We throw obviously infertile eggs away. However, if there are any questions, we will incubate it. We've had some incredible babies come out of the nastiest eggs. It is better not to take a chance. We place the eggs in a plastic box filled with a couple inches vermiculite or perlite. This must be moistened to the point where it packs when squeezed together, but no water should squeeze out. The water to vermiculite ratio should be about 1:1 by weight. There's a great product available called Hatch Rite, which is premixed with the correct amount of water. This is great to use for beginning breeders. Too little moisture and the eggs will dry out. Too much and the eggs can get moldy. We drill 4-6 holes in the side of the box with a 1/16" drill bit. This will allow for some airflow, but not enough to dry the eggs. We generally leave the eggs stuck together, but they can also be gently

separated. The eggs should be placed on top of the vermiculite/perlite/hatch rite with only about 1/3 of the egg being buried. The box containing the eggs should be placed in an incubator which is set at 88-90 degrees. Watch the eggs for signs of decomposing. If an egg shrivels up, but remains dry, it is probably safe to leave with the clutch. However, eggs that get wet and slimy, usually with a greenish color, should be removed from the clutch. An egg like that can make other eggs around it go bad.

Eggs take about 55-60 days to hatch. 2-3 weeks before hatching, most eggs will cave in, or dimple, a little. This is normal. We check the eggs daily at this point. When the first baby pops its head out form the egg, gently separate each egg, taking care not to flip the egg or change its orientation. We use a dissection kit scissors to cut open a small window in the egg. To do this, we pinch a small section of the shell on the top of the egg, and gently make a shallow cut, taking care not to cut the snake or any of the blood vessels within the egg. Sometimes a blood vessel gets cut, but this doesn't seem to harm the baby. The reason for cutting each is so that the baby will be able to escape the egg. Nearly all babies can do this just fine without help. However, it is possible for a baby to be trapped inside the egg. If cutting the eggs helps to save 1 baby out of every 100, it's worth it.

Once all the babies have hatched, we sex them, and place them individually in 6 quart plastic boxes. We give them paper towel and water bowl and keep them at a constant temperature in the mid 80s. After about a week, each baby will shed. We offer the babies their first meal within a few days of the shed. Most babies take food at the first opportunity, but we have had babies that have held out for several weeks.

If you would like more in-depth information regarding the care, breeding, diseases, and genetics of ball pythons, please check out the following books. Both are absolutely spectacular and are highly recommended!

"The Complete Ball Python" by Kevin McCurley.

"Ball Pythons: History, Natural History, Care, and Breeding" by David Barker and Tracy Barker