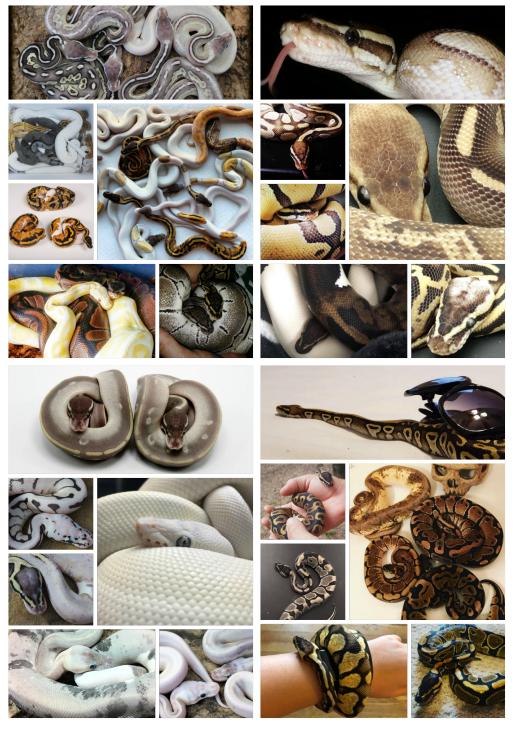
# **Caring for Ball Pythons**



This guide is compiled from recommendations and experience provided by members of the Ball Python People Facebook Group, including long-time keepers and breeders. The information outlined here is considered good practice by this particular community, though we recognize keeping practices vary. Compiled by Catharine Gensel for the Ball Python People Group in 2018. Photos courtesy of Ball Python People Group members.

## **Background Info**

Ball pythons are nonvenomous constrictors in the family Pythonidae. They are the smallest of the African pythons. The species is *Python regius*, leading to the common name Royal Python, as translated from the Latin. The nickname ball python refers to their tendency to curl up into a ball when they feel threatened or stressed. Ball pythons occur naturally in Sub-Saharan West Africa, where they occur in savannahs, grasslands, and lightly forested areas. They are terrestrial, living in underground mammal burrows. They are NOT arboreal (i.e. they do not live in trees and are clumsy climbers). Females tend to be larger than males at 4-5 feet, with males usually maxing around 3-4 feet. They can live 30-40 years.

## Your New Snake: Before You Buy, Buying, & Bringing it Home

If you are planning to keep ball pythons, ideally you want to spend time researching them and how to keep them before you buy. Your should research morph options, look up reputable breeders, and learn about proper husbandry. It is best to have your habitat prepared ahead of time to ensure that your new snake is going straight into the proper conditions. Think of this like cycling a fish tank- you get water parameters right before you put fish in to ensure their health. There is a lot of misinformation about ball python care, particularly from pet stores, so oftentimes you aren't in this ideal situation. That's OK- the following information is meant to help you set up in advance OR fix problems for a snake you already have.

If you're looking ahead and wondering where to buy, it's generally best to get your animal from a reputable breeder or **reputable** local pet store. This helps ensure you are receiving a healthy animal of the morph you desire, and if you will be breeding this ensures you can get more genetic information about the snake's lineage. There are Facebook pages dedicated to selling ball pythons and other reptiles, as well as ones dedicated to reviewing different sellers. Message the group for details and recommendations about where to look. You can start exploring on morphmarket.com as well as many other websites, and search online for breeders near you.

When you take home your new snake or it first arrives from shipping, it is very important that you give the animal time to adjust to its new home. Place it in its enclosure and leave it alone for a week! Do not handle or feed the animal for that first week unless there is an emergency. Only open the enclosure to ensure clean water and proper conditions. You will have plenty of time to spend with your python once it has adjusted. Ball pythons are very sensitive to stress, and stress can lead to a number of problems and frustrations for both the snake and you.

### **Enclosures**

## **Enclosure Options- Overview**

There are several options for housing your ball python. First and foremost, do not keep two ball pythons in the same enclosure except during breeding. Cohabitation is dangerous and presents unnecessary risks. You may choose to keep your python in a tank (terrarium), a plastic tub, a rack system, or a custom vivarium (generally made with wood and glass). There are pros and cons for each option. Ball pythons can be successfully kept and remain healthy in any of these options with proper husbandry. We will mainly focus on tanks and tubs as these are the most popular for new keepers and keepers who are not planning to breed or have a large collection. We will skip over vivariums as they are variable custom set-ups.

Enclosure Type	Pros	Cons/Considerations
Tank	Attractive, easy to view animal, readily available, customizable, affordable for smaller collections	More difficult to maintain proper temperatures and humidity, more difficult to clean, takes up a lot of space, heavy
Tub	Convenient, very affordable, easy to clean, take up less space, maintains humidity very well, lightweight	Less attractive, harder to view animal, house/reptile room must be 75F or above
Rack System	Convenient, takes up less space, great for large collections and breeders, maintains proper temperatures and humidity well, tubs are lightweight	Less attractive, expensive unless for large collection, house/reptile room must be near 75F or above
Vivarium	Very attractive, great way to showcase the animal	Generally custom so expensive or requires DIY skills, takes up a lot of space, not ideal for larger collections

#### **Tank Enclosures**

There are many options for tank enclosures ranging in size, material, and type. Tanks are available that are specifically designed for reptiles, generally with sliding locking lids. These may be plastic or glass and sometimes have small doors on the lid for "convenient feeding" entry (more applicable to lizards than snakes). Do not place a CHE heater over

these doors as the plastic will melt. You can also use a regular glass aquarium tank and purchase a separate lid and lid clips to secure the lid (these clips vary in efficacy so you may wish to consider adding weight or other locking mechanisms to the lid as well). Any enclosure housing a terrestrial reptile is a terrarium- it is only an aquarium if it holds water and aquatic species. You can also have custom built tanks from acrylic/plexiglass, etc. ALWAYS clean and disinfect a new tank before bringing it into your reptile room/collection.

Tanks are a beautiful way to showcase your ball python but it can be difficult to maintain proper temperatures and humidity. It is important to follow the guidelines below to ensure that your tank is providing the best habitat for your snake. With tanks, you have two options for maintaining temperatures. You can create a temperature gradient with a warm and cold side that allows the snake to thermoregulate on its own. Or, you may provide an ambient temperature in the whole tank. Both are perfectly appropriate options. Please see below for details.

#### Size

- Hatchlings up to 200g: 10 gallon
- 200g-800g: 10 gallon
- 800g-1500g (enough for most males for life): 20 gallon
- 1500g+ (generally for large females): 30 gallon 40 gallon breeder

#### Temperature/Humidity/Lighting

- CONSISTENT humidity between 55%-70% (during shed 60%+ is ideal)...do not exceed 75% or you risk respiratory illness, scale rot, and other problems
- For gradient tanks: the cool side should be between 80F-83F and the hot side between 88F-90F...do not exceed 90F or you risk harming your snake
- For ambient tanks: the ambient temperature in the whole tank should be between 84-86F consistently
- Use a dome lamp with a ceramic base
- Use a ceramic heat emitter bulb (aka CHE)
  - o 75W for a 10 gallon
  - o 100W for a 20 gallon
  - 150W for a 30-40 gallon
- The lamp either needs to have a dimmer built in or you need to obtain a separate dimmer to attach to it...this allows you to regulate the heat output of the CHE
- Ball pythons do NOT need light/UVB...remember they live in subterranean burrows!
- Expect to manually adjust your lamp/CHE...however you may also optionally use a thermostat instead once you find the optimal settings

- Measure heat and humidity with a digital, non-stick gauge such as an Acurite...analog gauges are inaccurate and any adhesives are very dangerous for the snake, as the snake often pulls off the gauge and may become stuck to the adhesive. Some gauges have probes some do not. Please see photo and diagram below.
- For gradient tanks: you will usually place the CHE over the warm side of the tank
- For ambient tanks: you will place the CHE over the middle of the tank...in some cases, larger tanks will require a CHE at each end (with lower wattage or dimmed bulbs)
- Some keepers like to add under tank heat pads (aka UTH) or heat tape, especially for gradient tanks, to add belly heat. These MUST be on a good thermostat (recommended is Herpstat or VE) set to 90F or you risk SEVERE and life-threatening burns. Pythons will NOT move off of something that is too hot! Please see diagram for setup example. You may need to tinker with temperature settings. Belly heat is NOT required for a healthy ball python if ambient temperatures are correct.
- For best temperature and humidity control, you should also make the following modifications to your tank:
  - Cover the mesh lid in foil tape everywhere except where the CHE lamp sits. Do NOT worry, your snake has plenty of ventilation.
     Again, they live in burrows and require very little ventilation. Also, your lid is not airtight so they are still getting airflow. See photo example below.
  - Cover the two short sides and back with black hard poster board or foam board, this will help insulate the tank and make your python feel more secure (form board provides greater insulation)

## Cleaning

- Spot clean as needed (remove waste, soiled substrate, etc.)
- Full clean monthly (empty tank, clean out particulates/waste and disinfect, clean hides, décor, water bowls, etc., and replace substrate)
- Safe cleaners include: blue Dawn, white vinegar, Brown Listerine, F10
   (available from reptile suppliers), and chlorhexidine (often sold as
   Hibiclens)...all require thorough rinsing except brown
   Listerine...chlorhexidine should be diluted to approximately a 2% solution
   as it is VERY strong...follow directions on F10 fur use
- Allow tank to dry and air out before replacing cage materials and snake...reptiles are very sensitive to chemicals and fumes

## Step-by-step Setup Summary of Tank Set-up

First, black out the sides and back with the poster board. This will help insulate your tank. Then, using the aluminum tape, tape the screen top leaving only an open area for the CHE. This will prevent heat/moisture from escaping too rapidly. Install your UTH and thermostat, set to 90. Install the dimmer and hook up the CHE. Add the substrate, then the hides. Partially bury the hides leaving only a small hole. Add water dish. Take a temp gun and get the temp on the glass inside the tank. Place Acurites in the tank and monitor your heat and humidity, and adjust as needed. Ideally DO NOT add a snake into the tank until you've got everything where it needs to be (remember to think of it like cycling an aquarium before adding fish).

Your humidity should be at 55-65%, cool side 80-83F and warm side 88-90F, or ambient 84-86F. A warm and cold side is not required if you ambient temps are correct. [Info on water bowls, hides, etc. provided in the next section].

#### **Tub Enclosures**

If and only if your house/room's ambient temperature is 75F or above, a stand alone tub can be a convenient housing option. These are inexpensive, easy to clean, and do not take up a lot of space. However, the room MUST be warm enough and they are not as attractive as tanks.

#### Size

- Hatchlings up to 200g: 6qt
- 200g-800g: 15qt
- 800g-1500g (enough for most males for life): 28-32qt
- 1500g+ (generally for large females): 32-41qt

#### Temperature/Humidity/Lighting

Tubs are best heated with an under tank heater on a thermostat. Because they are plastic, keeping humidity up is rarely an issue. You will therefore want to choose a substrate that does not increase humidity (aspen, paper towels, or newspaper work well). Again, no light is needed. If the tub is airtight, solder a few holds into it (this leaves clean edges) and allow to air out before using.

#### Cleaning

See tank cleaning options.

#### **Rack Systems**

Rack systems come in many varieties. We will not go into extensive detail, as these are best for larger collections and breeders, and may be costly options for newer keepers. However, if you are already planning a large collection this is a great option to look into before you invest in tanks, as you will save a lot of space and money in the long run.

Open-sided rack systems hold a series of vertical tubs that slide in and out. Closed rack systems do the same but with solid panels on three of the sides to help hold in heat (these are good if you don't have a separate temperature controlled room...you still need to have an ambient in the room close to or above 75F). Racks are a great way to house a large collection economically. They don't take up as much space as tanks/tubs for that many animals and the sliding tubs are easy to maintain and clean. Racks are highly customizable in terms of size and number of tubs. These are commercially available or can be made DIY.

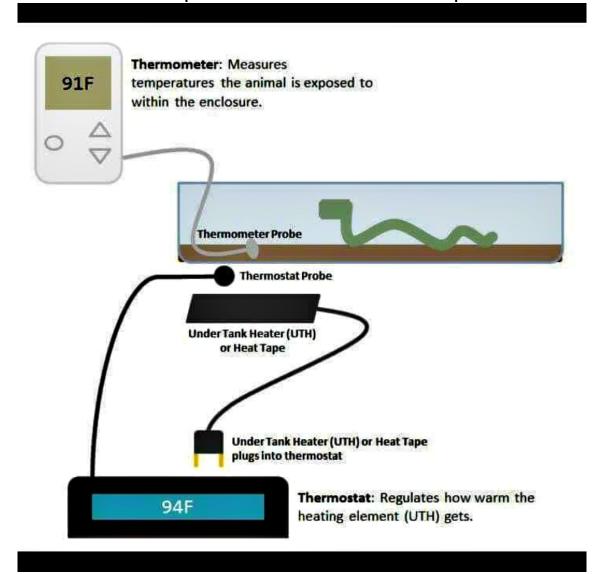
## Temperature/Humidity/Lighting

Rack systems generally use heat tape along the back panel to maintain heat. They REQUIRE a thermostat. Because they use plastic tubs, humidity is generally not a problem. It maintains well on its own from the temperature and the water bowl in the individual tub, so you would choose a substrate such as aspen, paper towels, or newspapers that maintain or lower humidity. Again, no light is needed.

## Cleaning

See tank cleaning options.

## **Example of Thermometer & Thermostat Set-Up**



If using an under tank heater (UTH) or heat tape, it must be regulated by a thermostat. Plug the UTH or heat tape into the thermostat and set to about 90F. Only the thermostat is plugged into the outlet/surge protector. Then put the probe from the thermostat BETWEEN the UTH and the tank when you stick on the UTH or heat tape. A proportional thermostat acts like a dimmer in that it changes the amount of heat provided instead of turning on and off- your device will last longer. An on/off thermostat shortens the lifespan of any device, as it is constantly turning it on and off to regulate heat. In terms of your in-tank temperature/humidity gauge, some come with probes and some do not. If there is a probe, put it at surface level, as that is where your snake lives! You should have a gauge at both ends of the tank.

#### Substrates

There are many substrate options on the market for reptiles. Some are great for ball pythons, some are NOT. Your choice of substrate will vary based on your temperature/humidity needs and type of enclosure.

- to raise humidity use cypress mulch or coconut husk
- to maintain humidity use aspen mulch
- to **lower humidity** use paper towels/newspaper
- you can add moss, ideally sphagnum, tucked around the enclosure to raise humidity...it will periodically need to be replaced
- NEVER use pine or cedar, they are toxic
- do not use coconut fiber (the fine stuff), it can get in heat pits and cause respiratory issues, gum up mouths, or get under scales
- do not use Reptibark, it is made from fir and dyed and can harm your snake

## **Troubleshooting Temperature/Humidity**

It is common to have problems getting temperature and humidity just right in tanks.

- If your humidity is too low, try adding a cup of water to your substrate and
  mixing it around. You may also turn the substrate periodically as the bottom will
  often remain moist while the top dries from heat. This is good for preventing
  mold/bacterial growth. Make sure you are using a humidity-friendly substrate
  such as the cypress mulch or coconut husk. You may also add sphagnum moss.
  You may also use a larger water bowl, make sure it stays full, and place it under
  the CHE to increase humidity.
- If your humidity is too high, switch to a substrate like aspen, paper towels, or newspaper that dries quickly. If it is too high because you added too much water by accident, peel back some of the foil and let the tank dry out until it is back to the ideal range before replacing the tape.
- If temperatures are off, tinker with the CHE settings and amount of foil tape/insulation until they are appropriate.

#### Water Bowls, Hides, & "Cage Clutter"

- You must provide a large bowl of clean water. This is for your snake's hydration and to help humidity.
- You need at least two hides. Plastic, molded concrete, or resin hides should be used, as they are easy to clean and will not harbor bacteria/mold as readily. Do not use log hides, as these will harbor bacteria/mold, can introduce mites, and cannot be easily disinfected.
- You can decorate and add cover with fake plants, either plastic or silk. Plastic is
  easier to clean and lasts longer- silk eventually will mold/mildew and need to be
  replaced. Either is fine. Hobby Lobby, Michaels, the Dollar Store, and pet stores
  all have options. This "clutter" helps hold humidity and heat, and also helps your
  animal feel safer.

- Ball pythons are NOT arboreal and do not need to climb. DO NOT put in any logs
  or climbers that allow them to get close to the CHE lamp (they will burn
  themselves) or from which they can fall far (they are clumsy climbers). If you do
  put in a low log, do NOT use pine or cedar (toxic) and sterilize it first by baking it
  if it is real wood. Make sure it is low to the floor of the enclosure.
- CLEAN EVERYTHING before you put it in the enclosure!! Rinse, or depending on
  the material use a little blue Dawn and water or other disinfectant. Rinse very
  thoroughly so no there is no residue. CHECK FOR SHARP EDGES and remove
  them. Some fake plants have wire bits sticking out. Check hides for rough edges
  as well and sand or melt down if needed (rinse after sanding, allow to air out
  after melting).

## **Troubleshooting Hides/Cage Clutter**

Ball pythons are jokingly called pet rocks. If you don't see your snake too often, this is a good thing- it's hidden and most likely happy! They spend most of their time in their hides, which mimic the burrows they live in out in the wild. If your snake doesn't like the hide you provided, use a temperature gun to check the temps inside the hide, as sometimes these are higher than the ambient. If temps are ok, try a different type of hide. Remember- your snake will chose safety over correct temperatures so ensure that it has safe-feeling options at all temperatures in your gradient!

# **Examples of Good Tank Set-Ups**





## **Feeding**

Lots of questions from new keepers revolve around feeding. Ball pythons are pickier eaters than some other snake varieties and can be more sensitive to stress in terms of going off feed. Also, misinformation from pet stores and other sources leads many new owners to feed the wrong size prey. Here are the correct guidelines:

- You can feed frozen/thawed (f/t), pre-killed (PK), or live prey. If feeding pre-killed the humane method to kill prey is CO2 or cervical dislocation. There are pros and cons to these choices, but the bottom line is feed your snake what it will take!
- Rats are generally the preferred prey for BPs over mice, as they provide more bone and muscle mass, and at larger sizes the snake will not need multiple prey items as it would with mice. However, the occasional "mouser" will refuse to switch and you may need to feed it mice.
- Feed prey that is 10-15% of your snake's body weight every 5 to 7 days (or 15-20% every 10 to 14 days for adults). If your young snake is a healthy weight 7 days is adequate.
  - Go by the weight of the prey not by the name. One company's rat pups may be bigger or smaller than another's. You should never need to go larger than a medium rat!
  - Here is a rough guide by weight, but please weigh your snake and compare to your supplier's prey weights to be certain:

Snake Size	Prey
Hathlings-200g	Rat fuzzy or pup every 5 days
200g-500g	Weaned rat (crawling around and
	running) every 5-7 days
500g-1000g	Small rat every 7-10 days (most can
	stay on this for life, especially
	males)
1000g+	Medium rat every 14 days (unless it
	won't take medium, then stick to
	smalls)

- A digital kitchen scale is perfect for weighing both snake and prey. Weigh your snake empty if possible (i.e. not right after feeding) for the most accurate measure. Use a plastic container or colander and zero out the scale before weighing if you have a mobile snake.
- DO NOT MOVE TO FEED. "Cage aggression" is a myth. If you only ever go into the
  cage to feed they may become conditioned to expect food and this results in
  striking which got labeled cage aggression...it's not, it's a feeding response that
  someone conditioned into the animal. Some people like to tap the tank or a hide
  when they go in for something other than feeding so that the animal comes to
  associate tapping with NOT feeding.

- Sometimes ball pythons take awhile to poop. Don't panic. If it is an excessively long time feel for impaction...message the group first, they can help.
- Online suppliers are economical options for frozen/thawed prey especially for larger collections. Unless incredibly well sealed avoid storing frozen prey in the freezer for more than 6 months, preferably 2-3 months. If you know someone else in your area who keeps reptiles, split orders, it saves a lot of money.
- You can also buy f/t at your pet store piecemeal but that will cost more. Some pet stores do offer bulk frozen, but chains usually don't. You can get live feeders at pet stores or some local breeders, or breed your own.
- Thaw frozen feeders overnight in the refrigerator then heat to about 100F with a blow dryer. NEVER offer partially frozen or cold food to your snake!

## **Troubleshooting Feeding**

Won't eat?

- Might be in or nearing shed, no worries.
- Might be stressed- check all husbandry conditions. If these are ok, give it a "staycation" and don't handle it for a week before trying to offer again.
   Repeated offers are stressful and your animal may come to associate food with stress, compounding the problem.
- Might be a picky eater and only want live. You can sometimes transition from f/t to live or live to f/t. There are tricks for both. Be aware some, once fed live, won't go back to f/t.

Striking you instead of food?

 Your hand is warmer than the food. They sense heat to find prey. Make sure you warmed the food beforehand with a blow dryer.

## **Shedding**

Like other snakes, ball pythons regularly shed their skin. Here's what you need to know:

- The first (noticeable) stage is that they "go into blue"...you see a cloudy bluish color over the eyes and possibly opaqueness/blue tint on the skin. This is fluid that helps with shedding. They might feel rougher or more leathery...a well hydrated young snake that is not in shed feels fairly silky. Expect 2-3 days of this.
- Then they clear up, also for 2-3 days.
- Then they actually shed, so the whole process can take a week. This process varies by snake, don't panic if yours isn't "following the rules" perfectly.
- MAKE SURE HUMIDITY is 60%+ but not above 70%
- You can offer food during shed but avoid handling. Your snake may or may not
  eat during shed. Some are fussier than others. If they refuse food wait until the
  next feeding day to offer.

## **Troubleshooting Shedding**

If you get a stuck shed use a humidity box. Do not give it a bath. Here are instructions for the humidity box:

- First, make sure the snake has had 24 hours to shed completely (from onset of actual shedding, when skin begins to come off). Sometimes a shed can break and seem like a bad shed but the snake is able to get rid of the shed on its own. **Don't interfere until it is clear that the shed is stuck!**
- Get a plastic container with a lid, preferably that fits in your enclosure
- Fill with about ½ inch of 84-86F water
- Add paper towel(s) and allow to get completely wet
- Add snake
- Add some dry paper towels
- Close the lid
- Put the tub back in the mid range temperatures in your enclosure
- Leave for 2 hours
- If you have an airtight tub add 1-2 holes...any more than that defeats the purpose
- Remove after 2 hours
- Repeat if needed, though if you need to repeat you likely did something wrong setting up the box ☺



## **Handling**

Everyone loves handling their ball pythons! But for their health and safety here are a few important notes on handling:

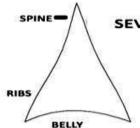
- Do not handle for 48 hours after feeding
- Do not handle during shed except as strictly necessary (i.e. to take care of enclosure issues like refilling water bowls and spot cleans)
- Handle as tolerated- some take to handling better, some get stressed. They got
  the nickname ball python because their stress response is to ball up and hide
  their heads. When they relax and unball this is a good sign. If you have one that's
  not keen on handling start with short sessions and work your way up. Staying
  near the floor can help it feel secure too. No one likes to be dropped.
- They are very head-shy. Approach the body. Be gentle but confident. If you're hesitant or jumpy they can get nervous. Touch the body without hesitation to let it know you're there, then pick up.
- They generally give a warning thump rather than a bite. They can bite of course.
  Be careful of their teeth if you get bitten, you don't want to pull them out...
  remove very gently- you can use a credit card to unlock the teeth from skin, or a
  dab of alcohol or mouthwash on a Q-tip near the mouth to make them let go.
  Teeth point backwards so you don't want to pull them out or tear your skin.
- Individuals vary in temperament. Excessive striking and nervousness is a sign of stress so go through and check your husbandry to make sure everything is in order. Sometimes they just need a break- if it seems to, try giving it one!
- You will learn to read your snake's body language over time
- If you end up with a snake that is less tolerant of handling and very defensive, which does not mellow out with exposure to handling, you can learn to use a snake hook for necessary handling

#### Health

#### **Body Condition**

Just like the rest of us, snakes can be underweight or overweight. Rescues are often underfed for example. While you should use the feeding guidelines already provided to determine prey size, you can assess your animal's general body condition using the following chart. You can then adjust feeding schedules/prey size if needed to get your snake to proper body condition- consult with the group for help, as overfeeding an underweight snake can cause health issues and generally just resuming a normal feeding schedule with appropriate-sized prey is sufficient for weight restoration.

# **Body Condition Chart**

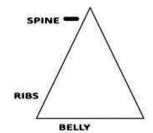


#### SEVERELY UNDER NURISHED

- \* SPINE STICKS OUT CLEARLY
- \* BELLY IS SUCKED UP BETWEEN RIBS DURING

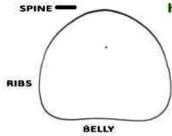
TIMES OF TENSION

- \* RIBS CAN BE CLEARLY FELT
- \* EYES ARE BULGING
- \* SOME KINKS OR SKELETAL DEFORMATION MAY OCCUR IF CONDITION PERSISTS



#### SKINNY

- \* SPINE STICKS UP SHARPLY FROM BODY
- \* RIBS ARE EASILY FELT
- \* BODY SHAPE IS VERY TRIANGULAR AND UNDERSIZED



## HEALTHY/IDEAL

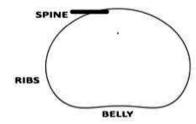
- \* BODY IS LOAF SHAPED, LIKE A
- HOUSE WITH ROUNDED EDGES
- \* DEFINITION OF SPINE IS NOT BURDENED BY

FAT ROLLS ON EITHER SIDE

\* SPINE IS CLEARLY MARKED BUT NOT STICKING

OUT AT ALL

. NO BULGING AT TAIL



## OBESE

- \* BODY CAUSES LARGE FAT ROLLS WHEN COILED UP
- \* SPINE VISIBILITY REDUCED TO ZERO
- \* BULGING AT TAIL ABOVE VENT
- \* SCALES STRETCHED OUT WITH SKIN BETWEEN CLEARLY VISIBLE

## **Morph-Specific Issues**

Whether you are keeping your ball python as a pet or planning to breed, it is important to know that some morphs come with specific issues or needs. Some of the information provided below is for general knowledge about your pet, some provides important considerations for breeding. Note that wobble generally does NOT affect the animal's health or quality of life...they're just a little special © Wobble severity varies by individual.

Morph	Issue	
Spider	Wobble	
Woma	Wobble	
Hidden Gene Woma	Wobble	
Champagne	Wobble	
Super Sable	Wobble	
Powerball	Wobble	
Sable x Spider	Difficult to hatch, severe wobble	
Champagne x Hidden Gene Woma	Severe wobble	
Champagne x Spider	Lethal	
Pearl	Normally lethal	
Super Champagne	Lethal	
Desert	Female fertility issues	
Caramel Albino	Kinking and female sub-fertility	
Super Cinnamon/Super Black Pastel	Duckbill, cleft palate, & rare kinking	
Super Lesser Platinum/Super Butter	Bug eyes	
Lesser Platinum x Piebald	Small eyes	
Banana/Coral Glow	Most males produce weird sex ratios	
	(tend to produce more males)	
Homozygous Spider	Mysteriously non-existent	

#### **Common Ailments**

## **Respiratory Infections**

Ball pythons can become ill with respiratory infections (RIs) due to stress and/or improper conditions. These require veterinary care (see vet info below). Make sure the vet takes a culture so the appropriate antibiotic is chosen for treatment. Signs of RIs include open mouth breathing, wheezing, mucous, bubbles, excess saliva, holding the head straight up frequently, and excessive yawning. If not treated, RIs can be deadly. Seek vet care ASAP if you suspect an RI.

#### Mites

Mites are a pretty common issue. Anytime you handle someone else's animal, go to a pet store, or visit an expo, practice extreme caution when you get home. Wash your hands thoroughly and remove the clothing you were wearing. Mites are excellent hitch hikers. It is generally good practice to quarantine new animals and many keepers choose to use a preventative mite treatment with new animals (different than the procedure below).

Signs that your ball python may have mites include soaking in the water bowl or visually seeing them crawling on the animal, particularly around the head and neck, or popped scales (mites underneath the scale). You may also see black dots if you keep your animals on paper towels or newspaper.

The following treatment method is the one endorsed by this group. It will only work if you follow it to the letter (think about this as being similar to trying to get rid of head lice or a fruit fly infestation...it requires vigilance...):

- Do NOT clean out bedding with live mites
- Treat the enclosure first and then clean the enclosure and switch to paper towels
- Remove the snake(s) and put it in a tub to soak in dish soap and water. This provides a safe place for the snake to be during treatment, as well as kills living mites on the snake.
- Remove water bowls, hides, etc. Wash them in hot water with blue Dawn.
- Spray the entire enclosure with RID aerosol spray. Allow it to air out for 30-60 minutes, longer if you prefer. You want the fumes to air out completely. They will harm your snake otherwise.
- After that time, remove the snake from the soak. Spray it with Natural Chemistry Reptile Relief. This is safe to use directly on the snake, so don't be afraid to do it.
- Place snake in enclosure
- You can put the hide back, but do not put the water bowl back in the enclosure for 24 hours
- After this period, put your snake on paper towels in the enclosure.
   Once you do that, don't change the substrate unless ABSOLUTELY NECESSARY throughout the treatment process. Yes, you can spot clean, but you do NOT want to move things around unnecessarily and you do NOT want to return to normal wood shavings of any type until ALL mites are eradicated.

- Repeat treatment every 3-4 days for 3-4 weeks minimum. This is done because the treatment only kills the living bugs, not the eggs. So frequent repeated treatments keeps you on top of killing the newly hatched bugs.
- You must treat every snake, even if you don't see any mites on it.
   The eggs and "baby" mite bugs are invisible to the naked eye. By the time you see the adult bugs, you are infested.

#### **Scale Rot**

Scale rot is caused by overly moist conditions or failure to change substrate often enough. It can occur anywhere on the body but will usually be noticeable first on the belly, as this is both the part of the snake in contact with damp substrate, and an easier place to see the symptoms. Here is how to treat it:

- Change out all substrate for paper towels. Humidity levels may suffer but you need this dry, clean environment to prevent additional bacterial growth and continuing infection.
- KEEP EVERYTHING VERY CLEAN AND DRY!
- Soak the snake for 10 minutes in fresh clean water
- Dilute betadine in water to the color of weak tea. Soak the snake for 20 minutes a day for a week in this solution.
- The scale rot will trigger the snake to shed (which they naturally will do to remove parasites and other issues). ONCE IN BLUE, STOP SOAKING. Even if it has not been a week.
- Allow the shed then assess the situation
- If the scale rot is severe, you might need to see a vet for antibiotics.
   Untreated severe scale rot can lead to sepsis, where the bacteria has moved into the bloodstream (this can kill).
- IF THERE IS ANY SMELL AFTER THIS TREATMENT, see a vet. Odor indicates infection.

#### **Rare Ailments**

There are other rare conditions such as Inclusion Body Disease that can affect ball pythons. However, these are SO rare that we will not go into detail here, as it can cause new keepers to panic for no reason. If you wish to do research on these ailments for your own awareness, please keep in mind that these are NOT common.

#### **Veterinary Care**

It's critical to find a vet who has experience with exotics, specifically reptiles! Do this before buying or soon thereafter, as you never know when an emergency might arise and require rapid care. Most vets do not focus on reptiles during veterinary school. Most vets do not see many reptile patients. This means most vets don't know what to do to help your sick snake. Be sure to look into the qualifications of the vet you plan to see. If you don't know where to start call around and ask if a practice has an exotics specialist with reptile experience. Check with local breeders or TRUSTED local pet shops and see who they use. You may also want to check online. There are websites such as the Association of Reptilian and Amphibian Veterinarians that offer a search option to find appropriate vets in your area. When dealing with RIs, insist on a culture so that the correct antibiotic can be used for treatment...just as with bacterial infections in people, certain antibiotics works better on different bacterial infections in snakes.

#### Quarantine

When adding a new snake(s) to your collection, be sure to quarantine the snake(s) in a separate room for 30-60 days to ensure health, before exposing it/them to your other snakes/main reptile room. This can help prevent the spread of mites and/or disease. Some keepers choose to quarantine for up to 4-6 months.

# **Further Reading & Additional Resources**

## **Morphs/Traits/Genetics Information**

- World of Ball Pythons (worldofballpythons.com: morphs and trait list, genetic cross calculator)
- Morphmarket (morphmarket.com: BPs for sale, genetic cross calculator)
- YASMB Facebook Group
- VMS Herps Educational Information (http://www.vmsherp.com/LearningCenter.htm)

### **Trusted Reptile Suppliers**

- LLL Reptile (Illreptile.com) [West Coast]
- Reptile Basics (reptilebasics.com) [East Coast]

## **Frozen Feeder Rodent Suppliers**

- Layne Labs (laynelabs.com)
- Perfect Prey (perfectprey.com)
- Big Cheese (bigcheeserodents.com)
- Rodentpro (rodentpro.com)

# **Supplies & Supply Sources**

\*This is not an exhaustive list and is meant as a starting point...take the time to compare prices, suppliers, and options that will work best for you!

Item	Popular Brands	Sources
Tank	NA	Pet stores, online
Plastic Tub	Sterilite etc.	Target, Walmart, online
Rack System	Many	Online, at expos, ask for recommendations
Cleaners	Blue Dawn dish detergent, white vinegar, Chlorhexidine (common brand is Hibiclens), F10	Grocery stores, Target, Walmart, Online, Reptile Suppliers
Aspen Substrate	ZooMed, Zilla	Pet stores, Amazon, Chewy
Coconut Husk Substrate	Reptichip, Prococco, any block of coconut husk (NOT fiber)	Amazon, Home Depot/Lowes or Garden Centers (noteif not meant for reptiles may require additional prep for safety)

Cypress Mulch Substrate	Forest Floor	Pet Stores, Amazon, Chewy, Home Depot/Lowes or Garden Centers (noteif not meant for reptiles may require additional prep for safety)
Sphagnum Moss	NA	Pet Stores, Reptile Suppliers, Home Improvement Stores or Garden Centers
Lamp dome- ceramic base	Fluker's with dimmer	Pet Stores, Amazon, Chewy
Ceramic Heat Emitter bulbs	Anypet store brands are more \$\$	Amazon (very inexpensive), pet stores (more \$\$), Home Depot/Lowes, Chewy
Dimmer switch (if lamp	Any	Amazon, Home
doesn't have one already)		Depot/Lowes
Under Tank Heat Pad	ZooMed, Zilla, others	Pet Stores, Amazon, Chewy
Temperature/Humidity	Acurite or any other digital	Amazon, Home
Gauge	that does NOT stick on	Depot/Lowes
Thermostat	Herpstat, VE, others	Multiple suppliers, check online
Temperature Gun	Multiple brands and multiple sizes/styles	Amazon, Pet Stores, Home Depot/Lowes
Foil Tape	3M, Duck, etc.	Lowes/Home Depot, Amazon
Black Poster Board/Foam	NA	Dollar Store, Walmart,
Board		Target, Craft Stores
Hides	Reptile Basics, many others (no wood!)	Reptile Basics, LLL Reptile, Amazon, Pet Stores
Fake Plants for	Plastic lasts longer, silk	Dollar Store, Pet Stores,
Clutter/Hiding	eventually molds/mildews	Michaels, Hobby Lobby, Amazon
Scale for Weighing	Etekcity is inexpensive, many brands are fine	Wal-Mart, Amazon, Reptile Suppliers, Kitchen Stores, etc.

