Ball Python Care Sheet

The Basics

Python Regius, more commonly known as the “Royal Python” or the “Ball Python,” is a heavy bodied snake naturally found in the grasslands and forests of West and Central Africa. Due to this range in habitat, ball pythons are primarily terrestrial, however some animals do enjoy climbing on sturdy, low lying branches. Most animals that are available have been breed and born in captivity, however it is possible to find wild caught animals for sale. Ball Pythons have become some of the most popular pet snakes due to their manageable size, docile temperament and variety of colors and patterns.

Size: Ball Pythons are sexually dimorphic, which means, males and females are different sizes when full grown.

Hatchlings: 10 – 12 inches, 45 – 80+ grams
Females: 3 – 5 feet, 1500 – 4000 grams
Males: 2 – 3 feet, 1000 – 2000 grams

Lifespan: Ball Pythons are a long lived species, in captivity (when properly cared for) they can live to 30 years of age, sometimes older.

Getting Started

This is a care sheet (duh), but really should be approached as a workbook. As you read through the sections, there will be actions items that I want you to complete prior to moving onto the next section. Start at the beginning and work your way through. There is a logic to the order in which I’m presenting you with this information.

Although it’s not wise to buy all your materials before you start working through the document, I do want to give you an idea up front some of the things you’ll be purchasing before you even get your ball python. If you’re doing some price checking and this looks like it’s too expensive… do yourself and the animal a favor and just stop now. Too many people get the animal before they realize the true cost and end up either adopting out the animal to another underprepared family or the animal ends up suffering. So **before** you get started, truly reflect on the financial resources you have to support this animal. You have to be honest with yourself. Do you have a budget that can support the ongoing cost of keeping the animal? (Think: weekly feeding, electric bills, emergency vet visits, upgrading housing, clean substrate…)

I would highly recommend that you utilize the Budget Worksheet as you work through this guide. **You can make a copy of the Google Sheet by clicking HERE.**

The most basic things you will need are:

- ❑ Size Appropriate & Secure Housing
- ❑ Under Tank Heater or Radiant Heat Panel
- ❑ Thermostat
- ❑ Infrared Thermometer
- ❑ Hygrometer
- ❑ Substrate
- ❑ 2 Hides
- ❑ Basic Décor
- ❑ Water Dish
- ❑ Water Conditioner
- ❑ Cleaning Supplies

Housing

The first decision you will need to make is what type of housing you want to use for your Ball Python…

Before we go any further, I want to be explicitly clear, no matter which housing option you choose, you should only house one animal per secure space. Do NOT keep multiple animals in a space where they can interact. Unless of course you are breeding them, but that's another section all together.
Now back to the topic at hand…

…There are many housing options, however the most popular you will see in collections are: front opening glass terrariums, modified plastic storage containers, rack systems, and melamine or Controlled Density PVC (CDPVC) Plastic reptile habitats. Each of these options have their pros and cons.

Front Opening Glass Terrariums: These are readily available at your local pet store, reptile expo, or even online. They allow for easy viewing of your new family member and gives you a chance to show off your decorating and/or gardening skills (or lack thereof). The biggest downside of this set up is that glass enclosures can be difficult to keep the temperature and humidity levels stable within the ideal range. That said, with some persistence, experimentation, and a bit of ingenuity, you can create a great habitat for your snake. This is also the better options for a set up if you're interested in doing a bioactive or more naturalistic style set up, but more on that in the substrate section! This is probably the most popular option for folks who have a single animal or a smaller collection of various species.

Modified Plastic Storage Containers: These are probably the most economical and widely used options for people with small to medium sized collections of a single species (or species with identical temperature requirements). One of the biggest benefits is that they are relatively inexpensive compared to the other options, simple to set up, retain heat and humidity well, and are easy to upgrade as your animals grown and need upgrading. I've also noticed that many of my ball pythons prefer this style of set up because it helps to still get a natural day/night light cycle while still feeling secure and not exposed to "predators." The only thing that is not awesome about this option, aesthetics. Having a full shelf of plastic bins isn't exactly what most people want to use to show of the animals we're so proud of.

Rack Systems: These are what you could call industry standard for anyone with a medium to large collection of a single species – groups of species with identical heating requirements. The benefits are that they are designed specifically to house snakes and reptiles and you can house large number of animals in a small footprint. There are also lots of options in regards to tub size, number of tubs, and style of tubs that are used. As well as material options of the rack structure itself. Everything from metal to melamine. These can be a large initial investment, but when you break down the cost per animal, can be rather economically efficient. In most cases, unless you're able to pick up the unit at the manufacturer or at an expo, shipping can be rather expensive. If you plan to have a larger collection – this will certainly be worth the initial investment. Don't underestimate the time you'll save cleaning and feeding in this type of set up.

Melamine & CDPVC Reptile Habitats: This is certainly your most expensive (and heavy!) single animal option. These habitats are built specifically for housing snakes and reptiles so they are fantastic when it comes to temperature and humidity control. Also, when they are stacked or showcased in group, if set up correctly, they can look very professional and impressive. However as I mentioned before, they are expensive and heavy! Depending on the size, some brands have been known to sag or otherwise deform over time. So if this is the route you decide to go, do your research! I do keep some of my animals in CDPVC enclosures, and I really enjoy them. They are my favorite balance between footprint and aesthetics.

What type of housing do we use?

We use a combination of all three! The hatchlings start in modified plastic containers. In my personal experience this allows me the flexibility to house more or fewer animals depending on my needs at the time. It's also very easy to store the excess containers when they're not in use. I'm able to move my animals up or down in size as I feel appropriate based on their growth rate and feeding responses.

Once my animals get up to sub-adult or adult size, I'll then move them into their permanent home. This will be one of three options: bioactive front opening terrarium,

CDPVC reptile habitat, or in rare cases they will stay in a large modified plastic bin. What enclosure I use for the animal is determined by their temperament. I spend a great deal of time with my animals so I get to understand in what type of environment that they thrive. If I have an exceptionally curious animal who is secure and adventurous, I will ultimately set them up in a bioactive front opening terrarium. Of course this is my preferred enclosure because it's the closest to their natural habitat and enjoyable for me to look at. If the animal is good natured, likes to explore, but maybe a bit more skittish (or needs a very large space), I'll plan to set them up in a CDPVC reptile enclosure. This gives them the secure feeling they need from the opaque sides, but plenty of room to stretch out and explore. Occasionally I get an animal that is just super shy and is easily spooked. This is rare with ball pythons, but it happens. These are my snakes who get to stay in appropriately sized modified plastic tubs. Not the most attractive, but I prioritize the health and needs of the animal over my own want to have something pretty to look at.

How big of an enclosure do you need?

This will depend again on the age and temperament of your animal. Hatchlings need surprisingly small spaces to feel safe. In general, you want the length plus the width of the enclosure to be no less than the length of the animal. For example, if you have a 12 inch long hatchling, the enclosure could be 5 by 7 inches. Pretty heckin' small! I've found this formula to be helpful for my younger animals and my most skittish adults. However, think about yourself. Sure you *could* live in a 300 square foot space, but you likely wouldn't be happy about it? So the general recommendation for adult animals is the bigger the better. Yet with ball pythons, bigger isn't always better. We'll discuss why in more detail when we get to the décor section. But for our purposes now, my goal with my adults, is that I want to find an enclosure that is at least big enough for the animal to stretch out in a straight line. If I can get something that's about 1.5 times the length of the animal, that's even better!

Final thoughts on housing

You need to start thinking now about whether you want to start with a hatchling, or something that is a little bit bigger. You'll need to actually purchase the housing BEFORE you get the animal so that's one commitment you'll need to make right out of the gate. Most enclosures come in a variety of shapes and sizes, so make your best guess. But know, you may need to do a last minute swap. That is why I recommend starting with the modified plastic tub. It's the easiest to do a last minute swap and it's the most economical for getting started.

This actually happened to me. I purchased a hatchling from a reputable breeder, when she arrived she refused to eat. I kept working with her offering different prey items, but still she refused to eat. Finally, I went out and purchased the smallest housing that I could find that we could still have some sort of heat gradient for her and BAM! She finally started eating! The poor thing just had too much space and didn't feel safe enough to eat. I was SO THANKFUL that I had the flexibility to do that with my modified

plastic container system I use for my younger snakes. It would have been a bit of a nightmare had that happened with an elaborate glass terrarium or CDPVC enclosure.

Temperature & Humidity

Cool Side: 80º – 85º
Warm Side: 90º – 95º
Under Take Heat Setting: Do not exceed 95º
Humidity: 60% - 70%

Depending on which housing option you go with, you will have a few choices for under heating and humidity control. The most popular options for under tank heating are single tank heat mats or heat tape. If you don't want to (or can't) do under tank heating, the alternative is topside heating via Radiant Heat Panels or a Ceramic Heat Emitter. Of these two options, I would encourage you to stay away from the Ceramic Heat Emitter. The margin for error is way too high. However, the Radiant Heat Panels are wonderful, when installed and controlled properly. Which leaders me to, no matter what type of heater, you will need a thermostat of some sort.

Single tank heat mats are best used when you are housing your animals in the front opening glass terrariums or if you only have a few modified plastic containers. These mats are easy to use and do not require any specific electrical know how. As with any* heat source, you must attach the mat to the outside of the enclosure. The snake should not be able to come into direct contact with the heat source.

> **The exception to this is Radiant Heat Panels, these ARE installed inside the enclosure. As with all heating options, do your research – I am also happy to answer any additional questions you may have.*

Be sure to place the probe for the thermostat between the heat mat and the bottom of the cage. Even though ball pythons are not the most active snakes, they will burrow into the substrate, like they would in the wild, to create a space to hang out. They will create a comfy space for themselves on the warm end of the enclosure and will get as close to the heat source as they feel necessary. *However*, they do not have the same pain receptors that you and I have, and will not know to move if there is a spike in the heat. Even if it gets to the point of burning them. A quick google search will show you the gruesome, and often deadly, consequences of not following this simple step. It is critical to properly use and set a thermostat and check it regularly to ensure it is functioning properly. I also recommend setting this up and testing it well before your new animal comes home so you have time to work out all the kinks.

If you are using a rack system, melamine or CDPVC reptile habitats, or modified plastic containers, you'll likely want to do your homework and set up a heat tape system. You can find all the supplies you need online and with a little bit of research, you'll be able to assemble this system yourself. That said, if you are not confident in your ability to

handle basic electrical wiring, please leave this to the professionals. A poorly or incorrectly assembled heat tape system is a fire and electrocution hazard. Some companies do provide this setup preassembled at an additional cost, so this may be something you want to consider investing in.

Just as you would with a under tank heat mat, you MUST use a thermostat with heat tape. The only difference is that you will only need one thermostat to control an entire setup (be that one melamine reptile habitat or one rack). Also, just as with the mat, you will place the probe directly on the heat tape itself.

Humidity is trickier than heat. This is going to vary greatly not only on your housing, but also on the weather conditions in your area and within your house (or wherever you are keeping your animals). For example, I live in the southwest in a desert climate. This means that I have to stay on top of my humidity and ensure my animals are getting what they need for proper sheds and overall health. However in more naturally humid areas, people need to be less vigilant because their normal humidity levels are within the proper range. If you are like me and need to use supplemental humidity, you do have a few different options. You can use larger water bowls, manual misting, or automated misting systems. My best suggestion is to start with the water bowls and manual misting. This should be sufficient for most housing options in most locations. However, if you find you have to consistently mist the enclosure one or two times every day to keep the humidity in the ideal range, it may be worth investing in an automated misting system. If you go that route, upgrading your thermostat to an option that also regulates humidity would be a wise investment. Word of caution: if you go with an automatic misting system, be sure to regularly check it to ensure all pieces are in good condition and functioning properly. You do not what to have too much humidity for a prolonged period or even potentially cause a small flood unintentionally drowning your animal (believe it or not, it has happened!).

In order to properly monitor the temperature and humidity in the enclosures, I recommend a few must have tools. First, an infrared thermometer is a MUST! This is the most accurate and the easiest to use for the cost. It also allows you to measure temperatures in specific spots, like over the heat mat or heat tape to ensure your animal will not burn itself. The second must have is a hygrometer. This is a small device that you either stick into the enclosure or it has a probe that will go into the enclosure to measure the humidity. I have a thermometer-hygrometer combo that has two probs. I put the probes into the enclosure and stick the display on the outside of the tank in a place that’s easy for me to see when I’m check on the animals. I don’t use this on all the set ups, but only on a select few as my “sample.” I will move these around every so often to ensure consistency across the collection.

Temperature and humidity are the number one things to be monitoring on a regular basis. If your animal gets sick, continuously refuses food, or is otherwise acting out of sorts, it’s almost always due to improper temps or humidity.

Substrate

So at this point you should have an idea of what type of housing, heat, and humidity you want to use. Before we make any final decisions here, we need to turn our focus to the inside of the enclosure. Substrate is a hot topic. Let me lead into this with, there is no one right answer here. I have one strong, although somewhat unpopular, opinion and I'll share more on that below. But really you have MANY substrate options, we'll just discuss some of the most popular options: paper towels, unprinted newspaper, coconut husks, and bioactive.

Paper Towels: I'm just going to get this over with. Please, do not use paper towels for any of your animals! I know they are easy, convenient, readily available, and very popular (especially for animals in quarantine). But they are dangerous. Plain and simple. If your snake, especially a hatchling, were to get overly excited with their food and happen to tear off a piece of paper towel and ingest it, it could be disastrous. Think about it. What are paper towels best at? Absorbing liquid. What's in your snake's digestive tract? Liquid. What happens if something gets into that digestive tract and absorbs all that liquid? You end up with an impacted snake with nothing to help lubricate and remove the obstruction. At best, you'll go to the vet and they'll be able to manually extract it or surgically remove it. The more likely outcome however is that your snake will die. So please. Use ANY other option listed below. (This isn't a common thing to hear about, but it does happen and is a very real danger. Which is why I recommend to just avoid it all together.)

Unprinted Newspaper: This is your best paper towel alternative. It's still slightly absorbent, however does not pose the same risk that paper towels do. You can easily find it at a local print shop or online. Best of all, it's convenient. Honestly, this is my go to option for new animals to the collection or very small hatchlings. This allows me to easily see if we have inherited a mite problem and to examine excrement to ensure the animal is eliminating well and is healthy.

Coconut Husk: This is my favorite option for the modified plastic containers and CDOVC reptile habitats. One of the things I like most about it is that it is more sustainable than the newspaper or other wood chip options. Another perk is that you can add springtails, which are a common little bug that is used in bioactive setups, to help keep the enclosure clean between deep cleanings. Finally, this really helps to keep the smell down when your animal does eliminate. The downside is that this substrate isn't as readily available as others. You may need to get it at an expo or order it online in bulk. That said, I've found the rewards are greater than any hassle of getting my hands on it.

Bioactive: Oh. My. This is my number one favorite! Not because of cost (it's expensive) or ease (because it's a pain to set up). It's because it is the most

visually impressive. If you don't enjoy the process of keeping house plants, then this isn't the best option for you.

A bioactive set up, in the most simple of terms, is a dirt, live plant, and clean-up crew style habitat. This hasn't traditionally been the most popular set up with ball pythons. You tend to see it more for frogs, lizards, and geckos. That said, I've found this set up does work very well for the right tempered python. What you do is fill the bottom of the enclosure with a healthy layer of dirt mixed with other biodegradable items (leaves and sphagnum moss), then you go to town decorating it with life (safe!) plants for your animal. You will want to create natural hides using specialized clay or cork bark flats. And as the plants fill out, they'll create additional places for your snake to hang out. Finally, you'll have your cleaning crew. This is typically going to be a colony of springtails and isopods. These little bug friends will keep everything nice and clean for you! This is the other HUGE perk. I literally just have to do some spot cleaning here or there, and that's it. The cleaning crew handles the rest. If you have the money, patience, and a smaller collection - I highly suggest you give this a try.

Other Options: Of course there are a TON of other options. So please feel free to do your own searching. Also, don't hesitate to try out different options. What works for me may not be best for you. That said, there are some definite no nos.

DO NOT USE:

- **Sand**
- **Cedar**
- **Pine**

Decor

This is the fun part! Decorations! There are so many ways you can approach tricking out your animals pad. Almost to the point that it can be overwhelming. I trust that you can come up with some ideas and a good place to purchase items with a bit of searching online, checking out a local pet store, or heading to a pet expo. However I do want to give some space to the topics that I feel are most important to keep in mind when choosing your decorations.

The animals preferences above all else. This is a BIG one. Sure you may like the natural look of the half log hide, however your ball python is going to feel stressed and vulnerable if that's the only option. Ball pythons prefer dark, tight fitting, spaces with one entrance that they can patrol. It's even better if the entrance is set off to one side and not in the center of the hide. My best guess is that they prefer to ball up on the side so they can see the entrance, but you cannot see them when you look through the hole. This helps them to feel more safe and secure. The downside to this, is that these style of hides are not the prettiest. They're typically very plain, rectangular, and black. Very humdrum. But, what your animal prefers should come before what you think looks nice. Same

goes for everything else you put into the enclosure. It needs to function for the animal, not just look pretty for you.

Ball Pythons like clutter. If you have very simple taste (talking to all my minimalists out there) and are looking for a display animal, perhaps a ball python isn't your speed of snake. Ball pythons need to be able to stretch out, but they need to be able to do that undercover. Your enclosure should be littered will all sorts of things: lots of plants, hides, things to crawl over, things to crawl under, balled up paper, pretty much anything that a snake can hide under or behind. If you have a large enclosure that means you have more space that you will need to fill up to help your animal feel safe. Do keep in mind though, you need floor space for your animal to move around.

The "Pet Rocks" of the snake world. Ball pythons are not active animals. They are also nocturnal, which means they are most active at night. This is why many keepers jokingly call them their "living pet rocks." If your snake is out and about a lot during the day, this may be a sign that something is wrong with your husbandry and/or the animal is sick – or hungry. That said, some animals are just more curious than others. I have one male that at dusk gets very adventurous and cruises around his tank looking for a good ambush spot, just in case prey walks by. On the flip side, I have another male that is the model pet rock. He only moves when we feed him. Otherwise, he curls up under his bark and watches the world go by. This is why it's so important to spend time observing your animals. Get to know them and their specific needs and personality. Don't get your heart set on any one decorating plan, because your snake may have different needs.

Safety First. No matter what you're putting into the tank be sure you're thinking about the health and safety of your animal. There are a few things that are most certainly no goes:

- **Never use a heated rock.** Really, all the heat your animal needs should be coming from the under tank heater or possibly overhead supplemental heat (that the animal cannot under any circumstance come into contact with).
- **Never use tape (or anything that will remain sticky) of any kind in the habitat.** Your snake's skin is very delicate. No matter how well you think the thing is stuck and won't fall off, the fact of the matter is that it might. And if it does, you run the risk of your animal getting stuck to the tape or adhesive. If you do need to stick something to the side of your habitat find a tape alternative: suction cups, plastic ties, aquarium adhesive, magnets, etcetera.
- **Don't use anything that your snake could get stuck inside.** Snakes are curious and like small tight spaces, and they have a way of getting into or out through spaces you're pretty sure they would never fit. Keep in mind ball pythons have a tapered body shape. So if they can get their head into something, they may not be able to get their whole body through it. And when was the last time you saw a snake back up? Yeah. That's not a

thing. So when a snake gets into a tight spot, they'll keep pushing themselves forward, even to the point of suffocating themselves or causing internal bleeding. So you want to be sure there are no loops hiding in the fake plants. Also, be sure to remove any decorative hides that the snake may have outgrown. In general avoid using any tubes or tunnels, these are just asking for trouble. In my habitats I use two or three appropriately sized hides and then clutter up the rest of the space with plants (real or fake depending on the habitat) and other ground litter (leaf litter or balled up unprinted newspaper, again depending on the habitat).

- **Cleanliness is critical.** No matter what you put into the habitat, you want to make sure that it is free of any potentially harmful chemicals or pollutants. Which means, you don't want to go out and pick up any old tree branch and just toss it into the enclosure. Also, when setting up a bioactive terrarium, you want to make sure that you are using clean, chemical free soil and other biodegradables. Finally, anything you put into the tank needs to be able to be cleaned. Either by your clean-up crew in the case of the bioactive tank, or by using soap and water or other disinfectant. Snakes are unselective eliminators. If you put something into the tank that is porous, then the snake poops on it (and it will), unless you have a healthy team of springtails, you're going to have a heck of a time getting that item clean!

Again, these are just a few things to consider when you're thinking about how to decorate your enclosure. Although you should have a few things on hand when you get your animal, it's not critical to have it all in place on day one. Feel free to take some time to get to know your animal, try out a few things to see what they respond well to, and then take it from there.

Before you go any further, now is a good time to go shopping! Start to collect your basic materials. You should be able to get your housing set up with heat and some basic decorations. It may take some time to get the set up perfectly dialed in, so this is something you do not want to rush.

Your Basic Shopping List:

- ❑ Size Appropriate & Secure Housing
- ❑ Under Tank Heater
- ❑ Thermostat
- ❑ Infrared Thermometer
- ❑ Hygrometer
- ❑ Substrate
- ❑ 2 Hides
- ❑ Basic Décor
- ❑ Water Dish
- ❑ Cleaning Supplies

Once you have all of the above items, move on to the next section.

Food & Water

We're getting there! So far we've got our setup put together, a few decorations, and are likely getting pretty excited to be welcoming our new animal into our home. The next step before we bring home our newest family member is that we need to think about what this snake going to eat and drink.

Let's start with the easy part, water. You need to have a sturdy water dish that is an appropriate size for the animal and enclosure. Ball pythons in general are not a water loving species, however they will take a soak if they can fit in the dish and there is something going on that they feel uncomfortable. The two main reasons are mites (eww!) and low humidity. If you see your ball python taking a soak, it's not necessarily a reason to panic, however those are two things you'd probably want to take a peek at. Some ball pythons do like just randomly taking a soak for seemingly no reason, so I would recommend starting with a dish a bit larger than you think you may need. Once you better understand your snake's preferences, and see how that big of a dish is affecting the humidity in the enclosure, you can make any necessary size adjustments.

You also want to make sure the dish is sturdy and made of a material that is easy to clean and disinfect. Even if your ball python doesn't like to play in it, they will knock into it and be tossing substrate and other things into it. So it needs to be able to stand up to the abuse without tipping over. It also needs to be able to hold up to through cleaning and disinfecting.

Snakes do not need to drink water like mammals do. They extract a lot of the necessary fluids from their food, however you may catch your snake occasionally drinking from their dish. If you notice this behavior frequently (multiple times a day, multiple days in a row), that may be a sign something is off with the humidity in the enclosure or there is something else wrong with your animal.

Since they do need to drink on occasion, you'll want to make sure your animal always has access to clean, safe water. Water straight from the tap is rarely safe for you, not to mention your snake. In most cases you'll need to use a water conditioner. There are several popular, easy to find brands on the market. Simply follow the directions on the bottle and you're all set. The other best option is reverse osmosis. If you're lucky enough to have a set up in your home already, great! If not, you can often find filling stations around where you live. Again though, this is not necessary, properly treated tap water will work just fine.

Now that we have our water situation figured out, let's shift gears and chat rats. Prey type is another passionately debated topic in the snake keeping world. So we're just going to work through this discussing the basic need to know topics. I'll leave the debating to your own research and soul searching.

> **Ball Pythons are carnivores.** This may be a laughable and obvious statement, however I do not want to make any assumptions. If you are morally or otherwise

opposed to feeding your snake another animal, then ball pythons are not for you. Ball pythons primarily eat mice and rats. Period. There are some food options that the meat no longer looks like the prey item (i.e. it's processed meat), which may be easier for some folks with more delicate sensibilities to handle, but bottom line is that your ball python will be eating meat.

Live, Fresh Killed, Frozen Thawed. These are the three types of mice and rats you have to choose from to feed your animal. This is one of the most passionately debated topics with keepers. I will not be getting into the details of this debate here and I won't pretend I do it the "right" way. There are certainly pros and cons to each option. Rather, I will simply talk through what I do and what works for me.

Personally, I choose to work with my animals so I am able to feed primarily frozen thawed. Why do I do this? I have a moderately sized collection and it's still more cost effective and manageable for me to feed frozen thawed. I personally think that feeding frozen thawed is more ethical. It allows the prey item to be humanly euthanized without suffering (do your research on your prey supplier!) and it's safer for the animals in my care (no matter how long the prey is in the enclosure, it cannot harm the snake). Again, this is my opinion based on my own spiritual beliefs and business sense. You may disagree and that is fine.

It's important to keep in mind that ball pythons are particular eaters. It can be hard to get an animal that's only ever eaten live switched over to frozen thawed. It can be hard to get an animal that's always eaten mice switched over to rats. If you are not a patient person, I highly recommend getting an adult animal that's already eating your preferred prey item in the same way you're planning on delivering it. If you're getting a hatchling, you need to understand that baby ball pythons will more than likely be given live mice to start. So you will be in for a ride if you have a particularly picky animal as they grow and need larger prey items.

In the wild, ball pythons eat African Soft Furred Rats (ASF). If a hatchling is being particularly stubborn at taking food, the breeder may choose to try ASF as a prey item. This can be good because it may be what saves that animals life. However, this can also be a challenge because that animal may struggle to switch over to a different prey item later on. This may not seem like a bad thing, however ASF can be challenging to find on a regular basis. So it's something to consider.

Think about food storage. Regardless of what you decide to feed your snake, you need to think about how you will keep the excess food. For example, it can be more economical to buy your frozen thawed rats in bulk online or at an expo. Where are you going to keep the extra rats? In the same freezer with your other food or in a separate freezer? Are there other people in your house that may take offense to having dead rodents so close to their food? If you feed live, what will

you do with the prey if the snake does not eat it? Because at some point, your ball python will refuse to eat, so you need to be prepared to handle that animal.

Feed your animal in their usual enclosure. Period. Do not move them into a separate container. This is a big misconception in the hobby that is being perpetuated by folks who do not bother to keep up with the latest research and industry standards in the hobby. No, your animal will not become cage aggressive by feeding it in its usual enclosure. This is where hook or tap training can come in handy if you have a particularly food motivated animal. I'll confess though, that's rare with ball pythons.

Do not handle your snake within 24-48 hours of feeding. If you do, you greatly increase the likelihood the animal will regurgitate their prey, and that's not a good thing for anyone involved. So now you can understand the issue of feeding your animal in another place. If you feed your snake somewhere else, then you will need to handle them immediately following eating, and risk your animal regurgitating their meal. Much like when you regurgitate your food, it causes chemical burns in the throat and mouth from the stomach acid. If your animal regurgitates several meals in a row, this can be life threatening due to potential infection and a whole lot of other health issues (that you may or may not be able to notice in time to get treatment).

Use tongs to feed your snakes. This is one of the number one ways you can work to condition your animal to know when you're feeding them and when you're going to be handling them. Are tongs necessary for feeding ball pythons? Not really. You can use gloves or even your bare hands if you're willing to risk a bite. Think about it though, if you feed your snake with your hand, they will begin to associate your hand with food (good ol classical conditioning at it's best) and you'll likely end up with more strikes and bites than you'd like. So my general recommendation is to use tongs to feed no matter how nice or gentle your animal is.

Purchasing

It's true! We're finally ready to pick out your new ball python! In this section we're going to discuss the purchasing options you have, questions to ask breeders, and some other basics you need to know to be a well-informed buyer.

Do your research! I cannot emphasize this enough. Before you buy any animal from any person or business, do your research! Think about it this way… you want to make sure you're getting the healthiest, highest quality animal possible. If you go for the "good deal" without knowing much about the breeder, you may end up bringing home an animal with a respiratory infection, mites, parasites, or other illness. Either way, you may end up spending more money in the long run in vet bills, medication, and treatments than whatever money you had saved up

front. Also, it's good practice to think about it as you're voting with your dollar. It's better to support a quality breeder (large scale or boutique hobbyist) than a fly by night operation out to make a quick buck.

Consider your purchasing options. There are a number of places you can purchase your animal from. It's good to weigh in on all the options and really consider the pros and cons of each.

Pet Store: This may be your go to option, which I can appreciate because it's likely the most convenient and the best way to get immediate gratification. That said, it's important to consider what pet store you're getting your animal from. I would encourage you to find a locally owned, reptile specialty shop. These folks will likely be able to answer all your questions and give you the most accurate information. The cons to this option is you likely won't get continued follow-up support after you purchase your animal. This isn't 100% true, it will depend on the shop, but it's something to ask about or at least consider.

Reptile Expo: I LOVE going to expos. It's so much fun to see all the different options, to see the animal's condition in person and chat with the breeders. You may also be able to get the best price at an expo because you don't have to pay for shipping (if you're going to a local expo) and sometimes you can get a deal because breeders may not want to haul the animals back home at the end of the show. On the flip side, expos are notorious for hosting contagious "stuff" like mites and other viral infections. Now I'm not saying all breeders are at fault, like anything else 98% of the breeders are fabulous, their animals are healthy, and they follow proper cross contamination prevention protocols. But all it takes is one shady breeder with sick animals and one person who doesn't wash their hands between handling the animals to spread whatever infection like wildfire across the entire expo. Also, mites are tiny, highly mobile critters! So if one breeder brings animals with mites to the show, they will likely infiltrate surrounding booths, and they may even hitch a ride on your clothes and you'll accidently introduce them to your collection. Not. Good. Although not deadly if treated promptly, they are an epic pain to get rid of! Again though, expos are a great option to consider. You can handle the animal, check it for infections and mites, and ask the breeder questions. Just be sure to follow proper cross contamination protocols yourself.

Online: There are several online websites that allow breeders and hobbyist to buy and sell animals online. This can be the best way to get the exact animal you want. However this does also come with its own risks. The biggest risk is that you cannot look at the animal before you hand over your money. A good breeder will allow for a short window of time that you can report any health issues and return the animal for a full refund. The other major risk is that you will most likely be shipping the

animal. Although ball pythons are hardy, they aren't impervious to temperature extremes and mishandling (e.g. dropping the box). Any time you ship an animal, you risk that animal arriving to your doorstep dead. Again though, any proper breeder will have given you the protocol of what to do in the HIGHLY unlikely scenario that you have a DOA animal (DOA = dead on arrival). If a breeder does not have a clear refund policy in the case your animal is DOA, then do not do the deal. Be aware that some breeders only offer store credit or an exchange (rather than a full refund of what you paid). It's on you to know the policies before you had over the money.

No matter where you purchase your animal, you will want to ask a lot of questions. If you're working with someone and they are impatient with you, refuse to answer your questions, or otherwise give you a bad feeling… walk away. Any quality breeder will be willing and able to answer the basic questions that you should be asking as an informed buyer. That said, please be respectful of the breeders time. Here are some good questions to ask and things NOT to do.

- **At least, ask the basics**
  - ✓ Age of the animal (hatch date)
  - ✓ Type of prey item (mouse or rat, size, live or frozen thawed)
  - ✓ Frequency of feeding
  - ✓ Gender
  - ✓ Genetics
- **Don't get preachy.** For example, if you're speaking with a breeder and they let you know they only feed live and you think that's unethical, do not lecture the breeder or otherwise have a tantrum. Do keep in mind it is well within your right to politely thank them for their time and choose to take your business elsewhere.
- **Do feel free to ask additional questions and ask for recommendations… but there is a limit.** In the correct venue, breeders are typically very happy to "talk shop" and discuss their husbandry techniques, swap tips and tricks, and otherwise network within the community. However, do keep in mind these are typically very busy folks who are working another full time job and trying to answer many different questions from many different people. I've heard some boutique breeders say they often get upwards of 150 to 200 emails a week! And that's for a smaller, less well known operation. I can't imagine what some of the higher profile breeders have to deal with. Traditionally, expos are the best place to have these more in depth conversations. Something I recommend to folks all the time is to go to an expo, not to purchase an animal, but rather to meet the breeders and have these conversations. When you've hit it off with someone who is working with a project you're interested in, get their business card and follow up later to purchase an animal.
- **When purchasing certain genetics, ask to see the pictures of the parents.** Again, this is a case of 90% of the breeders being totally

ethical and honest, however there's that 10% that are just out to make a buck. One of the biggest and most well-known scams are people selling animals claiming they are "het" some hot-sexy-new recessive morph (more on all that jargon in a minute). The problem with this is that you won't know if it's accurate until you breed that animal and "prove" it out. This can take 3 or more years! By then, that breeder may have already made their money and are gone to the wind. And now you're out not only the initial investment, but all the money you've put into that animal (food, husbandry, etc). Even worse you're probably now set back 3 or more years on that project. So you're going to have to spend all that money again growing up a new animal or paying the big bucks for an adult.

So now that you have some ideas of where you are going to purchase your animal, are armed with some good questions, and ways to spot red flags. Let's get you up to speed on some of the lingo so you can sound like an informed buyer. Warning: I am not a scientist, nor expert in genetics, so I will not be explaining these in the most scientific way. Rather, I will explain it in the best way possible in how it relates to snakes.

Wild Type: This is a ball python. Just like you would find in the wild. Nothing fancy (although I would say all snakes are fancy in their own right).

Morph: This is a specific genetic deviation from the wild type (i.e. mutation). For example, one of the most well-known and easily identifiable morphs is albino. Morphs can be dominate, codominant, or recessive.

Gene: This is a piece of the "genetic material" (for the lack of a better term) passed down from the parents to the offspring that determines some sort of characteristic in the baby. The two main genetic characteristics that breeders work with are the genes that alter the animals color and pattern.

Allelic: This is a group of genes that interact with each other to create a specific characteristic. For example, a "Lesser" and a "Mojave" when breed together may create offspring that are all white with bright blue eyes, known as a Blue Eyed Lucy (BEL). There are approximately eight known genes that are part of the BEL complex, in other words these eight genes are allelic. When any two of these eight genes are combined you will get a BEL.

Dominate: When you only need one parent in a breeding pair to pass down a specific gene to express a characteristic, it's called dominate. For example, Calico is a dominate gene. You only need the mom or the dad to carry the gene to pass it along to the babies for at least some of the babies to be Calico. However, if both parents are Calico, you will not get a "Super Calico".

Super: This is when you have an animal that received two of the same genes, one from each parent, which causes different characteristics than if the animal

were to just receive that gene from one parent. For example, Pastel and Super Pastel. You can only have “Supers” of the Co-Dominate genes.

Co-Dominate: This is when an animal receives one copy of a gene and is visual (i.e. you can see with your own eyes it has that gene). However when the baby receives two copies of a gene, it is visually different than the single gene animal. This is then referred to as a “Super” of whatever gene was passed down from both parents. This IS different than recessive genes.

Recessive: This is when an animal receives one copy of a gene from one of the parents and it is not visual. The baby simply “carries” that gene in their genetics and can pass it along to its offspring. However, if the baby receives that same gene from both parents, then it is a visual. This is the difference between a “visual” animal and a “het” or “heterozygous” animal. Don’t worry about remembering heterozygous, you’ll hear “het” FAR more often if not exclusively. One of the most commonly known recessive genes, or morphs, is albinism.

Visual: This is an animal that has two of the same recessive gene, therefore you can tell with your own eyes that the animal carries that gene.

Het: Again, this is when an animal simply carries the recessive gene. So it may look like the wild type, or other dominate genetics, however it may still potentially pass along that recessive gene to its young.

Project: This is the term given to a specific gene that people may be working with in regards to breeding. For example, the “Puzzle Project” or the “Leopard Project” This means that a breeder has decided to work specifically with that one gene (or collection of genes) to create variations to see what all the gene is capable of with the characteristics it brings to the animal. You may hear things like the “Highway Project” or the “Batman Project.” This means the breeder is working on variations of that specific combination of genes (Gravel + Yellow Belly + ? and Clown + Leopard + Spotnose + ??? respectively)

Of course there are a lot of other vocabulary words that you’ll want to eventually learn, but this is a great start so you know what you’re looking at when you’re purchasing an animal. Let’s walk through a couple scenarios and explanations of things you might see online or written on the display at an expo or in the pet shop.

Pastel Chocolate 100% Het Pied: This means that the animal carries the pastel gene (which is co-dominate), the Chocolate gene (which is co-dominate), and carries the Pied (or Piedbald) gene but you can’t see that with your eyes (Pied is recessive). You can just see that the animal is Pastel and Chocolate.

Double Het Clown Pied: This means that the animal carries two different recessive genes: Clown and Pied. You hear “double recessive” and “triple recessive” in videos and dropped in conversations all the time. The important

thing to keep in mind is that het means you can't see that the animal carries that gene. All you can see is that it is a wild type ball python. This is incredibly important to keep in mind if you plan on breeding that animal in the future. This is where some of the shady breeders make a quick buck, selling a supposedly het, double het, or triple het animal at market value when in reality it doesn't actually carry any of those genes.

Mahogany Pied: This means that the animal carries the Mahogany gene (which is co-dominate) and is a visual Pied (which is a recessive gene). So you see that the animal carries both the Mahogany and Pied genes.

Fire 66% Het Clown: This is probably the trickiest thing to wrap your brain around. What this means is that two het clown animals were breed together. So I don't have to launch into an overly specific and complicated explanation of genetics... just take my word on this. What this means is that the animal labeled 66% has a 2 out of 3 chance of carrying that recessive gene. So you're taking a gamble here. The animal either carries the gene or not, but you don't know which because you can't see it without doing a DNA test (which isn't a thing outside of professional scientific research). But you have a 2 out of 3 chance of having an animal that *could* produce a visual Clown if paired with either a visual Clown or another het Clown.

Fire 50% Het Clown: This is the exact same thing as above, however it's a 50/50 chance of being Het Clown. So, the odds are even less in your favor.

Proven Fire Het Clown: "Proven" will ONLY be used with adult animals. This means that the animal has breed and produced offspring with the listed genetics. This is typically most important when you're looking at the recessive gene projects.

Hopefully at this point, you're more informed so you can ask better questions and make smarter decisions when you go to purchase your new snake.

The final thing I want you to consider, will you be breeding this animal in the future or not? If you are 100% sure you will NOT be breeding this animal in the future, you can skip the next section. If you even have a 1% feeling that you may want to breed in the future, it's worth reading on. (Or if you want to understand the pricing structure, it is worth reading the section on breeding.)

Breeding

Congratulations! You're at least considering taking your hobby to a whole new level (or at least curious why the prices are so variable). Breeding your snake can be fun, educational, and potentially financially rewarding. I'm not going to go into the specifics

of how to breed here, rather I am going to explain what you need to know when purchasing your first ball python(s) in regards to your future breeding plans.

Do even more research. Don't just buy your first snake without doing a LOT of research. And I'm not just saying breeder research, I'm talking morph and genetics research. What project are you most interested in? What genes are you naturally drawn to? Which genes have issues you may not be willing to deal with? Which combos have issues? I've heard it time and time again from both beginner and experienced breeders, although they felt they did "enough" research before they purchased their first few animals, looking back they knew they could have done more.

Purchase females. This is the biggest regret I've heard from other breeders. Female ball pythons take longer to get to breeding size (around 2000 grams; approximately 3 years) than males (around 1,500 grams; approximately 1.5 to 2 years). And since you can breed one male to multiple females, it's better to get your ladies, get them established and in the ballpark of 1000 grams before you start looking for males to pair them up to. That way your ladies will be good and ready when your guy gets to size. Also, a good "breeding group" ratio is 2 or 3 females for every male. As you get more established, it may be good to have a back-up male for each breeding group, just in case one of your males decides not to perform that year.

Price isn't everything. If you want to go out and just purchase a bunch of the cheapest animals you can find, breed them, and try to make a bunch of money quick… please promptly shred this workbook and stay out of the hobby.

If that is not your goal, my most sincere gratitude! I am so glad we've been able to connect!

Now let's get to the heart of this financial situation…

Some genes are "worth" more money than others due to a number of factors, most of which comes down to basic business principles: Supply and Demand. If there is a low supply and high demand, a breeder can charge top dollar for a high quality animal (upwards of $20k, I kid you not). If there is a lot of Supply and rather low Demand, you're not going to be able to ask much for that animal no matter how high quality it is (sometimes as low as $100 or even less).

Responsible and reputable breeders will spend decades selectively breeding and line breeding to create the most visually stunning representations of that morph or set of genetics. If you are planning on breeding in the future, it is worth the top dollar to start with that high quality animal (it saves you time and money in the long run). On the flip side, just because someone is asking a crap ton of money for an animal doesn't mean it's a quality animal. They might just be charging that much because they know they can. New or recently discovered genetics (yeah,

we're still finding new ones!) almost always reach some pretty high numbers even if it's not a great example of the gene.

What you'll more likely run into at this point in the hobby is that recessive genetics tend to be more expensive than dominate or co-dominate genes. Recessive genetics are typically higher value and hold their value over time better than dominate or co-dominate genes because it is harder to produce visuals. So breeders sink a lot more time and money into these projects then they would an exclusively dominate or co-dominate project.

Choose your genes wisely. Again, do your research! Look at a lot of pictures and pick a gene or two that you are consistently drawn to, that gets you really excited, and start with that. If you want to structure your collection for long-term stability (financially speaking), it's good to have at least one recessive gene that you center your collection around.

There is always the sexy "new" or hot morph, don't get drawn in by that temptation. Think as logically as possible. If it's hot now, and you are buying a hatchling, will it still be "hot" by the time you're producing new animals? If you already have some adult females that are ready to breed and you have the opportunity to purchase a breeder male, THEN it *may* be worth it. You just have to ask yourself if you'll be able to make a return on your investment.

You can be passionate, but it's still business at the end of the day. I deeply care about my animals, there is no question about that. I truly enjoy my collection and it brings so much joy to my heart and soul to work with them. That said, I still run my collection like a business. Because that just makes sense! I really consider the return on my investment before I purchase an animal. I think about what my goal is (breeding project or personal enjoyment) and how it fits into my short term and long term plans, then I make my decisions based on that. If I purchased every animal on an impulse just because it was rad and I had the money in my pocket, I would have to get a second or third job to afford to keep my animals! Keeping and breeding isn't cheap. You spend years sinking money into these animals before you can even start to make any sort of return. Then it may take several years after that before you even break even or make a profit.

Final Thoughts Pre-Purchase

Before we take the final plunge of purchasing our animal, there are a few final things you'll want to consider before you bring home your new friend:

- Is there a vet close by that is knowledgeable and has extensive experience with not just exotic pets, but specifically snakes?
- Do you have a budget that can support the ongoing cost of keeping the animal? (Think: weekly feeding, electric bills, emergency vet visits, upgrading housing, clean substrate…)

- Am I willing to commit to keeping this animal for 20 to 30 (or possibly more) years?
- Do I have someone who can check on and care for my animals if I get sick or go on vacation?
- Is it legal to keep this animal in my home, town, or state? (Believe it or not, it's not always legal to keep ball pythons where you live!)

If you said no to any one of these questions, you are not ready yet. You need to have a strong confident "yes" to each and every one of these questions before you bring home your snake.

Check In

We just did a LOT of work together. If you're made it this far, you should have:

- ❑ Purchased and set up your housing
- ❑ Your husbandry is operational and on point
- ❑ You know where you're going to purchase your animal (or at least interview potential breeders)
- ❑ You have a list of questions to ask
- ❑ You have a list of genetics you're interested in and are familiar with the price range
- ❑ You have saved enough money for the animal (and have some savings for surprise vet visits in the first 6 months)

Congratulations! It's finally time to bring your little one home!!! I am so excited for you. There are few things as joyous as bringing a little scaled friend into your life. I know it feels like we've already been on an epic journey together, but this is just the start. We have a whole lot of work ahead of us still.