Will Bird

Propagating Carpet Pythons.

A Diamond Coastal Carpet Intergrade.

Consistent success in breeding snakes requires an understanding of the biological needs the animals have, but keepers must also be able to interpret signals that behaviors convey and possess other inherent skills that either come naturally or are gleaned through experience. In this article I hope to share some general information about some of the different carpet pythons I have kept and also impart some of my experiences and observations that have led to breeding success over many years.

From the first moment I saw a carpet python I have had an interest in them and wanted to keep them. People often ask me why I like them so much. Most carpet pythons are very good display animals and spend time perching as if they are begging to have their picture taken. They are also relatively active and can be seen doing things on most days. They are larger than a ball python but not as large as a reticulate python. Even the largest Carpet Python can be managed more easily than any of the giant snakes. The present is a better time than ever to grow an interest and collection of Carpet Pythons. They are more readily available than ever before and there are also more types in the market than in years past. The selective breeding efforts over the past 30 years have made it easy to obtain gorgeous specimens at reasonable prices. There are also new morphs available and many more to come over the next several years.

A Jaguar Carpet Python.

Before selecting a carpet python to work with it is important to figure out what you want in a snake and then learn a little about the requirements of each type of carpet python. Size is certainly an important factor. The New Guinea Carpet, or Irian Jaya Carpet is the smallest type in the Morelia spilota complex and grows to a length of around five or six feet. Its small size equates to smaller caging requirements.

A New Guinea Carpet Python. AKA Irian Jaya Carpet.

The New Guinea Carpet is still being imported from the wild and selective breeding has already resulted in a number of bloodlines where the deep orange coloration is enhanced. The New Guinea Carpet also goes through a dramatic series of color changes that make them interesting to raise from a young age.

A Jungle Carpet Python.

Jungle Carpet Pythons are considered to be a smaller type of Carpet but I have seen some very large specimens. My adults range from 6 to 8 feet long. The Jungle Carpet is well known for its dark black and rich golden yellow coloration, qualities that few wild specimens possess. Selective breeding has generated the consistently beautiful specimens that are available today. They have been crossed with Diamond Pythons and Coastal Carpets for the past thirty years. This has led hobbyists to search out "pure" Jungles. It is nearly impossible to get what one could reliably call a pure Jungle Carpet in the US and most hobbyists would be unhappy with the drab brown and tan pure animal they would have if they got what they asked for! I find the wild types to be very interesting and handsome for sure, but what most keepers interested in Jungles need to find out is if the animal they are about to buy has been selectively bred from animals whose origins are well known and have deep black and stark yellow coloration.

An 18 Month Old Jungle Carpet.

Coastal Carpet Pythons are a very large Carpet that requires large cages.This is the group that earned a reputation for Carpets as being aggressive biters. In my experience young animals are terrified by our gigantic size and strike wildly in fear the first several times they are handled. Gentle handling will break this condition quickly, and most every captive bred Coastal will become tractable once it grows to over five feet in length. There is something about this stage in their growth that enables them to gain a sense of security and lose the fear they have as babies. Even specimens that are rarely touched by people will calm once adult sizes are attained.

A High Contrast And Partially Striped Intergrade.

It is true that certain Carpets will never tame, but the same is true with individuals in any group of snakes. It has been my observation that many people simply do not know how to hold snakes and seem to be bitten by the tamest of snakes at every turn. I use two hands when holding carpet pythons and allow them to crawl where they want. As a result they remain calm and do not bite me. The Coastals that I am most familiar with are the ones from the Southern-most part of their range where they intergrade with the Diamond Python. They can handle colder night time lows as a result of their southern origins.

An 88% Diamond/12%Jungle Carpet Hybrid.

The Diamond Python is the southern-most ranging python in the world and can tolerate very cold temperatures as a result. It is still important to provide daytime highs around 90 degrees though. As is the case with Jungles, hobbyists are always on the hunt for pure Diamonds. The legal importation of Australian Wildlife came to a close with the advent of The Endangered Species Act in the early 1970's which was also the dawn of python husbandry advances. Diamond pythons in US collections began to die off before their breeding requirements were fully understood and were bred with Jungles as a result. However, illegally imported Diamond Pythons were confiscated after the ESA was passed and many of these

A 75% Diamond Python.

specimens ended up in the Zoos where captive breeding advances were being made. It is possible to get pure Diamonds as a result. Well-known pure bloodlines come from. Dallas

,
San Diego
and Riverbanks Zoo bloodlines.

A Pure Diamond Python. This Baby Will Become A Stunning Adult!

Crosses are also readily available and have gained in popularity over the last several years, especially the Jungle Carpet crosses. I work with pure Diamonds, 88% Diamonds, and 75% Diamonds. All of them grow to over 8 feet long and require large cages.

When it comes to cage size a couple of things must be taken into consideration. The vast majority of Carpet Pythons will not rub their noses in a cage that is large enough for them, but if kept in cramped quarters all Carpets will push so hard that they are likely to rub their fleshy "eyelids" off and cause permanent damage to their snouts and heads…especially if they have screen lids. If you are going to keep your snake in a small cage you will need to use a Sterilite box in a rack system with smooth shelf tops to prevent permanent bodily damage.

Mild Damage Can Be Seen Between The Eyes.

I have had great success keeping Carpets in spacious aquariums. Several of my Carpet Pythons have been housed in 150 gallon aquariums and never rubbed their noses as long as females were isolated as the time for egg deposition approached. Screen lids allow for the use of heat lamps. Heat lamps permit specimens to bask at temperatures that approach and exceed 90 degrees. This is important for gravid females and also for both sexes when night-time drops are at their lowest.

A 135 Gallon Tank With Screen Top And Heat Lamp.

Another pro with screen tops involves the easy control of humidity levels, especially if cypress is used as bedding. Water added to a cage with screen tops will evaporate quickly, allowing the shed cycle to be facilitated and also preventing mold and mildew from growing.

Despite the pros mentioned about aquariums, tanks are made for keeping fish, not snakes. It is possible to learn how to use them properly but there are other options out there. My favorites are racks for babies and subadults while I use Boaphile or Barrs cages for adults.

Boaphile Plastics Breeder Cages.

Boaphile and Barrs cages are made to stack and are therefore space efficient. Heat lamps should not be used in these cages, so I use heat tape controlled by Ranco thermostats. The heat tape can be safely installed on the bottom of the cages to provide large basking spots. I set the heat at 88-90 degrees. No matter what type of adult Carpet Python I am keeping or what type of cage it is in, all heat is turned off at night since my snake room will not drop below 50 degrees even on the coldest of Winter evenings.

Carpet Pythons should be provided with a water bowl large enough to soak in. This will facilitate shedding. Carpet pythons will also take refuge in a large water bowl if they have mites. If you notice one spending a lot of time in the water bowl when it is not about to shed it will be a signal for you to perform a mite inspection.

A

New Guinea
Carpet In An Appropriate Sized Water Bowl.

A Perching Diamond Coastal Intergrade.

All

Morelia

spilota perch and these should be provided in cages strategically. The opportunity to perch in both warm and cooler places should be made available. Perches should be positioned or fastened so that they move as little as possible. If fastened to the cage walls the point of contact should be flush so that accidental hanging is not a possibility.

Before breeding trials begin adult Carpet Pythons need to be preconditioned. Even long-time keepers underestimate just how large a food item Carpet Pythons can consume. Larger food items have larger calcium-filled skeletons which provide much needed reserves for egg-producing females. They also force the head to stretch during feeding which in turn will cause the skull to adjust and grow to proper proportion. In addition to the health benefits, it is also great fun to feed snakes gigantic meals. Not only is it fun to witness the feeding process, but a certain feeling of satisfaction comes with seeing a basking snake bloated to capacity digesting a recently eaten meal. Females should be fed heavily but males need to be maintained leaner to ensure breeding vigor and long life.

This Snake Could Eat Five Meals This Size In One Sitting During Warmer Months.

During the cooler Spring months I begin feeding my adult specimens. I start with smaller meals and feed once or perhaps twice the first month. As the year progresses and temperatures increase the meals get larger and are offered more often. By July even my most mature adults are fed giant meals once every seven days. The seven day schedule is fine to stick with for a number of months but as Fall approaches I go off schedules and use my eyes to determine feeding frequency, especially with males. Some males gain weight easier than others and care must be taken to have them lean by late October or early November. It is possible to overfeed females as well but it is perfectly fine if they are on the plump side as the winter months arrive.

Put Your Snakes Together In Order To Breed Them!!

I generally do not feed breeder snakes through the months of December, January, and February mainly because I drop the night time temperatures during these months. I also do not want them to focus their energies trying to digest meals. I want them to devote all of their attention to each other and breeding! Evening temperatures can drop to as low as 55 degrees and even a bit cooler during this time. These cold temperatures promote sperm production and kick-start follicular development and as long as daytime basking temperatures between 85 and 90 are provided respiratory problems do not develop.

When it comes to breeding snakes the most important thing is to make sure that the male and female are in the same enclosure when the females eggs are ready to be fertilized. For this reason I try to keep my breeders together as much as possible throughout the breeding season. It is well known that snakes do best when housed individually, especially when large meals are being taken and basking spots are at a premium. However, if you want to breed your animals you are going to have to put them together.

A Combat Scene. Large Space Is Needed . Remain In The Room To Observe At All Times. Death Can Result.

Combat between male Carpet pythons is not usually necessary to induce breeding. If you have a male that seems stubborn you can place the shed skin of another male in the cage and sometimes get a good response. While the combat ritual may not be needed for successful breeding, it is a fascinating thing to witness and certainly grows my own appreciation for this group of snakes. Watching a combat event is downright fun but can also be potentially dangerous and even lead to death. For this reason certain precautions should be taken to ensure that the procedure is enrichment for the animals and not cruel. Large cages are a must for combat. I have only one cage that I allow my snakes to perform this exercise in. It is 6 feet long, 4 feet tall, and 2 feet wide and the males use every square inch of it as they wrestle. It is also important that you be there to observe the event since the loser will not be able to flee and can be killed by his aggressor. Many enjoyable hours can be spent observing male snakes struggling for breeding rights. I usually let my snakes combat when my wife has planned out a long night of television for us since my big cage is in the same room as the t.v. This allows me to keep an eye on things. A normal combat begins with the two males rapidly tongue flicking each other and trying to get their head above that of their competitor. These leads to upward climbing which results in their bodies being wrapped around each other. When one male feels that he has an advantage he will slam his head down hard onto the other male in an effort to topple him. This can go on for a few hours and will continue to escalate. It is not uncommon after a couple of hours of struggling for one snake to resort to biting. This can cause large lacerations. It is also a sign that the struggle is about to end either naturally or by the keepers hand. If things end naturally the losing snake will retreat and coil in the corner of the enclosure. If this happens, or if biting persists the snakes should be separated from each other and placed with females. Breeding does not generally follow right away as the males will be tired and need a rest, but copulations are observed the next day or shortly thereafter.

Copulating Jungle Carpet Pythons

Copulating 75% Diamond Pythons

As mentioned, combat is not a must, but putting your females and males together sure is! Copulations can often occur immediately upon introduction, but more often than not it will take at least a few days if not weeks. I prefer to introduce females into a males cage so that he feels at home and is focused on the female and not on exploring new surroundings. Removing a female for a couple of days and then reintroducing can often induce breeding. If males seem uninterested when females are introduced I will often resort to moving the males around and this stimulus will often be just what it takes to get them breeding.

Copulation Close Up!

Observing one copulation is not a sure sign that your female snake will become gravid. I usually see each of my females bred three to six times each breeding season. The first copulation or even the mere presence of a male seems to cause the females body to kick into reproduction mode. Allow the snakes to breed as often as possible. I have observed copulations lasting from one to eight hours. Males will usually breed again two days later. I generally breed my males with two females but have bred one male to five females in one season with 100% success. Most breeders do not keep enough breeder male snakes and I loathe the “surplus male” mentality. It is good practice to keep several breeder males for each breeding project since illness and poor performance are always possibilities. It is also good to have the option to diversify genetically.

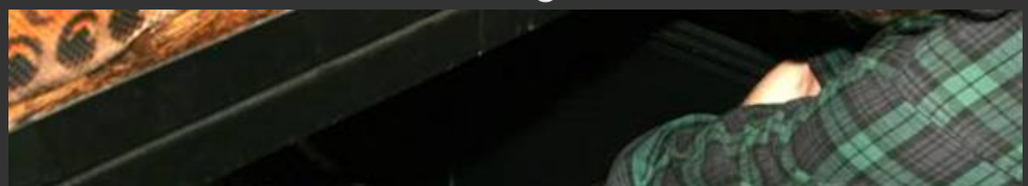
Ovulation in females is obvious no matter what type of Carpet Python you are breeding. The moment of conception lasts around 24 hours and can be identified when a giant swelling in the females mid-section is observed. After 24 hours or so the swelling will spread out length-wise and be less obvious. Because there is a left and right ovary I leave nothing to chance and continue to breed females that have appeared to ovulate.

A Gravid Jungle Carpet Python. **A Gravid 75% Diamond Python.**

Breeding season is always a time of moving snakes around, but it is important to have cages ready for your gravid females to settle into once you have no doubt that they are going to lay eggs. A gravid snake needs a place to get hot, a place to cool off, water to drink, and a place to hide. It is best if the snake is able to partially leave the hide to bask in the heat. The hide can double as a nest box and should be filled with moist nesting medium as the day approaches. Females that are about to lay eggs will often be seen lying on their backs. This posture is a sign for you to provide a good egg laying site if you have not done so already. Just because you provide what seems to be a good place to lay eggs does not mean that the female will agree with your assessment. It is therefore imperative to check on females many times daily to make sure eggs don't desiccate under heat lamps or over heat pads. I have observed females forming concave depressions in their bedding 48 hours or so prior to egg laying. If you see one of these depressions you can almost bet that this will be the site of egg laying and you can adjust accordingly. Special attention must be paid to your snakes at this time to make sure that perfect eggs are not ruined by heat, cold, water, or lack of humidity.

You Can See An Egg Being Laid In The Upper Left. **A Jungle Carpet Laying Eggs.**

It is always best to catch your females in the act of egg laying so that you can get to the eggs before they harden and also before the female recovers and tries to bite your face off defending her clutch. If you catch her laying try to remove the eggs one by one without touching her body with your hands. I have even had females lay eggs in my hands if I was gentle enough! If you are unable to catch her in the act you are going to have a struggle on your hands if you plan to incubate the eggs artificially. It helps to have assistance from an experienced snake person but I prefer to take the risks associated with a one on one struggle rather than let some neophyte get near my females and eggs. It is best if you are able to sneak up on the female and make the initial grab behind the head before she realizes you are there. As soon as you make the grab you must see how she reacts and use your other hand to get her off the clutch without it being rotated or flipped over. I always give them a chance to coil around my arm after the first grab and pay attention to the tail tip, which often remains coiled on the eggs and will flip them over if not restrained. If you are unable to get the jump on a female cover her with a towel and then get her behind the head.



Note That Both Arms Are In The Cage Ready To Grab Fast. Do Not Fear Bites!

Egg boxes should be ready to go before you remove the snake from her clutch. Use more vermiculite than you think you will need. A larger volume will be more stable and hold temperature and humidity better than a smaller volume. I use much less water than most breeders I know in my incubation medium. I try to keep the eggs dry and the boxes humid enough to have beads of water on one or two sides. I prefer to separate clutches so that I can better manage each individual egg. I am able to separate any clutch no matter how long it has been laid, but this takes a careful hand and patience. I prefer to set up eggs so that they are not in contact with any other eggs in the box. Care must be taken not to rotate the eggs as they are separated from the main mass and they should be set up in the exact position that they were laid in. Marking the top of each egg with a pencil before separation will help ensure proper placement. The longer that an egg is out of the females body, the more important it is to make sure that no rotation occurs.

Do Not Be Afraid To Handle Eggs, Just Be Careful. These Eggs Were Seprated Easily.

I incubate eggs at 87-90 degrees. It is important to get a thermometer that has been calibrated scientifically and not trust the temperature reading on your thermostat.

An Incubator Made By Modifying A Refridgerator. The Ranco Thermostat Is Not Visible.

These Eggs Are A Bit Cramped But Still Hatched. Note The Dimples. Not Too Swollen.

The walls of Carpet Python eggs allow for a lot of humidity loss and gain. Care must be taken to make sure that your eggs do not take in or lose too much moisture too fast. If your eggs are swollen with water it is likely that you will experience full-term mortalities. Your eggs should begin to collapse at the end of your incubation period and it is not uncommon for them to be half their peak size just before they hatch.

My babies have hatched from between 49 and 59 days. Once I get a pip I manually open the entire clutch with a tiny v-shaped slit made by an exact-a knife. I then let the babies crawl out on their own one or two days later.

Here Are The Same Eggs From Above. One Died But I Got

Twins
Bottom
Center
!

As the babies hatch they are removed from the egg boxes, rinsed, and then placed in a communal tub with slightly damp newspaper, perches, and a water dish.

A Clutch Of Jungles.

A Clutch Of Diamonds.

They will shed within seven days. After shedding they are separated and placed into small sterilite boxes in a rack system. I have tried various cages, techniques and equipment but have found the following set up to be the best way to house baby carpets and get them feeding quickly. I begin by drilling 124 holes in a six quart Sterilite tub. I then run a plastic perch across the width of each container on the side that will be furthest from the vertically mounted heat tape in my black pvc rack system. I cut a Styrofoam cup so that it is securely mounted under the perch. This ensures that the snake will find water as it climbs and the inexpensive cup can be thrown away and replaced when soiled. I then zip tie two more plastic perches in an X shape and place that across the length of the cage.

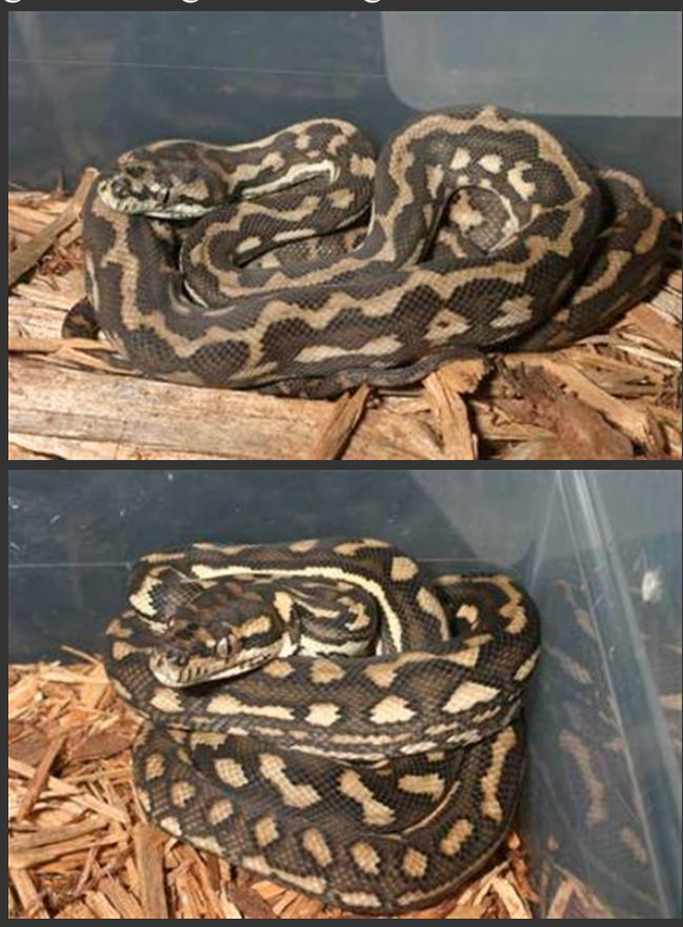
is used as bedding and is laid thick enough to allow for burrowing.

A Typical Baby Box Set Up As Described Above.

The deeper bedding and black rack provide a sense of security by reducing light levels and obstructing the view from three of the four sides of each box. The small, dark, and secluded cage will allow the baby snake's attention to be focused on food when it enters the cage. Until three meals are taken in a row the babies should not be touched, handled, breathed on or looked at funny! Leave them alone until they are strong feeders.

These Are My Baby Racks. The Small Boxes And Dark Plastic Makes The Babies Feel Secure.

Feeding trials can begin just after the first shed, but I sometimes wait an extra seven days to let them get settled into the new cage. The majority of babies in a clutch will take thawed rodents from tweezers or even off the floor of the cage the very first time food is offered. Mark these babies as feeders and never offer them a live meal again!! Convincing some baby snakes to eat can take patience and proper presentation. When I slide my boxes open I offer a warm food item within an inch or so of the snakes face and then pull it away. This will often draw the snakes attention to the food. I take care not to touch the snake with the food item at this point and simply wave it around the heat pits and then pull it away. If the snake refuses to strike after a few minutes of this I will gently tap the food item one inch behind the snakes head on the neck. This will sometimes elicit a strike and if it does I immediately let go of the food item so that it is in the snakes mouth getting coils thrown around it. It generally takes 12 weeks before I become concerned with non-feeders. This is simply an estimated time frame and if my eyes tell me a specimen needs help I act sooner. At that point I will offer live meals. If a non-feeder accepts a live meal I will follow with two more every seven days and then begin offering frozen again. There are always a couple of stragglers each year that I am forced to assist feed. After three assists I begin offering live. After a snake takes three live meals I let it get hungry and begin offering thawed again.



A Couple Of Well Started Intergrades After Five Meals And Two Sheds.

In the past I have started baby carpets on hopper mice. The problem with this is that they eventually must be switched to rats and this can be difficult to do with some specimens. Many people are shocked that a baby carpet can take a meal as large as a hopper mouse and are even more surprised when they learn that I have recently begun starting my babies on pinky rats as their first meal! As mentioned earlier, Carpet Pythons can swallow gigantic meals and it is great to start them on rats so that you never have to bother with switching them over…until they grow large enough to eat rabbits and wallabies!! Large meals require warm temperatures to digest and I offer babies a 90 degree basking spot with the ability to move to a slightly cooler location. Temperatures remain high at night for the babies during the first year.

These Racks Are Used To House Yearling Carpets. Every Nook And Cranny Is Utilized!

How often a snake needs to be fed seems to be a topic of debate amongst snake keepers and every reason is given to support all of the different theories out there. What a keeper believes is happening in nature is usually used as supportive evidence for whatever theory they value.

A Red Hypo Jaguar Carpet. This Is A Coastal Morph.

My interpretation is that there is a great struggle for survival going on where some snakes do very well, some very poorly, and others fall somewhere in between. No two snakes fare exactly alike and no two snakes are created genetically equal either. For these reasons I base my feeding schedules on how my snakes perform. Some snakes are content with a meal every seven days, while others pace their cages just a couple of days after a feeding. If a young baby snake is hungry I will feed it! I believe that it is very important to give ample food to snakes during their first two years of life to ensure proper physical development and to make sure that they will achieve their genetic potential. It is absolutely true that obese snakes die young, but in my experience baby snakes use meals to grow long, not fat. Once an adult size is attained it is important to guard against obesity, but until then I will feed a baby carpet a number of meals a week if it wants them.

A High Contrast

Queensland

Tiger Carpet After A Few Meals And Two Sheds.

If snakes are fed in the manner described above than the time it takes for a specimen to go from hatchling to breeder will vary. Some snakes seem to come out of the gate running and are ready to reproduce in 2 or 3 years. Others may not be ready for 4 years. The occasional female may not be ready for 5 years but this is odd and usually associated with improper husbandry.

A Young Tiger Jaguar. This Is A Designer Snake, Which Means A Combination Of Inheritable Traits Are Present.

I have often heard the argument that snakes bred young die young. The proponents of this concept tend to gauge their successes by how long they have managed to keep their specimens alive. These records of longevity are generally kept in what I consider to be sensory deprivation chambers, fed perhaps 5 times a year, and never come in contact with another snake. I congratulate the record breakers for their successes, but can not bring myself to keep a snake in this manner. All of us must find a way to strike a balance between quantity and quality of life. How other keepers go about this is not my business. It is my goal to ensure that my snakes eat, grow, thrive, combat, breed, and experience full lives that are not cut short by excess. I have found that the best way to do this is to have a general routine schedule when it comes to feeding and breeding but to also pay close attention to each individual snake and adjust things to ensure that they all develop properly.

A Real Freak. Hybrid Cross Between Biak Green Tree Python And Jungle Carpet Python.

At the time of this writing I have babies that were bred from babies that were bred from babies that I raised from hatchlings. There is a very real sense of accomplishment and appreciation that comes from participating in the development and continued survival of the snakes I get to work with. It far surpasses beating the dragon at the end of some 8 hour video game, maintaining a perfect lawn, or many of the other pastimes that people involve themselves in these days. Should you decide to breed Carpet Pythons or any type of snake try to hold back and raise as many of your babies as time and space permit. I have never regretted raising a snake but have cursed the day that I sold many after seeing how they turned out two years later. Should you have breeding success, don’t let the dollar signs interfere with your common sense. Treat other hobbyists well and try to give them more than they expect. The friendships and camaraderie that develop between hobbyists with similar interests are worth far more than the sale of a few baby snakes.

One That Did Not Get Away! Keep Your Babies And Resist Selling Them!