The Ultimate Boa

Constrictor Care Manual

A down-to-earth approach to the everyday care, husbandry, and breeding of Boa Constrictors.
The Ultimate Boa Constrictor Care Manual

A down-to-earth approach to the everyday Care, Husbandry and Breeding of Boa Constrictors.

Copyright 1998-2007—Clay English

Breeding Colombian Boa Constrictors—Jeff Ronne SR

The following compilation of the Ultimate Boa Constrictor Care Manual includes information that is intended to be a general, down to earth approach to the things we need to know to properly maintain our boa constrictors. There are many, many other publications that tend to delve very deep in every aspect of the boa constrictor, and attempt to cover every bit of information that could possibly be compiled, sometimes to the point of confusion. In this guide I will cover what has worked for me as well as other boa keepers in maintaining Boa Constrictors

At no time should this care guide information be taken as the ONLY or right way to properly maintain boa constrictors, OR as a substitute for a local veterinarian. I would like to take this opportunity, up front, to challenge you to find a qualified exotics veterinarian before your boa purchase is made. If you already have your pet boa, then I challenge you to locate one NOW. It is so important that you maintain a relationship with a qualified exotics veterinarian BEFORE you need one. This should go without saying, but care guides are good information, but are just that, a GUIDE. There is NO substitute for a qualified veterinarian.

Please do not overlook this basic requirement. This manual should only be used as a reference and should not replace or overrule advise given by a qualified veterinarian. You should not follow any recommendation in this guide for treatment of your boa constrictor without approval by your vet.
# Table of Contents

## I. General Care of Boa Constrictors

<table>
<thead>
<tr>
<th>Topic</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy of the Boa Constrictor</td>
<td>Blue</td>
</tr>
<tr>
<td>Purchasing a Boa Constrictor</td>
<td>Brown</td>
</tr>
<tr>
<td>Heating—Temperature—Humidity</td>
<td>Purple</td>
</tr>
<tr>
<td>Lighting Requirements</td>
<td>Red</td>
</tr>
<tr>
<td>Caging Requirements</td>
<td>Green</td>
</tr>
<tr>
<td>Substrate Requirements</td>
<td>Orange</td>
</tr>
<tr>
<td>Feeding Requirements</td>
<td>Yellow</td>
</tr>
<tr>
<td>Shedding Cycle of the Boa Constrictor</td>
<td>Blue</td>
</tr>
</tbody>
</table>

## II. Instant Solutions for Common Problems

<table>
<thead>
<tr>
<th>Topic</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shedding Problems</td>
<td>Green</td>
</tr>
<tr>
<td>Regurgitated! Regurgitation Syndrome</td>
<td>Green</td>
</tr>
<tr>
<td>Sick / Lethargic / Not Eating</td>
<td>Green</td>
</tr>
<tr>
<td>Feeding Frozen/Thawed Problems?</td>
<td>Green</td>
</tr>
<tr>
<td>Respiratory Problems - Wheezing Sounds</td>
<td>Green</td>
</tr>
<tr>
<td>Handling after Feeding</td>
<td>Green</td>
</tr>
<tr>
<td>Defecation/Urination.</td>
<td>Green</td>
</tr>
</tbody>
</table>

## III. Feeding Pre-Killed vs. Live Prey

<table>
<thead>
<tr>
<th>Topic</th>
<th>Color Code</th>
</tr>
</thead>
</table>

## IV. Emergency At Home Treatments

<table>
<thead>
<tr>
<th>Topic</th>
<th>Color Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency products to have on Hand</td>
<td>Magenta</td>
</tr>
<tr>
<td>Burns</td>
<td>Magenta</td>
</tr>
<tr>
<td>Bites and Cuts</td>
<td>Magenta</td>
</tr>
<tr>
<td>Mites</td>
<td>Magenta</td>
</tr>
<tr>
<td>Mouth Rot (Stomatitis)</td>
<td>Magenta</td>
</tr>
<tr>
<td>Respiratory Infection (RI)</td>
<td>Magenta</td>
</tr>
<tr>
<td>Scale Rot</td>
<td>Magenta</td>
</tr>
<tr>
<td>Regurgitation</td>
<td>Magenta</td>
</tr>
</tbody>
</table>

## V. Breeding Boa Constrictors—Jeff Ronne SR

<table>
<thead>
<tr>
<th>Topic</th>
<th>Color Code</th>
</tr>
</thead>
</table>

## Resources and Credits

Revision 3.0 July 2007
www.redtailboas.com
Chapter I.
General Care of Boa Constrictors

My care guide has been the primary reason for the entire website. The redtailboas.com website was founded based on providing simple boa constrictor care and husbandry information to the world. The forum membership has grown strictly due to the attraction that this care guide has generated since 1998. It has really evolved over the years to this detailed version. Finally here in a completely revised and detailed version that is now easy to read, easy to search, and easy to print.
Chapter I. General Care of Boa Constrictors

Let's take a look at the Anatomy of a Boa Constrictor.

**Body:** Family Boidae (boas and pythons), Boa Constrictors are cold-blooded reptiles, or Ectothermic. Their bodies are not capable of self-producing heat. They MUST get their heat from their surroundings, to ensure good health and digestion. This can come from the sun, rocks, or artificial heat sources such as heat pads, heat lights, or ceramic heat emitters. In captivity, we provide their ecosystem.

**Lungs:** Boa Constrictors have retained both the right and left lung, and both lungs remain functional. This applies to all Boids (Boas and Pythons). Most snakes species only retained the right lung.

**Scales:** Boa Constrictors have smooth "Scales" that are actually not scales at all, but very tough folds of skin. These "scales" allow the boa to grip surfaces as they crawl or climb. A boa constrictor has very smooth and soft skin and it makes them a joy to handle. They feel like fine soft leather. The coloring of boa constrictor scales can vary greatly.

**Backbone/Vertebrae:** A Boa Constrictor's backbone contains hundreds of vertebrae, each with a pair of attached ribs. Each vertebrae controls one ventral scale. Shown in the picture are the ventral scales. A boa's movement is made by using these ribs. Extremely agile and strong, boas can raise most of their body length straight into the air.

**Ventral Scales:** The belly of the boa constrictor, or the ventral side, contains long skinny scales. These are the ventral scales. Notice the arrow in the picture, it points at one ventral scale.

**Head:** Possibly the most fascinating feature of the boa constrictor is the shape and look of the head. It is this feature that will have you comparing the boa constrictor with all other snakes. The coloring and patterns lead to unique patterns and a nice camouflage technique. Some with striping on the head that continues to the first saddle. Different morphs can have amazing coloring even on the head. Pastel, Hypomelanistic and Hog Island boas, for example, can have intense coloring on the head.

This beautiful feature is why I am All Boas, All the Time! Any other snake just doesn’t have the same appeal to me because of the addicting appeal of the boa constrictor head and their extreme docile nature. When I held my first boa constrictor, I knew this was the snake for me.
A Boa Constrictor's Basic Anatomy

Let's take a look at the anatomy of a Boa Constrictor.

**Eyes:** Boa Constrictor eyes are generally colored to match the color and pattern of the head. You will often see what looks like the stripe on the side of the head continue through the eyes. Boas do NOT have eyelids that can be closed. The eye is protected by a clear eye cap or ocular "scale". This eye cap should be “shed” during each shed cycle. Boa constrictor eyes will dilate in the presence or absence of light, the pupil can be wide open or a tiny slit depending on the amount of light.

**Ears:** Boa Constrictors do not have external ears. Boas are almost completely deaf and do not "hear" sounds. They can however sense vibrations and low frequency sounds that are picked up by the remains of an inner ear. For this reason, do not place things that vibrate such as stereo speakers, refrigerators, fans etc on or under the boa's enclosure. A state of constant vibration would cause a stressful environment.

**Mouth:** A Boa Constrictor's mouth is adapted to the large prey items that it must swallow. The lower jaw in a Boa Constrictor is not connected to the skull. However the muscles and ligaments of the lower jaw allow it to drop down, and give it the familiar appearance of being dislocated. Using this ability the boa’s mouth can open extremely wide, and they can use the upper and lower jaw in a ratchet motion to pull the prey item in. This ability allows boas to swallow prey much larger than their head.

**Glottis/Windpipe:** This extremely adaptive windpipe is what allows the snake to swallow prey items much larger than their heads. It allows a boa to continue breathing all the while swallowing their prey. The windpipe is also used to warn enemies when threatened. The boa will inhale a large amount of air, then exhale loudly by forcing the air out the windpipe. This hissing sound should be translated as "Leave me alone".

**Teeth:** Boa Constrictors DO have teeth, and although these teeth are smaller than most animals, they are pin sharp. Boas have two rows of teeth on the top jaw, and a single row of teeth on the bottom jaw. These small needle sharp teeth are curved slightly to help hold the prey item and pull it into the mouth. Although baby boas will not hurt us with a bite, a bite from an adult boa can be extremely painful.

**Tongue:** The infamous forked tongue of a Boa Constrictor is literally its eyes and ears. The tongue is part of the floor of the mouth in front of the glottis or windpipe. The flicking of the tongue picks up particles in the air and deposits them on the roof of the mouth, on the Jacobson's organ, where these particles are identified. One single flick of the tongue can detect whether an item is prey, danger, or a mate. An active and fast tongue are good signs of a healthy boa. Shown is a translucent tongue of a Prodigy Boa.
A Boa Constrictor's Basic Anatomy

Let's take a look at the anatomy of a Boa Constrictor.

**Cloaca:** Located near the end of the tail, the cloaca is the vent area. This is the area where the boa can be probed to determine the sex. It is also where the boa defecates and deposits urates. It is also the place that babies are delivered during parturition. If you look closely you can see the anal spurs on this male on both sides of the cloaca.

**Tail:** Although it may seem that a boa constrictor is ALL tail, the tail is actually from the cloaca (vent area) to the tip. This is the part of the boa that the trade name “Red Tail” comes from. Unlike lizards, boas cannot "lose" their tail and then regenerate it. Boas often wrap their tails around anything they can to ensure a good grip to prevent them from falling. Large boas are extremely strong and use their tails often to secure themselves. This albino tail shows some of the spectacular colors that can be displayed in the tail.

**Spurs:** Boa Constrictors also have the remnants of a pelvis, where hind limbs used to be attached, and now have only anal or cloacal spurs. These spurs are much larger and more defined on males, and are used extensively during breeding. Male boas have retained amazing control over these spurs, and vigorously scratch the female during breeding.

**Sex:** Determining the actual sex of a boa, for a novice, is often the most difficult thing to achieve. Without the proper tools or knowledge to accurately test the boa, everything else is a guess. While some people may make educated guesses, it is hard to know 100% without the proper testing. This is done by using a metal probe, that is inserted into the cloaca, and in the case of a male, inserted in the hemipene area. In males, this probe will go in very far, often 10 or 11 scale counts. While in females, the probe may only go in 3 or 4 scale counts. Probing should only be done by qualified or experienced herpers, because damage can be done if the procedure is done inaccurately. Experienced herpers can often determine sex just by looking at the tail or feeling the tail area. Females typically have shorter tails, and males have longer tails.

Baby boas can be sexed by "popping". By holding the tail upside down and using both thumbs, you can apply light pressure with the front thumb, and by rolling the back thumb toward the cloaca, the hemipene(s) will evert (pop inside out) and actually pop out in clear sight. In babies this will also show a clear blood vein. Again, popping should only be done by qualified or experienced herpers.
Popping: I get a lot of requests for information on Sexing baby boas. Since baby boas can be “popped” it makes it fairly easy to determine the sex the boa. These pictures will show the process and positioning of the thumb and fingers. Once your position your fingers this way, you apply gentle pressure and roll your thumb toward your other thumb.

Again, popping should only be done by qualified or experienced herpers.
The Ultimate Boa Constrictor Care Manual

A Boa Constrictor's Basic Anatomy

Let's take a look at the anatomy of a Boa Constrictor.

Live Birth: Boa Constrictors are Ovoviviparous, or "Live-Bearing" Snakes. Baby boas are born live. This is in contrast to the majority of all other snakes, which are egg laying. This aspect of husbandry requires even greater care while a female boa is gravid or pregnant. We must ensure proper husbandry during this stressful time for the female. Baby boas are deposited in a mess of “goo” and liquid with all the other siblings. This is the most exciting part of breeding boa constrictors.

Unfertilized ova will result in an orange, sweet potato looking "slug". Although some slugs are often common during the boa constrictor parturition (birthing process), it is not common for all or most of the parturition to be slugs. Some think incorrect temperatures or removing the male too soon can cause the unfertilized ova.

A Boa Constrictor's Basic Anatomy
The "impulse" buy! "He is sooooo cute"

This is too often the case. And although it is true, they are soooooo cute, we just need to be aware of what we are looking at when we see that cute 18 inch baby. Boa constrictors are not disposable pets, and they will by no means remain 18 inches. That is a typical birth size, but this little guy will quickly grow to 3 feet in the first year, and attain sizes of 7 or 8 feet or more. Also, this cute little guy can live 20 years or longer. So you should be prepared, from the beginning, to provide adequate space for a large boa, and be prepared to properly care for this boa for an extremely long time. Boa constrictors are showing up more and more in adoption agencies and placement services, because owners were unaware of the sheer size or space requirements. They are truly amazing animals and the BEST possible pet snake, but we need to be aware of their requirements.

How large will my red tail boa constrictor become?

Red tail boas will generally grow to an average length of 7 or 8 feet and can live to ages of 25 to 30 years in captivity. Your actual size will be directly proportional to the amount of feeding. For example, you could feed your boa less often, and the boa may never grow larger than 4 1/2 to 5 feet. On the other hand, if you were to feed aggressively ("Power feed") then your boa may achieve a size of 10 feet or longer. There have been reports of 12 foot boas weighing 80 pounds!

WARNING*** A note on power feeding. In my opinion this is an unwise method used by some people to achieve rapid growth in their boas. This is done by offering prey items that are too big for the comparable size of the boa, offering several prey items in a row (often helping the boa eat by placing the next food item actually in the boa's mouth as it is swallowing the previous, which causes the boa to continue swallowing the next item), and often these boas are fed on a quick turn-around schedule. Let me just say that Power Feeding is NOT recommended because in almost EVERY case it shortens the life of your boa drastically. Boas powerfed from birth generally die very young at 4 or 5 years of age.) Jeff Ronne talks about his early efforts in breeding boas and the fact that EVERY boa he powerfed died before the age of 5 years.

What color should my Colombian Red Tail boa be?

What makes these snakes so wonderful is their vast coloration and patterns. And now the new morphs are becoming more and more available, and will soon be affordable for almost anyone. Typical red tail boa constrictors will appear with a tan body with darker brown "blotches" or saddles. The tails will range, from blood red, to the more common copper/rust coloring. With price ranges from $75 to $10 K, colors and patterns are almost endless.

Years of selective breeding have created “normal” boas that are increasingly more colorful and have better patterns. Some of the more popular genetic morphs are Motley, Albino, Salmon (Hypomelanistic), Pastel, Ghost, Snow, Jungle, Anerythristic, Sunglow, and Arabesque. New Morphs such as Prodigy, Paradigm, and Pearlescent are creating a bright future for boas.
My boa's tail is not red now, will it ever be?

Unfortunately not. With common boa constrictors, the color of the boa's tail at birth will determine the general coloration of the tail. Boas do tend to show nicer body and tail colors with each shed while they are young, and any highlights (pink and orange) they exhibit will tend to come out more as the boa gets older, but with few exceptions, boas actually become somewhat darker in coloration as they grow older. The tail colors will generally darken as they age.

With the new selective breeding programs, we are starting to see results that shatter some of the common boa conceptions. There are Albino, Pastel and Hypomelanistic traits being selectively bred today that can and do get better and better as the boa matures. Although these traits often do not include coloring of the tail, it does include the overall coloring of the body.

Are red tail boa constrictors tame or aggressive?

The most impressive characteristic of a Colombian Red Tail Boa Constrictor is that when they are properly maintained and cared for, they are perhaps the most docile and even tempered snake you could have for a pet. Frequent handling early will ensure that your boa will remain docile throughout its life. 10 foot adults can be as docile as an 18 inch baby.

As with anything else, we must use common sense. If a boa is opaque (in a pre-shed state), or just fed, then it may not want to be handled, and may display defensive postures. With very few exceptions, a boa that is constantly very defensive or aggressive, will generally have other problems that are causing this behavior. Especially boas that were not purchased as babies, or boas that have been sold and resold. Mistreatment, inadequate housing, wrong temperatures, and feeding problems, could all affect the overall attitude of a boa. That is why I recommend that you purchase a captive born baby boa whenever possible, and purchase from a reliable breeder/retailer that provides captive bred, captive born (CBB) babies.

Please keep in mind that this care sheet is for Boa Constrictor Imperator. Other "True" Red Tail Boas (Boa Constrictor constrictor), such as the Bolivian, Suriname, Guyanan, and Hog Island boas tend to be slightly more aggressive and less docile, but if obtained as a baby, can be just as gentle as a BCI (Boa Constrictor Imperator).

How should I handle the boa constrictor?

You should always support the body with both hands. You should avoid quick and fast movements when approaching the boa. Don't approach directly at the head. Remember they sense heat, so I approach at the tail to mid body, and as soon as I move them a little they know it is me and it is safe to get them out. Avoid holding the boa where it restricts its movement. Use one hand to support the head area and the other hand and arm to support the mid to rear body area. Large boas may become frightened during handling if they feel like they may fall. Boas over 6 feet should not be handled alone. Always make sure that a second person is in the room any time you are holding a large boa. Remember that if you intend to keep your boa as a pet, and for it to remain a docile pet, it will be necessary to handle your boa 2 to 3 times a week. These sessions can be short but should not be overlooked.

How can I tell the difference between a defensive posture and a "laid-back" posture?

The easiest way is to look at the pictures below. The pictures of a normal coil in a resting boa are shown in the two on the left. Notice the circle that the boa makes with its body. This is a normal posture for a boa. Now the boas on the right. These are boas that are in a defensive posture. Notice the double "S" position of the neck in these two pictures. Also notice the raised head. Approaching these boas from the front or top could result in a defensive strike. Also boas that want to be left alone will sometime make a loud hissing noise. They will suck in a tremendous amount of air, open their mouth wide open and then force it out. This sound means if you come near I will bite. This posture may occur if the boa is completely opaque and cannot see out of its eyes, or if the boa has serious health problems. Being aware of these postures will keep us all from accidentally getting bit.
Can I house more than one boa in the same enclosure?

This is one of the most often asked questions that I receive. I will first say that I believe that DIFFERENT species of snakes should NEVER be housed together, such as a boa and a ball python. The chance for disease spread, including IBD, are too risky. It has also been my opinion over the years that "If you cannot afford a second enclosure, then you cannot afford a second boa". Although this sounds very harsh it is actually based on a lot of experience and feedback.

It has never been a question of CAN two snakes exist in one enclosure.... It is done all the time. Healthy baby boas can be raised together for a long time, often without incident. BUT it is WHEN something happens that you need the separate enclosures. And IF you are 100% on top of every husbandry issue, these 2 snakes could live 20 years, have 300 babies , and never have a health related issue. You know... "And they lived happily ever after". But that is not reality. These 3 Colombians were placed together for pictures, but each boa has it’s own enclosure.

However, in the real world there can and will be many different things happen that will cause them to REQUIRE separation. Whether this is simple feeding times, sickness, a bite, a burn, a regurgitation, etc, there will be times when they must be separated to allow recovery time. If they are male and female and the female becomes gravid, you will need somewhere for the male to be for 4 or 5 MONTHS. Although people house boas together all the time, I believe boas should only be housed together during breeding cycles. There are too many factors that require individual housing space.

Most common issues requiring separation:

1. **Feeding.** This presents a huge problem if you think you can feed both boas at the same time in the same enclosure. NEVER feed 2 boas in the same enclosure! PERIOD. They must be separated into temporary containers for feeding purposes. An attempt to feed both at the same time in the same enclosure could result in a situation where they both attempt to strike and constrict the same prey item, which could result in one of the boa becoming constricted itself. This is not a situation you want to find yourself in, because boas are much stronger than you think and separating them will not be a simple task. You can not separate anything from a 6 foot or larger boa. They are too strong.

2. **Sickness, Diseases, Mites, Ticks,** etc. It is really simple. If one boa gets one of these, then BOTH boas get it.

3. **Stress.** Most often overlooked, stress related issues can result from competition for the "best" basking area, or the "best" hide-away. If it is two males housed together, there may be a dominance issue. Stress factors result in lowering the immune system capabilities, therefore allowing sicknesses to be easier to "catch".

4. **Record Keeping.** If you intend to track individual records for each boa, housing them together creates a problem. Knowing which one shed, which one defecated, which one regurgitated, etc becomes problematic.

5. **Breeding.** If your intent is to breed your boas later in life I believe they should be separated up until the time of breeding introduction. Many people believe that boas that are housed together for life, a male and a female, are much less likely to produce offspring. I know it happens from time to time, in different situations, but the odds go down. After extended periods of separation, it can simply be the introduction of the male into the females enclosure that initiates the breeding cycle.

6. **Quarantine.** When a new boa is brought into your home, it needs to be quarantined. EVERY boa should be separated into a different enclosure and separate room if possible, for a 3 month period. Again, any sickness or mites will spread from boa to boa like wildfire, including IBD. All it takes is one mite from a sick boa biting the other boa and presto, both boas are now sick. Also quarantine would be necessary anyway if one of the boas got sick, or regurgitated, so the need for the second enclosure is already there.

There is no excuse for not having individual enclosures for each boa. If you cannot afford a second enclosure or do not have the additional space for a second enclosure, then in my opinion, you cannot afford a second snake.
Will my red tail boa strike at my face and hands?

We know that anything is possible, but let me say that my experience is that when our boas are climbing around, up our arms, around the neck, in our shirts, etc, that our boas are NOT any threat to strike. My boas are handled a lot, and my kids "wear" our boas as hats, ties, etc. When the boas are like this I have never seen any threat.

The situations to avoid should be common sense. If your boa is curled up in your hand or curled up in a corner and you approach it real fast with your other hand, or you bring your arm and boa up towards your face real fast. This may cause a defensive action from him. Guess who's fault this would be... Yep! Yours! The best tip is to slowly approach from under or level with the boa. Not from above.

And of course we should NEVER handle our boa when we have just feed them, and still smell like a mouse or rat ourselves. 99% of people that get bit by a boa is because of something they did wrong. The other 1% is just a fluke or mistaken identity. Let your boa explore as you hold him. They will get used to this and even love being held.

Are red tail boa constrictors messy?

Yes! Boa constrictors can be very messy when they defecate/urinate. Although this can be as infrequent as once a month or so, it still can be a chore to clean up. Full size adult boas can defecate as much as a full grown dog!! And boas can deposits huge amounts of urates a couple of times a month. They also tend to deposit urates at one time and then defecate another time. You can spend a lot of time cleaning up after your boas, especially if you have multiple boas.

Defecation and Urination.

Boa constrictors pass waste through the cloaca at the base of the tail.

**Defecation**, in the form of feces, contain only the parts of the food items that cannot be digested by the acids in the stomach, such as the rodent hair, as well as the normal waste products. These feces should be in the form of solid, dark stools. This type of stool is a sign of good health. However, any sign of bad smelling, running, or off color stools, may be a sign of intestinal problems, and your veterinarian should be contacted.

**Urination**, in the form of urates, appear in the form of a white/yellow chalky, sand-like substance are the results of the ability of boas to conserve water. If boa have access to fresh, clean water, then sometimes these urates will be accompanied by a lot of liquid as well.

Final Considerations and Thoughts

Although you may have acquired the Ultimate Boa Constrictor Care Manual after you have already purchased a boa constrictor, these simple descriptions should help you better understand these amazing animals.

If you have yet to purchase a boa constrictor for a pet, or for a future breeding project, I hope this also helps you know what to expect when you bring the first boa constrictor into your home.

Continue reading as we discuss the extremely important environmental considerations to help you properly maintain your boa constrictor.
heating / temperature / humidity

let's take a look at environmental controls required to maintain a boa constrictor.

what temperature levels should I maintain in my boa's enclosure?

please pay very close attention to this section. this is the probably the single most important requirement for the long term health of your boa. enclosure temperatures. these are tropical animals and should be maintained within a tropical temperature range of 80 - 92 ° f. my enclosures are maintained at an ambient temperature of 82 ° f. a basking area with temps in the low 90's is also always available. this allows the boa constrictor to thermoregulate, and control it's own body temp. it must have a place where it can go to "warm" up and a place to go where it can "cool" down. this rudimentary drawing will show the 2 zones that I believe are required. the left side, Zone 1, represents the ambient or cool side where the water bowl is located. the right side, Zone 2, the basking or warm side contains the overhead heat source and the under the tank (UTH) heater represented by the picture next to the 2. this would actually be on the bottom of the enclosure.

**important** this seems to be where the majority of confusion comes in to play. people have different meanings or understandings of ambient and basking temperatures. since I am suggesting that BOTH of these temperature gradients (zones) are required to ensure proper thermoregulation, I thought these definitions may help. also since a lot of this confusion stems from the definition of ambient and basking temperatures, let me produce some definitions that better translate the two words. here are a couple of dictionary lookups.

Ambient - Zone 1
(a.) Encompassing on all sides; circumfused; investing. Existing or present on all sides.
(b.) Something that surrounds or invests; as, air . . . being a perpetual ambient.
(c.) Environmental or surrounding conditions

Basking—Zone 2
(a.) To lie in warmth; to be exposed to diffusing or productive heat.
(b.) To warm by continued exposure to heat; to warm with diffusing heat.

so with those dictionary explanations in mind, this is MY understanding of these 2 terms and the basis for how this care guide is written, and they are:

Ambient. the ambient temperature is AWAY from the heat source. this is the temperature reading of the AIR. it should be taken on the cool side of the enclosure AWAY from the heat source. this ambient temperature of 82 ° f applies to the air inside your enclosure.

Basking. the basking area, or the side of the enclosure with the heat sources, will be 90° to 92°. this measurement is taken on or under the physical heating devices, such as a CHE or heat mat or heat tape. a temperature gauge should be temporarily positioned in the basking spot in order to obtain this reading.

summary: unless you are breeding your boas, this temperature range should be maintained YEAR ROUND! your boa should NOT feel cold when you take it out of its enclosure. however they should not feel hot either. the comparison is that a boa's temperature will be an average of 83 or 84 degrees. your body temp is 98.6. therefore holding a boa should be a little cooler than your own temp and never hotter. MOST health problems associated with boas are temperature related.

important! location of heat sources. it is best to have all heat sources on one end of an enclosure. see Zone 2. for example, if you use an Under-the-tank Heater (UTH) and an overhead Ceramic Heat Emitter (CHE), then they should be on the same side of the enclosure. this arrangement should provide not only the correct basking temperature, but also create the proper ambient temperature on the other or "cool" end of the enclosure.
What humidity level should I maintain in my boa's enclosure?

As a critical part of boa husbandry, it is recommended that the humidity level should remain at least between 50 and 60% at all times. The difference between 50 and 60% is determined actually by geography. Areas like Texas/Florida will typically have higher humidity levels easily around 60%. California/Arizona will be much lower, around 50%. This humidity level is extremely important to the health of our boas. It ensures proper shedding, digestion and health. Your local relative humidity levels will affect the enclosure level. Incomplete sheds and soaking in the water can be signs of improper humidity levels. Is that high country, low country, burrowing, basking in the sun, soaking in the water? Could be any of those things. What about captive boas? What regulates their environment? We do. These are humidity level guidelines that come from years of research with captive boas. But they are just guidelines. Is 75% dangerous? Will 40% hurt them? Probably not. What we do know is that the range specified will ensure a long and healthy life for the captive boa.

Some areas struggle to control and maintain humidity levels for captive boas. The reason you will see parts of the country with different recommendations is because there are parts of the country that it is almost impossible to achieve 60% humidity. Many people have struggled to achieve 50%. Try this in the arid Southwest. You can use misters, waterfalls, wet towels etc and the air just sucks the moisture right out of it. It become very difficult to achieve even 50% levels.

Ways to increase your humidity include:

1) Misting the boas periodically. This can be done by placing hot water in a spray bottle and then misting the boas with it. The hot water actually becomes just warm when it is sprayed. Test this on your arm. This warm water really helps the boas. This is a great way to help raise humidity and it also helps the boa during shed cycles. Cold water tends to “shock” the boa and should be avoided.

2) Placing a second water dish closer to the heat source. This will add to the evaporation process and aide in the humidity level. You should also provide another water dish in the cool end.

3) Covering all or part of the top of the enclosure. People that use the aquarium style glass enclosures, with the standard screen top, often have trouble maintaining heat and humidity. Try covering at least one half to two thirds of the top with a custom fit top or a piece of box cardboard with pencil sized holes poked in it. This often helps immediately in raising the temperature and humidity.

4) Place a moist or wet towel inside the enclosure. Try temporarily placing a wet towel inside the enclosure to help raise the humidity. New products such as HumiMats, are products that absorb water and slowly evaporate that water over a period of two weeks. These would be a better solution than a towel.

I use a heat lamp with a regular light bulb, does it provide enough heat?

The only way to really know is to use thermometers at both ends of your cage. It should provide the temperature range listed above. The danger of only using an incandescent bulb (shown below left) is that it must remain on 24 hours a day to provide a heat source. Our boas really need 12 hours of light and 12 hours of dark. Constant light will cause stress to our boas. A much better option is to purchase another kind of heat source, such as an under the tank heat mat or a CHE (shown below right), so that any light source can be turned off at night.

Important! Do not disregard the fact that boas require a day/night cycle. Make sure you supply the proper heat sources, so that any light source can be turned OFF at night.

Should I use a heat rock or a heat cave device?

NO! You should never use a heat rock or heat cave because they are very prone to "hot spots" and baby snakes will not know when to get off and will be seriously burned. Due to the uneven nature of how the heating elements are distributed though these devices, certain spots will be hotter than the rest. These “hot spots” are where the concern is. Keep heat sources external.

Important! Baby Boas will burn themselves on these devices. Not a matter of if, but when.
Lighting Options

Let's take a look at environmental controls required to maintain a Boa Constrictor.

Lighting Requirements

It is my personal belief that boa constrictors do not require any artificial light source. Boa constrictors get all the nutrients they need from their prey items. The only light provided to my boa constrictors is the incidental light that comes in through the windows during the day and building lighting when it is on. My boas have no light source of any kind during the night.

Providing a light for daytime display purposes so you can show off your beautiful boa is perfectly fine. Just be sure that the light source can be turned OFF at night.

**Incandescent**—These regular light bulbs, can provide a good source of heat and adequate light for displaying your boas. Care should be take to ensure the boa can NOT come into contact with the bulb and that the bulb is always OFF during the night time hours. Light bulbs should NEVER be your only source of heat. There are many varieties of bulbs. Heat lamp, red, black, etc etc.

**Florescent**—Probably the most widely used light source for snakes. These long slender bulbs fit most aquarium type hoods and fit on most enclosures. These bulbs provide the best display light for showing off your boas. Again this light source should be OFF during the night time hours.

**Full Spectrum**—Although full-spectrum lighting is not required for a boa constrictor, it is possible they may benefit to a slight degree from it. Normally in the florescent bulb section, most full-spectrum bulbs fit the regular florescent hoods used on aquariums. These lights emulate the sun in certain respects with UVB and UVA wavelengths.
Caging/Enclosures Options

Let's take a look at enclosure requirements for a Boa Constrictor.

What necessities should I get with a "Starter Kit" Setup for my baby boa constrictor? Here are the minimum things you should purchase as part of a starter kit.

**Custom made enclosures.** Plastic enclosures are far more suited for life-long boa constrictor care. Especially units with built in heat. These enclosures are great for keeping the proper temperatures and humidity levels, as well as they are much easier to clean. These type units should be your FIRST option. Redtailboas.com uses Boaphile Plastics exclusively. www.boaphileplastics.com

Boaphile Plastic enclosures, such as the one pictured from Jeff Ronne, are extremely lightweight and easily heated, lighted, transported, moved, and cleaned. I am using these cages with great success.

**Glass Cage/Enclosure**—Aquarium style enclosures should be at least 20 Gallon LONG size for a starter kit. You should purchase as large as you can afford to start with because the 20 gallon size can be outgrown by the end of the first year. Also all glass enclosures can be difficult to maintain the proper heat and humidity levels. Many people struggle to get the correct temperature and humidity settings. Glass enclosures also tend to be harder to clean and large ones can be quite heavy. These should be your LAST option, not your first or second. I do NOT recommend these type enclosures for boa constrictors. This is wasted money due to the fact you will have to purchase larger housing in the future anyway. Please read my section on Enclosures.

**Screen/Top**—Make sure your screen top can be tightly secured. Boas are escape artists. It should clamp on or slide on and lock. The screen top adds to the difficulty of maintaining the proper environmental conditions because the warm air escapes out of the top. Covering all or part of the screen with cardboard or a towel sometimes helps maintain the proper levels.

**Heater**—Under tank heaters, often referred to as UTH, are a MUST for these glass aquarium type enclosures. These flat heaters attach to the bottom of your glass aquarium and will provide much needed warmth to the bottom of the enclosure. Advanced and custom made enclosures can use Flex Watt Heat Tape as well. Belly heat is often very important for proper digestion.

****************************************************************
Again, do NOT use heat caves or heat rocks! They can and will burn small boas.
****************************************************************

This picture on the left is FlexWatt. This heat tape, currently made by Calorique, can be purchased from the finer online reptile herpetology stores. Although this requires some custom installation, it works great and lasts and extremely long time. Most custom made caging, from plastic to melamine, use the heat tape almost exclusively as it’s built in heat source. One key reason is the durability and low wattage requirements of the product. 6 feet of 11” inch FlexWatt can heat an entire rack system, and use about the same energy as a 100 watt light bulb.

I have used the FlexWatt product with great success here at my facilities. You can order exactly the size and lengths you need to customize your project.

**Top of Enclosure Heat Lamp**—Some "kits" come with a clamp on heat lamp - I do not like these personally, but many starter kits come with them, and most screen top type enclosures require them for adequate heating. If you use one of these for additional heat and a basking spot, then I recommend that you purchase a Ceramic Heat Emitter instead of using a light bulb. Our boas REQUIRE a period of darkness each night, so IF a light bulb device has to remain in the ON state in order to supply the proper heat levels, then it should not be the only source of heat. Be sure to offer some sort of belly heat as well, using a UTH or FlexWatt configuration.
Ceramic Heat Emitter (CHE) - These heat emitters do not have a light source of any kind, yet provide a great and constant heat source. They will provide ambient heat as well as a basking spot. CHE's will cost about 20 to 25 dollars, but last a very long time. More importantly, CHEs can be left in the ON state constantly. They are available in several different wattages, such as 60, 100, 120 and even 150. I recommend that these be controlled with a thermostat device to help regulate the temperature. If you are currently using a Heat Lamp (bulb) device, then I recommend switching to a CHE instead.

Thermometer - You will find out that you really need 2 thermometers for your enclosure. One for end with the heat sources and one for opposite/cooler end. They should be mounted where you can easily view the temperature day or night. Humidity gauges are also recommended to help control and determine a proper environment. You should purchase a digital thermometer if you can. These are extremely accurate as opposed to the simple dial analog versions. These are available at most stores that have electronics departments.

Thermostat - This has become a MUST have device. With the value of boa constrictors rising, an investment in a boa constrictor morph could cost thousands of dollars. You cannot trust any heating device to be a fail safe device. You must protect and regulate those devices with a thermostat. Many different ones are available, but several are specialized for herpers. Some have dual thermostat controls to provide backup protection should the first one fail. Make sure you get a digital thermostat and look for the features you need. Some support a nighttime drop feature to automate the cooling cycle that simulates day/night temperature often used to cycle boas for breeding. These are extremely accurate as opposed to the simple dial analog rheostat type devices.

Water Dish - This water bowl needs to be large enough for the entire boa to soak in. Young boas will do this quite often. This crock style bowl is very thick and very heavy and is hard to dump over. Other ceramic/pottery style heavy duty dishes work well also. Larger enclosures should provide 2 separate sources of water, one on the warm end, and one on the cool end. This prevents the boa from having to compromise the level of heat required, when water is needed. Please read the section on providing Fresh Clean Water at all times.

Substrate-- Several different types of substrates are available. From plain newspaper, inexpensive aspen and cypress shavings, to more expensive coconut bark, there are a lot of choices. Substrate is a very person specific requirement. It will become what best works for you and your boa. People have strong opinions concerning substrate, so be prepared for strong opinions if you ask someone. Shredded aspen has become the “go-to” substrate for most boa breeders and owners. Please read the dedicated substrate section of this manual for some better explanations and examples.

Branch or Hideaway-- Most baby boas will utilize branches or hideaway’s to climb on or hide under. It offers a strong sense of security to them, especially when in larger cages. Although larger boas rarely climb, most will take advantage of a hideaway or shelf unit. Grapevine/wood or similar product will work well. There are also several kinds of synthetic caves and logs in many shapes and sizes. The ability to climb or hide gives the boa a certain feeling of security.
What size enclosure will I need to keep a BABY/JUVENILE red tail boa constrictor?

Absolute **minimum** size for a baby or juvenile boa constrictor should be a 20 gallon long glass type enclosure, or a 2’X2’X1’ custom made or plastic enclosure. It is very inappropriate to house any boa in a 10 gallon size tank.

Probably the most common snake enclosure is the all glass, aquarium type, cage with a sliding screen top, and this is no exception with boa constrictors. Although these "starter kits" are popular, they will be more than likely be outgrown by the end of the first year. I tend to tell people to take the initial cost of their setup and prepare to triple it, because if you start out very small (20 gallon or 20 long size) then you WILL have to purchase newer and larger enclosures. It is the “You can pay me now or pay me later” scenario. So if an aquarium style is the only style available to you then you should go ahead and purchase the largest size you can afford at the very beginning, so you should get at least a 55 gallon size. It will last a much longer time.

_I believe the aquarium style all glass enclosure to be the worst possible choice for snakes. I also believe that these aquarium style enclosures should be the LAST purchase option. Also as I have stated before, I also think the all glass enclosures is a bad investment. The glass makes it hard to control the proper environmental conditions. The number #1 problem discussed on my forums and in email is maintaining the proper levels of heat and humidity. 95% of these of these problems are from aquarium style enclosures._

Remember large or proper sized enclosures have ample space to install hideaways, shelves and multiple water bowls to provide an aspect of security for the boas to use if they feel vulnerable.

**Here is a recommended layout and size for small boas.**

![Recommended Layout for Small Boas](image)

Manufactured or custom built enclosures are by far the best way to go. If custom building an enclosure avoid unfinished wood and porous surfaces because these surfaces are difficult to clean and disinfect, and the humidity and water spills will eventually damage it. You will need an enclosure that is, at a minimum, 4’ Wide X 2’ Deep X 1’ Tall to accommodate the full grown adult. I can promise you this. It will be much cheaper to buy the bigger one now, than to buy 2 or 3 different sizes throughout the span of the boa's growth. Some people may tell you "wives tales" about being too large for a boa, but I don't buy into the stress theory from being too large. That sounds like nonsense from someone that could not afford the larger size. The stress syndrome is caused from the opposite. Too Small. If the boa cannot stretch out, or climb around, or get "away" into a hideaway, you are causing very much stress on the boa.

It is simple. If the enclosure is not large enough to provide the proper temperature gradient, a cool end and a basking end, then it is too small for a boa constrictor.

Jeff Ronne’s Boaphile Plastics caging is my favorite. Extremely light, easy to clean and most offer built in heat sources. I prefer black, just my favorite color. These are also easily stackable and offer greater use of space.
What size enclosure will I need to keep an ADULT red tail boa?

Meeting the needs of adult boa constrictors places a premium on space. A general guideline is that the enclosure be at least 3/4 as long as the animal's body and width at least a third of the animal's length. I believe that glass type enclosures are inappropriate for adult boas and should NOT be considered as an option for adult boas.

A much better option, in my opinion, would be custom built caging, such as plastic cages or wood/melamine caging. This type caging offers the best solution for keeping adult boas. They are generally large enough, strong enough, and have built in doors designed for large snakes and ensure escape protection. They also provide a better solution for controlling heat and humidity settings. I think that 4' X 2' X 2' is probably the minimum size requirement, with a 6' X 2' X 2' being the perfect size for the entire boas lifetime. This size offers ample room to provide multiple heat sources, multiple water dishes, and plenty of room for hides as well. Remember large or proper sized enclosures have ample space to install hideaways, shelves and multiple water bowls to provide an aspect of security for the boas to use if they feel vulnerable.

Here is a recommended layout and size for adult boas.

Manufactured or custom built enclosures are by far the best way to go for Adult boas or if you are considering breeding your boa constrictors. If custom building an enclosure avoid unfinished wood and porous surfaces because these surfaces are difficult to clean and disinfect, and the humidity and water spills will eventually damage it. You will need an enclosure that is, at a minimum, 4’ Wide X 2’ Deep X 1’ Tall to accommodate the full grown adult. However a better size, as pictured above, would be 6’ X 2’ X 2’

It is simple. If the enclosure is not large enough to provide the proper temperature gradient, a cool end and a basking end, then it is too small for a boa constrictor.

Boaphile Plastics caging is my favorite. Extremely light, easy to clean and most offer built in heat sources. I prefer black, just my favorite color. These are also easily stackable and offer greater use of space. Below are examples of plastic stackable caging from boaphileplastics.com, and custom made melamine racks, made right here at redtailboas.com. I am currently retiring all my melamine racks and replacing them with Boaphile Plastics Rack systems.
The Ultimate Boa Constrictor Care Manual

Caging/Enclosures Options

Let's take a look at enclosure requirements for a Boa Constrictor.

FRESH, CLEAN Water
You will need a sturdy, heavy water dish with fresh clean water. This water dish should be made of a heavy ceramic, or heavy plastic, to help prevent the snake from tipping the dish over. It should be large enough for the entire boa to fit in. Young boas will often soak their entire bodies in their water dish. You should check the water daily, because boas will often defecate in the water dish. Also another important consideration is that if your enclosure is large enough, you should use more than one water dish. I think the best method is to place the large water dish (Large enough to soak in) in the middle of the enclosure and then place a small water dish in the cool end of the enclosure. This smaller dish should be too small for soaking, and therefore would be used primarily for drinking.

**SOAKING** Also a behavior notice. Boas will often soak in the water dish and this is a natural behavior. However, boas will also "escape" to the water dish for other health related issues. If your boa is constantly soaking, then you should immediately check for the presence of mites, and also double check your temperature, because if the boa is too hot it will spend a lot of time in the water.

HIDE BOXES/SHELF UNITS
You should also provide a hide box. Especially for the babies/juveniles. Hide boxes can be purchased or made from a number of products around the house, such as shoe boxes, Tupperware style containers, etc.

Many custom made hides are also available such as these hides made by questcages.com. These are heavy hides, and will stay in place. They also provide a shelf/top that is used quite often. These also provide a good medium for shedding, boas by rubbing on these hides, find it easier to shed.

Another popular form of hide box is a raised shelf. A raised shelf provides a great means of security for boas, and they will often spend the majority of their time on the raised shelf.

What should I use to clean my enclosure?
You should use a solution of Nolvasan® Disinfectant (Chlorhexidine—generic name) and water. You remove the boa from the enclosure during the cleaning / disinfecting process. It is extremely important to thoroughly wipe down the entire enclosure with the cleaning solution.

Notice! 10% bleach and water solution can be used as well, but a level of caution is induced. Rinsing is a must. If using bleach solutions, then the enclosure MUST be thoroughly rinsed with clean fresh water to remove any bleach residue. Then completely dried before returning the boa to the cage. ***Warning*** Bleach is a very residual product. Be sure to completely rinse after use.

Chlorhexidine is the same solution that veterinarians use to disinfect the examining rooms, tables and wounds and can be found at veterinarian supply and reptile supply companies. It is highly concentrated and a gallon will last a long time. The above cleaning should be done at least once a month, or sooner is warranted. You should routinely spot clean your cage and remember to check the water supply DAILY.
Substrate Options

Let's take a look at Substrate Options for a Boa Constrictor.

What should I use for a bedding material in my enclosures?

Substrate is one of the most important parts of the boa's environment. It should be checked and spot cleaned DAILY. Dirty substrate is another cause of health problems in our boas. There are several kinds of substrate recommended for boa constrictors, and I will cover the most popular here. In the end, you should use the most beneficial one for you.

DO NOT let the substrate become or stay completely soaked with water. Misting is fine, but a completely wet substrate is bad for the boa, and can lead to belly rot and other health problems.

1. Newspaper: The most economical method of substrate is to use newspaper. Newspaper is readily available and easy to clean and replace. This substrate is probably delivered to your door every day. I primarily use the newspaper substrate for adult boas. I will use 15 to 20 layers of newspaper to line the cage. I will use limited shredded aspen on top of the newspaper to line the cage. It is extremely effective. The downside is it is NOT visually appealing. But makes cleaning a snap.

2. Wood Shavings: Shredded Aspen, Cypress Mulch or Pine shavings can also be used as a substrate. CEDAR should NEVER be used as it is toxic to snakes! Shredded Aspen is the preferred choice of herpers everywhere and is one of the most commonly used substrates. It is also widely available. Although many people use pine shavings, I do not recommend it. Aspen is proven to be more effective and also proven to not be harmful to reptiles. Some people believe the oils and fumes from pine shavings can be damaging to snakes. Wood type substrates can be spot cleaned but not as easy as other substrates. It tends to resist molding better than corn cob, but is harder to change out when it is time to replace. The downside is the danger that if you feed your boa in its enclosure, it could ingest some of the shavings accidentally when eating its food item. This could cause blockage problems. The chance for accidental ingestion and possible internal blockage are just not worth it. Do NOT feed on this type substrate.

3. Corrugated Cardboard / Cageliners: These products have really gained ground in the caging substrate business. I use this product in all rack systems and as base liners in all cages. This product can be ordered in large rolls and become inexpensive to use. Also it would allow feeding in the cages without worry of ingestion. The range of sizes varies to fit almost any situation. Use as a stand-alone liner or top with shredded aspen.

4. Natural Bark Products: Tree bark, and crushed Coconut shells are becoming popular substrate options, and are becoming readily available at most pet stores. The coconut shell product is not actually tree bark at all but completely crushed coconut shells. It has been proven to be harmless to reptiles. I do not recommend feeding on ANY wood chip or bark product. Bark type substrates can be spot cleaned but not as easy as some other substrates. It tends to resist molding better than corn cob, but is harder to change out when it is time to replace. The downside is the danger that if you feed your boa in its enclosure, it could ingest some of the bark accidentally when eating its food item. This could cause blockage problems. Wood shavings are more visually appealing. The chance for accidental ingestion and possible internal blockage are just not worth it. Do NOT feed on this type substrate.

5. Alternates. (Not Recommended) Indoor/Outdoor Carpet and Corn Cob Shredded: You can cut two or three pieces of indoor/outdoor carpeting to fit the exact size of your enclosure. This provides the availability of a clean spare when it is time to clean. Corn cob can also be used as a substrate. Corn cob is visually appealing and is easy to spot clean. The biggest problem with corn cob is that it will mold and mildew very fast.
Feeding Boa Constrictors

Let's take a look at Feeding Suggestions for the Boa Constrictor.

What should I feed my red tail boa?

While I believe the ULTIMATE food source for boa constrictors is RATS, the following have been listed as food sources for boa constrictors: Mice, rats, hamsters, gerbils, guinea pigs and rabbits. The best feeding rule I can offer is to feed smaller items early. As a guideline, the size of the prey item should not be greater than the girth of the boa at mid body. Don't push the limits on your boa. Newborns should be fed "fuzzy" or just weaned mice or "pinkie" rats. And then graduate with the growth of the snake. If you feed prey items that are too large, you are asking for the boa to regurgitate! This can lead to many health problems, and even regurgitation syndrome.

Larger boas may be better suited if fed rabbits. Some boas would take several large or jumbo rats in order to get enough. In that case one large rabbit would be better. Rabbits can also be order frozen, then thawed the same as rodents.

I feel strongly that we should feed ONLY Fresh Killed or Freshly Thawed rodents. Although many, many boa owners buy live mice/rats and feed them live, I do not agree with that method. I have many reasons that I detail in another article. If you feed live, you are asking for serious bite damage and are opening your boa up to many parasites that live in the live prey. I strongly recommend to feed frozen/thawed rats which is discussed in full in the chapter Feeding Pre-Killed Vs Live Prey.

How often should I feed my red tail boa?

The following are recommendations for feeding your boa. I recommend ONE Item per feeding. Following these important guidelines will ensure a LONG healthy life for your boas. Boas should NEVER be powerfed, a process where you place a second or third rodent in the boas mouth as it is swallowing the previous rodent, thus forcing the boa to swallow yet another rodent. Powerfeeding has been used to grow boas to lengths of 6 feet by the end of the first year. And although people have successfully "grown" boas this fast and some have successfully bred female boas at 18 months of age, it is almost without exception that these boas live less than 5 years. Powerfed or overfed boas are generally easy to identify because their heads appear to be abnormally small in comparison to the body size. Remember healthy and properly fed boas can live 20 years or longer. Follow these recommended guidelines. I have color coded the size of the rat to the size of the boa. PINKIE, FUZZY, WEANLING, SMALL, MEDIUM, LARGE, JUMBO

<table>
<thead>
<tr>
<th>Baby boas - 18 to 22 inches - Newborn to 3 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should be fed PINKIE or FUZZY rats. They can be fed one food item every 4 to 5 days.</td>
</tr>
<tr>
<td>Some times feeding fuzzy rats will allow you to feed every 7 days. This makes an easy schedule for you. Just feed every Saturday.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Juvenile boas - 2 to 3 feet - 3 to 12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should be fed FUZZY or WEANLING rats. They can be fed one food item once a week (7 days). In some places weanlings are the same as Rat Pups.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Yearling boas - 3 to 4 feet - 1 to 2 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Should be fed a SMALL/MEDIUM rat every two weeks to once a month, depending on the overall growth rate and size you wish to achieve with your boa.</td>
</tr>
</tbody>
</table>
The Ultimate Boa Constrictor Care Manual

Feeding Boa Constrictors

Let's take a look at Feeding Suggestions for the Boa Constrictor.

If you follow these normal feeding guidelines, and that is ONE prey item at a time, your boa will grow to an average of 7 to 8 feet. How you change from these normal guidelines will also change the overall size of your boa. Females will normally be larger than males.

I recommend placing the frozen/thawed food item in the feeding enclosure and leave it overnight. If the item is not eaten by morning, then remove and discard the item, and try to feed a fresh item another time.

Never handle rodents and then handle a snake; you can be mistaken as another food item. You should develop feeding habits that allows you to prepare the food items without exposure to the snakes, as in another room. Remember the number one cause of bite is because the snake thinks you are a prey item, especially if you still smell like a rodent.

Reluctant Feeders may have to be offered a "live" prey item, but this should be a last resort. If you find you must feed live, you should closely monitor the situation until the item is completely dead. Many boas prefer to eat at night or with lights off. You may have to try a variety of rodents and sizes.

Feeding Pre-Killed vs. Live Prey—"Deader is Better"

To help improve the life and safety of our boa constrictors. I believe it is the most critical choice we make as boa constrictor pet owners.

OBJECTIVES
1. Convert to feeding Pre-killed as opposed to Live Prey.
2. Convert to Feeding Frozen/Thawed Rodents.
3. Convert to Feeding Rats Only.

Please turn to Chapter 2 for a complete look at Feeding Pre-Killed vs. Live Prey
The Ultimate Boa Constrictor Care Manual

Shedding (Ecdysis)

Let's take a look at Shedding Cycle of the Boa Constrictor.

My boas eyes are milky white, what is wrong?

Nothing. This is a normal part of the growth cycle and is called Ecdysis or shedding. This will take place throughout the entire life of the boa. Boa constrictors shed their outer skin or epidermis. The milky look is a pre-shed state we call opaque or in the “blue”. It is caused by secretions that start loosening the old skin in preparation for the shed cycle. You will also notice that the entire boa seems to be a darker, dull color. This will last several days to a week, before you notice the boa returns to almost its normal color. Then the boa will shed its skin. This is a very stressful time for your boa. No attempts to handle or feed should be attempted during this time. You should mist the boa several times with warm water during this shed cycle.

How often will my boa shed?

This is strictly determined by the growth rate. Baby boas may shed once a month, while adult boas may only shed 3 or 4 times a year.

Also wanted to mention that their are a number of reasons that boa constrictors go into a shed cycle. Although normal time and growth is reason enough for shed cycles, other things cause boas to go into shed cycles as well. Stress related events such as moving or new housing can cause them to go into a shed cycle. Breeding situations often cause very unusually timed sheds. For example, even if a female has just shed, placing her in with a male during breeding season, will likely cause her to enter another shed cycle. Also ovulation in females causes yet another, often extended, shed cycle. This post-ovulation shed is a welcome sign for boa breeders.

My boa partially shed, but it was in many pieces and some skin remains on the boa. What do I do?

Your boa should shed in 1 continuous piece of skin! However, if it doesn't it is a problem that results from the lack of HUMIDITY in the enclosure. Humidity should be 50 to 60 % at all times. To avoid this problem in the future, you need to mist the snakes with a handheld spray bottle. Fill the spray bottle with HOT water, and by the time you spray the mist will only be lukewarm to the snake. I mist any boas in the pre-shed cycle every day. Spray them down good, and they will shed perfectly, every time.

Now for the snake that has remaining skin after a shed. The quickest thing to do is to soak the boa in a tub of lukewarm water for about an hour. This will generally loosen any remaining skin. There are also products available, like Shed-Aide, that you add to the water to help with problem shedding.

What are the eye caps everyone talks about?

Eye caps are the clear scales that cover the eyes. These eye caps should come off with the shed skin every time the snake sheds. It is important to check every shed skin, even if you have to "unroll" it to visually check the eye caps. Failure to shed the eye caps can cause infections around the eyes.

My boa YAWNS a lot, why is this?

The yawn is used in two different situations for our boas. 1st, boas will often yawn when they are getting ready to shed. This yawning is actually a "stretching" of the skin on the head area, to start the loosening of the skin so they can start the shed. 2nd, boas will yawn almost every time after they have eaten. Some snakes may have problems aligning the jaw back into place, but most resolve this problem by yawning. So the next time you see your boa yawning, it is more than likely just re-situating the jaws. I have seen many times where only one side of the jaw will “yawn”, and then the other, almost in a left/right fashion.
This concludes the General Care Section of the Ultimate Boa Constrictor Care Manual.
Chapter II.
Instant Solutions For Common Problems

I have included this chapter as bonus material for this Care Manual

Although much of this is pulled directly from the Care Guide itself, it now is in the form of a quick reference guide for easy reference.
Instant Solutions for Common Problems

Let's take a look at instant solutions for the care of the Boa Constrictor.

Shedding Problems

My boa attempting to shed its skin, but it is only coming off in pieces. What can I do to help finish the sheds and what should I do to prevent it from happening again?

Instant Solution

Your boa should shed in 1 continuous piece of skin! However, if it doesn't it is a problem that results from the lack of HUMIDITY in the enclosure. Humidity should be 50 to 60% at all times. To avoid this problem in the future, you need to mist the snakes with a handheld spray bottle. Fill the spray bottle with HOT water, and by the time you spray the mist will only be lukewarm to the snake. Try this on your hand first. I mist any boas in the pre-shed cycle every day. Spray them down good, and they will generally shed perfectly, every time.

Environmental conditions greatly affect the level of humidity, and glass type aquarium enclosures are extremely hard to control the humidity, especially with a screen top. One way of helping to control the humidity is to keep the heat IN. Try cutting a piece of box cardboard, poke a few holes in it, and cover at least half of the top area. By keeping more ambient heat in place, you will help raise the humidity inside. If the heat is escaping out the top then so is the humidity.

Also try placing one of the water dishes closer to the basking area heat source. This will also help raise the humidity inside.

Now for the snake that has remaining skin after a shed. The quickest thing to do is to soak the boa in a tub of lukewarm water for about an hour. This will generally loosen any remaining skin, which you should be able to gently rub off. There are also products available, like Shed-Aide or Shed-Ease that can be purchased at your local pet store, and you just add this to the water to help with problem shedding.

It is also very important that you make sure the eye caps are included in the shed skin. Eye caps are the clear scales that cover the eyes. These eye caps should come off with the shed skin every time the snake sheds. It is important to check every shed skin, even if you have to "unroll" it to visually check the eye caps. Failure to shed the eye caps can cause infections around the eyes. You can use a piece of masking/scotch tape and turn it inside-out, and gently roll it across the eye area. Most of the time this will safely "lift" the retained eye cap off.
Regurgitated! Regurgitation Syndrome

My boa has regurgitated the mouse/rat that I fed him. What should I do to prevent it from happening again?

Instant Solution

The first thing you should do is NOT feed your boa again for 2 weeks (12 to 15 full days) after the regurgitation. This is a critical recovery time for the boa to "rebuild" the fluids in his stomach. Wait 2 two weeks. If you feed sooner you are asking for another regurgitation. This can lead to regurgitation syndrome in small boas. I believe there are actually two distinct causes of regurgitation. I will cover them separately.

Cause 1. Environmental Settings.

Most often in juvenile boas, regurgitation is often caused by overfeeding, or mainly by the more common reason, Inadequate temperature gradients. Boas require a heat range (gradient) to be maintained for the proper digestion of food. Temperatures consistently lower than 80 degrees will not allow proper digestion of food, and may cause the food item to "spoil" and then be regurgitated. If the consistency of the primary environmental conditions are not regulated, regurgitation syndrome may jeopardize the health of the smaller boas. Once a boa regurgitates, very close attention needs to be paid to the boa and possible causes, because it becomes easy to repeat the regurgitation if causes are not addressed.

Cause 2. Health of the Boa.

Considering that environmental issues are addressed and proper temperature gradients are observed, boas that regurgitate will most likely be caused because of another problem, such as infection or disease. Internal Parasite loading is a primary cause of sickness in boa constrictors, and often regurgitation is associated with internal parasites. Serious cases can be life-threatening.

Since regurgitations can be caused by several things you need to verify the proper environmental conditions are met. Make sure your temperatures are good and that they are in the proper gradient. Make sure the snake has clean fresh water everyday and that he's properly hydrated.

Some medical problems can cause regurgitation as well, and they include fungal or protozoan overgrowth. Fungal/Bacterial overgrowth can be treated by your Vet.

After the 2 weeks is over be sure to offer a SMALLER food item. You should keep the food items smaller for several feedings to completely avoid the recurring problem.

It may also be necessary to CHANGE the source of your rodents. Your current supplier may have rodents that are fed differently or that are not extremely healthy. After the regurgitation, if you check and verify all temperatures and other environmental conditions, it makes good sense to try a different source for the next food item.
Sick / Lethargic / Not Eating

My boa appears to be Sick. What should I do?

Instant Solution

Raise the ambient temperature inside the enclosure to 86-88 degrees!

Probably the most important health requirement of your boa is the enclosures temperature. These are tropical animals and should be maintained at tropical temperatures of 82 - 92°F. My enclosures are maintained at an ambient temperature of 82 ° F. This is the temperature reading on the side of the enclosure AWAY from the heat source. The basking area, side of the enclosure with the heat source, will be 90° to 92°. This allows our boas to thermoregulate.

Unless you are breeding your boas, This temperature range should be maintained YEAR ROUND! Your boa should NOT feel cold when you take it out of its enclosure. MOST health problems associated with boas are temperature related.

Raising the ambient temperature to 88 degrees will help sick boas recover more rapidly.

Also the humidity level should remain between 50 and 60 % at all times. The difference between 50 and 60 % is actually geographical. Areas like Texas should be around 60%. California should be around 50%. This humidity level is extremely important to the health of our boas. It insures proper shedding and health.

Remember there is no substitution for a visit to your vet. Sometimes only a visit to the vet and the proper medication will allow your boa to fully recover.
Feeding Frozen/Thawed Problems?

My boa will not eat frozen/thawed mice/rats. What should I do to help the boa eat frozen/thawed prey?

Instant Solution

The first thing you should do is remember the two P's, Patience and Persistence. The hardest part is convincing yourself. The boa WILL come along. If not immediately, it will very soon. Here are some ways to convert your boa. Remember these following suggestions to aide in converting to a frozen/thawed feeding boa.

If your boa is in good health, you should offer only frozen/thawed rodents for several weeks, at different times of the day/night. Remember it is important to realize that it will not hurt a boa to miss a meal every once in a while.

Try rodents of different sizes/colors etc. Make sure the rodent is warm. This is the biggest mistake that I find. Although the rodents should be thawed completely in cold water, it is important to soak the rodent in very warm water just prior to feeding. Generally this strong smell developed by "heating" the rodent is all they need to feed.

Using long tongs or hemostats and shake the warm, thawed rodent in front of the boa, this is often all that is needed to help "jump-start" the boa to feed.

Use the hide box method. Let your boa get inside some hideaway and remain there for a while. Then using the tongs, wiggle the warm, thawed rodent in the entrance to the hideaway. Sometimes this is just too tempting to the boa, and they will often eat this way.

Leave the thawed rodent in overnight. A picky eater may wait a long time to eat even though it is "aware" of the rodent. Leaving this at night, with lights out, is often the time boas are active and this may be the time the boa will eat.

One of the last methods to try is to feed a small live prey item and follow it immediately with a warm, thawed item. This has been know to work for many people. BUT, next time start over with warm, thawed rodent only.

Hopefully these are some tricks that will help your boa get started. Once started the boas become easily conditioned to taking only frozen/thawed rodents.

Also want to mention here that we do not want to endanger or weaken your boa just to get it eating frozen/thawed rodents. If several attempts at feeding f/t rodents fails, then you should offer a live, hopefully stunned, rodent to get the boa eating again. Then return to the f/t rodent for the next feeding attempt.

See the Feeding Pre-Killed vs Live Prey Section in this Care Manual.
## Instant Solutions for Common Problems

**Lets take a look at Instant solutions for the care of the Boa Constrictor.**

### Respiratory Problems - Wheezing/Whistling/Popping Sounds

**My boa makes whistling/wheezing/popping sounds when it breathes. What should I do?**

### Instant Solution

Immediately raise the ambient temperature of the enclosure to 88 to 90 degrees. Lowering the humidity will also aid in possible Respiratory Infection (RI) recovery. Consult your veterinarian as soon as possible. Antibiotic medication may be needed to combat bad cases. Tylan has proven to be the "miracle" drug in treating RI in boids.

Respiratory Infections (RI) are caused by a bacterial infection in the lungs. The general causes of RI are due to inadequate and improper environmental conditions. Stress, low temperatures, dirty enclosures, mistreatment, lack of food and water can all cause RI. These conditions will surely prolong any RI condition.

Symptoms include breathing problems including wheezing, whistling, clicking sounds, gaping open mouth, even an audible noise during exhalations. You will notice bubbles and mucous around the mouth and nostrils. The position of the head may be held in a raised position to make breathing easier. Overall lethargy, possible weight loss, and even a swollen or bloated body can be noticed.

See the Respiratory Infection Section in this Care Manual for more detailed information including antibiotic treatment.
Handling after Feeding

How soon can I handle my boa after feeding? I have heard 24 hours, 48 hours and it just does not matter?

Instant Solution

This is a common question that is asked very often. The two situations we face are those in which;
(1) people feed in the enclosure that the boa lives in (Not Recommended), and
(2) people remove the boa from their permanent enclosure and place them in a temporary enclosure or container just for feeding. (Recommended method)

First of all, Why do we even recommend waiting to handle our boas after they have eaten? This is strictly based on adequate time for the boa to properly "settle" the food item into it's stomach. This waiting time will help in the prevention of regurgitation, especially in baby and young boas.

If you are feeding in the same enclosure then just leave the boa alone for 48 hours before you get the boa out for regular handling.

If you are following the recommended method of feeding outside the permanent enclosure, just follow these steps.

1) Remove the boa and place in the temporary feeding container/enclosure.
2) Feed the boa an appropriately sized food item.
3) Wait one complete hour after the boa has swallowed the food item.
4) Simply pick up the boa and place back in the permanent enclosure.
5) Now wait 48 hours before regular handling.

Do not mistake or confuse the word HANDLING with the word TOUCHING. There is nothing wrong with temporarily touching the boa in order to pick it up and place it back in the permanent enclosure. Handling should be defined as getting the boa out for exercise and allowing it to be held with both hands and allowing it to crawl around you and on you.

I wanted to mention here that some people may feed and immediately handle their boas after the feeding. Some people may have never had a problem with this. However there are an equal or greater number of people that have had problems, and this is where the recommendations come from. I think a simple 48 hour waiting period is just like insurance.... It just makes sense.
Defecation/Urination.

How often should my boa defecate/urinate?

**Instant Solution**

Completely irregular best describes how often a boa will defecate/urinate.

While babies may defecate/urinate after every couple of meals. Adult boas may average once a month or longer. Do not expect boa constrictors to eat and poop, eat and poop like we are used to with pets like with a dog or cat.

Boas are masters at maximizing and utilizing all the nutrients in their food items and they get everything they can out of it. This is why they poop infrequently. Boas may eat several meals before they defecate once.

If your boa has gone a long time without defecating, you can try to soak the boa in some lukewarm bath water. This will tend to cause the boa to defecate.

I wanted to mention here that boas can defecate and pass urates at the same time or more commonly at completely different times. Defecation is the brown/black stools that we are used to seeing. Urates (Snake pee) are the white/yellow chalky substances with water that you find in the enclosures.

An interesting note is that boa constrictors love to defecate and pass urates in their water dishes. This is why it is extremely important to check their water supply daily.
Chapter III.  
Feeding Pre-Killed vs. Live Prey

I have included this chapter as bonus material for this Care Manual

Although much of this is pulled directly from the Care Guide itself, it now is in the form of a quick reference guide for easy reference.
Chapter 3: Feeding Pre-Killed vs. Live Prey
Possibly the most important decision you can make for your Boa Constrictor.

Feeding Pre-Killed vs. Live Prey—"Deader is Better"

To help improve the life and safety of our boa constrictors. I believe it is the most critical choice we make as boa constrictor pet owners.

OBJECTIVES
1. Convert to feeding Pre-killed as opposed to Live Prey.
2. Convert to Feeding Frozen/Thawed Rodents.
3. Convert to Feeding Rats Only.

Feeding Pre-Killed as opposed to Live Prey

The first thing we must understand is that almost every pet store, self help care book, and most casual snake owners, will tell you that snakes will only eat live prey. This is simply not true. This is especially not true for our boa constrictors. Colombian Red Tail Boa Constrictors are, quite possibly, the easiest snake to convert to eating pre-killed prey, even frozen/thawed prey items. Even young neonates can be started on pre-killed or thawed prey. Many newborn, 10 day old babies, will readily accept a thawed pinkie rat.

Do not buy into these arguments

1)  "My boa needs live prey, because in his natural environment he must hunt, stalk, and attack his prey to survive."
2)  "No one kills their prey for them in the wild"
3)  "I could never kill a little mouse, they are too cute"

Sounds like a science fiction book. Captivity, and captive bred, captive born, are light-years away from their "natural" environment. They are part of an environment that we create, provide, and maintain. We ARE their food source. We should do what is BEST for them! We should become their source of exercise by handling them often and providing environments that offer a means of security. Not tossing a rat in the cage and closing the door, then watching the boa go after the rat. This “thrill of the kill” scenario can and will eventually turn on the boa and wound or kill them. Feed Live Prey long enough and your snake will Lose!

Pre-killed prey will not be able to scratch or bite our boas. The greatest danger feeding live prey to our boas, is the damage that can be done by the rodent! Serious bites and scratches from rodents could even lead to blindness, deep gashes and even death. Some have left live prey in the enclosures overnight to find later that the rodent has chewed deep gashes into the boa in several places.

***Rats will not cower in the corner waiting to be eaten. Search the internet for pictures of rat bites when "Dinner becomes the Diner"***

Also feel free to get a medium to large live rat in your hand. Now squeeze the rat as hard as you can. Unless you have the perfect grip on the rat, that doesn’t allow any movement of the rat’s head at all, you are in deep trouble, and the rat will win. The rat easily will bite thru your hand or fingers in seconds. Why chance an incorrect strike and coil on what could be a prized pet. Just does not make sense.
Chapter 3: Feeding Pre-Killed vs. Live Prey
Possibly the most important decision you can make for your Boa Constrictor.

Reasons for converting to Pre-killed food items.

Pre-killed prey makes offering and removing the food item easier. The pre-killed rodent can be placed in the enclosure and left for a while, even overnight, without danger to the boa. If the item is not eaten by morning, then it can be removed safely.

Pre-killed prey makes our boas more docile and less aggressive. Over time a strict diet of pre-killed rodents will make our boas less aggressive because they will learn the prey will be placed with them and all they have to do is eat. I have 7 foot females that simply approach the item, slowly grab it with their mouth and start to swallow. No striking, no constricting, just eating. I also have yearlings that will still grab and constrict the prey anyway, but they will eventually become the same way as the adults. This becomes a feeding conditioning tool.

Feeding Pre-killed ensures that our boas are actually hungry when they eat. Most snakes will not eat if they are not hungry. BUT you dance around a live prey item and they will most likely feed anyway. I see boas all the time refuse food items because they are not hungry.

It also minimizes the suffering of the rodent. Some people really struggle watching the rodents being constricted. Pre-killed prey becomes easier to feed for these people.

Humanely Killing Live Prey

Humanely Killing Live Prey can be simple or well designed. If you continue to buy live prey and want to kill the prey before you feed, then here are a couple of ways to accomplish this.

Grab the rodent by the tail and with a quick motion, swing the rodent and strike its head on a hard surface. Then the rodent can be fed immediately while it is still very warm. Another way is to create a CO2 gas tank and place the rodents inside. They are immediately rendered unconscious and killed within a few minutes. There are many publications on the web that cover all kinds of ways to make your own CO2 chamber. You can also simply use dry ice in a Styrofoam box to do the same thing. This becomes important if you are raising you own rodents and need to freeze them.

How to convert to a pre-killed feeder. **** Very important topic ****

Converting a live feeder to a pre-killed feeder. The hardest part is convincing yourself. The boa WILL come along. You will be surprised how quickly, if not immediately, the boa will convert. It will very soon. Here are some ways to convert your boa.

If your boa is in very good health, you should offer only pre-killed for several weeks, at different times of the day/night. Remember it is important to realize that it will not hurt a boa to miss a meal every once in a while. It is too easy to "give-in" and feed the boa a live rodent to quickly. This only sets you back in your ultimate goal to convert the boa.

1) Try rodents of different sizes/colors etc. Sometimes it is as simple as a different size or color. Make sure the rodent is warm. Soak the rodent in very warm water just prior to feeding. This is the biggest mistake that I find. Soak the rodent in very warm water just prior to feeding. Generally this strong smell developed by "heating" the rodent is all they need to eat.

2) Using long tongs or hemostats and shake the pre-killed rodent in front of the boa, this is often all that is needed to get the boa to feed.

3) Use the hide box method. Let your boa get inside some hideaway and remain there for a while. Then using the tongs, wiggle the warm, thawed rodent in the entrance to the hideaway. Sometimes this is just too tempting to the boa, and they will often eat this way.

4) Leave the thawed rodent in overnight. A picky eater may wait a long time to eat even though it is "aware" of the rodent. Leaving this at night, with lights out, is often the time boas are active and this may be the time the boa will eat.

5) One of the last methods to try is to feed a small live prey item and follow it immediately with a pre-killed item. This has been know to work for many people. Next time start over with pre-killed only.
## Reasons for converting to Frozen Thawed Rodents.

Why frozen/thawed rodents? The next biggest step you can take is to convert from Pre-killed to frozen/thawed rodents. These rodents are frozen solid for storage, usually in vacuum packed, sealed containers, then fully thawed at the time of feeding. Frozen/Thawed rodents are the best solution for boa owners. They come in all Sizes.

1. **Freezing the rodents kills any parasites, internal and external.** "DEADER IS BETTER"
2. **Frozen rodents are readily available to you at any time you wish to feed.** A little over an hour and you are ready to feed.
3. **Vacuum packed containers allow long storage times in your freezer.** 6 months to 1 year or longer.
4. **Prices are MUCH less expensive than purchasing live rodents at pet stores.** Many shippers are available that ship overnight. Even with this shipping cost, they are much cheaper. Especially when you are talking about rats. If you only have one or two boas, then team up with someone in your area to help bring down the shipping costs by ordering more at one time.

### How do I feed frozen/thawed?

These rodents must be completely Defrosted. You should NEVER attempt to feed the prey while it is frozen! It is crucial that you thaw it thoroughly and warm it to at least room temperature before feeding it.

You can use a Rubbermaid type container large enough to hold the number of rodents that you will be feeding. I use a huge sink to thaw my rats. Here is how I feed frozen / thawed rodents.

Fill the container with regular cold tap water. Place the rodents in the container. Let stand for an hour. This hour is based on many rodents. One to just a few, may not require as much time. Do not thaw the rodents fast. If you are feeding "pinkies" or "fuzzies", thawing fast will cause them to burst open during feeding. But, if you thaw slowly, as described here, you should not have a problem.

After an hour, I will run warm water until the entire container is filled with warm water. Let stand for 15 minutes.

Finally, I run almost hot water into the container, just prior to feeding. This hot water added to the warm water will heat the rodents to a feeding temperature. They MUST be above room temperature. This also makes the rodents "smell" stronger to the boas.

The rodents should be drip dried, not towel dried. This extra moisture will aid the boas.

Feed the rodents using tongs or hemostats. Never use your hand to feed. Remember your hand may be "warmer" that the rodent. The boa will smell the prey, but possibly sense your hand with more heat.

Note: Some people will place the frozen prey in the refrigerator to slowly thaw. Other people leave out on newspaper overnight. Other will use defrost settings on the microwave.

There are, of course, many, many methods of thawing rodents, I have just shared what works very well for me.

Also Rabbits are available as frozen feeders, so if you use rabbits the same rules apply, just may need additional thawing time.
Chapter IV.
Emergency At Home Treatments

I have included this chapter as bonus material for this Care Manual

Although much of this is pulled directly from the Care Guide itself, it now is in the form of a quick reference guide for easy reference.
Chapter 4: Emergency At Home Treatments
These are quick, do it yourself, treatments that can help until you are able to visit your veterinarian.

The following boa care information is intended to be a general, down to earth approach to some things we treat at home in emergency situations. These are quick, do it yourself, treatments that can help until you are able to visit your veterinarian.

There is NO substitute for your Veterinarian. These are emergency steps to take before you have a chance to visit your local Veterinarian.

Welcome to my At Home Emergency Treatments Care Guide.

Here are some everyday items you should have in your possession for emergency treatment of your snakes. These are all available at your local Pharmacy. You may even have some of these already. Many people have used one or more of these remedies, so find the one that works best for you.

**POLYSPORIN® / NEOSPORIN®**
Polysporin and Neosporin are the most popular home treatments for snakes, and are antibiotic ointments used as first aid to help prevent infection in minor cuts, scrapes, and burns. Polysporin seems to be recommended over Neosporin because Polysporin does not contain Neomycin Sulfate, whereas Neosporin does.

I have heard to NOT use Neosporin Plus (a relatively new product on the market) because they have added a pain killer to it. This pain killer would be harmful to the boas.

**BETADINE® Ointment or Solution**
BETADINE Ointment is a Brand name product that contains 10% Povidone-Iodine.

Other Iodine products, that contain this solution, can also be used.

Betadine products are used for the prevention of infection in minor burns, cuts and abrasions. Promptly kills bacteria and viruses.

You can use Betadine products to clean and disinfect the affected areas first, then apply other topical treatments.

**HYDROGEN PEROXIDE**
When using Hydrogen Peroxide, you should dilute it with water in a safe to use 50/50 solution. Mainly used as a first step treatment to clean the area before applying the antibiotic ointment. You will see a bubbling action when the hydrogen peroxide is applied to the affected area. This is a good sign and shows the solution is working.
BURNS

Burns can be the result of coming into contact with a "high-heat" device such as any light bulb, CHE, or spot light. The first sign of a burn is that the skin looks hard and stiff in the area of the burn. The skin will remain this way for several days. Then the skin will completely come off the burnt area, either with a shed or by movement of the boa. This will leave a RAW exposed area that often will bleed.

Emergency Treatment Action
You should treat the burn area immediately with Polysporin. It is important to treat the area even before the skin comes off, if possible.

Clean burned area with a 50/50 hydrogen peroxide/water solution. Use a swab to clean the area. You should see a bubbling action when the solution is applied to the affected area. This is a sign the solution is working.

Apply Polysporin or Neosporin to the affected area twice a day.

Consult your veterinarian as soon as possible.

This is a boa that I rescued when a person from a pet store called me. This boa had suffered a severe burn in two places and was brought in to him.

These pictures are after the damaged skin had come off with a shed. Even though it was a bad burn, and the care took a few weeks, this boa recovered completely.
Chapter 4: Emergency At Home Treatments
These are quick, do it yourself, treatments that can help until you are able to visit your veterinarian.

BITES and CUTS

Bites can be the result of feeding Live prey items to your snakes. Even what appears to be “routine” feeding of a small live prey item can result in a single quick bite to the snake. Even though unseen at the time of feeding, because it happens so fast, the result is a puncture wound through the skin. These can bleed or not, depending on exactly where the bite occurs. More obvious wounds and possible death can occur from bites that occur from feeding large live prey items.

Cuts can occur from incorrect objects in the environment, obviously sharp or pointed fixtures, incorrect caging hardware, incorrectly finished glass or plexiglass, or broken glass from a bulb type fixture.

Cuts are more frequent from scratches that are caused by Live prey items. Rodents claws can be extremely sharp and can slash the skin of a snake.

Emergency Treatment Action

Clean cuts and gashes with a 50/50 hydrogen peroxide/water solution. Use a swab to clean the area. You should see a bubbling action when the solution is applied to the affected area. This is a sign the solution is working. Apply Polysporin or Neosporin to the affected area twice a day.

Consult your veterinarian as soon as possible.

Bites by rats can be severe, and sometimes fatal. Here are examples of severe rat bites.
Chapter 4: Emergency At Home Treatments
These are quick, do it yourself, treatments that can help until you are able to visit your veterinarian.

MITES

Mites are one of the hardest things to control in our snakes environment. They appear as tiny black dots on the snake, around the eyes and head, under scales, around the vent area. They are blood sucking pests, that leave small white droppings on your snakes skin. A bad infestation can seriously diminish your snakes appetite, and overall health. They can also spread diseases from one snake to another.

Because of the life cycle of the mite, they are sometimes very hard to kill. It is important to learn about the life cycle of the mite, and understand this cycle.

Emergency Treatment Action

New Technology has brought with it a lot of new mite treatments. But none have received as much acclaim as Provent-a-Mite.

Provent-a-MiteTM is the only *patented, Federally approved product that has undergone more than 12 years of research and clinical testing to insure that it will effectively eradicate mites and ticks that feed on reptiles and will not harm the host being treated when used as directed. No other product can make these claims!

Provent-a-MiteTM is also the only product that can be used preventatively. Simply treat substrate, racks, enclosure openings, etc. once a month as directed to kill any disease carrying mites or ticks before they can become a problem.

See more at Pro-Products web site. http://www.pro-products.com
Provent-a-Mite used exclusively at Redtailboas.com
*at the time of printing this manual

Some people use NO-PEST strips. No-Pest strips or Vapona ® Strips are available at Garden Centers, Wal-Mart, on line and many other places. These strips contain d,2-Dichlorovinyl dimethyl phosphate...18.6%(DDVP or VAPONA). It is a bright yellow strip of a plastic substance approximately six inches long, 3 inches wide and 1/4 inch thick. It is difficult to prepare because it has to be cut in small strips and placed in small containers so that it never comes in direct contact with any reptile.

As with any pesticide there are dangers involved. Overuse and prolonged exposure has been determined to cause nervous disorders in some snakes. Use this method at your own risk!!!

I recommend you use the power of the internet and do a search on reptile mites and other article like the War Against Mites.
It is important that you understand the life cycle of the mite, and how to combat them. A one time treatment will not prevent mites.
Chapter 4: Emergency At Home Treatments
These are quick, do it yourself, treatments that can help until you are able to visit your veterinarian.

MOUTH ROT (Stomatitis)

Mouth Rot (Infectious Ulcerative Stomatitis) is a bacterial infection that is a symptom of systemic infection in reptiles, and invades the mouth area. Stomatitis is a secondary infection and must be treated by systemic antibiotics. This cheesy yellow or off-yellow colored plaques in the soft gum tissue is often accompanied by increased salivation. It can prevent the mouth from closing properly and cause difficulty in breathing. Signs of mouth rot include salivation and bleeding, pus pockets, and distortion of the mouth. The oral lining becomes inflamed and pus can appear in the mouth. Bad cases left untreated can rot the gums, teeth, and jawbone, and eventually cause death. Dirty enclosures, screen tops, rough substrate and other objects act as irritants to the mouth rot and should be removed.

Emergency Treatment Action

****** Consult your veterinarian Immediately. ******

The following emergency treatment actions will NOT cure Stomatitis but only help until veterinarian access can be obtained. These recommendations will not cure it.

Immediately raise the ambient temperature of the enclosure to 88 to 90 degrees
Clean mouth area with a 50/50 hydrogen peroxide/water solution or a diluted Betadine Solution.
Repeat this process twice a day. You may also treat the external mouth area with Polysporin or Neosporin to the affected area twice a day.
Chapter 4: Emergency At Home Treatments

These are quick, do it yourself, treatments that can help until you are able to visit your veterinarian.

RESPIRATORY INFECTION (RI)

Respiratory Infections (RI) are caused by a bacterial infection in the lungs. The general causes of RI are due to inadequate and improper environmental conditions. Stress, low temperatures, dirty enclosures, mistreatment, lack of food and clean water can all severely weaken the immune system and allow RI to be contracted. These conditions will, at BEST, prolong any RI condition.

Symptoms include breathing problems including wheezing, whistling, clicking sounds, gaping open mouth, even an audible noise during exhalations. You will notice bubbles and mucous around the mouth and nostrils. The position of the head may be held in a raised position to make breathing easier. Overall lethargy, possible weight loss, and even a swollen or bloated body can be noticed. Untreated RI will lead to death of the boa.

Emergency Treatment Action

Immediately raise the ambient temperature of the enclosure to 88 to 90 degrees.
Lowering the humidity will also aid in RI recovery. Consult your veterinarian as soon as possible.
Antibiotic medication may be needed to combat bad cases.

Many boa breeders use brand name Tylan (Tylosin) as treatment for Resistant Respiratory Infection. Consult your veterinarian about treatment using Tylan. Tylan is available without a prescription and can be purchased over the counter at most Feed/Supply stores.

Also wanted to mention that there are currently 2 strengths of Tylan, and that is Tylan 50 and Tylan 200.

Of course you should buy Tylan 200 if it is available in your market area. It will reduce the dosage size by 75% over using the Tylan 50 product. 1/4 the dosage means less discomfort during the injection. By the way Tylan is available at most feed stores, and farm and supply stores, and does not require a prescription.

So using the Tylan 200 would work out this way

\[
200 \text{ mg} = 1 \text{ ml} = 1 \text{ cc}
\]

\[
1\text{ml}/200\text{mg} \times 200\text{mg} = 1\text{ml} \text{ again the mg cancel out. Say we wanted to administer 75mg.}
\]

\[
1\text{ml}/200\text{mg} \times 75\text{mg} = (75\text{mg} \times \text{ml})/200\text{mg} = 0.375\text{ml}
\]

It should be administered in the cranial third (or the front third of the body) in the muscle on either side of the spine. You can also inject most subcutaneously, or just under the skin.
Scale Rot (Neocrotic Dermatitis)

Scale Rot appears as enlarged, discolored (rust or reddish-brown), fluid filled scales. Also known as Belly Rot and Blister Disease it is a actual breakdown of the skin and tissue. Possible ulceration and breakdown of the skin and underlying tissue. Generally appears on the ventral scales (belly), and can be in one long continuous area or in separate spots, but can be located anywhere on the body.

The appearance of scale rot most often appears as dark or rust-colored areas of skin. These areas appear discolored and stand out against healthy skin. This is a bacterial infection that can be caused by damp substrate, inadequate temperatures, and dirty enclosures. Bad cases will also have blisters, and will require draining by your vet. Serious cases are life-threatening.

Most often caused by filthy enclosures and sub-optimal temperatures. Wet substrate is also considered a key cause of scale rot. Although it is normal for a boa to soak prior to shedding, it is not normal to constantly soak in the water dish. Make sure there are suitable places for the boa to feel secure, such as hide boxes or shelves.

Emergency Treatment Action

****** Consult your veterinarian Immediately. ******

Immediately clean the enclosure thoroughly. Raise ambient temperature to 88-90 degrees. You must keep your boa warm and dry during the recovery process. If your boa tends to soak in the water bowl, it may be necessary to remove the larger bowl and replace it with a very small dish that would not allow soaking but still provide drinking water.

Clean the entire affected area by swabbing with a 50/50 hydrogen peroxide/water solution. Must be thorough to treat the entire area because the damaged tissue could be in multiple places. Apply Polysporin or Neosporin to the affected areas twice a day and work it in and under the scales. Consult your veterinarian as soon as possible, antibiotic injections may be required.
Chapter 4: Emergency At Home Treatments

These are quick, do it yourself, treatments that can help until you are able to visit your veterinarian.

**Regurgitation (Regurgitation Syndrome)**

Regurgitation in boas can be a serious problem. It is one of the most common problems experienced by new boa owners and owners of very young baby boas. I believe there are actually two distinct causes of regurgitation. I will cover them separately.

**Cause 1. Environmental Settings.**

Most often in juvenile boas, regurgitation is often caused by overfeeding, or mainly by the more common reason, Inadequate temperature gradients. Boas require a heat range (gradient) to be maintained for the proper digestion of food. Temperatures consistently lower than 80 degrees will not allow proper digestion of food, and may cause the food item to "spoil" and then be regurgitated. If the consistency of the primary environmental conditions are not regulated, regurgitation syndrome may jeopardize the health of the smaller boas. Once a boa regurgitates, very close attention needs to be paid to the boa and possible causes, because it becomes easy to repeat the regurgitation if causes are not addressed.

**Cause 2. Health of the Boa.**

Considering that environmental issues are addressed and proper temperature gradients are observed, boas that regurgitate will most likely be caused because of another problem, such as infection or disease. Internal Parasite loading is a primary cause of sickness in boa constrictors, and often regurgitation is associated with internal parasites. Serious cases can be life-threatening.

**Emergency Treatment Action**

****** Consult your veterinarian Immediately. ******

Fecal examinations should be performed by the veterinarian ASAP. It is important to rule out internal parasite loading as the cause of the regurgitation.

Immediately raise ambient temperature to 82-84 degrees, and provide a "hot-spot" of up to 92 degrees.

DO NOT Feed for 14 days. It is important to allow the stomach fluids of the boa to “build” back to the proper levels. Feeding too soon after a regurgitation is asking for a repeat regurgitation.

Feed smaller food items. Only smaller items should be offered after a regurgitation, normally it is recommended to feed 1/2 size of the normal food item, and only one item at a feeding.

Double check the source of your food items. Don’t forget it could be a “bad” food item that caused the regurgitation. Freezer burn on frozen items can cause this, as well as poorly maintained live feeders. Trade suppliers if you feel your food supply it as risk.
Chapter V.
Breeding Colombian Boa Constrictors

Thanks to the continued Support and Sponsorship from Jeff Ronne SR, theboaphile.com, and boaphileplastics.com, I am happy to include Jeff’s updated Boa Constrictor Breeding article. This Breeding Section contains the original text from the well-known 1996 Reptiles Magazine Article as well as new and updated information. This new information includes “Slow Motion Ovulation” and “Solidified Yolk Syndrome”. Placed together for the first time in the form of a quick reference guide for easy access.

All material and pictures in this chapter copyright Jeff Ronne SR

The Boaphile Home Page
www.theboaphile.com

The Ultimate in Plastic Caging
www.boaphileplastics.com
The Colombian Boa is a highly variable, robust and fascinating animal, which will readily reproduce in captivity if provided with the right conditions. The following information presents the model and methods I have developed to breed my boas. However, these are by no means the only way that these snakes can be bred.

Before attempting breeding there are certain preconditions that must be met:

1) You must have male and female boas of compatible size.
2) They should be healthy and in prime condition, not too thin and not obese.
3) Finally, you must cycle them properly and put them together. They will do the rest!
SEXUAL MATURITY

In recent years, female boas have been bred as early as 18 months of age. The babies were born when these females were about two years old and 5 1/2 to 6 feet in length. In order to achieve this large size in only 18 months a very heavy feeding regimen is required. In my opinion, it may be unhealthy for these snakes long term to raise them up this quickly. By controlling dietary intake, I raise males and females to 3 1/2 to 4 feet long in their first 18 months. In fact, this is large enough for most males to breed. In my experience, a 3 1/2 foot male will do a fine job of breeding a 6 to 9 foot female. On the other hand, a courting 7 to 8 foot male can be very aggressive and stressful toward a 6 foot female and is less likely to successfully breed.

Female boa constrictors as small as 4 foot have reproduced in captivity. I have found mature muscle mass to be a good indicator of when a female boa is ready and able to breed. As they grow, boas tend to be initially long and lean until about 5 1/2 feet (three years) when they begin to thicken and "muscle up". Although captive raised boa constrictors which are initially fed enormous quantities of food will grow considerably longer than this, it may require up to five years before they start "filling up".

A mature, well muscled 6 foot female may be the perfect breeding machine. A female this size, after parturition, will easily gain back all of the weight necessary with regular feeding in order to breed her the following year. On the other hand, a large 8 to 10 foot female boa constrictor may require an extra year or even two to regain her pre-breeding weight. For this reason, a 6 foot female may well produce more young over a period of years than a much larger female. She will also require less food and a smaller cage.

GENERAL CARE AND HUSBANDRY OF BREEDING BOAS

My male boas are maintained in large Boaphile Plastics Rack systems. I also breed my boas in Boaphile Plastics enclosures. The majority of my female cages are 2’x4’x11” (WxLxH) or 2’x4’x2’ with a 4’ long shelf above which is 22” deep. All cages open at the front and have a hot spot at one end provided by Flexwatt heating strips which are connected to a Helix Controls thermostat. the only light provided is the light that comes in through the windows. The ambient temperature is set at 82 degrees F. The cages are on the ground floor to minimize vibration. Only a flashlight is used when observing the snakes after dark. No loud music, other pets, or smoking is allowed in the snake room. Clean, fresh water is always available. My boas are fed every two to three weeks. Females are only handled if absolutely necessary.
CYCLING AND THE WINDOW OF OPPORTUNITY

Female boa constrictors have a wide "window of opportunity" when they are available for breeding. Most breeders "cycle" their Colombian boa constrictors in much the same way that Burmese pythons are cycled. Typically this involves a one month period of darkness (usually November or December) and exposure to lower than normal temperatures down to 70-75 degrees Fahrenheit. A warming period follows this cooling cycle when courtship and breeding commence. However, I believe this cooling period to be unnecessary with Colombian boas and that it may have negative effects, closing the "window of opportunity" for some females and unnecessarily disturbing it or others. In my opinion, Colombian boas, which are cooled and reproduce, do so in spite of this cooling, not because of it.

My boa constrictors are maintained throughout the year at 82 degrees F and females always have a warmer area available in their enclosures. At certain times of the year boa constrictors refuse to eat or will do so reluctantly. Such behavior is often the first sign that the breeding season is here. Usually September is the first month that this fasting occurs. I stop feeding females boa constrictors at the end of September with their last two meals two weeks apart and consisting of prey 1/3 to 1/4 the size of what I normally feed them. The females are not fed again until after ovulation or subsequent to all breeding attempts. The males are fed their last meal in mid-August. This period lasts between 2 and 5 months under normal conditions. The reduction of food intake, and in the Northern Hemisphere the shorter day length, may be all that is necessary to "cycle" boa constrictors for breeding.
PAIRING UP YOUR BOAS

A pair of boas need to be compatibly sized. Ideally, the male should not be larger than the female. They of course should be sexually mature, robust healthy animals. As a rule, lean males make more ambitious breeders than fat ones. Smaller males do not, as a general rule, have the energy to breed more than one female because this process takes 6 to 12 weeks of hard work per female. In my experience, a smaller sexually mature male is more likely to be an effective breeder than a larger more powerful male. I recommend having at least one male available per female.
INTRODUCTION OF AND COURTSHIP BY THE MALE

When breeding boas, some breeders use multiple males but I have found this to be unnecessary and less effective than using a single male. Although the presence of additional males will enhance the competition to court, the victorious or more effective male will often be so intent on impressing the female that he will not be relaxed enough to actually copulate. Another reason for using single males is to control the breeding outcome. Because selective breeding is of paramount importance in my breeding projects, it is critical for me to know which male fathered a particular litter.

The male is first introduced to the female one week after the female's last meal. If ready to begin courtship, he will usually demonstrate a lot of tongue flicking and move very slowly around the cage in an effort to follow and find the female which hopefully is producing pheromones to attract a mate. The male should be left in with the female for 2 to 3 days. If after this period of time he is not courting her, he should be removed and she should be fed a small meal or two while they are separated for approximately three weeks. After this period the male should be reintroduced following the same instructions as before.

This reintroduction procedure can be repeated 3 or 4 times in a single season and will enable you to take full advantage of the receptive period I call the "window of opportunity". Oftentimes when the male is introduced to the female he will show no interest in courtship. This may mean that one or both snakes are not yet ready to breed or that they are not in the prime of health. Trying another male may indicate whether or not the female is receptive. When the male is interested in breeding he will crawl on top of the female forming a zig-zag pattern and begin courtship by "squeezing her" in 5 to 60 second intervals. He will ride her around everywhere she goes. He may attempt cloacal alignment and will dig into or scrape her sides with his spurs. The female often will act irritated or annoyed by this scraping and try to jerk away. Do not be alarmed by this behavior as it is part of the courtship necessary for successful breeding. Female boas develop egg follicles slowly over a period of weeks, maybe even months. The courtship by the male may play a role in stimulating the continued development of these egg follicles. Courtship can be constant, day and night, seven days a week with the occasional exception being when either of the two animals is opaque. Courtship will last 3 to 8 weeks before a posterior mid-body thickening may be observed in the female. This is called the "preovulation swell".
THE PREOVULATION SWELL

Before the introduction of the male, the female may be observed in an unusual position. She will stretch out straight in the vicinity of the ovaries, leaning slightly, showing small discernible tight curves while appearing very rigid. This is what I call the "preovulation twist". It is a behavior I have noted in females prior to male introduction through just before ovulation. The maturing egg follicles will often make the female appear gravid (which is normal) but the female is actually not gravid until after the fertilization of fully developed ova. This takes place following ovulation.

A thickening may be observed in a female who has been courted by a male. This swelling may be observed as early as 2 1/2 to 3 months prior to ovulation but normally can be noticed just 2 to 3 weeks prior to ovulation. The swelling is centered at a point approximately two-thirds down the length of the body. An obvious redistribution of weight will also be evident at this time. Misidentification of this swelling or the assumption that the female is already gravid is the reason I believe boas may produce infertile ova ("slugs") and or "reabsorb". This incorrect assumption may lead the keeper to remove the male too early resulting in low sperm levels or no sperm to fertilize the ova. The length of the gestation period has also been greatly exaggerated because of this misunderstanding. Courtship, the pre-ovulation twist, and the pre-ovulation swell should all be observable before copulation takes place.
COPULATION

Copulation occurs after an extended period of courtship and after the female has developed egg follicles. Copulation is when a male inserts one of his hemipenes into the females' cloaca and deposits sperm. The actual mating may last for many hours. When copulating, the female's tail just past the cloaca will be lifted only slightly with the males' tail lying along side rather than under her tail. Male boas do not insert the entire hemipene, just the tip leaving the cloacas slightly apart. At this time, the male will often have his tail curled in the air, gently waving and occasionally twitching slightly. Copulation almost never occurs until after the male has spent weeks courting and stimulating a female into developing egg follicles. Cloacal alignment is necessary for successful copulation but observation of alignment does not mean copulation is taking place. The male will copulate and rest repeatedly. He will be on the female for about a day or two and off for a day. This is repeated 3 to 6 times before he eventually loses all interest in breeding her (about one week before ovulation).
OVULATION

At the time the male ceases interest in breeding, the female will typically turn darker. In the wild this may be to enable her to absorb more light to warm herself. Ovulation is the result of the fully developed ova moving into the oviducts for fertilization. The swelling associated with ovulation can be either massive or subtle depending primarily on the size of the litter relative to the size of the female. The female will be stretched out with this huge swelling while constricting and moving the ova through the oviducts. She will appear very uncomfortable during this process. The two ovaries can ovulate either together or separately one to four weeks apart. I regularly observe two ovulations in my boas now and believe it to be the norm rather than the exception. The ovulation swelling is centered at the same location as the "pre-ovulation swell" slightly posterior from the half way point of the body. After the final ovulation, I raise the cage temperature to 84 to 85 degrees F. Approximately five days later, the female will go into a shed cycle which I call the "post-ovulation shed" cycle.
The "SLOW MOTION OVULATION" or "SMO"

I have made many references to the more obvious "Football" type ovulations that I have always been most familiar with until now… Well it is time I post something more detailed and hopefully instructive regarding ovulation in Boa Constrictors. The core of the matter is this; not all ovulations are created equal. There is a wide variation in how long, how obvious and how intense visually ovulations are in Boa Constrictors. I will describe with greater detail the ovulation process than I have done heretofore.

As discussed previously, ovulation in Boa Constrictors is the process whereby the female Boa, after breeding with the male boa, goes through contractions forcing the fully developed ova into the oviduct for fertilization by the awaiting sperm previously deposited by the male. It is at this precise time that the female Boa becomes gravid or pregnant as the developed ova are able to be fertilized by the sperm and life begins for the tiny Boa Zygotes which will shortly become Embryos. Ovulation centers from a point about 65% of the way down the body from the head. This is at the location of the ovaries. The ovulation can spread out over as much as 25 to 30% of the animals overall length.

The most extreme ovulations are very obvious and simple to identify. Not so simple to photograph necessarily, but the big obvious ovulations jump right out at you. This you can attest to if you have seen it. Every year I have had several females that I identified as gravid, despite the fact that I had never observed an obvious ovulation. This happens to most breeders. For me this was because I was looking for the obvious "football" type ovulation as I had described many years ago and first published in the November 1996 issue of Reptiles Magazine. It was a long process but I have come to several additional conclusions that may help some to identify what is going on in their females.

There is more commonly a more subtle form of ovulation than the "Football" type ovulation which I have previously described in detail. This less obvious ovulation I call the "Slow Motion Ovulation", "Slow Mo O", or "SMO". The SMO does not happen in a huge flurry of contractions forcing the gigantic massive football like swelling. It is much more subtle, not even allowing the female to appear more massive than she was just prior to that process. The female is, most of the time, in a coiled position rather than the more stretched out posture seen with the football type ovulation. She does however appear very tense. This is because she is very tight going through contractions. Last year I video taped an ovulation and watched one female for 2 1/2 hours while...
she ovulated. This happened to be a football type, but the point I want to make is the same for either type of ovulation. I watched this female as she went through contractions. She made very deliberate movements that were reminiscent of the contractions a female goes through when giving birth. Every few minutes she would move very slightly. Very slightly. This could be at three minute intervals or ten minute lapses. This movement can also be continuous but will be very, very slow. Almost imperceptible it is so slow. I challenge you next time you see a female that is ovulating, or that you think may be, to just sit down and, while motionless yourself, watch her go through this process. It was an amazing thing for me to watch. These movements are more subtle than the contractions of giving birth. The birth process is really sort of a slow motion process in and of itself. The ovulation process I have observed to really be even slower in its movements. Very interesting to watch if you have the patience to do so.

I believe that Boas typically have two distinct ovulations. I believe each ovary ovulates at different times and requires different movements to force the ova into their respective oviducts. I believe the first ovulation is always a more subtle ovulation or probably always the "Slow Motion Ovulation" without the football appearance. The second ovulation, if caught at the correct time, I believe is more often the football type ovulation but can sometimes be just as subtle as the SMO. I have noticed a number of other things about the SMO. This process can take a long time. I mean a long time. I had one female that was in the throes of the SMO all week long. (This was from March 21-27, 2007). This female was wringing herself every time I looked in on her. I kept watching, checking many times, every day in case this was the build up to the football and final ovulation. The football never came. The male continued to show some half hearted interest in her during this period but eventually was observed pacing all over the cage looking for a way out. This is sometimes a telltale sign that she is no longer receptive and he has done his task completely.

The beauty of knowing that there is or can be a SMO that takes a precipitously long time, is the ease with which it can be observed and identified. If you know what to look for. This is the key. Boas are really pretty lethargic beasts. They move around very little. You can check your Boa(s) and notice many of them sitting in one position. Check them in an hour, exact same body position. Check another hour later, exact same body position. By same "body position" I don't mean the same place in the cage but the exact same position. When in the SMO, Boas keep moving. This just happens very, very slowly. You may notice one day your female looking very tense. I notice this easily since I look for it now. They are normally coiled when this occurs. The male may still be working the female at this time as well. The only tricky thing is sometimes the male’s courtship
will make the female move around a bit. As the courtship goes on, when I know that copulation is going on regularly, I wait to find that female in that coiled position. Not a symmetrical coil necessarily, never on top of herself either for that matter. But coiled about or in a back and forth coiled position rather than circularly. This position can sometimes be reminiscent of the movements of a Saw Scale Viper in a defensive posture, only 10,000 times slower. You may look at her and not see any movement. Check again in ten minutes. Then again in ten minutes and again, each time you will observe her "body position" to move gradually. Most of the time with a forward movement of her long body without changing where she is located in the cage. This forward locomotion is intense and deliberate seemingly with no destination in sight. Sometimes she will move to another location in the cage while doing this, but I have found most times this not to be the case. Over the period of days, of course the location of the female will obviously change. She does not stay in exactly the same spot for days. It's just that the movement that takes place extremely slowly is without any particular destination in mind.

If you touch the female during this time, you will be impressed with her rigidity and the strength that she uses to avoid being picked up if you attempt to do so. I'd just leave her alone during this time and not upset what God gave her the instinct to do long ago when he created Boas.

Boas have their POS or Post Ovulation Shed 16 – 20 days after the second ovulation and give birth approximately 105 days after that shed. These two fundamentals were included in detail as well as lots of other information in this chapter which was copied from the Reptiles Article written long ago. A copy of the article itself can be viewed on www.theboaphile.com if you want to see it with all the original pictures. Reptiles November 1996 Article. Or a slightly revised version is also available in The Boa Constrictor Manual.

I have not been able to draw any conclusion regarding fecundity in the “Slow Motion Ovulation” and the football like ovulation. Either one is fine by me. The “Football Ovulation” is still great fun to see to be sure. But the Slow Motion Ovulation or SMO is fundamentally more likely to be observed if you know what the symptoms are and watch for them diligently.
THE POST OVULATION SHED AND GESTATION PERIOD

The shed cycle which follows ovulation is a little different from most shed cycles in that it takes longer than the normal or 16 to 23 days. After this "Post-Ovulation Shed", the female will remain darker than her normal color until the shed which will follow the birth of her young. Feeding should be resumed after the "post-ovulation shed" but should be done sparingly. Most gravid boas will continue to feed but less aggressively than normal. I leave the pre-killed food item in the cage overnight and it is almost always eaten by morning. A small to adult rat (depending on the size of the boa) offered 3 or 4 times at 2 week intervals will help the female quite a bit through the gestation period. I do not feed gravid females in the last 4 weeks to avoid possible premature birth.

During the gestation period the gravid female will typically move toward the warm end of the cage every evening and spend the night sitting in the "heat conservation position". She will coil up tightly in a pile in an effort to minimize exposed surface areas and conserve the heat, especially in the nighttime hours.

A small percentage of females will have an intermediate shed approximately half way through the gestation period. The gravid female will appear largest about two months into the gestation period. This time roughly corresponds with the period when the eggs of egg-laying Boids swell and absorb water, probably to generate
Chapter 5: Breeding Colombian Boa Constrictors

This chapter is provided by Jeff Ronne SR. - www.theboaphile.com

the needed albumen. A similar process occurs with live-bearing Boids and water availability during this period may be critical for the proper development of the embryos. Infertile ova do not have this fluid so a female, who is going to have slugs, will never swell up very large. She will drop those slugs approximately two weeks earlier than the normal projected due date. A female that is carrying a good litter will gradually lose weight in the front half of her body and will look larger in the posterior half.

Generally speaking, the more emaciated the female looks as time progresses, the better. A female, that is full of babies with few or no slugs, will look worse than she would if she carried infertile ova. Within two weeks or so of giving birth, the female will appear dramatically thinner. This is the result of the developing embryos converting more of the yolk into muscle and tissue. The female also probably absorbs some excess moisture from the oviducts at this time. On occasion the female will lay on her side or tilt sideways while gravid especially during the last six weeks or so. Handling of the gravid female should not be done unless absolutely necessary.

Defecation and the deposition of urates occurs infrequently while the female is gravid. One or two days before parturition the female will defecate and deposit urates. This is the "pre-birth waxy stool". The fecal material at this time is moister on the exterior than normal. It appears creamy or waxy on the outside. When the female has a need to evacuate she will position herself differently than while body appearing very tight in an effort to push out the fecal material without prematurely depositing her young. This occurs like clockwork in every female just prior to parturition.
PARTURITION

Most boa breeders produce their babies in June or July. However, because I take advantage of the "window of opportunity" method my babies are born over a greater period of time. Although most of my litters are born from March through June, I have produced Colombian boas in every month except September and November. Female boas, maintained as I have described, will give birth on average 105 days after the "post ovulation shed" or 123 days after the final ovulation, give or take about 5 days.

A gravid female will begin to be restless 1 to 7 days before giving birth. She will cruise all over her cage looking for the best place to deposit her young. You may observe her moving constantly over a period of days. However, do not be alarmed, as this is normal. The thick body mass, often appears to move down slightly in the last week or so. Parturition, usually but not always, occurs in the nighttime hours on a day when there is a drop in the barometric pressure. Rain or some precipitation usually accompanies this pressure drop. It is possible, that in the wild, rain may help cover or wash away the odor associated with the birth of the young. This "cleaning up" may make the newborns less likely to become a meal for some other animal immediately after birth. There is a subtle but distinct odor of newborns, or probably the fluids associated with the birth, which I can attest that I have smelled many times before actually finding the newly deposited young. When the female finds the best place to give birth she will stretch out as much as possible along one wall of the cage, usually at the cooler end. Her body will become extremely tense and from a series of tight subtle "S" curves. She will begin contractions gradually and deliberately, delivering her young. The neonates may come out in bunches or singly, in the membrane or out. I have found that boas born slightly on the early end of the possible gestation period are more likely to still be inside the relatively tough sack, usually with huge bellies full of yolk or a yolk suck still remaining on the outside of the neonate itself. Babies born at the tail end of the possible gestation period are more likely to have absorbed all of their yolk and will come out of the female already out of the sack.
The birthing process can be completed in as little as 10 minutes or may take 6 hours or even longer. Generally the higher the baby to slug ratio, the faster the whole process takes place. Baby boas are born with a lot of albumen or birth fluid as opposed to slugs, which are quite sticky and much more difficult to pass. An average 6’ female should have about 25 neonates. She will have lost between 10 to 40% of her pre-breeding weight. After parturition the female will be very tired. In spite of this she will often viciously defend her young even if she had previously been quite docile.

Sometimes the female will, after delivering her young, take a short rest of 15 minutes or so before assisting her babies to disperse. Different females seem to have different ways of accomplishing this. Some will slide and crawl right through the mass of babies, pushing them around with their sides, being very careful not to crush any of them. Others will plow through the mass of babies with their heads making quite a mess of themselves. Yet other females seem to be content to just look over their babies taste/smelling them with their tongues.

Observing these behaviors, if you can do so without the female being aware of your presence, is one of the most rewarding and fascinating parts of being a herpetoculturist.
INFERTILE OVA OR SLUGS

Slugs is a term used by herpetoculturists when referring to infertile ova or sometimes to fertile eggs that die in the earliest stages of development. Slugs are erroneously believed by some to be caused by insufficient cooling during the "cycling" process. In my opinion, "slugs" are usually caused by several mistakes we make while maintaining and breeding our animals.

These include:

1) Too low temperatures killing off sperm and or newly fertilized ova.

2) Too high temperatures killing off sperm and or developing embryos.

3) Insufficient water intake by the female due to the lack of availability of fresh, clean water

4) Premature removal of the male which would normally continue to copulate until just before ovulation.
THE POST-PARTURITION FEMALE

When I discover a litter of baby boas, I watch the female for some time to make sure she has completely ceased all contractions. Then, I remove the female from the enclosure and place her alone in a separate cage. She will eat with ferocity after having the young if she can not smell the residue of the birth process. The first meal is usually fed the day after parturition. Be careful, as the female will be uncharacteristically aggressive after having babies. This meal should be half the size of what the female is normally capable of eating at one time. One week later, I feed another meal the same size shortly after which the female will go into a shed cycle. After this shed, most females return to their pre-ovulation lighter color or close to it. Failure to do so or a reluctance to feed may be a sign that your female has retained part of the products of ovulation. If this is the case, a trip to your reptile vet is in order.
NEWBORN BABY BOAS

After removing the mother of the babies from the cage, I soak the entire substrate with warm water and place a large water bowl also full of warm water in the cage. I then leave the babies alone. They usually will all move to one spot in the cage away from the birth site and in the process, remove any remaining birth fluid and debris adhered to them. Often one or two babies or sometimes the entire litter will have been born slightly premature. This can be noted by huge bellies full of yolk and or the fact that some of them remain in the membrane. I just keep those individuals moist by spraying them with warm water a couple of times a day and otherwise leave them alone until they move off by themselves. Immediate removal of the babies may be putting unnecessary stress on those neonates especially if they are a tad bit early.

Typically baby boas are 16"-18" long. However, I have seen viable young as small as 12" and as large as 23". Normal full term babies will shed when they are 9 or 10 days old. Feeding of the first meal is dependent on a couple of factors: 1). Neonates which are thin and have absorbed all of their yolk can be fed right away, even before the first shed. 2). Neonates who still have yolk in their bellies should not be fed until this yolk is completely digested and they have gone through their first shed. The first meal offered should be a fuzzy mouse or a pinkie rat, preferably frozen then fully thawed. If the first offering is not accepted, do not despair, simply repeat the process 3 or 4 days later leaving the food item overnight (if you use frozen thawed). A baby, which has not eaten after 5 or 6 attempts, may require you to use a live prey item. Do not leave a live weaned rodent unattended with a baby as the food item may severely harm or even kill the young boa. As a general rule, all boas should be fed separately to avoid the accidental ingestion of another boa while feeding or, in rare cases, the ultimate death of both boas involved in a feeding incident.

Newborn boa constrictors have very delicate stomachs. I recommend that the first 10 feedings consist of small fuzzy mice and/or pink rats before moving on to larger food items. Pinkie and fuzzy rats in general seem to be much easier to keep down than comparably sized mice. You must do everything possible to prevent regurgitation by baby boa constrictors.
SOLIDIFIED YOLK SYNDROME

OK, it's good and it's bad. In 2003, one of my females had 41 babies. Four of these dead and 37 alive. Now this female gave birth on day 95 after the Post Ovulation Shed. This is not a good thing. It is normally that females drop their babies between 104 and 111 days after the Post Ovulation Shed. Had this female delayed this early parturition just a week longer, three of the four dead babies would likely be fine when born. These babies were all born with massive bellies full of yolk. This can be a fatal situation. The problem is that many times the babies with the huge bellies have that yolk solidify and become unable to digest or absorb all this food. I am trying something a little different this time. Normally, the female would still be carrying them. They would not be born if held till full term for at least another week. Perhaps two weeks. Anyhow, so now what do I do to maximize the likelihood that these babies survive? I am leaving them in the cage where their Momma had them. Still turning the heat on during the day and off at night. Their Momma if she was still carrying them would be subject to these same conditions so I am guessing this is best as opposed to all heat all the time. She would move toward the heat during the day and away at night when the heat is turned off anyhow. I am hoping that they are all able to absorb this stuff. Here is a picture of one of the babies with the massive gut. We shall see...
Well at 5 days old they looked much thinner. I think the plan of leaving them in the cage where they can still get access to good heat and move away when they like is the ticket. They should be shedding on time hopefully. Although, I can't remember if big belly babies shed a little late or not. I have noticed one change since I began heating my baby room vs. heating in the racks and that is that babies shed now the first time when 11 or most times 12 days old. I know it's hard to wait the extra day or two but they definitely do better in a heated room rather than heated racks.

At 8 days old and as planned, I have left them in the cage so they could have access to the same much warmer temps than I normally give babies that their mother would have access to. They all seem to be doing very well. Their tummies are much smaller and they are all opaque. I hope this will work. At least it looks very good so far. I don't want to touch them as I am afraid that any unnecessary stress may cause some problems with the yolk still not completely digested in their bellies. So I will just wait. I am hoping that many of them begin to shed on schedule.

**UPDATE**

Back in 2003 this was my first little experiment, done publicly at that time, with what I now call, "**Solidified Yolk Syndrome**" in baby Boas. That was a long time ago. Those babies all faired perfectly well. They did not eat for a couple weeks after shedding, which is typical for babies with the big yolk. But they did well. I had another equally poor litter born that same year with the big bellies full of yolk. I did the same with them allowing them to stay in the cage where their Momma had them. She had them on the heat same as the first litter detailed here. The babies stayed on the heat for a number of days while that yolk was absorbed.
Since then, I have not lost a single baby to the "Solidified Yolk Syndrome". Not one. I think the key is allowing the babies to thermoregulate and reach a 90 degree temperature if desired. Believe me, it is desired. Just a little trick I found a while back that I posted on several forums four years ago. I have not had opportunity to write this in print yet but hopefully will soon where this and many other specific new breeding/husbandry tips will be published.

The idea of using the saline solution sounds really promising. However, I think possibly the "Solidified Yolk Syndrome" may be avoided altogether if a thermo-gradient is provided from birth allowing the babies to absorb that extra yolk.

Summary

1. Female Boas shed 16-20 days after ovulation and give birth approximately 105 days after that shed, making the total gestation period approximately 123 days. This is also true of the following boas: Hog Island, Bolivian, Peruvian red-tail, Surinam red-tail, Guyana red-tail, and Argentine boa constrictors.

2. I have recorded in my captive produced litters, that females are more common than males. To date, 52.5% of my babies have been female while 47.5% have been male.
Chapter 5: Breeding Colombian Boa Constrictors
This chapter is provided by Jeff Ronne SR. - www.theboaphile.com

End of the Breeding Colombian Boa Constrictors by Jeff Ronne SR
This concludes the General Care Section of the Ultimate Boa Constrictor Care Manual. I would appreciate any comments, suggestions, corrections, etc. Please email me and let me know how I can make this care guide STAY the ULTIMATE CARE MANUAL.

This care guide is the copyrighted property of Clay English and redtailboas.com. This Manual may NOT be duplicated or reproduced in any form or manner. The RTB 3D logo and all photos are Copyrighted 2007 property of

Clay English
http://www.redtailboas.com
cenglish@redtailboas.com

Credit must also go to Jeff Ronne Sr for his contribution on Breeding Boa Constrictors. Others create breeding articles and books and simply quote the concepts discovered and documented by Jeff often without even a credit reference to him. Also thanks to Jeff whom without his countless time spent with me over the years, the majority of this manual and the information contained here would not exist. Also for his permission to use his pictures for breeding, caging and rat size comparisons. The Breeding Boa Constrictors chapter is Copyrighted 2007 and property of

Jeff Ronne Sr.
http://www.theboaphile.com
The_Boaphile@theboaphile.com

Other Resources

One of the best resources for information is the RedTailBoas.com Community Forum. An online interactive way to learn about these amazing animals. Register and join today for FREE and start learning immediately.

http://www.redtailboas.com

Also Jeff Ronne’s community forum is another great place to find information.

http://www.boaconstrictor.net

<table>
<thead>
<tr>
<th>Resource</th>
<th>Author(s)</th>
<th>Rating</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Boa Constrictor Manual</td>
<td>Philippe de Vosjoli / Jeff Ronne</td>
<td>★★★★★</td>
<td>Herpetocultural library</td>
</tr>
<tr>
<td>Boas, A Complete Pet Owners Manual</td>
<td>Doug Wagner</td>
<td>★★★★</td>
<td>Barron's</td>
</tr>
<tr>
<td>The Guide to Owning a Red-Tailed Boa</td>
<td>Glen Drewnowski</td>
<td>★★★</td>
<td>TFH Publications</td>
</tr>
</tbody>
</table>
You are beautiful when you are angry!