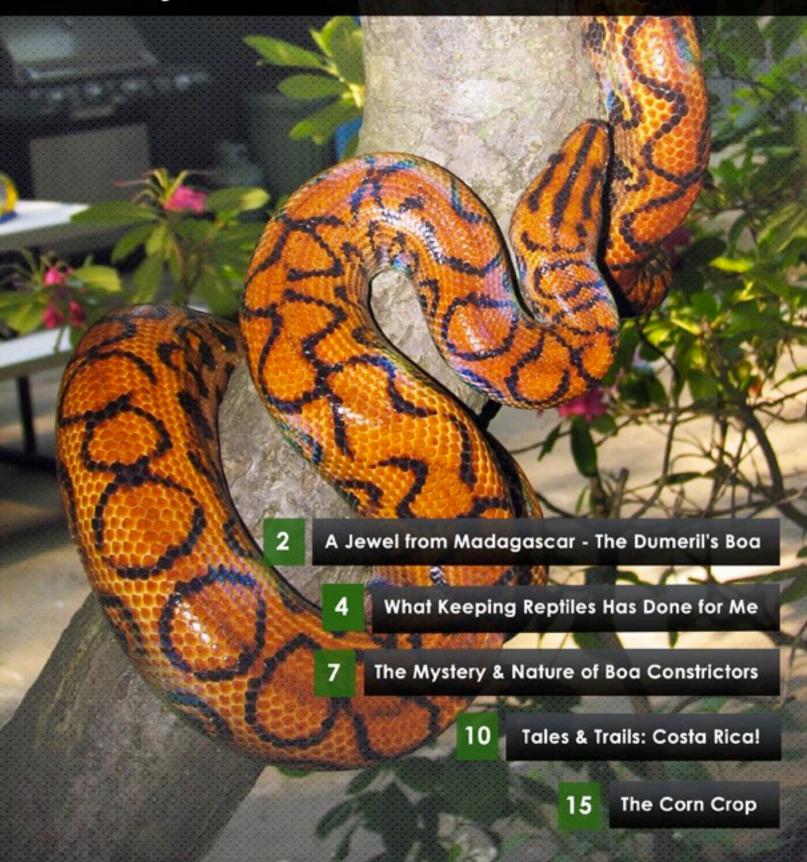
Herpetoculture House



From the Editors Cage

Issue #2 is here and we have so much cool stuff to share in this issue! We have Lillie Nyte writing for us about the Dumerils Boa of Madagascar, Sara Viernum The Wandering Herpetologist writing about the nemesis of reptile keepers everywhere, of course I am speaking of reptile mites and how to treat them. Luke Halstead whom you may remember from our last issue, gets personal with his next installment about keeping captive reptiles; in this issue he is relating to us what keeping reptiles has done for him on a personal level. Then we have a very special author Sarah Hagen who is writing about keeping the Red Tail Boa in a quality captive environment. We also see the return of my excellent friend Justin Guyer who writes for us about that old classic favorite Corn Snakes *Pantherophis guttatus* which are not only one of my personal favorites but also one of the best reptiles to start with over all.

OK, before we move on to the magazine and its own awesome content this month, we have an announcement to make. On April 5th 2012 The Reptile Apartment Group will be joined by

OK, before we move on to the magazine and its own awesome content this month, we have an announcement to make. On April 5th 2012 The Reptile Apartment Group will be joined by another site for our Canadian counterparts as it were. We hope that you will help us in welcoming not only Elizabeth Semple as our new Operations Director, Canada but also all of our authors who have decided to join us in this adventure of Reptile Apartment Canada we have a really great team that came together through an application process and earned a spot on the team. So please do drop in on the site and give them a wave as they are currently working away coming up with some insane content that Canada has never seen the likes of before.

A Jewel from Madagascar - The Dumeril's Boab by Lillie Nyte

Description:

Dumeril's boas (*Boa dumerili*, formerly *Acrantophis dumerili*) are medium sized boids with an average length of 4-6 feet with rare individuals attaining maximum lengths of 7.0 feet. There are a because

7-9 feet. They are a heavy bodied ground dwelling species and can easily weigh up to 20 pounds. Dumeril's boas have docile temperaments, can be easily handled, and tend to be very reluctant to bite. They can be easily sexed visually due to the fact that males have obvious cloacal spurs which are absent from females.

Distribution:

Dumeril's boas are found on the islands of Madagascar and Reunion located off the southeastern coast of Africa in the Indian Ocean. In Madagascar, they inhabit semi-arid habitats in the southwestern regions of the country. They share some of the northern parts of their range with the Madagascan ground boa and may even interbreed with them in the wild where their natural ranges overlap. They are a CITES appendix I animal and their status in the wild is classified as vulnerable by the IUCN which means that they are threatened with extinction mainly due to habitat destruction and human encroachment. Although captive bred specimens are readily obtainable from reputable breeders.

Taxonomy:

The Dumeril's boa was once thought to be a subspecies of the Madagascan ground boa and was known as *Acrantophis madagascariensis dumerili* until it was

acknowledged as a species in its own right.

Dumeril's boas and Madagascan ground boas were once in their own genus of *Acrantophis* but have more recently been reclassified into the *Boa* genus. However, many proponents of these

two species do not agree with the recent classification and continue to use the scientific names of *Acrantophis dumerili* and *Acrantophis madagascariensis* for the Dumeril's boa and Madagascan ground boa respectively.

Enclosure:

A 4 foot long by 2 foot wide enclosure is more than adequate for the average size adult Dumeril's boa. neonates can be kept in 10-20 gallon glass tanks. I find that like most snakes Dumeril's boas don't appreciate the finer points of cage decorating. Decorative plants and vines invariably end up getting trampled over and trashed. A basic hide or two and a water bowl are all that's necessary.

Substrate:

Dumeril's boas do well on a variety of substrates, I prefer cypress mulch and many others have success using newspaper.

Dumeril's are able to drink large amounts of

water at a time therefore they also tend to urinate more than other species so an easy to clean substrate is preferred by many keepers.

Temperature/Humidity: Dumeril's prefer lower temps than the average red-tailed boa. Their enclosures should have a hot side with temps around 85-88 degrees Fahrenheit and a cool

side of 75-80 degrees. In my experience Dumeril's will spend the majority of their time on the cool end of their enclosures and periodically bask on the warm end especially at night as they are a nocturnal species. Heat

can be provided using heat lamps, pads, tape, or radiant heat panels (my personal preference). Humidity should be kept in the mid-range at around 50%. Misting the enclosure may be necessary especially during the winter

months when ambient household humidity usually drops. When in shed Dumeril's boas benefit from a slight increase in humidity and may even make use of a humid hide created by placing moist sphagnum moss inside of a hide box.

Feeding:

Dumeril's boas should be fed a diet consisting of appropriately sized rodents. I highly recommend feeding frozen/thawed

rodents or pre-killed prey items. While neonates can be fed fuzzy mice I recommend switching them to rats as soon as possible to avoid problems converting them to rats further down the road. These animals are ambush predators and may be shy eaters. Stubborn feeders may need to be fed in a small dark enclosure and sometimes a frozen/thawed rodent may have to be left in their

enclosure with them over night. Some keepers have had success with getting stubborn feeders to eat by offering a larger than normal prey item. Young snakes should be fed every 7-10 days and larger juveniles and adults

should be fed about every 14-20 days as they seem to be fairly lazy animals with a slower metabolism and a tendency to become overweight.



In their natural habitat in Madagascar, Dumeril's boas are said to reach sexual maturity at about

18 months of age. In captivity, they can be successfully bred at around 4-5 years of age. Many breeders will keep a breeding pair together all year long. Dumeril's boas are ovoviviparous meaning that the embryos develop within eggs that are held inside the





females' bodies until they give birth to live young.

To facilitate breeding the Dumeril's boas should be subjected to a cooling period to simulate natural seasonal changes in late October to early November. Temperatures should be allowed to reach 80 degrees in the daytime and heat sources should be turned off at night and enclosure lighting should be reduced to 6-8 hours per day. Breeding will take place during this time and

temperatures can be gradually raised back to normal in two months time in late January to early February. An ovulating female will have a noticeable bump in her belly. A gravid female must be kept warm with a basking spot. The gestation

period for Dumeril's boas typically lasts 6-8 months but can last as long as nine months. While some snakes will go off food for the duration of the pregnancy, the female Dumeril's boa may be offered a smaller than average meal every 15-20 days. Prior to giving birth the female will have a pre-birth shed and birth can take place as soon as 1 day following shedding to 2 or 3 weeks. The male should be removed from the enclosure after the female has shed as aggression from the male has been observed by some keepers during this time. A typical litter consists of 6-12 babies each measuring 16-19 inches in length.

Neonatal care:

Baby Dumeril's boas should be removed from the birthing enclosure as soon as they absorb their egg sacs. Dumeril's boas have even been known to shed and take food on the same day they are born. Neonates can be housed individually in plastic shoebox style racks or 10-20 gallon tanks. They should be maintained at the same captive conditions as adults in regards to temperature and humidity. They will typically shed within 7-10 days after birth and feeding of an appropriately sized food item can be attempted. Shy feeders may need to be left alone in a darkened

enclosure with a food item overnight.

Morphs:

As far as I am aware there are no known morphs of Dumeril's boas widely available but I have heard that hypomelanistic individuals are currently being bred in the United States and Europe. Also, in Germany a

line of T+ albinos (also known as Caramels) are being developed. There are also breeders selectively breeding for color to produce high red animals.

Dumeril's boas are great animals to work with and have many aficionados amongst reptile keepers due to their beautiful markings, calm temperament, and medium size.

What Keeping Reptiles Has Done for Me By Luke Halstead

I grew up in Toronto, Canada as a classic underachiever in early school then as a party animal in latter years, eventually flunking out of high school and later going back to attain a barely passing grade. When I started keeping reptiles I wasn't very well armed with information surrounding their health care needs, but a natural passion for knowledge and interest in everything medical drew me into the literature. I started getting my hands on every sick or injured reptile I could find. Soon afterwards I was working for free (or rather out of my love for the animals) at a deplorable pet store which was owned by a very unscrupulous man, nursing to health all the sick and injured imports that he would refuse to properly care for. Much of my later experience was gained as most dedicated hobbyists learn the basics of veterinary care – on my own collection.

A few years went by before I dipped my feet into the waters of my life-long passion of maintaining a venomous collection. My reptile veterinary knowledge grew and grew throughout that time, until one day when I picked up a beautiful oropel phase Bothriechis schlegelii (eyelash viper) from a private keeper in Philadelphia. The viper was beautiful, but the seller also had a pair of breeder Corallus caninus (emerald tree boas) one of which was not doing very well. He had just bought them from a breeder who clearly over bred the pair and allowed them to get sick. The female was anorexic, dehydrated and smearing loose, fowl smelling stools around her enclosure. After offering to take a fecal sample back to Canada with me

and call the seller as soon as I found out what was wrong, he simply said:

"Just take her. If she's that sick then you can probably do more for her than I could anyway."

So I did.

After arriving in Toronto 12 hours later, I decided not to continue my journey home (an additional 4 hour drive). She needed treatment immediately. After hearing the standard "We don't see snakes here." at several vet offices, I stumbled into a 24 hour dog and cat vet in downtown Toronto. Knowing that they wouldn't take snakes, I pleaded with them to pay an administrative fee so that I could use their microscope and other lab equipment myself. After some grudging negotiations, they agreed. I very quickly discovered the problem – a massive infestation of protozoa.

Since the vet would not prescribe any medication for a snake, I ran out to an aquarium store to buy pure powdered Metronidazole used for treating hexamitosis in fish. After careful dosing and mixing with pedialyte and with the assistance of the vet, I inserted a red rubber urinary catheter into her oesophagus and began medicating. Tragically, at that critical juncture, the accumulated stress of over breeding, poor husbandry, dehydration, anorexia, infection and her fight against the oesophageal tube were too much for her to handle. She passed away, frightened and squirming, in the arms of myself and the vet. Tragic though her

death was, I have had a very good professional relationship with the veterinary staff at that animal clinic ever since.

Shortly after this incident, I had to re-home my venomous collection due to some issues in my personal life. A private zoo nearby for which I had already given some husbandry advice and done some health checkups was an

ideal choice. The owner told me that I could house my collection there while keeping control over it as long as I was the one who would handle and take care of all my venomous own animals. Of course I agreed, and it wasn't long before I became the manager for reptiles at that zoo.

After dealing with a variety of new health problems in different species, I started helping out with veterinary care on weekends at a turtle rescue in Toronto. When that turtle rescue was adopted by Lil Big Rescue,

the only federally registered charity in Canada responsible for exotic animal rescue, they kindly voted me on the board of directors as the veterinary advisor and investigations officer (the latter title thanks in part to my service of nearly a decade in the Canadian army).

Now, nearly a decade after flunking out of high school (which was around the same time



I kept my first snake), and thanks to some amazing people and opportunities in my life, I have managed to absorb myself completely in the hobby

that I love and make a name for myself among the people in the industry that I've always respected. This is not a story of climbing the economic ladder. In reality, most of the work I do now is for free, financed in part by my day job in the army. This is instead a note of encouragement to

anyone with a keen mind and an unquenchable curiosity for everything reptilian to pursue it! I can tell you from experience that your thirst for knowledge will never be satisfied. Every question answered reveals more questions, and in turn the electrifying anticipation for their resolution.



As many of us have experienced in our relationships, the chase is often more exciting than the capture. So go out and chase the science and knowledge behind keeping and caring for your animals. You never know where it will take you. I certainly didn't.

The Mystery & Nature of Boa Constrictors By Sarah Hagen

General Information: Wild Boas (Boa constrictor) are found throughout central and south america. Most of the boa constrictors in the pet trade are descendants from the variety found in Colombia and central america, often called Colombian or Central American Boas (Both are B. c. imperator). There are many

other boas available as well, most of which are the same species but different subspecies because they have evolved into a variety of colors, patterns and sizes depending on their native locality. Some other popular varieties that are often commonly available are True Red-tail Boas from Peru, Guyana, Colombia and Suriname (All are B.

c. constrictor), Island Boas such as the Hog Island Boa or the Cay Caulker Boa (Both are B. c. imperator) and Argentine Boas (Boa constrictor occidentalis). Boas are generally found in the humid jungles that exist throughout south and central america, surviving mainly on a diet of rodents and birds. Most boas reach sizes around 8 ft but there are varieties that range in adult size from 4 ft (Central American Boas) to as much as 12+ feet (True Red-tails). Boas can live as

long as 30 years with record ages being as high as 40.

Boas As Pets: Boas are probably the perfect pet for someone who wants an easy, exotic, friendly pet. They reach average sizes of 6-10 ft making them extremely impressive yet still

manageable for a single individual. Even as babies they are usually extremely tame and even the most nippy individuals can be tamed with minimal handling. They eat only once a week but it is important that the owner is comfortable with the idea of feeding their boa mice, rats or even rabbits or chickens eventually.

Argentine Boa

Housing: A twenty gallon terrarium is an excellent starter size for a baby boa. This size tank will last about a year. Most boas ultimately will need

a cage six feet long and about 15-24 inches high. Smaller boas, such as the Central American Boa or the Cay Caulker Boa, can be kept in a smaller four foot long terrarium.

Substrate: The best choice for a boa cage in Arizona is bark. Many books and even some breeders who are based in more humid areas will recommend aspen or newspaper but it tends to be too dry. Reptibark, Eco Earth, or Cypress mulch all make great choices. They

will all absorb moisture when misted and help keep the terrarium humid.

Guyana and Suriname True Redtails

Heating: The ambient air temperature in a boa enclosure should be between 80-85 degrees F during the day. At night, the enclosure should not be allowed to drop lower than 78 degrees. The basking spot should be 95-100 degrees. As long as your boa is in a room where it is

light enough to have a day and night cycle, fluorescent lighting is not necessary. Heat bulbs or ceramic heat emitters are usually best for daytime lighting. Heat pads, and ceramic heat emitters or a combination of the three can be used at night.

Feeding: When feeding your boa, it is a good idea to have a separate

feeding cage. This can simply be a plastic shoe box for small ones or a larger Rubbermaid container for adults. It is also best to leave the feeding cage free of bedding to prevent accidental ingestion. Snakes who are routinely fed in their terrariums will develop feeding responses and may go for your nice warm hand reaching in, thinking that it is food instead. Having a separate feeding cage will eliminate this unpleasant possibility. Baby boas should start off eating large fuzzy mice. After a few feedings, they

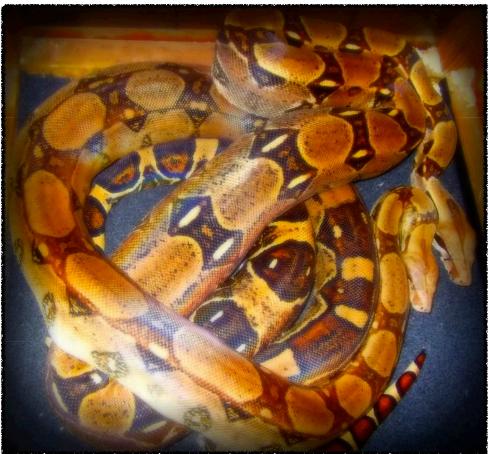
can graduate to adult mice. It is best to feed one to two mice once a week when they are young. A good rule to keep in mind is to purchase prey animals that are about the same to slightly larger girth as the largest part of the snake. When the boa is two or three feet long, it is usually time to switch to small rats. Adult Red Tails will eat at least a jumbo rat and many will eventually eat small-medium rabbits or guinea pigs. Young adults can be fed every other week one or two prey items.

Large adults can eat every two or three weeks depending on how big the meal is.

Pre-killed versus live food: Most snake keepers prefer feeding pre-killed rodents to ensure that their boas do not get injured from a bite. You can buy freshly euthanized or frozen rodents to offer to your snake. Frozen rodents must be thawed to a little above room temperature before feeding. If you choose to feed live, or your snake refuses pre-killed, it is always best to offer prey using a long pair of hemostats. This way, the snake can hone in and snatch

up the prey in a calculated manner, making rat bites a lot less common. You must also remember never to leave a live prey animal in the cage with a boa. Some inexperienced owners will leave an unwanted rat or mouse in the enclosure hoping that their snake will choose to eat it at a later time but boas tend to become intimidated with a rodent left to paw its way around the enclosure. After awhile, the rodent may start to chew on the snake and the snake will probably do nothing to stop this from happening. Many snakes have been





badly scarred and even killed from rodents that were left too long in cages.

Sexing: There are several different accurate indicators that allow boas to be sexed. Perhaps the easiest way is to find the two "spurs"which are located on both sides of the anal opening. These are vestiges of rear limbs and are used by males to assist during breeding. Because of this, males have very prominent spurs, while female boas spurs are very small and are often only visible after very careful scrutinization. Another accurate indicator is the shape of the tail itself. Males will have longer tails that taper evenly after the anal opening. Female boas have shorter tails which often taper in quickly. Both of these methods of sexing can be quite accurate, especially when used in conjunction on an adult boa. The final way to sex boas is

with metal probes which are inserted into the boa's anal opening. This is the most accurate method of sexing but should only be performed by someone with training and experience. We happily offer free sexing and probing on all snakes purchased from us. We charge \$5 to sex snakes purchased elsewhere.

Breeding: Boas are extremely easy to breed in most cases. Most of the boas that we breed at our

store are simply pairs of boas who are left to their own devices and happily breed every year. Boas also give live birth so there are no eggs or incubation to worry about.

If a male and female boa are left together and are not choosing to breed there are several theories on how to encourage breeding. It often seems to be beneficial to separate the male and female boas from each other until breeding season. For some reason males that have been separated from a female seem to be more aggressive breeders than those that live with a female year round. The only problem with this method is making sure that you do not miss the short period of time that the female boa is ovulating. Breeding season for our boas ranges from late fall through the winter. Males will often show signs of

wanting to breed because they will become anxious (very active) and stop eating.
Female boas will often become quite plump in the lower part of their body when they are ovulating, almost looking like they do when pregnant. Female boas can store sperm so it is better to have your boas breed too soon than too late. At the first sign of either individual being ready to breed they should be placed together.



Another method for inducing breeding is to have more than one male in the cage. If you cannot afford or simply do not want the extra boa, a shed skin from another breeding male can work too. This simply stimulates the male boa's natural instincts to compete. They will not hurt each other or even be interested in each other but will definitely want to be the one that gets the female first, therefore stimulating breeding.

Birth: Neonates will be born live but are sometime still in their embryonic sac. The baby boas should be allowed time to break out of the sac on their own before attempting to help them out. If a baby boa shows no sign of trying to leave it's sac within 15 minutes make a small slit near the head, being careful not to damage the yoke. Some baby boas will still have the yoke attached to their umbilical cord and this should be left attached to them if at all possible. Any heat lamps near the babies should be turned off because it can cause the sac and yoke to dry out before the baby boa is ready to leave them behind. After the babies leave their sacs, we remove the baby boas from their mothers and place them

with any remaining yokes in a a terrarium with a heat pad on the bottom and moist paper towels on the inside. It should be kept moist to keep the yolks from drying out prematurely as well as to prepare the boas for an easy first shed.

The First Week: After the yokes have been absorbed you can move the babies to fresh paper towels. After that the baby boas should be left on their own besides making sure they have water, humidity and heat. About a week after their birth they should begin to shed their skin for the first time. After this they can be offered their first meal, usually between a large fuzzies and a small mouse, at which point you can begin feeding them once a week and caring for them like any other boa.

Tales & Trails: costa Rica!

By

Melissa coakley

Have you cruised all the good roads in your area and hiked all of the best locations? Have you found all the desired species in the general vicinity several times over now? Are you ready to try something new? A great way to add to your herp life list is to consider going on an international herping adventure trip. I am getting ready to head back to Costa Rica in a few months and I find myself fondly revisiting memories of my last trip there in 2007. As I think back on all the species I saw

in 2007 I am also building anticipation for the next trip. What will I find? How many new species will I add to my life list? Will I find any



aberrant snakes? There really is nothing quite like escaping from the daily grind for a week when the only thing that matters is exploring and enjoying nature.

During the first week of May back in '07 I joined a group of ten fellow herpers on the pacific side of Costa Rica for some intense hunting. Over the course of the week we found nineteen different species of snakes, including some that are very rarely seen in the area we herped. The overall snake total for the week was ninety-one (about one-third of those were, unfortunately, dead on road or "DOR"). I think those are pretty decent figures, but, Costa Rica has more to offer than snakes. I also saw and photographed a lovely

variety of lizards and other wildlife including many interesting mammals. The spiny iguanas (*Ctenosaura similis*) were all over the place and so were the ultra-cool basilisk lizards (*Basiliscus basiliscus*). In addition, in Costa Rica there is an abundance of amphibians that come out at night and provide a unique soundtrack for the evening's events.

Costa Rica is an ideal choice for a herping trip because it has such a high level

of biodiversity. In fact, Costa Rica is considered to be one of the top twenty countries in the world for biodiversity. It is estimated that Costa Rica is home to 4% of the world's species. This is great news for herpers with a soft spot for snakes because there are over 130 recognized species of snakes in Costa Rica. On this particular trip the most common snake we saw was the *Leptodeira septentrionalis* or the Northern cat-eyed snake. We found 20

of these snakes during the week (plus one *Leptodeira annulata* or common cat-eyed snake). The second most frequently seen



snake was the fearsome fer-de-lance (*Bothrops asper*). Nineteen fer-de-lance were found while hiking and road cruising. As an

avid boa fan I should mention that thirteen *Boa constrictors* were found along with three tree boas (*Corallus ruschenbergerii*), and seven rainbow boas (*Epicrates cenchria maurus*).

Of course, what you find on your trip to Costa Rica will depend greatly on the area you visit as well as the time of year you are there. In 2007 I hunted in what is known as

the central pacific region. I visited during May which is considered the start of the rainy season. I have seen reports from other herpers visiting the same location in November (the start of the dry or summer season in Costa Rica) and I have to say that although there could be many other factors the species count always seems lower in November than in May.

On this trip our group stayed at a quaint and scenic hotel called Villa Lapas

which is close to the Rio Tarcoles. The Rio Tarcoles is known for being a major basking site for American Crocodiles (*Crocodylus acutus*). On



the way to the Villa Lapas we stopped on the bridge of the Rio Tarcoles, close to Jaco Beach, and saw several dozen crocs lounging around below making them the first herps on our trip. The crocs seemed content to be covered in mud, sitting in water that was the color of chocolate milk. It was only after returning home that I looked up the Rio Tarcoles and learned that it is considered to be the most polluted river in Central America.

The crocs at the Rio Tarcoles were just the beginning to a week full of firsts. The first snake of the trip was a beautiful sleek *Pseustes poecilonotus* which is known by several different names – but commonly called the bird-eating snake. My friend Jim,

who organized the trip, had been hunting that area for 6 years and this was the first live bird-eating snake he had seen there. This was a large and remarkable specimen and remains

one of the coolest snakes I have ever seen in the wild. Another great find that night was *Ungaliophis panamensis*, a bromeliad boa. We actually had to look this snake up in Alejandro

Solorzano's *Snakes of Costa Rica* because we were unable to identify at first. The bromeliad boa ranges on the Caribbean side

but has limited sighting on the Pacific. This was a first for everyone on the trip – even though four members of the group had been herping in Costa Rica several times. I recently ran into a guy on a herping trip in South Florida who works at a field station in Costa Rica. We spent some time discussing our favorite finds and he was rather surprised that the bromeliad boa was on my list.

Another first came in the form of a large and formidable frog as I was introduced to the immensity that is a Smoky jungle frog (Leptodactylus pentadactylus) one night on this trip. We had eaten a nice early dinner – along with several cups of strong coffee - and headed out to do some road cruising. About an hour into the drive one of the guys started to feel ill and wanted to head back to get some medicine and rest. When we returned to the hotel another herper, Greg, and I decided to hike around the property. The two of us were overly caffeinated and ready to make some great discoveries. We were walking around the pitch black hotel, which has absolutely jaw-dropping beautiful

grounds, when my flashlight picked up something very startling right by my feet. Greg wanted to know why I had stopped and what I had found. But, I was so shocked by what I was seeing that I just couldn't speak for a moment except to utter a ridiculous "Oh my God". I was looking down at the largest frog I had ever seen. When Greg saw what had me dead in my tracks he jumped into

action and grabbed for the frog.

However, the frog was not interested in being captured by a 6ft 4 *Homo sapiens* from Kentucky. As he bounced around trying to capture the frog, Greg told me it was a Smoky jungle frog and that it was

on his list of target species. What ensued remains one of my funniest herping memories to date. Greg wanted that frog so badly yet the frog did everything possible to avoid capture. Finally, the frog jumped into an area filled with mud and lots of tall plants. Greg, of course, followed. After several minutes a

triumphant hand reached out form the bushes followed by the rest of Greg: completely muddy from head to toe. By the way, if you haven't heard the screams of a just captured Smoky jungle frog beware – they are rather startling and sound like the cries of a pained feline.

As I alluded to above, Costa
Rica is an amphibian lover's paradise
and not just because of the Smoky Jungle
frogs. There are close to 200 known species
of amphibian in the country. The red-eyed
tree-frogs (*Agalychnis callidryas*) are living
art and the green and black dart frogs

(*Dendrobates auratus*) are spectacular. The two coolest frog moments (other than the above described scenario) that I experienced in Costa Rica involve both of these species. The first was a pair of red eyes that I caught in amplex laying a couple clutches of eggs. The second was spotting a dart frog with a tadpole on its back. The frog was hanging out on the ground by the base of a large tree.

I looked closely and realized it was carrying along a lone tadpole on the middle of its back. The wonderful thing about the frogs of Costa Rica is that there are usually plenty of them to go around – if we came up empty handed in the snake department we could always count on there being some frogs close by waiting to be photographed.

Field herping, however, is not just about the magnificent and stunning herps that are out there waiting to be found and photographed. There is so much more in nature that leaves us in awe and wonder some of it hidden and some in plain sight. The more easily spotted creatures in Costa



Rica usually include the sloths and the howler and capuchin monkeys as well as various birds. It is always a pleasure to stumble upon these animals in

the wild. We spent a day hiking Manuel Antonio Parque Nacional looking for just these species. This is a small park (actually the smallest National Park in Costa Rica) and it is filled with beautiful hiking trails and amazing beaches.

The park ended up being a very eventful two hour drive from Villa Lapas. On the way there we were almost slammed into by a huge bus and we had to go over bridges that looked like they would collapse at any second. The bridges are set up very narrowly so that vehicles can go in only one direction at a time. Cars going the other direction have

to wait until all the cars on the first side are through. It can be a very long wait. While we waited to cross one of these bridges locals were selling food and drinks in plastic bags on the side of the road. They approached the cars while they were parked waiting to go over the bridge.

The day spent at Manuel Antonio

Parque Nacional proved to be worth the trip and the intimidating bridges. We sighted some beautiful birds and got up close and personal with a few curious white-faced capuchin monkeys (*Cebus capucinus*). I recall witnessing a tourist who learned a very valuable lesson: do not tease the capuchins! The tourist thought it would be funny to hold

an empty candy bar wrapper up to one of the monkeys. Well, the hungry monkey – who recognized what the wrapper signified – became furious at the taunting and, with fangs bared, lunged after and chased the half-witted tourist for a few moments. Hopefully it was a lesson well learned.

One of the major highlights of the trip, for me, was finding and photographing Pacific sea-snakes (*Pelamis platurus*). Close

to the end of the week we chartered a boat and spent several hours fishing and looking for yellowbelly sea-snakes. The weather didn't seem promising at first because it was windy and overcast. Nevertheless, we found four sea-snakes swimming along the surface and we were able to get half of them into the boat. Catching sea-snakes proved to be easier than I expected. All that was necessary was a large net with which we effortlessly scooped them up from the surface of the water. We each took turns holding the sea-snakes.

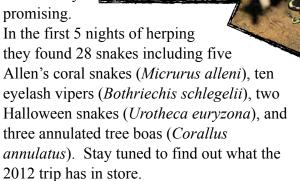
holding the sea-snakes.
What a rush! It was the first time I ever freehanded a venomous snake. Not to worry though as the muscles these snakes usually use do not allow them to reach up when tailed like land-dwelling snakes. So, the risk of a bite is very minimal.

This trip to Costa Rica was an amazing vacation. I am really looking



forward to getting back there this spring – this time a little older, a little wiser and with five more years of herping experience under my belt. This time I will be staying on the Caribbean side of the country. I have received some preliminary videos and species

counts from friends who are already at the location we will be hunting. It looks and sounds very promising.



The Corn Crop By Justin Guyer

Natural History

Corn snakes (*Pantherophis guttatus*) are small rat snakes of the family *Colubridae* native to the southeastern United States. Also known as rosy or red rat snakes, these snakes range from as far north as New Jersey, south

to the Florida keys and as far west as eastern Texas. In the wild, adult corn snakes feed on rodents and birds while the hatchlings often dine on small lizards for their



first meals. Corn snakes are often found near barns or abandoned buildings in agricultural areas where rodents are common.

With such a large natural range, wild corn snakes vary greatly in appearence based on locality. Two of the most notable locality corn snakes are the miami phase and the okeetee. The miami phase corns from Florida have an orange to red coloration within their pattern or "saddles" on a silvery gray background. Okeetee corn snakes from South Carolina typically have a rich red coloration in the saddles with thick black borders around the saddles on a bright orange background. Wild corn snakes will also display a checkering of the belly pattern that often resembles an ear of indian corn, hence the name "corn snake".

Wild corn snakes breed during the months of April and May after they emerge from their winter long brumation. The eggs hatch during the months of July and August. Hatchlings have a total body length of seven to ten inches. Adult males can be as long as four and half to five feet in length with females usually topping out at about three and a half to four

feet in length.

Corn Snakes In Captivity

Often considered beginner level snakes, corn snakes are a mainstay within the herpetoculture hobby and are definitely here to stay! Corn snakes are easy to keep and care for, usually very eager feeders, easy to breed, they stay a manageable size, and they come

in a wide variety of colors and patterns. Corn snakes are also very affordable, a person can purchase a very pretty snake without breaking the bank.

Acquiring A Corn Snake

The most important part of acquiring a new animal is doing your own research on the animal's needs before making your purchase.



Once you feel that you have the knowledge and are ready, finding a corn snake to purchase is extremely easy. Most pet stores carry them and

there are always a great number of corn snakes available in online classifieds adds and they can always be found at reptile shows and expos. However, it is important to be careful when purchasing a corn snake for a pet. Unfortunately there are less than honest breeders out there who will unload problem animals into the pet trade. You want to make sure that the snake that you are selecting is active and not lethargic. When handled, the snake should move around in your hand and have good

muscle tone.
Don't
purchase a
snake that
feels limp to
your touch.
The snake
should be



curious about its surroundings and it should be flicking its tongue. I would highly advise against purchasing an animal that appears anything less than being in ideal health. Also be sure to ask the person who is selling the snake questions. Such as:

"Has this snake been eating live rodents or frozen/thawed?"

"What kind of feeding schedule has this snake been on?"

"Have you had any health issues with this snake?"

Furthermore, it is important to quarantine any new snakes that you acquire for a period of at least three weeks. This can be accomplished by simply keeping your new snake in a separate room from the rest of your collection. The quarantine period is important to make sure that your new snake does not have a parasitic or viral infection that could spread to the other snakes in your collection. During the quarantine period it is

important to keep handling your snake to a minimum and not cause the animal stress.

Housing

I house my adult and sub-adult corn snakes in professional grade rack systems. Hatchlings are kept in small tubs. There are several companies that produce rack systems to house snakes in and these can easily be found with a simple online search. While I do not agree with it, many hobbyists house corn snakes in glass aquariums. If you are going to keep your snake in an aquarium make sure that you have the kind with a sliding and locking lid. Weighing an aquarium top down with books or other objects will not work! Corn snakes are escape artists and they WILL get out of that kind of enclosure.

Your enclosure should be slightly longer than the total length of the snake and then about half as wide as the snake is long. There should be a heating source at one end of the enclosure to provide a thermal gradient to give the snake a range of temperatures to choose from. Like all reptiles, corn snakes are ectothermic or cold blooded and their body temperature is determined by their



environment. By ensuring that the snake has a range of temperatures available within the micro habitat of its enclosure, you are giving the snake the ability to choose what

temperatures are best for it. Enclosures should be about 70-75F at the cool end and then about 85F at the basking area at the other end of the cage. I prefer using belly heat as opposed to overhead heat to create the basking areas for my snakes. This is accomplished in my rack systems by a strip of flex watt heat tape that is under the back end of the tubs. It is important that whatever heating system that you use is regulated by a

thermostat. The thermostat will ensure that your snake does not become overheated. I prefer using belly heat as opposed to overhead heat because it seems to work better for the animal and because flex watt heat tape and undertank heaters are safer than heat lamp bulbs and use a lot less electricity.

I recommend housing each snake separately in its own enclosure. Cannibalism is rare with corn snakes but it can happen. Especially if you make the mistake of feeding the snakes while they are together. Both snakes can start swallowing the same prey item and one snake can just go over the top of the other and keep swallowing, thinking that it is still swallowing the prey. Corn snakes are also not social animals. They do not need others of their species kept with them except of course when you are trying to breed your snakes. Other snakes are seen as competition. Housing more than one snake in each enclosure can create a lot of stress on your animals.

For my adult and sub-adult corn snakes I prefer to use cyprus mulch as bedding. Basically because, for me, it is inexpensive and easy to obtain. I also like the fact that the cyprus will hold some humidity which helps to avoid shedding problems. In fact

when I see a snake in shed, or in 'the blue', I'll dump the water bowl right on the bedding to increase the humidity in the enclosure and

help with the shedding process. A lot of people use aspen bedding or newspaper in their enclosures with good results as well. I use paper towels as bedding for hatchling

snakes.

Two things that are very important to have in your enclosure are a water bowl and a hide box that the snake can crawl inside of and feel secure. I like to combine the two by using water bowls that are

hollow underneath with handgrips cut in the sides that the snake can use to access the underside of the bowl. I place the water bowl/ hide box combo on the cool side of the enclosure. The snake then has the option of staying hidden in a nice cool spot and with the thermal gradient, it can come out and bask when it needs to.

Feeding

I offer my corn snakes a prey item that is slightly larger in diameter than the snake is at the thickest part of its body once a week. I feed mice to younger snakes and I feed small rats and day old chicks to my adult corn snakes. The vast majority of my corn snakes

eagerly eat thawed prey but I do raise and breed my own live mice and rats for those few snakes that will eat only live rodents. If you do feed live rodents it is important that you do not leave the rodents in with the snake for

too long. Within a couple of hours of putting the rodent in with the snake you need to check and make sure that the snake actually



ate the rodent. If live rodents are left in the enclosure too long, they might become hungry and actually start eating your snake! So it is important to remove any uneaten rodents.

Something to look out for is regurgitation. Regurgitation is when a snake pukes up a meal that it has swallowed. The most common cause of this is that the snake ate a prey item that was simply too big to digest. Another common cause of regurgitation is that the basking temperature is too low to allow for proper digestion. If your snake regurgitates, wait until the following week to try feeding it again. Ensuring that the basking temperatures are correct and backing off a bit with the size of the prey will usually correct the problem. If regurgitation continues, you may have a snake with a parasite problem. If that is the case, immediate quarantine and veterinary care is recommended.

Unlike many other breeders I do not attempt to power feed my corn snakes before introducing them to each other for breeding. The snakes simply are not feeding very heavy during those early spring months. I feel that it is more important to wait until the summer months, after the eggs are laid to start feeding heavy

and to put the weight on the animals for the next season.

Brumation

If you do not plan on breeding your snakes, there is no need to brumate your snakes.

Simply keep them warm and continue feeding them during the colder months of the year.

Many breeders have had success breeding corn snakes without brumating their animals. But it seems to me that the most successful breeders choose to brumate their animals and put them through the winter cycle. I personally feel that the brumation period is important to the corn snake's natural cycle of the seasons as well as sperm and egg production.

Brumation is similar to hibernation except that the reptile does not actually sleep. The metabolism and activity level of the snake drop significantly and it is kind of the equivalent of 'leaving the pilot light on'. Amazingly, corn snakes lose almost no weight during the months of brumation.

Different people from different parts of the country have different ways of brumating

their corn snakes. I live in Illinois and the way that I cycle my snakes is that during the warm summer months I feed my snakes very heavy as during this time the corn snake's metabolism and activity levels are at their highest. I

also feel that it is important to put weight back on the breeding females that they lost during egg production. This cycle of feeding continues into the fall months until late September/early October when I start to notice my corn snakes backing off on their feeding and not smashing rodents when I



introduce them. In late October/early November I stop feeding my snakes completely. I let the snakes tell me when their brumation cycle is starting. When they stop feeding heavily and start spending all of their time at the cool end of the enclosure, I know that it is time to shut them down for the winter. It is important to stop feeding the snakes at this time to allow for proper digestion of those last meals before the winter cold hits. If the snake's digestive systems are not empty when the temperatures fall, any undigested food or fecal matter that has not passed will start rotting inside the snake and the snake can become septic. This can lead to the death of the animal. The ambient temperatures in my colubrid room naturally drop to 45-50F in the winter cold. During this time the snakes become very lethargic and care and maintenance is reduced to weekly water bowl checks. It is important that the snakes have access to clean drinking water during this period as they will still have a drink from time to time. I actually leave the

heat on in the breeding racks during the brumation cycle. The snakes choose to spend the winter at the cool end and this allows me to observe the



behavior of my snakes and let them tell me when it is time to start feeding again. Normally I see my snakes start to become active and start basking during early March. At this time I start feeding the snakes and start to prepare them for breeding.

Breeding

During the brumation period I take a notebook out in to the colubrid room and I write down the name of every female that I am attempting to breed and which male I am going to introduce to her based on what genotypes I want to produce in the offspring that season. Then I place a piece of masking tape on the front of each female's tub in the rack with the name of the male I am going to attempt to breed her to written on the tape. Then I start moving tubs around within the racks to place the males near the females that he will be breeding that season. I at least try to put breeding groups together in the same rack so that when I am moving males into female's enclosures, I am not carrying the males clear across the room. I make a tag for each breeding male that hangs on the front of the tubs. When that male gets moved to a female's enclosure, his tag gets moved also

and is hung on the front of the female's enclosure that he was just introduced to. That way as I am moving that male through his females, I can simply walk in front of the rack and tell immediately where that snake is. Trust me, with a larger breeding collection, it is important to come up with systems like this to avoid confusing yourself!I usually start introducing males to females about mid-April. I

continue to introduce the male into the female's enclosure until I observe that the female is in fact gravid. Usually the female will stop feeding as eggs start to develop

within her and the rear third of her body will start to swell, often separating the scales.

When I realize that the female is gravid I place a laying box in her enclosure. The laying box is simply a plastic box large enough for the snake to fit into with an access hole cut in the center of the lid. I fill the box about half full with sphagnum peat moss and I soak it in water. By the time the female lays her eggs, the sphagnum has dried to the point where it is perfect for incubation. It is important to watch the female for her pre-lay shed. The eggs will be laid roughly 10-12 days after she has shed her pre-lay shed. She will also go into a post-lay shed cycle within two days after laying her eggs. Egg binding is something to definitely look out for. If your husbandry has been good, the chances of a female becoming egg bound are actually quite slim. If your snake can not pass her eggs on her own, my advice would be to take her to a qualified reptile veterinarian.

Incubating The Eggs

I tag each female's enclosure with a GRAVID tag as soon as I realize that they are indeed gravid. I check each female that is labeled as gravid every single day during this critical time. When I see a female corn snake has laid eggs in her egg box, I will wait for



several hours before removing the eggs to ensure that she has in fact laid all of her eggs. Once I am certain that she is done I will gently remove her from the eggs and pack a bit of sphagnum around the egg mass and I'll feed the new mother a well deserved meal.

The eggs will be stuck together to keep them from rolling. Many breeders separate the eggs from each other for incubation. I do not. I feel that the less I touch or disturb the eggs, the better. If you opt to separate the eggs, be very careful that you do not tear the shells while separating them and make sure that the top of the egg points up at all times. If you roll an egg, there is a good chance that you can actually drown the embryo in the embryonic fluid. Although many breeders choose to incubate their eggs with a perlite or vermiculite substrate, I choose to use the same sphagnum peat moss that the eggs were laid in. I'll tell you why in just a minute.

I write all of the information about that particular clutch on a notecard and I tape both sides of the notecard to protect it from condensation and I tape the notecard over the access hole that was cut in the center of the laying box lid to help hold in humidity during incubation. Information written on the card includes the identities of both parents, all of the possible genetic data for that clutch, the number of eggs in the clutch, and the date that the eggs were laid. Eggs are laid from mid to late May. Corn snake clutch sizes are widely variable. The smallest clutch I have ever had was only nine eggs. The largest clutch I have ever produced contained thirty five eggs! I would say that twelve to fifteen eggs is a good average corn snake clutch size. You might observe some small, yellow, jelly bean looking eggs in your clutch. These are slugs, or eggs that were not fertilized. Go ahead and

separate those from your good eggs and toss them in the trash.

I take the egg box and place it in an incubator, which for me is one of three old refrigerators I have that no longer work. Ambient temps in the colubrid room are in the perfect low 80F range at that time of year anyway, so I do not need to add any heat to the eggs. The insulation of the refrigerators helps to protect the eggs from rapid temperature changes. I open the boxes daily to inspect the eggs and to allow for air exchange within the egg box. Something to look out for during incubation is mold. Mold KILLS eggs! Any moldy eggs should be removed and thrown away as soon as they are found so that the mold does not effect the rest of the clutch. The sphagnum peat moss incubating substrate I use actually helps fight mold because it is somewhat acidic. The sphagnum will stain the eggs somewhat, but that won't cause any problems. It takes roughly 65-80 days for the eggs to hatch. The bulk of the hatching season, for me, runs from mid July to mid August.

A Note About Double Clutching

Many breeders will reintroduce males to females after the female has shed her post lay shed and has eaten a couple of meals to attempt a second breeding of the season. I do not. I simply don't want to stress my females any more than necessary and to tell you the truth, I'm usually busy enough taking care of all of the hatchlings from the first breeding that I don't want to produce any more that year.

Often female corn snakes will retain some of the sperm from the first breeding and reimpregnate themselves without having had a male reintroduced to them. The second clutch is usually laid about six weeks after the first clutch. This is something that you've got to look out for if you are breeding corn snakes. You've got to observe your snakes and be able to tell that a female is indeed gravid for a second time so that you can get another egg box in there and be prepared for the eggs. Double clutches are normally smaller than the first clutches and there will be more slugs present. Other than that, care for the double clutches in exactly the same manner as you have the earlier clutches. Double clutches are usually laid in June or July and hatch during September through October.

Hatchlings!

The greatest and most thrilling moment for a breeder is when after a long wait, the day finally arrives that you open the egg box and see those little heads poking out of the eggs looking back at you. This is what it is all about. That thrill when you see your hatchlings for the first time makes all of the hard work and waiting worth it! Once the



hatchlings start to pip, it will take anywhere from 2-4 days for the entire clutch to completely hatch from their eggs. Hatchlings will sit in their eggs absorbing the last of their egg yolks for twelve to forty eight hours after pipping. It is important that you do not force the hatchlings from the eggs and allow them to emerge into the world on their own. Once

the entire clutch has hatched, I like to take some 'baby pile' photographs and then I begin sorting, sexing, and separating the hatchlings into their own enclosures, and starting records on each hatchling.

I use a three ring binder to keep my hatchling records in with a page for each clutch. I

assign
numbers to
my
hatchlings
based on
what clutch
they are out
of. For
example
01-01-11F
would be the
first
hatchling
sorted from



the first clutch that hatched during the 2011 season and it's a female. 03-02-11M would be the second hatchling sorted from the third clutch of 2011 and it's a male. Each hatchling gets one line on the page for that clutch and I record gender, phenotype, feedings, and where that particular hatchling went after it left my facility. Genotype and all possible traits that the hatchlings of that clutch might possibly be carrying are recorded on that page as well as the information concerning the parents and the date that that particular clutch started hatching. I use a four colored pen to color code the feeding data for each hatchling. A blue mark means that the hatchling ate a frozen/thawed meal. A green mark means that the hatchling consumed a live rodent. A red mark indicates that an assist feeding was necessary.

Seven to ten days after hatching the hatchling will go through its first shed cycle. After that first shed has come off, it is time to start introducing food. Fortunately most baby corn snakes will take frozen/thawed pink mice without any problems. There are some stubborn individuals however that only seem

to want to eat live pinkies.

Sometimes it can be very difficult to get those snakes switched over to a frozen/ thawed diet. Then there are those hatchlings that just can't figure out that they need to eat if they want to live. There are several tricks available to get a stubborn feeder to eat, such as washing thawed pinkies with soap and water, braining, tease feeding, and lizard scenting the pinky. Force feeding is an option left for when all else has

failed and should not be done unless there is simply no other way to keep that baby snake alive. Force feeding is very stressful on a snake and can be very stressful on you too! If you also raise kingsnakes, then there is another option available to you concerning what to do with problem feeder hatchling corn snakes.

Something else to look out for is hatchling snakes with deformities. The most common deformity is spinal kinking. Kinked spines can most often be attributed to heat spikes during incubation. One real easy way to spot spinal kinks is to put the hatchlings in a couple of inches of water and watch them swim for a few seconds. Any kinked hatchlings will be very easy to spot. I feel that deformed hatchlings should be culled in case the abnormality is genetic so that it is not passed on. Regardless of what you do,

deformed or problem feeder snakes should not be sold. As a breeder, you should strive to produce only the highest quality animals.

Just like with adults, make sure that your hatchling corn snakes are provided with a clean enclosure, clean water, hiding areas, and a basking spot.

Genetics?

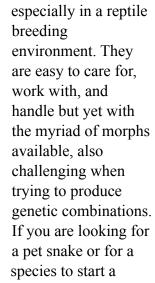
Readers of this article have probably noticed that I haven't mentioned any of the genetic morphs

available in corn snakes. The reason for that is that this article would have quickly turned into a book if I had! There are a lot of corn snake morphs out there with new genes and new genetic combinations being discovered and created every year. Corn snakes are available in a virtual rainbow of colors that can be combined with multiple pattern mutations. The possibilities are seemingly endless. Some of the more recently discovered genetic traits are strawberry, terrazzo, tessera, palmetto, and scaleless.

Corn snakes have also been hybridized with multiple other species such as emory's rat snakes to produce root beer and cremescicle corns, gray rat snakes to produce frosted corns, california king snakes to produce jungle corns, and gopher snakes to produce turbo corns. I personally have a very interesting corn snake X yellow rat snake hybrid that I have tried and have failed to breed

Conclusion

Corn snakes are in my opinion the absolute perfect snake to work with in captivity and



breeding project with, I highly suggest that you consider the wonderful and amazing corn snake!



Snake Mites: ID and Treatment

By: Sara Viernum

Drawing courtesy of

Dave Barker & Tracy

Barker

Oh no! There are little specks crawling on my snake's face! Are they alien dust motes or futuristic nanobots? Are they bent of world domination? Help! What are they and how do I get rid of them?

Don't fret those dark specks are just mites and will not take over the world (just yet). The mites feed on the blood and fluids of reptiles. Like most organisms reptiles get parasites too. Think of them like ticks you pick up while hiking. The most common

parasitic mite is the snake mite Ophionyssus natricis. This mite feeds on captive snakes, lizards, turtles, and other reptiles.

Diseases and Illnesses:

Though a mite infestation may not seem like a major issue the truth is it is and needs to be treated immediately. Snake mites cause irritation, inflammation, problems

shedding, and secondary bacterial infections in your reptile. In severe cases the mites may cause anemia or immune suppression issues. The mites can also allow entry of Aeromonas spp. bacteria, Inclusion Body Disease (IBD) virus, and Ophidian Paramyxovirsus (OPMV) which cause medical complications in reptiles. Snake mites are also suspected of transmitting IBD to reptiles.

Reactions to mite bites have been observed in humans as well. In 1975, a researcher recorded the first documented cases of snake mites causing dermatitis in an adult and three children. Their pet ball python had a heavy mite infestation that was transferred to a chair the snake was allowed to climb on. The snake was treated and the skin irritations on the humans went away.

Symptoms:

So how do you determine if your reptile has mites?

Symptoms of a mite infection include anorexia, dull coloration of scales, and rubbing (scratching). Another indicator is an infected snake may soak in its water dish to help alleviate the discomfort of the mites' bites. If you notice your snake soaking more than usual take a closer look to make sure it

isn't infected mites

Snake Mite ID:

How do you identify a snake mite?

First off here is some natural history of Ophionyssus natricis. Snake mites prefer temperatures between 75-85°F and 70-90% relative humidity which of course are also the preferred ranges for most reptilian pets. The mites can't thrive in temperatures above 105°F or humidity levels below 20% but then

again most reptiles can't either.

The mites have five life stages: egg, larva, protonymph, deutonymph, and adult. Under ideal conditions the eggs can hatch in one day. The larval stage can last 1-2 days. protonymph stage 3 days-2 weeks, and deutonymph stage 1 day. By 19 days the mites have usually matured to adulthood. Adults can live up to 40 days and an adult female can lay 60-80 eggs in her lifetime. The eggs are rarely laid on the snake instead they are deposited in a dark corner of the reptile's enclosure.

During the first four life stages the mites change color from white to dark red or black and begin feeding on the snake during the deutonymph stage. After the mites mature into adults they appear as little black, dark

red, or dark yellow dots around the snake's eyes, nostrils, and gular fold (chin fold). Also check the animal's water dish and look for any dark spots floating around.

These will be drowned mites.

Proven

EFFECTIVE + EASY TO USE

CAUTION

Snake Mite Treatment:

Now that you know how to identify the mites how do you get rid of them?

There are several opinions on how to treat snakes infected with mites. My good friends at the House of Reptiles in Tigard, Oregon (www.house-of-reptiles.com) have these following suggests on how to get rid of mites. First treat the snake by removing it from its enclosure and soaking it up to its chin with soapy water. Put only one small drop of soap into the water. Allow the snake to soak for at least 30 minutes then rinse it off with clean water. Make sure you thoroughly wash your

hands and arms before handling the snake.

While the snake in soaking remove all bowls and hides from the cage and clean out all the bedding into a sealable trash bag. Next close up the trash bag place it outside in your garage can/dumpster immediately. Also make sure you didn't drop any bedding unto the floor. You don't want to re-infect your snake with dirty bedding lying around. Wash the bowls and hides with hot soapy water and soak in bleach for 10 to 15 minutes then rinse and dry them. Once the bedding is removed from the cage thoroughly clean it with soapy water making sure to scrub out all the corners and crevices. Really clean out the corners since this is where the mites like to lay their eggs.

After you finish scrubbing the cage wash it out with clean water to get all the soap residue off and let it dry. Next wash the cage

down with a solution of bleach water (just a few splashes of bleach in a bucket of water

> should do it). Allow the bleach to sit for a couple of minutes then wash the cage down again with clean water. Once the cage has dried spray it with Provent-a-miteTM making sure to cover the entire inside surface of the enclosure especially the corners. Let the spray dry completely. Provent-amiteTM is a safe and effective way to treat snake mite infestations. You can usually find it at any store specializing in reptiles. You can also order it online from ProProductsTM (www.proproducts.com). Make sure you thoroughly wash your hands and arms before putting in clean fresh bedding and the cleaned bowls and hides.

After treatment keep a close eye on your snake checking it for mites at least once a day for the next month. Also check the water dish for any drowned mites. After 30 days if your reptile still has mites clean it and its enclosure again as described above. Wait another 30 days and repeat if necessary. If you have multiple reptilian pets make sure to check them regularly for mites too and keep them away from the infected animal if possible. And always wash your hands after handling the infected reptile and enclosure. Soon you will have a happy and healthy snake!

For other treatment options and information on snake mites check out these websites:

Pacific Northwest Herpetological Society (www.pnwhs.org/Articles/Got-Mites)

Vida Preciosa International, Inc. (www.vpi.com/publications/ the life history of snake mites) LLLReptile (<u>www.lllreptile.com/info/library/care-and-husbandry-articles/-/dealing-with-snake-mites</u>)





