

The Corn Snake Guide

By Doug Anderson



The following piece of literature is not intended to be a scientific paper, merely a collection of ideas and experiences that I have had keeping corn snakes. Corn snakes are by far the most popular snake kept by herpers the world over.

I would even go so far as to say that any collector / breeder of exotic snakes has kept corn snakes at some or other point in their lives. Their average length, good temperment, ability to withstand different climatic conditions and the ease with which they can be bred, makes the corn snake the best beginner snake by far.

I trust that you will enjoy the journey into the world of the corn snake, and I trust that you will learn some valuable tips from the book, that will help further your interest into herpetology.

Happy reading and enjoy the photography.

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Choosing your first snake

Corn snakes are by far the most popular snake and the most sold snake on the pet market. There are now many pattern and colour variations that are captive bred within this group of snakes.

When you choose any snake, there are a couple of things to look for; first you need to know if the snake is eating by itself and if it has eaten a couple of times before you purchase it. It is not recommended that you purchase a snake that hasn't eaten yet or if the snake is being force fed, especially if it is your first snake.

The second thing to look out for are any visible bone growth defects along the spine of the snake. Sometimes, the eggs are incubated at a high temperature which results in the snake developing "knobs" along the spine which are called "kinks". The kinks don't allow the snake to have an even s-like motion when it slithers along, and it is not recommended that you purchase snakes with such defects.

The next thing to check is that the snake is active and that its tongue is flickering quite fast – baby snakes are very active and they may also be a little aggressive which is what you are looking for. A baby snake that is limp and its tongue flickers every now and then, is generally an unhealthy baby.

The next characteristic to look for is the general appearance of the snake – is its skin dry and wrinkly or is it shiny and smooth, the snake should also be plump, having eaten a few times.

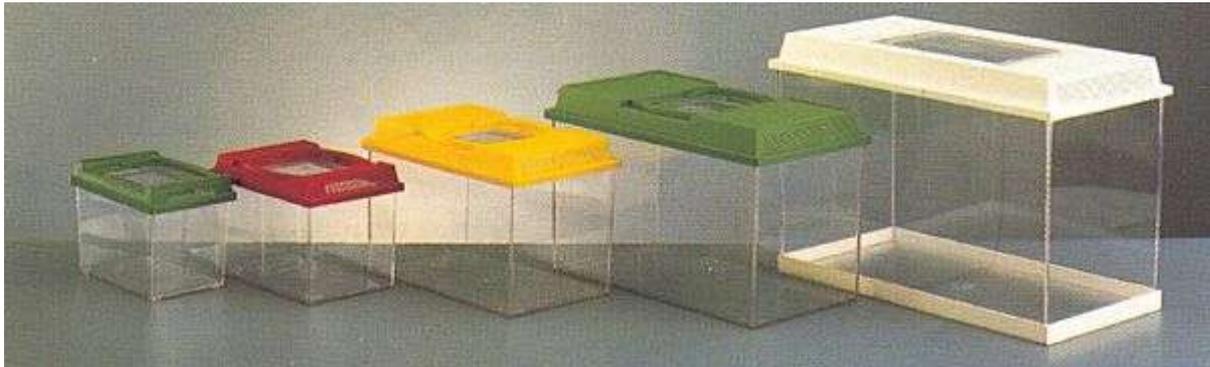


Picture of a juvenile corn snake. The colours brighten as the snake matures.

Caging – Creating your snakes home sweet home

Once you have purchased your snake, you need to house it in something. There are many ways to house a snake and it depends on your bank balance how you want to house it. There are a few basic facts that you need to understand when you set up your cage. The first fact to note is that your snake is now approximately 25cm, but it will reach a length of approximately 1.3m – the time taken for your snake to reach that length depends on how often you feed it.

Corn snakes will do well in what is called a reptile den which is about 50cmX30cmX30cm for about the first year (the snake should be approximately 60cm in length after a year). You can house your snake in a smaller reptile den, but you will have to upgrade sooner to a larger cage as it grows.



Various Sizes of Fauna Boxes made by Savic, which can be used to house different kinds of reptiles.

When I am big, I am going to buy me a BIG house with a big garden and a fancy resting place...

Once your snake is fully grown, it will do great in an enclosure with the dimensions of approximately 1300cm X 50cm X 50cm. I recommend that you buy the largest reptile den when you purchase your snake, reason being that when you eventually upgrade to a larger enclosure, you have a large container to put your snake into when you clean the enclosure.

A wooden enclosure with glass sliding doors in the front is an attractive enclosure, but a simple fish tank can be used, provided you can buy or make a decent tight fitting lid, as baby snakes can crawl out of the smallest of gaps.



Examples of different sizes of wooden enclosures and hide boxes.

No Heat, No Eat!

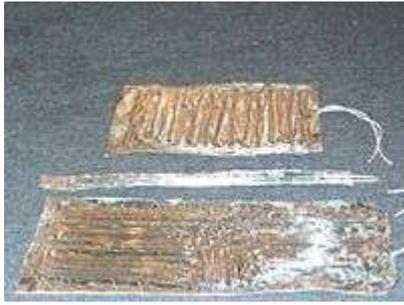
The next fact to consider is that your snake will need a warm and cool side to its enclosure which the snake can choose. This can be achieved by purchasing a heating pad which you will place under the enclosure on the one side.

There are many different makes of heating pads and some are fancier than others. If you are able to control the heat, you want to set it on about 28°C. Most heating pads that can be bought locally are made from resistance wire and you should ask the person or shop that you purchase the pad from what temperature it gets to.

You should also ask what size pad you need for your enclosure as only a small area of the enclosure needs to be heated.



Heating cable can be placed in whatever shape you want and allow you to heat the exact area you want.



Different sizes of heating pads for different sizes of enclosures.

What is the temperature in here?

It is a good idea to have a thermometer on either side of the enclosure to measure the difference in temperature. On hot days in summer, depending on where you live, if the air temperature is hot enough without the heating pad, then turn it off.

The heating pad should be turned on when your snake has eaten, to help it digest its food quicker, on cold and rainy days and during winter – if you do not want to hibernate your snake.



Reptile thermometer made by Zoo Med. Useful in keeping accurate temperature control.

Put the greenery over there, and the rocks over here and the branches over there and ...

The next fact to consider is that you will be cleaning your snake cage quite often and the more the decoration in the cage, the bigger the hassle.

Plastic plants work the best for enclosures as they do not carry mites and other bugs that you find on live plants and a rock or piece of drift wood will look attractive in your enclosure but go easy on how much you put in and also make sure that you soak the rocks and wood you use in boiling water to kill all the bugs that might be on them.



An example of a well decorated reptile enclosure.

Persian carpets or Parquet floors...?

The substrate you use is the next important issue. Different breeders use different media as a substrate, some use simple news paper which is cheap and easily replaceable, others use carpeting and others use different sorts of gravel.

My only complaint about gravel is that it can be ingested when you feed your snake and create internal problems for the snake. Carpeting can be washed and newspaper can be easily replaced and neither can cause any harm to the snake.



Astro Turf is a good substrate for an enclosure.

Is there light at the end of my tunnel?

Lighting is another need to consider. You can purchase full spectrum uv-lights from your pet store and there are also day lights and night lights that you can also purchase – if you are able to do so, then your snake can only benefit from it.

If however you can take your snake out into the sun for a few minutes, a few times a week, then a simple light globe that you use in your house will suffice. The wattage that you use will depend on the size of the enclosure.

Note: Never leave your snake in a closed enclosure in direct sunlight, the heat will kill it.



Full spectrum day-light made by Zoo Med.



Full spectrum night-light made by Zoo Med.



Full spectrum fluorescent lights made by Zoo Med.

What about My Privacy?

A hiding place like a hide-box or ice-cream container should be placed on both sides of the cage for the snake to choose where it wants to stay and also a proportionally sized water bowl for the snake to drink from and lie in when it is hot.



An example of a pine hide box for reptiles.



An example of a hide box for reptiles made from pieces of bark.

Rat snakes also enjoy climbing and you could put a branch or two in to create some adventure for your snake.

Rub-a-dub-dub, thanks for my grub...

Corn snakes will eat pinkie mice when they are hatchlings and as they grow, so the size of the pinkie will increase until the snake is large enough to eat fully grown mice. You can either feed your snakes live or dead prey, if you want to feed your snakes dead prey, then you must get them used to taking dead prey from babies.

The advantages of feeding dead are that if the mouse had some sort of external parasites, then the freezing process will kill them and also it allows you to buy in bulk, freeze and feed without the hassle of driving to fetch food from the supplier every week.



Pinkies – new born baby mice.

The way to thaw out frozen pinkies or mice etc. is to put the food into a plastic bag and then submerge the bag in hot water and wait until the food is soft and warm to touch.

It is also advisable to put the snake with the defrosted prey into a small container for it to eat it – this will prevent anything in your enclosure from sticking to the wet prey.



Fuzzies – slightly older baby mice.

If you want to feed live prey to your snake, especially fully grown mice, then it is advised that you at least stun the mouse by flicking it on the head before you feed it – this will prevent it from getting time to bite the snake.

A more humane way of killing the prey is to put a pencil behind the head of the mouse and pull the tail of the mouse, thus breaking its neck but an even better way is to put the mouse into a bag and fill it with CO2. The choice is ultimately yours.

It is always good to give your adult snakes, mice that had multivitamins injected into them a few times a year and it is also good to give your pregnant female snakes, mice that have been injected with vitamins and dusted with calcium powder to build reserves in your breeding females.



Mice would be nice...

Remember not to disturb your snake when it is swallowing the prey as it may get stressed and regurgitate the prey and it is also recommended that you do not handle your snake, whatever size, after it has eaten for a few days, until the prey has been sufficiently digested and the bulge you would usually see, is gone.

Other advice I can give on feeding snakes, is not to vary their diet from rodents to lizards or frogs. Mice and rats are easy to obtain so it would be alright to vary their diet between those but I wouldn't feed lizards, frogs, gerbils or hamsters to your snake as it might get a taste for them and it could be a costly exercise and require much effort.



Rats! Only to be fed to large adult rat snakes, DEAD.

People have also come to me asking what size prey should they feed to their snake. If your snake is a hatchling, then I would start by feeding it one pinkie for a few feedings. After about four feedings, I would throw in two pinkies and see if it will eat them. Some hatchlings will take two pinkies immediately, if so, let it eat!

Once your snake has moved onto eating three pinkies regularly, then move onto fuzzies and gradually increase the amount of fuzzies until three are taken and then move onto small mice until your snake will eat a few adult mice and then small rats or rat pups. The growth rate of your snake will depend on your feeding routine.

Hatchlings are able to have a meal every third day / twice a week. Feeding at this rate will allow your snake to reach its maximum length in the shortest time.

Once your snake is 12 – 24 months, you can reduce its feeding to once a week or keep it at once a week from the beginning.

Breeding Corn Snakes

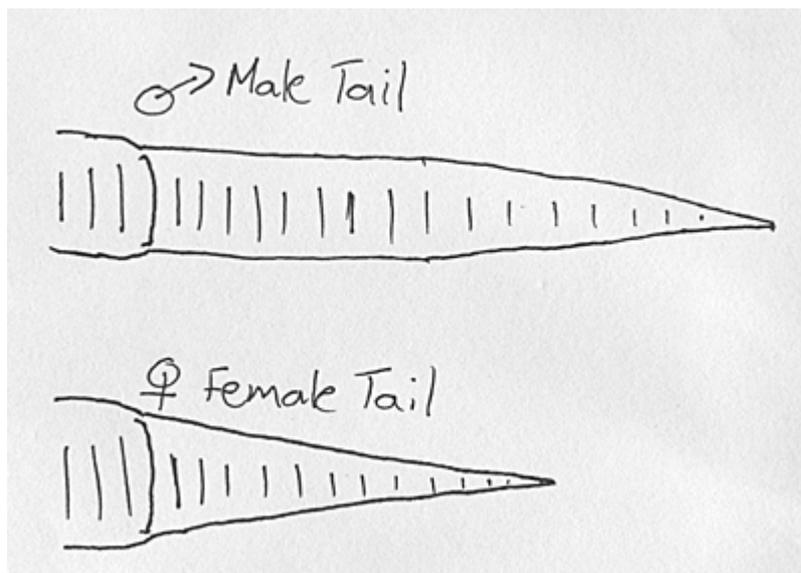
Son, it is time to talk about the birds and the bees...

If you are planning to breed your snakes, then you would have had to purchase a male and female of that specific species, preferably from different batches so that you do not have two of the same bloodline. There are two ways of telling what sex your snake is, namely, pop-sexing and probing.

When your snakes are still juveniles, it is easy to pop-sex your snakes – I would recommend that you get an expert in the hobby to do it for you until you have seen it being done and are confident that you can do it. Once the snake has grown a bit, then you will have to probe the snake – once again, do not do this without having seen it being done plenty of times.

Males have what is called hemipenes which is a "paired" sex organ – one hemipenis housed in a pocket on either side of the tail caudal to the cloaca or vent of the snake. It is easier to tell the sex of adult corn snakes by looking on the ventral side of the tail caudal to the cloaca (simply, on the underside of the tail looking in the direction of the tip of the tail from the area of the cloaca).

The width of the tail from the cloaca tapers quickly directly from the cloaca in females whereas in males, directly from the cloaca, the tail has the same width for a few centimetres and then tapers. The males' hemipenes are housed directly caudal to the cloaca and they are quite thick and thus the tail is the same thickness for the length of the hemipenes.



When you probe a snake, a probe is lubricated and then inserted into the opening at the cloaca. The probe is gently pushed in the direction toward the tip of the tail – if the probe slides in easily to a length of about 8-10 sub-caudal scales, then it is a male, but if the probe will only go in about two sub-caudal scales, then it is a female.

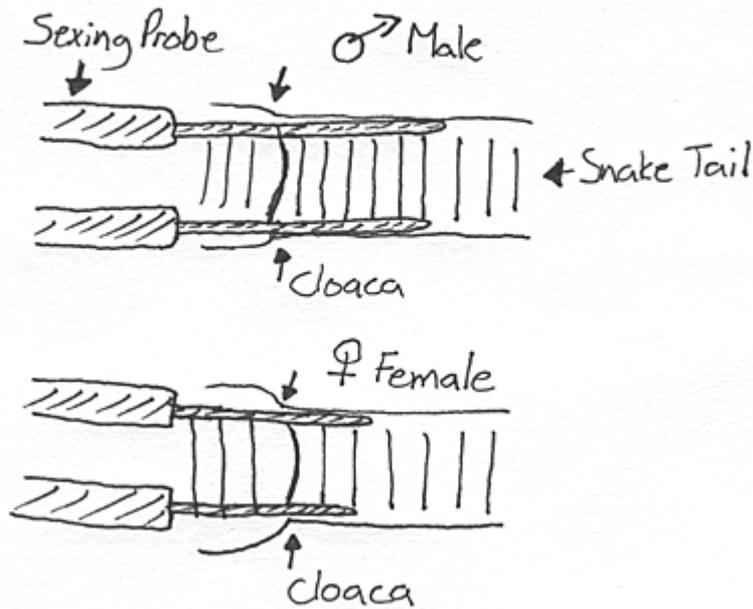
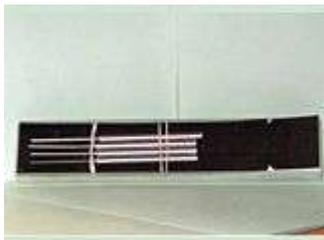


Diagram showing how far the probe will go when inserted into a male and female.



Example of a set of probes of varying thicknesses.

When pop-sexing is used, the snake is turned upside-down and supported in both hands. The thumb exerts slight pressure in a sliding motion in the direction from the tip of the tail toward the cloaca – males will sometimes evert one or both hemipenes. Both methods are to be done by a professional in the field!!!

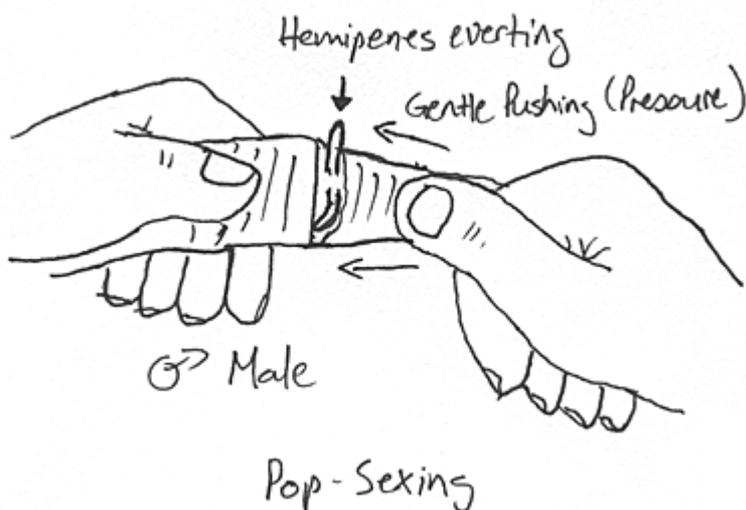


Diagram illustrating the process of pop-sexing in snakes.

I am a dying species, I want to mate...

So, you have finally found a pair of snakes, now you want to breed them. Literature that I have read has said that the earliest you are able to breed corn snakes is 18 months – but then your snake is about a meter and will only lay about 5 eggs, I recommend that you wait for 3 seasons before you breed your snakes, my reasoning being that the snake will be fully grown and first time round she should lay around 10 eggs but every year there after it will increase until about 25-30 eggs are laid in one clutch.

If you breed your snake too young, you will stunt its growth and then you will only get the same amount of eggs, being a minimum amount, every season thereafter. The choice is again yours – but I have seen many females die after they have laid eggs because they were bred at a young age.

Before all the fun starts, I want to have a little sleep...

If you want to breed your snakes and they are old enough, then you need to feed them often in summer and fatten them up for winter. When it starts to get cooler, reduce the feeding and just before winter, stop feeding completely, give the snake about two weeks to pass whatever food may be in its gut and then turn off all the heating.

You can also cover the glass with news paper, so that it is dark. Your snake is now officially hibernating. Males need to be hibernated to produce fertile sperm cells.

Leave a small water bowl in the enclosure and leave your snake for the duration of winter – checking every now and then to give it new water. In spring, turn the heating back on, start feeding small prey, gradually working up to fully grown mice.

During this period after winter, you should keep your snakes apart in separate enclosures, feed them like pigs for about a month and then put them together. The separation will create an even higher libido for the male.

Get ready to tango, baby!

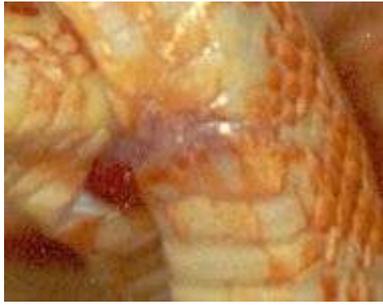
I have found that you can introduce the female to the male's enclosure or the other way around, they usually don't have a problem wanting to mate at this time.

You will notice that both snakes will start jerking movements and the male will slide on top of the female and he will try to wrap his tail around hers until his cloaca is opposite her cloaca into which he will insert one hemipenis – whichever one is nearest the females vent.

After struggling, he will insert a hemipenis and deposit his sperm.



Picture of a pair of albino corn snakes mating.



Close-up of a pair of albino corn snakes mating, male on the right, inserting hemipenis into vent of female on left.

After they have successfully mated, you can separate them again for a few days and then re-introduce them and the same situation should follow. They can mate 3-4 times and I have had snakes mate up to 9 times in the breeding season and some have mated for as long as 12 hours, but corn snakes will mate for about 30 minutes.

Once your snakes have mated a couple of times, you must feed your females as often as they will take food, because they need to build up energy reserves. Males will probably not eat during this time and it is important to feed them well before you let them start mating.

Females will start developing eggs and around 23 days after they have mated, the female will have her pre-laying shed. By this time you should have placed a container with some damp vermiculite or moss in for the female to lay her eggs in.



Female albino corn snake, in egg laying box, starting to lay her clutch of eggs.

About 7 - 11 days after her pre-laying shed, the female will start laying her eggs. Corn snakes will lay one egg every 30 minutes or so.



If you catch your female snake in the process of laying her eggs, once an egg has been laid, you can remove it and place it into an ice-cream container with damp vermiculite in the position that the egg was laid in and half bury it in the vermiculite.



Clutch of eggs, placed in vermiculite exactly the same way as they were laid.

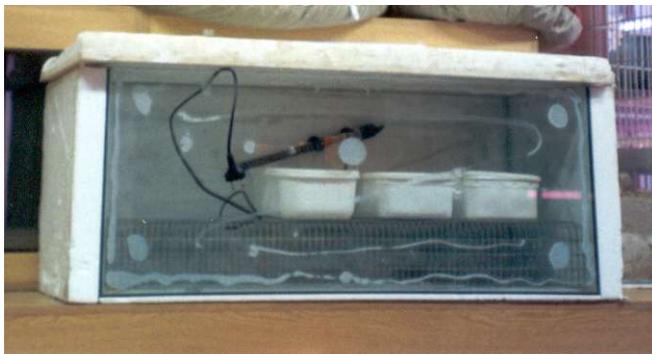
If the female has laid the whole clutch already before you check on her, then you must uncoil her from around her eggs and place the whole clutch into a container with damp vermiculite in the exact way she laid the eggs.

Once the female has finished laying her eggs she will be very tired and thirsty, so offer her water or leave a water bowl close to the egg laying box.

Incubation

The benefit of catching your female in the process of laying her eggs is that you can then place them next to each other in an orderly fashion in the container in which you wish to incubate the eggs and this allows you to be able to throw the eggs that might be infertile away without disturbing the other eggs.

When eggs are laid in a clutch all stuck together, once they have been laid, you shouldn't disturb them and if there are infertile eggs in the bunch, then you must just leave them.



The next task which should actually be done and found to work before the eggs are laid, is building an incubator. It took 4 seasons of unsuccessful incubating, trying different methods suggested by other breeders before I developed my own way of incubating which has given me about 98% hatch rate ever since.

It works on the principle that water heats up and cools down slowly. You can use a simple fish tank. You will need to insulate the fish tank on all five sides with polystyrene about 5cm thick. You will also need to make a lid that has a tight fit out of polystyrene.

You can make a small pen hole through the polystyrene lid on either side for air flow or make sure to air your incubator about every second day by lifting the lid and replacing it.

The next thing you will need to purchase is a submersible fish tank heater, preferably one that you can set the exact temperature on the outside of the heater.

The next move is to make a platform from bricks or wire to rest the container containing the eggs on. The container containing the eggs should have air holes the whole way around the container to allow for gaseous exchange.

A thermometer should be placed into the container in which the eggs will be placed and the fish tank heater should be set on a temperature that creates a temperature in the container that the eggs will be in to be 27°C.

The polystyrene insulates and keeps the temperature inside the incubator constant and the water keeps the humidity in the 90% range which is where you want it to be.

This should all be done before the eggs are laid. Incubating at 27°C, the eggs should take about 63 days to hatch. Infertile eggs are yellow and hard and fungus will soon grow on them and they will shrivel.

Fertile eggs are white and leathery to touch and you will notice that they swell as the embryo grows in the egg. It is better to remove infertile eggs from the container with the fertile eggs as the fungus could start growing on the fertile eggs as well.

Health, hygiene and injuries

Rat snakes in general are very active snakes and so the first sign of a sick corn snake is a lethargic corn snake. The skin should be shiny and firm, not dry and wrinkly. If your snake is fed once a week, it should also be plump, i.e. if you are able to see the ribs or spine easily, then chances are that your snake is sick probably with worms.

Another sign to look for is found in the faeces of the snake – if it is watery, green, contains worms or has a really sickening smell, then chances are your snake is sick. Your snake's faeces should have a white component which is the urine of the snake and a dark brown to black component which is the fur that can't be digested.

If your snake also keeps regurgitating its food and your heating system is working, then your snake is probably sick as well with a gut bacterial infection. If your snake gapes its mouth open all the time and keeps lifting its head and looking upward, if it sounds like there are crackling noises coming from its nose or if you see bubbles coming from its nose, then your snake probably has pneumonia.

If your snake presents with large lumps along the length of its body, then it probably has some type of cyst, however if you feed your snake often it could also be fat deposits.

When it comes to health of snakes, I look for symptoms and then I let the veterinarians handle the rest, after all, they are the professionals.

I wouldn't recommend that you try to give medicines etc to your snake before consulting a veterinarian on the matter – I have seen breeders kill their snakes by trying to give medications to their snakes, not knowing the correct dosages and quantities to give.

Another problem that is quite common in snakes is mouth rot – when particles like moss or gravel get stuck in the snake's mouth it results in a sore developing which results in the snake not wanting to eat and an area of the mouth swells slightly, again, I would recommend that you take your snake to the vet to get treated.

In another chapter I recommended that you kill the snake's prey before you feed it because the prey could bite the snake, well I have seen adult Burmese pythons get literally eaten alive by adult rats that were not killed and I have had a Sinaloa milk snake that has had a large chunk eaten out of her side by a hopper mouse because I didn't kill it.

If your snake has got bites from mice or burns from heating pads that are too hot, there are creams that one can apply to the skin but again, I would see a veterinarian.

One problem that you yourself can sort out is that your snake will sooner or later have, which is a shedding problem where the skin is too dry and the snake is unable to slide out of its old skin.

What you need to do in this instance is soak your snake in some warm water for a couple of hours and then let it slither on the carpet and let it slide against rocks and branches to try to get the skin off.

There are also pet products that you can buy that will aid your snake in shedding but the old fashioned way will also work.

If your snakes skin is very dry and wrinkly and the snake isn't looking well at all, then it probably is dehydrated and you should wet it and give it lots of water to drink and then take it to the vet who will probably tube it with liquids or inject it with liquids to help it re-hydrate itself..

If you find that your snake hasn't passed stool for a while, you can swim it in the bath with warm water and let it exercise a bit for a few minutes, this will get the muscles working and the digestive system active and working which should result in the snake passing stool.

Snakes will get sick, if their enclosure is not cleaned regularly and sterilised to get rid of any bacteria and other micro-organisms. At least once a week, you should clean the carpet and wash it down with a disinfectant or if you use gravel, then wash the gravel and if you use news paper, then replace it with fresh paper.

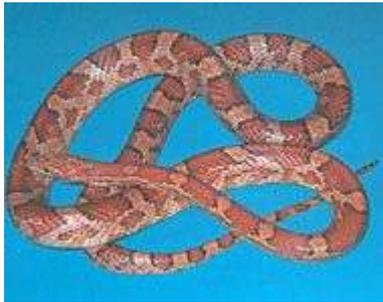
I would recommend that you wash down the entire inside of the enclosure with a disinfectant and let it dry – find out from your vet or pet shop what products are safe to use with snakes. Your snake should also get new water at least once a week, but more regularly is recommended.

You should also wash the snakes water bowl thoroughly to get the sticky film of bacteria off that grows on standing water.

Remember to always wash your hands after handling your snake and if you have more than one snake, it is recommended that you wash your hands between handling each snake to prevent any infections or parasites from spreading from snake to snake.

It is also recommended for the same reason that you have one enclosure per snake – just in case!

General facts about Corn Snakes



A typical example of a standard Corn Snake.

Corn snakes are probably the most popular and most sold snake across the world, they are also probably the only species with the most colour variations and pattern variations. Corn snakes occur naturally in parts of North America: New Jersey, Florida, Louisiana and Tennessee.

Corn snakes are by far one of the best snakes to keep in captivity due to their fair temperament, their adaptability to live in variable climatic conditions, their average size (around 1.3m), their ability to breed easily and their variability in colour and pattern.

Standard corn snakes are recognised by the orange, red, black, yellow and cream coloration with the arrow pattern on the head of the snake and square blotches or saddles along the length of the snake and a checkered black and white belly.

Corn snakes will grow to approximately 1.3m in length and have a girth of approximately 2.5 – 3cm. Corn snakes reach sexual maturity at around 18 month to 2 years. They mate from spring into summer (Sept – Jan). Females are able to lay anything from 5 to 30+ eggs in a single clutch.

Classification of Corn Snakes:

Who am I ?

Scientific names are given in the following order: Genus, Species, Subspecies. For example, the corn snake is classified as follows:

Class: Reptilia
Order: Squamata
Suborder: Serpentes
Family: Colubridae
Genus: Elaphe
Species: guttata
Subspecies: guttata

Scientific Name: *Elaphe guttata guttata*



List of Popular Rat Snakes: Scientific Names and Common Names

Scientific Name	Common Name
Elaphe guttata guttata	American Corn Snake/Red Rat Snake/Corn Snake
Elaphe guttata emoryi	Great Plains Rat Snake
Elaphe obsoleta quadrivittata	Yellow Rat Snake
Elaphe obsoleta rossaleni	Everglades Rat Snake
Elaphe obsoleta lindheimeri	Texas Rat Snake
Elaphe obsoleta spiloides	Grey Rat Snake
Elaphe obsoleta obsoleta	Black Rat Snake
Elaphe taeniura taeniura	Taiwanese Rat Snake/Taiwan Beauty Snake

Handling your snake

Juvenile snakes still have the instinct to bite, but because their heads and teeth are so small, they hardly even touch the skin when they try to bite.

Care needs to be taken when handling your snake, you should always support your snake with both hands – never hold your snake by the tail and let it wiggle wildly without supporting its body, the reason for this is that the snake could actually break its back in the struggle and also, snakes have a simple circulatory system and blood will not be able to travel from the heart to the rest of the body and your snake could die or have a black-out.

The correct way to hold a snake is to hold the head between your index finger and your thumb with your other hand supporting the body half way down the snake – obviously this depends on the actual length of the snake, juveniles can be supported with one hand.

A snake that is never handled usually ends up being an aggressive snake and so it is recommended that you handle your snake at least once a week but every second day or so will also suffice.

Juveniles

After about fifty five days of incubation, you should check the egg box every day and closer to sixty three days, check even twice a day and eventually you should see that your eggs will have slits in them and some liquid is oozing out.



Corn snake eggs starting to "cut".

This occurs when the snakes are ready to come out of the egg and they slice the egg from the inside with an egg-tooth that they are equipped with to aid the hatching process. The babies will take quite some time, before they will emerge from the egg and it is best to not rush them.



Albino corn snake, emerging from its egg. Notice the one just behind with just its snout sticking out the egg.

If you are presented with the situation that a few eggs have cut and after a day some haven't, then I recommend that you buy a scalpel blade and make a tiny incision along the egg – chances are that the shell of the egg was too thick and the snake couldn't cut through it.

After you have done that, you should find that the snakes should emerge. I haven't experienced any problems with corn eggs not cutting, only with snakes like Taiwanese rat snakes have I experienced this, but there is always a first time.

If you find that none of your eggs have cut by seventy days, I recommend doing the same.

After the snakes have emerged from their eggs, they will wonder around and for the next week or so they will start to absorb the egg yolk in their bodies.



Batch of albino corn snakes hatching.

After about a week, they will shed for the first time and after that, they should take their first meal – some individuals will take their first meal before they have even shed, these specimens usually grow up to be pigs! Once they have eaten once they are technically ready for sale but it is best to let them feed at least 3 times before selling.

Some juveniles will not eat from the beginning and if they haven't eaten after a couple of weeks, then you will need to force feed them, which should also be learned from a professional first, before you try it.

If you are planning to venture into the breeding game, then a good investment is a pinky pump which is used to force feed juveniles that are reluctant to eat.

Genetics



So, you have blue eyes, and you have a red skin, that means that I ...

It is always good to ask if your snake carries any particular gene or if your babies were produced from a "straight cross" and by that I mean, if the male and female were the same colour morph and pattern morph and that your baby is identical to that of the parents.

To understand the genetics when breeding, such information as mentioned above becomes very important. When a snake carries a particular gene, the correct terminology is to say that the snake is heterozygous (het.) for that particular gene.

To explain the genetics when breeding snakes, I will only use examples of a normal coloration (A), other coloration eg. albino (a) and a normal pattern (B) and a peculiar pattern (b)

* (a) refers to any other coloration than that of the normal colour, be it snow, albino, ghost, blizzard, silver etc

* (b) refers to any other pattern than that of the normal pattern, be it zigzag, motley, striped etc

Some examples of Basic Genetics.

Possible equations are as follows: the way to calculate the genetics is to cross multiply each letter with each other eg. Male = AA ; female = aa – then the babies are Aa ; Aa; Aa; Aa

Male = Y

Female = Z

YAA = normal male

Yaa = albino male

YAa = normal male het. For albino

ZAA = normal female

Zaa = albino female

ZAa = normal female het. For albino

YAA x ZAA = AA babies (i.e. a normal colour male mated to normal colour female will produce 100% normal babies)

YAA x Zaa = Aa babies (i.e. a normal colour male mated with eg. Albino female will produce 100% normal babies – all het. For albino)

yaa x zaa = aa babies (i.e. for example albino male mated with albino female will produce 100% albino babies)

YAA x ZAa (Normal colour male mated with normal female het. For albino)

=100% normal babies – 50% normal het for albino & 50% just normal

YAa x Zaa (normal male het. For albino mated with normal female het. For albino)
= 50 % normal babies het. For albino; 25 % normal ; 25 % albino

It is important to remember that genetic statistics used eg. 25 % are taken over thousands of babies and so the percentage rate of each morph per batch of eggs will definitely not match the statistics given. The statistics given are approximate.

Genetic case histories



1. Albino "banded phase" californian king snake male mated with normal "abparent phase" californian king snake female. The female layed 7 eggs and 7 banded albino californian king snakes hatched.

From this one can conclude that the female must have been heterozygous for albinism. 2001 Breeding Season.

2. Sunglow male corn mated with Silver corn female. 16 eggs were layed. Out of the 16 eggs, 8 were normal babies and 8 were silver babies.

From this, one can conclude that the sunglow was heterozygous for snow and the silver was a straight silver corn. 2002 Breeding Season.

3. Normal male corn mated with normal corn female. Female layed 23 eggs. 19 normal babies and 4 albino babies hatched out of the batch. From this, one can conclude that both snakes were heterozygous for albinism. 1999 Breeding Season.

4. Albino corn male mated with normal female corn. 15 eggs layed. 1 Snow and 5 albinos and 9 normal corns hatched.

From this, we concluded that both snakes were heterozygous for snow. 2000 Breeding Season.

5. Hypomelanistic female corn mated with Snow male corn. 19 eggs layed. 3 albino, 4 silver, 4 snow, 2 hypo's and 6 normal corns hatched from one clutch. This one confused us! 2001 Breeding Season.

6. Normal corn female mated to Sunglow male. 22 eggs layed. 22 Normal babies hatched.

We can conclude that the female is not heterozygous for albinism and also that the babies are all 100% heterozygous for albinism. 2002 Breeding Season.

Anatomy of Snakes



So, I have two eyes, a forked tongue, lots of ribs...

We will start at the head and end at the tail. Snakes have two eyes, but no eyelids and their eyesight is poor, not being able to see stationary objects.

Snakes have a layer of skin which covers the whole body and is shed periodically as the snake grows. The snake will shed from the snout first and the old skin peels back like a sock.

Snakes cannot hear either, but they pick up vibrations through the lower jaw. Snakes do however have a great sense of smell. Snakes do not smell through their noses but instead they use a structure called Jacobson's Organ found in the roof of the mouth.

Snakes use their forked tongue to continually draw air particles into the mouth where it is analysed and acted upon.

The skin of the head and throat is extremely elastic and the lower jaw is also able to unhinge, thus allowing the snake to swallow much larger prey than one would expect.

The jaw is filled with small simple teeth. The opening to the respiratory system is found positioned far forward on the floor of the mouth, allowing the snake to swallow and breathe at the same time.

The only weakness in the design of snakes is found in the lungs, they usually only have one functioning lung which is long. If the second lung is present, it is usually very reduced in size and actually performs no function.

Snakes can't remove solids or liquids from their lungs and this becomes a problem if the snakes contracts a respiratory infection. Snakes have a well developed digestive system, with strong digestive juices in quite a large elongated stomach.

The only things that snakes do not digest are feathers and fur.

The excretory system is also quite advanced with snakes producing a concentrated urine resembling white powder and the stool consisting of fur or feathers.

Both solid and liquid are passed at the same time. The only other opening other than the mouth in a snake, is the cloaca or vent from which the snake passes waste products and through which fertilization takes place.

The sex organs are internal in both male and female.

Variations and Mutations

Variations include : Anerythristic (silver), Amelanistic (albino), Snow (albino anerythristic), Striped, Motley, blood red, stone washed, reverse okeetee and ghost to mention a few.



Ghost Corn



Silver/Anerythristic Corn



Miami Corn



Blood Corn



Snow & Amelanistic Corn



Silver Queen Ghost Corn



Reverse Okeetee Corn



Hypomelanistic Corn



Sunglow Corn



Striped Snow Corn



Anerythristic Motley Corn



Motley Corn



Amelanistic Striped Corn



Striped Corn



Motley Corn