

# CAPTIVE CARE OF CORN SNAKES (*Elaphe guttata*)

## Is It A Corn Or A Rat!?

Corn and Rat snakes both belong to the genus *Elaphe*; Corns belong to the species *Elaphe guttata*. The Latin word *elaphe* means deerskin; *guttata* means speckled or spotted. Both terms apply to corns and rats: in most species, their skin feels like finely tanned deerskin, while the patterns on their back create spots or speckles. Some people see the patterning of the belly scales as resembling maize, a colorful ancestor of our modern day corn. Another theory relating to how corn snakes got their name comes from the early Europeans settlers. They frequently found these snakes in their cornfields and corncribs, and thought they were eating the corn! In fact, the corn snakes were, and remain, very helpful to farmers as they help keep down the rodent population. Amelanistic corns (those lacking the black and brown skin coloring) are sometimes called "red rat snakes" because of their red-to-orange coloring.

## Natural History

Corns are commonly found in deciduous forests, pine barrens, rocky hillsides and farm areas of the southeastern United States. While *E. guttata* (corn snakes) ranges from Maryland and lower New Jersey to the gulf coast, *E. guttata emoryi* (Great Plains rat snakes) can be found in Texas, northern Mexico and up through Kansas and Missouri. They are most active at night or in the hours of dawn and dusk. While they are primarily ground-dwellers, some are semi-arboreal. While the *Elaphe*'s feed on everything ranging from fish to frogs to rodents to mammals, the Corn starts off feeding on small invertebrates like crickets, quickly moving up to rodents. Corns lay eggs, becoming sexually mature at around two years of age.

## Personal Statistics

Hatchlings range in size from 9-14 inches; adults are generally 2.5 to 5 feet in length; most are in the 3-4 foot range. In the wild, hatchlings feed largely on small lizards and tree frogs, while adults feed on small rodents and birds, killing their prey by constriction. In captivity, hatchlings and adults feed quite happily on pre-killed mice. The average life span of these snakes is 10 years, although one was documented to be 21 years old. When selecting a corn or rat snake, look for a well-fleshed body, no visible cuts or abrasions, clear, alert eyes, tongue flicking, and no signs of mites or ticks. The vent should be clean.

## Growth

Many people believe that a reptile will not grow any larger than its tank. THIS IS NOT TRUE! The reptile keeps growing and will become miserable, and probably ill, if the proper tank size is not provided. The only way to "stunt" a reptile's is to not feed it enough; assuming you do not want a dead reptile, this is not something you should do. Always find out the adult size of an animal before you buy it. Note that many pet stores intentionally stunt a reptile's growth; they find it's easier to sell a cute young reptile to someone who does not know what they are looking at than an older, bigger animal. Always inquire how old the animal is, when it was acquired, etc. Be a knowledgeable consumer, not an impulse buyer.

## Setting Up Your Snake's New Home

### Enclosure

Corns and Rats must be housed in at least a 20-gallon tank. The tank must have a secure top. A determined snake can push against screen or glass until it finds an opening big enough for its head; where its head goes, so goes its body. Some snakes will constantly rub their nose against the screened top of the tank in an effort to find a way out. The resulting abrasions should be treated with an antiseptic and antibiotic ointment. The furnishings in the enclosure should then be evaluated to provide a more natural environment.

## Provide a Hiding Place

A hide box of some sort should be provided, and an interesting branch for climbing and resting. Branches collected from the wild will need to be debugged by soaking first in chlorine/water solution, then rinsed thoroughly, soaked in clean water, then left to dry in the sun. No special lighting is required.

## Substrate

With corn and rat snakes, there are a couple of different substrates that can be used, such as pine chips (not cedar chips, are toxic), indoor/outdoor carpeting and "Astroturf". If you use the carpeting or Astroturf, you must wash it then let it dry thoroughly before it can be used in the tank again; have two pieces on hand, which can be rotated. The snakes will often burrow under the chips or carpet/turf, so don't be surprised if they are not always in view. If you use pine chips, the urine and feces can be scooped out with a cat litter scoop, with fresh chips added as needed. Be sure to remove soiled chips as soon as possible; urine-soaked chips become a breeding ground for bacteria and fungus. If you use chips, you will have to place your snake in a secure area to feed it; you do not want it to ingest any chips.

## Temperature

A reptile heat tape is placed under one-half of the tank; this leaves one side cooler so that your snake can regulate its body temperature as needed. A heating pad made for people can be purchased at any drug store; set it at medium or low depending upon the ambient air temperature. To maintain health, corn and rat snakes must be kept at 75-85 F, the higher temperature being necessary to digest its food. Temperatures can fall to the lower range at night. To easily monitor temperature, inexpensive aquarium self-stick thermometers can be purchased and applied about an inch above the bottom of the tank on the warm side. *Hot rocks should never be used*; they fluctuate too much, and too many reptiles suffer severe ventral burns. An incandescent light bulb in a reflector shield may be set just outside the tank to heat up a basking area; appliance timers can be set to turn the light on and off at set times during the day. Reset the hours of operation to adjust for seasonal fluctuations in ambient air temperature.

## Feeding

An active snake will happily eat every 10 days or so. They will eat, and should only be fed, killed prey. A snake that is not hungry when live prey is introduced into the enclosure often finds itself becoming the meal, especially if the prey is a rat. To economize, you can buy in bulk and freeze them. Contact your local herpetology society; many members breed mice and rats, and most will pre-kill them for you. Remove the prey item from the freezer and allow to defrost at room temperature. When defrosted, use forceps or tongs to pick up the rodent by the tail, and hold the prey in front of the snake for the snake to strike at. Many snakes will eat prey that is just placed in the tank. Occasionally, a quail egg can be offered to wild-caught specimens. If the snake likes it, one can be offered every couple of weeks. (Since quail eggs purchased in stores or from hatcheries are unlikely to be fertilized, they should not form a regular part of the main diet.) Start hatchlings off with pinkie mice. As your snake grows, gradually increase the prey size by offering fuzzies, crews, then small adult mice or rat pinkies. A full-grown Corn or Rat can eat a medium to large mouse; large Rat snakes can eat small rats. If you feed too much at one feeding session, or feed a prey item that is too large, your snake may regurgitate it.

## Water

A bowl of fresh water must always be available at all times. It will be used for drinking and sometimes for bathing. If the snake defecates in it, the bowl must be cleaned and disinfected immediately.

## Handling

Corns and Rats do not wrap snugly around your arm like pythons or kings. They tend to pick a direction and go for it. Though they are relatively small in body mass, they are quite strong. Always support the body and give free rein to the head. If the head starts going somewhere you don't want it to go, gently guide it into another direction. Many snakes are nervous when introduced into a new situation with new people. Give them a couple of days to settle down before letting new people handle them.

## Shedding

As a reptile grows, its old skin becomes too tight and worn. A new skin awaits just below the old. As a snake gets ready to shed, its eyes will turn a milky blue over the course of several days, and the body color will start to dull and develop a whitish sheen. Once the eyes have cleared, the snake is ready to shed. To assure proper hydration, soak the snake in warmish water after the eyes clear; this should enable the snake to shed easily within the next 24 hours.

## Veterinary Care

All newly acquired reptiles should have fecal exams done by an experienced reptile vet to check for bacteria, protozoa and worms. Many of the parasites, bacteria and protozoans can be transmitted to humans and other reptiles. Left untreated, these infestations can ultimately kill your reptile. Medications are available to treat these conditions. When your snake first defecates, collect the feces in a clean plastic bag, seal it, label it with your name, phone number, date and your snake's name, then take it and your snake to a reptile vet.

## Signs of ill health

Snakes, like all other animals, do get sick. Listlessness, failure to eat over several weeks or regurgitating meals can be signs of bacterial or endoparasite infection. Take these animals to a reptile vet, with a fecal or vomit sample enclosed in a Ziploc bag. Ectoparasites, such as ticks and mites, must also be dealt with. With proper instruction, this is something you can do yourself if the infestation is mild. Allowed to escalate, ectoparasites can kill their host. If the skin around the neck forms wrinkles and puckers, the snake is severely dehydrated and you must see a vet. The vet will either administer subcutaneous fluids or show you how to force fluids. Animals cannot digest food when dehydrated, so emaciation will set in if the condition is allowed to continue untreated. Then, respiratory infections, parasites and other problems, and possibly death, will occur. Thin, stringy mucous coming out of nose or mouth or changes in feces or urates (different color, consistency, frequency) signal a disease or infection. Observe your snake every day to be sure to catch any problems early. Treat the problem as soon as it is noticed to prevent other health problems and vet bills.

## Places to Go, Things to Learn

Check out your local herpetological society and find others with similar interests and a good place for information on local resources.

### Books to read:

- Keeping and Breeding Corn Snakes, by Michael J. McEachern, 1992. Advanced Vivarium Systems, Lakeside CA.
- Rat Snakes, by Ray Staszko and Jerry G. Walls. 1994. TFH Publishing, Neptune City, NJ.

### Related Articles:

Feeding Killed Prey (<http://www.anapsid.org/prekill.html>)

Prey Sources (<http://www.anapsid.org/preysrcs.html>)