



Handle with care

Corn snake and common rat snake

Species: Corn snake and common or black rat snake

Scientific names: *Elaphe guttata* and *E. obsoleta*

Description

Corn snakes and other rat snakes are long, slender and have been selectively bred in captivity, resulting in a wide range of different colour varieties, or morphs, now being kept in the UK. This can make them hard to identify, but corn snakes (also called the red or rosy rat snake) almost always have a complete spearhead shape on the top of their head. A stripe, that has a reddish brown centre and a black outline, also runs from the eye to the corner of the mouth and on to the throat. Corn snakes grow to a length of 1–1.2m within 3–4 years in captivity, but can reach up to 1.8m. The common (or black or American) rat snake can grow to over 2m, but rarely in captivity. The young reach 60cm within the first year and their full size within about five years. These snakes commonly live for 12 years in captivity, but there is a record of a rat snake living for 21 years.

Life in the wild

Both corn snakes and the common rat snake are found in the USA – from the south east to the Great Plains and then south to Mexico. They are mainly terrestrial but can climb well and hide in rodent burrows and under logs during the day. These snakes live in woodland, grassland and cultivated land and take prey at night that includes small mammals, birds, eggs, reptiles and amphibians. These snakes are not venomous and kill their prey by constriction. Corn snakes get their name from frequently being found in corn barns in the USA. There are several other *Elaphe* species of rat snakes in America and many in Europe and Asia, as well as a large number of subspecies.

Source of animals

Most corn snakes and other rat snakes on sale are now captive bred, especially true for the wide range of colour morphs now available. Your local RSPCA animal centre may know of corn or other rat snakes that need rehoming or your local veterinary surgeon or exotic keeping organisation may be able to advise on reputable breeders and experienced keepers in the area.

Prior knowledge and preparation

Before acquiring a snake, it is crucial that any potential keeper finds out about the animal – including how to provide for the animal's needs when kept in captivity, how big it gets and how long it lives. Only then can the keeper make an informed decision about whether s/he can provide the specialist care and captive environment required, and has the facilities, time, financial means and long-term commitment to maintain a good standard of care. The keeper can then acquire suitable accommodation, food and the necessary accessories, and prepare the enclosure to ensure the captive environment is stable before taking the animal home. This also gives the novice keeper time to locate and to talk to relevant experienced keepers and professionals for further advice such as a vet with experience of treating the species, and specialist UK organisations that keep this species in captivity.

Vet care/costs/holiday cover

Snakes need specialist handling and treatment. Your veterinary surgeon will advise on the costs of consultations regarding corn and rat snakes. Holiday cover may be difficult and expensive to arrange, but your snake will need to be looked after properly every day by someone who understands its complex needs for the time that you are away.

Unhealthy/healthy animal signs

A healthy snake will 'taste' the air frequently and rapidly with its tongue. Its body will feel firm and muscular. Its skin will be smooth, without any blisters – these can indicate the snake has been kept on a wet substrate. Its vent (excretory opening) should be free of faeces or wetness, as this can be a sign of digestive problems, including internal parasites. Lumps on the skin, nasal discharge, open mouthed breathing or wheezing and the tip of the tongue sticking together can all indicate an unhealthy snake. Cloudy eyes can also be a sign of ill health, but it can also mean that the snake is simply shedding its skin. A snake's mouth should close properly and its saliva should be clear. The animal should be checked for external parasites (ticks or mites), especially under scales or around the mouth and eyes.

Health issues to find out about

- Bone disease.
- Burns from incorrect lighting and heating.
- Inability to shed or slough skin.
- Respiratory infections.
- Blister disease.
- Internal parasites.
- External parasites.
- Mouth rot.
- Dehydration.
- Anorexia .
- Digestive problems .

Why are these snakes vulnerable in captivity?

Snakes are completely dependent upon their keepers to provide them with the correct accommodation, heating, humidity, lighting and food, all of which must reflect as closely as possible their wild habitat. The correct range and balance of nutrients, vitamins and minerals in their diet is important to maintain good health. Without correct care snakes will suffer with painful diseases like mouth rot and bone disease and may eventually die. Adequate ventilation is important to stop the snake developing respiratory problems. The correct humidity is also key in preventing respiratory problems and complications when the snake sloughs its skin. Incorrect lighting and heating, or not using protective guards to prevent the snake having contact with any heat sources, can result in severe burns to a snake's skin.

Handling/transporting the animal home

Anyone handling snakes or cleaning their enclosure should wash their hands before and after handling the animals to reduce the risk of picking up and spreading bacteria such as *Salmonella*. Washing hands after handling food items can stop the handler smelling like a prey species, which could prevent the snake from treating your hand like food. Snakes should not be handled when shedding their skin, as this can cause stress to the snake and they may behave aggressively if they cannot see very well. Rat and corn snakes are fairly docile. Hold them loosely in both hands with the body weight supported. Two people may be needed to support an adult snake - one per metre of length.

Snakes can be transported in a tightly secured cloth bag. For a journey of a few hours, put the bag in a secure ventilated box with shredded newspaper for insulation and cushioning. Small snakes can be transported in ventilated plastic containers packed with absorbent paper. The temperature should be 21–24°C – too high a temperature can kill a snake.

Needs: grouping, diet, accommodation and environment

These snakes are solitary in the wild. They can be housed alone or, if each snake is provided with adequate space and access to refuges, small groups of similar sized snakes can be kept together. A pair of snakes will need a vivarium with a minimum length that is as long as the largest snake and measures 50cm wide and 50cm high, to provide the space needed to maintain the range of temperatures and access to the refuges these snakes need across the enclosure. Snakes kept together will need to be closely monitored and both fed with their own prey item at the same time. This is important to avoid competition for food and the risk of two snakes starting to eat each other if they grasp the opposite end of a dead mouse or rat.

All housing should be set up a week or more before the snake is moved in and checked regularly to make sure that the temperature and humidity are both correct. The enclosure should be made of waterproofed wood, such as melamine sealed with silicone, with a secure glass front, ventilation panels and a fine screen mesh roof that is escape proof. A roof of part glass and part mesh is also acceptable. Good ventilation will prevent the build-up of disease-causing fungi and bacteria.

Paper towels make a good lining material for the floor, as the snakes require a substrate that is reasonably dry to prevent blister disease. Dry peat substitute, without any chemicals added, can also be added. Each snake will need its own hide box in both the hotter and cooler parts of the enclosure. Any refuge provided should be of a suitable size to allow the occupant to fit inside whilst still touching the sides. The provision of a damp hide box for each snake and a rough stone are also important to help the snake shed its skin. Low branches for climbing (which are clean and have had their bark removed) are also desirable.

Corn snakes and rat snakes are nocturnal and their home should be in a quiet place so they are not disturbed during the day. The enclosure should be kept away from direct sunlight and hot radiators, as the vivarium can quickly heat up during the day. These snakes need daytime temperatures of 24–27°C reducing to 21°C at night. Each snake also needs a basking spot of 30°C, provided by a 'black' emitter, basking plate or heat pad located next to a flat rock that will warm up and provide the snake with a source of heat when it emerges at night. A thermometer should be attached to the cool end and the warm end of the vivarium to monitor the temperatures and ensure they stay within the required range. The correct lighting cycle for corn snakes and rat snakes is 12 hours of sunlight in summer gradually reducing to eight hours in winter, to reflect the light hours in its natural environment. These snakes require a fairly dry environment with a low humidity as found in the wild.

Corn snakes and rat snakes should be fed on mice and small rats. The mice should be freshly killed or frozen and fully defrosted. Hatching snakes will take one or two pinkie mice every two to three days (depending on size). Adults, depending on their size, will need one or two adult mice or rat pups every week. Clean water in a heavy water bowl (that can not be tipped over) should always be provided. Rat snakes will bathe in the water and defecate into it, so the water will need to be changed once soiled. Good hygiene is important, to include spot cleaning of the substrate to remove faeces and the cleaning of the whole vivarium about once a month. There are products manufactured for cleaning vivariums, but care needs to be taken to thoroughly rinse and dry the vivarium after cleaning before adding the clean substrate, water bowl etc., and returning the snake(s). However, too frequent cleaning of the vivarium itself will disturb the snakes.

THIS IS BASIC INFORMATION ONLY.

If you still believe that you could care for this animal then you must obtain further specialist information prior to taking on the responsibility.