



Corn snake CARE SHEET



The corn snake, *Pantherophis guttatus*, originates from dry scrublands and forests in the USA. The biology of captive snakes is the same as that of wild snakes, so their environment should reflect their natural habitat as much as possible, to meet their complex welfare needs. These include: the need for a suitable environment, a healthy diet; to be housed apart from others; to ensure normal behaviour and to be protected from harm. This is a guide so do your own research before getting a corn snake.

Biology

Corn snakes occupy a large range of habitats in the wild but they are named for their tendency to be found in and near corn barns, feeding on rodents, though they also take birds, other reptiles and amphibians. Corn snakes are mainly terrestrial (live on the ground) and often hide in rodent burrows and under logs but can also climb well. They are mainly active at dawn and dusk and quite placid. They are not venomous and use constriction to kill their wild prey. Corn snakes can grow to around 150 cm long, with males normally smaller.

Corn snakes in the UK are more likely to be captive bred than wild caught. There are now many colour and pattern variants called 'morphs' available. Before acquiring a corn snake, you must be sure that you are able to provide the correct care and associated costs for the animal's whole life. There are likely to be many corn snakes available for rehoming so check the RSPCA website:

www.rspca.org.uk/findapet

ENVIRONMENT

The enclosure, called a vivarium, must be secure to prevent escape and free from hazards that might cause injury. Good ventilation is essential to prevent the build up of harmful bacteria and it should be made from a solid material that is easy to clean and holds heat.

A corn snake needs a vivarium which allows it to fully stretch out. Allow at least a third of the snake's length for the width and height. For example, a 150 cm long corn snake will need a minimum 150 cm long, 50 cm wide and 50 cm deep vivarium. A hatchling corn snake may become stressed in a large vivarium, which is linked to predator avoidance. Therefore, the snake may be housed in a small vivarium and moved up sizes as it grows.

Temperature

Reptiles are 'ectothermic' meaning they use their environment to warm up and cool down, so you need to create a 'thermogradient'. This means positioning the heat source at one end of the vivarium while leaving the opposite end cool so that the snake can move around to regulate its temperature.

To create a 'basking zone', position a heat lamp at one end of the enclosure pointing downwards. Heat lamps must be guarded to prevent burns or injuries, should the bulb shatter. A thermostat, a simple device that regulates the temperature, must be used with all heat sources. For the heat lamp, place the thermostat probe just above the substrate at the level where the animal will sit. Adjust the thermostat whilst checking the basking temperature using a digital thermometer until the basking zone reaches 28 to 30°C.

LIFESPAN

10-15 years in captivity

SIZE

Up to around 150 cm

TEMPERATURE

Hot end: 28 - 30°C
Cool end: 20 - 24°C

UV INDEX

Basking zone: 1.0
Gradient to zero in shade

HUMIDITY

40 - 50%

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A reptile heat mat under one side of the vivarium is recommended for a smaller enclosure, such as a hatchling enclosure. In this case, use an on/off thermostat with the probe in the hot end, set at 30°C. The cool end should be 20 to 24°C. Thermostats are not accurate so it is essential to record the temperatures daily. Use one digital thermometer at the cool end and the other at the basking zone. An infrared thermometer can also be used to check the temperature in the basking zone and cool end daily. With normal household temperatures, turn off the heat source at night to simulate night-time, when it can safely drop to 16 to 20°C. If the room temperature drops lower than this, you will need non-light emitting heat at night, such as a ceramic heater or safely set-up heat mat. The vivarium should be placed in a safe location away from draughts and sources of heat, such as radiators and direct sunlight, as these affect the temperature.

Humidity

The correct humidity is essential to keep your snake's respiratory system healthy and for a healthy skin shedding cycle. A hygrometer measures the humidity inside the vivarium, which should be around 40 to 50%. If it is too high, your vivarium will need more ventilation.

Light

Reptiles use natural daylight to set their day and night patterns. Sunlight contains visible light and ultraviolet (UV). Part of UV is called UVB, which allows reptiles to make vitamin D₃, vital for the animal to store and use calcium. Another part is called UVA, essential for their vision, as they can see many more colours when exposed to UVA.

Create a 'photogradient', from light to shade, by grouping your light with the heat source. The cool end is more shaded, just as in the wild. Fit a low output, 2 to 7% reptile UVB tube, between one half and one third of the vivarium length, into the roof of the vivarium as far into the hot end as possible. Use a reflector of the correct length to direct the light onto your corn snake. UVB decreases with distance, so in a taller vivarium you may need to use a higher percentage UVB tube. Follow the UVB tube manufacturer's recommendations regarding distance between the lamp and the snake. The UVB output decreases over time so the UVB output should be checked regularly using an appropriate UV Index (UVI) meter positioned at the level of the animal directed towards the UV lamp. Corn snakes require a gradient of UVB within their enclosure ranging from UVI

1.0 in the basking zone to zero in the shade. The lamp must also be replaced according to the manufacturer's instructions. UV lamps must always be guarded to prevent burns, or injuries should the bulb shatter. Turn off all lights at night. Both your lights and heat lamp can be controlled using a simple plug-in timer; 12 hours on during the day and 12 hours off at night.

Cleaning

Poorly maintained enclosures can become dirty quickly and pose a health risk to you and the snake. Animal waste should be 'spot cleaned' as soon as it appears. Once a month, use a reptile-safe disinfectant, available from pet shops, to fully clean the vivarium walls, glass and decorations, then rinse off well. Be careful as reptiles can carry *Salmonella*. Wash your hands before and after handling your snake or its equipment, to reduce the spread infection between you and the snake and *vice versa*.

DIET

Water

A dish must be provided for drinking at the cool end filled with clean, fresh water, replaced at least daily. This should be large enough to allow the snake to bathe. Sometimes the snake will foul the water in which case it must be changed as quickly as possible.

Feeding

In the wild, corn snakes consume a wide variety of prey but most are not easily available. Feed a diet of dead mice, available from pet shops. Hatchling corn snakes start on one baby mouse, called a 'pinky', every 5 to 6 days and move up sizes as they grow; up to one adult mouse every 7 to 14 days. As a rule, offer prey that is slightly wider than the widest part of the snake's body. Feeding other prey such as quails and rats once a month or so, increases variation in the diet. Regular weighing is important to ensure that your snake does not become underweight or obese.

Feed outside of the vivarium to reduce the chance of the snake accidentally swallowing substrate. Offer food using tongs in a shallow, clean plastic tub, large enough for the snake to fit in comfortably but small enough that it will fit into the vivarium. Cover the feeding tub as corn snakes prefer to eat in the dark. Once the snake has swallowed the prey, gently place the open box back in the vivarium and let the snake come out in its own time.

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Supplements provide the vitamins and minerals that are not available in captive diets. Your snake should accept food that has been dusted with supplement powders containing calcium. Supplements can be over-provided so always follow the manufacturer's instructions.

BEHAVIOUR

Enrichment

It is important to provide opportunities for natural behaviour in captivity, called 'enrichment'. Corn snakes are active and will climb if given the opportunity, so provide branches for this. If using natural branches, sterilise them with boiling water first.

Snakes will typically hide in small spaces such as animal burrows in the wild. Include at least two hides, one at either end of the vivarium, so that the snake can choose the temperature without having to compromise feeling secure. Hides must be large enough for the snake to fit inside, but not so large that its body does not touch the sides when coiled up. A third hide containing moistened moss, called a 'humid hide', can provide variation in humidity within the vivarium.

Substrate

Substrate is the name for the floor covering in your vivarium. It is important as it provides something for the snake to burrow under which helps it to feel more secure. Substrate also stops mess from spreading, though you must still clean it as soon as it appears.

Substrates such as organic soils or soil/sand mixes made for reptiles are recommended for corn snakes. It is not recommended to use sand alone as it may irritate the skin. Dry, natural leaves can be added to provide cover and create a more naturalistic environment. Sterilise leaves with boiling water and then allow them to dry before use. A clean mix of 60% soil, 30% sand and 10% leaves is suitable for healthy snakes. Paper towels or newspaper can be used when you first get your snake, so that you can monitor its health more easily, but this does not allow for natural behaviours so it is recommended to only use this as a temporary substrate. For permanent housing of snakes, we recommend that owners provide a naturalistic environment and also consider a bioactive system. Keepers can research how to do this using expert books on the topic, or specialist keeper member groups online.

Bringing your corn snake home

Always set up the vivarium and run it for a week before introducing your snake. This will allow time for you to adjust the heating and lighting and add your enrichment without disturbing the snake. Place the tub or bag containing the snake inside the vivarium and open it carefully to allow the snake to emerge. Close the door securely and turn the lights off to reduce stress until the following morning when you can check on your snake. It is best not to handle unnecessarily for the first week. Instead, allow time for your corn snake to become used to its environment.

COMPANY

Keep corn snakes singly because they lead a solitary life in the wild. It is also easier to check the health of your snake when it is kept in its own enclosure.

Handling

Corn snakes can become used to regular handling. The snake can be gently scooped up with one hand underneath the animal near the head and the other nearer the tail, supporting the whole animal. Never grab as this can cause stress which can lead the snake to struggle or bite. When a snake feels threatened it may pull its head back so the neck appears as an 'S' shape when viewed from above. If your snake does this it is better to leave it alone until another time.

The snake should not be taken from the vivarium for so long that its core temperature drops. Around 10 to 15 minutes at a time is a safe period for this, depending on the room temperature. Keep other pets separate, regardless of how trustworthy they might have been in the past. Wait 48 hours after feeding before handling your snake to avoid it bringing up its food. Also avoid handling around shedding as it may behave defensively. Do not handle your corn snake after handling prey items as the snake may smell food and try to bite; wash hands well first. Feeding the snake outside of the vivarium also helps, otherwise it will learn to expect food whenever the vivarium is opened.

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HEALTH & WELFARE

A healthy corn snake flicks its tongue frequently and has clear, bright eyes. Its skin should be smooth and without blisters, which can be a sign it has been kept damp.

Shedding

Reptiles have to regularly shed their skin and snakes shed in one complete piece. There is no rule as to how often this will happen but it will be more frequent when the snake is young and growing. The snake may hide away for a period of time and use the humid hide if you have provided one. Then it will rub its body against objects in the vivarium to remove the old skin, which should come away easily.

If you notice that your snake still has shed over its eyes even after a shed, then these 'eye caps' will need removing as soon as possible. A reptile specialist vet can show you how to do this safely.

If the snake has not shed completely, try bathing it in slightly warm water but do not try to pull it off as you can damage the new skin underneath. If your snake often has issues with shedding, this is usually husbandry related and can be improved with simple adjustments to the vivarium.

Brumation

Brumation is a natural energy saving process seen in some individuals during cooler months.



Transport

If you need to transport your corn snake, for example to the vets, it is important that it is done safely. Choose a suitable sized carrier; small snakes such as hatchlings can be transported in ventilated plastic containers with soft, absorbent paper. Adults can be transported in a tightly secured cloth bag, within a well-ventilated plastic tub to prevent injury. Avoid extremes of temperature; the addition of a heat pack may be required but make sure this will not over-heat. Keep transit time to a minimum to reduce stress.

It is triggered by the reduction in natural daylight hours and air pressure. They may reduce the amount that they eat during this time; however, they should not lose weight so monitor your snake carefully.

Diseases & concerns

Look out for abnormal droppings as these can be signs of internal parasites. Snakes can also suffer from mouth rot, an infection of the mouth with a range of potential causes. Corn snakes can suffer from external parasites such as mites. Snake mites lodge underneath the scales of the snake and consume the blood. If your snake spends unusually long periods of time sitting in the water it may be an indicator of mites. You may also notice small black specks on the snake or around the water bowl. Mites can carry disease so they are a serious concern.

Metabolic bone disease or 'MBD' describes a range of nutritional diseases and imbalances, in captive reptiles, but it typically involves a lack of available calcium due to a deficiency of vitamin D₃.

It is essential that you take time to research the diseases of corn snakes further. If you do get a corn snake, monitor its health daily and see your reptile vet urgently if you have ANY of the above concerns.

This care sheet is a basic guide only. Further information must be sought before you decide to take responsibility for any exotic pet. Find more information on our website:

www.rspca.org.uk/cornsnake