

GENERAL SNAKE CARE SHEET

By Eric Roscoe

There are well over 2900 recognized species of snakes found worldwide. Snakes vary tremendously in their size, length, appearance, anatomy, lifestyle habits, diet, and reproductive biology depending on the species. Snakes can vary in size from the tiny thread snakes and blind snakes (at around 4-5 inches) to the Reticulated python, which is known to be the longest snake species in the world (recorded at 25-30 feet). The primary purpose of this generalized care sheet is to provide an overview of all of the basic aspects involved with snake husbandry, and to provide information on which species are most suitable for novices and which are not. As with any animal, be sure to research the particular species you are interested in and its particular care requirements before you acquire that animal. Do not purchase or acquire any animal on impulse.

Which Species are suitable for Beginners?

In general, beginners should select a species which remains relatively small as adults (up to five or six feet), are relatively docile and easy to handle, non venomous, feed readily on readily available food items, and are relatively hardy, easily cared for, and tolerant of husbandry errors often made by novices. There are many species available that are also colorful and attractively patterned as well. Some of the species that are commonly kept and suitable for beginners include:

- Corn snake
- Most North American king snakes and milk snakes
- Garter snakes
- Rosy boas and most sand boas
- Captive bred and born ball python
- African house snakes
- Australian Children's and spotted pythons

Which Species should Beginners Avoid?

- Novices or beginners should not attempt to keep or handle any venomous species without a significant amount of the proper prior training, knowledge, resources, and experience.
- Large species of boas and pythons (such as Burmese pythons, reticulated pythons, African Rock pythons, and Anacondas) should be avoided by novices. Although some of these species are often docile, these snakes can still become very large and powerful animals that require careful handling and secure lockable enclosures to be kept safely and properly. These snakes can also require very large caging and can be expensive to feed.

Caging/Enclosures

The first aspect that is required to properly maintain any snake is to have the proper caging or housing for one. An enclosure is required largely for convenience and ease of management of the animal from the keeper's or pet owner's perspective. Caging is also necessary to ensure the animal's protection from other animals, objects, or situations in the household. The particular size and type of caging you choose is largely dependent on the particular species of snake, the size of the snake, the animal's lifestyle, and your personal preferences or living conditions. For example, some species are arboreal (tree dwelling), and require enclosures that have greater height than width. There are several different types of caging which can be used. All enclosures however, should be secure and escape proof, as well as provide sufficient amount of ventilation. Instances of loose or escaped snakes make local headlines, and generate negative media publicity for the entire reptile industry and hobby as well as fuel further legislation against keeping reptiles.

Glass Aquaria: Many snakes can be kept in glass aquariums, vivariums, or terrariums. These glass enclosures are offered in a wide range of sizes and dimensions, from 5 gallons to 70 gallons or larger. Any glass enclosure you choose to keep a snake in however should have a secure and lockable screen top to prevent escape.

Injection Molded Plastic/Fiberglass Caging: There are many commercially available brands of wooden, plastic, fiberglass, or melamine vivariums and enclosures with sliding or hinged glass or acrylic front opening doors. These enclosures also come in a wide variety of sizes and dimensions, and most have built in heating and lighting elements, built in litter dams, can hold in humidity and provide ventilation relatively well, and are often stackable. The stack ability of most of these types of caging can make them more convenient to use in relatively small spaces that would otherwise limit a large number of otherwise traditional aquariums. Some examples of these cages can include the Neodeshas, Vision cages, Boaphile plastics, Animal Plastics, Sentec Caging, and Habitat Systems Limited.

Plastic Storage Containers/Rack Systems: Many snakes can also be housed in clear plastic shoe box, sweater box, or blanket box sized storage containers, which are commonly available at many hardware and department stores in different sizes and dimensions. Ventilation is typically created through poking holes along the top edges of the container with a hot soldering tool or step bit drill. These containers are then often kept on wooden, plastic, PVC, or melamine shelving units called racks that are built and designed to specifically accommodate one or more particular sizes of containers. Although these may not be as visually attractive as other caging, and do not allow for easy viewing of the animals housed within them, rack systems are commonly used to efficiently house a relatively large number of snakes in a relatively small amount of space.

Heating, Lighting, and Humidity

As with all reptiles, snakes are ectothermic animals, which means that they must control their body temperatures through their external ambient environment. Therefore, it is necessary to provide snakes with a heat source and thermal gradient within the enclosure to allow for proper digestion, thermoregulation, and gestation. In essence, creating a thermal gradient can be done by providing a warm or heated side of the enclosure and a cooler, unheated side. There are many different types of heating elements that can be used, some of now come built into many commercially available enclosures or vivariums. The most common methods of heating are as follows:

Undertank Heating Pads/Flexwatt Heat Tape: Standard under the tank reptile heating pads of many various sizes and wattages are widely available at most retail pet stores that carry reptiles as well as many reptile expos. They are usually mounted to the underside of the enclosure, hence their name. Flexwatt heat tape, which can also be purchased commercially in various lengths and widths, acts similar to most under tank heating pads, except that it

must be wired manually and is typically used to heat reptile rack units or plastic containers modified as enclosures. Flexwatt heat tape can be installed on the bottom, serving as “belly heat”, or to the rear of the rack system as “back heat”. Most undertank heating pads and Flexwatt should be attached to a digital thermostat and/or thermostat to avoid overheating, and possible burns and even fires.

Overhead Incandescent/Fluorescent Lighting: Overhead, incandescent and fluorescent lighting is also widely available in many different wattages and bulb lengths, and incandescent lighting can be used to heat snake enclosures if appropriate wattage bulbs are selected. Most species of snakes do not require additional UV or fluorescent lighting, as do many lizard and chelonian species. However, providing lighting on a day/night cycle can improve an enclosure’s aesthetics and improve visibility inside the enclosure.

Ceramic /Radiant Heat Emitters: Ceramic heat emitters are usually relatively small bulb sized accessories that can be used in place of a light bulb in many cases. Radiant panels are typically larger, and can usually be simply mounted on the ceiling or wall inside the enclosure. Both ceramic heat emitters and radiant heat panels can be used for providing ambient heat, although no light is given off by these devices.

Different species of snakes often require or tolerate different temperature and/or humidity ranges and gradients, and therefore knowledge and attention to those factors are needed prior to acquiring a particular animal to successfully maintain them. Some species require more specific temperatures and/or higher or lower levels of humidity and tend to be less hardy for instance. The particular type of caging and ventilation, substrate, amount of moisture/water provided, and temperature provided can all influence humidity levels.

Substrate

The substrate is the enclosure’s bedding. There are many different types of substrate that can be used for snakes and some help maintain humidity levels better than others. Some of the most commonly used substrates are described below:

Newspaper, Paper Towels, and Commercially available Cage Liners, Although these substrates are usually not the most visually appealing, they are perhaps the least expensive and most utilitarian substrates to use. All of these substrates can be quickly and conveniently cleaned, disposed of and replaced whenever necessary.

Astroturf Cage Carpets: These substrates are widely available at many retail pet stores and reptile expos, and come in a variety of colors and dimensions. Astroturf can be used with similar functionality as newspaper and cage liners, but cutting them to size is usually required, and they are slightly more expensive to purchase than newspapers.

Loose Wood Shavings: This type of substrate is extremely popular to use, and there are several types that are widely utilized. These substrates are often inexpensive to purchase in bulk and are easily spot cleaned and/or replaced when needed. Aspen shavings, Coconut husk fibers, Fir (ReptiBark) and Sani Chips (which are essentially finer Aspen shavings) are suitable for many colubrids and other species, but not for medium to high humidity dependent species. Do not use Pine or Cedar shavings as these substrates are toxic to snakes. Buyers must be careful to not select substrates that have been treated with potentially harmful pesticides, herbicides, or other chemicals.

Cypress Mulch/Sphagnum Moss: As with wood shavings, these substrates are often inexpensive to purchase in bulk, and can easily be spot cleaned and replaced when needed. Both cypress and sphagnum are suitable substrates to use for maintaining relatively higher levels of humidity required for many species of boas, pythons, and other humidity dependent species. Buyers must be careful to not select substrates that have been treated with potentially harmful pesticides, herbicides, or other chemicals.

Feeding and Diet

All snakes are carnivorous, meaning they feed on other animals. The dietary habits and preferences vary tremendously among different species of snakes. Some species tend to be specialized feeders that will only eat one to a few specific prey items such as frogs or toads, lizards, other snakes, insects or other invertebrates, or bird eggs. This can make some species difficult or poor choices to maintain in captivity. Other species tend to be far more opportunistic feeders and will eat a wide and diverse number of readily available prey items. The frequency of feeding a snake also depends largely on the species, age, size, and overall health of the animal. It is therefore important to research the diets of the snake species you are interested in prior to obtaining it.

Most commonly kept snakes however, will readily accept a diet of live and/or prekilled, frozen, and then thawed rodents (mice and rats) of all ages and sizes every week or two. Many species will also accept prekilled, frozen thawed chicks and quail as well, which are also available from some feeder suppliers and wholesalers. Most of the larger pythons and boas will require rabbits, ducks, chickens, or even pigs. It is typically preferred and advocated by most reptile owners, hobbyists, enthusiasts, and breeders to feed their snake pre killed prey whenever possible. A live animal is capable of inflicting serious injury to the snake by biting, kicking, or scratching. Some snakes such as garter snakes and water snakes will feed mostly on earthworms, and select feeder fish. Most of these prey items are readily available at most pet stores that carry or specialize in reptiles, reptile trade shows, and local or national frozen feeder wholesalers or suppliers over the Internet as well as bait supply shops.

Water

The majority of snakes will require a water bowl provided in the enclosure that should be changed at least weekly or sooner if fouled. Reptile rock water bowls can be used but they are heavy, bulky/ungainly to remove, and frequently grow algae in them that need to be cleaned. It is better to use plastic or ceramic crock dishes, or clear plastic shoe to sweater box containers for larger snakes that are just heavy enough to not be tippable. Even more efficient are disposable cups and water bowls. Some arboreal and arid region dwelling snakes will infrequently or never drink standing water but will instead obtain moisture from their scales provided by regular misting. Ensure that your animal remains sufficiently hydrated.

Hide boxes and Other Furnishings

Most snakes will require a hide box enabling them to retreat from view and to feel secure in their environment. These hide boxes can come in a variety of sizes and dimensions, and can be purchased commercially as log and rock hides, as well as opaque plastic huts, or can easily and quickly be constructed from home out of many different materials such as opaque storage containers, plastic or ceramic flower pots and trays, opaque cat litter pans, and opaque dish washing tubs, for example. Many of the arboreal snakes and larger pythons and boas however, will typically not require hide boxes.

Other furnishings that can be included in the enclosure can include natural or artificial plants, rocks, driftwood, and artificial or natural foliage. Although these furnishings are not absolute necessities, they can nevertheless provide additional hiding areas for your animal and can improve the aesthetics of the enclosure (particularly if you are maintaining a vivarium). However, the more items you have in the enclosure means the more items that will require cleaning and disinfecting on a regular basis.

Handling

Handling and temperament of a given particular snake species is also often a concern or consideration for many current and prospective snake keepers. Generally speaking, there are a wide number of different snake species available in the pet industry with a wide diversity of temperaments and tolerance levels for being handled. In general, some species of snakes are typically more defensive and less tolerant of handling than other species. One example of this would be many arboreal species (such as tree boas and the Green Tree pythons), which in most cases are better suited to be display animals. In general, beginners, or novices, should select a species which is typically relatively docile, easy to handle, and tolerant of such handling, such as corn snakes, many king snakes, rosy boas, and ball pythons for example.

There are several important things to consider when handling snakes, one of which is understanding the reasons why these animals may bite you in the first place. Snakes will bite for one of two possible reasons. The first is known as a defensive bite, where the animal simply perceives you as a potential threat or predator, and defends itself accordingly. Defensive bites are usually quick “bite and release” in nature in most snakes, and typically follow one or more prior warnings given by the snake such as hissing, gaping, or coiling into a strike posture. The second type is a feeding response bite, where the snake inadvertently mistakes the fingers, hand, or arm of the keeper as food. Generally, feeding bites are accompanied by a refusal to release and/or constriction since the animal intends to eat whatever it has struck at, even in cases where it obviously cannot. Generally the chances of a feeding response bite are greatly increased when the scent of the snake’s normal food items (rodents or other small mammals) for example) is present, or when keepers inadvertently pick up such scents on their fingers or hands.

Generally, most neonate, hatchling, or juvenile snakes can initially be expected to be more wary and defensive when handled. Defensive behaviors of many species can include biting, gaping, musking, tail rattling, and/or urinating/defecating. These defensive behaviors though, can usually be reduced or eliminated with patience, and through continuous, gentle, and deliberate handling. Over time and often with age, many snakes will come to tolerate being handled. Generally, when picking up and handling snakes, ensure that the snake’s body is adequately supported, or the snake may be injured due to an uneven distribution of weight/pressure being placed on a given section of the snake, particularly if it is a heavy bodied species. Also avoid grabbing or restraining any snake too tightly, as this can also cause injury to the animal and in many cases, force it to react defensively. Allow free movement of the snake in your hands and/or arms while ensuring the animal is being adequately supported.

In general, It is good practice to practice basic hygienic and sanitation whenever keeping and handling snakes, reptiles, or any animal for that matter in order to avoid contracting salmonellosis or other possible zoonotic diseases. In most cases, this can easily be done through washing your hands with soap and water, or by using any of the portable, handheld hand sanitizers available at most grocery, department, or pharmacy stores.