

Carpet Python (*Morelia spilota*)

Difficulty: Intermediate

Carpet pythons (also known as diamond pythons) are moderately robust, constrictor-type snakes with a broad base of the head, distinct neck, vertical pupils, and heat pits on the snout and lips. Coloring varies significantly from subspecies to subspecies, with a pattern that can be banded, spotted, or blotched. Length also varies, between 5' to 8' / 1.5-2.5m on average.

Carpet pythons can be found throughout Australia, excluding southern Victoria and the arid central and western regions. But generally speaking, this species is highly adaptable, and may be found in tropical forest, dry woodland, savanna woodland, rocky outcrops, and even in urban areas. Though semi-arboreal, they are most often encountered on the ground, and may occupy burrows made by other animals.

There are 6 known subspecies of carpet python, although some are more common than others in the pet trade:

- *Morelia spilota cheynei* (Jungle Carpet Python)
- *Morelia spilota harrisoni* (Irian Jaya Carpet Python)
- *Morelia spilota mcdowelli* (Coastal Carpet Python)
- *Morelia spilota metcalfei* (Inland Carpet Python)
- *Morelia spilota spilota* (Diamond Carpet Python)
- *Morelia spilota variegata* (Darwin Carpet Python)

These snakes can make interesting and engaging pets for keepers who have the space for them. With careful attention to providing appropriate carpet python care, this pet may live 20-30+ years.

Shopping List

The following recommendations are appropriate for setting up a carpet python up to 8' / 2.4m long.

- 8' x 4' x 4' reptile enclosure (front-opening)
- Dual dome heat lamp with ceramic sockets, x2
- 50w PAR30 halogen flood bulb, x4
- Thick, sturdy branch (for basking)
- Power strip
- Plug-in lamp dimmer
- Infrared thermometer ("temperature gun")
- Digital thermometer/hygrometer device with probes
- 46" T5 HO forest UVB bulb (Arcadia or Zoo Med brand)
- 48" T5 HO light fixture with reflector
- 34" 6500K LED or T5 HO grow lamp, x2
- Pressure sprayer or automatic misting system w/6 nozzles
- Surge protector with digital timer
- 4" of moisture-retentive naturalistic substrate
- Reptile hides/caves (at least 2)
- Environmental enrichment items (hollow logs, sturdy branches, live/fake plants, etc.)
- Large water bowl
- Calcium and vitamin supplements

- Soft-tipped feeding tongs, at least 12"

Housing

A good formula for estimating the minimum enclosure dimensions for a semi-arboreal snake is: *Full snake length x half snake length x full snake length = length x width x height*

Carpet pythons vary in adult length based on subspecies and parentage, so it's best to ask the breeder about the size of your snake's parents, and then plan the enclosure based on the largest measurement given. If you don't have access to information about your snake's parents, planning for your carpet python to get about 6.5' / 2m long is a good starting point. This would require an enclosure of **at least 6.5'L x 3.25'W x 6.5'H**, or 2m x 1m x 2m. It's most cost-effective to build your own enclosure rather than buy one, when at all possible.

Using an enclosure larger than the minimum is strongly recommended. **Bigger is always better!** Carpet pythons are active snakes that need a spacious enclosure that offers both terrestrial and arboreal space to facilitate natural behaviors such as thermoregulation, hydroregulation, photoregulation, hunting, climbing, and hiding. This leads to a fitter and overall healthier snake.

Once established, young carpet pythons can be housed in an adult-sized enclosure with no problems as long as they have enough places to hide and feel secure.

Can multiple carpet pythons be housed together?

Carpet pythons are not social animals, which means that you don't have to worry about them getting lonely. In fact, keeping multiple pythons together is stressful for the snakes and causes competition for resources, preventing them from thriving. For this reason it's best to house only one python per enclosure.

Lighting & UVB

Carpet pythons are primarily nocturnal, but they are also known to be occasionally active during the day. This means that they are highly likely to benefit from having a brightly illuminated environment during the day, as well as access to UVB lighting. Aside from regulating their day/night cycle and associated hormonal rhythms, UVB lighting in particular gives the snake all of the vitamin D3 it needs, supports immune health, and encourages increased activity levels. Although carpet pythons can technically survive without UVB light, ReptiFiles strongly recommends providing it in order to promote optimum welfare!

Lights should be on for 12 hours/day.

UVB Lighting

UVB lighting can be tricky, because in order to get the right strength of UVB (UV Index, or UVI), distance and potential mesh obstruction must be considered. To provide appropriate UVB, you will need a [Zoo Med T5 HO Reptisun 5.0](#) or [Arcadia Forest 6%](#) bulb, long enough to span half of the enclosure and placed on the warm side of the enclosure. This bulb should be housed in an Arcadia ProT5 or Vivarium Electronics reflective fixture.

The basking branch should be placed as follows. Given distance is from the snake's back to the UVB lamp.

- UVB mounted over mesh — 9-11"
- UVB mounted under mesh — 12-15"

(These recommendations are approximations based on available data. For best results, use a Solarmeter 6.5 to determine the best placement to achieve a UVI of 2.0-3.0 in the basking area.)

Additional Illumination

In such a large enclosure, halogen and UVB lamps aren't enough to create the kind of bright light that simulates daytime. You will also need a nice bright 6500K LED or T5 HO fluorescent grow light, long enough to span most of the enclosure's length. I prefer the [Arcadia Jungle Dawn LED Bar](#) and the [Bio Dude Glow & Grow LED](#).

These lamps are also great for supporting any live plants you may have in the setup.

Heating

Humans are *warm-blooded*, which means that our body temperature is automatically regulated. Carpet pythons, however, are *cold-blooded*, which means that they have to move between areas of different temperatures in order to regulate their body temperature. In captivity, using a halogen flood heat bulb is the best way to replicate the type of warmth provided by sunlight.

- Basking surface: 95-100°F (35-38°C)
- Cool end: 75-80°F (24-26°C)
- Nighttime temps: 72-78°F (22-25°C)

Decreasing winter temperatures by 5-10°F / 3-5°C helps encourage natural seasonal hormonal cycling.

Generally speaking, a cluster of 50w halogen flood bulbs such as the [Arcadia Halogen Flood Heat Lamp](#) or [Zoo Med Repti Tuff Halogen Lamp](#) should be plenty to achieve your target surface temperature on the basking branch.

If you notice that they're getting too hot, dial it down with a plug-in lamp dimmer or proportional thermostat. The most way to dim everything evenly is to plug the lamps into a power strip, and then plug that power strip into the lamp dimmer. If your basking surface is too cool, you will need higher wattage bulbs.

You will need multiple heat bulbs to create a large enough basking area to evenly heat your carpet python's coiled body. Start with two bulbs and add more to the cluster as your snake grows.

To measure the basking surface temperature, use an infrared thermometer (a.k.a. temperature gun). To measure the temperature of the warm hide, use a digital probe thermometer. The [Etekcity 774](#) is a good infrared thermometer, and most reptile-brand digital probe thermometers function well.

Humidity

Carpet pythons are not picky about humidity, but they seem to do best between **40-60%**, with free access to a humid hide lined by moistened sphagnum moss or substrate to use as needed. Ambient humidity should be tracked via [digital probe hygrometer](#) with the probe placed in the middle of the setup.

To raise the humidity in your snake's enclosure, you can use a pressure sprayer to mist the habitat every evening, and again in the morning if needed. The enclosure should be well ventilated enough to dry out between mistings.

Substrate

Carpet pythons are healthiest and happiest when they are housed on a substrate (a.k.a. "bedding") that imitates the conditions of their natural habitat and facilitates moderate to high humidity.

[Zoo Med Reptisoil](#), [Zoo Med Eco Earth](#), [Exo Terra Plantation Soil](#), [Lugarti Natural Reptile Bedding](#), and the [Bio Dude Terra Firma kit](#) work well for a carpet python's needs. [Reptichip](#) and [sugar cane mulch](#) can also be suitable,

although they are less naturalistic. Alternatively, you can use a DIY mix of 40% organic, additive-free topsoil + 40% Zoo Med Reptisoil + 20% play sand.

Provide a substrate layer that is 2-4" deep to cushion your snake's body and help maintain healthy humidity levels. A generous layer of clean leaf litter on top is recommended. Feces and urates should be removed immediately, and contaminated substrate should be scooped out and replaced. Substrate should be completely replaced every 3-4 month depending on how diligent you are about routine spot-cleaning.

Décor

Decorations play an important role in your python's enclosure as environmental enrichment. These items are not optional — they are essential to promoting positive welfare for your pet! Enrichment items encourage exercise, stimulate your snake's natural instincts, and help stave off boredom.

Décor ideas: cork logs, sturdy branches, sturdy live or artificial plants, additional hides

At minimum, you will need a sturdy climbing branch, foliage for cover, and two hiding places.

All branches should be firmly secured to the walls or floor of the enclosure to prevent them from falling and potentially injuring your snake. This is especially important as your pet matures and becomes heavier!

Food

Carpet pythons are carnivores, which means that they need a diet of whole animal prey in order to get the nutrition that their bodies need. Juveniles should be fed every 1-2 weeks, and adults should be fed every 2-4 weeks.

A good rule of thumb is to provide a prey item(s) which totals around 10% of your snake's weight, assuming that the snake is not obese. Each item should be no more than 1.5x larger than the snake at its widest point.

Although rats and mice are the most common feeders, carpet pythons should eat more than just rats and mice to truly thrive. The key to providing a healthy, balanced diet for your pet snake is VARIETY. Provide as varied of a diet as you possibly can, and you will be rewarded with a healthier snake!

Prey item ideas: mice, African soft-furred rats, domestic rats, hamsters, gerbils, quail, chicks, Reptilinks

It's best to offer frozen-thawed prey rather than live to your pet snake. This is safer for the snake and generally considered to be more humane as well. Prey should be thawed in a plastic bag in warm water to around 100°F/38°C before offering. Use soft-tipped feeding tweezers to reduce the risk of getting accidentally bitten when the snake strikes.

Supplements

Carpet pythons can survive without vitamin or mineral supplements, but they can be a good way to help prevent nutritional deficiencies. Occasionally lightly dust the prey item with a 50/50 mix of calcium and multivitamin before thawing. Arcadia RevitaliseD3 and Repashy CalciumPlus LoD are both good options.

Water

Your snake should have free access to a large bowl of fresh water every day. This water should always be kept clean, with the bowl scrubbed out with disinfectant weekly.