

Carrot-tail Viper Gecko (*Hemidactylus imbricatus*)

Difficulty: Easy

Carrot-tail viper geckos (*Hemidactylus imbricatus* or *Teratolepis fasciata*) are a crepuscular, insectivorous type of terrestrial lizard native to western Pakistan and the drier portions of India. They generally prefer steppe area with plenty of rock cover.

Viper geckos grow up to 3-4" / 8-10cm long, and are most recognizable by their fat, beet-shaped tails covered with large triangular scales. The rest of the body features a ladder-like pattern with brown, grey, beige, and/or white coloring. The head is relatively large with large eyes and vertical pupils. The legs are long and slender with sticky toe pads.

Although tiny and not particularly handleable, viper geckos are curious, active, and relatively hardy, making them interesting and rewarding little pets for any reptile keeper. When proper viper gecko care is provided, they are likely to live 10-15 years.

Shopping List

- Front-opening 24" x 18" x 18" glass terrarium
- 50w halogen heat bulb
- 5.5" dome lamp with dimmable switch
- Arcadia T5 SO ShadeDweller 7% UVB kit
- Plug-in light timer
- Digital thermometer/hygrometer (x2)
- 15+ quarts desert substrate
- Flat basking rock
- Small hides/caves (at least 2)
- Misc. décor (hollow logs, thin branches, live/artificial plants, ledges, etc.)
- Spray bottle for misting
- Food and water dishes (small)
- Calcium and vitamin supplement
- Feeding tweezers
- Veterinary disinfectant

Housing

Viper geckos need an enclosure that is large enough to give them adequate opportunity to thermoregulate, explore, hunt, and generally exercise natural behaviors. Although viper geckos top out at 4" / 10cm long, they are usually kept in groups, so the minimum recommended enclosure size for housing up to 3 viper geckos is **24"L x 18"W x 18"H / 60 x 45 x 45cm** or similar. However, larger is always better!

Can multiple viper geckos be housed in the same enclosure?

Absolutely! Viper geckos generally get along well in groups, and in fact I don't recommend housing them singly. Even males appear to be able to live peaceably together when females aren't around. If there are females in the enclosure, then there should be only one male in the group in order to avoid conflict.

As always, don't house males and females together unless you intend to breed your geckos. The breeding of any reptile is a project that shouldn't be taken casually.

Lighting & UVB

Viper geckos are crepuscular, which means that they are primarily active around sunset. However, they will become a little more active during the day once they've settled into a new home.

To help regulate their day/night cycle, a fire skink's lights should be left on for **10.5 hours during winter and 13.5 hours during summer**. Alternatively, you can use a smart timer (I use [Kasa](#)) to sync your lights to your local sunrise and sunset times.

UVB Lighting

Technically viper geckos can survive without UVB lighting as long as they get plenty of supplemented vitamin D3. However, you are still going to get the best results from using UVB lighting rather than relying on supplements.

UVB lighting can be tricky, because in order to get the right strength of UVB (measured by UV Index, or UVI), distance must be considered. As a rough estimate, to provide appropriate UVB to a group of viper geckos in an 18" tall enclosure, you will need one of the following:

- [12" Arcadia T5 SO ShadeDweller 7% UVB kit](#)
- [14" Zoo Med T5 HO Reptisun 5.0 UVB kit](#)

When the lamp is placed over mesh, the basking surface should be placed so the bulb is 8-12" / 20-30cm above the gecko's back when basking.

The bulb itself should be roughly 1/2 of the enclosure's length, no more than 2/3. UVB bulbs must be replaced every 12 months in order to remain effective.

*(These recommendations are approximations based on measurements taken with the abovementioned fixtures and assuming a 35% mesh block. It is strongly recommended to use a Solarmeter 6.5 to determine the best placement to achieve a **UVI of 1.0-2.0** in the basking area.)*

General Illumination

Viper geckos are primarily active at night, not daytime, but based on my experience it seems that they still benefit from the addition of a high-powered 6500K LED lamp in the enclosure. They seem to like to bask at close range under the lamp first thing in the morning and just before lights out in the evening.

I recommend the [Arcadia JungleDawn LED Bar](#), spanning 75-100% of the enclosure's length. As an added benefit, this lamp is fantastic for supporting plants in a bioactive setup!

Heating

Humans are *warm-blooded*, which means that our body temperature is automatically regulated. Viper geckos, however, are cold-blooded, and more specifically they are *poikilothermic*, which means they

need to move between areas of different temperatures in order to regulate their body temperature. Here's the range of temperatures that should be available in a viper gecko enclosure:

- **Basking temperature:** 90-95°F (33-35°C)
- **Cool zone temperature:** 75-85°F (24-29°C)
- **Nighttime temperature:** 70-75°F (21-24°C)

You will need one or two ~50w halogen heat bulbs for basking and creating the right ambient temperatures in your setup. The following equipment is recommended:

- [Arcadia Halogen Heat Lamp](#) OR [Zoo Med Repti Tuff Halogen bulb](#)
- [Fluker's 5.5" Dimmable Clamp Lamp](#)

If this is too warm, use the dimmer switch to reduce the heat output or install a less-powerful white incandescent heat bulb such as the [60w Exo Terra Daytime Heat Lamp](#). If your basking area is too cool, you will need a higher wattage bulb.

To track enclosure temperatures, use two digital probe thermometers, with one probe on the basking surface and the other probe on the cool end. Most reptile-brand digital probe thermometers function well.

Humidity

Viper geckos should have fairly dry ambient humidity levels **below 50%**. However, they also need access to areas of higher humidity (moist hides) 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 enclosure, you can use a [spray bottle](#) to lightly mist the habitat 2-3x/week. The enclosure should be well-ventilated enough to dry out fairly quickly. Make sure that the moist hide(s) are always kept moistened, but not soggy. Moist hides can be plastic or resin caves from the pet store, or they can be as simple as the space under a piece of cork bark.

Substrate

Substrate is an important part of a viper gecko terrarium because this species likes to have the opportunity to dig. A good substrate also helps maintain optimal humidity levels and creates a natural humid hide.

Here are some substrate options which resemble the natural conditions of viper gecko habitat: DIY mix (60% organic topsoil, 40% fine sand), [Zoo Med ReptiSand](#), [Exo Terra Desert Sand](#), [Josh's Frogs Desert BioBedding](#), [Bio Dude Terra Sahara](#)

You will need at least 2" / 5cm of substrate. This requires at least 15 quarts in a 24" x 18" enclosure.

Feces and urates should be removed daily, and contaminated substrate should be scooped out and replaced. Substrate should be completely replaced once every 3-4 months, depending on your needs.

Décor

Decorations play a vital role in your gecko's enclosure as environmental enrichment. Enrichment items encourage exercise, stimulate your pet's natural instincts, and help promote overall wellbeing, so don't be afraid to go a little crazy! And, of course, they do make the enclosure nicer to look at.

Here are some ideas to get you started: slate stacks (secured with silicone or grout), dragonstone, sandstone, cholla wood, manzanita twigs, cork tubes, cork flats, magnetic ledges, artificial plants, live desert plants, 3D backgrounds

Arrange these items in a way that encourages your geckos to climb and explore, offers plenty of shelter, and creates areas of both light and shade.

Food

Viper geckos are *insectivores*, which means that they need a varied diet of insects to get the right nutrition. Juvenile viper geckos (<1 year old) should be fed daily to every other day, while full-grown adults should be fed 2-3x/week. Offer as many insects as the gecko is capable of eating in a 5-minute period, with each feeder being smaller than the animal's head. A good way to measure your gecko's appetite is to offer feeders in a bowl at first before letting the feeders roam around the enclosure for hunting.

Feeder insects for viper geckos: crickets, isopods, dubia roach nymphs, discoid roach nymphs, buffalo beetles and larvae, small mealworms, small superworms, silkworms, hornworms

The key to providing a healthy, balanced diet for your pet is VARIETY. Provide as varied of a diet as you possibly can, and you will be rewarded with a healthier pet that always looks forward to mealtime.

Supplements

All insect feeders should be lightly "dusted" with calcium powder to balance the calcium-phosphorus ratio. Multivitamin powder can be used every once in a while to provide extra nutrients. All-in-one powders provide a balanced dose of both at once.

There are many options in terms of supplements, but [Repashy CalciumPlus LoD](#) and the Arcadia Earthpro system are both solid all-in-one supplements for viper geckos that have appropriate UVB. For best results, use as directed by the label.