

African Fat-Tailed Gecko (*Hemitheconyx caudicinctus*) care sheet and bioactive terrarium maintenance

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African Fat-Tailed Gecko (*Hemitheconyx caudicinctus*) Difficulty: Intermediate

African fat-tailed geckos are small, terrestrial lizards native to dry and moist savanna areas of west Africa. They are primarily active at night, which time is spent mostly hunting for insects. Although they look a lot like leopard geckos, which are a popular arid species from the Middle East-western Asia, African fat-tailed geckos prefer a humid environment.

An adult African fat-tailed gecko is generally 8-10" long, with bumpy skin, a large head, long body, and plump, ringed tail. Unlike most geckos, they have eyelids, and their feet don't feature sticky toe pads. Due to selective breeding in captivity, patterning can be quite variable, but their natural appearance has broad, alternating bands of medium and dark brown, sometimes with dark spots and accents of white. The belly is pale, and some specimens have a pale stripe from the top of the head to the tip of the tail.

Also less popular than the better-known leopard gecko, African fat-tailed geckos are similar in both hardiness and temperament, making them well-suited for new and experienced reptile enthusiasts alike. With good care, they are known to live 15-20+ years.

What You Need for a Bioactive African Fat-Tailed Gecko Enclosure

- 36”L x 18”W x 18”H enclosure
- [Exo Terra Reptile Glow Light, small](#),
- [50w Arcadia Halogen Heat Lamp](#)
- [Bio Dude Digital Thermometer / Hygrometer, x2](#)
- [22” Arcadia Desert 6% UVB T5 HO bulb](#)
- [24” Bio Dude Solar Grow T5 HO Single Bulb Light Strip](#)
- [36” Bio Dude Solar Grow T5 HO Single Bulb Light Strip](#)
- [Zilla 24/7 Digital Timer Power Center](#)
- [Terra Firma Bioactive Kit 40 breeder](#)
- [Ball Python Clean Up Crew Pack](#)
- [Tropical plants](#)
- Environmental enrichment items ([caves](#), [hollow logs](#), [sturdy branches](#), etc.)
- [Food and water bowls](#)
- [Repashy Calcium Plus supplement](#)
- [Zoo Med Stainless Steel 10” Curved Feeding Tongs](#)

Terrarium Size

Your new pet should be housed in nothing smaller than a 36”L x 18”W x 16”H enclosure, with an at least 4” substrate dam for substrate. If you can afford larger, then it’s strongly advised to do so. Bigger is always better! For maximum convenience and less risk of frightening your gecko, get an enclosure that opens from the front rather than from the top.

As a general rule, **do not house more than gecko per enclosure.**

Lighting

African fat-tailed geckos are crepuscular, which means that they are primarily active at night, particularly around dawn and dusk. This means that they can survive without exposure to UVB radiation but doesn’t necessarily mean they don’t benefit from it. In fact, current research indicates that they likely do benefit when it is provided. Reptiles use UVB light to create the vitamin D that their body needs, as well as to strengthen their immune system, and stimulate production of endorphins. UVB even helps keep the enclosure free of pathogens, which is especially important for bioactive setups.

An Arcadia 6% or Zoo Med T5 HO Reptisun 5.0 is likely to work the best for an African fat-tailed gecko. The bulb should be roughly half the length of the enclosure, placed on the same side as the heat lamp, and mounted in a reflective T5 HO fixture like the **Arcadia ProT5** or the **Bio Dude Solar Grow light strip**.

The basking platform should be placed 11-13” below the lamp if there’s a mesh top, and 14-16” below the lamp if there isn’t. This is because the strength of a UVB bulb’s output changes with

distance. Your UVB bulb must be replaced every 12 months to maintain its output. Resist the temptation to use other, cheaper brands — when it comes to UVB, *brand matters!*

Because this is a bioactive setup, you will also need a plant light to encourage healthy plant growth. We recommend the **Bio Dude Solar Grow light strip** for this purpose. The light should span 75-100% of the enclosure's length.

Lights should be kept on for 12 hours/day or cycled seasonally from 13 hours/day during summer and 11 hours/day during winter.

Heating

Like other reptiles, African fat-tailed geckos are *poikilothermic*, which means that they need a range of temperatures within their enclosure so they can regulate their own body temperature as needed. Areas of heat speed up their metabolism and promote activities like digestion and healing. Cool areas slow the metabolism and promote activities like rest and energy conservation.

African fat-tailed gecko temperature gradient:

- **Basking temperature:** 90-100°F
- **Cool side temperature:** 70-75°F

Heating should be turned off at night, but temps should go no lower than 62°F.

To create a basking area for your African fat-tailed gecko, you will need a cluster of a halogen flood heat bulbs like the **50w Arcadia Halogen Heat Lamp** (optimum wattage may vary) and a small ceramic fixture like the small **Exo Terra Reptile Glow Light**. If the basking area gets too warm, you can plug the lamp into a lamp dimmer like the **Lutron Credenza** and reduce the heat that way. If the basking area is too cool, you will need a higher-wattage bulb.

For best results, place one of the hide boxes directly under the heat lamp to create a warm hide. Then put a piece of flat stone on top of that hide to create a basking surface that will absorb warmth from the heat lamp.

To monitor your temperature gradient, place a digital probe thermometer like the **Bio Dude Digital Thermometer / Hygrometer** in the basking area, and then put another one on the cool side, preferably inside the humid hide.

Humidity

One distinguishing trait about African fat-tailed geckos' preferred habitat is that it has **distinct wet and dry seasons**. This likely plays a significant role in the geckos' long-term health and should be more or less replicated in captivity.

From April to October, mimic the wet season with a daily average of 70-80% humidity. From November to March, switch to a "dry season" with a daily average of roughly 50% humidity. For best health, your gecko should also have year-round access to a humid hide with humidity

levels between 85-100% for them to use as needed. This hide should be placed on the cool side of the enclosure.

To raise the humidity in your gecko's enclosure and water your plants, use a spray bottle like the **Exo Terra Mister** to thoroughly mist the enclosure every night, and in the morning as needed. Make sure to choose plants that can tolerate periods of drought as well as periods of heavy moisture.

Substrate

A thick layer of bioactive-compatible substrate is essential to creating a bioactive African fat-tailed gecko enclosure. This layer of substrate should be at least 4" deep (preferably deeper if you can, since this provides more room for your plants' roots).

Because African fat-tailed geckos require fairly moderate humidity levels, no drainage layer is needed. Instead, you can jump right to the dirt. You will need a soil-like mix that mimics a forest floor and nurtures temperate to tropical plants. If you want to make your own bioactive mix, you will need a mixture of 40% organic topsoil, 40% Zoo Med ReptiSoil, and 20% play sand. Mix that with leaf litter, sphagnum moss, and 1 dose of **36qt Bio Shot** to inoculate your soil with beneficial microfauna.

Alternatively, you can let The Bio Dude do the work for you with **The Bio Dude's Terra Firma bioactive substrate kit**. Either way, make sure to layer a generous amount of leaf litter on top!

To make the substrate fully functional, make sure to add CUC organisms like dairy cow isopods, dwarf white isopods, and arid springtails. You can also add other species like earthworms and super worms!

Decorating the Enclosure

Enclosure décor is about more than just making your setup look good. It's also an important part of providing *environmental enrichment* to your lizard, which enhances your pet's quality of life by providing opportunities to express natural behaviors. Although your African fat-tailed gecko may not seem particularly active to your perception, they're usually quite busy at night. Use things like **low branches**, **cork flats/hollows**, **caves**, **ledges**, and **plants** for your gecko to explore and hide in. Don't be afraid to clutter it up!

Live plants in particular are critical to helping your mini-ecosystem function properly. Make sure the plants that you choose are drought-tolerant and won't be too bothered if their roots get disturbed. Good choices may include pothos, peperomia, sansevieria, calathea, and creeping fig. Note that particularly delicate plants may get trampled to death.

Feeding Your African Fat-Tailed Gecko

African fat-tailed geckos are insectivores, which means that they need to eat mostly insects in order to be healthy. The general rule is to offer 2 appropriately sized bugs per 1 inch of your leopard gecko's length, or however much they can eat in 15 minutes. Juveniles should be fed daily, and young adults fed every other day/every 3 days. Adults whose tail is fatter than their neck can be fed every 5 days.

Make sure to feed your gecko as large of a variety of foods as possible:

- crickets
- dubia roaches
- discoid roaches
- red runner roaches
- black soldier fly larvae
- mealworms
- super worms
- darkling beetles
- hornworms
- silkworms

Feeder insects should be no wider than your gecko's head. ALL FEEDER INSECTS SHOULD BE LIGHTLY DUSTED WITH CALCIUM SUPPLEMENT BEFORE FEEDING.

Calcium & Vitamins

To ensure that your pet is getting all the vitamins and minerals they need, you need a calcium powder and a multivitamin powder. Take care not to use these too often; too much vitamins can be just as deadly as too little. **Repashy Calcium Plus** is a good way to provide a safe dose of each at the same time.

Water

Your gecko should always have access to fresh, clean drinking water. Choose a bowl that is shallow enough to prevent drowning. The water should be changed whenever it gets soiled. Scrub the bowl with an animal-safe disinfectant at least once a week.

Handling Tips

When you first bring home your new pet gecko, resist the temptation to immediately start playing with it. You're huge compared to an African fat-tailed gecko, and s/he needs time to figure out that you're not going to eat them. Let your new pet settle in for at least 2 weeks before you start handling.

Once your gecko has established confidence in his/her new home and is eating regularly, you can introduce yourself. Let them watch you outside of the enclosure. Rest your hand in the enclosure and allow the lizard to familiarize itself with your hand.

Young African-fat tailed geckos are usually more skittish as juveniles than adults. But eventually they'll stop running away from your hand and get used to your presence. This is when you can start to handle them. But just because you have reached this step does not mean your pet trusts you. Trust and friendship (as far as it goes for lizards) takes time and regular handling.

Handling Techniques

- Support the whole body.
- Use slow movements.
- Never grab from above, chase them, or pull them out of a hiding place.
- Let the gecko voluntarily climb onto you whenever possible.
- Reward them with a bug.
- If they are shedding, leave them alone and don't pull on loose skin.

Tong-feeding is a great way to bond with your gecko!

Care information courtesy of ReptiFiles.

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