

African Fat-Tailed Gecko (*Hemitheconyx caudicinctus*)

Difficulty: Intermediate

African fat-tailed geckos are 8-10" lizards with soft, almost "pudgy" appearance: a long, stout body, stubby limbs, an oval head, pebbled skin, and a plump, segmented tail. Their coloring features alternating bands of medium and dark brown, sometimes with dark spots and white markings, including a white stripe from head to tail. Although they are geckos, they are unique from most others in that they have eyelids and can't walk up walls

African fat-tailed geckos are native to West Africa, ranging from Senegal to northern Cameroon. They prefer dry Sahel and dry/moist savannah for habitat, and are generally found near rock crevices and among the leaf litter of dry forests.

African-fat tailed geckos generally have very docile, tolerant dispositions and can make very handleable pet lizards. If you pay attention to providing excellent African fat-tailed gecko care, your pet is likely to enjoy a 15-20 year lifespan, although longer is possible.

Shopping List

Information on how to use these items with your pet and why they're necessary can be found in the rest of this care sheet.

- Front-opening 36" x 18" x 18" glass terrarium
- 50w halogen heat bulb
- 5.5" dome lamp with ceramic socket
- 8" x 12" heat mat
- Non-proportional (on/off) thermostat
- 12" Arcadia ShadeDweller 7% UVB kit
- Plug-in light timer
- Digital thermometer/hygrometer (x2)
- 23-46 quarts naturalistic substrate
- Flagstone (at least 1 piece)
- Hides/caves (at least 2)
- Misc. décor (leaf litter, logs, cork flats, live/artificial plants, ledges, etc.)
- Pressure sprayer
- Food and water dishes
- Calcium and vitamin supplement

Housing

African fat-tailed geckos may seem small, but they still need an enclosure that is large enough to give them adequate opportunity to explore, hunt, and generally exercise natural behaviors. They are also terrestrial, which means that they are a ground-dwelling species, and generally prefer terrariums that are wider than they are tall.

This is why the minimum recommended enclosure size for a single African fat-tailed gecko is **36”L x 18”W x 18”H** / 90 x 45 x 45cm. If possible, larger is always better! Although they are considered terrestrial, African fat-tailed geckos are built to live amongst rocks, and are capable climbers.

Can multiple African fat-tailed geckos be housed in the same enclosure?

This species is generally considered to be solitary, and does not appear to live in groups in the wild. A pair can be successfully housed together in a large enough enclosure, but keep in mind that if the geckos don't get along, they can fight and severely injure one another. Males in particular are known to fight. Altogether, it's best to house only one gecko per enclosure.

Lighting & UVB

African fat-tailed geckos are nocturnal, which means that they are primarily active at night. This means that they are likely to prefer cooler temperatures, are exposed to low levels of indirect UVB during the day, and have exceptional night vision.

All lights should be turned off at night. You can use a 12/12 day/night cycle, or you can vary day length seasonally to encourage more natural hormonal rhythms. If you choose to do the latter, lights should be on for up to 13 hours/day during summer, and down to 11 hours/day during winter, with gradual increments in-between.

UVB Lighting

African fat-tailed geckos are capable of surviving without UVB lighting as long as they receive a high-D3 calcium supplement, but they are most likely to thrive when UVB is provided. In order to get the right strength of UVB (measured by UV Index, or UVI), distance and obstructions must be considered. The below recommendations assume that the lamp is placed on top of the enclosure, not inside:

- Arcadia ShadeDweller 7% — 8-12" / 20-30cm
- Zoo Med T5 HO ReptiSun 5.0 — 14-20" / 35-50cm

For best results, use an Arcadia or Vivarium Electronics brand T5 HO fixture. The UVB lamp should be installed on the warm side of the enclosure, overlapping with the heat lamp, because heat and UVB work together. The UVB lamp itself should span no more than half the enclosure's length.

(These recommendations are approximations. 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.)

Heating

Humans are *warm-blooded*, which means that our body temperature is automatically regulated. African fat-tailed geckos, however, are *cold-blooded*, which means that they have to move between areas of different temperatures to regulate their body temperature. In the wild, African fat-tailed geckos warm up during the day by sleeping in a warm burrow. In captivity, the best way to replicate the warming effects of sunlight is with a heat lamp, possibly supplemented (but not replaced) by a heat mat.

RAINY/WARM SEASON (April-October)

- Warm hide: 90-94°F (32-34°C)
- Cool side: 72-77°F (22-25°C)
- Nighttime: 72-77°F (22-25°C)

DRY/COOL SEASON (November-March)

- Warm hide: 79°F (26°C)
- Cool side: 68-74°F (20-23°C)
- Nighttime: 17-18°F (63-64°C)

Generally speaking, a ~50w halogen heat bulb or two should be plenty for achieving the desired temperatures in your African fat-tailed gecko terrarium. However, if you notice that the warm hide is too warm, dial down the heat with a plug-in lamp dimmer or switch to a lower wattage bulb. If the general air temperature is too cool, try adding another or higher-wattage heat bulb.

Creating the Basking Area

Place one of the hides (I prefer a rectangular black box hide for this) directly under the heat lamp(s) and place a light-colored slab of stone (ex: flagstone, sandstone) or hardwood on top to create a basking platform. The hide underneath will be the warm hide. The heat lamp should be able to heat the warm hide to the target temperature, but this can vary depending on room temperature, thickness of the basking surface, etc.

If your warm hide is not getting warm enough: add a heat mat under the hide box, covered with 1" of substrate to prevent direct contact. Plug this heat mat in to a thermostat such as the Inkbird brand. Place the thermostat probe inside the warm hide to regulate its temperature correctly. For best results, schedule your heat mat to turn off a few hours after sunset rather than immediately at sunset to replicate that lingering-warmth effect nocturnal reptiles benefit from in the wild!

Tracking Temperature

To track the temperatures in your enclosure, use digital probe thermometers. For basking temps, place a temperature probe on the basking surface under the heat source. For the rest of the enclosure, place another temp probe on the substrate of the cool end. Most reptile-brand digital probe thermometers function well.

Humidity

African fat-tailed geckos do best in an environment that **cycles between wet/warm and dry/cool seasons**. During the wet season (summer), shoot for 70-80% daytime and 100% nighttime. During the dry season (winter), shoot for 50% daytime and 70-75% nighttime. To increase humidity levels in the enclosure, use a handheld pressure sprayer. Distilled or reverse osmosis water works best if you want to avoid water spots.

It is also important to your gecko's health to provide them with consistent access to an area of higher humidity. This can be done with a "humid hide" — a cave or hide with moistened substrate, placed on the cool end of the enclosure. This helps your gecko shed successfully and stay hydrated. Keep the humidity levels in this hide around the same as your current target nighttime humidity.

You can monitor humidity levels in your humid hide with a digital probe hygrometer with the probe placed in the middle. You will need another device if you want to monitor the humid hide separately.

Substrate

Providing substrate for African fat-tailed geckos is a bit of a controversial issue, but the short of it is that as long as a naturalistic substrate is used, and the gecko is adequately heated, hydrated, has access to

UVB, and is otherwise healthy, there's nothing to be worried about. *Note: New African fat-tailed geckos should be >6 months old and must pass quarantine before naturalistic substrate is added to their enclosure. Before then, use paper towels or blue shop towels.*

For African fat-tailed geckos, it's best to use a well-draining, naturalistic substrate that is similar to what is found in their native habitat. This substrate should be layered at least 4" deep to allow for burrowing behavior. Here are some good options:

Substrate options: DIY semi-arid mix (40% organic topsoil + 40% play sand + 20% Zoo Med Excavator Clay), Lugarti Natural Reptile Bedding, Zoo Med ReptiSand, Exo Terra Desert/Riverbed Sand, Exo Terra Stone Desert

Feces and urates should be removed daily, and contaminated substrate should be scooped out and replaced. Substrate should be completely replaced once every 3-6 months, depending on how diligent you are about daily cleaning.

Décor

Decorations play a vital role in your African fat-tailed gecko's enclosure as environmental enrichment. Enrichment items encourage exercise, stimulate your pet's natural instincts, and help promote overall wellbeing. And, of course, they make the enclosure look nicer! Without décor, your gecko's terrarium is just an expensive box of dirt.

Hollow logs, thick branches, leaf litter, ledges, and artificial or drought-resistant live plants work well as décor in an African fat-tailed gecko terrarium. You can also provide additional hideouts. Arrange these items in a way that encourages your gecko to climb and explore, and provides a variety of places to sleep or shelter in during the day.

Food

African fat-tailed geckos are *insectivores*, which means that they eat insects. How often an African fat-tailed gecko needs to depends on age: The general rule is to offer 2 appropriately-sized bugs per 1 inch of your 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.

Feeder insect options: crickets, dubia roach nymphs, discoid roach nymphs, black soldier fly larvae, mealworms, darkling beetles, hornworms, silkworms, grasshoppers/locusts

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 Arcadia EarthProA are both solid all-in-one supplements for African fat-tailed geckos that have appropriate UVB. For best results, use as directed by the label.