



Mali Uromastyx Husbandry Guidelines (*Uromastyx maliensis*)

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Set-Up/Enclosure

Lighting/Heating - Captive habitat should always mimic an animal's natural environment as closely as possible. Uromastyx are diurnal (day active), North African animals; keeping this in mind there are several factors to take into consideration if one is to successfully keep these animals in captivity. Lighting is one of the most important aspects of the set-up as it enables basking lizards to properly synthesize and metabolize nutrients and encourages natural behavior. Uromastyx should have an average 9-13 hour photo (daylight) period induced with synthetic UVB lights or in an appropriate outdoor enclosure. There are three types of UVB lights available in pet stores. The first, in order of efficacy is the mercury vapor bulb which produces around 30-35% UVB radiation as well as heat. This bulb is ideal for a desert animal like the uromastyx.

The mercury vapor bulb produces UVB radiation for as long as it's producing light and the radiation is more focused and penetrates with full potency at 36 inches so this bulb can be used in large enclosures. The second option is a compact fluorescent bulb that is available with 10% UVB output. This bulb needs to be used in conjunction with an incandescent, basking heat bulb as it does not give off heat of its own. Animals need to be able to bask within six inches of this bulb and it needs to be changed every six to eight months as the gases that produce the UVB dissipate. The third option is a fluorescent tube light which is available in varying percentages of UVB output from 2.0-10.0; only the high end of this range will prove effective for a uromastyx, so go with a 10.0. This bulb like the other fluorescent mentioned should be used in conjunction with a heat bulb, within six inches of the animals basking site and changed every six to eight months. No matter which UVB bulb one chooses, make sure that there is no glass or plastic between the bulb and the animal as this will filter out all of the beneficial radiation (this is why setting your pet in front of a window is useless); not to mention it is a potential fire hazard. The regions of the African continent that Mali uromastyx inhabit are quite arid and thus, naturally they experience a dramatic temperature gradient with daytime basking temperatures reaching upwards of 120 degrees F and night time lows sinking as low as 60 degrees F. To recreate this in captivity one should use the aforementioned lights to create a basking spot at one extreme end of the enclosure with temperatures that reach at least 100-120 degrees F, while the cool side of the enclosure may fall into the 70's or 80's. Because the uromastyx is a diurnal, basking lizard, it has a small organ located on top of its head between its eyes called the pineal organ, that tells the animal how warm its getting and allows it to thermoregulate (control its body temperature) and adjust its position accordingly. If the animal just needs to lower its body temperature by a few degrees, it may opt to gape (open its mouth to allow excess heat to escape) rather than move to a cooler area. Avoid heat pads or heat rocks as they can potentially cause burns due to their inability to fully sense ventral heat. At night, all heat sources may be turned off allowing the enclosure to fall to your home's ambient room temperature.

Substrate - There are several options for appropriate substrate (bedding). Substrate needs to be either digestible or needs to eliminate the possibility of ingestion all together. Good digestible substrates include VERY FINE calcium sand (CaribSea's Reptilite is a good option), a fine bird seed (parakeet or finch), or alfalfa/timothy based rabbit pellets. If one doesn't mind the unnatural look of newspaper or paper towel, these eliminate the potential for ingestion and are easy to change out frequently for a clean enclosure.

Furniture - Cage décor is a welcome addition, but keep in mind that uromastyx appreciate some flat surface area. An elevated basking perch on the hot side of the enclosure is easily achieved with logs or rocks. Be sure not to use pine or cedar because of harmful phenols in softwoods. If you collect limbs from outdoors be sure to bake (200 degrees for an hour or two) or bleach them (soak in one part bleach to 10 parts water solution then let dry) to make them safe for use in a terrarium with an exotic animal. A makeshift cave or half log for cover on the cooler side of the terrarium would make for a happy animal as well. I do not encourage any artificial foliage because of the feeding response elicited by colors such as green leaves or the bright colors of flowers, which if eaten by your pet can be potentially harmful. However, in a large enclosure, planting a garden for your uromastyx can be fun for you and will surely be appreciated by your scaly friend.

Diet- Diversify; the more variety the better! The majority of his or her diet will be plants and seeds interspersed with occasional proteins (45%:45%:10%). You can visit the produce section of your local market for greens, veggies and fruits. A few good options for vegetation include, but are not limited to rich, leafy greens such as romaine lettuce, beet, collard, mustard, and dandelion greens (stay away from head lettuces and cabbages). Most other vegetables and fruits are a welcome addition to garnish your uromastyx's salads. Most Seed can be purchased at most pet stores, parakeet blends seem to be the best. If you not using seed as a substrate, it can be put in a dish and left for the lizard to free-feed. Some examples of readily available insects include: mealworms, crickets, wax or butter worms, silk worms and tomato horned-worms are all great for protein but keep in mind this should make up 10% or less of your uromastyx's diet. There is no predetermined amount that your pet should eat, so let them have their fill (especially as they are growing for the first few years). As an adult, if your uromastyx does not have a well balanced diet and some exercise, obesity can be an issue. Water should not be left in the enclosure. Uromastyx are specially suited to their desert environment and are almost like a walking cactus; they obtain all of the necessary water from the plants that they ingest. In a captive setting, it is a good practice to give your uromastyx a quick soak in lukewarm water once to twice a week for about 5 minutes. Do not soak your pet for too long, as it can cause physical harm. As a desert animal, uromastyx have evolved specialized water absorption techniques and if presented with the opportunity, they will take in more water then they can utilize and as they cannot evacuate this immediately, it can cause organ damage.

Supplementation- A powdered Calcium/Vitamin D3 supplement with little to no phosphorus should be applied to food every other meal and a multi-vitamin supplement should be given about once a week.

If done properly, a Mali uromastyx terrarium can be conducive to a mentally and physically healthy animal, as well as an aesthetically pleasing display for one's home.

Interaction/Handling

Human Interaction - We should always bear in mind when keeping reptiles is that they are naturally cryptic (secretive) and typically solitary animals. Though as social creatures we generally thrive on social interaction and contact, uromastyx are quite the opposite. Hatchlings (though captive bred babies are unfortunately uncommon in the pet trade) are fragile and skittish and may run out of open hands or succumb to other accidental trauma. They may also become stressed by the interaction and quit eating or alter their natural behavior in some other, undesirable manner. Imagine from the animals perspective how it must feel to have a predator as large as us looming over them or restraining them. After your uromastyx is well established (hatchling or more commonly, a wild collected, adult import) they can be handled with less of a possibility of detrimental effects. An adult Mali uromastyx is usually willing to endure handling with no issues and though they do not "like it", they readily tolerate it.

Uro to Uro Interaction – I will reiterate here that uromastyx and reptiles in general are not social animals so they definitely do not *need* cage mates. Sexually mature males cannot cohabitate together as there will inevitably be territorial skirmishes (they will happily display for the uninitiated just why they have those heavily armored tails). Uromastyx of the opposite sex can usually be housed together without much of an issue as reproduction in captivity is rare at best. Determining sex is quite easy in this species as they are sexually dimorphic (having obvious physical attributes that distinguish sexes). The males are generally very dark grey to black with a bright yellow dorsum (back), where as females tend to have a much lighter, generalized dull yellow to brown.