Uromastyx

Uromastyx are a genus of lizard in the agamid family, the same family that includes bearded dragons and frilled dragons, clown agamas and many other familiar lizards. There are at least 18 different species of uromastyx officially recognized by taxonomists, and many more subspecies and varieties.

The common name spinytail, or spiny-tailed agamid, comes from the 10 to 30 rings of spiked scales covering the top side of their tail. They are also sometimes called dabb lizards, or mastiguires, but they are usually just referred to as “uros.”

Uromastyx lizards inhabit a discontinuous range stretching through most of North Africa, the Middle East and across south-central Asia to the Indian subcontinent. This area, entirely north of the equator, spreads across 5,000 miles and 30 countries. These lizards occur at elevations ranging from sea level to more than 3,000 feet.

Uromastyx are categorized as CITES Appendix II. This means trade is regulated, but not necessarily prohibited. Some countries will allow exports and some will not, but the total quantity permitted is in the tens of thousands per year.

There are several things to consider when obtaining a uromastyx lizard. First off, find out the eventual adult size of the species you are getting. Attempt to determine the genuine source and history of the lizard, including whether it is captive-bred, imported recently, or imported long enough ago to be acclimated to captivity. All other things being equal, captive-bred animals are more likely to be free from parasites, accustomed to a captive diet and the constraints of a cage, and less frightened by typical household activities. Genuine, captive-bred uros are normally only available as hatchlings.

Most adult uromastyx are between 10 and 18 inches in length, the primary exception being the Egyptian uromastyx, which can exceed 30 inches in length. Hatchlings can measure a mere 3 to 4 inches in length.

It's difficult to estimate normal life span of uromastyx lizards in captivity because until recently most of the information available was from imported lizards that started their captive life at an unknown age. Maximum longevity records exceed 30 years, but it appears 15 years is more typical. Data indicates that *U. Aegyptius*, the largest of the genus, also has the longest life span. Field studies show that hatchling uromastyx grow to full size in about 4 years in the wild.

Caging

The uro’s need for large temperature gradients and its active grazing and digging lifestyle requires relatively large caging. A wide variety of cage styles are used successfully. Keepers often build their own from wood or melamine or purchase large aquaria, commercially made plastic cages or even metal cattle troughs. The cage should be strong enough to hold the appropriate substrate and furnishings, equipped to safely handle high temperatures and intense lighting needs, and offer adequate ventilation.

I suggest the following rough guideline for minimum cage sizes for keeping a single adult uromastyx lizard. No matter what the dimensions are, without a proper temperature gradient the cage is inadequate.

Lizard under 10 inches – 3 feet by 1 foot
10 to 15 inches – 4 feet by 1 ½ feet
More than 15 inches – 6 feet by 2 feet

Your choice of lighting, heating and lid style will dictate the minimum height necessary.

Bigger is always better. A larger cage is much more forgiving of temperature mistakes and other potential problems.

Lightning

Uros are normally only active during daylight hours. The opportunity to thermoregulate, or adjust their body temperature, is critical to their health. A cool uromastyx lizard typically has a darker, drab coloration, which absorbs the radiant solar heat more quickly. As the uromastyx basks in morning sunlight, its body temperature will rise to the high levels it needs for activity and digestion, and its colors will lighten and brighten dramatically. It must periodically seek shade to avoid overheating. Uromastyx burrows can be several feet deep and may maintain a temperature as much as 30 degrees lower than the surface, with higher humidity levels as well.

Bright, hot lighting is necessary to stimulate normal uromastyx feeding and digestion. Generally, the goal is to have a very brightly lit cage with a gradual temperature gradient from approximately 80 to 100 degrees Fahrenheit and basking zones of 120 degrees or more.

This is typically accomplished with a hot end/cold end arrangement making use of cooler fluorescent lights and hotter incandescent basking lights. Clever cage designs may also make use of different levels on rocks or branches whereby the varying distances from the heat source will create different temperature zones.

Do not guess at the temperatures you've created. Use an accurate, well-placed thermometer. Digital and infrared thermometers (TEMPGUNS) have become very inexpensive.

All lights are off at night. Nocturnal heating is not necessary in most homes. If your setup allows the cage to fall below 65 at night, you may need to add a small heat-emitting bulb. To prevent thermal injury to a sleeping lizard, the bulb should be carefully controlled and monitored.

The best source of UV light is, of course, real unfiltered sunlight, even if only a few hours per week. Due to climate or other practical considerations, most keepers find this quite difficult to accomplish safely.

Substrate

Choosing a substrate often involves a compromise based on safety and suitability for the reptile, weight, economy, convenience, appearance, odor, dust, etc.

My favorite uromastyx lizard substrate for ease and simplicity is still an inch or two of good ol' natural sand, with most of the cage floor occupied by various basking and climbing sites.

Commonly sold as "washed play sand," it is usually quite inexpensive. Although I've heard stories of it being blamed for stomach impactions, I have used it for more than a decade without any apparent problems. Fecal matter and leftover food in the sand can be quickly sifted out with a screened sifting tool or a kitty litter scoop. I should note that not all sand is created equal – I would

avoid any sharp-edged sand that is intended for sandblasting or is a by-product of a mining or industrial operation.

Many reptilekeepers also report good results from using small seed, such as millet, as a substrate for their uromastyx lizards. Substrates based on walnut shells or absorbent materials like wood shaving or paper mulch, have been implicated in impaction problems and I avoid them. Proper presentation of foods, such as placing them on dishes on top of substrate, will go a long way toward preventing ingestion of substrate.

When using a totally dry substrate, consider including a sizeable “burrow box” in the cooler end of the cage to simulate a more natural retreat (I use an opaque plastic box like a Rubbermaid that is 2 to 3 times the length of the lizard. The boxes have a small entry hole not much larger than the lizard's diameter, or optionally an entry tube made of plastic piping. The black corrugated drain pipe from home improvement stores is immediately recognized as a safe haven to most uromastyx but is admittedly not particularly attractive.). It should contain slightly moistened substrate or better yet, create a mix for superior moisture retention by adding items such as clay, topsoil and fine vermiculite. A good mix will also support the holes dug in it by the uromastyx, something that plain sand and many other substances can’t possibly do.

I use paper on the cage floor for hatchling uromastyx lizards to lessen the risk of digestive system impactions.

Food

The majority of my uro’s diet is various green plants. This can be collard greens, dandelion greens, mustard and turnip greens, prepackaged spring mixes, escarole, endive, radicchio and bok choy. Availability will vary with your location and the season. The portion of plants like kale and spinach containing calcium-blocking oxalates should be kept to a minimum.

Plant matter should be chopped up and presented like a mixed salad for your uromastyx lizard. I place the food in a dish shallow enough that the uro can see the food. I place the food bowl a short distance from the primary basking site, so it is easily visible but not right in the hottest spot, where it might desiccate before being eaten.

Yellow, red and white flower blossoms also seem to be particularly stimulating for uros. Once a week, I will grate some vegetables like squash, carrots or sweet potatoes and mix them in with the greens.

Uromastyx lizards love to eat seeds. I use dry lentils straight from the grocery store shelf, as well as small bird seed mixes containing safflower, grass seeds, etc. I avoid sunflower seeds, in case their pointed shells could do some damage internally. Many seeds are also easily sprouted, which uros find irresistible. My uros also get a weekly serving of the manufactured pellets sold for reptile food. I use the Rep-Cal brand Iguana Food for its low-protein content, bright colors and the option of a smaller size pellet for juveniles. Zoo Med’s Natural Grassland Tortoise Food is also used. Some keepers favor Mazuri Tortoise Food.

Uromastyx diets must have a ratio of calcium to phosphorus that’s greater than one. I use a light dusting of calcium supplement weekly, and an even smaller amount of multivitamin powder. Several of the major manufacturers of calcium supplements for lizards sell two versions of their product. If your lizards are exposed to plenty of sunshine or UVB light, use the “outdoor” version, which does not include Vitamin D3. If they are not, then I recommend the “indoor” version with D3.

I give my uros a couple insects per month (cricket, mealworm or superworm of appropriate size) or none at all.

Water

To help conserve water, uromastyx lizards have a special gland near the nose that excretes mineral salts. So, don't be alarmed by the occasional appearance of white crusty deposits around your uro's nostrils.

My uros generally have no interest in drinking water as long as they are eating a diet with plenty of fresh greens and vegetable matter as described above. As with most generalizations about uros, there are plenty of exceptions: Females usually drink vigorously immediately following egg laying, as will new hatchlings. Recently imported uros that are emaciated or perhaps parasite-laden will also sometimes drink. Certain species, such *U. benti*, *U. geyri*, *U. macfadyeni* and *U. hardwicki*, seem more prone to drinking water in captivity. This is presumably due to their home ranges being in the more mountainous or humid coastal regions, with more precipitation or perhaps morning dew available. I recommend that any uro who drinks voluntarily be given all it wants on a regular basis. It is also important that any uro being medicated is well-hydrated, even if it requires tube-feeding or fluid injections by a veterinarian.

Handling

A uromastyx lizard will very seldom, if ever, bite a human, but if cornered or surprised, or grasped nocturnally or when hiding, it might defend itself with a tail-whip. They will sometimes bite other uromastyx in territorial disputes or grasp roughly with their jaws during mating attempts.