



AQUATIC TURTLE HUSBANDRY SHEET

There are hundreds of species of aquatic turtles, all with their own unique husbandry needs. Please research your individual species for specific requirements that may differ from the more common aquatic turtle species. Some have specific differences in behavioral preferences such as soft shells burrowing in sand, musk turtles that rarely bask, or side necks being weak swimmers and needing shallower water. Some species need different water requirements based on where they originate from such as diamondback terrapins that may prefer brackish water, or Mata Mata's that may have specific PH requirements

Housing

Aquarium size should be a minimum of 10 gallons per inch of shell. Hatchlings should only be kept in a 10-gallon aquarium short term. Adult turtles will require a 90 to 120-gallon tank. Keep aquarium as full as possible once beyond hatchling stage (hatchlings can drown) to maximize swimming space. Provide minimal substrate as it is a haven for bacterial growth. Larger river rock works well, bare aquarium is best, and aquarium gravel is the worst. Provide a basking area that allows the turtle to fully dry out. (slate or rock works best)

Providing an outdoor enclosure during summer months is psychologically a wonderful thing if feasible. Outdoor time in an aquarium is dangerous and can quickly reach lethal temperatures. An outdoor enclosure needs to be secured with a wire top to provide protection from predators and dig proof to prevent the turtle from escaping. Turtles can stay outdoors in the Midwest (May-September typically) in the summer until the night temperatures get to 50 degrees (the water maintains a warmer temperature through the night as long as day temperatures are high enough) and the day temperatures drop to 70 degrees.

Water

Partial water changes (50%) should occur weekly to keep ammonia levels down in the water. A hose/siphon system (such as a python) can help suction out and refill tanks.

Filtration

Turtles are very dirty in comparison to fish. Any filter purchased should be twice as strong as needed for the tank size. A 20-gallon tank should have a filter that does 40 gallons of water. Canister filters, off the back (aquaclear), pond filters and submergible filters can all be used for turtles. Feeding in a separate container (they need water to eat) can reduce some of the filtration needs and keep the water cleaner.

Heating

Aquatic turtles have a preferred temperature zone. Outside that zone they are more likely to be psychologically stressed, exhibit abnormal behavior (lethargy, anorexia, and decreased basking), and to become immunosuppressed and succumb to disease. Water turtles should be maintained at 78 to 80 degrees in the water with a basking area 20 degrees higher. Water temperature is maintained by using submergible water heaters. Some turtles will bite cords or knock glass heaters against the tank walls and crack them. Cover the heater with wire or PVC pipe to protect the heater. On the glass stick on thermometers are highly inaccurate. A digital thermometer should be used to measure basking temperatures as well as water temperatures frequently.

Lighting

Turtles are meant to be outdoors absorbing natural sunlight. The sun provides UVA rays, UVB rays, and heat. In order to maintain natural behaviors, absorb Vitamin D, and maintain their preferred temperature zone, turtles need to be provided all three. A heat bulb or basking bulb provides warmth and helps achieve a basking zone at 95 degrees. This light should be kept at least 6 inches from the turtle. Turtles can burn themselves if they are able to get closer than 6 inches. UVA/UVB spectrum can be achieved with a fluorescent full spectrum strip bulb. Be sure the light is not being filtered through glass or plastic and is able to shine directly on the basking area 10- 12 inches away from the turtle. UV bulbs need to be replaced every 6 months as the UV spectrum is gone before the bulb burns out. Mercury Vapor bulbs are a more expensive alternative but can provide UVA, UVB, and heat. They need a special clamp light rated to the high wattage and heat emitted from the bulb.

Feeding

Most aquatic turtles are omnivores, which means they eat both plant and meat in their diet. Some species have slight preference differences. Diamondback terrapins and map turtles need some snails or mollusks. Generally younger turtles are more carnivorous and mature turtles are more herbivorous.

Most of the turtle's diet should be a balanced turtle pellet. Mazuri, Fluker's and Reptomin are good examples. Turtles do tend to overeat and become obese and should be limited on amount fed. Feed about the size of the turtle's head in pellets, or whatever they will consume in a 5-10-minute time frame. Turtles under 1 year of age should be fed daily, adult turtles should be fed three times weekly. Offer veggies such as romaine lettuce, water plants, or other veggies on a regular basis. Live food can encourage exercise and hunting behaviors in turtles. Guppies, Rosy

red minnows, pond snails, gut loaded crickets (pre-fed), earthworms, silkworms, and bloodworms are all appropriate live food sources.

Supplements

Calcium needs to be provided in the diet in order for Vitamin D to be absorbed from the sun (or artificial lighting). Turtles under 1 year of age should be supplemented daily, adult turtles should be supplemented once weekly. Cuttlebones can provide a calcium source for turtles and they often will bite off pieces when floated in the tank. Another option is a calcium powder (with no phosphorus added) such as Rep-Cal. This powder can be sprinkled on veggies, pelleted food, or live food.

Enrichment

Living in captivity can be very stressful for reptiles. This chronic stress and confinement can lead to a suppressed immune system and increased risk of illness. If we can mimic their natural behaviors and habitat, this can lessen those risks dramatically. Below are some options to try with your pet:

- Ice treats: freeze treats into ice blocks (more treats than ice), watch temps closely
- New water features: moving water features or small fountains
 - Water current changes: adjust the flow of the filter
- Floating ball or toy: must be too large to bite or ingest
- Outdoor time: see recommendations in housing section
- Larger greens: allow your turtle to rip apart greens instead of chopping into small pieces
- Pets: Give your pet a pet – ex: a larger fish. May be eaten, may hang out with your pet

Just make sure to avoid tape, sharp edges, and chemicals. Be careful about disease transfer using anything from outside or another animal. Keep in mind that reptiles can and will eat things they are not supposed to – monitor closely.

Turtles are entertaining and rewarding pets. They can live a long time in captivity (40+ years) and can be quite resilient to improper husbandry. Most illnesses we see in this species is secondary to incorrect or lapses in proper husbandry. If we are to keep these animals in captivity and enjoy what they have to offer, we owe it to them to mimic their natural environment to the best of our abilities. They will live a longer, healthier life if we achieve the most ideal husbandry we can provide.