



*Photo Credit: Dallas World Aquarium

Mexican Giant Musk Turtles (Staurotypus spp.)

Also known as the Three-keeled Musk Turtles or simply the Giant Musk Turtles, Mexican Giant Musk Turtles are a genus consisting of two species of large, aquatic musk turtles endemic to Mexico and Central America, both of which are sometimes kept as pets in the pet industry. The two species include the Chiapas Giant Musk Turtle (*Staurotypus salvinii*) and the Mexican Musk Turtle (*Staurotypus triporcatus*).

As with their smaller North American relatives, the Mexican Giant Musk Turtles have domed, nondescript grayish, brown, or blackish gray carapaces and reduced plastron. These turtles also have three prominent ridges or keels on their carapaces, hence the name Three-keeled Musk Turtle. These large turtles are fairly poor swimmers, often walking along the bottom instead. These turtles also earn the common name of musk turtle due to several species having musk glands that they will use to secrete a noxious smelling musk when handled.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Reptilia

Order: Testudines

Suborder: Cryptodira

Superfamily: Kinosternoidea

Family: Kinosternidae

Subfamily: Kinosterninae

Genus: *Staurotypus*

Species: *Staurotypus spp.*

**Taxonomy subject to change and revision.*

Lifespan and Longevity

If provided the proper care and conditions, the Mexican Giant Musk Turtles can attain longevity of 20 to 30 years or more.

Distribution and Habitat

Mexican Giant Musk Turtles are endemic to Mexico and Central America. *S. salvinii* is found primarily in Mexico, in the states of Oaxaca and Chiapas, but ranges south into Guatemala, El Salvador, and Belize. *S. triporcatus* is also found primarily in Mexico, and is more widespread, found in the states of Veracruz, Tabasco, Chiapas, Yucatán, and Campeche, and ranges south into Belize, Guatemala, and Honduras. Staurotypus are usually found in shallow, slow moving bodies of fresh water such as rivers, streams, canals, and reservoirs with muddy bottoms and abundant aquatic vegetation.

Experience Level Required

Intermediate/Moderate to Advanced.

Size

The Mexican Giant Musk Turtles are large aquatic turtles, which may attain upper carapace lengths or sizes of up to 14.0 to 16.0 inches.

Housing and Enclosure

Enclosure System: Primarily Aquatic to Somewhat Semi-Aquatic. Giant Musk Turtles are semi aquatic turtle species. Provide a sturdy, escape proof aquarium or commercially available plastic or galvanized stock tank or turtle tub of sufficient size with an elevated dock or basking area/access to dry land using a substrate dam. The latter are perhaps preferred for maintaining aquatic to semi-aquatic turtles in, as they are easier to clean, move/transport, and maintain than aquariums. Provide a minimum of 10 gallons of space per inch of shell, or about 400 to 600 gallons, or accordingly larger, for most adult turtles. A general rule of thumb to follow for most aquatic to semi-aquatic turtles is to provide water that is at least 1 ½ to 2 times the turtle's height in depth to allow for complete submersion, and at least two to three times the carapace length for adequate swimming and movement. A powerful water filter rated at least twice that of the amount of water in the enclosure is highly recommended for aquatic turtles, as they are messy and require frequent cleaning and regular water changes. Use a submersible water heater with a guard to maintain water temperatures of 75 to 85 degrees F. Substrate is optional, and foregoing it makes for easier cleaning and maintenance, but small to medium sized gravel can be used. Additional rocks, logs, live or artificial foliage can also be provided for additional foraging, basking, and hiding opportunities.

Temperature, Lighting, and Humidity

Providing the correct amounts of UVA/UVB overhead incandescent and florescent lighting, and calcium-to-phosphorus ratios is essential for ensuring the health and overall well-being of Giant Musk Turtles in captivity. Without UVA/UVB, or adequate amounts of it, they can be susceptible to the abnormal bone and shell growth and development known as Metabolic Bone Disease (MBD), and other health and development maladies. Pyramiding of the scutes and shell can also occur due to poor or improper diet, lighting, or heating. Always be sure to spot clean the enclosure for urates, feces, or uneaten food at least twice per week. Be sure to periodically replace the substrate, clean, and disinfect the enclosure and its furnishings at minimum every 2 to 3 months. Giant Musk Turtles require a thermal gradient using a ceramic or radiant heat emitter, UTH (or under tank heating pad), submersible water heater, and UVA/UVB overhead lighting. Ambient and cool end temperatures should be within 70 to 80 degrees F and the basking area from 85 to 95 degrees F. Also be sure to maintain a light cycle of 12 to 14 hours per day, and monitor temperatures with a quality thermometer. Although these turtles are largely aquatic, and infrequently bask out of the water, be sure to provide a basking area or platform for them to emerge completely from the water as well. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's

animals can be given as well. While humidity is somewhat less important for most aquatic to semi-aquatic turtles, a general humidity level should be at, or around about 60 to 75%.

Feeding, Diet, and Nutrition

Primarily Carnivorous; In the wild, Giant Musk Turtles are primarily carnivorous, feeding on aquatic to semi-aquatic insects, crustaceans, mollusks, and other invertebrates, as well as smaller vertebrates including small fish, amphibians, and carrion, or dead and decaying plant and animal material.

In captivity, variety is important with most aquatic to semi-aquatic turtle's diets. These turtles can be given feeder insects of appropriate size including crickets, roaches, mealworms, waxworms, superworms, or other invertebrates. They can also eat small, frozen-thawed rodents of appropriate size, but offer these sparingly, if at all. Other food items that will be accepted by these turtles can include many of the commercially available aquatic to semi-aquatic turtle or omnivore mix diets, small feeder fish of appropriate nutritional value, earthworms, redworms, freeze dried shrimp or krill, or some other meats. Dog and cat foods can also be used, but use these sparingly, if at all as well. Commercially available canned or pelleted turtle diets are not good staples for feeding aquatic to semi-aquatic turtles, and should not exceed roughly 25% of their diets; Variety is always best.

Gutloading any feeder insects and providing additional calcium and vitamin D3 is essential for these turtle's optimal health and well-being. Without proper supplementation, they are susceptible to Metabolic Bone Disease, pyramiding of the shell, and other abnormal bone, growth, and health maladies. Feeding frequency will depend on the age, size, and overall health of your turtle, but typically in most cases should be twice to three times weekly. Do not overfeed them, though as obesity and other health related issues can become a concern. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

Mexican Giant Musk Turtles may be aggressive, and can use their long necks to occasionally bite when handled. Maintain handle of these turtles towards the rear of the shell to prevent this. These large, potentially aggressive turtles should be handled carefully and generally kept to a minimum.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens****

Contact

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact:

Eric.S.Roscoe@gmail.com

Disclaimer: Note that the information provided in these, or any care sheets, are not intended to be all-exhaustive, and further research and care should always be sought and provided when it comes to any species one may prospectively be interested in. These care sheets are also not intended to serve as substitutes for professional veterinary medical care and husbandry should any animal require it. Always seek proper and professional veterinary care for any animal should the need arise, and be prepared ahead of time for any and all husbandry costs and expenses that may occur with any animal beyond the initial purchase. Any animal owned is ultimately a matter of personal/individual care and responsibility. We cannot make any claims or guarantees regarding any information in this care sheet therein. This care sheet may be reprinted or redistributed only in its entirety.

*Copyright, 2025.