**Eric Roscoe*

Map Turtles (*Graptemys spp.*); Northern/Common, False, Mississippi, Ouachita/Southern, Barbour's, Texas, Alabama

Turtles with a Mapped out Uniqueness

Map turtles are medium to large turtles that have a grayish, greenish, to olive gray carapace with numerous pale lines resembling a topographical map. There may be a dorsal keel, with serrated rear marginal scutes, and the skin ranges from blackish to olive with numerous white to yellow stripes. Common subspecies are the Ouachita/Southern Map Turtle (*Graptemys ouachitensis*), Northern Map Turtle (*Graptemys geographica*), and Mississippi/False Map Turtle (*Graptemys pseudogeographica*). As with many other emydid turtles, map turtles are also frequent baskers, and may often be seen basking during warm or sunny conditions on or along river or stream banks, submerged rocks, locks, or other debris, where they will usually quickly dive into the water if disturbed or approached too closely. These turtles also have large and powerful jaws used for crushing and consuming hard shelled crustaceans, mollusks, and other invertebrates they can locate. Map turtles are very popular pet turtles in the pet industry, but grow to large sizes, require frequent cleaning, and considerable space.

Taxonomy

Life: All living, physical, and animate entities
Domain: Eukaryota
Kingdom: Animalia
Phylum/Sub Phylum: Chordata/Vertebrata
Class: Reptilia
Order: Testudines
Suborder: Cryptodira
Family: Emydidae
Subfamily: Deirochelyinae
Genus: Graptemys
Species: *Graptemys spp*.*
**Taxonomy subject to change and revision.*

Species:

Graptemys barbouri Carr & Marchand, 1942 – Barbour's map turtle[12]
Graptemys caglei Haynes & McKown, 1974 – Cagle's map turtle[12]
Graptemys ernsti Lovich & McCoy, 1992 – Escambia map turtle[12]
Graptemys flavimaculata Cagle, 1954 – yellow-blotched map turtle or yellow-blotched sawback [12]
Graptemys geographica (Lesueur, 1817) – northern map turtle, formerly known as the common

map turtle[12]
Graptemys gibbonsi Lovich & McCoy, 1992 – Pascagoula map turtle[12]
Graptemys nigrinoda Cagle, 1954 – black-knobbed map turtle[12]
Graptemys oculifera (Baur, 1890) – ringed map turtle[12]
Graptemys ouachitensis Cagle, 1953 – Ouachita map turtle[12]
Graptemys pearlensis Ennen, Lovich, Kreiser, Selman, Qualls, 2010 – Pearl River map turtle[12][13]
Graptemys pseudogeographica (Gray, 1831) – false map turtle[12]
G. p. kohnii (Baur, 1890) – Mississippi map turtle[12]
G. p. pseudogeographica (Gray, 1831) – false map turtle[12]
Graptemys pulchra Baur, 1893 – Alabama map turtle[12]
Graptemys sabinensis Cagle, 1953 – Sabine map turtle[12]
Graptemys versa Stejneger, 1925 – Texas map turtle[12]

Lifespan and Longevity
Map turtles may attain longevity of 30 to 40 years or more with proper care and conditions.

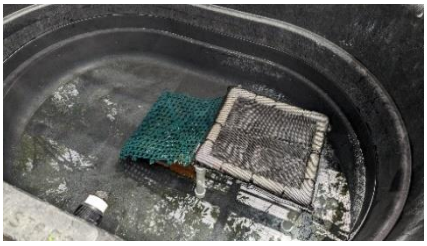
Distribution and Habitat
Depending on the species and subspecies, map turtles are very widely distributed turtles over much of southern to southeastern Canada, the Midwestern, southern, south central, southeastern, and eastern United States, and into Mexico. Within this range, map turtles are aquatic to semi-aquatic turtles that occupy a variety of permanent to semi-permanent water bodies including large ponds, oxbow lakes and river backwaters, rivers, streams, and their basins, marshes, swamplands, ditches, and even garden, ornamental, and other agricultural and/or suburban to urban areas with ample basking areas within or near the water such as partially submerged rocks, logs, and other nearby or overhanging vegetation or debris, banks, and other similar areas.

Origin/History
Graptemys Agassiz, 1857. The genus Graptemys was first described by Agassiz in 1857, although the many different species and subspecies have been attributed to different authors at different times in history.

Throughout the pet trade, the Mississippi map turtle, the northern map turtle, and Ouachita map turtle were bred and hatched out by the thousands in the 1960's and 1970s. Various other aquatic turtle species were also readily available, but as the salmonellosis Four-inch Law was established in 1975, map turtles and others slowly decreased in popularity. Today, these same three species are still the most common map turtles among the pet trade. A few other Graptemys species are much rarer in the pet trade and in captive herpetoculture.

Experience Level Required
Intermediate/Moderate.

Size
Adult map turtles usually reach a carapace, or upper shell length of 4 ½ to 12 inches, with females being larger than males.



Ideal Housing/Enclosure Setups for Map Turtles and Other Aquatic Turtles.

Housing and Enclosure

Enclosure System: Semi-Aquatic. Map 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 40 to 120 gallons for most adult map 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 map 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. Map turtles require a thermal gradient using a ceramic or radiant heat emitter, UTH (or under tank heating pad), 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. Be sure to provide a basking area or platform for your map turtle 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

Omnivorous to Carnivorous; In the wild, map turtles are primarily omnivorous to 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. Some algae and other aquatic plants may also be consumed.

In captivity, variety is important with most aquatic to semi-aquatic turtle's diets. Map 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. They can also be fed some chopped greens, fruits, and vegetable material 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

Map turtles are generally a more wary and skittish genus of turtles, but captive born and raised maps can become very tame and personable pets, often even approaching their keepers for food. Most small to mid-sized turtle and tortoise species that are not aggressive or prone to biting can be picked up and handled either by placing both hands along both sides of the shell, or from the rear of the carapace with the thumb on the carapace and index through pinky fingers on the plastron to reduce the chances of being kicked, scratched, or nipped when they are threatened. Although most species of chelonians are not outwardly aggressive, defensive, or dangerous, they can become stressed as a result of over-handling, however, and some species, and even individual animals can be shyer than others. These are some considerations to keep in mind when handling any chelonian species.

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

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