



*Photo Credit: Turtle Pictures-Blogger

European Pond Turtle (*Emys orbicularis*)

Flecks of Color from Europe!

Also known as the European pond terrapin, European pond turtles are a medium sized to large, semi-aquatic to semi-terrestrial pond turtle species indigenous to a broad range over much of southern to central Europe, east through western portions of Asia, and south to northern Africa. A shy and reclusive species, European pond turtles spend much of their active times basking and foraging amongst and near their preferred habitat of large, shallow, well-vegetated wetlands. European pond turtles are a medium sized to large turtle with a somewhat domed carapace ranging in color from blackish, dark brown, to olive brown to dark greenish-olive with paler brown to cream colored mottling. The plastron, which is usually a pale yellow with large, subdued dark peripheral blotches, is partially hinged, allowing this species to partially withdraw into their shells when threatened. Their heads, necks, and limbs can also be mottled with yellowish spots, flecking, and mottling as well. Hatchling and younger European pond turtles are often more heavily mottled or spotted, and can be confused with similar turtle species. Unfortunately, over much of their range, these turtles have declined significantly, often to provincial listed threatened or endangered species due to a wide variety of factors affecting their living, nesting, and reproductive success. These include habitat loss, degradation, and fragmentation due to the construction of roads and other barriers, traffic and roadway mortality, over-collection and over-exploitation, pollution, and high nest and hatchling predation. While European pond turtles are occasionally available to enthusiasts, it is thus important to consider any international, state's, and even local laws and regulations before considering one of these beautiful, personable turtles.

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: Emydinae

Genus: *Emys*

Species: *Emys orbicularis**

**Taxonomy subject to change and revision.*

Lifespan and Longevity

European pond turtles are a long lived species which may attain longevity of at least 20 to 40 years or more with proper care and conditions.

Distribution and Habitat

European pond turtles are a semi-terrestrial to semi-aquatic turtle species inhabiting a broad range from northern Africa, through much of southern to central Europe, and into western Asia. Approximately 14 subspecies are currently recognized, which may occupy somewhat varying ranges over this distribution. More specifically, these turtles can occur from extreme northern Africa in Morocco, through much of Europe to include Portugal, Spain, Switzerland, and Germany, through Italy, Greece, Turkey, and the Ukraine in the southeast, and through western portions of Russia, Nepal, and China. This is only a very broad overview of these turtle's range. These turtles prefer shallow, large, secluded permanent to temporary wetlands that are well vegetated, including large ponds, lakes, marshes, river sloughs, oxbows, and backwaters, slow moving rivers and streams, ditches, and other wetlands.

Experience Level Required

Intermediate/Moderate.

Size

European pond turtles are a medium sized to large turtle that is also sexually dimorphic, with males reaching slightly larger sizes than females. Male European pond turtles can range from 9 to 11 inches in carapace length, while females typically reach 7 to 11 inches in carapace length.

Housing and Enclosure

Enclosure System: Semi-Aquatic. European pond turtles are semi aquatic to semi-terrestrial 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. These turtles require large, spacious enclosures as sub-adults and adults. Provide increasingly larger enclosure space for adult turtles of at least 75 to 175 gallons depending on the size of the turtle. Water depth provided also depends on the age and size of the turtle, with hatchlings requiring at least two inches, and juveniles, subadults, to adults, being stronger swimming, being able to tolerate deeper conditions as long as an adequate sloping gradient and/or structures are provided to allow for easy access to shallower and dry basking areas. A powerful water filter rated at least twice that of the amount of water in the enclosure is highly recommended for most 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 70 to 78 degrees F. Basking temperatures should be at around 80 to 85 degrees F., and ambient temperatures 70 to 80 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 these 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. These 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 75 to 85 degrees F and the basking area from 95 to 100 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 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, European pond 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. 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. 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

European pond turtles are fairly shy turtles, but can become much more bold and accustomed to humans over time. 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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