

Eastern Musk Turtle (*Sternotherus odoratus*)

Family Kinosternidae

Subspecies: None currently recognized

Updated 2025



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Description/Identification: Also commonly known as the “Stinkpot”, the Eastern Musk Turtle is a small species of aquatic turtle with a highly domed, narrowed, and oblong shaped carapace, usually measuring about 3.14 to about 5.56 inches. This makes the Stinkpot, or Eastern Musk Turtle the smallest Wisconsin turtle species as adults. The marginal, or peripheral scutes of the carapace are smooth, and not toothed or serrated, and there may be a distinct vertebral dorsal keel on the carapace, more prominent in hatchling and younger Eastern Musk Turtles. The feet are partially to poorly webbed. As with most turtles, Eastern Musk Turtles are toothless, and instead have hardened, bony, keratinized beaks and horny plates along the maxilla and premaxillae on the inside of the mouth. Also as with most aquatic turtles, the thick, fleshy, reddish to pinkish tongue is fixed to the inside of the mouth, and does not move freely or protrude outside of the mouth.

The plastron is somewhat reduced, with the anterior portion being hinged, and abbreviated with about 10 or 11 scutes surrounded by thick, wide, fleshy cartilaginous sutures. Eastern Musk Turtles have a generally large, pointed head and snouts, with the snout and nostrils projecting far forward above and past the lower jaw. The eyes are relatively small, and one to two pairs of chin barbels are present. The limbs are also relatively short, thick, and fleshy, and additional tubercles on the long neck, when fully outstretched. Male and female Eastern Musk Turtles are similar in size and appearance, but males have thicker, longer tails than females, and the cloacal opening located further back from the rear margin of the carapace than in females’, which have cloacal openings located much closer to, or underneath the rear carapace margin. Males also have shorter, less ossified plastrons, two patches of horny scales or scutes on the fore-limbs, and more horny-tail tips than females.

The carapace ranges in color from gray, grayish-brown, blackish, or olive-green, often with smaller, dark flecks on each scute separated by dark suture lines. The carapace is also very often covered with mud or

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algae. The plastron may be brown, dark brown, or yellowish, with wide, thick, fleshy sutures in-between scutes. The head, neck, and limbs range in color from brown, olive-gray, darker brown, or black, and may be mottled. There are usually two rows of white, cream-colored, or yellow stripes on the head extending from the tip of the snout, to the neck, above and below each eye. In older specimens, these stripes may be absent or obscured.



Plastron, © Reptiles and Amphibians of Iowa

Hatchling Eastern Musk Turtles appear similar to the adults, except for having a bright white or yellow spot or blotch on the ventrolateral edge on the posterior half of each marginal scute, and brighter head markings. Hatchlings also have more strongly keeled carapaces as well. Eastern Musk Turtles may be confused for small Painted Turtles (*Chrysemys picta*) or North American Snapping Turtles (*Chelydra serpentina*). However, they lack the longer tails and smaller, more reduced plastrons which North American Snapping Turtles have, but which are still less well developed (plastrons), and lack the colors and stripes which Painted Turtles have.

No subspecies of the Eastern Musk Turtle are currently recognized.



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Range and Distribution: Eastern Musk Turtles are broadly ranging, from southern Ontario, Canada, through the Northeast/New England United States from Maine, New Hampshire, and New York, throughout much of the eastern U.S. to mid-Michigan and Wisconsin, west to Nebraska, Kansas, and eastern Texas. In Wisconsin, one of the northern-most peripheries of their range, Eastern Musk Turtles may be locally common throughout about the southern half of the state.

Habitat: Eastern Musk Turtles are highly aquatic turtles, seldom leaving the water except for nesting. They may be found in a variety of aquatic habitats with ample aquatic vegetation, and soft, muddy,

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sandy, or marl bottoms including ponds, rivers and streams, river backwater sloughs and oxbows, springs, floodplain marshes, or lakes or lake coves and inlets with these attributes. These turtles usually do not inhabit more temporary ponds or wetlands, gravel or rocky bottomed habitats, or faster-moving waters.

Feeding and Diet: Eastern Musk Turtles are more carnivorous than most other aquatic turtles, but may still eat some algae or other aquatic plants. They may feed on earthworms, leeches, or other worms, aquatic insects and insect larvae, crayfish or other small crustaceans, snails, clams, and other mollusks, carrion (dead or decaying plant and animal material), small fish, small amphibians, amphibian larvae or their eggs, or other bottom detritus.

Natural History: Eastern Musk Turtles are perhaps the most secretive turtle species in Wisconsin. Although they are not rare, and can be common locally, they are highly aquatic, and are seldom observed basking. When they do, they do so indiscreetly, or may climb high up into overhanging trees or branches, and Northern Map Turtles (*Graptemys geographica*) seem to be the only other Wisconsin turtles to do this. They are relatively slow and poor swimmers, usually being seen most frequently either walking across land when nesting, or floating and/or foraging and hunting around for food at the bottoms of shallow, clear water.

Eastern Musk Turtles reach sexual maturity in about 3 to 4 years for males, and 9 to 11 years in females. Mating and copulation can take place throughout the year, but most commonly before or after overwintering in the spring or fall. Courtship behavior is similar to that of most other turtles; with the males patrolling shallow waters, and courting and mating with any females they come across while nipping at them. From late May through June or July, Eastern Musk Turtles will come onto land to lay 2 to 8 elliptical eggs in a shallow cavity of sandy areas, decaying humus or vegetation, or within or under rotting logs in or near the water. The young emerge and hatch in about 50 to 75 days, or by late August or September, although overwintering in the nest may occur.

Female Eastern Musk Turtles usually lay only one clutch per year, and may also nest communally. Nests are also often poorly constructed or only partially covered. When handled or disturbed, Eastern Musk Turtles may hiss and gape open their mouths, while withdrawing into their shells. They can be pugnacious little turtles, clawing, kicking, or attempting to bite as well. Their name “musk” turtle, or “Stinkpots” are said to come from the foul-smelling odor or substance emitted from glands along the bridges of their shells, although it is the author’s personal experience to never have smelt anything discernable from Eastern Musk Turtles, or at least no odors uniquely attributed to these turtles.

Eastern Musk Turtles are active throughout the year, and may be diurnal or crepuscular, particularly in warmer or hotter weather during the summer months. These turtles are active until October or November, where they will then congregate to overwinter on the bottoms of their wetlands, buried in the mud or bottoms, or under submerged rocks, logs, or other debris. They may, however, occasionally be seen underneath the ice during warm winter days.

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Eastern Musk Turtle eggs and hatchlings are most susceptible to a large number of different predators. Many different species of birds, including large wading birds, large fish, snakes, sometimes other turtles, large amphibians such as North American Bullfrogs, large predatory or carnivorous aquatic invertebrates such as waterbugs, and a wide array of carnivorous mammals such as raccoons, opossums, skunks weasels, skunks, foxes, and coyotes and otters will all readily eat hatchling turtles or turtle eggs. Adult Eastern Musk Turtles can also still be eaten by some carnivorous mammals as well due to their smaller adult sizes.

Conservation Status: In Wisconsin, Eastern Musk Turtles are listed as “Common”. They are still regulated and protected along with all other of Wisconsin’s herptiles, however under N.R. 16 and 19.275 as well as N.R. 21 and 22.. Eastern Musk Turtles, or Stinkpots, currently not protected or regulated federally. Eastern Musk Turtles are currently IUCN Red-List Least Concern (LC).