



Turtles of Rhode Island

Rhode Island's varying landscapes provide suitable habitat for a wide array of wildlife, including seven different species of native non-marine turtles: the woodland box turtle (*Terrapene carolina carolina*), the northern diamond-backed terrapin (*Malaclemys terrapin terrapin*), the spotted turtle (*Clemmys guttata*), the wood turtle (*Glyptemys insculpta*), the eastern painted turtle (*Chrysemys picta picta*), the stinkpot (or musk turtle, *Sternotherus odoratus*) and the snapping turtle (*Chelydra serpentina*). The exotic red-eared slider (*Trachemys scripta elegans*) is a common pet animal occasionally observed in the wild. In addition, four species of marine turtles, including the Kemp's ridley sea turtle (*Lepidochelys kempii*), leatherback sea turtle (*Dermochelys coriacea*), green sea turtle (*Chelonia mydas*), and loggerhead sea turtle (*Caretta caretta*), occur as transients in offshore waters.



Like lizards and snakes, turtles are reptiles that hatch from leathery eggs. They are cold-blooded, which means their body temperature is regulated by the climate and not by their internal metabolism. Turtles are commonly observed basking in the sun to get warm but they do not tolerate extremely warm temperatures. Many of Rhode Island's turtle species spend most of their time in the water, and most hibernate under water. They can do this because their metabolism slows dramatically in cold weather and they can continue respiration under water by gas exchange through the mouth. Turtles are characterized by long life spans; some individuals have lived more than 100 years. Despite their hard, protective shell that shields them from danger, they are often eaten by birds, raccoons, skunks, minks, coyotes, dogs and even people. Pollution, pesticides and automobiles are also threats to them. Turtles are docile, peaceful creatures whose populations are declining in Rhode Island because of relentless habitat loss and fragmentation. Through education and land preservation, turtle populations have a chance to remain at healthy levels and persist among Rhode Island's diverse fauna.



Native Species

The Rhode Island Natural Heritage Program (RINHP) and the Rhode Island Endangered Species Program have compiled a list of State endangered and threatened species of wildlife. The Rhode Island Wildlife Action Plan (2015) also highlighted vulnerable species and identified actions necessary to conserve them. The Rhode Island Division of Fish and Wildlife (DFW) has other regulations to legally protect certain species of reptiles. "Protected" means that these animals may not be possessed without a permit issued by the Division. In addition, sale of native wildlife is not allowed in Rhode Island. Of the seven species of native turtles, the spotted turtle is protected, the wood turtle is protected and considered a species of concern by RINHP, the northern diamond-backed terrapin is considered state endangered (RINHP) and protected, and the eastern box turtle is protected.

Woodland box turtle (*Terrapene carolina carolina*)



Description: The eastern box turtle is easily distinguishable from other turtle species in Rhode Island. Its shell is highly domed (like an army helmet), and hinged below. Therefore, the turtle can not only retreat into its shell, but it can also close it entirely.

The eastern box turtle is a terrestrial turtle, and unlike many of the other turtles of the State, spends most of its time on land rather than in the water.

The eastern box turtle's carapace measures only about 4.5" to 6". Although highly variable, the coloration generally ranges from pale brown or yellow to black with blotchy markings. The front legs are heavily scaled and the skin is black, reddish brown, tan, or gray. The females of the species usually have brown eyes and a convex plastron or under shell. The males have orange eyes, a concave plastron and a longer, thicker tail. There is no dramatic difference in size between males and females.



Range and Habitat: The range of the woodland box turtle occurs from southern Maine to the southeastern and Midwestern states. These turtles favor open woodlands, but can be found in floodplains, near vernal pools, ponds, streams, marshy meadows, and pastures. Although they are a terrestrial turtle, it is not uncommon to find them soaking in the water of a pond, stream, or puddle. Eastern box turtles often maintain permanent home ranges that can be only a few acres in total extent. If removed from familiar territory, they often try to return home and can perish trying to traverse inhospitable areas or roads.

Food Habits: Similar to other local species of turtles, woodland box turtles are omnivorous. Young box turtles are more carnivorous, but as they age they incorporate more plant material into their diet. Box turtles feast on insects, crayfish, snails, slugs, worms, fish, amphibians, carrion, fruits, wild berries, fungi, leaves, and grasses.

Reproduction: In our area, woodland box turtles reach sexual maturity by about 10 years of age. One clutch of eggs is usually produced each year but females may not nest every year. Nesting sites are open areas with sandy or loamy soil. The clutch is generally 3 to 10 eggs with an average of 5 or 6. A female may lay fertilized eggs up to four years after one successful mating. The young are rarely seen in the wild, since their cryptic coloration helps them to hide from predators.

When young, box turtles are at risk of predation by coyotes, dogs, snakes, rats, raccoons, opossums, and crows. However, once they are full-grown, they have fewer enemies. The human population has had the most harmful effect on box turtles. We buy and sell them as pets, eat them, destroy their habitat, use pesticides, and crush them with vehicles. In an attempt to conserve them, most states have passed laws that make it illegal to own box turtles.

Eastern painted turtle (*Chrysemys picta picta*)

Description: The eastern painted turtle is a colorful and familiar species that can often be seen basking in the sun. It is a small to medium sized aquatic turtle, 4” to 10” in length, with a smooth dark green or black carapace that has red markings at the outer edge. The plastron is yellow or pale orange. The skin is dark green or black, with red and yellow stripes on the neck, tail, and head. The females of this species have shorter and thinner tails, short front claws, and are larger than the males. The males have long, thicker tails and long front claws that are used during courtship.



Range and Habitat: Painted turtles constitute the most widely distributed group of North American turtle species. They range across the entire continent, but the eastern subspecies (*picta picta*) is found from Nova Scotia to North Carolina, and inland to Alabama. Typical habitats include permanent ponds, woodland pools, slow rivers, marshes, bogs, streams, wet meadows, and creeks.

Food Habits: Eastern painted turtles are omnivores, eating aquatic insects, snails, slugs, crayfish, tadpoles, mussels, small fish, carrion, and aquatic plants. These turtles may also become more herbivorous with age.



Reproduction: Painted turtles reach maturity when their carapace is about 4.5” to 6” in length. Females can produce two clutches a year, but one clutch is probably more typical for this area. A clutch consists of 5 to 6 eggs, which females deposit in a sunny place near. Slightly moist, loamy or sandy soils are preferred for nesting substrate. Some painted turtle eggs hatch in the late summer, with the young subsequently dispersing in the fall. Other eggs may hatch, but the young remain in the nest cavity to overwinter there, only emerging

the following spring. Therefore, it is not unusual to see neonates during May, nearly a full calendar year after egg deposition.

Eastern snapping turtle (*Chelydra serpentina*)

Description: The eastern snapping turtle (A.K.A. “snapper”) is the largest freshwater turtle in Rhode Island. Snapping turtles are distinctive and ancient-looking turtles that can be as large as 20” in carapace length and weigh up to 35 pounds, although some individuals may be even larger. Males are much larger than females in this species. The carapace of a snapping turtle is serrated at its posterior margin and may have keels on the dorsal scutes. The tail is long and “saw-toothed”, and the head is large with a hard beak. The shell is usually dark green to black, and is sometimes covered with algae. The skin is usually brown, black or tan. Unlike other turtles of Rhode Island, although the stinkpot is similar, the plastron of the



snapper is very small and the limbs are much more exposed. The legs are large and heavily scaled and the feet are webbed with long claws.

Range and Habitat: The snapping turtle ranges widely from the eastern United States and southern Canada, southward to the Gulf of Mexico and west to the Rocky Mountains. They can be found in most permanent or semi-permanent bodies of fresh or brackish water, including rivers, streams, pools, bogs, bays, lakes, and marshes. The snapping turtle is almost entirely aquatic and frequents well-vegetated wetlands with soft muddy bottoms.

Food Habits: Snapping turtles are omnivores, feeding on fish (bullheads, sunfish, and perch), aquatic invertebrates, crayfish, live vertebrates, carrion, and plant material. They are highly herbivorous and can be seen “grazing” on cattail roots (*Typha*) and water lilies (*Nymphaea*). Snapping have an undeserved reputation as savage predators of waterfowl. However, studies have shown that they do not take waterfowl any more than other types of predators.

Reproduction: The snapping turtle reaches sexual maturity between 5 and 7 years of age but later at northern latitudes. They typically lay eggs in soil, lawns, fields, and leaf or twig piles, and deposit between 11 and 83 eggs in one or two clutches per year. Snapping turtle eggs usually hatch after 2+ months of incubation, usually in early September.



Northern diamond-backed terrapin (*Malaclemys terrapin terrapin*)

Description: As its name suggests, the diamond-backed terrapin has a very distinctive appearance. It is a relatively large aquatic turtle, up to about 9” long, and has light gray skin marked with small black spots and some irregular small black lines. The carapace is often a light brown or beige color, with black concentric rings, groves and ridges, and the plastron is usually pale beige or brown. Females are also much larger than males in this species.



Range and Habitat: The diamond-backed terrapin ranges along the coast from Massachusetts to the Florida Keys, and westward to southern Texas. There are two primary populations of the State endangered diamond-backed terrapin in Rhode Island and a few smaller satellite populations. Historical information is scant for this area, but diamond-backed terrapins were once highly prized for food and local numbers were probably depleted by harvesting. There may have been a slight resurgence in populations after terrapins fell out of

favor as culinary delights.

This species of turtle can be found in estuaries, coves, barrier beaches, tidal flats, and coastal marshes. They spend the day feeding and basking in the sun. However, they bury themselves in the mud at night. The young spend the earlier years of life under flotsam and tidal wrack, and are very rarely observed.

Food Habits: Because the diamond-backed terrapin lives in brackish wetlands, its diet is much different than that of other Rhode Island turtles. Terrapins feed on crustaceans, crabs, gastropods, mussels, clams, periwinkles, some

plant material, carrion, fish, and marine worms. Since they ingest salt from their environment when feeding, they are able to regulate their internal salinity by excreting salt from glands located behind each eye and drinking fresh water, including rainfall, when available.

Reproduction: Diamond-backed terrapins mature at about 6 years of age and females lay a clutch consisting of 4 to 18 eggs. Some females will lay more than one clutch in a season, and hatching occurs during the late summer, usually in late August.

Spotted turtle (*Clemmys guttata*)

Description: Spotted turtles are small (3.5” to 5.5”) and black with yellow dots on their upper shell (carapace), head, tail and legs. Males generally have a concave underside shell (plastron), brown eyes and a brown or black jaw. Females have a flat plastron, orange eyes, a yellow beak and an orange chin.



Range and Habitat: Spotted turtles occur from southern Ontario as far south as northern Florida, and westward to central Ohio. They are usually found in shallow, well-vegetated wetland habitats, such as vernal pools, marshes, swamps, bogs and fens. Many spotted turtle habitats dry up in summer. At these times, the turtles move into shaded uplands or bury in the cool mud to aestivate and pass the summer.



Food Habits: Spotted turtles are omnivorous (eating vegetation and protein/meat) feeders. Their diet consists of filamentous green algae, aquatic grasses, small crustaceans, spiders, earthworms, insect larvae, fish, tadpoles, salamanders and small snakes.

Reproduction: Spotted turtles mature between 7 to 10 years and possibly later at northern latitudes. Females lay a clutch consisting of 3 to 6 eggs (average about 4), and they prefer moist *Sphagnum* moss, grass tussocks, hummocks or loamy soil for nesting substrates. In our area, female spotted turtles probably do not lay eggs more than once a season, and females do not lay eggs every year.

Stinkpot/musk turtle (*Sternotherus odoratus*)

Description: The Musk Turtle is a highly aquatic species with a dark green or black shell. They are among the smallest of Rhode Island turtles, with a carapace length of about 3” to 5”. The plastron is brown or yellow in color. The skin on the head, neck and limbs is gray or black, and there may be an irregular pattern of yellowish spots or streaks on the legs or underside of the neck. On either side of the head, from neck to snout, there are two distinct yellow or white stripes that extend above and below the eye. The male stinkpot has a long thick tail that ends in a spine and two raised patches of scales behind the knees. A male’s plastron is also more concave than that of a female. Musk turtles have a hinge in their plastron, but they cannot entirely withdraw their body into their shells like a box turtle can. They can also exude a pungent scent from glands located at the rear of their shell.



Range and Habitat: Stinkpots range along the Atlantic Coast from Ontario to Florida, and westward to the Mississippi River and central Texas. The stinkpot is usually found in sluggish permanent water bodies, including rivers, streams, swamps, ponds, lakes, ditches or canals. Wetlands with muddy bottoms are also preferred.

Food Habits: Although it eats vegetation, the stinkpot is mostly carnivorous. It is essentially a bottom feeder, consuming snails, clams, aquatic insects and larvae, caddisfly larvae, dragonfly nymphs, beetles, leeches, minnows, tadpoles, worms, fish eggs, fish, carrion, algae, seeds and plants.

Reproduction: Female Stinkpots reach sexual maturity at 9 to 11 years of age and males at 3 to 4 years. There can be one or two clutches per year, each containing from 1 to 9 eggs, and nests are usually in rotting stumps, fallen logs, shoreline debris or vegetation mats.

Wood turtle (*Glyptemys insculpta*)



Description: Wood turtles are usually 5.5” to 8” in length, with a somewhat flat shell that has obvious sculpted pyramidal bumps on each dorsal scute. The plastron is yellow with irregular black patches. The carapace color can range from light golden-brown to black. The neck, legs, and plastron are orange and the head is black with black eyes. The males of this species also have a long tail and a concave plastron.

Range and Habitat: The range of the wood turtle extends from Nova Scotia, southward to Virginia (in the mountains), and as far west as Wisconsin. For part of the year they live in streams, slow rivers, shoreline habitats and vernal pools (in early spring). During the summer, they roam widely across terrestrial landscapes.

Food Habits: Wood turtles are omnivorous and they feed in water or on land. A wood turtle’s diet includes grass, moss, berries, mushrooms, strawberry greens, flowers, fungi, insects and insect larvae, worms, snails, slugs, tadpoles, frogs, fish and carrion.



Reproduction: Sexual maturity is reached at 10 years for the wood turtle. Eggs are generally laid in nesting sites of sandy soil or gravel, with one clutch of 4 to 12 eggs being typical.

Turtles in Traffic



The sight of a turtle attempting to cross a busy road is, unfortunately, becoming increasingly common as increased development spreads into their natural habitats. **Helping a turtle cross the road is a humane thing to do and might even save the turtle’s life! However, TAKING THEM IN THE CAR AND DRIVING THEM TO A SUPPOSED “BETTER HOME” CAN BE DETRIMENTAL!** Many individual turtles have a very specific home range that they occupy their entire lives. You may think you are bringing the turtle to “paradise” when you take it to your favorite brook or pond, but in reality, you could be giving it a death sentence. Not only is it possible

that the turtle may not find suitable food and habitat in the new “home”, but many turtles will orient back to the area from which they were moved. In such instances, they may travel until they are exhausted or exposed to numerous additional threats, or they may cross several roads and get crushed anyway!

Touching Turtles

From the smallest spotted turtle to the largest snapping turtle, turtles are significant and familiar creatures in Rhode Island ecosystems. They are gentle, docile and beautiful to contemplate, but they should be observed from a distance. All wildlife is better off left alone, and turtles are particularly adapted to a slow pace of life in quiet, natural landscapes. They often languish in the hands or homes of humans. Pursuit or handling can cause stress and harm to the animal. Turtles are susceptible to becoming overheated, and they will die if carried in a hot car or exposed to full sun for even short lengths of time. Turtles are not aggressive in their natural habitats, but provocation or handling of large turtles can result in a strong bite. Handling of turtles is usually not necessary and is not recommended except in such cases where removing a turtle from a hazardous situation seem prudent. Also, some diseases and parasites carried by wild animals can be transmitted to humans.

On a side note, it is often thought that turtles do not have feeling in their shells. However, turtles have many nerves in the carapace and the plastron. Because of this misunderstanding, many people unknowingly injure turtles by carving or painting their shells and then releasing them into the wild. If you know someone who harms turtles in this way, relay to them the knowledge that this behavior is actually harmful. Hopefully, it won't happen again.



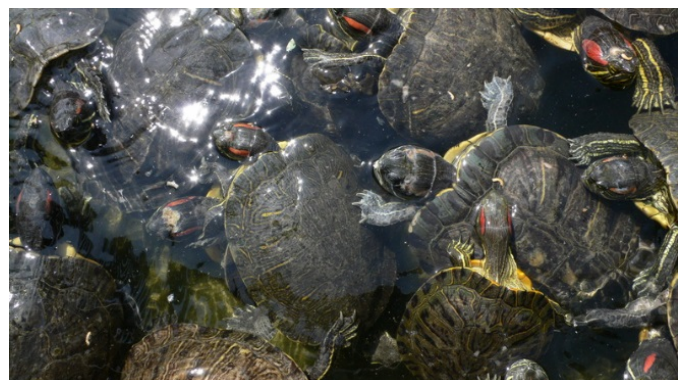
Some interactions with turtles are inevitable. Turtles will sometimes go after the bait on a fishing line and get hooked. If this happens, be gentle with the turtle. **Cut the barb off the hook and try to ease it out.** If you cannot get the hook out without hurting the turtle badly, cut the line off and leave the hook in place.

If you have a turtle in your yard and you don't want it there, chances are that it's just passing through. Turtles have a good sense of direction, so if you just leave it alone, it will continue on its way.

Just remember, if you must help a slow turtle cross a busy road, be careful, gentle and quick. Fear not turtles that you see from a distance, because a turtle, even a large snapper, will not pursue you or your family.

Turtles as Pets

The state of Rhode Island has passed legislation making it illegal to possess most of its native turtle species. However, the Snapping Turtle can be legally removed from the wild. This does not mean that you should walk outside and take an adolescent Snapping Turtle and raise it as a pet, but it **DOES** mean that you can (using the proper harvesting techniques) take a Snapping Turtle home to **EAT!** Some people enjoy cooking the turtles for turtle soup and various other dishes. Diamond-backed Terrapins, Spotted Turtles,



Eastern Box Turtles, and Wood Turtles cannot be taken home for any purpose. Turtles are difficult to care for properly. They suffer from stress when cooped up in a small area and are susceptible to diseases and dietary deficiencies from unsuitable husbandry. If they survive, some also grow too large to be kept in standard tanks and most species will, if cared for properly, outlive their owners!

Turtles are Special

Without some sort of protection, some turtle species in Rhode Island would likely disappear. Hopefully, the more outreach and education that is provided to the citizenry of this state, the more likely it will be that we can help our turtle populations thrive here. Turtles are a special part of Rhode Island's wetland, woodland, and shoreline ecosystems. By caring about the environment at home in Rhode Island and teaching our children to do the same, we can all, humans, animals and plants alike, benefit.



Selected References

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