



Why Wildlife Matters: The Eastern Box Turtle

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Winter 2024 Newsletter

By Stephanie Ellis, Executive Director, Wild Care, Inc.

The Eastern Box Turtle (*Terrapene carolina*)

The Eastern Box Turtle is the only terrestrial turtle in Massachusetts. This "land turtle" inhabits dry and moist woodlands, bogs, brushy fields, thickets, marsh edges and are found in sandy coastal woodland locations such as Cape Cod.

NO TWO SHELLS ARE THE SAME:

This strikingly beautiful turtle has a patterned shell much like a fingerprint. No two patterns are the same, and are often vibrant shades of yellow, orange, rust, brown and black. Their hinged plastron (bottom) shell allows them to fully retreat inside and close their shell - an escape mechanism from predators. The carapace (top) shell is typically high-domed to accommodate rib bones and a sternum, and is covered with a layer of keratinous scales.

Males have a concave plastron, while females have a flat one. This concave plastron enables them to mount high-domed females with more ease. Males have a thicker tail and longer hind leg claws than the females. Additionally, males have red eyes while females tend to have yellowish-brown ones. However, this is not always true, and should not be used as a sole indicator of sex!

LIFE CYCLE IN MA:

In Massachusetts, the Eastern Box Turtle hibernates in the northern parts of its range from late October/November until mid-March/April - weather dependent. Turtles begin to emerge in the spring and begin mating. Females are actively seeking places to lay their eggs by June. Females reach sexual maturity at 13 years of age. Eastern Box Turtles are known to live up to 100 years in the wild.

DIET:

They are opportunistic omnivores, feeding on insect matter and larvae, plant materials including seeds, grasses, fruits, flowers, roots and fungi. Adults are also known to feed on the flesh of dead animals, fish, amphibians and eggs.

THREATS:

Eastern Box Turtles are in decline and are designated a Species of Special Concern in Massachusetts (MassWildlife Endangered Species and Natural Heritage Program).

Threats include vehicle strikes, habitat loss and degradation, disturbance of nesting and brumation (hibernation) sites by ATV's, mowing of fields during the breeding season, inappropriate human possession (illegal in MA) and climate change which alters their brumation periods. There is heavy predation of turtle eggs and juveniles. Only a small percentage of turtles actually reach adulthood and breeding age. Losing a single adult turtle, particularly a female, is detrimental to the population and can quickly result in local extirpation. <https://www.mass.gov/doc/eastern-box-turtle/download>

WHY TURTLES MATTER:

Eastern Box Turtles are considered an "indicator species". They represent the health of the environment, and are a biological measure of environmental impact. Box turtles have inhabited this earth for over 260 million years, relatively unchanged. Despite this, they simply cannot keep up with the accelerated rate of human impact, and alteration of the landscape.

Turtles in general are one of the most threatened groups of vertebrates in the world and deserve our attention and protection. As omnivores, Eastern Box Turtles help to maintain prey populations. They graze, disperse seeds, dig burrows and modify habitats. They impact mineral cycling and soil aeration and affect food webs. They help plants to grow and thrive, and bring fertilizer and new seeds across their territorial range through their droppings. The loss of turtles would greatly diminish the important ecological roles that they play.

TURTLE ADVOCACY:

There are many ways we can all help to protect turtles.

- Never move turtles to a new location.
- Safely move turtles out of the road, and place them on the other side in the direction they were headed.
- Do not release pet/domestic turtles into the wild. This can introduce diseases to our native turtles, dilute the gene pool, and will likely have low survivability in the wild.
- Turtle nesting areas can be marked off with caution tape to prevent vehicles and pedestrians from walking over them.
- Hit by car or injured turtles should be immediately referred to a local wildlife rehabilitator.
- Follow Mass Wildlife's [mowing guidelines](#), and guidelines for [creating turtle nesting habitat in your backyard](#).
- Educate your friends and neighbors on how they can protect turtles and their habitats.

WHY TURTLE REHAB IS IMPORTANT:

Eastern Box Turtles are a beautiful, charismatic and important native turtle in Massachusetts. Every individual is significant to the population. Wildlife Rehabilitators' play a crucial role in understanding the impacts that they face, pinpointing problem locations for this species, recognizing emerging diseases and parasites, and re-introducing rehabilitated box turtles back into their critical populations.

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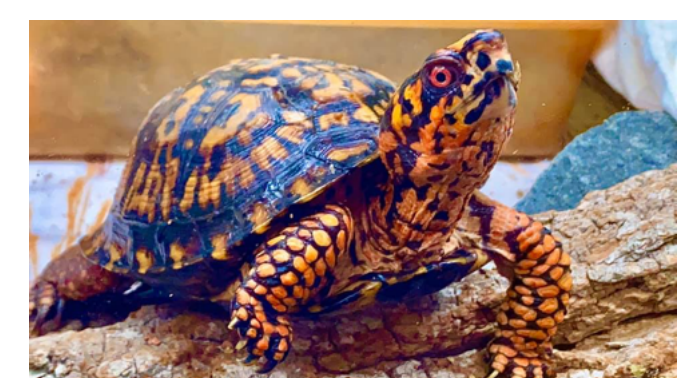
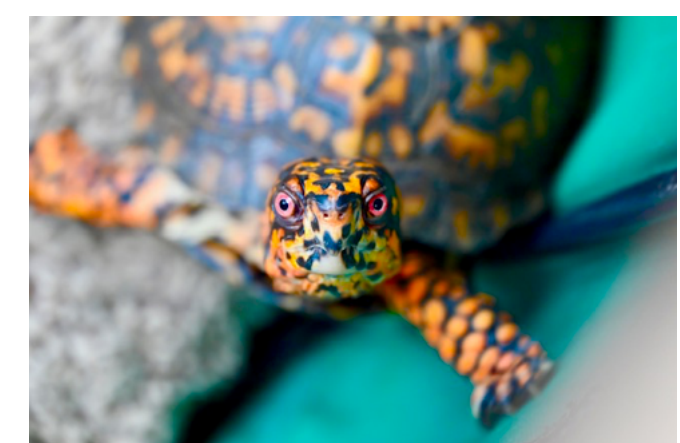
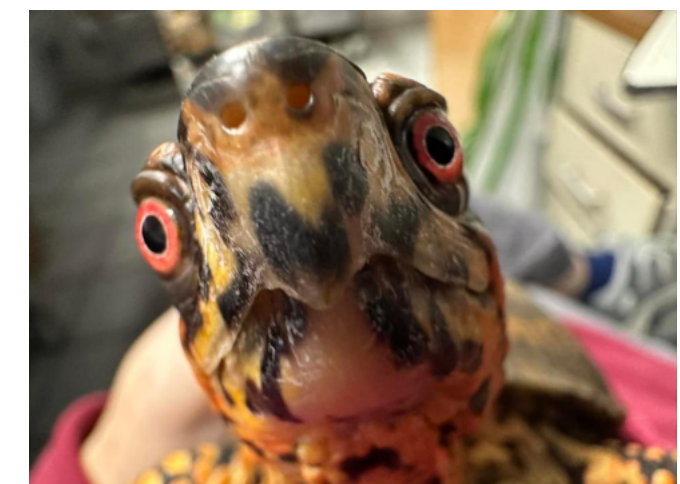


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FIND A REHABILITATOR

WE PROVIDE A MAP OF MASSACHUSETTS WILDLIFE REHABILITATORS BY THE TYPE OF ANIMALS THEY TAKE - MAMMALS, BIRDS AND REPTILES. [FIND A WILDLIFE REHABILITATOR NEAR YOU](#)

FOUND ORPHANED OR INJURED WILDLIFE?

WRAM IS NOT A WILDLIFE REHABILITATION FACILITY - IT IS A VOLUNTEER RUN ORGANIZATION WHICH DOES ITS BEST TO HELP BY PROVIDING RESOURCES & INFORMATION - [WHAT TO DO IF YOU HAVE FOUND INJURED OR ORPHANED WILDLIFE](#)