

AS A LICENSED wildlife rehabilitator, I often get animal rescue calls. Last summer, I was on my way back from a pond inspection in Sussex County and got a call. Could I pick up an injured box turtle at a Dover pet supply store on my way back to Smyrna? Of course, so I stopped by. There was an adult female box turtle in a cardboard box on the counter. As I looked her over, the manager gave me the story.

Here's how it went: A family was traveling between Maryland and Philadelphia and saw the turtle on the side of the road. They thought it would make a good pet so they stopped and picked it up. When they got to Dover, they passed by a pet store and stopped to buy "turtle food." The manager observed that the turtle had been injured – the top shell was broken in several places. She suggested that they let a wildlife rehabilitator take care of it. The family walked out, leaving the turtle behind. Then I got the call and stopped by.

What's wrong with this story? First of all, the turtle had suffered a major injury, most likely a car strike, but had recovered. There were no open wounds or maggots and the shell had healed in place. However, that turtle will now spend the rest of her life in captivity. Box turtles have very small home territories (about

two acres) where they know the water sources, hiding places and seasonal food supplies.

If they are moved from that familiar territory, they generally spend the rest of their days searching for it. In Delaware,

Turtle threats

This story illustrates only one of the dangers that most turtles now face in Delaware and throughout much of the world. Turtles have been around for millions of years, but their time may be

Turtles

Turtles have been around for millions of years, but their time may be running out. Here are some of the dangers that most turtles are facing in Delaware – and around the world.

BY CATHY MARTIN

that almost always means crossing a road and often death. So, unless a wildlife rehabber knows the exact location where a turtle was originally found, it cannot be released. This is the type of rehab story that really hurts, an adult female taken from a declining native population.

running out. Declining and degraded habitats due to development, fragmented territories due to road development and land clearing, collection as pets, and even contaminants in the environment are taking a toll on many of our turtle species.

Many turtles are listed as Species of Greatest Conservation Need in Delaware, meaning that state biologists are concerned about their status, largely due to the impacts of the stresses mentioned above. Bog turtles, small attractive turtles of semi-flooded meadows, are so limited in distribution that they are on Delaware's endangered species list as well as the U.S. Fish & Wildlife Service list. Illegal collecting for use as pets has greatly diminished the numbers of this species, which can bring \$1,000 to a poacher. Changes in hydrology resulting from land alterations (i.e. development and roads) are also a big problem for bog turtles in Delaware.

Other turtles in danger

The filling of isolated wetlands such as Delmarva Bays and other vernal (seasonally flooded) pools has impacted spotted



HOLLY NIEDERRITER

Bog turtles are on Delaware's endangered species list.

LAURA MADARA

in **Trouble**



People who take turtles – like these box turtles – out of their native habitat almost always doom the adults to a life in captivity – if they survive at all.



This painted turtle lives in Delaware's ponds, and are in less danger than most of their cousins.

turtles. This species is in trouble, as is the once abundant box turtle. Both are being hit hard by habitat loss and being collected as pets. When I was young, every kid knew what a box turtle was and had even seen one in their neighborhood. Now, most kids have never seen one alive in the wild.

Diamond-backed terrapins, once a seasonal food item across Delmarva, now face beach development where nesting areas used to be. Trapping for terrapins as food has stopped in most places, but habitat losses are causing big declines in many populations. When crossing Route 1 between Rehoboth and Bethany Beach to reach nesting sites, many terrapins get hit by beach traffic; so much so that the Divisions of Parks and Recreation and Fish and Wildlife teamed up to get fencing erected to keep the turtles from



LYNNE STAUB

Maintain woodlands and small ponds on your property that provide habitat for all wildlife, including this spotted turtle.



JARED JACOBINI



CHRIS BENNETT

Diamond-backed terrapins face many dangers, including crossing Route 1 between Rehoboth and Bethany Beaches to get to nesting habitat.

crossing the road. They also created nesting habitat on the bay side of Route 1 to keep them from having to cross the road to get to nesting habitat on the ocean side.

What about sea turtles?

BY EDNA STETZAR



U.S. FWS

Endangered Green sea turtle

FOUR SPECIES OF SEA TURTLE occur in the Delaware Estuary every year from June through October: loggerhead, Kemp’s ridley, green and leatherback. They begin the long journey from southern nesting and wintering areas in the spring when water temperatures begin to rise.

As they travel northward, they enter estuaries along the eastern seaboard to feast on plentiful resources such as horseshoe crabs, blue crabs, jellyfish, whelks and other marine invertebrates. In Delaware, loggerheads occur in the greatest number and the estuary provides important developmental habitat for juveniles. The estuary may be equally important for adults as evidenced by satellite-tagged individuals that travelled to Delaware Bay and set up “home ranges,” some staying as long as several months before heading offshore or southward when water temperatures began dropping in the fall.

Like most species described in this article, survival is challenging and all sea turtles are federally and state listed as either threatened or endangered. From illegal egg collection and beach development in nesting areas, to by-catch in fishing operations and boat strikes on foraging grounds, virtually all life stages of a sea turtle are impacted by human activities.

Ironically, without the aid of humans, sea turtles may not survive into the foreseeable future. Fortunately, there are many people around the world working toward the preservation of sea turtles. The following are some steps that you can take to ensure sea turtles will keep making the long journey to Delaware for years to come:



U.S. FWS

Endangered Kemp's Ridley sea turtle

If you encounter a sea turtle when fishing or boating:

- Place the engine in neutral or slow down and steer away from the turtle’s direction of travel
- Try to maintain a distance of at least 150 feet and do not pursue a turtle
- **DO NOT** cast your line, set your gear, troll, or chum where turtles are seen surfacing to breathe
- Remove your gear or fishing line from the water if you see a turtle in the area to prevent accidental hooking or entanglement
- If you encounter a hooked or entangled turtle in the water or a turtle stranded on the beach, contact the local stranding organization, Marine Education Research and Rehabilitation Institute (MERR) at 302- 228-5029

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LYNNE STAUB

The best way to help Delaware's turtle species survive – like this snapping turtle who is laying her eggs – is to let them stay where they are, as they are.

Pond turtles

Are there any Delaware turtle species that aren't in trouble? We think they are the pond species: snappers, red-bellied, and maybe, painted turtles. Even they have to cope with water quality issues and invasive species. Many non-native, aggressive plants (classified as invasives) such as hydrilla and Brazilian elodea have become the dominant plant species in our millponds. Our native turtles evolved with native plants such as bladderwort and coontail, which are much less common today. The impacts of invasive plants on turtle populations are not fully known, but generally, a change in the plant community affects the animals that rely on it.

Sometimes, the turtles can be inva-



HOLLY NIEDERRITER

Red-eared sliders are an invasive species and have very similar food habits to our native red-bellied turtle (seen here), and can compete with them for food and space.

sive themselves. The red-eared slider has become an animal invasive species problem. This is the common little turtle that used to be sold in a plastic bowl with a plastic palm tree in the center. Most of the millions sold before it became illegal to sell the tiny hatchlings died, but some survived and grew. The red-eared slider can reach a shell length of eight inches.

Many people released them into the wild when they got too large or when the owners tired of them. This species, though not native to Delaware, has been found in many of our ponds – even as hatchlings indicating that reproduction is taking place. Red-ears have very similar food habits to our native red-bellied turtles and can compete with them for food and space. As close as the state of Virginia, the red-eared slider has hybridized with the yellow-bellied slider, to further complicate matters.

Ways we can help

What can we do to make sure that our children and grandchildren are able to experience the joy of observing a wild turtle in a neighborhood pond or woodland?

First and foremost: do not collect turtles from the wild as pets. Turtles require complex temperature regimes and expensive full-spectrum UVA and UVB lighting so they can adequately digest their food. They have specialized nutritional needs that must be met for healthy growth. And they can live longer than some humans – 50 to 100 years for a box turtle. And, in the First State, any wild-caught reptile in Delaware held in captivity 30 days or more can never be released back into the wild because of possible disease issues. Many species, such as the bog turtle, are illegal to possess at all.

You can also help by moving turtles off the road. If you see a turtle on the road, help it to the side in the direction it is heading – if you can safely do so. Do not move it to a “better spot.”

Leave turtle nests alone. Parental care is not normal or necessary for turtle eggs or hatchlings. If you observe a turtle laying eggs or find a nest, leave it alone. If you want to help, you can put a piece of

chicken wire (about two feet square) over the spot to prevent raccoons and other predators from digging into it. If you see hatchlings emerging from a nest, let them find their own way.

However, terrapins nest on sandy beaches and sometimes the hatchlings dry out in the sun before they reach the water. If you find small turtles on the beach, set them next to the closest marsh or vegetated waterway. Do not put them directly in the bay or ocean. Hatchling terrapins spend their first couple years hanging in the vegetation along salt marshes.

Protect vernal pools, which are homes to many of our most uncommon and rare reptile and amphibian species.

Maintain woodlands and small ponds on your property that provide habitat for all types of wildlife including turtles.

Educate others about turtles.

If you do find a bleeding or injured turtle, contact a licensed wildlife rehabilitator who is trained to care for it until release. To find a licensed wildlife rehabilitator in Delaware, visit www.DEwildliferescue.com

A happy ending – this time

So what happened to our turtle from the pet supply store? She is now living in captivity with an owner who understands her needs and provides for them. And she

is often used for educational programs to explain the dangers of removing turtles from their habitat. However, she would have been much happier wandering in her home territory, hunting slugs and eating May apples in season.

The best captive-turtle housing is still not the same as life in the wild. The loss of this female from the population removes her potential for contributing eggs for the next generation of turtles. Turtles would not venture into our homes if they had a choice, and we have no business taking them from theirs, the great outdoors. **OD**

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When you see turtles on the road, like this diamond-backed terrapin, move them off the road if you can do so safely – but to the side of the road in the direction it is heading.