



Photo courtesy of the Wetlands Institute

Save a Terrapin

Ghostly traps haunt our local estuary, as two groups collaborate to save the turtles.

J. Morton Galetto, CU Maurice River

Halloween may be behind us but some ghostly presences still lurk on the bottom of the Delaware Bay and in the coastal Atlantic waters.

From April to November crabbers work our estuaries for the treasured blue claw crabs, a NJ Delaware Bayshore delicacy. Unfortunately sometimes their traps go adrift for numerous reasons: storms, boat props cutting their retrieval lines, and with some traps a

deterioration in structural integrity causing them to drift away from their line. In these instances the traps are lost, derelict, or abandoned to sit on the bottom or on marsh plains indefinitely. However they continue to trap, killing crabs, diamondback terrapin turtles, toadfish, various crabs, sea stars, whelks, sand shrimp, tautog, flounder, otters, and even sea birds. On the marsh plain they catch non-aquatic species as well. They are called ghost traps because they lack a tender. Although there are no data on how many exist, some scientists have estimated that 10 – 20% of crab traps are abandoned and continue to kill non-target animals.

Know that crabbers work in earnest to maintain their traps; it's their livelihood. Lost traps are lost dollars as well as lost terrapins. And lost terrapins means that fewer of their prey species, saltmarsh periwinkles, will be kept in check. These snails can defoliate a marsh plain of its native grasses, which are the breeding habitat for blue crabs. So ultimately the circle plays out: if turtles disappear, the crabs will too.

By law in NJ each crab pot (trap) is marked using a numbered identification float attached to a trap line. Crabbers move from trap to trap hoisting these

lines with a winch. They remove the crabs, keeping those that are of legal size and returning the others to the bay. Any "bycatch" or unintended species are released.

In NJ, since 1998 all commercial crab pots in water bodies less than 150' wide must use turtle excluders at each entrance funnel. And each pot must have a biodegradable panel designed such that crabs and other organisms can escape should the trap become lost or abandoned. An excluder is a rectangular-shaped piece of wire or plastic that makes it difficult for terrapin turtles to access the trap but allows crabs to enter.

I participated in the adoption of these rules in an effort to keep turtles and other creatures from drowning. Remember that turtles must surface to breathe. However, it's only a partial remedy because crabs are also trapped in areas beyond those where the rules apply and some of those areas are associated with turtle use as well. During the adoption of these hard-won regulations, some crabbers embraced the rules and others thought them unnecessary and were vocally opposed. Now many years later it's simply part of the required equipment. We believe it has saved countless terrapins' lives.

During the adoption process many crabbers learned how to resuscitate. Yes, you read that correctly. Turtles can slow down their body processes for a time to avoid drowning; if brought aboard by the fisherman their legs can be gently pushed and pulled in and out which in turn helps force water out and resuscitate them. Given a bit of time they may pull through and safely be returned to the water. Animals in ghost traps are rarely that fortunate.

Conservation groups address other dangers beyond having lobbied for improved regulations. Terrapins' perils are many and they are especially vulnerable during reproduction. Human development has diminished breeding areas along New Jersey's barrier island bays and inland estuaries where they lay their eggs. Furthermore, raccoons and foxes will dig and eat the eggs. Since raccoons are very adaptive to human disturbances their numbers are skewed on the high side in developed areas. One raccoon can destroy nearly an entire colony in one night. It is often necessary to keep these species in check for both beach-nesting birds and terrapins.

Regular shore travelers are aware of road crossing areas during mating

season, and of efforts to get people to be more vigilant in preventing road kills. Governmental wildlife managers have been working on various kinds of safe passage systems for creatures across the state. This effort is in its early stages, but who knows, it may assist terrapins as well. The Wetlands Institute even has programs to encourage increased terrapin production by removing eggs from road-killed females and incubating them with the warmth that will cause the young to hatch as females. As you may know, many reptiles' sex can be determined by the temperature during incubation. A female preference improves the chance for future egg bearers.

Human consumption and pet trade have also impacted terrapin numbers. Laws banning harvest and arrests of illegal pet dealers have curbed these activities, but diligence is still necessary.

CU Maurice River will be embarking on a ghost trap retrieval program with the Wetlands Institute. This will require reconnaissance missions by volunteers during winter months, primarily **December 4 through April 5th**, when trapping has concluded. We will need people with small boats, beach hikers, smartphones, and GPSs for all methods of spotting and cataloging lost traps. If you're an adept drone operator we might be able to employ your talents in a productive and fun manner. Then we

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will determine the best way to have the traps retrieved.

The Wetlands Institute will employ side sonar to pinpoint traps in areas that people have scoped out during low tide. They employ specific permits for legal retrieval of traps that are clearly derelict. When identification is possible traps that are in good condition can be returned to the rightful owner.

CU is working out the details about ways to most effectively collaborate for this program. Currently we need to collect names and contact information of people who are interested in performing various types of reconnaissance and cataloging. We especially need boat operators who can trailer their vessels to places like Dennis Creek and Thompson's Beach and some of the restoration sites along the DE Bayshore.

If you think you would be interested in helping with this program, please email us with your contact information and the ways you might participate. Be it by boat, on foot with binoculars, by helicopter, or with a drone, we would welcome your participation! To become involved email:

citizensunited@cumauriceriver.org.