

# Marine Debris

## ATLANTIC COAST

### *Derelict Crab Pots in North Carolina Waters: Effects on Diamondback Terrapin Populations*

Derelict crab pots pose a major threat to diamondback terrapins (*Malaclemys terrapin*) and other marine life and impact local fisheries economically. Each year it is estimated that over a million crab pots are fished in North Carolina and of those, approximately 17% are abandoned. Estimates from Texas have suggested that the fishing lifetime of a derelict crab pot can be up to 20 years. This project will provide an overview of the issues involved in crab pot sighting and removal and will determine the person-time and methodologies required to scale up to an effective larger program.

Air, water, and land-based surveys in North Carolina coastal areas will assess the magnitude and variants of the problem through inventory of ghost crab pot densities and determination of geographic differences in species by-catch. The information gained will be used both for an educational awareness campaign to generate local support for reducing derelict crab pot numbers and for the development of a derelict crab pot removal working plan. The information will also be used to help influence changes in legislation and regulation to lessen the future impact of abandoned crab pots. Determination of appropriate, cost-efficient transport and disposal methods will also be a part of the project.



Abandoned crab pots, near Ocracoke Island . Photos courtesy Tortoise Reserve.

#### WHAT IS MARINE DEBRIS?

Marine debris is any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment or the Great Lakes.

#### MARINE DEBRIS SOURCES

Sources of marine debris include land-based sources, such as littering, dumping, and industrial losses. Ocean-based debris can come from fishing vessels, cargo ships, stationary platforms, and other vessels.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
MARINE DEBRIS PROGRAM



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## MANDATES

Mandates supporting NOAA's marine debris efforts include the following:

- Marine Debris Research, Prevention, and Reduction Act of 2006, 33 U.S.C. §§ 1951 et seq.
- U.S. Ocean Action Plan
- Coral Reef Conservation Act
- Marine Plastic Pollution Research and Control Act, 33 U.S.C. §§ 1901 et seq.
- Marine Protection, Research, and Sanctuaries Act, (Title II) 33 U.S.C. §§ 1401 et seq.
- Clean Water Act, 33 U.S.C. §§ 1251 et seq.

## CURRENT PARTNERS

**Primary partners:** Audubon North Carolina and The Tortoise Reserve

**Other partners:** North Carolina (NC) Department of Transportation, NC Division of Parks and Recreation, Davidson College, NC Aquariums (Pine Knoll Shores, Ft. Fisher), NC Museum of Forestry, NC State University Herp Club, NC Herp Society, Duke University Marine Lab, University of North Carolina Wilmington, Biology Department, Camp Lejune, NC Marine Fisheries, NC Wildlife Resources Commission, NC State Museum, and private sector including waterfront land owners and local fishermen.

## BENEFITS OF THE PROJECT

- Evaluate various techniques for inventory, locating, removing, and disposing of abandoned crab pots.
- Document by-catch of abandoned crab pots and its ecological and economic impacts.
- Identify ecological hot spots for a focused first effort in pot removal in subsequent years.
- Establish a working plan for future abandoned crab pot removal.
- Educate recreational and commercial crabbers as well as the general public about issues related to abandoned crab pots.
- Establish working partnerships with others to resolve abandoned crab pot issues.
- Help to change regulations to lessen the impact of abandoned crab pots.
- Enhance aesthetic appearance of coastal communities by that rely on tourist activities by removal of crab pots and other abandoned fishing gear.
- Set the stage for removal of abandoned crab pots that are competing with local crabbing efforts.
- Help North Carolina's declining terrapin population through abandoned pot removal issue awareness programs.

## CONTACTS

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(Go to "Research" and then go to "NC Terrapins")



Photo of terrapins captured in abandoned crab pot.  
*Photo courtesy of Walker Golder. Illustration of a northern subspecies female diamondback terrapin. Illustration courtesy of S. Alexandra Siess.*

*This project is funded through NOAA's National Ocean Service, Office of Response & Restoration, Marine Debris Program. The NOAA Marine Debris Program works with other NOAA offices, as well as other federal, state, and local agencies and private sector partners to support national, state, local and international efforts to protect and conserve our nation's natural resources, oceans, and coastal waterways from the impacts of marine debris.*