

ATLANTIC

Impact Assessment, Recovery, and Prevention of Derelict Fishing Gear (crab traps) in Chesapeake Bay

The Chesapeake Bay blue crab (*Callinectes sapidus*) fishery—the nation’s largest—uses traps as the primary method of commercial harvest. Conservative estimates indicate that more than 500,000 crab traps are deployed Bay-wide on a typical day during the peak season. During routine benthic habitat survey operations, the NOAA Chesapeake Bay Office (NCBO) discovered large numbers of lost or abandoned traps in high value blue crab habitat in the upper Chesapeake Bay. Because these traps are unmarked, yet possibly still fishing, the impacts of these derelict or “ghost traps” in the Bay and its tributaries may be quite damaging.



The Chesapeake Bay Derelict Fishing Gear Program is explained to members of the local media. *Photo courtesy of NCBO.*

While relatively little is known about the impact of derelict fishing gear in Chesapeake Bay, studies from other regions suggest that crab trap losses in the commercial fishery may have significant implications for resource management. With funding from the NOAA Marine Debris Program, NCBO coordinated regional partners in creating its Derelict Fishing Gear Program (DFGP) to evaluate the scope and character of potential fisheries impacts in the Bay.

The NCBO DFGP has established surveys and field experiments to:

1. Locate, count, and describe condition of derelict traps in Chesapeake Bay
2. Define trap loss rates and causes
3. Determine ecosystem impacts of derelict traps including living resources, habitat, and the economy
4. Develop, evaluate, and implement methods for derelict trap retrieval and loss prevention
5. Supply regional resource managers with the information required to assist in effectively managing the impacted resources
6. Provide necessary outreach and education to regional stakeholders

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.

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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.

PARTNERS

NOAA/NOS/NCCOS; NOAA/NOSCSC; NOAA/NOS/OCS; Versar, Inc.; Virginia Institute of Marine Science, College of William and Mary; Virginia Marine Resources Commission; University of MD, Chesapeake Biological Laboratory; Maryland Department of Natural Resources; Smithsonian Institution, Smithsonian Environmental Research Center; MD Waterman's Association/Oyster Recovery Partnership

BENEFITS OF THE PROJECT

- Removal of an environmental hazard for fish, benthic habitat, and vessel operators
- Improved management and policy for blue crab stock in Chesapeake Bay
- Reduced economic hardship for working watermen and fishers and engage them substantively in Bay restoration
- Community engagement and involvement in solving an environmental problem
- Improved public access to information and resources on marine debris
- Restoration and protection of estuarine fisheries and aquatic habitats

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Derelict crab trap removed from Chesapeake Bay. Photo courtesy of NCBO.

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.