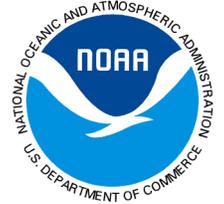


Marine Debris

OFFICE OF RESPONSE AND RESTORATION • NOAA'S NATIONAL OCEAN SERVICE

Derelict Fish Traps in the U.S. Virgin Islands



Fish traps are commonly employed by the fishing communities in the U.S. Caribbean to catch resident reef fishes as well as lobsters. In the waters around St. Thomas and St. John, U.S. Virgin Islands (USVI), the trap fishery provides approximately one third of the fish landings and revenue. Commercial fishers try to avoid damage to the coral reef and to their traps by placement on softbottoms. However, when lost or discarded, these derelict traps may impact coral reef ecosystems through physical movement during severe wave and storm events as well as through 'ghostfishing' whereby derelict traps continue to trap fish. Ghostfishing may have an ecological impact to coral reef ecosystems and an economic impact to the USVI fishery, yet very little is currently known about the threat from derelict traps in the USVI.



Derelict fish traps, like the one shown above (in Pervasive Bay, St. Thomas, USVI), may cause habitat damage and impacts to species through ghostfishing. *Photo courtesy of Steven Hitt (NOAA-USVI).*

Project Description

The purpose of this effort is to determine the location of derelict traps and assess their impact on fish, habitats, and the fishery. This information is intended to inform the fishing community and fisheries managers of the threat and to determine if derelict traps in the U.S. Virgin Islands need to be found and removed. By identifying and quantifying impacts from derelict fish traps in a robust manner, including experiments, this project will inform and enable management to take action, if warranted, to prevent, reduce, and mitigate the identified impacts. The collaboration team includes both scientists and stakeholders bringing their respective expertise to accomplish these goals and objectives:

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.

- Estimate trap loss
- Conduct spatial analysis of trap fishery and location of DFTs
- Assessment of DFT condition
 - Assessment and quantification of impact to species (ghostfishing), resources, and habitat

While this work will initially focus on the islands of St. Thomas and St. John, USVI, the information, methods, and products developed will be readily transferrable to other Caribbean islands.

Benefits of the Project

- A better understanding of DFTs in the USVI to support managements decisions, removal efforts, and other debris related activities
- Detailed GIS maps of DFT including location, abundance, condition, and depth
- Cooperation and partnerships built, especially between agencies and industry
- Collaboration and problem solving between scientists and local stakeholders

Partners

- NOAA NCCOS' Center for Coastal Monitoring and Assessment
- NOAA Marine Debris Program
- St. Thomas Fisherman's Association (STFA)
- NOAA Fisheries Service-Galveston Laboratory
- U.S. Navy
- Virgin Islands Department of Planning and Natural Resources (VI DPNR)
- University of the Virgin Islands
- National Park Service-Virgin Island National Park

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An example of an active fish trap (middle), and more examples of derelict fish traps in St. John (left) and St. Croix (right), USVI. *Photos courtesy of Biogeography Program.*

For more information visit

www.marinedebris.noaa.gov/projects/usvi.html