

PACIFIC

Temporal and Spatial Distribution of Marine Debris on Selected Beaches in the Gulf of Alaska

Scientists at the Auke Bay Laboratories have conducted periodic marine debris surveys on select beaches in Alaska since 1972 with the last survey being performed in 1994. In 2008, this project once again surveys the same beaches in order to evaluate any changes in the marine debris composition, distribution, and abundance over the past decades. Derelict trawl web and other types of debris will be located and measured. The survey area encompasses the upper intertidal area to the storm berm. The survey sites are distributed along the eastern Gulf of Alaska from south of cape Spencer (Kruzof Island) to the west of cape St. Elias (Middleton Island), closely following the Alaskan Gyre, which is the principal vector of debris deposition from offshore sources and re-deposition from “upstream” sources.



Measuring derelict trawl web found in Sea lion Cove. Photo courtesy of Jon Thedinga, NOAA.

Data gathered will be representative of the marine debris composition accumulated over the previous winter storms. This allows the examination of marine debris that has been circulating in the ocean most recently and currently affecting the marine ecosystem. Additionally, this project is looking for and measuring derelict trawl web and other debris. Again, this work has been ongoing since Annex V (Prevention of pollution by garbage from ships) was added to MARPOL 73/78 (International Convention for the Prevention of Pollution from Ships Act).

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.

CURRENT PARTNERS

- NOAA National Marine Fisheries Service Alaska Region

BENEFITS OF THE PROJECT

- Identify sources and distribution of marine debris found on Gulf of Alaska beaches and compare to earlier years.
- Evaluate the availability of derelict fishing gear and potential threats to marine animals (e.g., northern fur seals).
- Identify candidate beaches that may be cleaned of debris to benefit wildlife (e.g., beaches near marine mammal haul outs or rookeries).

CONTACTS

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Eastern shore of Kayak island, a marine debris hot spot. *Photo courtesy of Jacek Maselko, NOAA.*



Recently deposited trawl web found on the eastern shore of Kayak Island. *Photo courtesy of Jacek Maselko, NOAA.*

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.