

Marine Debris

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

Marine Debris Monitoring and Assessment Project



A question that is often posed to the NOAA Marine Debris Program (MDP) is “How much debris is actually out there?” The MDP has recognized the need for this answer and is developing a long-term monitoring and assessment study with standardized, statistically valid methodologies that focus on abundance and density. These types of monitoring programs are necessary in order to compare marine debris source, abundance, distribution, movement, and impact data on national and global scales. Research efforts in recent years have significantly increased our knowledge of marine debris. However, significant gaps still remain in standardized monitoring practices. Currently a single best method is not available to estimate total densities in the water column, subsurface, and shoreline. As such, the MDP is establishing a long-term monitoring and assessment program with four main objectives:



Debris collected from the Patapsco River, MD during a manta trawl.

- Assess the quantity of debris at a location and expand to regional characterization according to associated land use
- Determine the types and density of debris present by material category (i.e. plastic, metal, etc.)
- Examine spatial distribution and variability of debris
- Investigate temporal trends in debris amounts

This monitoring and assessment program will take a holistic approach by incorporating various types of data collection including shoreline assessments for coastal debris, underwater assessments for benthic submerged debris, coastal pelagic debris trawls, and sediment samples to analyze for micro-debris items. Preliminary efforts are focusing on a pilot project to develop shoreline and pelagic debris methodologies, in order to first implement those parts of the monitoring and assessment program.

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.

PARTNER

- Sheavly Consultants

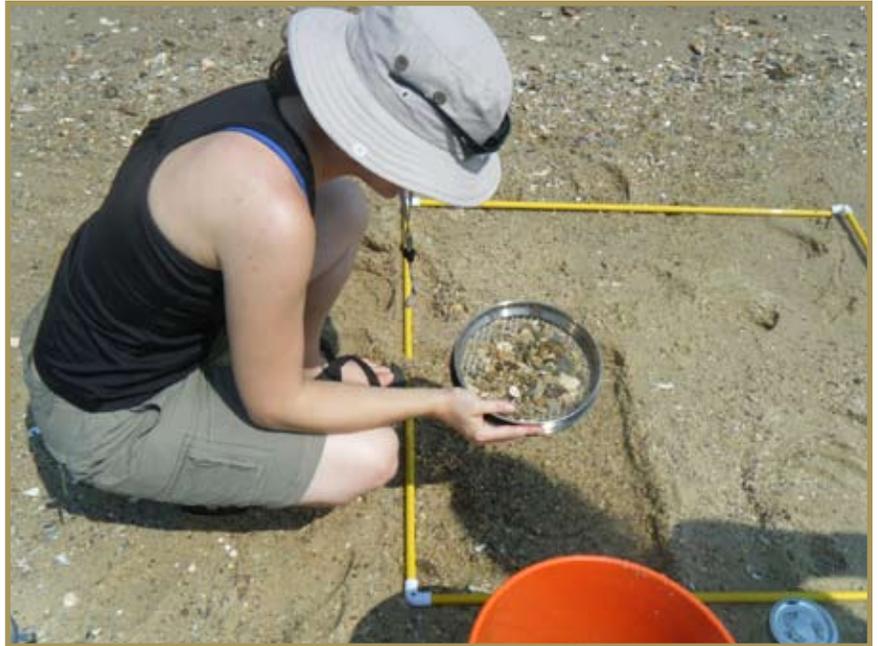
BENEFITS

- Gain national understanding of status, occurrence, abundance, and trends of marine debris over temporal and spatial scales
- Provide statistically relevant baseline data for shoreline and coastal floating debris
- Identify priority areas for cleanup efforts
- Identify long-term trends
- Educate communities on local debris issues

CONTACTS

Sarah Opfer
Sea Grant Knauss Fellow
NOAA Marine Debris Program
Sarah.Opfer@noaa.gov

Courtney Arthur
Research Analyst
NOAA Marine Debris Program
Courtney.Arthur@noaa.gov



Staff analyzing for micro-debris as part of shoreline assessment process. Cove Point, MD.



Manta net trawling behind the R/V Laidly during a test of the floating pelagic marine debris monitoring methods.

For more information visit

www.marinedebris.noaa.gov/projects/