



North Inlet - Winyah Bay
National Estuarine
Research Reserve

MARINE DEBRIS MONITORING

Large marine debris objects, such as abandoned vessels and lost fishing gear, can have significant adverse effects on marsh habitats. However, the extent of the distribution and impact of marine debris on marsh habitats is unknown in South Carolina. The first step in addressing this issue is to identify locations on which to focus marine debris removal efforts. Trained volunteers will assist with finding and recording the locations of large debris in North Inlet, as well as in the Charleston and Beaufort areas. This effort is part of the NOAA funded project *Marine Debris and Abandoned Vessels: Identification, Reduction and Prevention through Community-based Education and Action*, which is a partnership between the North Inlet-Winyah Bay National Estuarine Research Reserve, the South Carolina Sea Grant Consortium, COSEE SouthEast, the South Carolina Department of Health and Environmental Control – Ocean & Coastal Resource Management, the South Carolina Aquarium, and the Charleston Waterkeeper.

ISSUES ADDRESSED

HABITAT LOSS Abandoned vessels and large debris objects can impair beach, dune, marsh, mud flat and oyster reef habitats by physical damage, shading out plant growth, causing erosion, and disrupting tidal flooding.

WATER QUALITY Chemicals leaking from machinery and engines of abandoned vessels, such as fuel, hydraulic oils and lubricants, can impair water quality within a tidal system by diffusing into the water and sediments.

SPECIES OF CONCERN Lost fishing gear, such as crab pots, trawl gear and fishing line can entangle species of conservation concern such as diamondback terrapins and sea turtles. By-catch from lost or unattended fishing gear can also negatively impact crab and fish populations.

VISITOR USE Debris can be a human health and safety hazard. Fishing line, rope and plastic bags can wrap around and damage boat propellers or get drawn into boat engines. Large debris objects can become navigational hazards when submerged in waterways.

VOLUNTEER OPPORTUNITIES

Volunteers are being recruited to systematically search the tidal channels of North Inlet to record the locations of large marine debris items. Volunteers will use a provided marine debris spotter form to report information on the GPS location, description, and habitat and navigational impacts of marine debris objects that they encounter while in North Inlet. Individuals with their own power boats or kayaks are encouraged to volunteer, but there are also opportunities for those who do not have access to boats.



**Training for interested volunteers will be held Saturday, June 26th
at the Kimbel Lodge on Hobcaw Barony.**

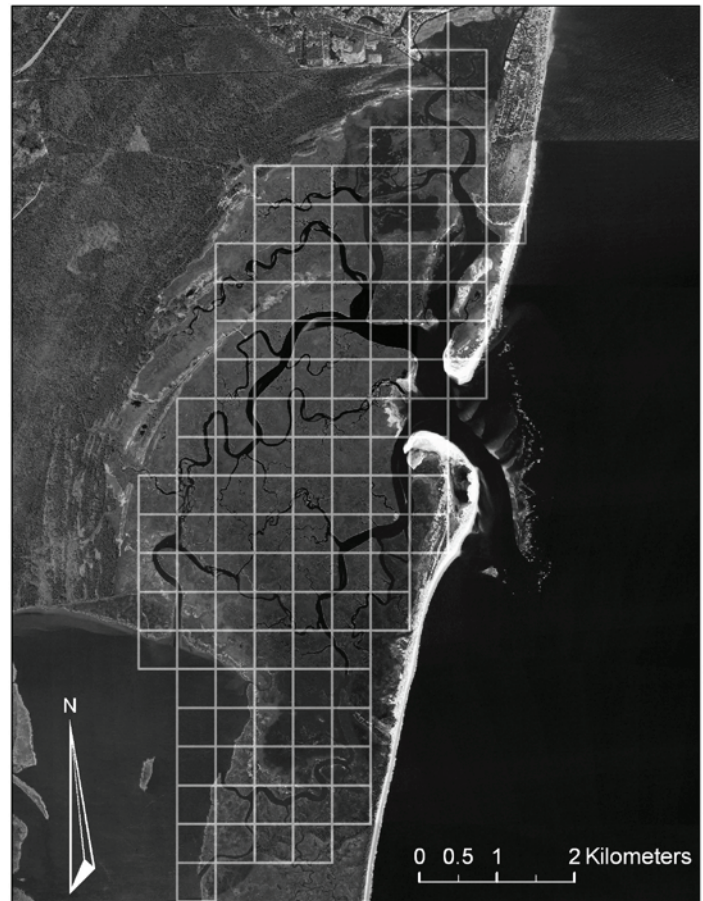
Please contact Jen Plunket at jen@belle.baruch.sc.edu or 843-904-9033.

PROJECT AREA

Volunteers in the Georgetown area will search the accessible tidal channels of the North Inlet estuary. A grid system will be used to assign search areas to volunteer teams and to record areas that have been searched.

PROJECT OUTCOMES

The locations of large debris items will be reported to SCDHEC-OCRM and will be displayed on a website that is currently under development. The information that volunteers provide on location and navigation and habitat impacts will be used to determine high priority debris removal needs. This data will also be used by the North Inlet-Winyah Bay National Estuarine Research Reserve to assess estuary-wide impacts of marine debris and to develop future marine debris removal, education and prevention programs.



RESOURCES

North Inlet-Winyah Bay National Estuarine Research Reserve

<http://www.northinlet.sc.edu>

NI-WB NERR Marine Debris Monitoring

<http://www.northinlet.sc.edu/stewardship/marinedebris.html>

SCDHEC OCRM

<http://www.scdhec.gov/environment/ocrm/>

South Carolina Sea Grant Consortium

<http://www.scseagrant.org/>

Center for Ocean Sciences Education Excellence

<http://www.cosee-se.org/>

NOAA Marine Debris Program

<http://marinedebris.noaa.gov/>

South Carolina Adopt a Beach

http://www.scdhec.gov/environment/ocrm/outreach/clean_beach.htm

NOAA Clean Marina Initiative

<http://coastalmanagement.noaa.gov/marinas.html>