

Synthesis of Tidal Inlet and Sandy Beach Habitat Inventories

An inventory of the location, status, and condition of beach habitats including potential piping plover breeding grounds before Hurricane Sandy, immediately after Hurricane Sandy, and three years after post-storm recovery efforts, based on imagery from Google Earth, Google Maps, state agencies, municipalities, and private organizations. Products include:



- Google Earth files and metadata of Pre-Sandy Tidal Inlets, Beach Fill, and Beach Armoring (Maine to Va.); Excel spreadsheet of Pre-Sandy Beach Development, Armoring, and Fill by Community
- Report providing Inventory of Habitat Modifications to Sandy Beaches, Maine to Va.
- Report providing Inventory of Habitat Modifications to Tidal Inlets, Maine to Va.
- Inventory of Habitat Modifications to Sandy Beaches for Coastal Migration and Wintering Range in Continental U.S.

DEVELOPED BY:

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WHO IS USING IT?

Peter Slovinsky, Marine Geologist, Maine Geological Survey (MGS) Member of the Northeast Regional Ocean Council (NROC) Coastal Hazards Resilience Subcommittee and Living Shorelines Group

HOW IS IT BEING APPLIED?

Slovinsky used the inventory of shoreline structures to help fill in gaps in Maine's existing database of shoreline armoring on larger sandy

beach habitats in the state. This helped in the completion of an assessment of shoreline types for the Maine Coastal Program's 5 year report to the National Oceanic and Atmospheric Administration's (NOAA) Coastal Zone Management Program.

"For the assessment, we needed to be able to distill what extent of the coastline is sandy, highly erodible, stabilized, etc., in miles," explained Slovinsky. "Some of those numbers were built into Tracy's report and accompanying GIS layers, and that helped us supplement our datasets."

Applying the products of this effort brought things full circle for Slovinsky, who originally shared data compiled by Maine Geological Survey with Rice in 2015. "So often datasets like these are created, and you never hear about them, but Tracy made the effort to find out what data already existed in states, and importantly, to follow up with outreach when the project was complete," said Slovinsky. "The report helped us update our own database because it built on what we had, but added the sandy beaches in other parts of the state, and captured larger shoreline protections structures for the coastline."

WHAT CONSERVATION NEED DOES IT ADDRESS?

In order to help both human and natural communities adapt to sea level rise, coastal decision makers need to understand what helps, and what makes matter worse, in terms of shoreline protection and stabilization.

"We want to get a handle on the cumulative impact of these structures," said Slovinsky. Moving forward, it will be valuable for his agency to know which sections of Maine's shoreline are currently armored as the state considers living shoreline approaches that can increase the resiliency of coastal systems in the face of future storms.

LEARN MORE:

- **Products from Beach and Tidal Habitat Inventories:**
<http://northatlanticlcc.org/groups/coastal-resiliency/projects/beach-and-tidal-inlet-habitat-inventories/beach-and-tidal-inlet-habitat-inventories>
- **Maine Geological Survey:**
<http://www.maine.gov/dacf/mgs/>
- **NROC's Living Shorelines Group:**
<http://northeastoceanouncil.org/committees/coastal-hazards-resilience/living-shorelines-group/>