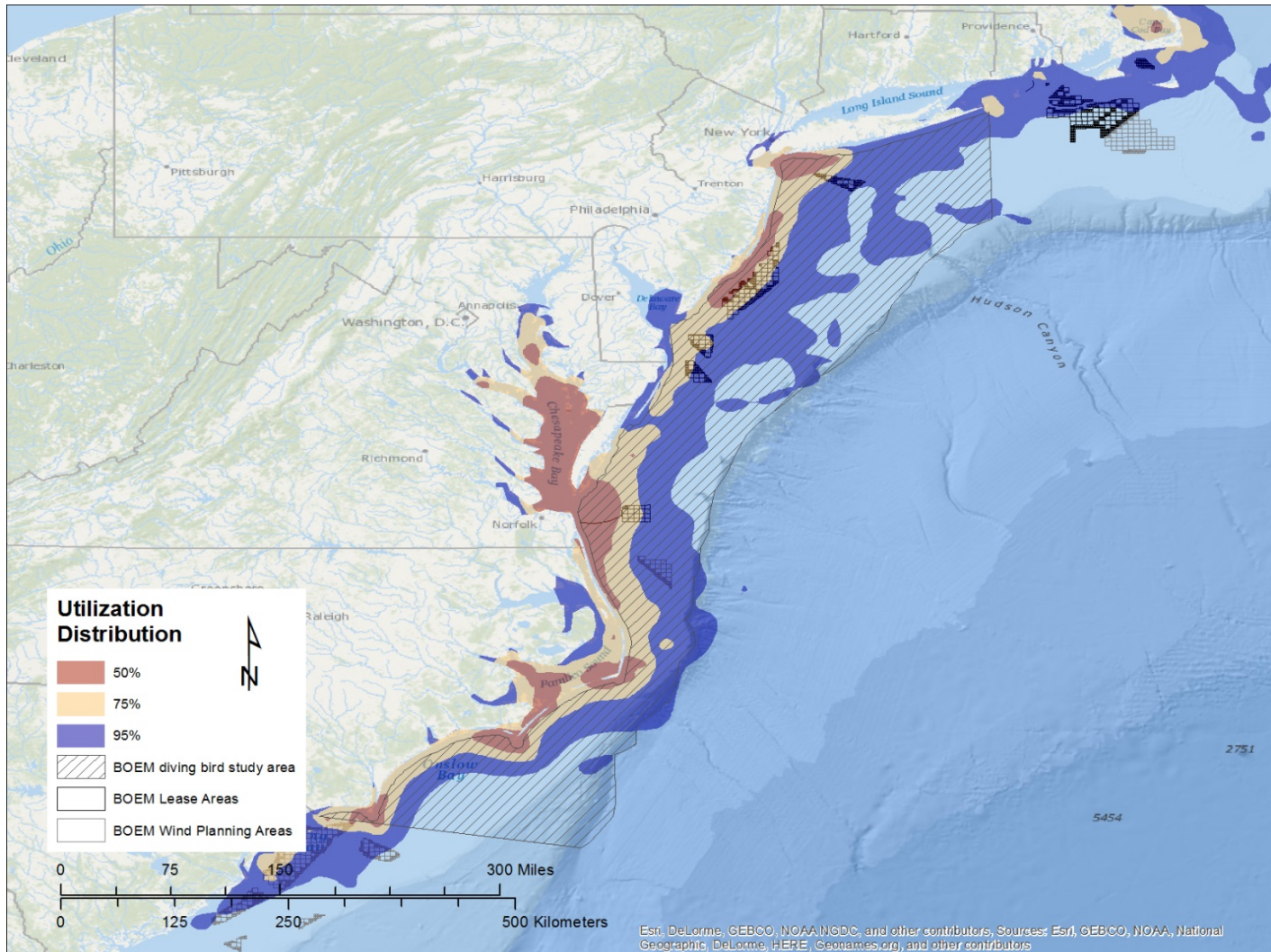


Determining Fine-scale Use and Movement Patterns of Diving Bird Species in Federal Waters of the Mid-Atlantic United States Using Satellite Telemetry



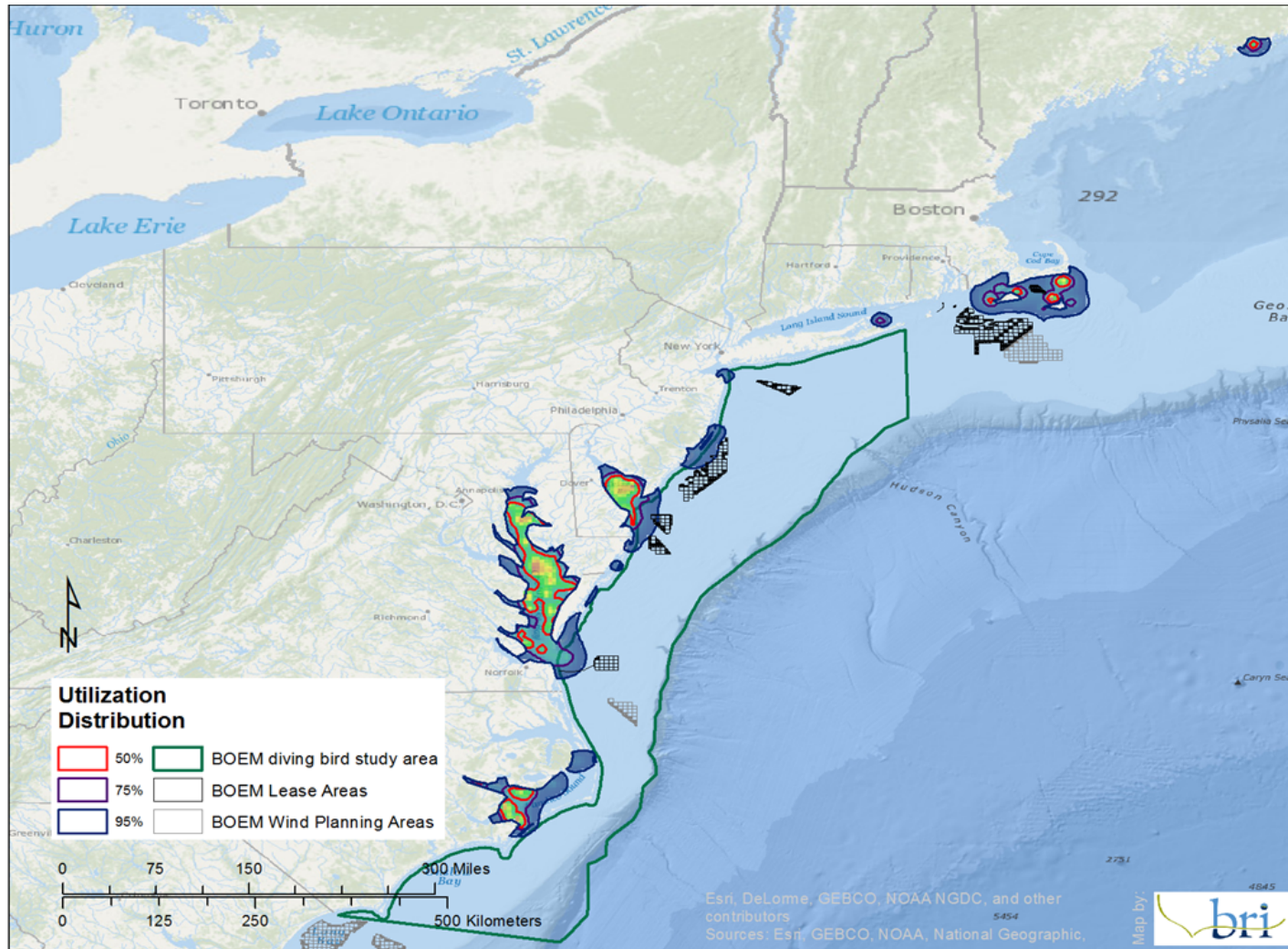
Memorial
University of Newfoundland

Northern Gannet Winter Use



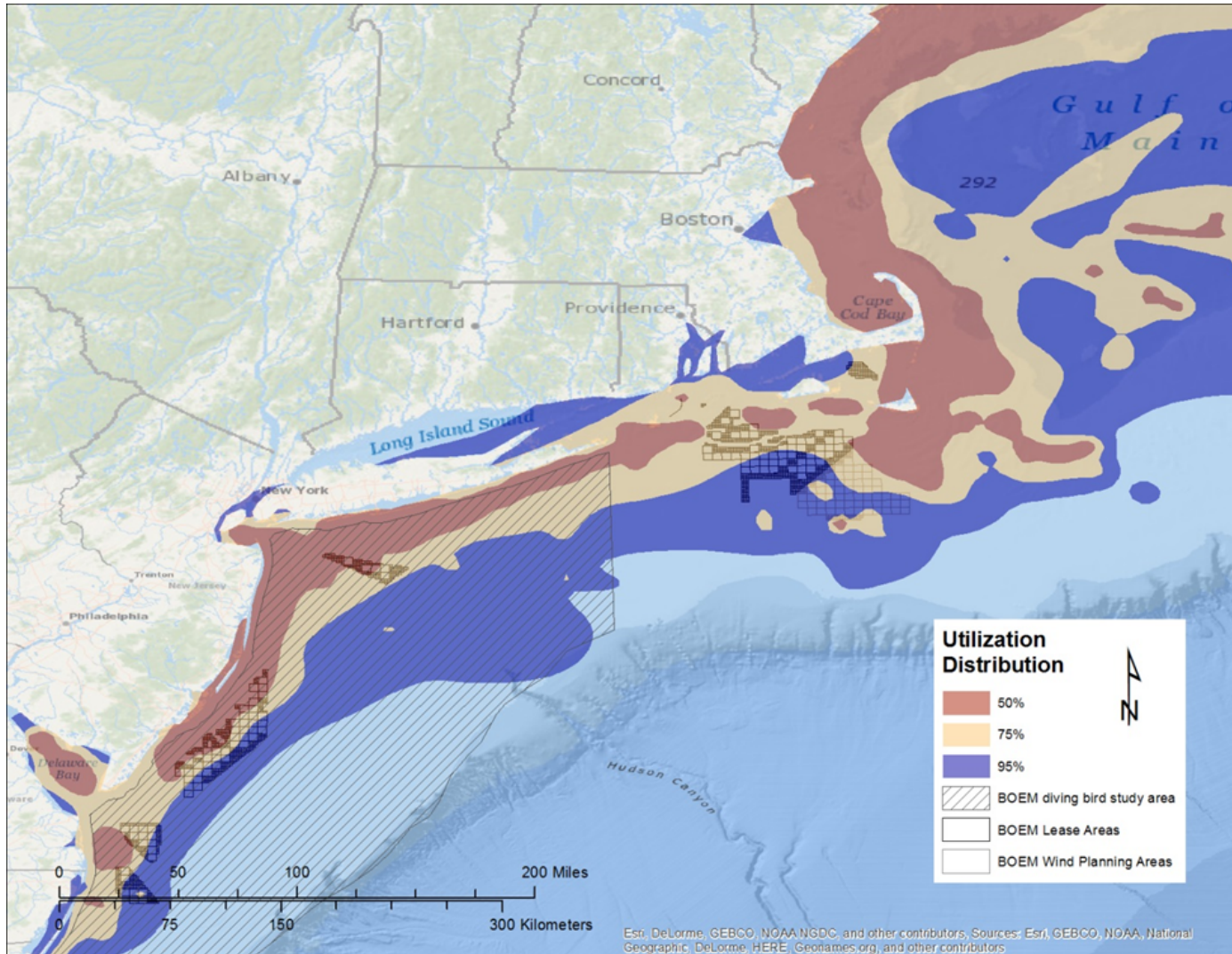
Winter distributions of satellite-tagged Northern Gannets the Mid-Atlantic study area (hatched), including the mean winter home range (95% UD, blue) and core use areas (50% UD, red).

Surf Scoter Winter Use



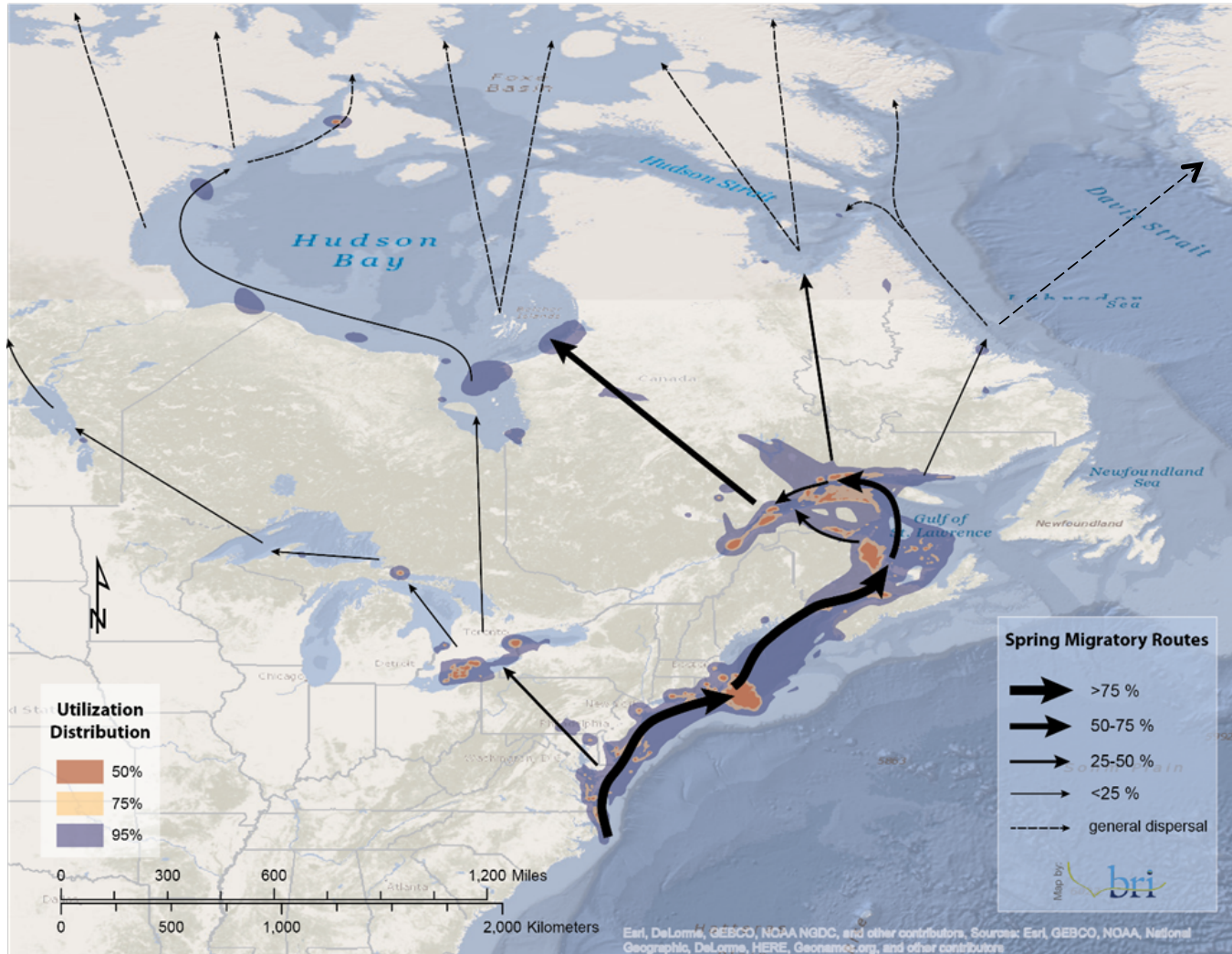
Winter distributions satellite-tagged Surf Scoters in the Mid-Atlantic study area (green outline) 2011 - 2015, including the mean winter home range (95% UD, blue) and core use areas (50% UD, red).

Northern Gannet Fall Migration Use



Distributions of Northern Gannets during fall migration in the Mid-Atlantic and southern New England, 2012 - 2015. Intensity of use ranges from lowest areas of use (blue) to greatest areas of use (red).

Red-throated Loon Migration



Spring migration routes of Red-throated Loons tagged with satellite transmitters while on their mid-Atlantic wintering grounds, 2012 - 2015.

NORTHWEST ATLANTIC SEABIRD CATALOG

- The Northwest Atlantic Seabird Catalog (NWASC) is an aggregation of seabird observational datasets at sea, ranging from Florida to Maine and from directly off the coast out to the Economic Exclusive Zone
- While the observations in the database are mainly seabirds, they also include observations for marine mammals, sea turtles, bats, bugs, boats, and marine debris (most are incidental).



Data are collected via various platforms

Including plane, boat, and high-definition videography

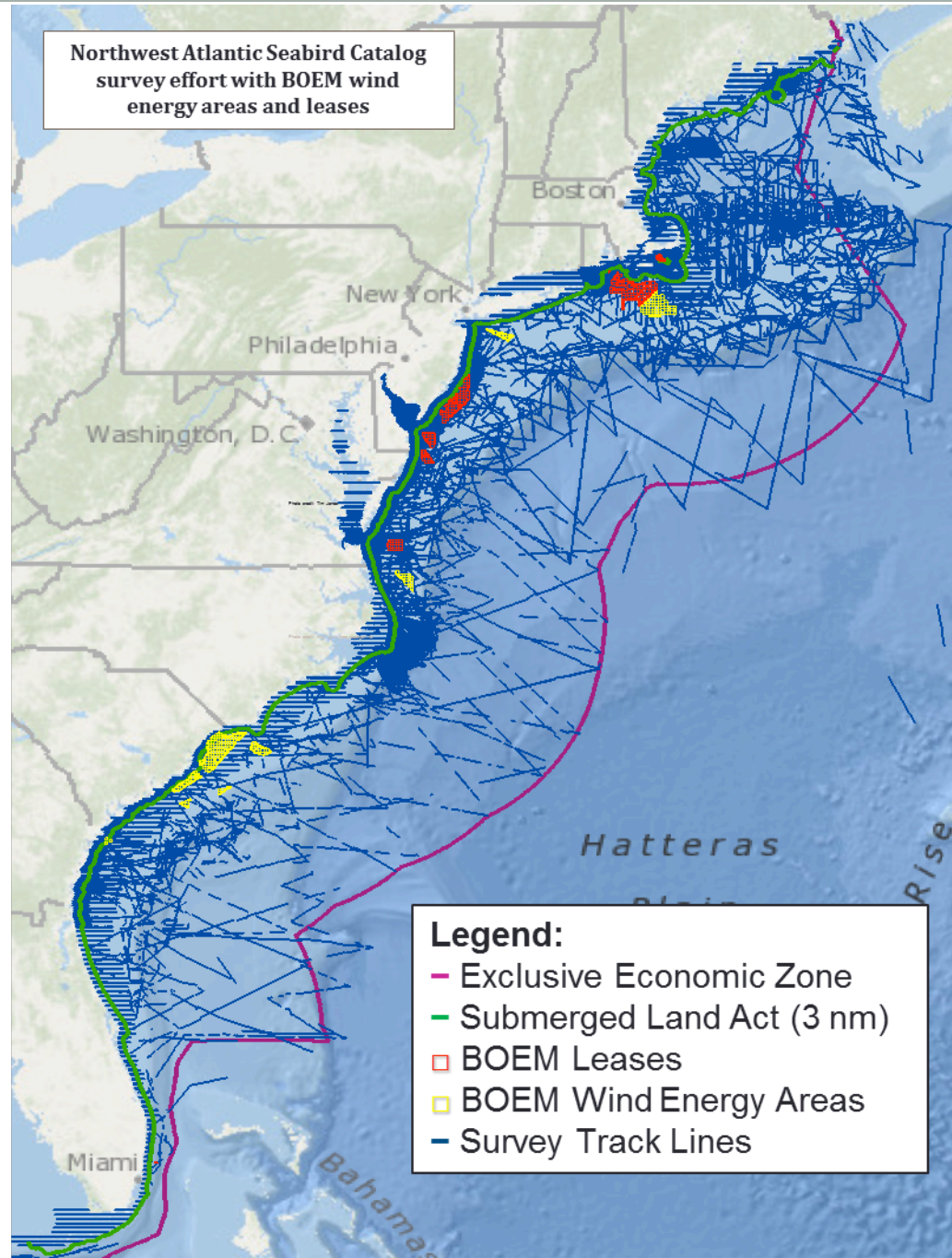
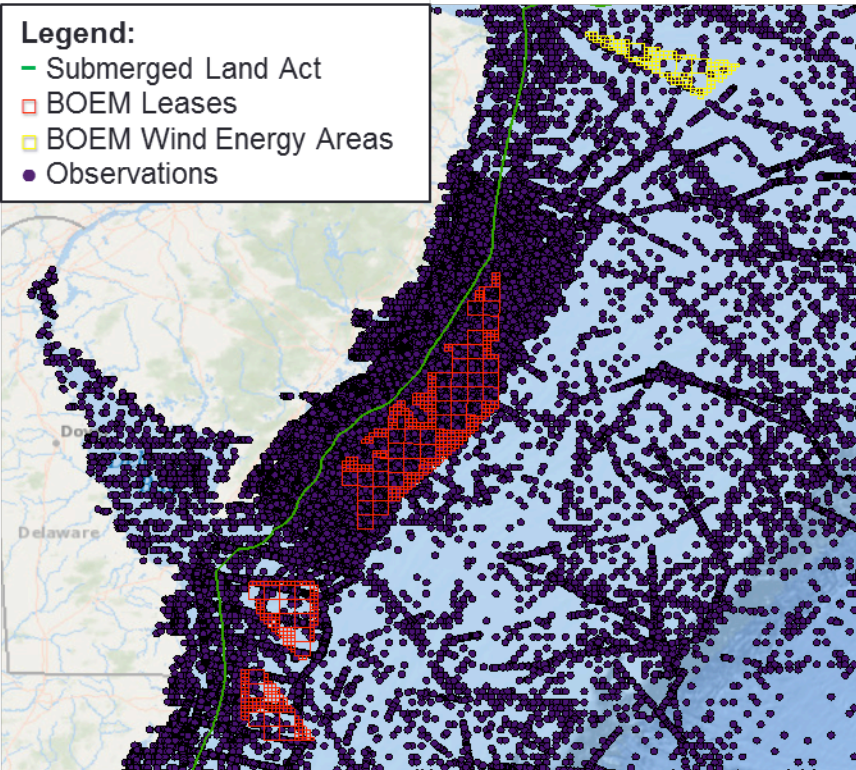


Platforms for the Atlantic Marine Assessment Program for Protected Species (AMAPPS) by the USFWS (via Kodiak aircraft) and NOAA NEFSC (via *R/V Bigelow*)

Survey effort and observations

A closer look at an area of interest...

- Legend:**
- Submerged Land Act
 - BOEM Leases
 - BOEM Wind Energy Areas
 - Observations



Environmental Sensitivity Index maps

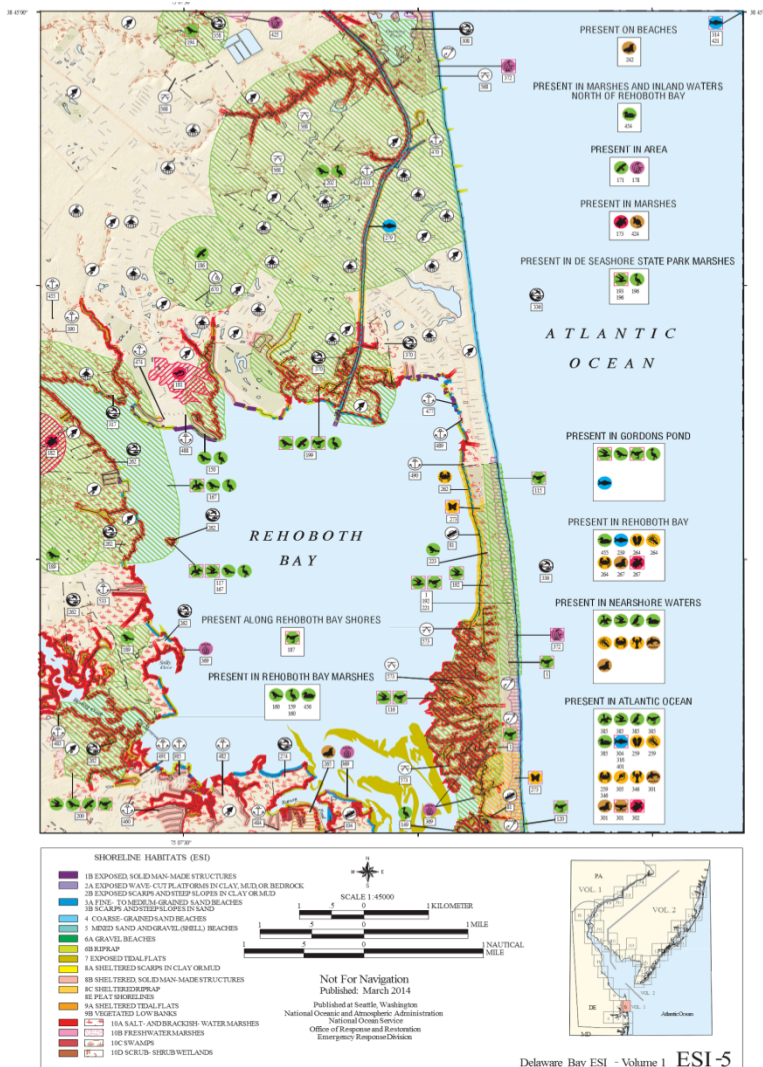
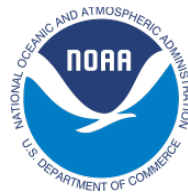
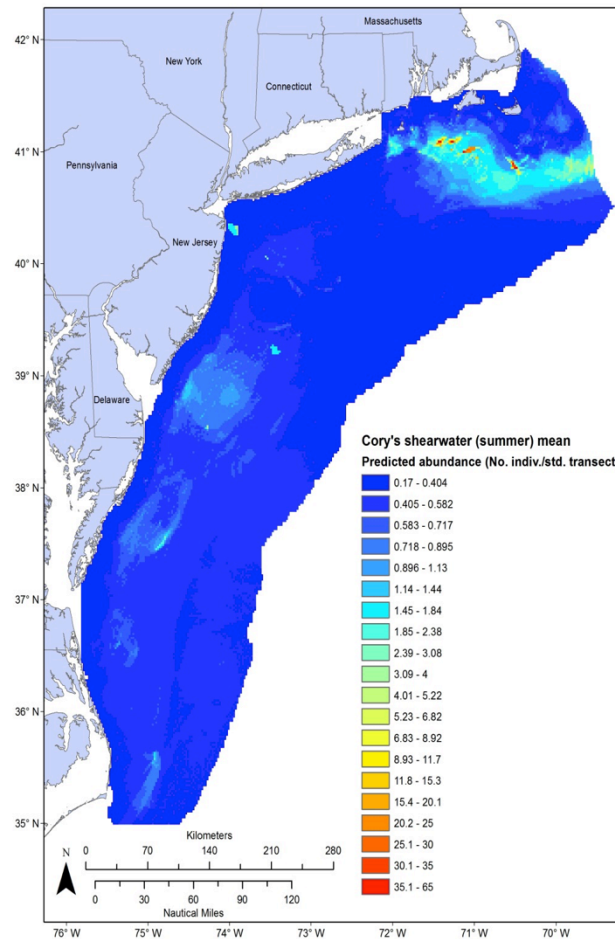
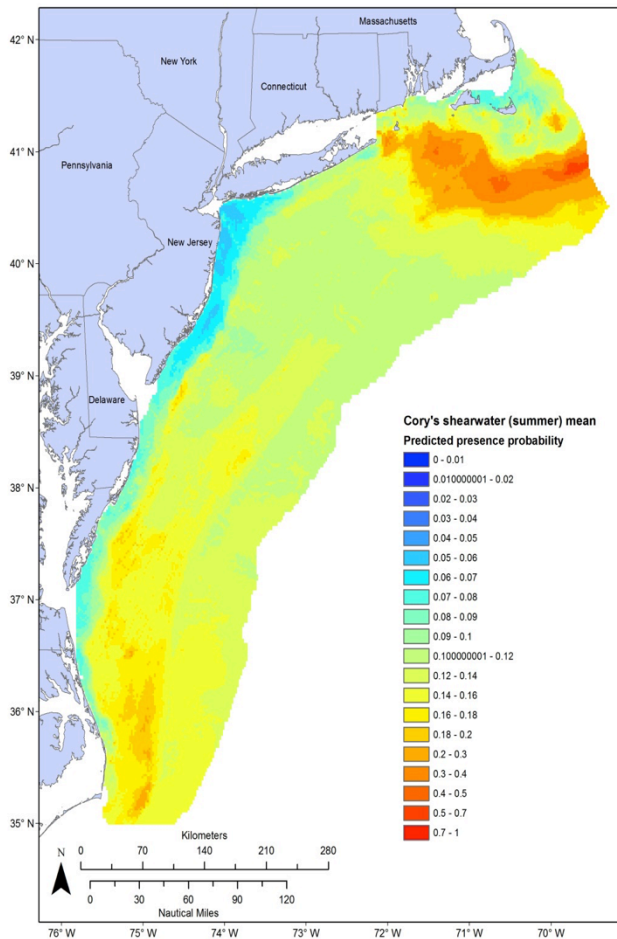


Photo by USFWS



To create predicted presence and abundance maps



Used to create maps and predictive models of bird distributions through a modeling effort lead by the NOAA Biogeography Branch.

These products can be found on the Mid-Atlantic Region Council on the Ocean (MARCO) data portal.



Contact Info

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