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What Willet be?

Results of Annual Breeding Coastal Bird Survey at Boston Harbor Islands

Background

Boston Harbor Islands national park area includes 34 islands and peninsulas situated within the Greater Boston shoreline and is one of thirteen park units included in the Northeast Temperate Network (NETN). The park is a Massachusetts Important Bird Area (IBA) and provides habitat for a significant number of colonial-nesting waterbirds, including Least and Common Terns, which are both listed as species of special concern in the state. Because waterbird populations can fluctuate widely a consistent and comprehensive long-term monitoring protocol was established in order to accurately measure population trends over time. In 2007 and 2008, waterbird surveys were conducted in the islands in support of the development of this long-term monitoring protocol. In 2009, these efforts continued and are outlined in this brief and the recently released report (available online).

Purpose and Scope

The objectives of the coastal breeding bird monitoring program are:

- Determine annual changes and long-term trends in abundance of high priority coastal breeding bird species (Least Terns, Common Terns, and American Oystercatchers).
- Conduct an annual surveillance program within the park to identify future use by threatened or endangered coastal breeding bird species, such as Piping Plover and Roseate Tern.

Black-crowned
Night-heron

Mehmet
Karatay



- Determine long-term trends in species composition and abundance of lower priority coastal breeding bird species (eider, cormorants, wading birds, shorebirds, and gulls).

Results and Findings

Common Eiders

The number of eider chicks observed declined steadily from a high count of 196 in early June to a low count of 34 about a month later. This suggests a high degree of juvenile mortality (which is not uncommon for this species). However, by mid-June, volunteers also reported sightings of eider chicks along the mainland coast, indicating that chicks hatched from the park were large enough to travel greater distances. In general, Common Eiders experience high annual adult survival rates (over 80% in several studies), but can also experience a highly variable degree of reproductive success in any given year, and years of 'near disaster' are not uncommon. In a stable population, low survival of young is compensated by their comparatively long average life span.

Cormorants and Gulls

Boat-based surveys of nesting cormorants and gulls on the Outer Islands produced variable results. The overall mean number of nesting cormorant and gull pairs detected during 2009 boat-based surveys in the Outer Harbor of Boston Harbor Islands were: Double-crested Cormorant = 1,052, Great Black-backed Gull = 21, and Herring Gull = 272.

Wading Birds

Wading birds were a primary focus of survey efforts in 2009. More effort was expended on thorough colony counts than in previous years. It appears that wading birds have experienced significant declines in the islands since the mid-1990s. Study leaders think that current nesting effort is greater than indicated by recent counts. Wading bird nests detected during a complete ground-based survey of all five known nesting colonies in Boston Harbor Islands in 2009 included: Great Egret = 79, Snowy Egret = 51, Black-crowned Night Heron = 332, Glossy Ibis = 6.

American Oystercatchers and Willets

Boat-based surveys were successful in detecting a total of 16 territorial pairs of American Oystercatchers, but ground-based surveys of beach strand habitat would undoubtedly provide more reliable results by reducing the chance of missing pairs. A combination of annual boat-based surveys and periodic walking surveys that cover all islands on a 3-year rotation may be the best balance of effort. Regular surveillance of all islands

should be undertaken. Many nest locations appear to be used repeatedly, which should increase search efficiency for known nesting locations in the future. Although researchers were not able to systematically track all individual nests, repeat boat-based surveys on islands where American Oystercatcher pairs were observed were conducted and have some incidental information about nest fate. These efforts should continue in the future. In addition, statewide efforts to track banded American Oystercatchers have been extended to the islands and will hopefully provide valuable information on population parameters, allowing for improved management of this species.

Willetts were once again observed defending territory on Snake Island in 2009, but have not been observed on any of the other islands in the park. Regular surveillance of all islands will be undertaken on a 3-year rotation and should be sufficient to detect new Willet territories elsewhere in the park.

Magnus Manske



Species Spotlight:

American Oystercatcher



The distinctive American Oystercatcher is a large shorebird found on the Atlantic coast of North America from New England to northern Florida. It is marked by a black and white body and a long, thick orange beak, and is approximately 19 inches in length.

In the 1800s they became locally extinct in the northeast due to market hunting and egg collecting. After receiving protection under the Migratory Bird Treaty Act, their range extended northward to re-occupy historical habitat in New England in recent years, including the Boston Harbor Islands National Park Area.

Oystercatchers are closely tied to coastal habitats. They nest on beaches on coastal islands and feed on marine invertebrates. The large, heavy beak is used to pry open bivalves like oysters, clams, and mussels. Oystercatchers raise a clutch of two or three eggs. In winter, they are found in flocks along the coast from central New Jersey to the Gulf of Mexico.

Although Oystercatcher populations are low, the species is not protected under the Endangered Species Act.

Oystercatchers are listed as a species of concern in several states, including Massachusetts, because of low and declining populations, and threats to coastal habitats. Threats include development and recreational use of nesting beaches.

More Information

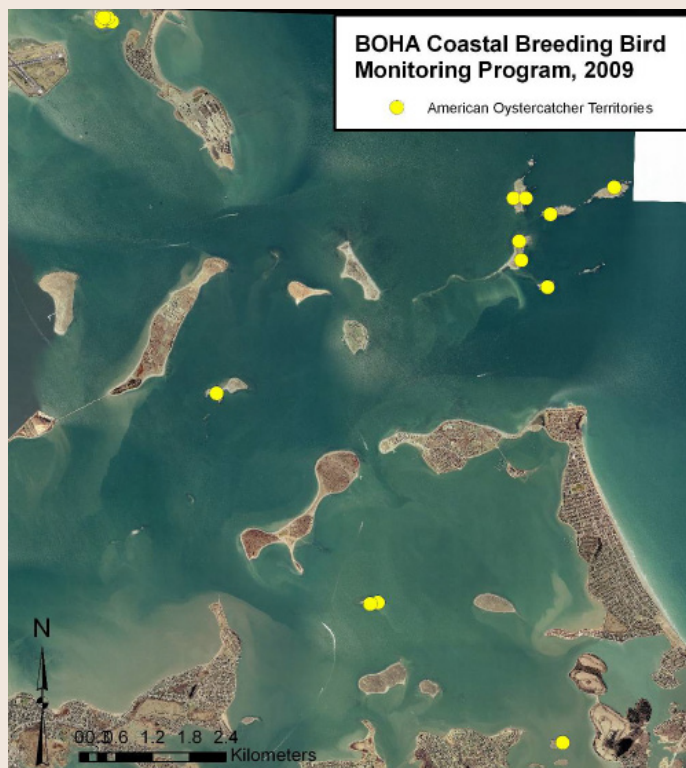
Brain Mitchell
NETN Program Manager

Phone/Email
802-457-3368 ext. 37
brian_mitchell@nps.gov

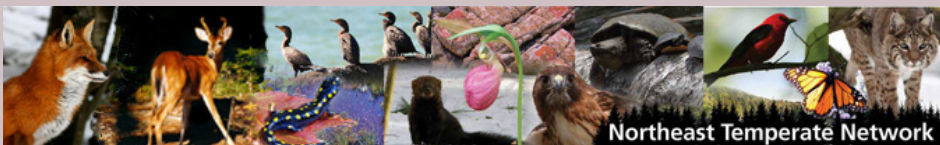
Carol Trocki
Coastal Breeding Bird Project Leader

Phone/Email
401-423-2633
cltrocki@verizon.net

Full Report online at:
<http://science.nature.nps.gov/im/units/NETN/monitor/monitor.cfm>



Northeast Temperate Network
54 Elm Street, Woodstock, Vermont 05091
802-457-3368
<http://www.science.nature.nps.gov/im/units/netn/>



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