



# Maine Coastal Islands National Wildlife Refuge



## 2006 Program Highlights

### Tern Numbers Soar to Record Levels at Restoration Sites

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- Record Tern Numbers at Refuge Restoration Sites
- Puffin Colonies Continue Rapid Growth
- Petit Manan Point Opens to Deer Hunting
- Arctic Tern Research Begins
- Two Bush Island Purchased
- Friends of Maine Seabird Islands Support Interns

2006 proved to be a great year for both Arctic and common terns at refuge restoration sites. Petit Manan Island's Arctic and common tern colony increased by 48% (769 nests) over last years survey bringing the colony total to a record 2,381 pairs. Fledging success was also higher than the previous two seasons with over 2,500 young produced on a diet rich in herring.

Early in the nesting season Petit Manan's seabird colony was threatened by the first known visit of a mink. Remains from 11 common terns and 24 Leach's storm petrels were found by island researchers under the boardwalk and helipad. Traps were set on the island on the 24th of May and the animal was captured the night of May 25th. Quick action by refuge staff minimized bird losses and saved the colony

from potential abandonment.

Seal Island, the largest tern colony in Maine, grew by 459 pairs to 2,741 pairs and fledged 2,400 young. Atlantic herring, which had been scarce in the tern's diet in recent years, made up 25% of common tern prey and 19% of Arctic terns.

Metinic Island's tern colony also experienced a dramatic increase in tern numbers growing by 208% to 462 pairs. Productivity was also high with common terns fledging 1.73 chicks/nest and Arctics 1.0. This was due in large part to increased efforts to control both herring and black-backed gulls early in the season.



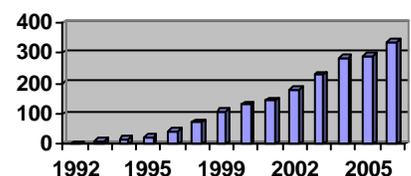
### Refuge Atlantic Puffin Colonies also Reach Record Levels



Efforts to restore Atlantic puffins to Seal Island NWR began in 1984 when puffin chicks were translocated from Newfoundland and hand raised in artificial burrows. The first breeding attempts occurred in 1992 when seven breeding pairs returned to nest successfully. This year the number of breeding pairs once again grew to a total of 336 nesting pairs. A sample of 40 burrows estimated a hatching rate of 93% and a fledging success of 95%. The future is bright for the continued growth of this important colony. Seal Island is managed through a cooperative agreement with National Audubon.

Petit Manan's puffin colony continued its expansion with 66 active burrows compared to 20 pairs in 2002. The Matinicus Rock colony also grew to a new record of 310 pairs up from 256 in 2003.

Atlantic Puffin Pairs at Seal Island



## Machias Seal Island Tern Colony Lost to Gull Predation

This summer the largest tern colony in the Gulf of Maine and the largest Arctic tern colony in North America was lost due to intense predation by herring and great black-backed gulls. Researchers on Machias Seal Island reported that over 1,600 nests with eggs had been consumed by gulls leading to complete abandonment of the colony by June 25th.

The Canadian Wildlife Service has had a policy of no lethal take of gulls. This resulted in a learned behavior of egg predation among gulls causing many gulls to participating in this destructive behavior. Researchers attempted to discourage the gulls with noisemakers but their use also

disturbed the terns and alcids with the gulls often being the first to return. Gull predation was also heavy on common murre eggs with nearly all nests in open areas lost.

This event highlights the need for continued human presence on restoration sites and the need for active predator control.



## Petit Manan Point Opens for Muzzleloader Deer Hunt



This fall the refuge officially opened a portion of the Petit Manan Point to white-tailed deer hunting. The hunt zone, depicted on the map to the left, consisted of 655 acres and was open to hunting during Maine’s muzzleloader hunt season which ran from November 27 through December 2.

Many local hunters participated in the hunt with 73 hunters spending approximately 300 hours in the field. Many hunters expressed their appreciation for the opportunity to hunt the area which had been closed to hunting since the refuge was established in 1976. No

deer were harvested during the hunt although hunters reported seeing deer.

During the deer hunt non-consumptive users continued to enjoy the John Hollingsworth Memorial Trail which remained closed to hunting.

Refuge Zone Officers provided law enforcement coverage throughout the hunt. No incidents were reported by adjacent landowners.

## Arctic Tern Research Initiated to Examine Factors Limiting Recovery

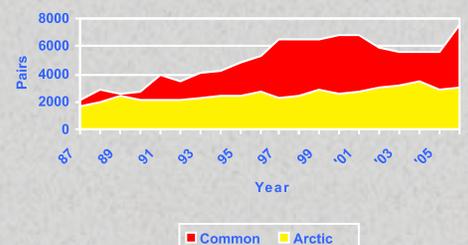
Between 1984 and 2005, Arctic tern populations in Maine responded dramatically to restoration efforts increasing from 1,720 to 2,921 pairs, a 70% increase. Since 2004 their numbers have declined by 16% raising concern over limiting factors effecting their recovery.

In 2005, the refuge entered into a cooperative research effort with Dr. Rebecca Holberton and graduate student Stephen Agius from the University of Maine. The focus of the study is to determine the

limiting factors effecting the recovery of Arctic terns in Maine and evaluating the physical condition of Arctic and common terns throughout the breeding season.

Preliminary results indicate that Arctic terns are arriving at breeding colonies in poorer condition than common terns and that both species are using body stores to support them through the breeding season. Adults were also found to be in the poorest condition while feeding chicks.

### Common and Arctic Tern Recovery in Maine



## Seabird Nesting Habitat Protected with the Acquisition of Two Bush Island

In late November Maine Coastal Islands NWR acquired Two Bush Island from Maine Coast Heritage Trust. Located just north of Matinicus Isle, this six acre island provides important breeding habitat for common eider, herring and great black-backed gulls and black guillemot.

Two Bush was one of 52 islands identified as a significant seabird nesting island lacking long-term protection in the refuge's Land Protection Plan. An additional 35 islands were identified as significant islands for bald eagle nesting habitat.

With this acquisition, Maine Coastal Islands NWR now includes 48 islands totaling over 3800 acres and spanning over 250 miles of Maine's coastline. Refuge holdings provide protection for over 75 miles of shoreline and over 1,700 acres of inter-

tidal habitat. The refuge also includes four mainland divisions comprising over 4,200 acres.



## Friends of Maine Seabird Islands Supports Island Intern Program

Established in 2002, the Friends of Maine Seabird Islands (FOMSI) is a refuge support group whose mission is to encourage conservation and appreciation of seabirds, their nesting and coastal habitats, and to support the Maine Coastal Islands National Wildlife Refuge.

In 2006, FOMSI assisted the refuge with many important activities including: the distribution of seabird signage informational brochures to all licensed boaters in Maine; the distribution and sale of a map depicting important seabird nesting islands along the coast of Maine; staffing an outreach booth at the Maine Boats and Harbors Show; planning activities associated with the vision of a Coastal Education Center; and fundraising to support the Island Intern Program.

With declining federal funds to support seabird restoration work, funds raised by FOMSI were critical to the support of ongoing seabird restoration programs. This past year, FOMSI partnered with the Maine Coastal Program and provided funds to support five island interns. Interns spent

the summer on some of Maine's most magnificent seabird restoration sites and worked with biologists from the U.S. Fish and Wildlife Service, the National Audubon Society, Maine Department of Inland Fisheries and Wildlife and Patuxent Wildlife Research Center. During this "experience of a lifetime", interns participated in a myriad of seabird and waterfowl research and management programs.

The Friends also participated in planning sessions to develop a vision for the future Coastal Education Center. One of the major tasks identified was securing a site for the Center. Active participation by Friends board members over the next few months brought many exciting options forward including a potential donation of land for the center.

FOMSI's contributions to refuge programs continue to grow each year through the generous support of friends members.



Chelsea Corcoran-Quadt, a wildlife student at University of Maine, holds a female common eider prior to banding. This eider, and thousands like her, now sport leg bands as part of a multi-agency common eider survival study.

### Contact Information:

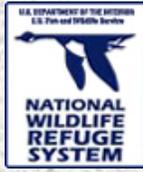
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Find us on the web:

http://www.fws.gov/northeast/mainecoastal/

Refuge Vision:

With the help of our conservation partners, at Maine Coastal Islands National Wildlife Refuge we will apply sound, scientific principles and adaptive management strategies to sustain the long-term health and integrity of coastal Maine habitats; expand community outreach and environmental education and interpretive programs; and, stimulate visitors to embrace stewardship of natural resources.

We envision the future Refuge Complex epitomizing the mission of the National Wildlife Refuge System; conserving in perpetuity an incredibly rich tapestry of coastal islands, intertidal estuaries, freshwater wetlands, maritime forests and open fields; and, enabling nesting and migrating seabirds, and other wildlife of conservation concern in the Gulf of Maine, to thrive here.

Maine Coastal Islands NWR Significance to Seabirds:

In the United States:

- 3 of 4 Atlantic puffin colonies occur on refuge islands
4 of 6 razorbill colonies occur on refuge islands

In Maine:

- 61% of common terns nest on refuge islands
58% of laughing gulls nest on refuge islands
97% of Arctic terns nest on refuge islands
86% of razorbill nest on refuge islands
90% of Atlantic puffin nest on refuge islands
48 islands important to seabirds, wading birds or bald eagles are now afforded protection as part of Maine Coastal Islands NWR.

Manager's Corner

It probably comes as no surprise to many of you that the National Wildlife Refuge System is facing some serious financial challenges today and into the foreseeable future. While Maine Coastal Islands National Wildlife Refuge has fared better than most refuges in Maine, it is important to ensure that our effort is focused on the most important resource work. To that end, the refuge is presently working to identify and rank the "most important" activities. We are fortunate to have as a guide our recently completed Comprehensive Conservation Plan (CCP). The CCP, in conjunction with regional and national priorities, will help guide this process. Although we still have a ways to go, some of the priority activities will include;



- Protection, management, and restoration of nesting seabird populations and their habitats
Monitoring and research activities designed to understand factors limiting productivity of seabird populations
Continue to acquire important seabird, wading bird, and bald eagle nesting islands
Protect the biological diversity and integrity of wildlife and habitats on lands within the Maine Coastal Islands NWR
Strengthen existing and create new conservation partnerships
Promote the development and activities of the Friends of Maine Seabird Islands

I do not think we could overstate the importance of partnerships to this refuge. Everything we do is in some way within the framework of a partnership. It is an important reason for our accomplishments to date and will only be more important in the future. One of the best examples of this conservation partnership is the work of the Friends of Maine Seabird Islands. A major part of their mission is to support the work of the refuge and we have highlighted their activities in this document. We need to continue to support both their development as an organization and conservation activities. I believe that many of our future accomplishments will be a reflection of their successes. I hope that all of you will join with the "Friends" and the refuge and come along on this adventure.

Charlie Blair, Refuge Manager