

A Note From the Director

Mass Audubon's Coastal Waterbird Program protected threatened coastal birds through management and education at **183 sites** along 140 miles of the Massachusetts coastline in 2014. **Forty-four staff members** including **three full-time staff, seven sanctuary staff, 30 seasonal staff, and eight trainees**, installed protective fencing and signage, monitored nesting activity, provided educational opportunities for beachgoers, and engaged land owners in coastal habitat protection. In addition, 75+ volunteers, including seven AmeriCorps members, provided essential support to the program working within local communities to protect coastal waterbirds.

Coastal Waterbird Program Sanctuary-Based Offices

The Program is active on much of the Massachusetts shoreline, based out of Mass Audubon Sanctuary offices.

South Shore

Sue MacCallum, Director
South Shore Sanctuaries

South Coast

Gina Purtell, Director
Allens Pond Wildlife Sanctuary

Cape Cod (Mid and Upper)

Ian Ives, Director
Long Pasture Wildlife Sanctuary

Cape Cod (Outer)

Bob Prescott, Director
Wellfleet Bay Wildlife Sanctuary

Martha's Vineyard

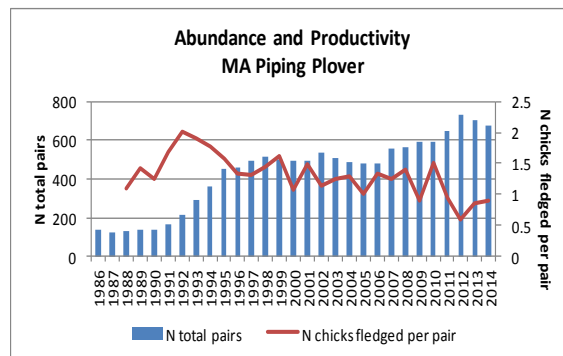
Suzan Bellincampi, Director
Felix Neck Wildlife Sanctuary

Nantucket

Ernie Steinauer, Director
Nantucket Sanctuaries

Piping Plover

Abundance. State abundance of Piping Plover declined to 678 pairs in 2014 (approximately 705 pairs in 2013). Reproductive success throughout the state was poor, although similar to 2013's state-wide estimate of 0.7-1.0 chicks/pair. A preliminary statewide estimate of fledging rate per pair in 2014 is 0.9 chicks/pair. Mass Audubon's Coastal Waterbird Program protected 264 pairs of Piping Plovers (about 39% of the MA population, and roughly 14-15% of the Atlantic Coast Population estimated at 1,800 pairs), with a preliminary estimate of productivity at 1.09 chicks/pair. The estimate for sustainable reproduction in Piping Plovers is 1.24 fledged chicks/pair per year.

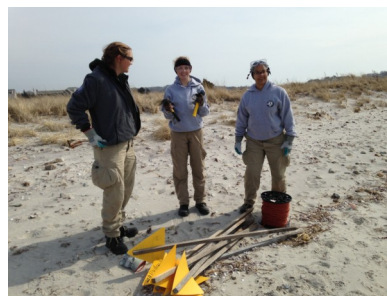


Season Summary. During the 2014 season, Mass Audubon added six new sites to the list of those we census and protect for nesting Piping Plovers. Four of these sites, Nantasket Beach in Hull, Trunk River in Falmouth, Winstead Inn in Harwich, and Brandt Island in Mattapoisett, successfully hatched and fledged chicks. Nahant Beach, in Nahant, and North Salisbury Beach also had new plover activity. Predation, both avian and mammalian, limited

productivity this season (~72% of all known egg losses were attributed to predation), making this the greatest known cause of egg loss. In addition, Tropical Storm Arthur which impacted the Massachusetts coastline during the Fourth of July weekend was both a help and a hindrance to nesting Piping Plovers. On Chatham South Beach and Nantucket nests and broods were over-washed by the storm. On the other hand, due to the high winds and rain during this traditionally busy beach weekend, plovers at many popular bathing beaches, experienced fewer disturbances than usual.

Mass Audubon's Coastal Waterbird Program is one of the most effective entities working to protect coastal birds and barrier beaches in New England. Launched in 1987 in response to declining populations of Piping Plovers and terns in Massachusetts, our primary objective is protecting these species' nesting areas throughout the state. This is accomplished each year through cooperation with federal, state, and local governing bodies, private and public landowners, Mass Audubon members, and the public. Our volunteers, neighbors, and donors are the driving force behind our work.

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Notable Beaches

South Beach, Chatham, was once again the site with the highest numbers of nesting Piping Plovers in Massachusetts (and likely on the Atlantic Coast). The beach was overwashed again during the winter of 2014, producing an additional breach between the northern and southern portions of the beach. Twelve pairs nested on the north section and fledged 8 chicks (0.67 chicks fledged/pair). On the south section, 50 pairs produced 36 fledglings (0.72 chicks fledged/pair). Poor reproductive success was due to predation and the impacts of Hurricane Arthur. Seagull Beach in Yarmouth increased from 8 to 9 nesting pairs of Piping Plovers which produced 0.9 chicks/pair. A total of 15 pairs of plovers nested on Revere Beach and Winthrop Beach near Boston and produced 3.3 and 2.7 fledglings/pair, respectively.

Terns

A total of 125 sites were surveyed for tern species; 1,058 pairs of Least Terns (32% of the MA breeding population in 2014) and 51 pairs of Common Terns (0.3% of the MA breeding population in 2014) were protected by the Coastal Waterbird Program.

Statewide abundance of Least Terns decreased slightly compared to 2013, however, Common Tern abundance increased. Statewide numbers of Least and Common Terns were 3,259 (compared to 3,478 in 2013) and 16,812 pairs (compared to 16336 in 2013), respectively. Reproductive success of Least Terns was average in 2014 on Mass Audubon monitored sites. Approximately 11% of sites experienced excellent fledging rates; 51% of sites experienced fair to good fledging rates; 38% of sites fledged no terns. The Coastal Waterbird Program successfully attracted nesting terns with decoys to Lovells Island for the second consecutive season. Approximately 56 pairs of terns colonized the island. The presence of avian predators (gulls and owls) and the impacts of Hurricane Arthur are the suspected cause of poor fledging rates at the site. Popponesset Spit in Mashpee, had significant staging activity by Least Terns in 2013, but no nesting. During the 2014 season, there was a nesting colony of 64 pairs of Least Terns.

In collaboration with USGS, the Cape Cod National Seashore (NPS), the Canadian Wildlife Service, Virginia Tech, and SUNY-ESF, the Coastal Waterbird Program evaluated abundance and threats to staging Roseate Terns at several sites on the outer Cape in late summer. We obtained approximately 5,600 resightings, during more than 380 observation sessions, of color-banded Roseate Terns that congregated at beach sites following breeding and during preparation for migration. Our work continues to show the importance of Cape Cod staging sites in the annual cycle of endangered Roseate Terns—especially in providing habitat to newly-fledged birds undergoing their first 5,000 mile migration to South America.



American Oystercatcher

American Oystercatcher abundance in Massachusetts dropped to approximately 170 breeding pairs (approximately 200 in 2013). Mass Audubon protected roughly 25% of the population—42 pairs from Buzzards Bay to outer Cape Cod, Martha's Vineyard, Nantucket and north to Boston Harbor. Forty-five percent of nesting attempts were successful in hatching eggs. Factors of egg mortality (% of failed nests) were as follows: predation 24%; overwash 5%; failed to hatch 11%; unknown 29%. Fledging rate at Mass Audubon managed sites was very good in 2014 at 0.87 chicks fledged/pair. The estimate for sustainable reproduction in oystercatchers is approximately 0.4 chicks fledged/pair.

For more information on Coastal Waterbird Program, please contact:
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