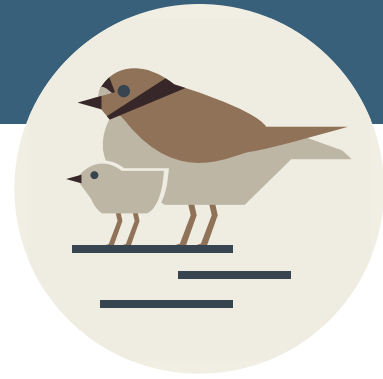




Coastal Waterbird Program 2023 Field Highlights



Coastal Waterbird Program

The program is active in 42 coastal towns in Massachusetts, with offices located in Mass Audubon regional hubs.

State-wide Program

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Piping Plovers © Alan Phipps

A Note From the Director

Mass Audubon's Coastal Waterbird Program protected threatened coastal birds through management and education at 190 sites along 132 miles of the Massachusetts coastline. Forty-seven staff members contributed to these efforts including three full-time staff, six regional staff, and 38 seasonal staff. In addition, three AmeriCorps teams and more than 50 volunteers provided essential support to the program. The Coastal Waterbird Program installed protective fencing and signage, monitored nesting activity, provided educational opportunities for beachgoers, and supported landowners and local communities in coastal habitat protection. Our vital partnerships with over forty towns, state and federal agencies, and hundreds of landowners helped make this work possible.

Lyra Brennan

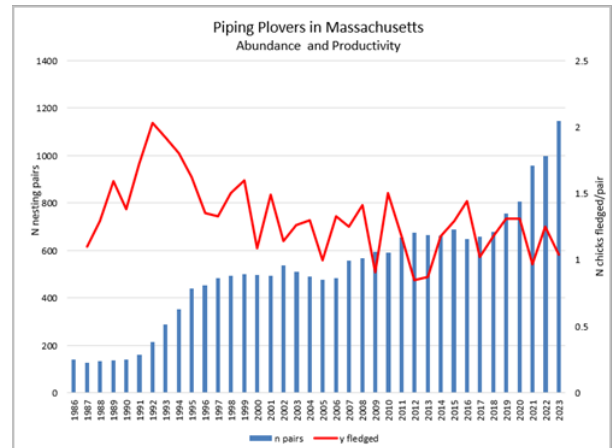
Piping Plover

State abundance of Piping Plovers continued to increase in 2023 to an adjusted preliminary count of **1,145 pairs**, compared to 997 pairs in 2022. Preliminary statewide estimates of reproductive success were lower than in 2022, with a range of 0.82–1.26

chicks fledged/pair in 2023, compared to 1.04-1.46 fledged per pair in 2022.

Mass Audubon's Coastal Waterbird Program (CWP) protected **372 pairs of Piping Plovers**—32% of the state population and roughly 19% of the Atlantic Coast population estimated at over 2,000 pairs. Plovers at CWP-protected sites produced **1.25 fledglings per pair** in 2023 compared to 1.18 chicks fledged/pair in 2022, exceeding what is considered a sustainable reproductive rate for the species. On CWP-protected sites, plover abundance grew by 19% from 2022 to 2023—a testament to our successful management.

In 2023, 50% of all first Piping Plover nesting attempts hatched eggs, a slight decline from 53% in 2022. The most significant proportion of egg loss was attributed to predation: 48% of failed eggs in 2023 were predated, compared to 60% in 2022. Overwash accounted for a similar number of failed eggs in 2023 compared to 2022, with 27% of eggs lost to overwash compared to 26% in 2022. There was a distinct increase in nest abandonment losses from less than 1% of eggs in 2022 to 7% in 2023.

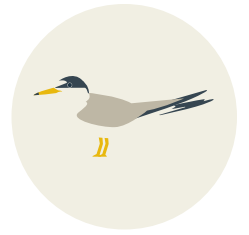




Terns

Mass Audubon surveyed a total of 142 sites statewide for tern species. We protected 1,929 pairs of Least Terns (**53% of the MA breeding population in 2023**), 290 pairs of Common Terns, and 70 pairs of Roseate Terns nesting at 43 colony-sites. Statewide abundance of Least Terns decreased slightly compared to 2022; the 2023 preliminary statewide estimate is 3,565 pairs (compared to 3,691 pairs in 2022). Reproductive success of Least Terns nesting at 35 sites protected by Mass Audubon in 2023 ranged from no fledglings produced to 2 fledglings/pair. Terns at approximately **24% of nesting sites experienced fair to excellent fledging success**; 12% had poor success, and 64% of sites fledged no terns (increased from 50% in 2022). As in 2022, predators were the most important factor determining tern nesting success in 2022. Significant overwash events had impacts on some key sites, including South Beach in Chatham (no Least Tern fledges in 2023, despite a maximum colony size of 42 Least Terns).

State and Federally endangered **Roseate Terns engaged in nesting activity on CWP-protected beaches**, including Norton Point in Edgartown where 70 pairs were noted courting on site. Approximately 5,000 Roseate Terns were also observed utilizing this site later in the season for staging, which is roughly 85% of the entire North Atlantic population.



American Oystercatcher

American Oystercatcher abundance in Massachusetts increased by 12% to approximately 238 nesting pairs in 2023 compared to 212 nesting pairs in 2022. 62 pairs were protected by Mass Audubon, approximately 26% of the state population and a slight decrease from 63 pairs in 2022. **Oystercatchers were successful hatching 71% of all eggs laid**, an increase from 43% of eggs in 2022. Known attributed factors of egg mortality (% of failed eggs) were as follows: 25% predation; 25% overwash; 8% abandonment. Fledging rate at Mass Audubon-managed sites was significantly higher in 2023 compared to 2022 (1.23 chicks fledged/pair compared to 0.70 chicks fledged/pair, respectively). Statewide, average fledging ranged from 0.88-1.04 chicks fledged/pair, which was an **all time high for productivity in recent history**. Estimated annual productivity to maintain a stable oystercatcher population is 0.35 fledged chicks/pair.

Notable nesting sites for American Oystercatcher included Norton Point in Edgartown, with 10 pairs fledging 25 chicks. **All pairs at this site successfully hatched chicks from first nest attempts in 2023**. Dead Neck Sampson's Island saw an increase to two pairs that fledged a total of 5 chicks, after the first hatching of American Oystercatcher on site in more than 17 years in 2022. In Boston Harbor, we protected 17 pairs of American Oystercatcher in 2023.





Notable Beaches

Significant increases in Piping Plover abundance and productivity

occurred at several sites in 2023 including Crosby Beach in Brewster (pair abundance doubled and plovers fledged 2.25 chicks/pair), Washburn Island in Falmouth (pair abundance doubled and plovers fledged 2.6 chicks/pair) and Fourth Cliff in Scituate (pair abundance tripled and plovers fledged 3.0 chicks/pair). New nesting activity and success occurred at several sites, including Wings Island in Brewster (no nesting since 2018, 3 plover pairs in 2023), The Glades in Scituate (first plover fledges recorded in over ten years) and Pleasant Street Beach in Chatham (no nesting in over seven years and one plover pair in 2023 fledged all four chicks). Heavy predator pressure and human disturbance resulted in lower productivity at some sites including Black Beach in Falmouth (no fledges, despite tripling pair abundance), Sagamore Beach in Bourne (133% decrease in productivity with no fledges) and Nantasket Beach in Hull (73% decrease in productivity).

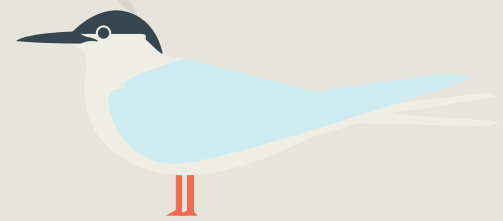
Mass Audubon's Coastal Waterbird Program has a thirty-five year legacy of protecting vulnerable beach-nesting birds and their habitats. Our primary objectives are to 1) directly protect and monitor coastal birds and habitats, 2) advocate for coastal ecosystem protection, 3) build conservation capacity in local communities through training and outreach, and 4) conduct management research and develop best practices for wildlife management. In partnering with agencies and local communities, the Coastal Waterbird Program has been instrumental in achieving an eight-fold increase in Piping Plovers, and significant increases in tern and oystercatcher populations in the state.

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By the Numbers

372

pairs of Piping Plovers were protected by the Coastal Waterbird Program (CWP) in 2023.



132

miles were under the protection of the CWP in 2023.

70

pairs of Roseate Terns nested on Norton Point in Edgartown.

142

sites were surveyed for Least Terns by the CWP this year.

Over 40

towns partnered with CWP.

12%

increase in the number of American Oystercatchers nesting in Massachusetts.

27

pairs of Piping Plovers nested on Dead Neck Sampson's Island. A 42% increase from 2022.

