

STATUS OF THE PIPING PLOVER IN MASSACHUSETTS

by George W. Gove, Ashland

On January 10, 1986, the Piping Plover (*Charadrius melodus*) was added to the U. S. Fish and Wildlife Service list of endangered and threatened species of wildlife. The entire breeding population of this species in North America has been estimated at less than 2200 pairs. Piping Plovers breed in the Great Plains from southern Alberta eastward to Minnesota, the Dakotas, and Nebraska; at scattered locations around the Great Lakes; and on the Atlantic Coast from the north shore of the Gulf of St. Lawrence and the Maritimes to Virginia and the Carolinas. They winter along the Atlantic and Gulf coasts from South Carolina to Texas and northern Mexico. The U. S. Fish and Wildlife Service designated the Great Lakes population, which is down to less than twenty pairs, as "endangered," a term applied when extinction is imminent, and the Great Plains and Atlantic Coast populations as "threatened" (describing the state that is precursor to "endangered"). The decline of the Atlantic Coast population has been attributed to increasing recreational use and development of ocean beaches.

In Massachusetts, the Piping Plover breeds coastally from Salisbury south and east to Cape Cod, the islands, and Westport. It is normally found in the state from mid-March through mid-September. This species makes a shallow nest, sometimes lined with fragments of shells, with pebbles, or wrack, along ocean beaches and filled-in areas near inlets and bays. The normal clutch of pale, sand-colored, speckled eggs is four. Incubation is underway by mid-May in Massachusetts. The normal incubation period is twenty-seven days, and the fledging time (defined as the time from hatching to flight in a precocial species such as this) is about thirty-four days.

The birds feed along beaches, at the margins of watercourses, and on flats. Their food consists of marine worms, fly larvae, beetles, crustaceans, mollusks, and other small marine animal life. Their feeding behavior, like that of other plovers, consists of running along and picking. The call of the piping plover is a melodious "peep-lo," for which the species gets both its common and its scientific name. It is more often heard than seen along the ocean beaches, since its coloration provides excellent camouflage in this habitat.

According to data reported by Dr. Scott Melvin of the Massachusetts Natural Heritage Program, Massachusetts has the largest Piping Plover population of any state or province on the Atlantic Coast. Based on observations by over thirty observers at sixty-three locations (see the table), there were a total of 131 breeding pairs in the state in 1985. This was eighteen more pairs than were reported in 1984. Increases were reported at nineteen sites and decreases at nine sites. The apparent increase in 1985 probably resulted from more intensive censusing at several sites than from a real population increase statewide.

Estimated Pairs of Breeding Piping Plovers at Censused Sites
in Massachusetts in 1984 and 1985*

LOCATION	NUMBER OF PAIRS: 1984	1985
Salisbury Beach, Salisbury	1	0
Parker River National Wildlife Refuge	3	3
Plum Island State Park, Ipswich	2	1
Crane's Beach, Ipswich	3	5
Snake Island, Winthrop	0	0
Boston Harbor Islands	0	0
Third Cliff, Scituate	3	2
Fourth Cliff, Scituate	1	1
Duxbury Beach, Duxbury	1	3
Plymouth Beach, Plymouth	3	4
Stoney Point Dike, Wareham	2	nd**
Long Beach Point, Wareham	1	nd
West Island Beach, Fairhaven	2	2
Demerest-Lloyd State Park, Dartmouth	nd	0
Allens Pond/Little Beach/Barney's Joy, Dartmouth	3	4
Gooseberry Neck, Westport	nd	1
Horseneck Beach, Westport	4	6
Acoaxet Beach, Westport	nd	2
Richmond Pond, Westport	2	3
Black Beach, Falmouth	1	nd
Washburn Island, Falmouth	1	nd
South Cape Beach, Mashpee	1	3
Town Beach, Sandwich	3	3
Springhill Beach, Sandwich	1	2
Scorton Creek, Sandwich	3	4
Sandy Neck, Barnstable	14	10
Dead Neck - Sampson's Island, Barnstable	3	2
Long Beach, Barnstable	2	2
Gray's Beach, Yarmouth	0	0
West Dennis Beach, Dennis	0	3
Chapin Beach, Dennis	nd	0
Forest Beach, Chatham	0	0
Cockle Cove, Chatham	0	0
Harding's Beach, Chatham	2	3
Morris Island Dike, Chatham	1	2
Monomoy National Wildlife Refuge, Chatham	3	5
North Beach, Chatham and Orleans	4	5
Nauset Heights, Orleans	2	2
New Island, Orleans and Eastham	1	1
First Encounter Beach - Nantasket Creek, Orleans and Eastham	0	nd
Coast Guard Beach, Eastham	5	12
Marconi Beach, Eastham	1	3
Indian Neck, Wellfleet	0	0
Jeremy Point, Wellfleet	nd	1
Pamet, Truro	2	0
Pilgrim Beach, Truro	1	nd
Beach Point, Truro	2	nd
French's (Exit 9), Provincetown	1	0
Race Point, Provincetown	1	0
Wood End Light, Provincetown	0	0
Naushon Island, Gosnold	0	nd
Weepecket Islands, Gosnold	0	nd
Great Island, Gosnold	nd	0
Pasque Island, Gosnold	3	4
Nashawena Island, Gosnold	1	1
Cuttyhunk Island, Gosnold	3	3
Penikese Island, Gosnold	0	nd
Martha's Vineyard	10	7
Noman's Land, Chilmark	0	0
Nantucket	10	10
Whale Island	0	2
Tuckernuck Island	nd	2
Muskeget Island	0	2
TOTAL PAIRS:	113	131

* Table supplied by Dr. Scott Melvin, Massachusetts Natural Heritage Program.

** nd = no data available.



Piping Plover

*Photo by John H. Gavin
Courtesy of MAS*

Predation by mammals markedly reduced breeding productivity at some sites, particularly Coast Guard Beach, Sandy Neck, and Crane's Beach. Limiting factors at other sites included flooding of nests during storms and high tides, human disturbance, off-road vehicles, and gull predation. Productivity at other locations was good; at Horseneck Beach, Harding's Beach, and Duxbury Beach, two-thirds or more of the breeding pairs successfully raised young to fledging.

Cooperative research on population dynamics, habitat use, and management needs of the Piping Plover was started in 1985 by the state Division of Fisheries and Wildlife, the University of Massachusetts at Amherst, and the National Park Service. This research has already yielded data that will help the Division of Fisheries and Wildlife to develop a formal conservation plan in accordance with the recommendations and guidelines of the Atlantic Coast Piping Plover Recovery Team. Volunteers interested in helping with plover observations at any of the Massachusetts breeding locations are encouraged to call Dr. Scott Melvin at 617-727-9194.

GEORGE W. GOVE, a technical writer for a computer firm in Framingham, has been a records compiler for *Bird Observer* since 1981. His chief interest in birding is shorebirds.

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