

PIPING PLOVER: 1989 SUMMARY

The observer network reported a total of 137 breeding pairs of Piping Plovers (*Charadrius melodus*) from 53 sites in Massachusetts in 1989 (Table 1), representing a second consecutive year of improvement. These results compare with 134 pairs in 1988 and 126 pairs in 1987, but remain below the 139 pairs estimated for 1986. Seventy-four sites were checked, with plovers found at 53 (v. 55 in 1988). Unfortunately, two important sites--North Beach in Chatham and South Cape Beach in Mashpee--were not checked. Observer effort, as measured by the number of sites surveyed and the intensity of effort at each site, remained quite high in 1989 and thus we believe the 1989 estimate reflects a true increase.

"Breeding pairs" are pairs that are observed with either a nest or unfledged chicks, or that exhibit site tenacity and evidence of pair bonding and territoriality. Single birds that are observed during the breeding season and exhibit agitated, site tenacious behavior or distraction displays when approached are generally considered indicative of a breeding pair at a site.

Breeding plovers were present at coastal sites from Plum Island south to the Rhode Island border and east to Cape Cod and Nantucket. Eighteen pairs (13%) occurred at sites on the North Shore (New Hampshire border to Boston); 7 pairs (5%) along the South Shore (Boston to the Cape Cod Canal); 22 pairs (16%) on upper Cape Cod sites (Cape Cod Canal east to Brewster and Harwich); 34 pairs (25%) on lower Cape Cod sites (Chatham to Provincetown); 24 pairs (18%) on the west shore of Buzzards Bay (Wareham south to Rhode Island border); and 32 pairs (23%) on the outer islands (Elizabeths east to Nantucket). The North Shore Group showed the biggest overall gain owing to notable improvement at Crane Beach, Ipswich. The biggest overall drop occurred in the Buzzards Bay Group on account of predation problems at Little Beach, Dartmouth.

Mean number of pairs per site was 2.6 (range=1-14). Thirty-nine sites (74%) harbored 3 or fewer pairs, aggregating to 60 pairs (48% of the estimated population). Four sites harbored 34 pairs or a quarter of the estimated state population. This distribution continues to dictate that management effort be directed at many different sites with relatively few pairs of plovers per site.

Overall mean productivity for the state was 1.59 chicks fledged (=reaching 25 days of age)/nesting pair, based on data reported for 123 breeding pairs (90% of state total) at 46 sites (87%). These results--up from 1.29 a year earlier and 1.10 in 1987--were certainly the best ever since statewide productivity estimates have been available. This favorable increase does seem

to be tied to very positive results obtained from the use of predator exclosure devices. Of 58 nests where devices were installed, 50 (86%) successfully hatched eggs!

We continue to be concerned that the intensity of observer effort mounted in recent years--both to census nesting beaches and to secure productivity data--may be unsustainable. Should this be the case, data quality would be compromised and year-to-year comparisons would be less meaningful. To address this concern, an attempt was made to assess the overall size of the breeding population in two "windows"--the first two weeks of May and the first two weeks of July. These indexes resulted in estimates of 98 and 105 pairs respectively. These numbers are interesting, but of dubious value, mainly owing to difficulty in quantifying observer effort and evenness of coverage.

Our thanks to all who contributed data and for your efforts during the past year. I welcome your comments and suggestions at any time.

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Table 1. SUMMARY OF ABUNDANCE, DISTRIBUTION AND PRODUCTIVITY OF PIPING PLOVERS IN MASSACHUSETTS, 1989. An asterisk (*) denotes a fence surrounding a tern colony that functioned as a predator exclosure.

Station Name	Number of Pairs			Chicks	Exclosures	
	A	B	FK	Fledged	N	NS
NORTH SHORE GROUP						
2047 Salisbury Beach, Salis.				nd		
2048 Plum Is., Newbury/Ipsw.	2	4	4	6	4	3
2049 Crane Beach, Ipswich	14	13	14	37	15	13
SOUTH SHORE GROUP						
2050 Third Cliff, Scituate	2	2	2	4	1*	1
2051 Fourth Cliff, Scituate	0	0	0	0	-	-
2052 Duxbury Beach, Duxbury	3	0	3	0	-	-
2053 Plymouth Beach, Plymouth	0	2	2	4	-	-
BUZZARDS BAY GROUP						
2054 Stony Point Dike, Wareham	1	1	1	nd	-	-
2055 Long Beach Point, Wareham	0	0	0	0	-	-
76 West Island, Fairhaven	0	0	0	0	-	-
50 Round Hill Beach, Dartmouth	nd	nd	1	1	-	-
58 Salter's Pd., Dartmouth	1	1	1	2	-	-
51 Little Beach, Dartmouth	7	2	7	3	1	1
60 Barneys Joy, Dartmouth	2	2	2	0	-	-
51 Gooseberry Neck, Westport	1	1	1	2	-	-
52 Horseneck Beach, Westport	6	5	7	18	-	-
55 Acoaxet Beach, Westport	nd	nd	2	4	-	-
57 Richmond Pd., Westport	nd	nd	2	2	-	-
57 Bay Pt., Swansea	nd	nd	0	0	-	-
UPPER CAPE GROUP						
2060 Sippewisset, Falmouth	0	0	0	0	-	-
67 Washburn Is., Falmouth	0	0	0	0	-	-
68 South Cape Beach, Mashpee	nd	nd	nd	nd	-	-
69 Popponesset, Mashpee	2	1	2	2	1*	1
70 Town Neck Beach, Sand.	1	0	1	0	-	-
71 Springhill Beach, Sand.	3	4	4	nd	-	-
72 E. Sandwich Beach, Sand.	1	1	1	3	-	-
73 Scorton Creek, Sandwich	4	4	4	10	4	4
74 Sandy Neck, Barnstable	5	5	5	10	5	4
75 Dead Nk.-Samp, Is., Barn.	1	1	1	0	2	1
76 Long Beach, Barnstable	1	1	1	1	-	-
77 Kalmus Park, Barnstable	2	2	2	4	1*	1
78 Seagull Beach, Yarmouth	0	0	0	0	-	-
79 Radio City, Yarmouth	0	0	0	0	-	-
80 West Dennis Beach, Dennis	1	1	1	3	1*	1
2081 Chapin Beach, Dennis	0	0	0	0	-	-
LOWER CAPE GROUP						
2082 Hardings Beach, Chatham	4	3	4	9	-	-
2083 Hardings Bch. Pt., Chatham	0	0	0	0	-	-

Table 1. Mass. Piping Plovers, 1989 (cont.)

2184	N. Monomoy Is., Chatham	0	0	0	0	-	-
95	S. Monomoy Is., Chatham	4	4	4	7	4	4
86	North Bch., Chatham/Orleans	0	nd	nd	nd	-	-
27	South Bch. Is., Chatham	3	5	5	4	2	2
28	Nauset Hts., Orleans	4	4	4	5	1*	1
29	New Is., Eastham/Orleans	0	0	0	0	-	-
30	Coast Guard Bch., Eastham	3	2	3	7	3	2
31	Marconi Bch., Wellfleet	4	2	2	3	2	2
32	Jeremy Pt., Wellfleet	1	1	2	0	-	-
33	Pamet R. mouth, Truro	0	1	1	0	-	-
34	Pilgrim Bch., Provincetown	1	1	1	nd	-	-
35	High Head, Truro	0	1	1	2	1	1
36	Race Pt.-South, P'town	0	3	3	6	2	2
37	Race Pt.-North, P'town	3	4	4	3	4	2
38	Wood End-Long Pt., P'town	0	0	0	0	-	-
OUTER ISLANDS GROUP							
200	Naushon Is., Gosnold	0	0	0	0	-	-
201	Pasque Is., Gosnold	1	1	1	2	-	-
101	Nashawena Is., Gosnold	nd	3	3	2	-	-
2102	Cuttyhunk Is., Gosnold	nd	nd	5	nd	-	-
Martha's Vineyard Subgroup:							
2103	Wasque	1	1	1	2	1	1
04	Tashmoo	nd	nd	1	nd	-	-
05	Sylvia State Beach	0	0	0	0	-	-
06	Harthaven	0	1	2	4	1	1
07	Long Beach	0	1	2	5	1	1
08	Quansoo	nd	1	1	3	-	-
09	Norton's Pt.	1	0	1	nd	-	-
2010	Lobsterville	0	0	0	0	-	-
11	Little Bch./Eel Pd.	0	1	1	2	1	1
2012	Cape Poge, Chappaquiddick	0	0	0	0	-	-
Nantucket Subgroup:							
2013	Great Point	3	6	6	8	-	-
14	The Galls	0	2	2	1	-	-
15	Haulover Pd.	0	1	1	0	-	-
16	Quidnet	0	0	0	0	-	-
17	Siasconset	0	0	0	0	-	-
18	Low Beach	0	0	0	0	-	-
19	Tom Nevers Head	0	0	0	0	-	-
20	Surfside	1	0	1	0	-	-
21	Smith Point	1	1	1	1	-	-
22	Tuckernuck Is.	2	2	2	4	-	-
2023	Muskeget Is.	1	nd	1	nd	-	-
TOTALS:		98	105	137	196	58	50

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