

**INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS  
NESTING IN MASSACHUSETTS IN 2011**



© Carolyn Mostello/MDFW, 2011

Another peaceful lunch on Ram I., Mattapoisett, MA.

*Prepared by:*

Carolyn S. Mostello  
Massachusetts Division of Fisheries and Wildlife  
Natural Heritage and Endangered Species Program  
Rte. 135, Westborough, MA 01581

*April 2012*

## Abstract

Cooperators in Massachusetts surveyed more than 138 coastal sites in 2011 for the presence of breeding Roseate Terns (*Sterna dougallii*), Common Terns (*Sterna hirundo*), Arctic Terns (*Sterna paradisaea*), Least Terns (*Sternula antillarum*), Laughing Gulls (*Larus atricilla*), and Black Skimmers (*Rhynchops niger*). Ninety-five were occupied by nesting birds of one or more of these species. Roseate Terns (1,359 pairs), Common Terns (16,760 pairs, a recent historical high), and Black Skimmers (5 pairs) were stable. Least Terns increased 24% to 4,309 pairs, a recent historical high. Laughing Gulls increased 27% to 1,581 pairs. For the first time since careful record-keeping began, no nesting Arctic Terns were reported.

## Introduction

Coastal waterbirds are a vulnerable group of species. Of Massachusetts' four nesting tern species, the Common Tern, the Least Tern and the Arctic Tern are listed as "Special Concern" pursuant to the Massachusetts Endangered Species Act. The Roseate Tern is listed as "Endangered" pursuant to both the Massachusetts and U.S. Endangered Species Acts.

Terns, Laughing Gulls, and Black Skimmers in Massachusetts are protected and monitored by an extensive network of cooperators throughout the state. These cooperators provide census data and other reproductive information to the Massachusetts Division of Fisheries and Wildlife (MDFW). This allows wildlife managers to determine abundance and status of, and threats to, these species.

This report summarizes data on distribution, abundance, and productivity of terns, Laughing Gulls, and Black Skimmers in Massachusetts during the 2011 nesting season.

## Methods

**Sites surveyed:** Cooperators are asked to survey all sites at which terns, Laughing Gulls, and Black Skimmers have been known to nest. Any new nesting sites are reported.

**Timing of Census:** Depending upon the species, either one or two censuses are conducted. The "A-count" (or "peak season" count) is conducted between 5 and 20 June. Laughing Gulls, Black Skimmers, and all tern species are censused during the A-count. For Roseate and Common Terns, the count is ideally conducted as closely as possible to the first hatch. Laughing Gull and Black Skimmer counts are timed to be coincident with Common Tern counts, and Arctic Tern counts with counts of any sympatric nesting seabird species. Least Tern colonies ideally are visited multiple times during the A-count window, and maximum estimates are reported. The "B-count" (or "post-peak" count) is conducted after 20 June. For Roseate Terns, the B-count is timed 25 days after the A-count. For Arctic Terns and Black Skimmers, which nest in very low numbers in the state, any additional pairs that appear after 20 June are reported. A B-count for Least Terns is not necessary unless there is a significant change in numbers from the A-count, or a site that was not used during the A-period window was used after 20 June. Because Least Terns frequently shift among sites in response to disturbance, B-counts do not contribute to the overall census numbers (to avoid double-counting the same birds); however, the B-count does document use of the site. B-counts are not required for Common Terns or Laughing Gulls.

**Survey Method:** Observers are asked to classify their survey method as one of the following: Nest Count, Partial/Extrapolated Nest Count, or Adult Count. All counts are expressed as "number of pairs". Nests must contain

at least one egg to be counted, unless it is obvious that chicks have already hatched. Empty scrapes and abandoned nests are not counted, unless they are known to have been active during the census window. Adults are only counted if it appears that they are nesting at a site; birds that are not suspected to be nesting at a site (*e.g.*, resting or feeding birds) are not counted as nesting pairs. The number of breeding adults present (*i.e.*, in the nesting area, not loafing on the shoreline) is multiplied by a correction factor of 0.8 to arrive at the number of pairs.

**Survey Quality and Productivity Estimate:** Observers are asked to rate the quality of their survey as Low Confidence, Reasonable Confidence, or High Confidence. Observers also provide a qualitative assessment of productivity: none, poor, fair to good, or excellent. In a few cases, typically for Roseate and Common Terns at large colonies where detailed monitoring occurs, quantitative estimates of productivity (*e.g.*, fledglings/nest) are provided. Productivity assessments in Table 1 that are expressed as ranges may represent uncertainty or estimates from different subcolonies within a site. Single estimates for a site may represent either a single colony or an average value for multiple subcolonies.

**Reporting:** Observers completed a standard “Massachusetts Tern Census Form”. This form requests the following information for each site surveyed: observer name and affiliation, contact information, ownership of site, dates of A- and B-counts, number of pairs observed, survey method, quality of survey, qualitative productivity estimates, dates of first eggs laid and first hatched, and evidence of predation, overwash, or disturbance.

**Quality Control:** All census forms are reviewed by MDFW, and observers are contacted to obtain missing data and clarify ambiguities.

## Results and Discussion

In 2011, 138 sites with a history of nesting terns, Laughing Gulls, and Black Skimmers were surveyed. (Additional sites with no nesting history were surveyed but are not included in this report unless nesting was detected.) Ninety-five sites were occupied by nesting birds of one or more of these species. Results for each site are summarized in Table 1.

**Roseate Tern:** Roseate Terns decreased slightly (2.4%) to 1,359 pairs (*vs.* 1,393 pairs in 2010). The U.S. (or “Northeast”) population as a whole increased slightly to 3,042 pairs (*vs.* 2,970; Roseate Tern Recovery Team, preliminary unpubl. data). The population declined steeply after 2000, but essentially has been stationary since 2008 – this is close to the 1987 level, when it was first listed as Endangered in the U.S.

Roseates were confirmed to have nested at six sites in 2011. The largest colony was at Bird I., Marion (937 *vs.* 735); productivity was very good, 1.23 fledglings/nest. Ram I., Mattapoisett was the second largest site at 377 pairs (*vs.* 584); productivity also was very good, 1.10 fledglings/nest. Repeated Peregrine Falcon (*Falco peregrinus*) disturbance in May and early June was probably responsible for Roseates shifting from Ram to Bird. Other sites included Penikese I., Gosnold (34 *vs.* 37; fair to good productivity), S. Monomoy I., Chatham (7 *vs.* 8; 0.29 fledglings/pair), Minimoy I., Chatham (3 *vs.* 1; 1.67 fledglings/pair), and Plymouth Beach, Plymouth ( $\geq 1$  *vs.* 2). Roseates were observed carrying fish into the Plymouth colony in 2007, 2008, and 2010 and presumably nested in those years; however, in 2011, a nest and young were confirmed. Roseates preparing to nest at Norton Beach, Edgartown before the peak census window were disrupted by a Peregrine Falcon and did not nest (0 *vs.* 26). At Gray's Beach, Yarmouth, three Roseates (two adults and one sub-adult) consistently were observed flying over the colony together over the course of the breeding season, but they did not land and there was

no indication of nesting. At a sandbar off Muskeget I., Nantucket in July, a Roseate Tern pair was courting, scraping, and bringing nesting material to a scrape, but nesting was not confirmed.

Since 1985, Roseate numbers in the state have fluctuated between 1,339 and 2,124 pairs, averaging 1,587 pairs during this time period (Fig. 1).

**Common Tern:** Common Terns nested at 37 sites in Massachusetts in 2011. Although numbers increased only slightly to 16,760 pairs (vs. 16,224 pairs in 2010; +3.3%), this represents the highest level reported since careful, comprehensive record-keeping began in 1985. The largest site was S. Monomoy I. (6,904 vs. 6,450); productivity was 1.29 fledglings/nest. The next-largest colony was Ram I. (3,345 pairs vs. 3,466); productivity was 1.18/nest. Plymouth Beach supported 2,686 pairs (vs. 2,309); productivity was 1.10 fledglings/nest. Bird I. supported 1,872 pairs (vs. 1,945); productivity was 1.23 fledglings/nest. At Penikese I., 1,206 pairs nested (vs. 1,073) but productivity was poor, presumably due to predation by gulls and Northern Harriers. Common Terns attempted to settle in at Norton Beach, but were disrupted by a Peregrine Falcon.

Other sites with more than 100 pairs of nesting Common Terns included Minimoy I. (342 vs. 194; poor to good productivity) and Spinnaker I., Hull (106 vs. 206).

The ten largest A-period colonies supported 99% of the state's Common Tern pairs; 96% of the state's pairs were concentrated in the three largest colonies.

From 1985 to 2003, Common Tern numbers rose fairly steadily in Massachusetts. Since then, however, the population seems to have stabilized at about 16,000-17,000 pairs. Since 1985, population size has ranged from 6,483 to 16,760 pairs (mean, 12,427 pairs) (Fig. 2).

**Least Tern:** Our most widely distributed tern, the Least Tern, nested at 74 sites in the state in 2011. Numbers jumped 23.7% to 4,309 pairs (vs. 3,484 in 2010), a recent historical high. It is difficult to speculate on the reasons for this because we lack detailed knowledge of several factors that would influence numbers (*e.g.*, past productivity, degree of interstate movement). Also, Least Terns are difficult to count with a high degree of accuracy and precision, resulting in a relatively high degree of uncertainty around estimates (in contrast to those of Common and Roseate Terns, which are relatively easy to count). However, it seems reasonable to assume that, although reproductive performance frequently appears to be underwhelming at many sites, overall Least Tern productivity in Massachusetts has been sufficient to at least sustain the population, if not contribute to a substantial increase in recent years (Fig. 1).

Tuckernuck I., Nantucket (1,150 pairs vs. 0 in 2010) displaced Norton Beach (0 vs. 1,221, due to Peregrine Falcon disruption) as the largest in the state; productivity was fair to good. The next largest colonies were Dunbar Pt./Kalmus Park, Barnstable (289 vs. 160; fair to good), Plymouth Beach (225 vs. 271; poor), Dead Neck, Barnstable (211 vs. 124; fair to good), and Eel Pt., Nantucket (200 vs. 113; no productivity).

Additional colonies with at least 100 pairs were: West Dennis Beach, Dennis (180 vs. 71; fair to excellent), Sandy Neck, Barnstable (180 vs. 245; poor), Allen's Pond, Dartmouth (152 vs. 140;

no productivity), Gray's Beach (111 vs. 50; poor to good), S. Monomoy I. (104 vs. 39; no productivity). Muskeget I. supported 175 pairs (vs. 0) late in the season (no productivity).

The three largest Least Tern sites supported 39% of the pairs. The top ten sites supported 65% of the pairs.

Least Tern numbers in Massachusetts increased from 1985 to 2001, declined subsequently, and increased sharply after 2006. Since 1985, numbers have ranged from 2,109 to 4,309 pairs with a mean of 2,881 pairs (Fig. 1).

**Arctic Tern:** 2011 was the first year since careful record-keeping began that no Arctic Terns were documented nesting in Massachusetts. One unpaired individual was present at Plymouth Beach (vs. 2 pairs in 2010) and another at Penikese I. (vs. one Arctic paired with a Common Tern). Since 1985, numbers of this range-edge species have ranged from 0 to 29 pairs (mean, 9 pairs), with the overall trend being downward (Fig. 3).

**Black Skimmer:** In 2011, five pairs of Black Skimmers nested at Minimoy I. during the peak census window (vs. 5 peak pairs in 2010); productivity was 0.2 fledglings/nest. Black Skimmers, at the northern end of their breeding range here, have ranged from 0 to 7 pairs (mean, 4) since 1985, with no clear population trend (Fig. 3).

**Laughing Gull:** In 2011, Laughing Gull numbers increased 26.6% to 1,581 pairs (vs. 1,249 in 2010). Laughing Gulls nested at Plymouth Beach (1,186 pairs vs. 894; poor productivity) and S. Monomoy I. (395 pairs vs. 355; fair to good).

From 1985 to present, Laughing Gulls have averaged 1,124 pairs, fluctuating between 542 and 1,629 pairs (Fig. 4). The overall trend since 1998 has been upward, with growth slowing since 2006.

### **Acknowledgements**

Thanks to dozens of cooperators that worked at these sites and collected and submitted data for this report.

**Table 1.** Numbers of pairs and productivity of terns, Laughing Gulls, and Black Skimmers nesting in Massachusetts in 2011. All sites were censused unless noted as “nd” (no data). Data in parentheses refer to B-period counts. Data in brackets were collected prior to the A-period census window.

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
<b>NORTH SHORE</b>																			
Blackwater River Group, Salisbury	0			0			0			0			0			0			ECGA
Woodbridge I., Newburyport	0			41	A		0			0			0			0			USFWS
Chaces I., Newbury	nd			nd			nd			nd			nd			nd			
Plum I. River Group, Newbury (marshes-incl. Pine I., Little Pine I. and Jericho Creek)	0			29	A		0			0			0			0			USFWS
Parker River Group (marshes)	0			14	A		0			0			0			0			USFWS
Plum I. Beach, Newbury-Rowley-Ipswich	0			1	N	2	0			59 (83)	N(A)	2	0			0			USFWS
Rowley Salt Marshes	0			0			0			0			0			0			ECGA
Roger I., Ipswich	0			0			0			0			0			0			ECGA
Bagwell I., Ipswich	0			0			0			0			0			0			ECGA
Lords I., Ipswich	0			6	A		0			0			0			0			ECGA
Ipswich Salt Marshes	0			0			0			0			0			0			ECGA
Crane Beach, Ipswich	0			0			0			87	N		0			0			TTOR
Saugus River (Gen. Edwards) Bridge, Lynn-Revere	0			32	A		0			0			0			0			Zendeh
Winthrop Beach, Winthrop	0			0			0			63	N	2	0			0			MAS
Yirrell Beach, Winthrop	0			0			0			1 (0)	A	0	0			0			MAS
Snake I., Winthrop	0			0 (>1)	N		0			0			0			0			NPS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Mystic River, Everett- Boston-Somerville- Medford	0			8	A		0			0			0			0			Fager, Zendeh
Chelsea River, Chelsea-Revere- Boston	nd			nd			nd			nd			nd			nd			
Belle Isle Marsh, Boston	0			0			0			0			0			0			Zendeh
Logan Airport, Boston	0			0			0			11	A	0	0			0			Smith
Central Square Piers, East Boston	0			77	A		0			0			0			0			Zendeh
Rainsford I., Boston	0			0			0			0			0			0			NPS
Lovell I., Boston	0			0	N		0			75	N	2-3	0			0			NPS
Spinnaker I. (formerly Hog I. Pier ), Hull	0			106	A		0			0			0			0			NPS
<b>SOUTH SHORE</b>																			
The Glades, Scituate	0			0			0			0			0			0			MAS
Third Cliff (North R. mouth), Scituate	0			0			0			96 (22)	A (N)		0			0			MAS
Fourth Cliff (North R. mouth), Scituate	0			0			0			0			0			0			MAS
Duxbury Beach, Duxbury	0			0			0			53 (21)	N/A (N/A)	0	0			0			MAS
Plymouth Beach, Plymouth	≥1	N	3	2,686	N	1.10 fl/n	0 <sup>d</sup>			225 (205)	N (N)	1	0			1,186	N	1	Plymouth
Ellisville Harbor, Plymouth	0			0			0			0 (8)	(A)	0	0			0			MAS
Sagamore Beach, Bourne and Sandwich	0			0			0			0			0			0			MAS
Scusset Beach, Sandwich	0			0			0			0			0			0			MAS
<b>UPPER CAPE</b>																			
Menauhant, Falmouth	0			0			0			0			0			0			WBNERR

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Washburn I., Falmouth	0			0			0			0			0			0			WBNERR, MDCR
South Cape Beach- Waquoit, Mashpee	0			0			0			0			0			0			WBNERR, MDCR
Popponeset Spit, Mashpee	0			0			0			0			0			0			MAS
Town Neck Beach, Sandwich	0			0			0			22 (41)	A (A)	1	0			0			MAS
Springhill Beach, Sandwich	0			0			0			96	A	1	0			0			MAS
East Sandwich Beach, Sandwich	0			0			0			3 (3)	A (A)	0	0			0			MAS
Scorton (Neck) Creek, Sandwich	0			0			0			9 (32)	A (A)	1	0			0			MAS
Scorton Shores, Sandwich	0			0			0			3 (4)	A (A)	0	0			0			MAS
Sandy Neck, Barnstable	0			1 (3)	N (N)		0			180 (155)	A (A)	1	0			0			Barnstable, MAS
Dead Neck, Barnstable	0			11	N	2	0			211	N	2	0			0			MAS
Sampson I., Barnstable	0			0			0			0 (14)	(E)	0	0			0			MAS
Craigville-Long Beach, Barnstable	0			0			0			0			0			0			MAS
Squaw I., Barnstable	0			0			0			0			0			0			MAS
Dowdes Beach, Barnstable	0			0			0			2 (6)	N (N)	0	0			0			Barnstable
Dunbar Point (Kalmus Park), Barnstable	0			0			0			289 (355)	A (A)	2	0			0			Barnstable
Gray's Beach, Yarmouth	+ <sup>e</sup>	A	0	32 (16)	A (A)	0-1	0			111 (64)	N (A)	1-2	0			0			MAS
Great I., Yarmouth	0			0			0			0			0			0			MAS
West Dennis Beach, Dennis	0			0			0			180	A	2-3	0			0			Barnstable
Miramar Beach, Dennis	0			0			0			10 (4)	N (N)	1	0			0			MAS
<b>LOWER CAPE</b>																			
Forest Beach, Chatham	0			0			0			0			0			0			MAS



COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Ridgevale Beach, Chatham	0			0			0			7 (20)	N (N)	1-2	0			0			MAS
Harding's Beach and Point, Chatham	0			0			0			9 (8)	N (A)	0	0			0			MAS
S. Monomoy I., Chatham	7 (0)	N	0.29 fl/n	6,904	N	1.29 fl/n	0			104	A	0	0			395	N	2	USFWS
Minimoy I., Chatham	3 (2)	N (N)	1.67 fl/n	342	N	1-2	0			0			5	N	0.2 fl/n	0			USFWS
N. Monomoy I., Chatham	0			7	N	0	0			0									USFWS
South Beach I., Chatham	0			0			0			57 (60)	A (A)	0-2	0			0			MAS, MDFW
Nauset (North) Beach (incl. N. Bch. I.), Chatham	0			0			0			86	A	1	0			0			Chatham
Tern I., Chatham	0			2	N	0	0			81	NC	1	0			0			MAS
Nauset (North) Beach, Orleans (Chatham line north to Nauset Harbor Inlet)	0			1	A	0	0			25	A	1	0			0			Orleans
Nauset-New I., Orleans	0			3	N	0	0			0			0			0			NPS
S. Sunken Meadow, Eastham	0			0			0			0			0			0			MAS
Lieutenant I., Wellfleet	0			0			0			0			0			0			MAS
Nauset-Eastham ("Coast Guard Beach" & "Plover I.")	0			0			0			11	NC	1-2	0			0			NPS
Great I.-Jeremy Pt., Wellfleet	0			0			0			9	NC	0	0			0			NPS
Marconi Beach, Wellfleet	0			0			0			13 (23)	N (N)	1-2	0			0			NPS
Marconi Station/LeCount Hollow, Wellfleet	0			0			0			0			0			0			NPS
Cahoon Hollow, Wellfleet	0			0			0			0			0			0			NPS
Pamet Harbor Bar/Corn Hill, Truro	0			0			0			59 (5)	N (N)	1	0			0			MAS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Beach Point/Pilgrim Beach, Truro	0			0			0			6	N	2 <sup>f</sup>	0			0			MAS
Ballston Beach, Truro	0			0			0			2 (10)	A (N)	1	0			0			NPS
High Head, Truro	0			0			0			0			0			0			NPS
Head of the Meadow, Truro	0			0			0			13 (8)	A (N)	0	0			0			NPS
Wood End-Long Point Area, Provincetown	0			0			0			45 (75)	A (N)	2	0			0			NPS
Race Point South, Truro-Provincetown	0			0			0			34 (34)	N/A (N)	0-2	0			0			NPS
Race Point North, Provincetown	0			0			0			32 (30)	N (N)	2	0			0			NPS
<b>BUZZARDS BAY</b>																			
Black Beach- Sippewisset, Falmouth	0			0			0			15 (9)	N (N)	0	0			0			MAS
Bird I., Marion	937	N	1.23 fl/n	1,872	N	1.43 fl/n	0			0			0			0			MDFW
Strawberry Pt., Mattapoisset	0			1 <sup>g</sup>	A	0	0			10	N	0	0			0			MAS
Ram I., Mattapoisset	377 (≥8)	N	1.10 fl/n	3,345	N	1.18 fl/n	0			0			0			0			MDFW
S. Shore Marshes WMA, Little Bay, Fairhaven	0			[1 <sup>h</sup> ] nd (0)	A	0	0			[8] nd (5)	[A] (N)	1?	0			0			MDFW, MAS
Fish I., Fairhaven	0			0			0			0			0			0			MDFW
West I., Fairhaven	0			0			0			0			0			0			LCES
Long I., Fairhaven	nd			nd			nd			nd			nd			nd			
Winsegansett Hts., Fairhaven	0			0			0			2 <sup>i</sup>			0			0			LCES
Round Hill Beach, Dartmouth	0			0			0			0			0			0			MAS
Salter's Pt. and Pd., Dartmouth	0			1	N		0			0			0			0			MAS
Demarest Lloyd State Park, Dartmouth	0			0			0			1	N	0	0			0			LCES

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Barney's Joy-Allen's Pd.-Little Beach, Dartmouth	0			12 (15)	N (N)	0	0			152 (101)	N (N)	0	0			0			MAS
Gooseberry Neck, Westport	0			0			0			1	N	0	0			0			LCES
Horseneck Beach, Westport	0			0			0			2 <sup>j</sup>	A	0	0			0			LCES
Speaking Rock, Westport	0			1			0			0			0			0			Cole
Jug Rock, Westport	0			1	N	1.0 fl/pr	0			0			0			0			Cole
Cockeast Pd.-Acoaxet, Westport	nd <sup>k</sup> (0)			nd <sup>k</sup> (32)	A	1?	nd <sup>k</sup> (0)			nd <sup>k</sup> (0)			nd <sup>k</sup> (0)			nd <sup>k</sup> (0)			TNCRI, MAS
Richmond Pd., Westport	0			0			0			0			0			0			TNCRI
Bay Point, S. Swansea	0			0			0			0			0			0			Waring
Pasque I., Gosnold	nd			nd			nd			nd			nd			nd			
Nashawena I., Gosnold	0			3	A		0			0			0			0			MDFW
Penikese I., Gosnold	34	N	2	1,206	N	1	0 <sup>i</sup>			0			0			0			MDFW
Cuttyhunk I., Gosnold	0			0			0			22	A		0			0			MDFW
<b>MARTHA'S VINEYARD</b>																			
Eastville Beach, Oak Bluffs	0			0			0			2	N	0	0			0			MAS
Harthaven Beach, Oak Bluffs	0			0			0			12 (0)	A	0	0			0			MAS
Sylvia State Beach, Oak Bluffs	0			0			0			8	A	0	0			0			MAS
Sarson I., Sengekontacket Pd., Oak Bluffs	0			0			0			0			0			0			MAS
Haystack Pt., Sengekontacket Pd., Edgartown	0			14 (11)	A (N)		0			0			0			0			MAS
Little Beach, Edgartown	0			0			0			38 (55)	N (N)	0	0			0			BW

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Cape Poge Elbow, Edgartown	0			0			0			0 (14)	(N)	0	0			0			TTOR
Little Neck, Edgartown	0			0			0			0			0			0			TTOR
East Beach and Poucha Pond, Edgartown	0			0			0			0			0			0			TTOR
Wasque, Edgartown	0			0			0			0			0			0			TTOR
Norton Beach ("Katama"), Edgartown	[+ <sup>m</sup> ] 0			[+ <sup>m</sup> ] 0			0			[+ <sup>m</sup> ] 0			0			0			TTOR
Edgartown Great Pd., Edgartown	0			0			0			16	A	0	0			0			MVLBC, BW
Oyster Pd., Edgartown	0			0			0			3 (4)	N (N)	0	0			0			BW
Watcha Pd., W. Tisbury	0			0			0			0			0			0			BW
Quansoo Area (Long Pt. Wildlife Refuge; Tisbury Great Pond, W. Tisbury; & Black Point Pond, Chilmark)	0			0			0			1 (43)	A (A/N)	0	0			0			MVLBC, MAS, BW
Lamberts Cove-James Pd., W. Tisbury	0			0			0			0			0			0			BW
Chilmark Pd., Chilmark	0			0			0			24	A	0							BW
Stonewall Beach, Chilmark	0			0			0			8 <sup>n</sup>	A		0			0			BW
Long Beach, Aquinnah & Squibnocket Beach, Chilmark	0			0			0			0			0			0			BW
Nomans Land, Chilmark	0			0			0			0			0			0			USFWS
Lobsterville (incl. "Dogfish Bar"), Aquinnah	0			0			0			[16] 0	[A]		0			0			BW
Menemsha Pd., Aquinnah-Chilmark (encompasses Edy's I., Chilmark)	0			1	N	0	0			0			0			0			MAS
Tashmoo, Tisbury	0			0			0			13	A	0	0			0			MAS
Mink Meadows, Tisbury	0			0			0			27	A	3	0			0			MAS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
<b>NANTUCKET</b>																			
Great Point (including "The Galls"), Nantucket	0			0			0			43 (10)	N		0			0			TTOR, USFWS
The Glades, Nantucket	nd			nd			nd			nd			nd			nd			
Coskata-Coatue, Nantucket	0			0			0			93	N	0	0			0			NCF
Wauwinet, Nantucket	0			0			0			[3] 2 (0)	[N] A	0	0			0			MAS
Squam Head & Pond, Nantucket	0			0			0			0			0			0			NCF, MAS
Quidnet (including Sesachacha Pd.), Nantucket	0			0			0			25 (+)	A	0	0			0			MAS
Ram I. (Polpis Harbor), Nantucket	0			[1] 0	[N]	0	0			[8] 0	[A]	0	0			0			NCF
Quaise, Nantucket	0			0			0			0			0			0			NMCRD
Siasconset (Sankaty- Low Beach), Nantucket	0			0			0			[56] 28 (0)	[A] A	0	0			0			NMCRD
Tom Nevers Head, Nantucket	0			0			0			0			0			0			NMCRD
Surfside, Nantucket	0			0			0			0			0			0			NMCRD
Cisco Beach-Hummock Pond, Nantucket	0			0			0			0			0			0			NCF
Esther I.-Smith Pt., Nantucket	0			0			0			[96] 32 (0)	[A] A	0	0			0			NMCRD
Eel Point, Nantucket	0			0			0			200 (29)	N (N)	0	0			0			NCF
Tuckernuck I., Nantucket	0			0			0			1,150 (1,200)	A (A)	2	0			0			TLT, Veit
Muskeget I., Nantucket	0			0 (3)	(A)		0			+ (175)	(N)	0	0			0			MAS, Veit
Muskeget sandbars, Nantucket	0 (1 <sup>P</sup> )	A	0	0 (6 <sup>P</sup> )	(A)	0	0			0 (60)	(E)	0	0			0			MAS, Veit

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency <sup>c</sup>
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
TOTAL 2011 NESTING PAIRS	1,359			16,760			0			4,309			5			1,581			
TOTAL 2010 NESTING PAIRS	1,393			16,224			2.5			3,484			5			1,249			
PERCENT CHANGE FROM 2010	-2.4			3.3			- 100.0			23.7			0.0			26.6			

<sup>a</sup> Method: A = adult count; E = partial/extrapolated count; N = nest count. See text of “Methods” for more details.

<sup>b</sup> Productivity: 0 = none; 1 = poor; 2 = fair to good; 3 = excellent. Quantitative estimates are given as fledglings/nest or fledglings/pair.

<sup>c</sup> In addition to the names of towns, counties, and individuals, the following abbreviations are used: BW=BiodiversityWorks; ECGA=Essex County Greenbelt Association; LCES=Lloyd Center for Environmental Studies; MAS=Massachusetts Audubon Society-Coastal Waterbird Program; MDCR=Massachusetts Department of Conservation & Recreation; MDFW=Massachusetts Division of Fisheries & Wildlife; MVLBC=Martha's Vineyard Land Bank Commission; NCF=Nantucket Conservation Foundation; NMCRD=Town of Nantucket Marine and Coastal Resources Department; NPS=National Park Service; TLT=Tuckernuck Land Trust; TNCRI=The Nature Conservancy - Rhode Island; TTOR=The Trustees of Reservations; USFWS=U.S. Fish & Wildlife Service; WBNERR=Waquoit Bay National Estuarine Research Reserve.

<sup>d</sup> At Plymouth Beach, a single Arctic Tern was observed frequently during nesting season, but it did not appear to pair up or nest.

<sup>e</sup> At Gray's Beach, 3 Roseates (2 adults and 1 sub-adult) consistently were observed flying over the colony together over the course of the breeding season, but they did not land and there was no indication of nesting.

<sup>f</sup> At Beach Point, a Least Tern chick was found dead in an ATV tire track on 1 August 2011.

<sup>g</sup> Strawberry Pt. was visited infrequently, but a defensive Common Tern pair was present on 2 sequential visits in June. Scrapes were observed but no eggs were found; portion of site was overwashed in June.

<sup>h</sup> At South Shores Marshes WMA, a territorial Common Tern pair was present prior to the A-period census window. Nesting was not confirmed; site was not visited during the A-period census window. This pair was not included in state totals.

<sup>i</sup> At Winsegansett, Least Terns were territorial in the historic nesting area, but eggs were not confirmed.

<sup>j</sup> At Horseneck Beach, Least Terns were territorial, but predators deterred nesting.

<sup>k</sup> Cockeyeast Pond-Acoaxet was not visited during the A-period census window.

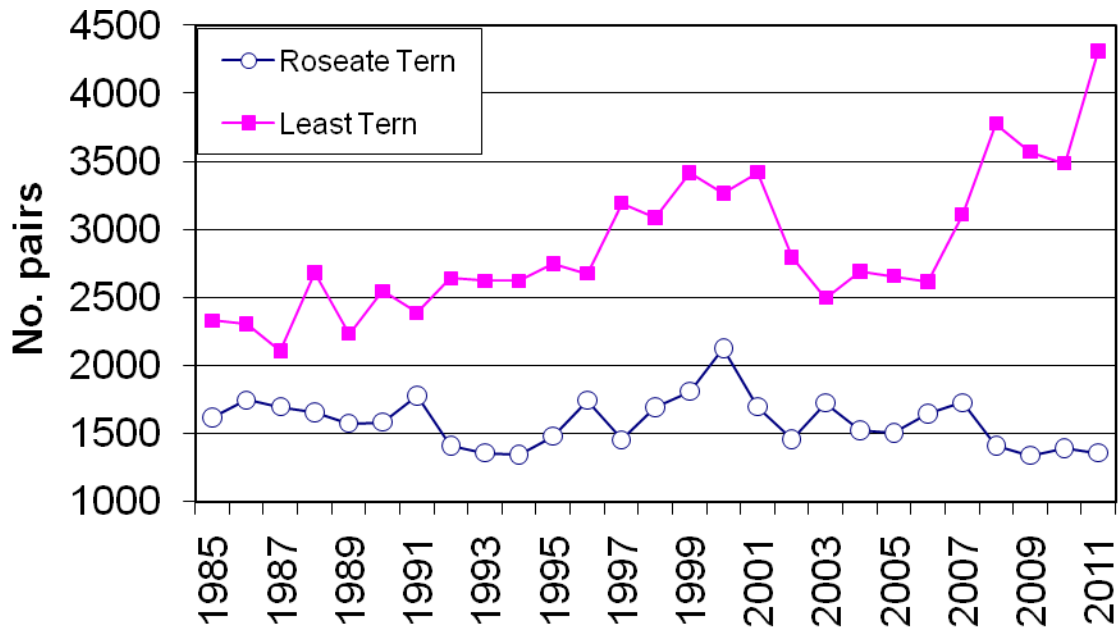
<sup>l</sup> At Penikese I., a single Arctic Tern was giving advertising calls on 16 June, but no nest was located. Site was visited infrequently.

<sup>m</sup> At Norton Beach, Roseate, Common, and Least Terns were in the nesting area prior to the census window, but a Peregrine Falcon disrupted nesting. Numbers of terns were not available.

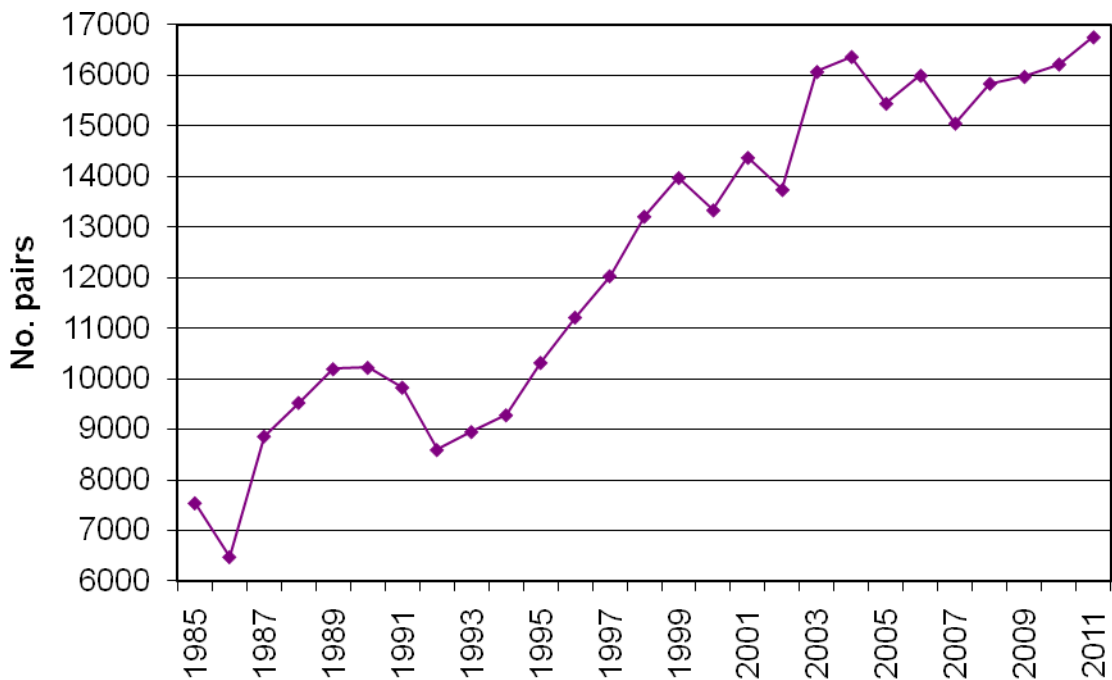
<sup>n</sup> At Stonewall Beach, Least Terns were in the historic nesting area on 9 June 2011, but were not yet on nests. At the next visit (21 June), no terns were present.

<sup>o</sup> Muskeget I. was visited infrequently. Scrapes were present on 5 June 2011 but number of Least Terns was not available.

<sup>p</sup> At a sandbar off Muskeget I., 40 Roseate Terns and 30 Common Terns were present on 22 June 2011. On 4 July, 6 Common Terns appeared to be incubating and a Roseate Tern pair was courting, scraping, and bringing nesting material to a scrape. Much of the site was overwashed on 8 July. Site was visited infrequently.

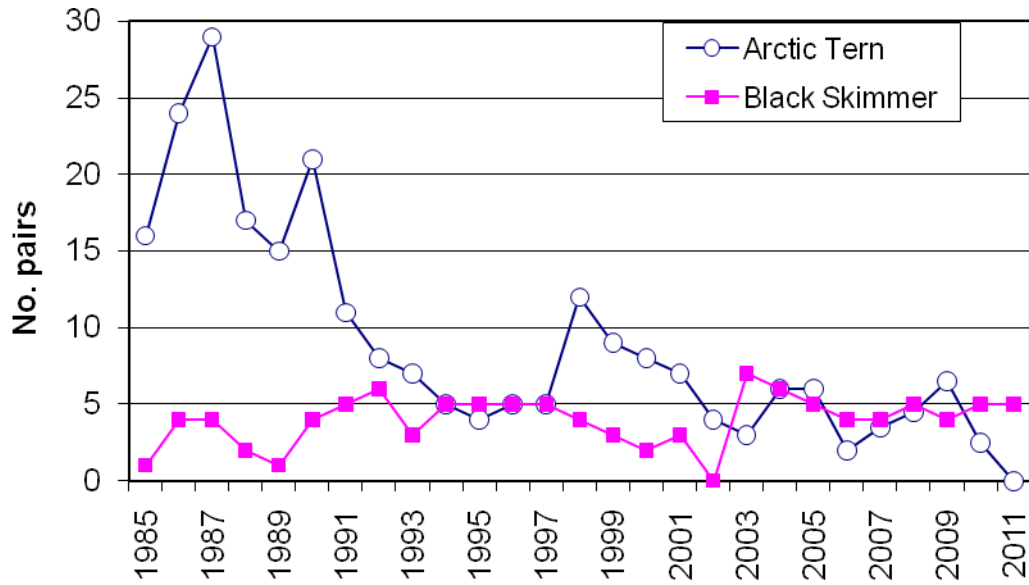


**Figure 1. Numbers of nesting Roseate and Least Terns in Massachusetts, 1985-2011.**

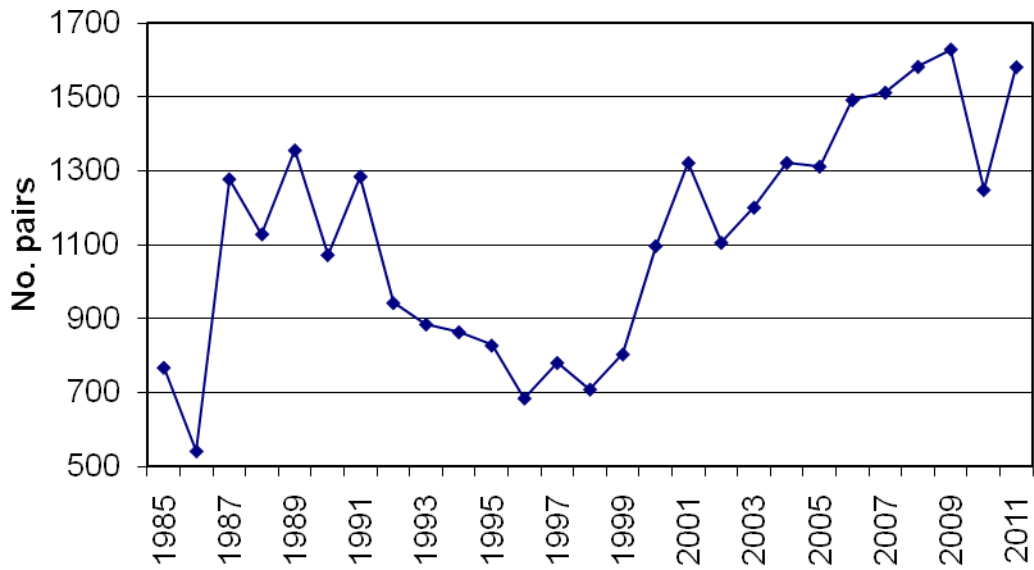


**Figure 2. Numbers of nesting Common Terns in Massachusetts, 1985-2011.**





**Figure 3. Numbers of nesting Arctic Terns and Black Skimmers in Massachusetts, 1985-2011.**



**Figure 4. Numbers of nesting Laughing Gulls in Massachusetts, 1985-2011.**