

**INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS
NESTING IN MASSACHUSETTS IN 2013**



Arctic Tern, Penikese Island, MA.

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Abstract

Cooperators in Massachusetts surveyed more than 140 coastal sites in 2013 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*). Seventy-nine sites were occupied by nesting birds of one or more of these species. Total nesting pairs of Roseate Terns (1,330 pairs), Common Terns (16,336.5 pairs), Least Terns (3,977 pairs), and Laughing Gulls (1,863 pairs) all increased compared to 2012. (In 2012, however, our tallies of Common Terns and Least Terns -- and possibly Roseate Terns to a much lower extent -- were artificially low due to overwash events that occurred immediately prior to censuses.) Black Skimmers (3 pairs) and Arctic Tern (1 individual) were stable.

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 & 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 2013 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 2013, 140 sites with a history of nesting terns, Laughing Gulls, or Black Skimmers were surveyed. (Additional sites with no nesting history were surveyed, but are not included in this report unless nesting was detected.) Seventy-nine sites were occupied by nesting birds of one or more of these species. Results for each site are summarized in Table 1.

Notable in 2013 was the absence of any nesting terns on Minimoy I., Chatham due to habitat loss. Since 2003, when Minimoy was first documented as a nesting area, all the species covered in this report have been recorded nesting there except Arctic Terns. The site was particularly important for Common Terns, Roseate Terns, and Black Skimmers.

Roseate Tern: Roseate Tern numbers remained fairly stable in 2013 (1,330 vs. 1,269 pairs; +4.8%).

Roseates were confirmed to have nested at only four sites in 2013. The largest colony was at Bird I., Marion (772 vs. 814); productivity was very good, 1.34 fledglings/nest. Ram I., Mattapoisett was the second largest site at 535 pairs (vs. 439); productivity was also very good, 1.31 fledglings/nest. The other two sites included Norton Beach, Edgartown (15 A-period and 35 B-period pairs vs. 5 B-period pairs; excellent productivity) and S. Monomoy I., Chatham (8 vs. 1; 1.13 fledglings/pair). As has frequently been the case in recent years, a pair appeared to be attached to the Common Tern colony at Gray’s Beach, Yarmouth in early June, but no nesting was detected. The traditional sites at Penikese I., Gosnold and Minimoy I., Chatham, had no nesting Roseates.

Since 1985, Roseate numbers in the state have fluctuated between 1,269 and 2,124 pairs, averaging 1,568 pairs during this time period (Fig. 1).

Common Tern: Common Terns nested at 28 sites in Massachusetts in 2013 and numbered 16,336.5 pairs (vs. 14,773.5 pairs in 2012, +10.6%). In 2012, a protracted storm and extreme tide event overwashed hundreds to thousands of Common Tern nests immediately prior to censuses; therefore, the 2012 estimate was artificially low. The 2013 estimate was similar to the 2011 estimate of 16,760 pairs.

In 2013, the S. Monomoy I. Common Tern colony (7,526 pairs vs. 7,762) dwarfed all others, as usual. Productivity was 1.65 fledglings/nest. The next-largest colony was Ram I. (3,525 vs. a minimum of 2,693 pairs; 1.17 fledglings/nest). Bird I. supported about 2,500 pairs (vs. 1,902; 1.13 fledglings/nest). Plymouth Beach had 1,026 pairs (vs. 704; 1.00 fledglings/nest). At Penikese I., 673.5 pairs nested (vs. a minimum of 636.5 pairs; 1.75 fledglings/nest). At this site, a Common Tern that paired with an Arctic Tern accounted for the 0.5 pair.

Other sites with more than 100 pairs of nesting Common Terns included Norton Beach, Edgartown (461 vs. 231; excellent productivity), Gray's Beach, Yarmouth (256 vs. 69; poor to zero production) and Spinnaker I., Hull (118 vs. 130).

The ten largest A-period colonies supported 99% of the state's Common Tern pairs; 83% 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 (with the exception of 2012) at about 16,000-17,000 pairs. Since 1985, population size has ranged from 6,483 to 16,760 pairs (mean, 12,643 pairs) (Fig. 2).

Least Tern: Least Terns nested at 60 sites in Massachusetts in 2013 and numbered 3,977 pairs (vs. an artificially low 2,738 pairs in 2012 due to overwash events, +45.3%). This was similar to the 2011 total of 4,309 pairs.

Building on a very successful B-period colony in 2012, Little Beach, Edgartown supported the state's largest Least Tern nesting colony (720 pairs vs. 254 B-period), and productivity was again excellent. The next largest colonies were Esther I.-Smith Pt., Nantucket (410 A-period and 560 B-period vs. 127 B-period; excellent), South Beach, Chatham (396 vs. 134; poor to excellent, depending on sub-colony), Edgartown Great Pond, Edgartown (285 vs. 56; poor); S. Monomoy I. (261 vs. 152 B-period; fair to good), Plymouth Beach, Plymouth (183 vs. 20; poor), Duxbury Beach, Duxbury (133 vs. 217; poor to excellent, depending on sub-colony), Plum I. Beach (125 vs. 84; poor), Gray's Beach, Yarmouth (124 vs. 106 B-period; poor to zero), Norton Beach, Edgartown (112 vs. 674; poor), and Tern I., Chatham (112 vs. 129; excellent).

The three largest A-period Least Tern sites supported 38% of the pairs. The top ten A-period sites supported 69% 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 2,914 pairs (Fig. 1).

Arctic Tern: As was the case in 2012, just one Arctic Tern nested in Massachusetts in 2013. It paired with a Common Tern at Penikese I. and they produced one fledgling.

Since 1985, numbers of this range-edge species have ranged from 0 to 29 pairs (mean, 8 pairs), with an overall downward trend (Fig. 3).

Black Skimmer: In 2013, three pairs of Black Skimmers nested at Norton Beach during the peak census window and another four nested during the B-period (vs. 3 A-period and 1 B-period in 2012). Productivity was 1.75 fledglings/pair. The only other skimmers nesting in Massachusetts in 2013 was a pair that nested during the B-period at Plymouth Beach. No chicks survived from this 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: Laughing Gull numbers increased 48.7% in 2013 to 1,863 pairs (vs. 1,253 in 2012). This is the highest number of nesting Laughing Gulls we have yet recorded in Massachusetts. There were again two nesting sites: S. Monomoy I. (974 vs. 441; fair to good) and Plymouth Beach (889 vs. 812; fair to good).

From 1985 to present, Laughing Gulls have averaged 1,153 pairs, ranging between 542 and 1,863 pairs (Fig. 4). The overall trend since 1998 has been upward, with substantial interannual fluctuations in numbers from 2009 to present. Because Laughing Gulls compete with Common and Roseate Terns for space and resources and are predators of terns, documenting their distribution, numbers and interactions with our terns is important.

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 2013. 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	<u>Roseate Tern</u>			<u>Common Tern</u>			<u>Arctic Tern</u>			<u>Least Tern</u>			<u>Black Skimmer</u>			<u>Laughing Gull</u>			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
NORTH SHORE																			
Blackwater River Group, Salisbury	nd			nd			nd			nd			nd			nd			ECGA
Woodbridge I., Newburyport	0			2	A		0			0			0			0			USFWS
Chaces I., Newbury	0			0			0			0			0			0			USFWS
Plum I. River Group, Newbury (marshes-incl. Pine I., Little Pine I. and Jericho Creek)	0			30	A		0			0			0			0			USFWS
Parker River Group (marshes)	0			0			0			0			0			0			USFWS
Plum I. Beach, Newbury-Rowley-Ipswich	0			0			0			125 (37)	A	1	0			0			USFWS, DCR, MAS
Rowley Salt Marshes	0			0			0			0			0			0			ECGA
Roger I., Ipswich	0			0			0			0			0			0			ECGA
Bagwell I., Ipswich	0			9	A		0			0			0			0			ECGA
Lords I., Ipswich	0			3	A		0			0			0			0			ECGA
Ipswich Salt Marshes	0			0			0			0			0			0			ECGA
Crane Beach, Ipswich	0			0			0			32	N	1	0			0			TTOR
Saugus River (Gen. Edwards) Bridge, Lynn-Revere	0			38	A		0			0			0			0			Zendeh
Winthrop Beach, Winthrop	0			0			0			5 (8)	N (N)	2	0			0			MAS, DCR

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Yirrell Beach, Winthrop	0			0			0			0			0			0			Winthrop/ Corona
Snake I., Winthrop	0			0			0			0			0			0			NPS
Mystic River, Everett- Boston-Somerville- Medford	0			10	A		0			0			0			0			Fager
Chelsea River, Chelsea-Revere- Boston	0			7	A		0			0			0			0			Zendeh
Belle Isle Marsh, Boston	0			0			0			0			0			0			Zendeh
Logan Airport, Boston	0			0			0			0			0			0			Smith
Central Square Piers, East Boston	0			74	A		0			0			0			0			Zendeh
Jeffries Point, East Boston	nd			nd			nd			nd			nd			nd			
Rainsford I., Boston	0			0			0			0			0			0			NPS
Lovell I., Boston	0			0			0			72 (23)	A (A)	2	0			0			MAS, NPS, DCR
Spinnaker I. (formerly Hog I. Pier , Hull	0			118	A		0			0			0			0			NPS
SOUTH SHORE																			
The Glades, Scituate	0			0			0			0			0			0			MAS
Third Cliff (North R. mouth), Scituate	0			0			0			56 (1)	A (N)	1	0			0			MAS
Fourth Cliff (North R. mouth), Scituate	0			0			0			30 (48)	A (A)	3	0			0			MAS
Duxbury Beach, Duxbury	0			0			0			133 (46)	A (A)	1-3	0			0			MAS, Duxbury
Plymouth Beach, Plymouth	0			1,026	N	1.00 fl/pr	0			183 (0)	N	1	0 (1)	(N)	0	889	N	2	Plymouth
Ellisville Harbor, Plymouth	0			0			0			0			0			0			MAS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Sagamore Beach, Bourne and Sandwich	0			0			0			0			0			0			MAS
Scusset Beach, Sandwich	0			0			0			0			0			0			MAS
UPPER CAPE																			
Menauhant, Falmouth	0			0			0			0			0			0			WBNERR, DCR
Washburn I., Falmouth	0			0			0			0			0			0			WBNERR, DCR
South Cape Beach- Waquoit, Mashpee	0			0			0			11	A	1	0			0			WBNERR, DCR
Popponeset Spit, Mashpee	0			0			0			0			0			0			MAS
Town Neck Beach, Sandwich	0			0			0			22 (0)	A	0	0			0			MAS
Springhill Beach, Sandwich	0			0			0			40 (56)	A (A)	1	0			0			MAS
East Sandwich Beach, Sandwich	0			0			0			9	A	1	0			0			MAS
Scorton (Neck) Creek, Sandwich	0			0			0			8	A	0	0			0			MAS
Scorton Shores, Sandwich	0			0			0			5	A	2	0			0			MAS
Sandy Neck, Barnstable	0			1 (0)	N	0	0			67 (9)	A	0-2	0			0			Barnstable, MAS
Dead Neck-Sampson I., Barnstable	0			≥1] 5	[N] A	0	0			[18] 32 (1)	[N] A (A)	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
Dowses Beach, Barnstable	0			0			0			0			0			0			Barnstable

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Dunbar Point (Kalmus Park), Barnstable	0			0			0			4 (0)	A	0	0			0			Barnstable
Gray's Beach, Yarmouth	1 ^d	A		256	A	0?	0			124	A	0?	0			0			MAS
Great I., Yarmouth	0			0			0			24 (18)	A (A)	0	0			0			MAS
Seagull Beach	0			0			0			15 (0)	A	2	0			0			MAS
West Dennis Beach, Dennis	0			0			0			38	N	1	0			0			Dennis
Miramar Beach, Dennis	0			0			0			5 (+)	A (A)	0	0			0			MAS
LOWER CAPE																			
Forest Beach, Chatham	0			0			0			0			0			0			MAS
Ridgevale Beach, Chatham	0			0			0			1 (0)	N	0	0			0			MAS
Harding's Beach and Point, Chatham	0			0			0			0			0			0			MAS
S. Monomoy I., Chatham	8 (0)	N	1.13 fl/n	7,526	N	1.65 fl/n	0			261	N	2	0			974	N	2	USFWS
Minimoy I., Chatham	0			0			0			0			0			0			USFWS
N. Monomoy I., Chatham	0			0			0			0			0			0			USFWS
South Beach I., Chatham	0			0			0			396 (236)	A (A)	1-3	0			0			MAS, MDFW
Nauset (North) Beach (incl. N. Bch. I.), Chatham	0			0			0			80	A	0?	0			0			Chatham
Tern I., Chatham	0			0			0			112	N	3	0			0			MAS
Nauset (North) Beach, Orleans (Chatham line north to Nauset Harbor Inlet)	0			0			0			73 (30)	A/E (U)	1	0			0			Orleans
Nauset-New I., Orleans	0			1	N	0	0			0			0			0			NPS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
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			46 (38)	A (N)	0	0			0			NPS
Great I.-Jeremy Pt., Wellfleet	0			0			0			18 (21)	A (A/N)	0	0			0			NPS
Marconi Beach, Wellfleet	0			0			0			8 (21)	A (A)	0-1	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			11 (0)	N	0	0			0			MAS
Beach Point/Pilgrim Beach, Truro	0			0			0			0			0			0			MAS
Ballston Beach, Truro	0			0			0			0 (4)	(N)	0	0			0			NPS
High Head, Truro	0			0			0			0			0			0			NPS
Head of the Meadow, Truro	0			0			0			29 (0)	N	0	0			0			NPS, MAS
Wood End-Long Point Area, Provincetown	0			0			0			6 (1)	N (N)	0	0			0			NPS
Race Point South, Truro-Provincetown	0			0			0			7 (8)	N (A/N)	0	0			0			NPS
Race Point North, Provincetown	0			0			0			27 (18)	N (N)	0	0			0			NPS
BUZZARDS BAY																			
Black Beach- Sippewisset, Falmouth	0			0			0			0			0			0			MAS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Bird I., Marion	772	N	1.34 fl/n	2,500 ^e	E ^e	1.13 fl/n	0			0			0			0			MDFW
Strawberry Pt., Mattapoissett	0			0			0			[+?] ^f nd (0)		0	0			0			MAS, MDFW
Ram I., Mattapoissett	535	N	1.31 fl/n	3,525	N	1.17 fl/n	0			0			0			0			MDFW
S. Shore Marshes WMA, Little Bay, Fairhaven	0			0			0			22	N		0			0			MDFW
Fish I., Fairhaven	0			0			0			0			0			0			MDFW
West I., Fairhaven	0			0			0			0			0			0			LCES
Long I., Fairhaven	0			0			0			0			0			0			MDFW
Winsegansett Hts., Fairhaven	0			0			0			0			0			0			LCES
Nonquitt, Dartmouth	0			4	N		0			0			0			0			MAS
Round Hill Beach, Dartmouth	0			0			0			0			0			0			MAS
Salter's Pt. and Pd., Dartmouth	0			6	N		0			0			0			0			MAS
Demarest Lloyd State Park, Dartmouth	0			0			0			12 (22)	N (A)	3	0			0			LCES
Barney's Joy-Allen's Pd.-Little Beach, Dartmouth	0			34 (29)	N (N)	0	0			4 (7)	A (N)	0	0			0			MAS
Gooseberry Neck, Westport	0			0			0			1	N	0	0			0			LCES
Horseneck Beach, Westport	0			0			0			10 (10)	N (N)	3	0			0			LCES
Speaking Rock, Westport	0			[2] 0	[N]		0			0			0			0			MAS
Fishing Rock, Westport	0			2	A		0			0			0			0			MAS
Jug Rock, Westport	nd			nd			nd			nd			nd			nd			
Cockeast Pd.- Acoaxet, Westport	0			0			0			0			0			0			TNCRI

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Richmond Pd., Westport	0			0			0			4 (4)	N	0	0			0			TNCRI
Bay Point, S. Swansea	nd			nd			nd			nd			nd			nd			
Pasque I., Gosnold	0			0			0			0			0			0			MDFW
Nashawena I., Gosnold	0			21	A		0			0			0			0			MDFW
Penikese I., Gosnold	0			673.5 (268)	N (N)	1.75 fl/n	0.5	N	1.0 fl/n	0			0			0			MDFW
Cuttyhunk I., Gosnold	0			0			0			32	A		0			0			MDFW
MARTHA'S VINEYARD																			
Eastville Beach, Oak Bluffs	0			0			0			6 (0)	A	1	0			0			MAS
Harthaven Beach, Oak Bluffs	0			0			0			0			0			0			MAS
Sylvia State Beach, Oak Bluffs	0			0			0			16 (0)	A	0	0			0			MAS
Cow Bay, Edgartown	0			0			0			0			0			0			MAS
Sarson I., Sengekontacket Pd., Oak Bluffs	0			0			0			0			0			0			MAS
Haystack Pt., Sengekontacket Pd., Edgartown	0			2 (2)	N (N)	1	0			0			0			0			MAS
Little Beach, Edgartown	0			2	N	1.0 fl/pr	0			720 (229)	A (A)	3	0			0			BW
Cape Poge Elbow, Edgartown	0			0			0			44 (3)	A (N)	1	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

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Wasque, Edgartown	0			0			0			0			0			0			TTOR
Norton Beach ("Katama"), Edgartown	15 (35)	A (A)	3	461	A	3	0			112 (14)	A (A)	1	3 (4)	N (N)	1.75 fl/pr	0			TTOR
Edgartown Great Pd., Edgartown	0			0			0			285 (5)	A (N)	1	0			0			BW, MVLBC
Oyster Pd., Edgartown	0			0			0			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 (1)	(N)	0	0			31 (31)	A (A)	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			0 (6)	N	0	0			0			BW, MVLBC
Stonewall Beach, Chilmark	0			0			0			24 (8)	A (A)	1	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			61 (61)	A (A)	1	0			0			BW
Menemsha Pd., Aquinnah-Chilmark (encompasses Edy's I., Chilmark)	0			0			0			0			0			0			MAS
Tashmoo, Tisbury	0			0			0			0			0			0			BW
Mink Meadows, Tisbury	0			0			0			10 (15)	N	2	0			0			MAS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
NANTUCKET																			
Great Point (including "The Galls"), Nantucket	0			0			0			[57] 34 (1)	[E] E (E)	1	0			0			TTOR
The Glades, Nantucket	nd			nd			nd			nd			nd			nd			
Coskata-Coatue, Nantucket	0			0			0			[30] 22 (0)	[A] A	0	0			0			NCF
Wauwinet, Nantucket	0			0			0			0			0			0			MAS, Manomet
Squam Head & Pond, Nantucket	0			0			0			0			0			0			NCF, MAS, Manomet
Quidnet (including Sesachacha Pd.), Nantucket	0			0			0			0			0			0			MAS, Manomet
Ram I. (Polpis Harbor), Nantucket	0			0			0			0			0			0			NCF
Quaise, Nantucket	nd			nd			nd			nd			nd			nd			
Siasconset (Sankaty- Low Beach), Nantucket	0			0			0			0			0			0			NMCRD
Tom Nevers Head, Nantucket	nd			nd			nd			nd			nd			nd			
Surfside, Nantucket	0			0			0			1 (19)	N (N)	3	0			0			MAS, Manomet
Cisco Beach- Hummock Pond, Nantucket	0			0			0			0			0			0			NCF
Esther I.-Smith Pt., Nantucket	0			0			0			410 (560)	N (A)	3	0			0			NMCRD
Eel Point, Nantucket	0			0			0			0			0			0			NCF
Tuckernuck I., Nantucket	0			0			0			1	N	0	0			0			TLT
Muskeget I., Nantucket	[0] nd (0)			[0] nd (0)			[0] nd (0)			[0] nd (0)			[0] nd (0)			[0] nd (0)			Manomet, MAS

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Censusing Agency ^c
	No. pairs	M ^a	P ^b	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	
Muskeget sandbars, Nantucket	nd (0)			nd (0)			nd (0)			nd (0)			nd (0)			nd (0)			Manomet, MAS
TOTAL 2013 NESTING PAIRS	1,330			16,336.5			0.5			3,977			3			1,863			
TOTAL 2012 NESTING PAIRS	1,269			14,773.5			0.5			2,738			3			1,253			
PERCENT CHANGE FROM 2012	4.8			10.6			0.0			45.3			0.0			48.7			

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

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

^c In addition to the names of towns, counties, and individuals, the following abbreviations are used: BW=BiodiversityWorks; DCR=Massachusetts Department of Conservation & Recreation; ECGA=Essex County Greenbelt Association; LCES=Lloyd Center for Environmental Studies; Manomet=Manomet Center for Conservation Sciences; MAS=Massachusetts Audubon Society-Coastal Waterbird Program; 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.

^d At Gray's Beach, Yarmouth, a pair of Roseates was observed flying low over the Common Tern colony and calling on 6/7/13, but no nesting was detected. This pair was not tallied in state totals.

^e At Bird I., Marion a complete census could not be conducted. Areas of the island were sampled and an estimate of ~3,000 pairs was extrapolated from the sample. This estimate was deemed unlikely based on history of the site, and was adjusted downward based on best professional judgment.

^f At Strawberry Point, Mattapoisett, a resident reported that Least Terns were behaving defensively prior to the A-period census window. However, any nests may have been overwashed in late-May.

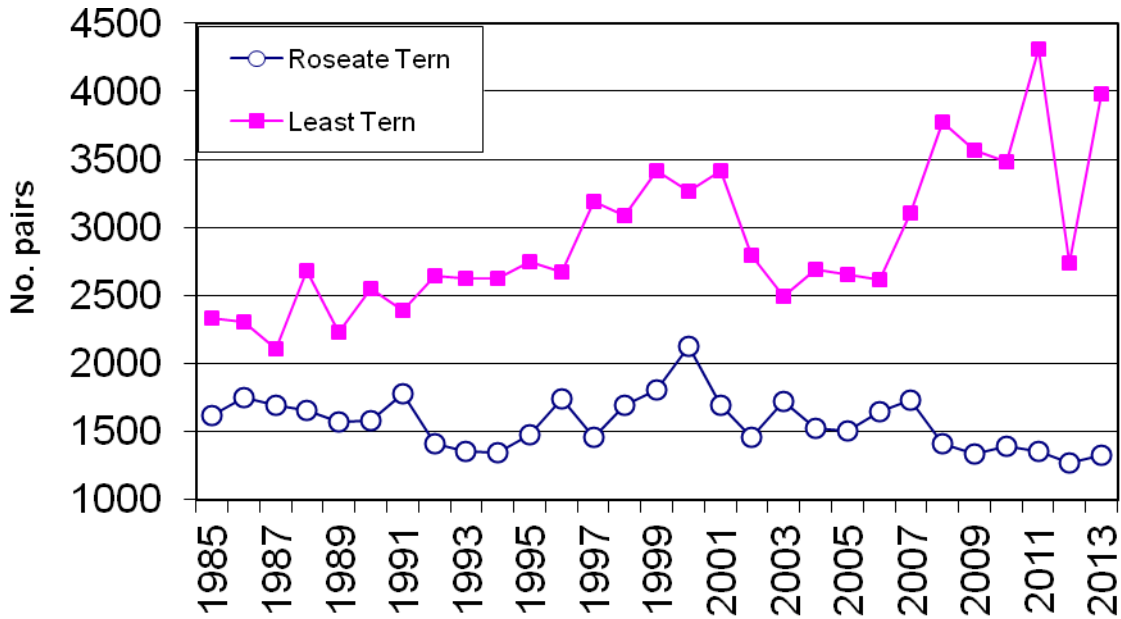


Figure 1. Numbers of nesting Roseate and Least Terns in Massachusetts, 1985-2013.

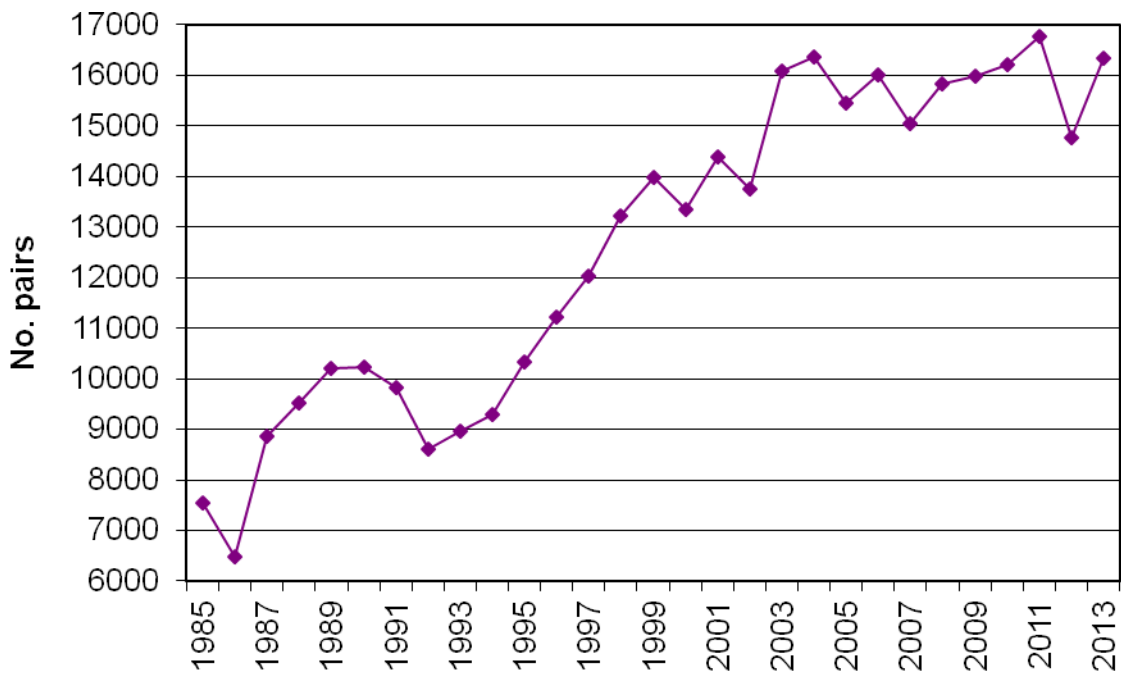


Figure 2. Numbers of nesting Common Terns in Massachusetts, 1985-2013.

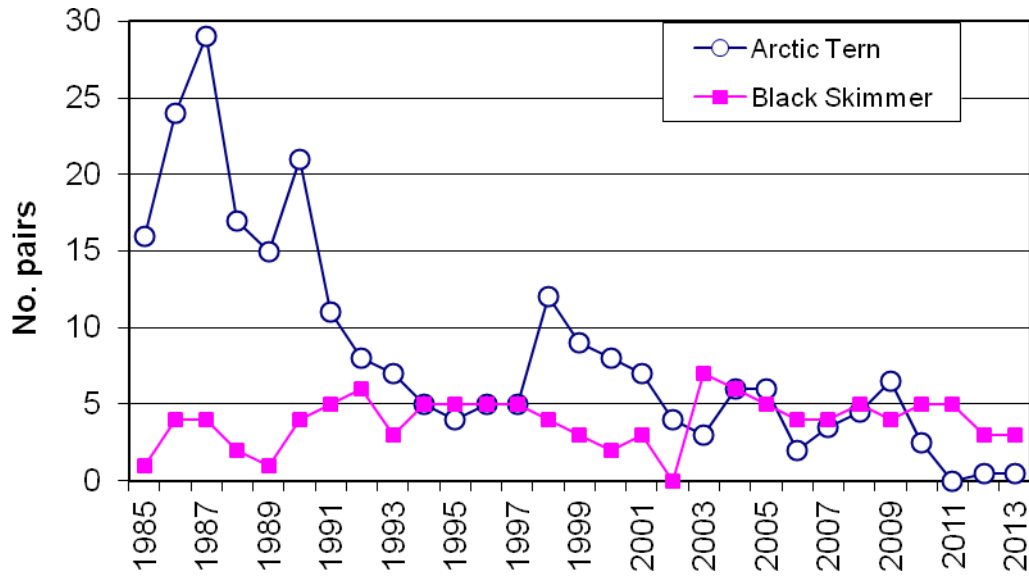


Figure 3. Numbers of nesting Arctic Terns and Black Skimmers in Massachusetts, 1985-2013.

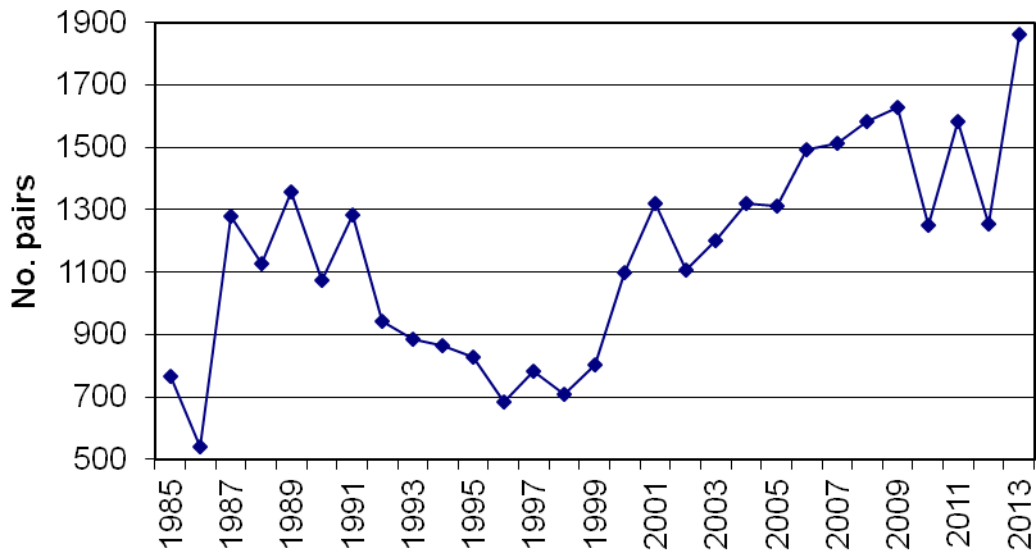


Figure 4. Numbers of nesting Laughing Gulls in Massachusetts, 1985-2013.