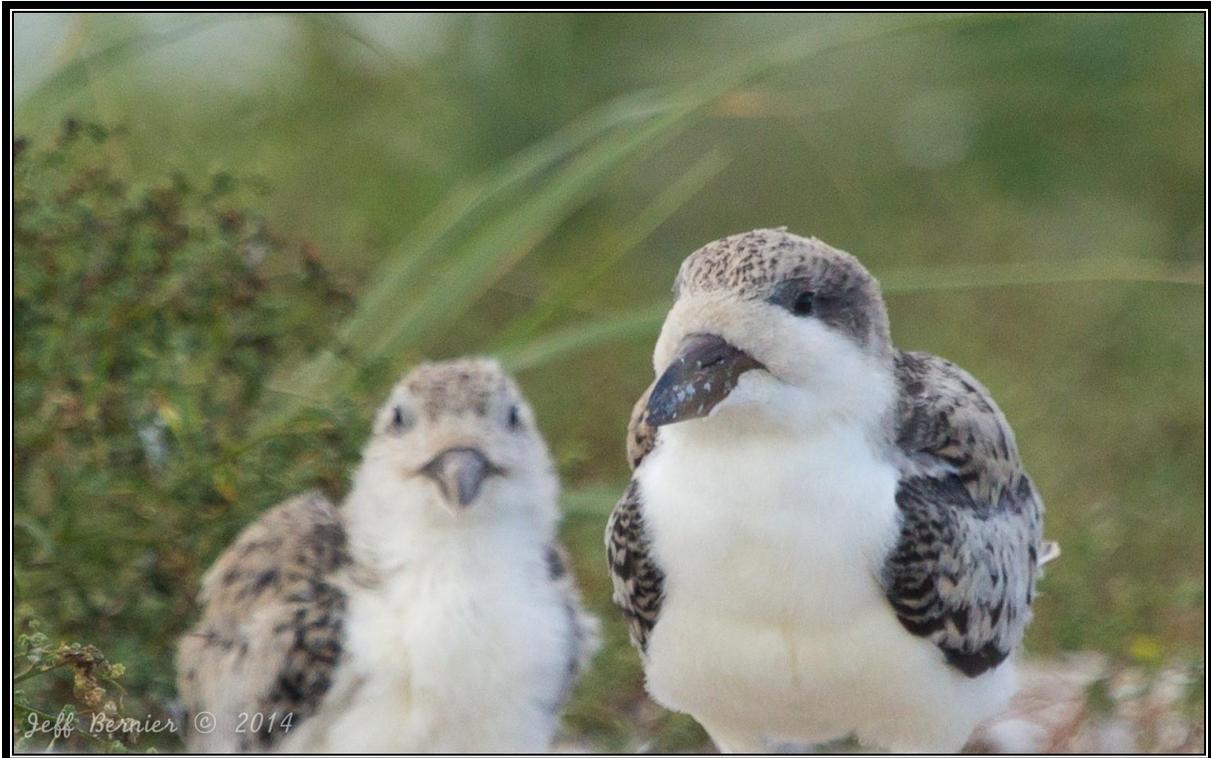


**INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS
NESTING IN MASSACHUSETTS IN 2014**



Black Skimmer chicks at Little Beach, Edgartown, MA in 2014. © Jeff Bernier.

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Abstract

Cooperators in Massachusetts surveyed about 220 coastal sites in 2014 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*). Of approximately 140 sites with a history of nesting by these species, 80 sites were occupied by nesting birds in 2014. Total nesting pairs of Roseate Terns (**1,831 pairs**) increased 38% compared to 2013 numbers. Common Terns (**16,829.5 pairs**), Arctic Terns (**1.5 pairs**), and Black Skimmers (**3 pairs**) were roughly stable. Least Terns (**3,339 pairs**) declined 16% and Laughing Gulls (**2,089 pairs**) increased 12%.

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 2014 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. Some cooperators also survey additional sites with no history of nesting by these species. 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 & Discussion

In 2014, 140 sites with a history of nesting terns, Laughing Gulls, or Black Skimmers were surveyed. Eighty sites were occupied by nesting birds of one or more of these species. Results for each site are summarized in Table 1. Eighty additional with no record of nesting terns, Laughing Gulls, or skimmers were surveyed and are identified in Appendix A.

Roseate Tern: Roseate Terns increased dramatically in 2014 (**1,831 pairs** vs. 1,330 in 2013; +37.7%) due to increases in Buzzards Bay.

Roseates again nested at only four sites in 2014. The largest colony was at Bird I., Marion (1,121 vs. 772); productivity was below average, 0.85 fledglings/nest. Ram I., Mattapoisett was the second largest site at 682 pairs (vs. 535); productivity was good, 0.98 fledglings/nest. After an absence in 2013, 20 pairs of Roseates returned to Penikese I., Gosnold; productivity was good (1.08 fledglings/nest). S. Monomoy I., Chatham again supported 8 pairs and productivity was very good (1.38 fledglings/pair). Norton Beach, Edgartown did not support any pairs in 2014 (vs. 15 A-period and 35 B-period pairs).

Roseate Terns are tracked closely in the Northeast and quantitative estimates of reproductive performance are typically derived for all Massachusetts sites. Since 1985, Roseate numbers in the state have fluctuated between 1,269 and 2,124 pairs, averaging 1,576 pairs during this time period (Fig. 1).

Common Tern: Common Terns nested at 26 sites in Massachusetts in 2014 and numbered **16,829.5 pairs** (vs. 16,336.5 pairs in 2013, +3.0%), a recent historical high.

In 2014, the S. Monomoy I. Common Tern colony, with 8,526 pairs (vs. 7,526) and excellent productivity (1.58 fledglings/nest), continued putting all other Common Tern colonies to shame.

Numbers were strong at Ram I. (3,790 vs. 3,525), the next-largest colony, but productivity was low (0.58 fledglings/nest). Bird I. supported 2,391 pairs (vs. about 2,500; 0.85 fledglings/nest). Numbers were back up at Penikese I. (915.5 vs. 673.5; 1.04 fledglings/nest) following successful predator control in 2013. At this site, a Common Tern that paired with an Arctic Tern accounted for the 0.5 pair. Plymouth Beach had 819 pairs (vs. 1,026; 0.76 fledglings/nest). No other sites numbered more than 100 pairs of nesting Common Terns.

The ten largest A-period colonies supported 99% of the state's Common Tern pairs; 87% of the state's pairs were concentrated in the three largest colonies. Because rigorous studies of reproductive performance are typically conducted at the five largest colonies (S. Monomoy, Ram, Bird, Penikese, and Plymouth Beach) comprising 98% of the pairs, we have an excellent understanding of overall statewide productivity of Common Terns.

From 1985 to 2003, Common Tern numbers rose fairly steadily in Massachusetts. Since then, however, the population has been fairly stable (with the exception of 2012) at about 16,000-17,000 pairs. Since 1985, population size has ranged from 6,483 to 16,829.5 pairs (mean, 12,782 pairs) (Fig. 2).

Least Tern: Least Terns nested at 62 sites in Massachusetts in 2014 and numbered **3,339 pairs** (vs. 3,977 in 2013; -16.0%).

Little Beach, Edgartown was again the state's largest Least Tern nesting colony (418 vs. 720 pairs); productivity was fair to good. The next largest colonies were Esther I.-Smith Pt., Nantucket (388 vs. 410 A-period and 560 B-period; no productivity), S. Monomoy I. (376 vs. 261; poor to fair), South Beach, Chatham (339 A-period and 351 B-period vs. 396; zero to poor, depending on sub-colony), Norton Beach, Edgartown (218 vs. 112; excellent), Tern I., Chatham (162 vs. 112; no productivity), Plum I. Beach (141 vs. 125; poor to good, depending on sub-colony), Sandy Neck, Barnstable (120 vs. 67; zero to good, depending on sub-colony), Plymouth Beach, Plymouth (115 vs. 183; fair to good), and Crane Beach, Ipswich (97 vs. 32; poor to fair).

The ten largest A-period Least Tern sites supported 71% of the pairs. The three largest A-period sites supported 35% 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 2,928 pairs (Fig. 1).

Arctic Tern: In 2014, **1.5 pairs** of Arctic Terns nested. At Penikese I., one pure Arctic Tern pair and a mixed pair (an Arctic paired with a Common Tern) each fledged one chick. No other Arctics nested in Massachusetts in 2014. In 2013, just a single individual nested (paired with a Common Tern).

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 2014, **three pairs** of Black Skimmers nested during that A-period and one during the B-period (vs. 3 A-period and 5 B-period in 2013). Two pairs nested at Little Beach, Edgartown during the peak census window (vs. 0 in 2013); productivity was fair to good. One

pair nested at Norton Beach during the peak census window (vs. 3 A-period and 4 B-period in 2013); productivity was probably zero. The only other skimmers nesting in Massachusetts in 2013 was a pair that nested during the B-period at Plymouth Beach, just as in 2013. This pair produced 2 fledglings.

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 12.1% in 2014 to 2,089 pairs (vs. 1,863 in 2013), another record high for Massachusetts. They nested at the usual two sites: Plymouth Beach (1,106 vs. 889; fair to good) and S. Monomoy I. (983 vs. 974; excellent).

From 1985 to present, Laughing Gulls have averaged 1,185 pairs, ranging between 542 and 2,089 pairs (Fig. 4). The overall trend since 1998 has been upward, with substantial interannual fluctuations in numbers from 2009 to 2013. 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. Jeff Bernier graciously provided the wonderful Black Skimmer cover photo. Dr. Scott Melvin, Senior Zoologist at MDFW, passed away during the 2014 nesting season. His substantial contributions towards conservation of Massachusetts' seabirds, especially the Least Tern, are on display in Figure 1 and will not be forgotten.

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	
Snake I., Winthrop	nd (0)			nd (0)			nd (0)			nd (0)			nd (0)			nd (0)			NPS
Mystic River, Everett-Boston-Somerville-Medford	0			>2 ^e	A	+	0			0			0			0			Fager
Chelsea River, Chelsea-Revere-Boston	nd			nd			nd			nd			nd			nd			
Belle Isle Marsh, Boston	nd			nd			nd			nd			nd			nd			
Logan Airport, Boston	0			0			0			0			0			0			Smith
Central Square Piers, East Boston	0			44	A		0			0			0			0			Zendeh
Jeffries Point, East Boston	0			0			0			0			0			0			Factor, Zendeh
Rainsford I., Boston	0 (0)			0 (0)			0 (0)			0 (0)			0 (0)			0 (0)			NPS
Lovell I., Boston	0			0			0			56 (2)	A (A)	1	0			0			MAS
Spinnaker I., Hull	0			90	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			1	N	3	0			0			MAS
Fourth Cliff (North R. mouth), Scituate	0			0			0			67	N	3	0			0			MAS
Duxbury Beach, Duxbury	0			0			0			[36] 57 (27)	[A] A/N (A/N)	1	0			0			MAS
Plymouth Beach, Plymouth	0			819 ^f	N	0.76 fl/pr	0			115	N	2	0 (1)	N	2.0 fl/pr	1,106	N	2	Plymouth
Ellisville Harbor, Plymouth	0			0			0			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

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	
UPPER CAPE																			
Black Beach-Sippewisset, Falmouth	0			0			0			0			0			0			MAS
Menauhant, Falmouth	0			0			0			0			0			0			MAS
Washburn I., Falmouth	0			0			0			14 (0)	A (A)	0	0			0			MAS
South Cape Beach-Waquoit, Mashpee	0			0			0			24	A	3	0			0			MAS
Popponeset Spit, Mashpee	0			0			0			32 (14)	A (A)	1	0			0			MAS
Town Neck Beach, Sandwich	0			0			0			8	A	0	0			0			MAS
Springhill Beach, Sandwich	0			0			0			34 (25)	A (A)	1	0			0			MAS
East Sandwich Beach, Sandwich	0			0			0			5	N	1	0			0			MAS
Scorton (Neck) Creek, Sandwich	0			0			0			[5] 3	[A] A	1	0			0			MAS
Scorton Shores, Sandwich	0			0			0			[6] 0	[A]	0	0			0			MAS
Sandy Neck, Barnstable	0			3	N	0	0			120 (222)	A (A)	0-2	0			0			Barnstable, MAS
Dead Neck-Sampson I., Barnstable	0			0			0			0 (56)	(A)	0	0			0			MAS
Craigville-Long Beach, Barnstable	0			0			0			0			0			0			MAS
Squaw I., Barnstable	0			0			0			6 (25)	A (A)	1	0			0			MAS
Dowses Beach, Barnstable	0			0			0			0			0			0			Barnstable
Dunbar Point (Kalmus Park), Barnstable	0			0			0			0			0			0			Barnstable
Gray's Beach, Yarmouth	0			14	A		0			5	A		0			0			MAS
Great I., Yarmouth	0			0			0			0			0			0			MAS
Seagull Beach	0			0			0			[8] 0	[A]	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	
West Dennis Beach, Dennis	0			0			0			7 (0)	N	0	0			0			Dennis
Miramar Beach, Dennis	0			0			0			0			0			0			MAS
LOWER CAPE																			
Forest Beach, Chatham	0			0			0			0			0			0			MAS
Ridgevale Beach, Chatham	0			0			0			0			0			0			MAS
Harding's Beach and Point, Chatham	0			0			0			2 (6)	N (A)	1	0			0			MAS
S. Monomoy I., Chatham	8 (0) ^g	N	1.38 fl/pr	8,526	N	1.58 fl/pr	0			376	N	1-2	0			983	N	3	USFWS
Minimoy I., Chatham	0			0			0			0			0			0			USFWS
N. Monomoy I., Chatham	0 (0)			22	N	1	0			0			0			0			USFWS
South Beach I., Chatham	0			0			0			339 (351)		0-1	0			0			MAS
Nauset (North) Beach (incl. N. Bch. I.), Chatham	0			0			0			19 (29)	N (N)	0	0			0			Chatham
Tern I., Chatham	0			0			0			162 (24)	N (A)	0	0			0			MAS
Nauset (North) Beach, Orleans (Chatham line north to Nauset Harbor Inlet)	0			0			0			65 (69)	A (?)	0-2	0			0			Orleans
Nauset-New I., Orleans	0			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			1 (7)	N (N)		0			0			NPS
Great I.-Jeremy Pt., Wellfleet	0			0			0			13	N		0			0			NPS
Marconi Beach, Wellfleet	0			0			0			2 (20)	N (N)		0			0	2		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	
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			16 (2)	A (N)	0	0			0			MAS
Beach Point/Pilgrim Beach, Truro	0			0			0			2 (0)	N	0	0			0			MAS
Ballston Beach, Truro	0			0			0			7 (8)	N (N)	0	0			0			NPS
High Head, Truro	0			0			0			0			0			0			NPS
Head of the Meadow, Truro	0			0			0			0 (3)	(N)	0	0			0			NPS
Wood End-Long Point Area, Provincetown	0			0			0			3 (29)	N (N)		0			0			NPS
Race Point South, Truro-Provincetown	0			0			0			8 (?)	N (N)		0			0			NPS
Race Point North, Provincetown	0			0			0			5 (17)	N (N)		0			0			NPS
BUZZARDS BAY - NORTHWEST																			
Bird I., Marion	1,121	N	0.85 fl/n	2,391	N	0.85 fl/n	0			0			0			0			MDFW
Strawberry Pt., Mattapoisett	0			0			0			0			0			0			MDFW
Ram I., Mattapoisett	682	N	0.98 fl/n	3,790	N	0.58 fl/n	0			0			0			0			MDFW
S. Shore Marshes WMA, Little Bay, Fairhaven	0			0			0			11	A		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	nd			nd			nd			nd			nd			nd			
Winsegansett Hts., Fairhaven	0			0			0			0			0			0			LCES
Nonquitt, Dartmouth	0			10	A		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	
Round Hill Beach, Dartmouth	0			0			0			0			0			0			MAS
Salter's Pt. and Pd., Dartmouth	0			6	A	0?	0			0			0			0			MAS
Demarest Lloyd State Park, Dartmouth	0			0			0			25	N	1	0			0			LCES
Barney's Joy-Allen's Pd.-Little Beach, Dartmouth	0			5	N	0	0			22	N	0	0			0			MAS
Gooseberry Neck, Westport	0			0			0			0			0			0			LCES
Horseneck Beach, Westport	0			0			0			78	N	2	0			0			LCES
Speaking Rock, Westport	0			0			0			0			0			0			MAS
Fishing Rock, Westport	0			1	N	0	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, MAS
Richmond Pd., Westport	nd			nd			nd			nd			nd			nd			
Bay Point, S. Swansea	nd			nd			nd			nd			nd			nd			
ELIZABETH ISLANDS																			
Pasque I., Gosnold	nd			nd			nd			nd			nd			nd			
Nashawena I., Gosnold	nd			nd			nd			nd			nd			nd			
Penikese I., Gosnold	20	N	1.08 fl/n	915.5 (297) ^h	N (N)	1.04 fl/n	1.5 ^h	N	>1.0 fl/n ^h	0			0			0			MDFW
Cuttyhunk I., Gosnold	0			0			0			9	A		0			0			MDFW
MARTHA'S VINEYARD																			
Eastville Beach, Oak Bluffs	0			0			0			8	A	2	0			0			MAS
Harthaven Beach, Oak Bluffs	0			0			0			0			0			0			MAS
Sylvia State Beach, Oak Bluffs & Edgartown	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	
Cow Bay, Edgartown	0			0			0			0			0			0			MAS
Sarson I., Sengkontacket Pd., Oak Bluffs	0			0			0			0			0			0			MAS
Haystack Pt., Sengkontacket Pd., Edgartown	0			26 (8)	A (A)	2	0			0			0			0			MAS
Little Beach, Edgartown	0			2 (34)	A (A)	2?	0			418 (55)	A (A)	2?	2	N	2	0			BW
Cape Poge Elbow, Edgartown	0			0			0			10 (2)	A (N)	0	0			0			TTOR
Little Neck, Edgartown	0			0			0			0			0			0			TTOR
East Beach and Poucha Pond, Edgartown	0			0			0			34	N	0-1	0			0			TTOR
Wasque, Edgartown	0			0			0			0			0			0			TTOR
Norton Beach ("Katama"), Edgartown	0 ⁱ			39	A	0	0			218 (24)	N (N)	3	1 ⁱ	N	0?	0			TTOR
Edgartown Great Pd., Edgartown	0			0			0			32	A	0	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			7 (8)	A (N)	1	0			0			MVLBC, MAS, BW
Lamberts Cove-James Pd., W. Tisbury	0			0			0			0			0			0			BW
Chilmark Pd., Chilmark	0			0			0			7 (0)	N	0	0			0			BW, MVLBC
Stonewall Beach, Chilmark	0			0			0			18 (40)	A (A)	1	0			0			BW
Long Beach, Aquinnah & Squibnocket Beach, Chilmark	0			0			0			0			0			0			BW

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	
Nomans Land, Chilmark	0			3	N		0			0			0			0			USFWS
Lobsterville, Aquinnah	0			0			0			0			0			0			MAS
Dogfish Bar, Aquinnah	0			0			0			20 (48)	A (A)	2	0			0			BW
Menemsha Pd., Aquinnah-Chilmark (encompasses Edy's I., Chilmark)	0			0			0			0			0			0			MAS
Tashmoo, Tisbury	0			0			0			6 (10)	N (N)	2	0			0			BW
Mink Meadows, Tisbury	0			0			0			23 (8)	A (A)	1	0			0			MAS
NANTUCKET																			
Great Point (including "The Galls"), Nantucket	0			0			0			0 (24)	(A)		0			0			USFWS, TTOR
The Glades, Nantucket	0			0			0			0			0			0			TTOR
Coskata-Coatue, Nantucket	0			0			0			20 (0)	A	0	0			0			NCF
Wauwinet, Nantucket	0			0			0			0			0			0			MAS
Squam Head & Pond, Nantucket	0			0			0			0			0			0			NCF, MAS
Quidnet (including Sesachacha Pd.), Nantucket	0			0			0			0 (40)	(N)	1	0			0			MAS
Ram I. (Polpis Harbor), Nantucket	0			0			0			0			0			0			NCF
Quaise, Nantucket	0			0			0			0			0			0			Nantucket
Siasconset (Sankaty-Low Beach), Nantucket	0			0			0			0			0			0			Nantucket
Tom Nevers Head, Nantucket	nd			nd			nd			nd			nd			nd			
Surfside, Nantucket (incl. Western Ave. & Fishermen's Beach)	0			0			0			64 (88)	N (N)	2	0			0			MAS, Nantucket
Cisco Beach-Hummock Pond, Nantucket	0			0			0			0			0			0			NCF

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	
Esther I.-Smith Pt., Nantucket	0			0			0			388 (0)	N	0	0			0			Nantucket, MAS
Eel Point, Nantucket	0			0			0			96	N	2	0			0			NCF
Tuckernuck I., Nantucket	0			0			0			0			0			0			TLT
Muskeget I., Nantucket	[0] (0)			[0] (0)			[0] (0)			[1] (0)	[N]		[0] (0)			[0] (0)			MAS
Muskeget sandbars, Nantucket	[0]			[0]			[0]			[0]			[0]			[0]			MAS
TOTAL 2014 NESTING PAIRS	1,831			16,829.5			1.5			3,339			3			2,089			
TOTAL 2013 NESTING PAIRS	1,330			16,336.5			0.5			3,977			3			1,863			
PERCENT CHANGE FROM 2013	37.7			3.0			200.0			-16.0			0.0			12.1			

^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; 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; 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.

^d Tinker's I. is a new Common Tern nesting site; fledglings were present, but overall productivity is unknown.

^e On the Mystic River, one pair of Common Terns nested on the Alford St. Bridge and there was a "great deal of tern activity" on a barge located about 1/4 mile downstream of the bridge; while multiple pairs clearly nested, there was not a good vantage point for counting them.

^f At Plymouth Beach, the Black Skimmer chicks were attended by their parents and a Common Tern, which protected and, at least once, fed them, even after the skimmer chicks moved about a mile from the nest site.

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	

^g At S. Monomoy I., an adult from 1 of the 8 Roseate Tern pairs was believed to be a Roseate-x-Common Tern hybrid that paired with a Roseate Tern. Another suspected Roseate-x-Common Tern hybrid paired with a Common Tern; this was unconfirmed and the pair is not counted amongst the 8 Roseate pairs.

^h At Penikese, a pure Arctic Tern pair fledged 1 chick and a mixed pair (Arctic/Common Tern) fledged 1 chick.

ⁱ At Norton Beach, Roseate Terns were present and courting in May, but no nests were found. In June, 2 pairs of Black Skimmers scraped at the site for 3 days, but did not nest. In May and July, up to 6 non-nesting skimmers were seen at the site.

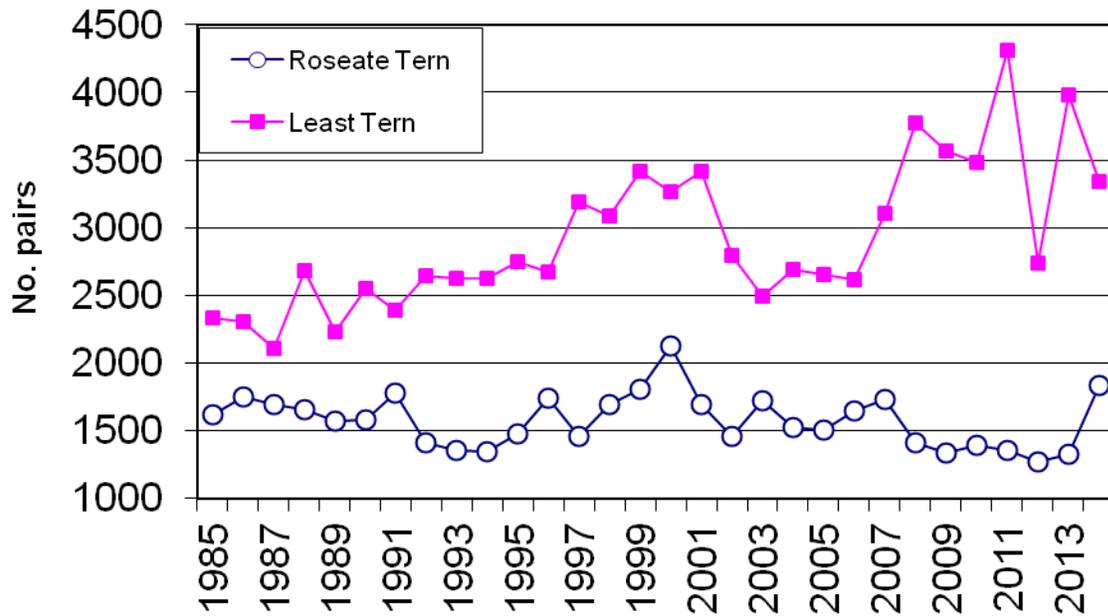


Figure 1. Numbers of nesting Roseate and Least Terns in Massachusetts, 1985-2014.

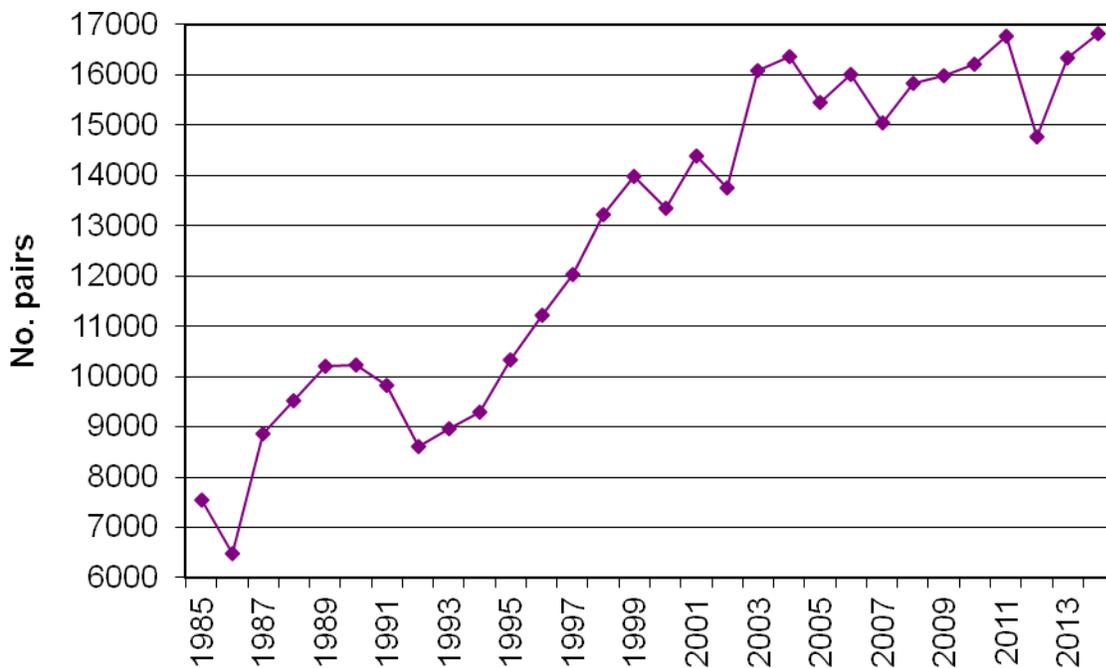


Figure 2. Numbers of nesting Common Terns in Massachusetts, 1985-2014.

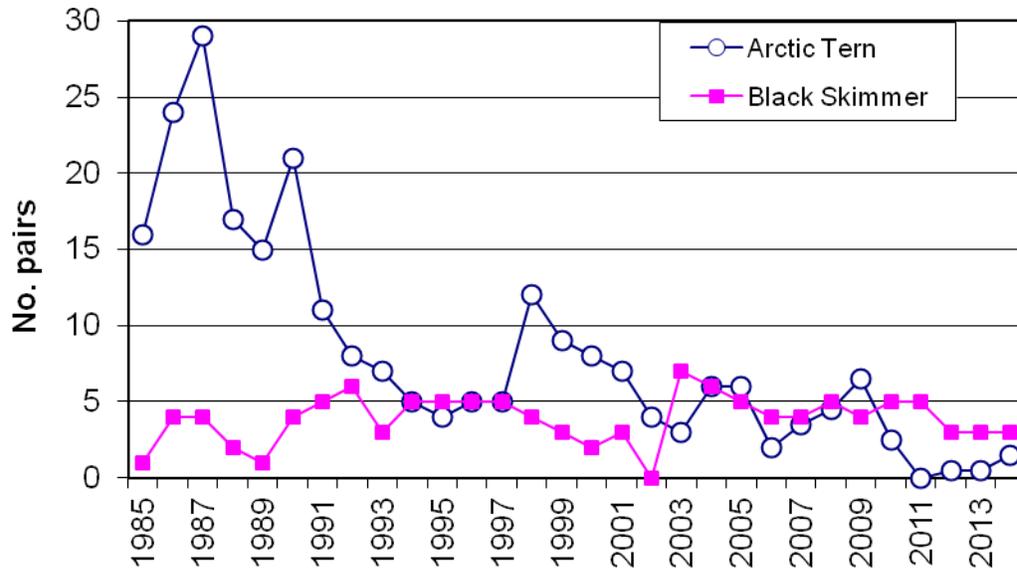


Figure 3. Numbers of nesting Arctic Terns and Black Skimmers in Massachusetts, 1985-2014.

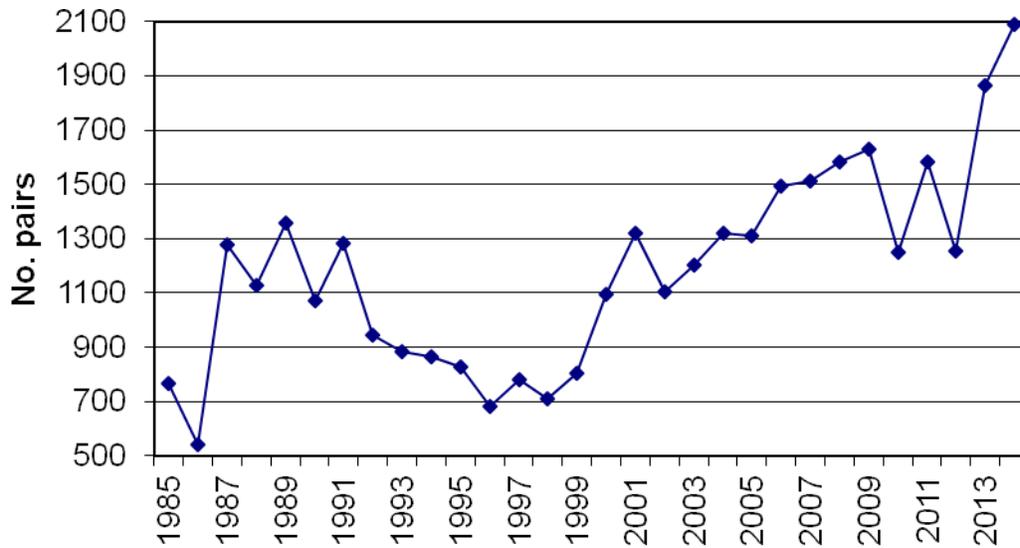


Figure 4. Numbers of nesting Laughing Gulls in Massachusetts, 1985-2014.

Appendix A. Sites not included in Table 1 that were surveyed for nesting terns, Black Skimmers, and Laughing Gulls in 2014. These sites had no record of nesting birds of these species in 2014 or any previous year.

Town	Site name
NORTH SHORE	
Newburyport	Newburyport Town Beach
Salisbury	Salisbury Beach State Reservation
SOUTH SHORE	
Marshfield	Rexhame Beach
Plymouth	Saquish
Scituate	Humarock
UPPER CAPE	
Barnstable	Bone Hill Road
Barnstable	Fortes Beach
Barnstable	Keyes/Sea Street Beach
Brewster	Breakwater Landing Beach
Brewster	Crosby Landing Beach
Brewster	Ellis Landing
Brewster	Linnell Landing Beach
Brewster	Mants Landing
Brewster	Paine's Creek
Brewster	Point of Rocks Landing
Brewster	Robin's Hill Beach
Brewster	Saint's Landing
Brewster	Wings Island
Dennis	Cold Storage Beach
Dennis	Cole's Pond
Dennis	Corporation Beach
Dennis	Howes' Street Beach
Dennis	Mayflower Beach
Dennis	Sesuit Harbor Beach
Falmouth	Acapesket Beach
Falmouth	Little Island Beach
Falmouth	Woodneck Beach
Harwich	Allens Harbor
Harwich	Bank Street
Harwich	Red River Beach
Harwich	Saquatucket Bluffs

Town	Site name
Harwich	Town Beach/Gray Neck Road
Harwich	Winstead Inn
Harwich	Wychmere Harbor/Merkel Beach
Mashpee	Maushop Village/Rock Landing
Mashpee	New Seabury
Yarmouth	Bass River Beach
Yarmouth	Radio City Beach
LOWER CAPE	
Chatham	Clafin Landing/Chatham Bars Inn
Chatham	Cockle Cove
Chatham	Hardings Shores
Chatham	Morris Island Dredge
Chatham	Pleasant Street Beach
Eastham	First Encounter Beach
Eastham	Nauset Light Beach
Orleans	Skaket Beach
Truro	Coast Guard Beach
Truro	Fisher Beach/South Pamet Harbor
Truro	Longnook Beach
Wellfleet	Bound Brook
Wellfleet	Duck Harbor
Wellfleet	Field Point
Wellfleet	Newcomb Hollow
Wellfleet	White Crest Beach
BUZZARDS BAY NORTHWEST	
Wareham	Little Harbor Beach
Wareham	Long Beach Point
MARTHA'S VINEYARD	
Aquinnah	Moshup Beach
Aquinnah	Philbin Beach
Chilmark	Cape Higgon
Chilmark	Great Rock Bight Preserve
Chilmark	Lucy Vincent Beach

Town	Site name
Chilmark	Spring Point
Edgartown	Caleb's Pond
Edgartown	Chappy Point Beach
Edgartown	Cracktuxet Pond
Edgartown	Lighthouse Beach
Edgartown	Paqua Pond
Edgartown	Pease Pond
Edgartown	South Beach
Edgartown	Yorke-Allen Point
Oak Bluffs	Big/Little Gravel Island
Oak Bluffs	Doug's Cove Reserve
Vineyard Haven	Maciel Marine/Lagoon Pond
Vineyard Haven	Wilfrid's Pond Preserve
West Tisbury	Cedar Tree Neck
West Tisbury	Paul's Point
West Tisbury	Seven Gates
NANTUCKET	
Nantucket	Dionis Beach
Nantucket	Jetties Beach