

# INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

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A Least Tern and a Common Tern eye each other warily at Little Beach, Edgartown, MA. © Jeff Bernier, 2015.

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## Abstract

Cooperators in Massachusetts surveyed approximately 225 coastal sites in 2015 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 150 sites with a history of nesting by these species, 86 sites were occupied by nesting birds in 2015. Compared to 2014 numbers, total nesting pairs of Roseate Terns (**1,938 pairs**) increased 6%, Least Terns (**3,665 pairs**) increased 10%, and Laughing Gulls (**2,183 pairs**) increased 5%. Common Terns (**17,155.5 pairs**), Arctic Terns (**1 pair**), and Black Skimmers (**5 pairs**) were roughly 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 (MassWildlife). 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 2015 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

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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 MassWildlife, and observers are contacted to obtain missing data and clarify ambiguities.

## Results & Discussion

In 2015, 147 sites with a history of nesting terns, Laughing Gulls, or Black Skimmers were surveyed. Eighty-six sites were occupied by nesting birds of one or more of these species. Results for each site are summarized in Table 1. Seventy-seven additional sites with no record of nesting terns, Laughing Gulls, or skimmers were surveyed (**Appendix A**); no nesting birds were recorded at these sites in 2015.

**Roseate Tern:** Roseate Terns increased slightly in 2015 (**1,938 pairs** vs. 1,831 in 2014; +5.8%). The Northeast U.S. population (Maine through New York) climbed to 3,901 pairs from 3,560 pairs in 2014 (+9.6%).

Roseates again nested at six sites in 2015, up from four sites in 2014. The largest colony was at Bird I., Marion (1,127 vs. 1,121); productivity was 0.86 fledglings/nest. Ram I., Mattapoisett was the second largest site at 735 pairs (vs. 682); productivity was 0.87 fledglings/nest. After an absence in 2014, Roseates (35 pairs) returned to Norton Beach, Edgartown, but there was no productivity (all nests were lost, probably predated). Penikese I., Gosnold supported 23 pairs (vs. 20); productivity was good (1.12 fledglings/nest). S. Monomoy I., Chatham supported 11 pairs (vs. 8) and productivity was very good

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(1.27 fledglings/pair). A new Roseate nesting site, Little Beach, Edgartown, supported 7 pairs, but there was no productivity: all nests were lost to predators, apparently skunk.

Since 1985, Roseate numbers in the state have fluctuated between 1,269 and 2,124 pairs, averaging 1,588 pairs during this time period (**Fig. 1**).

**Common Tern:** Common Terns nested at 30 sites in Massachusetts in 2015 and numbered **17,155.5 pairs** (vs. 16,829.5 pairs in 2014, +1.9%), topping 2014's recent historical high.

The S. Monomoy I. Common Tern colony grew to 9,203 pairs (vs. 8,526) and had excellent productivity. Numbers declined slightly at Ram I. (3,330 vs. 3,790), the next-largest colony; productivity was low (0.69 fledglings/nest). Bird I. supported 2,247 pairs (vs. 2,391; 0.86 fledglings/nest). Numbers increased at Penikese I. (1,216.5 vs. 915.5) and productivity was excellent (1.43 fledglings/nest). At this site, a Common Tern that paired with a hybrid tern (see "*Hybrid Common X Arctic Tern*," below) accounted for the 0.5 pair. Plymouth Beach decreased to 663 pairs (vs. 819) and there was no productivity due to predation by multiple predators. 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; 86% of the state's pairs were concentrated in the three largest colonies.

From 1985 to 2003, Common Tern numbers rose rapidly in Massachusetts. Although the rate of population growth has slowed since then, numbers have continued to inch upwards. Since 1985, population size has ranged from 6,483 to 17,155.5 pairs (mean, 12,923 pairs) (**Fig. 2**).

**Least Tern:** Least Terns nested at 64 sites in Massachusetts in 2015 and numbered **3,665 pairs** (vs. 3,339 in 2014; +9.8%).

The state's largest Least Tern nesting colony was at Esther I.-Smith Pt., Nantucket. At least 677 nests were counted during the census (vs. 388 in 2014), but the total number of pairs was likely greater because a substantial number of chicks (188) had already hatched. Productivity was excellent. Another large colony was present at S. Monomoy I. (522 vs. 376); productivity was fair to good. Other sites with at least 100 pairs were Duxbury Beach, Duxbury (205 vs. 57; fair to good), Cape Poge Elbow, Edgartown (170 vs. 10; excellent), Sandy Neck, Barnstable (144 vs. 120; poor to excellent, depending on sub-colony), Surfside, Nantucket (139 vs. 64; excellent), Little Beach (130 vs. 418; poor), Third Cliff, Scituate (128 vs. 1; poor), South Cape Beach, Waquoit-Mashpee (122 vs. 24; none), Winthrop Beach, Winthrop (112 vs. 13; excellent), Coskata-Coatue (106 vs. 20; none), Crane Beach, Ipswich (105 vs. 97; poor), and Tern I., Chatham (100 vs. 162; fair to good).

The ten largest A-period Least Tern sites supported 64% of the pairs. The three largest A-period sites supported 38% of the pairs.

Since 1985, numbers of Least Terns have ranged from 2,109 to 4,309 pairs with a mean of 2,952 pairs (**Fig. 1**). The overall trend is positive, but there has been considerable volatility in the numbers. How much of this is due to the difficulties inherent in estimating Least Tern population sizes *versus* true changes in abundance is unknown.

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**Arctic Tern:** In 2015, as was the case in 2014, Penikese I. was the only site that supported nesting Arctic Terns: just **one pair** nested (vs. 1.5 pairs in 2014). It is likely that two chicks fledged. See also “*Hybrid Common X Arctic Tern*,” below.

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**).

**Hybrid Common X Arctic Tern:** On Penikese, a hybrid Common X Arctic Tern backcrossed with a Common Tern and fledged three young, confirmed biological offspring (Mostello et al. 2016). The hybrid, hatched in 2007, was the offspring of the mixed pair (Arctic Tern paired with Common Tern) that had been present on Penikese since 2007 (Mostello 2008). The mixed pair was not observed in 2015. This is the first confirmation that some Common X Arctic hybrids are fertile.

**Black Skimmer:** In 2015, **five pairs** of Black Skimmers nested during the A-period and seven during the B-period (vs. 3 A-period and 1 B-period in 2014). Four sites were occupied. All the A-period nesters were at Little Beach (vs. 2 in 2014), where at least five, and possibly as many as nine, chicks fledged. The B-period birds nested at Norton Beach (5 pairs vs. 1 A-period pair; 1.4 fledglings/pair), Plymouth Beach (1 pair vs. 1 B-period pair; none), and South Beach, Chatham (1 pair vs. 0; none).

Adult skimmers (11) and fledglings (5) were present at Norton Beach on 3 August, within a few days of their departure from Little Beach in late-July, suggesting that some of the pairs at Norton were renesting. However, because fledging success appeared to be good at Little Beach and skimmers are not known to double-brood (Gochfeld and Burger 1994), it is likely that more than two of the B-period pairs in Massachusetts had not nested elsewhere in the state during the A-period. Additionally, 16 adults and 5 fledglings were observed at Little Beach in late-July, indicating that there may have been at least 8 pairs present.

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 4.5% in 2015 to **2,183 pairs** (vs. 2,089 in 2014), another record high for Massachusetts. They nested at the usual two sites: Plymouth Beach (759 vs. 1,106; none) and S. Monomoy I. (1,424 vs. 983; excellent).

From 1985 to present, Laughing Gulls have averaged 1,217 pairs, ranging between 542 and 2,183 pairs (**Fig. 4**). The overall trend since 1998 has been strongly upward: the population has tripled since then. 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

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### Literature Cited

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**Table 1.** Numbers of pairs and productivity of terns, Laughing Gulls, and Black Skimmers nesting in Massachusetts in 2015. All sites were censused unless noted as “nd” (no data). Data in parentheses refer to B-period (post-peak) 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			Source <sup>c</sup>	Notes
	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			38	N		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			2	N		0			0			0			0			USFWS	
Parker River Group (marshes)	0			10	A		0			0			0			0			USFWS	
Plum I. Beach, Newbury-Rowley-Ipswich	0			0			0			95 (56)	A	1-2	0			0			USFWS, MAS	
Rowley Salt Marshes	0			1	A		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			18	A		0			0			0			0			ECGA	
Ipswich Salt Marshes	0			0			0			0			0			0			ECGA	
Crane Beach, Ipswich	0			0			0			105	N	1	0			0			TTOR	
Tinker's I., Marblehead	0			56 (80)	A (A)	1	0			0			0			0			Pivacek	

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COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
Saugus River (Gen. Edwards) Bridge, Lynn- Revere	0			25	A		0			0			0			0			Zendeh	
Winthrop Beach, Winthrop	0			0			0			112 (42)	A (A)	3	0			0			MAS	
Yirrell Beach, Winthrop	0			0			0			0			0			0			Winthrop	
Snake I., Winthrop	0			0			0			0			0			0			NPS	
Mystic River*, Everett-Boston- Somerville- Medford	0			48	A		0			0			0			0			Zendeh	Common Terns nested at new site: an "abandoned barge or raft covered with junk" ~0.25 mi. downstream of Alford St. Bridge.
Chelsea River, Chelsea-Revere- Boston	0			+	*		0			0			0			0			Zendeh	"A few" Common Terns nested at the end of a long dock; accurate count was unavailable.
Belle Isle Marsh, Boston	0			0			0			0			0			0			Zendeh	
Logan Airport, Boston	0			0			0			20	A	0	0			0			Smith	
Central Square Piers, East Boston	0			52	A		0			0			0			0			Zendeh	
Jeffries Point, East Boston	0			?	*		0			0			0			0			Zendeh	13 Common Terns present on docks and rafts; unclear if they were nesting.
Rainsford I., Boston	0			0			0			0			0			0			NPS	
Lovell I., Boston	0			0			0			[40] 1 (0)	[A] A	0	0			0			MAS	
Spinnaker I., Hull	0			54	A		0			0			0			0			NPS	
<b>SOUTH SHORE</b>																				
The Glades, Scituate	0			0			0			0			0			0			MAS	



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COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
Third Cliff (North R. mouth), Scituate	0			0			0			128	A	1	0			0			MAS	
Fourth Cliff (North R. mouth), Scituate	0			0			0			[56] 0	[A]	0	0			0			MAS	
Duxbury Beach, Duxbury	0			0			0			205	A	2	0			0			MAS	
Plymouth Beach, Plymouth	0			663	N	0	0			89	N/A	1	0 (1)	(N)	0	759	N	0	Plymouth	
Ellisville Harbor, Plymouth	0			0			0			1 (nd)	N	0	0			0			MAS	
Sagamore Beach, Bourne and Sandwich	0 (nd)			0 (nd)			0 (nd)			0 (nd)			0 (nd)			0 (nd)			MAS	
Scusset Beach, Sandwich	0 (nd)			0 (nd)			0 (nd)			0 (nd)			0 (nd)			0 (nd)			MAS	
<b>UPPER CAPE</b>																				
Black Beach-Sippewisset, Falmouth	0			0			0			2 (9)	N (N)	2	0			0			MAS	
Trunk River, Falmouth	0			0			0			1*	N	0	0			0			MAS	New nesting site for Least Terns in 2015.
Menauhant, Falmouth	0			0			0			0			0			0			MAS	
Washburn I., Falmouth	0			0			0			23 (44)	A (A)	0	0			0			MAS	
South Cape Beach-Waquoit, Mashpee	0			0			0			122 (64)	A (A)	0	0			0			MAS	
Popponeset Spit, Mashpee	0			0			0			0 (17)	(A)	2	0			0			MAS	
Town Neck Beach, Sandwich	0			0			0			12	A	0	0			0			MAS	
Springhill Beach, Sandwich	0			0			0			35 (2)	(N)	0-3	0			0			MAS	

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COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
East Sandwich Beach, Sandwich	0			0			0			18	A	3	0			0			MAS	
Scorton (Neck) Creek, Sandwich	0			0			0			15	A	1	0			0			MAS	
Scorton Shores, Sandwich	0			0			0			0 (2)	(N)	0	0			0			MAS	
Sandy Neck, Barnstable	0			0			0			144 (109)	A (A)	1-3	0			0			Barnstable, MAS	
Dead Neck-Sampson I., Barnstable	0			0			0			0			0			0			MAS	
Craigville-Long Beach, Barnstable	0			0			0			0			0			0			MAS	
Squaw I., Barnstable	0			0			0			22	A	2	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			[5] 2	[A] N	0-1	0			59 (85)	A (A)	2	0			0			MAS	
Great I., Yarmouth	0			0			0			0			0			0			MAS	
Seagull Beach	0			0			0			0			0			0			MAS	
West Dennis Beach, Dennis	0			0			0			1 (0)	N		0			0			Dennis	
Miramar Beach, Dennis	0			0			0			2 (9)	N (N)	0	0			0			MAS	
<b>LOWER CAPE</b>																				
Forest Beach, Chatham	0			0			0			0 (4)	(N)	0	0			0			MAS	
Ridgevale Beach, Chatham	0			0			0			0			0			0			MAS	

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COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
Harding's Beach and Point, Chatham	0			0			0			6 (2)	N (A)	0	0			0			MAS	
S. Monomoy I., Chatham	11	N	1.27 fl/pr	9,203	N	3	0			522	N	2	0			1,424	N	3	USFWS	
Minimoy I., Chatham	0			1	N	0	0			10	N	1	0			0			USFWS	
N. Monomoy I., Chatham	0			3	N	0	0			0			0			0			USFWS	
South Beach I., Chatham	0			0			0			54 (62)	A (A/N)	1-2	0 (1)	N	0	0			MAS	
Nauset (North) Beach (incl. N. Bch. I.), Chatham	0			0			0			30 (19)	A/N (N)	unk-2	0			0			Chatham	
Tern I., Chatham	0			1 (3)	A (A)	2	0			100	A	2	0			0			MAS	
Nauset (North) Beach, Orleans (Chatham line north to Nauset Harbor Inlet)	0			0			0			35	E	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			32	A	0.22 fl/pr	0			0			NPS	
Great I.-Jeremy Pt., Wellfleet	0			0			0			20	N	1	0			0			NPS	
Marconi Beach, Wellfleet	0			0			0			7	A	0	0			0			NPS	
Marconi Station/LeCount Hollow, Wellfleet	0			0			0			0			0			0			NPS	

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COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
Cahoon Hollow, Wellfleet	0			0			0			0			0			0			NPS	
Pamet Harbor Bar/Corn Hill, Truro	0			0			0			12 (25)	A (A)	0	0			0			MAS	
Fisher Beach/South Pamet*, Truro	0			0			0			0			0			0			MAS	Site was combined with Pamet Harbor Bar/Corn Hill in previous reports.
Beach Point/Pilgrim Beach, Truro	0			0			0			0			0			0			MAS	
Ballston Beach, Truro	0			0			0			2 (4)	A (N)	0	0			0			NPS, MAS	
High Head, Truro	0			0			0			0 (8)	(N)	0	0			0			NPS	
Head of the Meadow, Truro	0			0			0			15 (9)	N (N)	0	0			0			NPS	
Wood End-Long Point Area, Provincetown	0			0			0			16 (18)	N (N)	0	0			0			NPS	
Race Point South, Truro-Provincetown	0			0			0			26 (38)	N (N)	0-2	0			0			NPS	
Race Point North, Provincetown	0			0			0			14 (18)	N (N)	0	0			0			NPS	
<b>BUZZARDS BAY - NORTHWEST</b>																				
Bird I., Marion	1,127	N	0.86 fl/n	2,247	N	0.86 fl/n	0			0			0			0			MDFW	
Strawberry Pt., Mattapoisett	0			0			0			0			0			0			MDFW	
Ram I., Mattapoisett	735	N	0.87 fl/n	3,330	N	0.69 fl/n	0			0			0			0			MDFW	
S. Shore Marshes WMA, Little Bay, Fairhaven	[0] nd			[0] nd			[0] nd			[14] nd	[N]		[0] nd			[0] nd			MDFW	

INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
Fish I., Fairhaven	[0] nd			[0] nd			[0] nd			[0] nd			[0] nd			[0] nd			MDFW	
West I., Fairhaven	0			0			0			0			0			0			LCES	
Long I., Fairhaven	[0] nd			[0] nd			[0] nd			[0] nd			[0] nd			[0] nd			MDFW	
Winsegansett Hts., Fairhaven	0			0			0			0			0			0			LCES	
Nonquitt, Dartmouth	0			4	N	1?	0			0			0			0			MAS	
Round Hill Beach, Dartmouth	0			0			0			0			0			0			MAS	
Salter's Pt. and Pd., Dartmouth	0			8	N	1?	0			0			0			0			MAS	
Demarest Lloyd State Park, Dartmouth	0			0			0			10 (5)	N (N)	1	0			0			LCES	
Barney's Joy-Allen's Pd.-Little Beach, Dartmouth	0			0			0			8 (11)	A (A)	2	0			0			MAS	
Gooseberry Neck, Westport	0			0			0			0			0			0			LCES	
Horseneck Beach, Westport	0			0			0			54 (10)	N (N)	2-3	0			0			LCES	
Speaking Rock, Westport	0			1	N	2?	0			0			0			0			MAS	
Fishing Rock, Westport	0			3	N	1?	0			0			0			0			MAS	
Jug Rock, Westport	nd			nd			nd			nd			nd			nd				
Cockeast Pd.-Acoaxet, Westport	0			0			0			0			0			0			MAS	
Richmond Pd., Westport	0			0			0			1	A	0	0			0			TNCRI	
Bay Point, S. Swansea	nd			nd			nd			nd			nd			nd				

INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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>ELIZABETH ISLANDS</b>																				
Pasque I., Gosnold	nd			nd			nd			nd			nd			nd				
Nashawena I., Gosnold	nd			nd			nd			nd			nd			nd				
Penikese I., Gosnold	23	N	1.12 fl/n	1,216.5*	N	1.43 fl/n	1*	N	2.0? fl/n	0			0			0			MDFW	A Common X Arctic Tern hybrid is not included in pair counts of either parent species. Its Common Tern mate is counted as 0.5 pair. The pair fledged 3 young.
Cuttyhunk I., Gosnold	0			0			0			22	A		0			0			MDFW	
<b>MARTHA'S VINEYARD</b>																				
Eastville Beach, Oak Bluffs	0			0			0			13 (0)	N	0	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	
Cow Bay, Edgartown	0			[8] 0	[N]	0	0			0			0			0			MAS	
Sarson I., Sengekontacket Pd., Oak Bluffs	0			6	N	2	0			0			0			0			MAS	
Haystack Pt., Sengekontacket Pd., Edgartown	0			5 (6)	N (N)	2	0			0			0			0			MAS	
Little Beach, Edgartown	7 (3)	A (A)	0	75	A	1	0			130	A	1	5	N	2*	0			BW	Black Skimmers produced 5 - 9 fledglings.
Cape Poge Elbow, Edgartown	0			1 (11)	N (N)	0	0			170 (141)	A (N)	3	0			0			TTOR	

INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
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	35	A	0	82	A	0	0			54	N	1	0 (5)	(A)	1.4 fl/pr	0			TTOR	
Edgartown Great Pd., Edgartown	0			0			0			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			0			[54] 3 (17)	[N] N (N)	0	0			0			MVLBC, MAS, TTOR, BW	
Lamberts Cove-James Pd., W. Tisbury	0			0			0			0			0			0			BW	
Chilmark Pd., Chilmark	0			0			0			16 (73)	A (A)	1	0			0			BW, MVLBC	
Stonewall Beach, Chilmark	0			0			0			0			0			0			BW	
Long Beach, Aquinnah & Squibnocket Beach, Chilmark	0			0			0			0			0			0			BW	
Nomans Land I.*, Chilmark	[0]			[0]			[0]			[0]			[0]			[0]			USFWS	Surveyed 3 June, just prior to the census window.
Lobsterville, Aquinnah	0			0			0			0			0			0			MAS	

INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	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		
Dogfish Bar, Aquinnah	0			0			0			63	A	0	0			0			BW	
Menemsha Pd., Aquinnah-Chilmark (encompasses Edy's I., Chilmark)	0			0			0			0			0			0			MAS	
Tashmoo, Tisbury	0			0			0			35 (0)	N	0	0			0			BW, MAS	
Mink Meadows, Tisbury	0			0			0			14 (3)	N (A)	1	0			0			MAS	
<b>NANTUCKET</b>																				
Great Point (including "The Galls"), Nantucket	0			0			0			[3] 0 (2)	[N] (N)	0	0			0			USFWS, TTOR	
The Glades, Nantucket	0			0			0			0			0			0			TTOR	
Coskata-Coatue, Nantucket	0			0			0			106 (0)	N	0	0			0			NCF, TTOR	
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			[8] 1 (6)	[A] A (N)	2	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	



INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

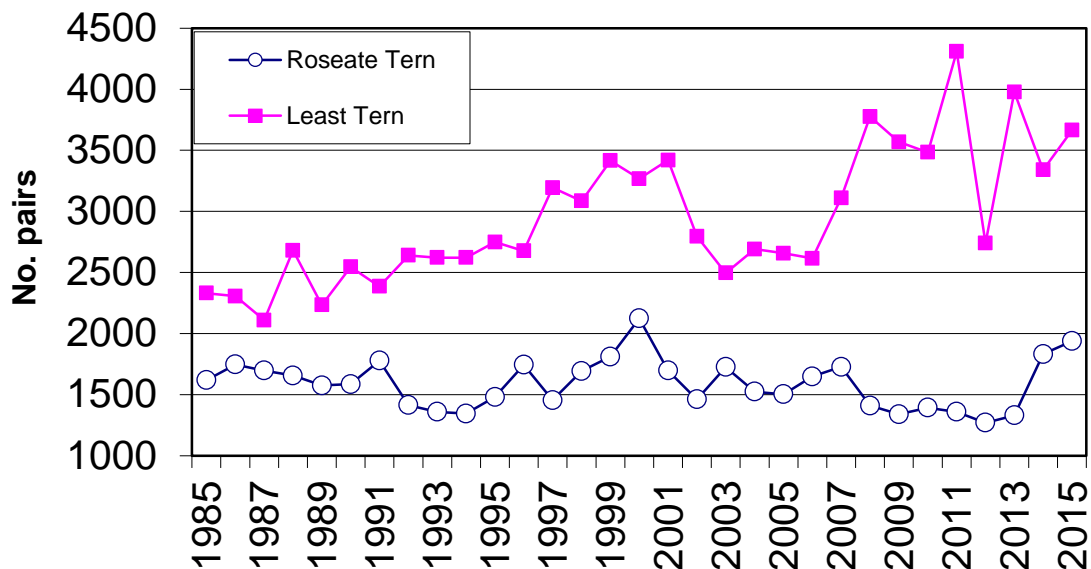
COLONY NAME, TOWN	Roseate Tern			Common Tern			Arctic Tern			Least Tern			Black Skimmer			Laughing Gull			Source <sup>c</sup>	Notes
	No. pairs	M <sup>a</sup>	P <sup>b</sup>	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P	No. pairs	M	P		
Tom Nevers Head, Nantucket	0			0			0			0			0			0			Nantucket	
Surfside, Nantucket (incl. Western Ave. & Fishermen's Beach)	0			0			0			139	N	3	0			0			MAS, Nantucket	
Cisco Beach-Hummock Pond, Nantucket	0			0			0			0			0			0			NCF	
Esther I.-Smith Pt., Nantucket	0			0			0			677* (480)	N (A)	3	0			0			Nantucket, MAS	Least Tern A-count is minimum estimate; some nests had already hatched at time of census (188 chicks were counted).
Eel Point, Nantucket	0			0			0			36	N	1	0			0			NCF	
Tuckernuck I., Nantucket	0			0			0			0			0			0			TLT, Veit	
Muskeget I., Nantucket	0			0			0			0			0			0			MAS, TLT	
Muskeget sandbars, Nantucket	0			0			0			0			0			0			MAS, TLT	
<b>TOTAL 2015 NESTING PAIRS</b>	<b>1,938</b>			<b>17,155.5</b>			<b>1</b>			<b>3,665</b>			<b>5</b>			<b>2,183</b>				
TOTAL 2014 NESTING PAIRS	1,831			16,829.5			1.5			3,339			3			2,089				
PERCENT CHANGE FROM 2014	5.8			1.9			-33.3			9.8			66.7			4.5				

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

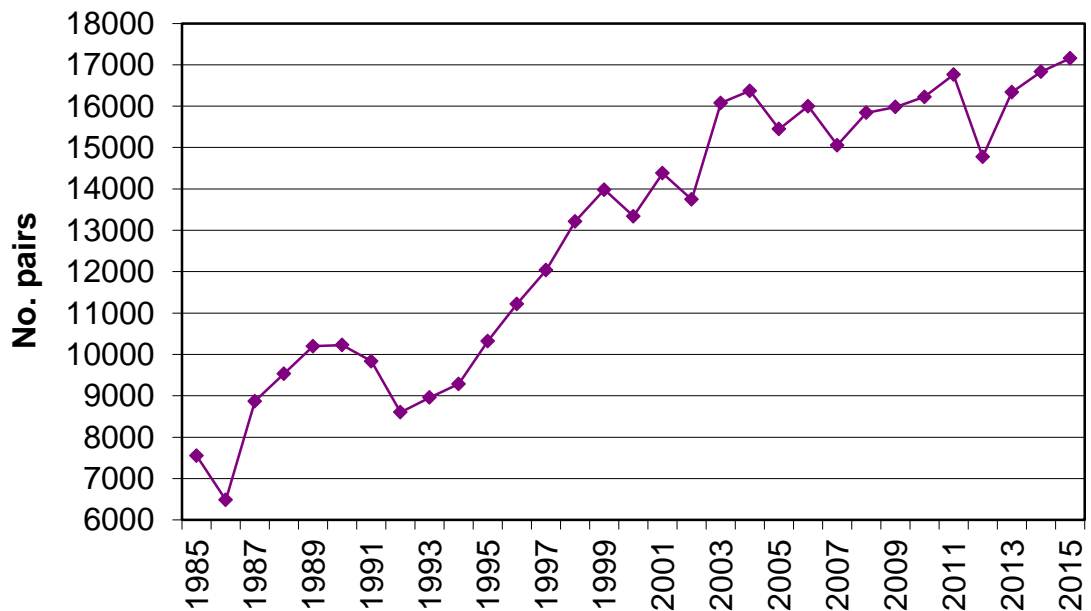
<sup>b</sup> Productivity: 0 = none; 1 = poor; 2 = fair to good; 3 = excellent. Quantitative estimates are given as fledglings/nest or fledglings/pair.

<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; 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.

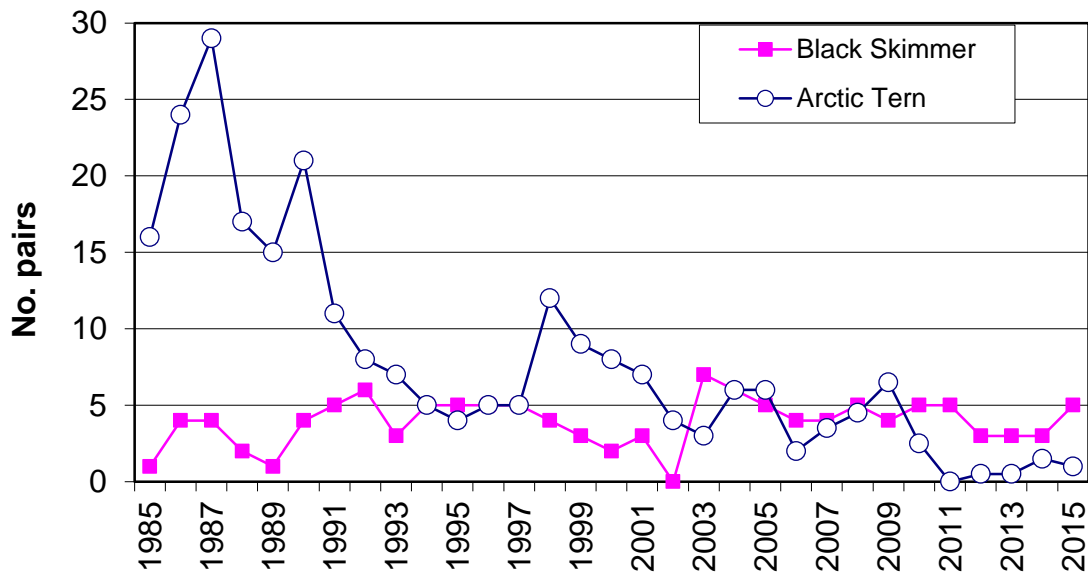
\* See Notes column.



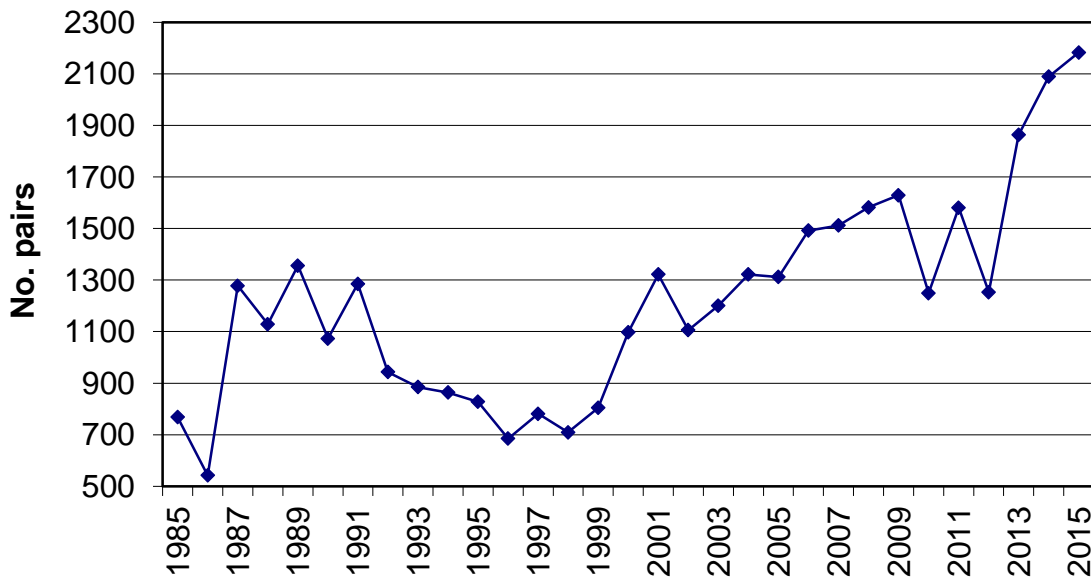
**Figure 1. Numbers of nesting Roseate and Least Terns in Massachusetts, 1985-2015.**



**Figure 2. Numbers of nesting Common Terns in Massachusetts, 1985-2015.**



**Figure 3. Numbers of nesting Arctic Terns and Black Skimmers in Massachusetts, 1985-2015.**



**Figure 4. Numbers of nesting Laughing Gulls in Massachusetts, 1985-2015.**

INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

**Appendix A.** Sites not included in Table 1 that were surveyed for nesting terns, Black Skimmers, and Laughing Gulls in 2015. These sites had no record of nesting birds of these species in 2015 or, to our knowledge, in any previous year.

Town	Site name	Source <sup>a</sup>
<b>NORTH SHORE</b>		
Newburyport	Newburyport Town Beach	MAS
Salisbury	Salisbury Beach State Reservation	MAS
<b>SOUTH SHORE</b>		
Marshfield	Rexhame Beach	MAS
Plymouth	Saquish	MAS
Scituate	Humarock	MAS
<b>UPPER CAPE</b>		
Barnstable	Bone Hill Road	MAS
Barnstable	Craigville Beach	MAS
Barnstable	Fortes Beach	MAS
Barnstable	Keyes/Sea Street Beach	MAS
Brewster	Breakwater Landing Beach	MAS
Brewster	Crosby Landing Beach	MAS
Brewster	Ellis Landing	MAS
Brewster	Linnell Landing Beach	MAS
Brewster	Mants Landing	MAS
Brewster	Paine's Creek	MAS
Brewster	Point of Rocks Landing	MAS
Brewster	Robin's Hill Beach	MAS
Brewster	Saint's Landing	MAS
Brewster	Wings Island	MAS
Falmouth	Acapesket Beach	MAS
Falmouth	Little Island Beach	MAS
Falmouth	Woodneck Beach	MAS
Harwich	Allens Harbor	MAS
Harwich	Bank Street	MAS
Harwich	Red River Beach	MAS
Harwich	Saquatucket Bluffs	MAS
Harwich	Town Beach/Gray Neck Road	MAS
Harwich	Winstead Inn	MAS
Harwich	Wychmere Harbor/Merkel Beach	MAS
Mashpee	Maushop Village/Rock Landing	MAS
Mashpee	New Seabury	MAS
Yarmouth	Bass River Beach	MAS
Yarmouth	Radio City Beach	MAS
<b>LOWER CAPE</b>		
Chatham	Claflin Landing/Chatham Bars Inn	MAS
Chatham	Cockle Cove	MAS
Chatham	Morris Island Dredge	MAS
Chatham	Pleasant Street Beach	MAS
Eastham	First Encounter Beach	MAS
Eastham	Nauset Light Beach	NPS

INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS NESTING IN MASSACHUSETTS IN 2015

Town	Site name	Source <sup>a</sup>
Provincetown	Hatches Harbor	NPS
Provincetown	Herring Cove	NPS
Truro	Coast Guard Beach	NPS
Truro	Longnook Beach	NPS
Wellfleet	Bound Brook	NPS
Wellfleet	Duck Harbor	NPS
Wellfleet	Field Point	MAS
Wellfleet	Newcomb Hollow	NPS
Wellfleet	White Crest Beach	NPS
<b>BUZZARDS BAY NORTHWEST</b>		
Wareham	Little Harbor Beach	MAS
Wareham	Long Beach Point	MAS
<b>MARTHA'S VINEYARD</b>		
Aquinnah	Moshup Beach: Aquinnah Headlands Preserve	MVLBC
Aquinnah	Philbin Beach	BW
Chilmark	Cape Higgon	BW
Chilmark	Great Rock Bight Preserve	MVLBC
Chilmark	Lucy Vincent Beach	BW
Chilmark	Spring Point	BW
Edgartown	Bend-in-the-Road Beach	MAS
Edgartown	Caleb's Pond	BW
Edgartown	Chappy Point Beach	MVLBC
Edgartown	Cracktuxet Pond	BW
Edgartown	Lighthouse Beach	BW
Edgartown	Paqua Pond	BW
Edgartown	Pease Pond	BW
Edgartown	South Beach	BW
Edgartown	Yorke-Allen Point	MAS
Oak Bluffs	Big/Little Gravel Island	
Oak Bluffs	Doug's Cove Reserve	MVLBC
Vineyard Haven	Beach Road Causeway	MAS
Vineyard Haven	Maciel Marine/Lagoon Pond	MAS
Vineyard Haven	Wilfrid's Pond Preserve	MVLBC
West Tisbury	Cedar Tree Neck	SMF, BW
West Tisbury	Paul's Point	BW
West Tisbury	Sepiessa Point Reservation	MVLBC
West Tisbury	Seven Gates	BW
<b>NANTUCKET</b>		
Nantucket	Dionis Beach	Nantucket
Nantucket	Haulover	TTOR
Nantucket	Jetties Beach	Nantucket

<sup>a</sup> See Table 1 for full names of Sources; SMF=Sheriff's Meadow Foundation.