

**INVENTORY OF TERNS, LAUGHING GULLS, AND BLACK SKIMMERS
NESTING IN MASSACHUSETTS IN 2010**



Juvenile Roseate Tern, Massachusetts.

Prepared by:

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

August 2011

Abstract

Cooperators in Massachusetts surveyed more than 141 coastal sites in 2010 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*). Eighty sites were occupied by nesting birds of one or more of these species. Roseate Terns increased 4.0% to 1,393 pairs. Common Terns and Least Terns were stable at 16,224 and 3,484 pairs, respectively. Laughing Gulls decreased 23.3% to 1,249 pairs. Five pairs of Black Skimmers nested during the peak of the season and three pairs nested late. Two-and-a-half pairs of Arctic Terns nested during the peak.

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 2010 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 2010, 141 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.) Eighty 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 increased 4.0% to 1,393 pairs (vs. 1,339 pairs in 2009). The U.S. (or “Northeast”) population as a whole declined slightly to 2,970 pairs (vs. 3,027; Roseate Tern Recovery Team, unpubl. data), its lowest level since 1994, continuing a downward trend initiated after 2000.

Although Buzzards Bay still harbored nearly all the pairs, Roseates nested at more sites than usual: seven versus just four in 2009. The largest colony was at Bird I., Marion (735 vs. 708); productivity was excellent, 1.33 fledglings/nest. Ram I., Mattapoisett was the second largest site at 584 pairs (vs. 588); productivity was excellent, 1.30 fledglings/nest. Other sites included Penikese I., Gosnold (37 vs. 43; fair to good productivity), Norton Beach, Edgartown (26 vs. 50 B-period; poor due to skunk predation), S. Monomoy I., Chatham (8 vs. 0; 1.00 fledglings/pair), Plymouth Beach, Plymouth (2 vs. 0), and Minimoy I., Chatham (1 vs. 0; 2.00 fledglings/pair).

Since 1985, Roseate numbers in the state have fluctuated between 1,339 and 2,124 pairs, averaging 1,596 pairs during this time period (Fig. 1).

Common Tern: Common Terns nested at 28 sites in Massachusetts in 2010. Numbers were essentially stable at 16,224 pairs (vs. 15,978.5 pairs in 2009). The largest site was S. Monomoy I. (6,450 vs. 2,347), which recovered from a substantial drop in 2009 that was caused by predation and weather effects. Productivity was 1.25 fledglings/pair. Three sites that were probable

recipients of the S. Monomoy terns in 2009 experienced a drop in numbers in 2010. Plymouth Beach dropped from 4,395 pairs to 2,309 pairs. Ram I. dropped from 3,961 to 3,466 pairs; productivity was 0.85 fledglings/nest. Norton Beach dropped from about 500 B-period pairs to 191 pairs; productivity was poor due to skunk predation.

Other large colonies included Bird I. (1,945 pairs vs. 1,805; 0.65 fledglings/nest) and Penikese I. (1,073 vs. 1,138.5; excellent). At Penikese, one Common Tern adult was again paired with an Arctic Tern. Other sites with more than 100 pairs of nesting Common Terns included Spinnaker I., Hull (206 vs. 104) and Minimoy I. (194 vs. 1,453; fair to good productivity).

The ten largest A-period colonies supported 98% of the state's Common Tern pairs; 75% 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 pairs. Since 1985, population size has ranged from 6,483 to 16,372 pairs (mean, 12,260 pairs) (Fig. 2).

Least Tern: Our most widely distributed tern, the Least Tern, nested at 63 sites in the state in 2010. Numbers were essentially stable at 3,484 pairs (vs. 3,569 in 2009). The colony at Norton Beach (in 2009, 714 A-period pairs plus an additional 942 B-period) remained the largest in the state (1,221 A-period, 1,371 B-period); productivity was excellent, boding well for re-formation of the colony in 2011.

The next largest colonies were Plymouth Beach (271 vs. 475; poor productivity due to canid predation) and Sandy Neck, Barnstable (245 vs. 432; poor due to predation and overwash), which were also the second and third largest colonies in 2009.

Additional colonies with at least 100 pairs were: Dunbar Pt./Kalmus Park, Barnstable (160 vs. 76; fair to good), Crane Beach, Ipswich (157 vs. 102; fair to good), Allen's Pd., Dartmouth (140 prior to peak census window vs. 240; poor), Eel Pt., Nantucket (113 vs. 133; no productivity), South Beach, Chatham (110 vs. 45; no productivity).

Least Terns were quite concentrated again this year, with the three largest sites supporting 50% of the pairs. The top ten sites supported 73% 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 3,776 pairs with a mean of 2,826 pairs (Fig. 1).

Arctic Tern: Two-and-a-half pairs of Arctic Terns nested at the usual two locations. At Plymouth Beach, two pairs nested (vs. 5 in 2009; poor productivity). At Penikese I., the only Arctic Tern that nested was one individual that was paired (as it has been since 2007) with a Common Tern; they raised two young to fledging age. Since 1985, numbers of this range-edge species have ranged from 2 (a dubious value from 2006) to 29 pairs (mean, 9 pairs), with the overall trend being downward (Fig. 3).

Black Skimmer: In 2010, five pairs of Black Skimmers nested at Minimoy I. during the peak census window (vs. 4 peak pairs in 2009); productivity was poor. Three pairs nested at Norton Beach after the peak census window; they were not productive. 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 2010, Laughing Gulls nested at two sites. Numbers dropped 23.3% to 1,249 pairs (vs. 1,629 in 2009). Plymouth Beach was again the major site, with 894 pairs (vs. 1,077; fair to good productivity). Numbers at S. Monomoy I. continued to drop, to 355 pairs (vs. 547; poor).

From 1985 to present, Laughing Gulls have averaged 1,106 pairs, fluctuating between 542 and 1,629 pairs (Fig. 4). The trend since 1998 was strongly upward until 2010.

Acknowledgements

Thanks to dozens of cooperators that worked at these sites and collected and submitted data for this report. Vern Laux provided the cover photo.

Table 1. Numbers of pairs and productivity of terns, Laughing Gulls, and Black Skimmers nesting in Massachusetts in 2010. 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 ^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	0			0			0			0			0			0			ECGA
Woodbridge I., Newburyport	0			48	A	2	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			39	A	2	0			0			0			0			USFWS
Parker River Group (marshes)	0			14	A	2	0			0			0			0			USFWS
Plum I. Beach, Newbury-Rowley-Ipswich	0			1	N	2	0			49 (97)	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			16	A		0			0			0			0			ECGA
Ipswich Salt Marshes	0			0			0			0			0			0			ECGA
Crane Beach, Ipswich	0			0 (2)	(N)	0	0			157 (20)	N (E)	2	0			0			TTOR
Saugus River (Gen. Edwards) Bridge, Lynn-Revere	0			[43] 28	[A] A		0			0			0			0			Zendeh
Winthrop Beach, Winthrop	0			0			0			30	A	3	0			0			MAS
Yirrell Beach, Winthrop	0			0			0			6	N	1	0			0			MAS
Snake I., Winthrop	0			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	
Mystic River, Everett- Boston-Somerville- Medford	0			11	N/A	+	0			0			0			0			Fager
Chelsea River, Chelsea-Revere- Boston	0			16	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			[42] 50	[A] A		0			0			0			0			Zendeh
Rainsford I., Boston	0			0			0			0 (+) ^d			0			0			NPS
Lovell I., Boston	0			0			0			0 (35)	(N)		0			0			NPS
Spinnaker I. (formerly Hog I. Pier), Hull	0			206	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			41	A	3	0			0			MAS
Fourth Cliff (North R. mouth), Scituate	0			0			0			0			0			0			MAS
Duxbury Beach, Duxbury	0			0			0			63 (107)	A(A)	1-2	0			0			MAS
Plymouth Beach, Plymouth	2	A		2,309 (511)	N(N)	2	2	N	1	271 (151)	N(N)	1	0			894	N	2	Plymouth
Ellisville Harbor, Plymouth	0			0			0			5	N	2	0			0			MAS, FE
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			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	
Washburn I., Falmouth	0			0			0			[15]	E	0	0			0			WBNERR, MDCR
South Cape Beach- Waquoit, Mashpee	0			0			0			[15]	E	0	0			0			WBNERR, MDCR
Popponeset Spit, Mashpee	0			0			0			0			0			0			MAS
Town Neck Beach, Sandwich	0			0			0			47 (72)	N (A)	2	0			0			MAS
Springhill Beach, Sandwich	0			0			0			88 (112)	N (A)	1	0			0			MAS
Scorton (Neck) Creek, Sandwich	0			0			0			5 (4)	N (N)	2	0			0			MAS
Scorton Shores, Sandwich	0			0			0			0			0			0			MAS
Sandy Neck, Barnstable	0			1	N	3	0			245 (38)	A	1	0			0			Barnstable, MAS
Dead Neck, Barnstable	0			10	N/A	1	0			124 (132)	N (N)	1	0			0			MAS
Sampson I., Barnstable	0			[1]	A	0	0			5	N	1	0			0			MAS
Craigville-Long Beach, Barnstable	0			0			0			0			0			0			MAS
Squaw I., Barnstable	0			0			0			0			0			0			MAS
Dowes Beach, Barnstable	0			0			0			0			0			0			Barnstable
Dunbar Point (Kalmus Park), Barnstable	0			0			0			160	A	2	0			0			Barnstable
Gray's Beach, Yarmouth	0			2 (3)	A (A)	0-1	0			50 (56)	NC	2	0			0			MAS
Great I., Yarmouth	0			0			0			0			0			0			MAS
West Dennis Beach, Dennis	0			0			0			71 (32)	A (A)	1-2	0			0			MAS
Miramar Beach, Dennis	0			0			0			15 (15)	N (N)	3	0			0			MAS
LOWER CAPE																			
Forest Beach,	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	
Chatham																			
Ridgevale Beach, Chatham	0			0			0			24 (11)	A(A)	0-1	0			0			MAS
Harding's Beach and Point, Chatham	0			0			0			0 (3)	(A)	2?	0			0			MAS
S. Monomoy I., Chatham	8 (0)	N	1.00 fl/pr	6,450	N	1.25 fl/pr	0			39 (11)	N(N)	2	0			355	N	1	USFWS
Minimoy I., Chatham	1 (0)	N	2.00 fl/pr	194	N	2	0			0			5	N	1	0			USFWS
N. Monomoy I., Chatham	0			3	N	0	0			0			0			0			USFWS
South Beach I., Chatham	0			0			0			110 (33)	A(A/N)	0	0			0			MAS, MDFW
Nauset (North) Beach (incl. N. Bch. I.), Chatham	0			0			0			12	AC	0-1	0			0			Chatham
Tern I., Chatham	0			0 (1)	N		0			89	N	2	0			0			MAS
Nauset (North) Beach, Orleans (Chatham line north to Nauset Harbor Inlet)	0			0			0			36	A	1	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 (1)	(N)	0	0			0			MAS
Nauset-Eastham ("Coast Guard Beach" & "Plover I.")	0			0			0			10 (22)	A(A)	0	0			0			NPS
Great I.-Jeremy Pt., Wellfleet	0			0			0			32 (24)	A(A)	1	0			0			NPS
Marconi Beach, Wellfleet	0			0			0			1 (36)	A (A)	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

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	
Pamet Harbor Bar/Corn Hill, Truro	0			0			0			31	N	2	0			0			MAS
Beach Point/Pilgrim Beach, Truro	0			0			0			0			0			0			MAS
Ballston Beach, Truro	0			0			0			0 (+)		0	0			0			NPS
High Head, Truro	0			0			0			0			0			0			NPS
Head of the Meadow, Truro	0			0			0			88 (19)	N (N)	0	0			0			NPS
Wood End-Long Point Area, Provincetown	0			0			0			5 (22)	N (N)	1	0			0			NPS
Race Point South, Truro-Provincetown	0			0			0			17 (81)	N (N)	1	0			0			NPS
Race Point North, Provincetown	0			0			0			16 (+)	N (N)	1	0			0			NPS
BUZZARDS BAY																			
Black Beach-Sippewisset, Falmouth	0			0			0			20 (13)	N (N)	2	0			0			MAS
Bird I., Marion	735 (31)	N (N)	1.33 fl/n	1,945	N	0.65 fl/n	0			0			0			0			MDFW
Strawberry Pt., Mattapoisset	0			0			0			0 (1)	N		0			0			MAS
Ram I., Mattapoisset	584 (54)	N (N)	1.30 fl/n	3,466	N	0.85 fl/n	0			0			0			0			MDFW
S. Shore Marshes WMA, Little Bay, Fairhaven	0			0			0			20 (1)	A (N)		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	0/nd ^e			0/nd ^e			0/nd ^e			0/nd ^e			0/nd ^e			0/nd ^e			MDFW
Winsegansett Hts., Fairhaven	0			0			0			[2] + ^f	[N]	0	0			0			LCES
Round Hill Beach, Dartmouth	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	
Salter's Pt. and Pd., Dartmouth	0/nd ^g			0/nd ^g			0/nd ^g			0/nd ^g			0/nd ^g			0/nd ^g			MAS
Demarest Lloyd State Park, Dartmouth	0			0			0			8 (8)	E (A)		0			0			LCES
Barney's Joy-Allen's Pd.-Little Beach, Dartmouth	0			54	N	2	0			[140] 7 (30)	[A] N (N)	1	0			0			MAS
Gooseberry Neck, Westport	0			0			0			0			0			0			LCES
Horseneck Beach, Westport	0			0			0			0			0			0			LCES, MAS
Speaking Rock, Westport	0			0			0			0			0			0			Cole
Jug Rock, Westport	0			0			0			0			0			0			Cole
Cockeast Pd.-Acoaxet, Westport	0			0			0			0			0			0			TNCRI
Richmond Pd., Westport	0			0			0			0			0			0			TNCRI
Bay Point, S. Swansea	0			0			0			0			0			0			Waring
Pasque I., Gosnold	0			0			0			0			0			0			MDFW
Nashawena I., Gosnold	0			19	N		0			0			0			0			MDFW
Penikese I., Gosnold	37	N	2	1,073	N	3	0.5 ^h	N	3	0			0			0			MDFW
Cuttyhunk I., Gosnold	0			0			0			11	A		0			0			MDFW, MAS
MARTHA'S VINEYARD																			
Eastville Beach, Oak Bluffs	0			0			0			9 (0)	N	0	0			0			MAS
Harthaven Beach, Oak Bluffs	0			0			0			6 (13)	N (N)	2	0			0			MAS
Sylvia State Beach, Oak Bluffs	0			0			0			[80] 2	[A] N	0	0			0			MAS
Sarson I., Sengekontacket Pd., Oak Bluffs	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	
Haystack Pt., Sengekontacket Pd., Edgartown	0			78	N	1	0			0			0			0			MAS
Little Beach, Edgartown	0			0			0			1	N	0	0			0			MAS
Cape Poge Elbow, Edgartown	0			0			0			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	26 (10)	N (N)	1	191 (30)	N (E)	1	0			1,221 (1,371)	N (E)	3	0 (3)	N	0	0			TTOR
Edgartown Great Pd., Edgartown	0			0			0			3	N	0	0			0			MVLBC, MAS
Oyster Pd., Edgartown	0			0			0			0			0			0			MAS
Watcha Pd., W. Tisbury	0			0			0			0			0			0			MAS
Quansoo Area (Long Pt. Wildlife Refuge; Tisbury Great Pond, W. Tisbury; & Black Point Pond, Chilmark)	0			0			0			24 (0)	A	0	0			0			MVLBC, MAS
Lamberts Cove-James Pd., W. Tisbury	0			0			0			0			0			0			MAS
Chilmark Pd., Chilmark	0			0			0			0			0			0			MAS
Stonewall Beach, Chilmark	0			0			0			2 (6)	N(A)	1	0			0			MAS
Long Beach, Aquinnah & Squibnocket Beach, Chilmark	0			0			0			0			0			0			MAS
Nomans Land, Chilmark	0			0			0			0			0			0			USFWS
Lobsterville (incl. "Dogfish Bar"), Aquinnah	0			0			0			0 (2)	(N)	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	
Menemsha Pd., Aquinnah-Chilmark (encompasses Edy's I., Chilmark)	nd			[1 ⁱ] nd			nd			nd			nd			nd			MAS
Tashmoo, Tisbury	0			0			0			0			0			0			MAS
Mink Meadows, Tisbury	0			0			0			5 (2)	N (N)	2	0			0			MAS
NANTUCKET																			
Great Point (including "The Galls"), Nantucket	0			0			0			0			0			0			TTOR, USFWS
The Glades, Nantucket	0			0			0			0			0			0			TTOR
Coskata-Coatue, Nantucket	0			0			0			3 (3)	N (A)	2	0			0			NCF
Wauwinet, Nantucket	0			0			0			4 (5)	A (N)	1	0			0			MAS
Squam Head & Pond, Nantucket	0			0			0			0			0			0			NCF, MAS
Quidnet (including Sesachacha Pd.), Nantucket	0			0			0			[16] 6 (0)	[A] A	0	0			0			MAS
Quaise, Nantucket	0			0			0			0			0			0			NCF
Siasconset (Sankaty-Low Beach), Nantucket	0			0			0			72 (<10)	A (A)	1-2	0			0			NMCRD
Tom Nevers Head, Nantucket	0			0			0			0			0			0			NMCRD
Surfside, Nantucket	0/nd ^j			0/nd ^j			0/nd ^j			0/nd ^j			0/nd ^j			0/nd ^j			NMCRD
Cisco Beach-Hummock Pond, Nantucket	0			0			0			0			0			0			NCF
Esther I.-Smith Pt., Nantucket	0			0			0			5 (0)	A	0	0			0			NMCRD
Eel Point, Nantucket	0			0			0			113 (0)	N	0	0			0			NCF
Tuckernuck I., Nantucket	0			0			0			0			0			0			TLT
Muskeget I., Nantucket	0			0			0			0			0			0			Veit, MAS
Muskeget sandbars	0			0			0			0 (13)	(A)	0-1	0			0			Veit, TLT, 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	
TOTAL 2010 NESTING PAIRS	1,393			16,224			2.5			3,484			5			1,249			
TOTAL 2009 NESTING PAIRS	1,339			15,978.5			6.5			3,569			4			1,629			
PERCENT CHANGE FROM 2009	4.0			1.5			-61.5			-2.4			25.0			-23.3			

^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: ECGA=Essex County Greenbelt Association; FE=Friends of Ellisville; 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.

^d At Rainsford I., prospecting Least Terns were observed on 6/23/10.

^e Survey effort at Long I. was incomplete; only the area north of the causeway was surveyed.

^f At Winsegansett Heights, Least Terns nested prior to the A-period census window; territorial behavior was noted during the A-period but no more nests were observed.

^g Salter's Pd. was not surveyed.

^h At Penikese I., one Arctic Tern was paired with a Common Tern; two hybrid Arctic Tern-X-Common Tern chicks fledged.

ⁱ At Edy's I., one territorial pair of Common Terns was present prior to the A-period census window, but no scrapes were observed.

^j Survey effort at Surfside was incomplete; only the Town-managed portion of the beach was surveyed.

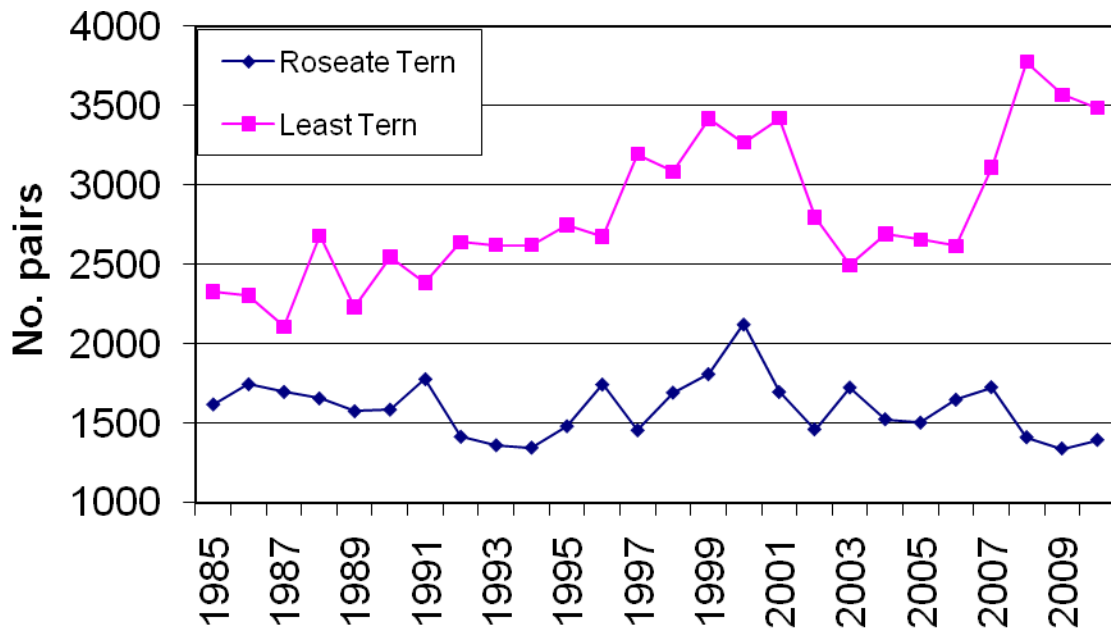


Figure 1. Numbers of nesting Roseate and Least Terns in Massachusetts, 1985-2010.

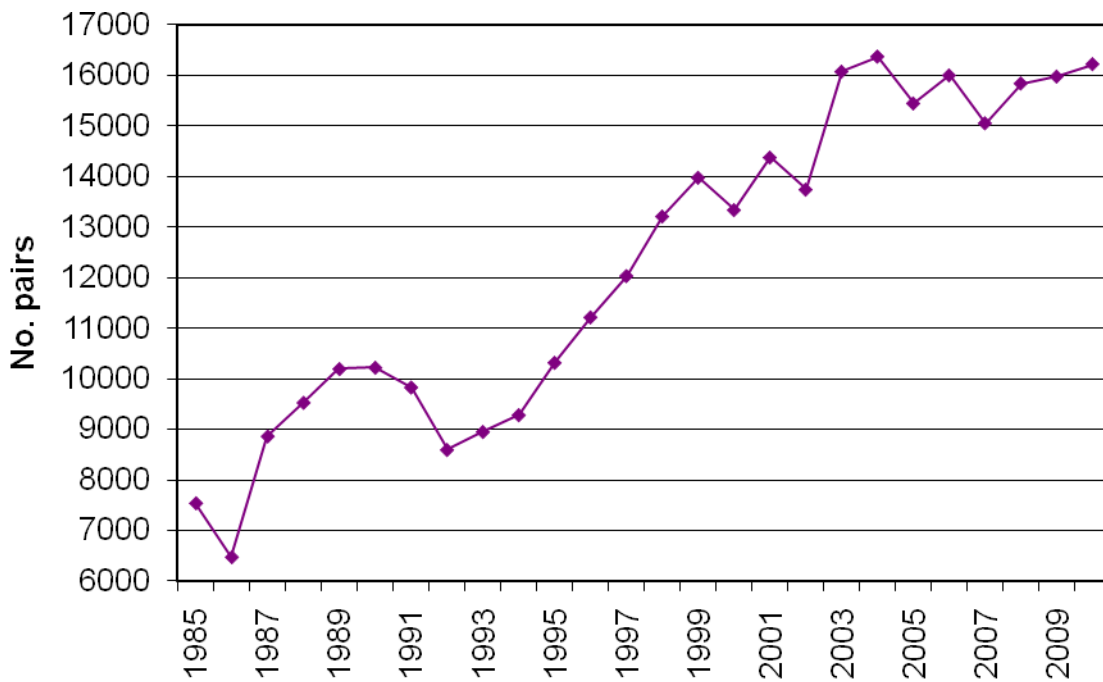


Figure 2. Numbers of nesting Common Terns in Massachusetts, 1985-2010.

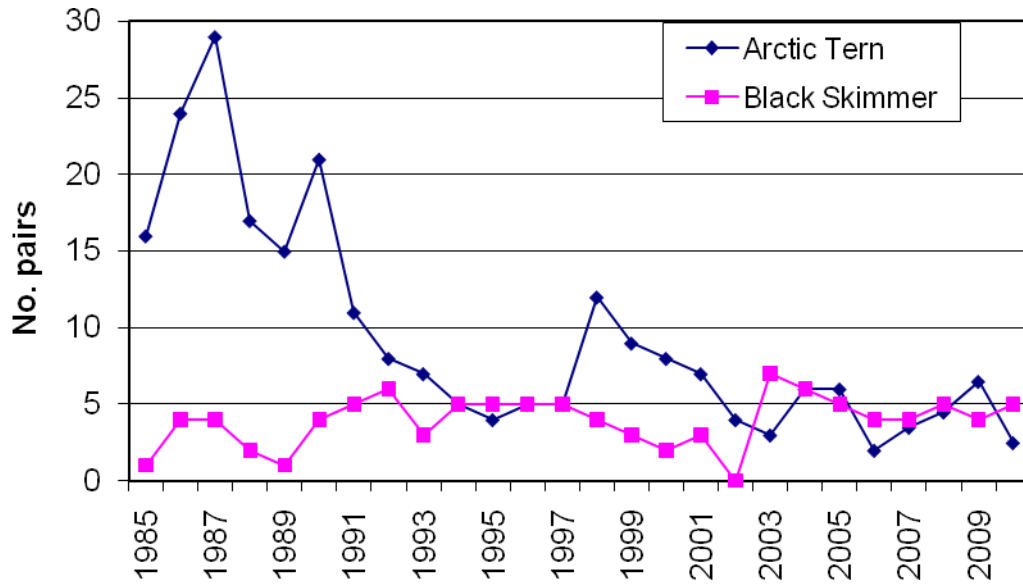


Figure 3. Numbers of nesting Arctic Terns and Black Skimmers in Massachusetts, 1985-2010.

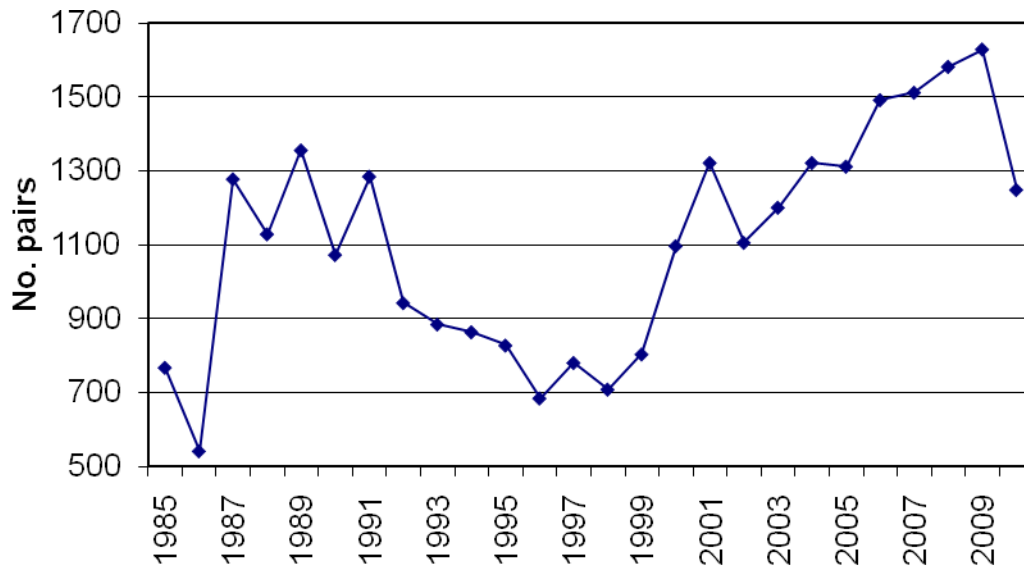


Figure 4. Numbers of nesting Laughing Gulls in Massachusetts, 1985-2010.