

From The Shore

Piping Plover - Least Tern Recovery Project

Season Summary 2011

The summer of 2011 marked the twenty-fifth year that the Department of Environmental Protection – now the Department of Energy and Environmental Protection's (DEEP) Wildlife Division worked through the spring, summer, and into the fall to manage Connecticut's least tern and piping plover populations. This project's principal objectives are to locate all nests and protect them from predators and human disturbance, to monitor both species' nesting success and to manage nesting habitat.

The state threatened least tern and federally and state threatened piping plover were again managed under measures recommended by the U.S. Fish and Wildlife Service (USFWS). The Piping Plover and Least Tern Project is multi-faceted and includes; observation, monitoring, and protection. The first step involves locating all plover pairs and determining their nesting territories. The nesting areas are cordoned off with wooden stakes, string and signage asking people to "STAY AWAY" to limit human disturbance. Next, the nests themselves are located and a metal fence, or nest enclosure is erected to limit losses due to predators. Staff and volunteers then spend the remainder of the nesting season monitoring nest and fledging success. Due to a difference in behaviors, least tern nests cannot be enclosed, but colonies are string fenced and signed for protection and monitored to determine breeding success.

Results for the 2011 piping plover nesting season show that there were 52 pairs compared to 43 in 2010 (Table 1). A total of 71 young fledged, representing a 13 percent decrease from last year's 82 chicks.

The federal recovery plan goal is 30 or more pairs of piping plover that breed in Connecticut for five consecutive years. This is the eleventh year that Connecticut had 30 or more breeding pairs. Nesting success, hatching success, and fledging success were calculated based on surveys and brood monitoring at each site. Average statewide nesting, hatching, and fledging success was 58%, 50%, and 62% respectively (Table 2).

Results from 2011 again showed that nesting success is higher for enclosed nests than for un-enclosed nests. Statewide, enclosed nests had a 60% success rate, while unenclosed nests had a success rate of 50% (Figure 1). Enclosing a piping plover nest is physically challenging for researchers due to substrate and time constraints, as well as stressful for the nesting birds. However, year after year data indicates that enclosing nests results in higher hatching success than not enclosing nests. In 2012, the DEEP will continue to use this management practice as long as funding and staff are available.

The Least tern count in Connecticut for 2011 was considerably higher than in the 2 years prior and this higher number of terns is encouraging. The least tern population has remained relatively stable among the southern New England/New York region since 1990 (Table 3) and the Connecticut population increase may show up as a decrease in a neighboring state. In 2011, approximately 361 pairs of least terns attempted to nest along the Connecticut shoreline. This is a 203% increase over 119 pairs in 2010, and a 401% increase over 90 pairs in 2009.

The largest numbers of terns were found at Sandy Point in West Haven. During the height of the nesting season in May and June, more than 400 adults were observed there. Other important nesting areas included Bluff Point State Park in Groton and Griswold Point in Old Lyme. Unfortunately, many least tern nests were lost when extremely high tides coincided with storms. More than 24 nests were washed-out at Pleasure Beach and Long Beach in Stratford, and only 3 terns fledged..

Statewide, monitors counted a season total of 360 nests, some of which were re-nest attempts. The adult least terns were able to fledge 124 young.

Personnel

One piping plover/least tern research assistant was hired through funding from the U.S. Fish and Wildlife Service-Endangered Species Act. Rebecca Foster was the research assistant for the project in 2002 and 2003, and after a 7 year absence, Rebecca returned in 2011.

During the last 7 years, Rebecca worked in the wildlife management field as a field-assistant for private research studies on fox, coyote, snapping turtles, amphibians, and cottontails.

The season went well thanks to the grand combined efforts of many people. Rebecca was assisted regularly by DEEP Wildlife Technician Laura Saucier and DEEP research assistant Brian Blais. Also contributing time and manpower to the project were DEEP seasonal research assistants John Foley and Tyler Mahard. Rebecca's brother Douglas Morey provided much assistance throughout the summer.

In addition to the DEEP staff, the Nature Conservancy (TNC) and the USFWS provided stewards and volunteer monitors to assist on numerous beaches throughout the season.

Piping Plover Census

The DEEP Wildlife Division once again conducted the International Piping Plover Breeding Census. During the survey period (June 1 – June 9, 2011) 64 adult plovers were counted which is a decrease from the 80 adults in 2010. The number of pairs counted during the census week has consistently been lower than the total number of pairs determined throughout the summer (Figure 2). This similarity is consistent throughout New England and while the census figure may not be as accurate as the total count figure for a particular state, it does prove trend information for the USFWS.

Fireworks Displays

The fourth of July is always a very stressful time for the piping plover/least tern project staff. The increased human presence at nesting areas, along with additional noise, light, and litter left behind to attract predators, all pose a management challenge. In 2011, fireworks were held on July 3 in Stratford and West Haven, and on July 4 in New London. All of the events were likely to impact tern and plover nesting areas, in Stratford at Long/Pleasure Beach, in West Haven at Sandy Point, and in New London at Bluff Point State Park in Groton. Thanks to law enforcement, USFWS staff and volunteers, and DEEP staff, the human disturbance experienced by the birds was kept to a minimum. No mortality was observed, and no tern colonies were abandoned.

Fencing Assistance

Large sections of beaches known to be piping plover and least tern breeding areas are cordoned off with wooden and string fencing at the beginning of each season. This time consuming and labor intensive task could not be completed in a timely fashion were it not for the many "fencing assistants" who volunteer to help DEEP staff. Thanks are extended to Kathy Herz, Emily Herz, Megan Carroll, Paul Fusco, volunteers from the Beardsley Zoo, Patrick Comins, Sandy Breslin, Maryann from Niantic, Captain Chris German, Jackie Westlein, Steve Spector, Joe Koripsky, Christine and Reed

Cass, Matt Nannery, John Chmelar, John Oshlick, Mary Beth Decker, Robley Evans and Rita Patterson.

Continued Support

For their continued support and cooperation, so important to the success of the 2011 season, the project staff would like to recognize the following individuals:

The Nature Conservancy

Thanks for the support and assistance of Dave Gumbart and the 2011 TNC steward, Elizabeth Zinsser, who monitored bird populations at Griswold Point, Hatchett's Point, Mile Creek Beach Club, and Fenwick Point.

U.S. Fish and Wildlife Service: USFWS Special Agent Tom Ricardi, USFWS Biologist Kristine Vagos, USFWS Park Ranger Shaun Roche, USFWS seasonal intern Lily Fairweather and Stewart B. McKinney Refuge Manager Rick Potvin. Also, thanks to USFWS biologist Erin King from Southern New England - New York Bight Coastal Program in Charlestown, RI who monitored Sandy Point Island in Stonington. Thank you to Rick Potvin and Shaun Roche for organizing, advertising, and conducting the volunteer training session and for coordination of volunteers throughout the season. Also to the following volunteers for their monitoring assistance: Ewa Holland (with children Agatha, Basil and Charles), Michael Biroscak, Lianne Audette, Kasia Prusak, Henrietta Lachman, Patricia Krasenics, Victor Krasenics, Al Serini, Jr., Stephen Spector, Charla Spector, Christin Arnini, Caren Bartlett, Alan Saniscalchi, Elana Saniscalchi Brooks, Susan Chiarenzelli, Catherine Cowper, Louisa Cunningham, Anges Czerwinski, Shari Guarino, Val Guarino, Bob Gulas, Bernice Lattanzi, Lori Mott, Beverly Propen, Maria Stockmal, David Zawisha, Tom Zawislinski, Laura Zawislinski, Patricia Casenhiser, Rita Patterson and Carol Soter.

Volunteers Dan Alfieri, who devoted a lot of time out at Sandy Point Island in Stonington as did Binti Ackley, who is an active member of the Avalonia Land trust in Stonington.

The Connecticut Audubon Society : Frank Gallo and Twan Leenders.

Department of Environmental Protection: Jim Beschle, Park Supervisor of Sherwood Island State Park, Jack Hine, Park Supervisor of Hammonasset, Mark Darin, Park Supervisor of Harkness Memorial State Park for their assistance. Special thanks to Denise Bouchard, Park Patrolman, and neighbor and volunteer Joel Stocker for patrolling the nesting area at Goshen Cove which is part of the Niering Natural Area Preserve. Joe Maler, Park Supervisor of Silver Sands Beach State Park for his assistance. Jonathan Lincoln, Park Supervisor of Bluff Point Coastal Reserve for his assistance.

Special Thanks

Thanks are extended to the landowners on which this project depends for their participation and cooperation: Myron and Rita Hendel, Mrs. Jennifer Hillhouse, Mr. Roger Kelsey, Mrs. Silva Marsh, Mrs. David Sargent, Mr. and Mrs. Bernard Schwartz, Mr. William Brennan, Mr. Steven Klemenz of the Country Club of Fairfield, West Farms Land Trust, West Neck Beach Association, The Nature Conservancy, The Connecticut Audubon Society, The Avalonia Land Trust, The U. S. Fish and Wildlife Service and the towns of Fairfield, Bridgeport, Stratford, West Haven and Westport.

Thanks also to the neighbors for their cooperation: Andy Bowllick, Erik Buck, Brett Howell, Margarita Barab, Christina Malisek, H. Hanley, Tony Cefalogh, Lore and Jonathan Higgins, Mr. Brown, Tom Steinke and Dave Zawisha.

FINAL 2011 REGION-WIDE BREEDING RESULTS

REGION 1

Greenwich to Fairfield:

Cockenoe Island:

Only common terns nested in 2011, no least terns or piping plovers nest here.

Sherwood Island State Park:

One pair of piping plovers nested here but the nest was lost due to a high tide wash-out. No least terns nested here.

Sasco Hill Beach:

This is the third year that DEEP has monitored plovers at this beach. One piping plover pair produced 3 fledglings and no least terns nested here.

REGION 2

Bridgeport to New Haven:

Pleasure Beach:

One piping plover pair nested here and produced one fledge. Eighty adult least terns were observed here in May, June, and July moving between Pleasure Beach and Long Beach. After at least 20 nests from 12 pairs of least terns were washed out by high tides, the terns moved to Long Beach.

Long Beach:

Seven pairs of piping plovers nested at this site and fledged 8 young. Piping plovers nested on every section of Long Beach from the guard shack to Pleasure Beach. One pair chose the newly created sandy path through the dunes for nesting. Several pairs abandoned nests at Long Beach, likely due to human disturbance or a predator. Eight least tern pairs were only able to fledge 3 chicks here.

Milford Point Sandbar:

Three pairs of piping plovers attempted to nest multiple times on the sandbar, but none were able to successfully hatch any eggs. At least 4 nests were washed away when high tides inundated the sandbar. One pair of plovers abandoned 2 nests, likely because of human disturbance. Twenty adult least terns were observed on the sandbar for a short time and two pairs tried to nest but were not successful here.

Cedar Beach:

Four pairs of piping plovers attempted to nest on Cedar Beach. Two nests were washed out and one pair abandoned a nest. Of the 4 pairs, 2 pairs were able to hatch nests and fledge 7 plover chicks. No least terns nested here.

Silver Sands State Park (Myrtle Beach Section):

No piping plovers or least terns nested here.

Silver Sands State Park (Main Beach):

One piping plover pair hatched 3 chicks but none were able to fledge. The nest hatched just prior to the 4th of July weekend and the adults and the 1 chick left contended with heavy crowds. No least terns nested here.

East Broadway/Shell Avenue:

Two pairs of piping plover nested here. One pair hatched 3 chicks but none were able to fledge. The second pair abandoned the nest likely due to human disturbance. No least terns nested here.

Sandy Point/Morse Point:

Six piping plover pairs produced 14 fledglings. After an absence in 2009, and only forty pairs in 2010, over 400 adult least terns were observed here in 2011. Some nests were lost to high tide wash-outs, but 88 least terns were able to fledge.

REGION 3

East Haven to Old Saybrook:

Silver Sands Beach Club/Private Beach:

One piping plover pair nested and produced 2 fledglings. No least terns nested here.

Hammonasset State Park:

Five piping plover pairs yielded 6 fledglings after at least 3 nests were washed out and 1 nest was abandoned. Least terns attempted at least 4 nests at Hammonasset, but they were lost to high tides.

Menunketesuck Island:

No piping plover or least terns nested here.

REGION 4

Old Lyme to Stonington:

Griswold Point:

Six pairs of piping plovers produced 12 fledglings. Twenty-two pairs of least terns produced 15 fledglings.

Hatchett's Point:

One piping plover pair abandoned a nest and did not re-nest. Six pairs of least terns nested here and were able to fledge 1 tern chick.

Goshen Cove/Harkness State Park:

The banded piping plover nested here again and was able to fledge 1 plover chick. The banded plover was banded on January 23, 2010 at Pelican Point, Grand Bahama Island, The Bahamas by Dr. Cheri Gratto-Trevor, a research scientist with Environment Canada. Three other pairs of piping plovers nested at Harkness as well. The four nesting pairs produced 5 fledges. Two nests were abandoned and predation is the likely cause. No least terns nested here.

Bluff Point/Mumford Cove:

Six pairs of piping plovers produced 11 fledglings. Seventy one pairs of least terns nested at Bluff Point and 17 fledglings were observed.

Sandy Point/Stonington:

Three pairs of piping plovers nested on the Connecticut portion of this island and fledged 2 plover chicks. No least terns nested on the Connecticut portion.

Table 1. Piping plover productivity in Connecticut from 1990-2011 by region (Pairs/Fledges = P/F).

* Information not available

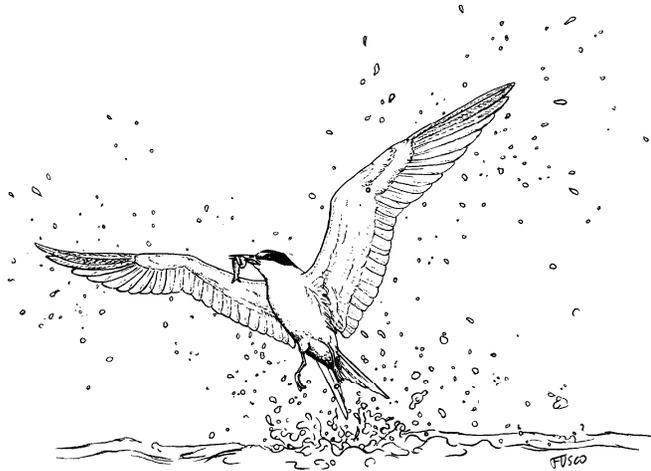
	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	
REGION 1																							
Westport																							
Driftwood Point	1/3	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Cockenoe Is.	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Sherwood Is SP	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/0	
Fairfield																							
Sasco Hill Beach	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/3	1/4	1/3
REGION 2																							
Bridgeport																							
Pleasure Beach	6/9	5/2	3/3	1/0	1/3	2/2	1/2	2/2	1/1	4/4	0/0	3/6	3/0	4/10	4/8	3/4	2/3	2/0	0/0	0/0	2/0	1/1	
Stratford																							
Long Beach	9/12	11/20	13/18	6/3	10/15	12/10	7/5	3/2	2/2	1/2	3/11	8/3	5/14	8/6	6/5	5/11	6/11	8/12	6/14	4/10	4/8	7/8	
Short Beach	2/7	1/4	2/3	1/0	1/0	1/4	1/1	1/1	0/0	0/0	0/0	0/0	0/0	1/0	0/0	1/0	0/0	0/0	0/0	1/0	0/0	0/0	
Milford																							
Milford CAS	8/9	4/2	5/2	3/2	4/3	3/2	2/3	1/1	1/1	0/0	1/0	1/0	0/0	3/2	1/2	0/0	0/0	1/3	0/0	0/0	0/0	0/0	
Milford NWR	*/*	*/*	*/*	*/*	*/*	*/*	*/*	2/3	2/2	0/0	1/1	1/0	0/0	0/0	0/0	1/3	2/0	1/0	0/0	0/0	0/0	0/0	
Milford Sandbar	*/*	*/*	*/*	*/*	*/*	*/*	*/*	2/0	0/0	1/1	2/3	4/7	5/10	3/0	2/4	3/7	3/5	2/6	3/7	4/10	4/9	3/0	
Cedar Beach	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/4	0/0	1/2	2/3	3/7	4/7	
Laurel Beach	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/4	2/2	1/0	0/0	1/3	1/2	0/0	0/0	
Silver Sands	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/3	2/4	1/4	1/1	2/3	1/0	
Shell Avenue	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/3	1/2	1/0	1/2	2/7	2/3	2/2	1/4	1/1	0/0	1/2	1/2	1/2	2/0	
West Haven																							
Sandy/Morse Pt.	8/19	8/13	11/15	3/0	6/4	6/8	6/14	8/20	5/4	5/4	4/0	4/7	5/8	5/10	10/8	4/6	6/17	4/10	6/20	8/12	6/14	6/14	
REGION 3																							
East Haven																							
Hammon. St. Pk.	4/3	4/4	1/0	1/0	0/0	2/5	4/2	3/5	3/2	4/7	7/24	6/10	7/15	6/9	5/8	5/7	3/4	2/8	3/10	3/7	3/4	5/6	
Westbrook																							
Westbrook Beach	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/0	0/0	0/0	0/0	0/0	0/0	
Menunketesuck Is.	0/0	0/0	0/0	1/0	1/2	0/0	0/0	0/0	1/1	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Old Saybrook																							
Fenwick	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
REGION 4																							
Old Lyme																							
Griswold Point	3/8	3/5	5/17	7/2	4/6	4/8	3/0	1/3	2/4	1/3	2/0	1/2	2/0	3/2	4/4	5/7	4/11	5/4	6/10	8/7	7/13	6/12	
Great Island	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/2	1/2	1/0	0/0	0/0	
Mile Creek Beach	1/0	0/0	0/0	0/0	0/0	0/0	0/0	1/0	0/0	1/3	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Hatchett's Point	0/0	0/0	0/0	0/0	1/3	0/0	1/3	1/3	1/2	1/2	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/3	1/4	1/1	1/3	1/0	
Waterford																							
Goshen Cove	0/0	0/0	0/0	1/2	2/8	1/3	1/4	1/4	2/0	0/0	1/2	2/2	2/4	2/6	2/7	3/5	3/12	3/10	6/17	5/9	4/8	4/5	
Town Beach	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Groton																							
Bluff Pt/Mumford Cv	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/2	2/5	3/3	2/6	2/4	6/11	
Stonington																							
Sandy Point	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	1/0	0/0	0/0	0/0	2/0	3/2	
TOTAL	43/70	36/50	40/58	24/9	30/44	31/42	26/34	26/44	21/22	22/32	22/41	32/39	31/58	37/48	40/54	34/55	37/79	36/69	41/102	44/74	43/82	52/71	

Table 2. Connecticut's 2011 piping plover breeding results.

Location	# of Pairs	# of Nests	# of Succ. Nests	% Nest Success	# of Eggs	# of Eggs Hatched	% Hatch Succ.	# of Young Fledged	% Fledge Success	Ave. # Fledges per Pair
Sasco Hill Beach	1	1	1	100%	4	4	100%	3	75%	3.00
Pleasure Beach	1	1	1	100%	4	3	75%	1	33%	1.00
Long Beach	7	9	6	67%	32	15	47%	8	53%	1.14
Milford Pt./Sandbar	3	6	0	0%	18	0	0%	0	0%	0.00
Cedar Beach	4	5	2	40%	16	8	50%	7	88%	1.75
Sherwood Island SP	1	1	0	0%	4	0	0%	0	0%	0.00
Silver Sands/Main Beach	1	1	1	100%	3	3	100%	0	0%	0.00
East Broadway	2	3	1	33%	11	2	18%	0	0%	0.00
Sandy/Morse Pt.	6	9	5	56%	31	16	52%	14	88%	2.33
Silver Sands Beach Club	1	2	1	50%	7	3	43%	2	67%	2.00
Hammon. State Park	5	8	3	38%	21	6	29%	6	100%	1.20
Griswold Pt.	6	6	6	100%	24	20	83%	12	60%	2.00
Hatchett's Point	1	1	0	0%	4	0	0%	0	0%	0.00
Harkness State Park	4	4	2	50%	16	8	50%	5	63%	1.25
Bluff Pt./Mumford Cove	6	6	6	100%	22	16	73%	11	69%	1.83
Sandy Pt Stonington	3	3	3	100%	12	11	92%	2	18%	0.67
Total	52	66	38	58%	229	115	50%	71	62%	1.37

Table 3. Least tern pairs in Connecticut and neighboring states from 1991-2010

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
MA	2356	2642	2622	2617	2756	2673	3194	3085	3416	3267	3421	2796	2496	2691	2657	2615	3110	3776	3569	3484
NY	3477	2460	3033	2547	3520	3093	2560	2485	2261	2103	2739	3267	2678	2069	3382	2798	2792	3669	2817	2832
CT	627	655	175	334	538	461	403	447	335	239	175	224	197	158	246	144	147	252	90	119
RI	215	212	175	216	135	278	262	525	297	272	190	172	239	248	214	210	235	215	118	643
TOTALS	6675	5969	6005	5714	6949	6505	6419	6542	6309	5881	6525	6459	5610	5166	6499	5767	6284	7912	6594	7078



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Look for the *Refund* section on your state income tax return and check the box for the **Wildlife Fund. You can deduct your donation from next year's Federal tax return.**

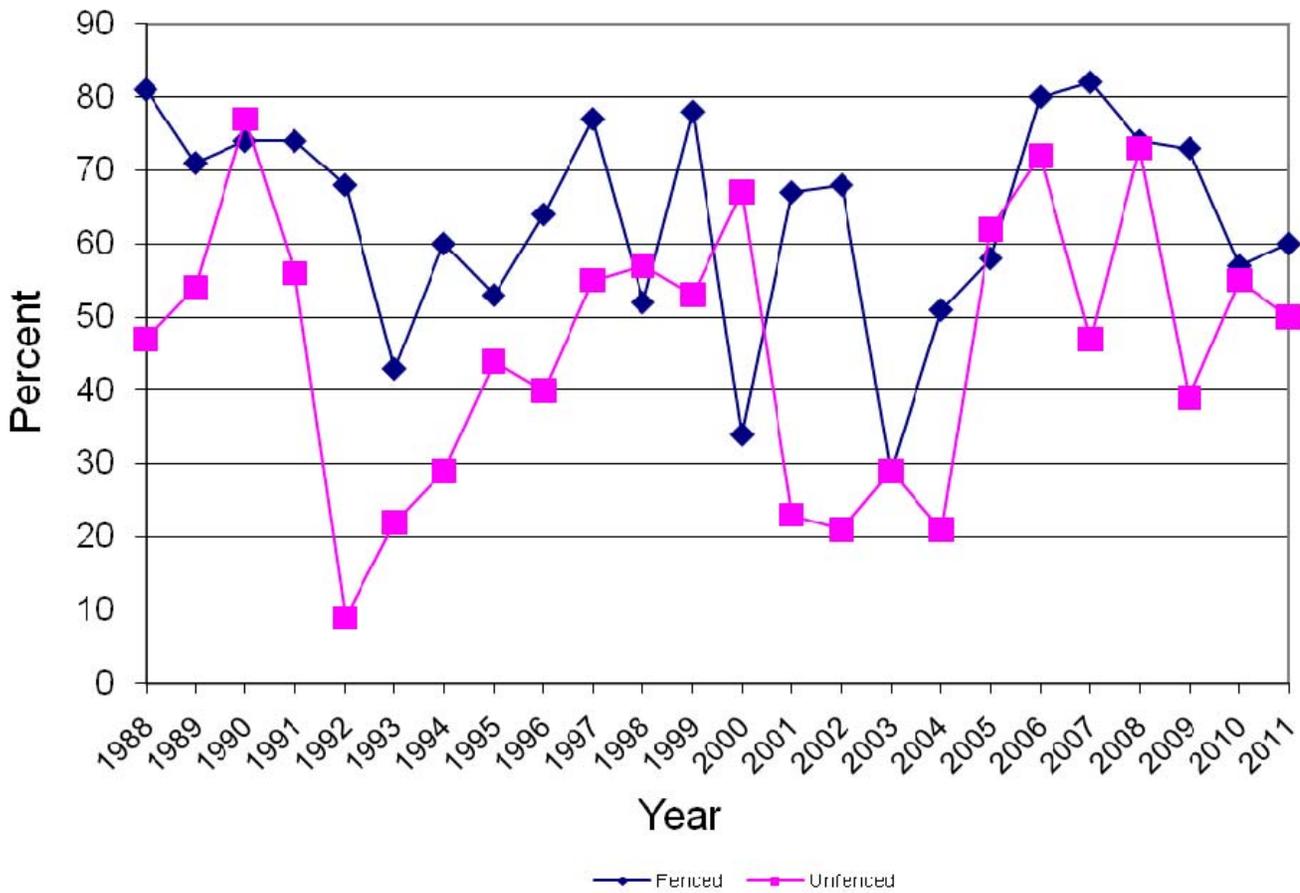


Table 4. Least tern breeding results in Connecticut from 1993-2011 by region (# of pairs/# of young fledged = P/F).

	P/F '93	P/F '94	P/F '95	P/F '96	P/F '97	P/F '98	P/F '99	P/F '00	P/F '01	P/F '02	P/F '03	P/F '04	P/F '05	P/F '06	P/F '07	P/F '08	P/F '09	P/F '10	P/F '11	
REGION 1																				
Greenwich																				
Sand Island	58/0	30/10	15/2	0/0	0/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Westport																				
Cockenoe Island	0/0	0/0	0/0	35/8	20/0	45/0	15/8	20/1	8/0	0/0	0/0	6/0	30/0	1/0	0/0	0/0	0/0	25/10	0/0	
Saugatuck River	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
REGION 2																				
Bridgeport																				
Pleasure Beach	0/0	9/0	29/3	0/0	100/4	24/4	21/11	3/0	20/2	0/0	0/0	0/0	8/10	3/1	10/0	30/7	6/0	0/0	12/0	
Stratford																				
Long Beach	19/16	100/90	52/6	77/7	3/2	26/7	7/8	20/1	10/0	23/4	2/0	0/0	0/0	0/0	40/28	20/13	22/0	10/8	8/3	
Short Beach	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Milford																				
Milford CAS	8/0	2/0	11/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	3/0	0/0	0/0	0/0	0/0	0/0	0/0	
Milford NWR	*/*	*/*	*/*	0/0	26/1	8/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Milford Sandbar	*/*	*/*	*/*	52/5	34/8	190/54	64/15	65/2	12/0	20/0	0/0	0/0	0/0	3/1	3/0	68/14	0/0	0/0	2/0	
West Haven																				
Sandy/Morse Pt.	35/6	147/205	35/17	252/10	205/55	88/36	150/50	70/0	50/2	70/19	75/198	00/175	150/50	100/6	44/0	80/13	0/0	40/4	234/88	
REGION 3																				
East Haven																				
	/	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	5/0	0/0	0/0	0/0	0/0	0/0	0/0	
Madison																				
Hammon. St. Pk.	5/0	0/0	0/0	0/0	0/0	17/2	30/10	50/22	30/5	0/0	0/0	0/0	0/0	3/0	11/0	14/5	30/8	2/0	4/0	
Westbrook																				
Pilot's Point	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Menunketesuck Is	20/0	0/0	32/0	6/0	5/3	2/0	8/2	0/0	1/0	3/0	0/0	12/0	0/0	2/1	0/0	0/0	0/0	15/0	0/0	
REGION 4																				
Old Lyme																				
Griswold Point	25/0	32/25	36/19	16/0	1/0	20/0	25/0	8/0	20/10	56/3	1/0	15/16	20/10	16/0	28/28	30/20	32/3	15/10	22/15	
Hatchett's Point	0/0	5/1	2/3	9/3	6/0	5/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	1/0	2/0	0/0	0/0	6/1	
Waterford																				
Goshen Cove	5/5	9/0	10/8	14/0	3/2	22/2	15/0	3/0	23/7	52/12	18/2	25/18	30/0	8/3	13/3	3/3	0/0	1/2	0/0	
Groton																				
Bluff Point	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	5/1	0/0	4/2	71/17	
Mumford Cove	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	
Stonington																				
Sandy Point	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	*/*	7/0	0/0
TOTAL	175/27	334/332	538/48	461/33	403/75	447/105	335/104	239/26	175/26	224/38	197/200	158/209	246/70	144/12	147/59	252/76	90/11	119/36	359/124	

* Data not available

Figure 1. Plover hatching success 1988 - 2011.



GLOSSARY

Fledged: Reached flying stage
Nesting Success: # nests with at least one egg hatched /#nests
Hatching Success: # eggs hatched /# eggs
Fledging Success: # juveniles fledged/# eggs hatched
Predator Exclosure: ten-foot diameter metal fencing erected around a four egg nest

Figure 2. Abundance of Piping Plovers in Connecticut, 1984-2011

