

The 2014 Osprey Project in New Jersey

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It has now been over 40 years since the osprey was first listed as an endangered species in New Jersey. It is hard to write this newsletter knowing that one of the people responsible for their remarkable recovery is no longer with us. Paul "Pete" McLain passed away this past summer. He was a pioneer wildlife biologist and conservationist in New Jersey and is largely responsible for restoring the osprey population and for preserving vast tracks of our coastal lands. He had a special love for ospreys, and worked to bring them back all across our coast. From only 53 pairs in 1973 to 542 in 2013, Pete left a natural legacy that will surely live on for future generations to admire and enjoy. We'll miss you, Pete!

To help keep track of the health of our osprey population, each year biologists and a group of dedicated volunteers conduct ground surveys. These surveys are targeted for the most densely populated colonies of nesting ospreys in New Jersey. From the Meadowlands south to Cape May and west along Delaware Bay, a sample of each area is recorded and data is used to determine how well our ospreys are faring. During these surveys nestlings are also banded with USGS bird bands for future tracking.

This year a total of 420 active nests were recorded. Of those, 339 known-outcome nests fledged an average of 2.02 young per active nest, which is up slightly from 1.92 in 2013. Around 62% of the population was surveyed this year (down from 75% last year). A total of 25 new nests were recorded this year. With this data and last year's census, we estimate that the overall population in 2014 was around 567 pairs. Population growth has slowed from 18% in 2006-2009 to 10% in 2009-2013. The next state-wide census will occur in 2017.

Highlights

In late June and early July volunteers and staff surveyed all the major nesting colonies along the Atlantic Coast and Delaware Bay. A total of 339 nests were surveyed. Data from these "known-outcome nests" were recorded, with 286 on the Atlantic Coast and 53 on Delaware Bay. Productivity averaged 2.02 young per active nest, up slightly from last year and well above the minimum for a stable population (which is 0.80 young/active nest). A total of 686 young were produced from these known-outcome nests. A total of 526 young (a new all time high) were banded by volunteers and staff with USGS leg bands for future tracking. Amazingly, we recorded nine nests that produced four young each!

Weather conditions this season were favorable for ospreys. Temperatures and precipitation were both average this summer. There were no significant severe weather events that caused any large scale harm to them during the hatchling-nestling (<4 weeks old) period when they are most vulnerable. Some of the most common prey items continued to be Atlantic menhaden along the Atlantic Coast. Menhaden or "bunker," which is one of the most overfished species, is a very important part of the food chain in our coastal ecosystems. The productivity of our ospreys is dependent on the health and abundance of coastal fisheries. The brood size of

ospreys is reduced in years with harsh weather or when there is lack of sufficient prey. Luckily this has not been a problem for them over the last ten years (see Figure 1).

To help engage citizen scientists and for the first time in over 20 years, young ospreys have been marked with an auxiliary color band in New Jersey. The new band, which is a red anodized aluminum rivet band, bears an alpha-numeric code. This coded band allows birders, osprey watchers and wildlife photographers the ability to identify individual birds. This new project is focused on ospreys that nest in the Barnegat Bay watershed from Point Pleasant to Little Egg Harbor. The main goals of the project are to engage the public in osprey management and conservation along the Jersey Shore. At the same time, while collecting data from resightings, we will learn about their dispersal, foraging habits, site fidelity, migration routes, and life span. To report a red-banded osprey, visit: www.conservewildlifenj.org/redband

For updates from the field, check out the New Jersey Osprey Project on Facebook at <u>facebook.com/njospreyproject</u>. For platform plans, a platform construction tutorial, project info, or to donate to help fund this project visit: <u>conservewildlifenj.org</u>.

Project Staff: Kathy Clark, Ben Wurst, Michael Davenport and Larissa Smith

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Funding also provided by the U.S. Fish & Wildlife Service through State Wildlife Grants, with matching contributions from Osprey Project volunteers.

This year's Osprey Project report is dedicated to the memory of Pete McLain, conservationist and founder of the ENSP and
Dr. Stephen Wurst, veterinarian to New Jersey wildlife

Table 1. Osprey nesting and productivity in 2014 in all major nesting areas. Productivity was determined by ground surveys in June-July. Productivity rates in 2011-2013 provided for comparison.

						Previous Years		
Nesting Area	# Nests	Known- Outcome Nests	# Young	# Banded	Production 2014	2013	2012	2011
Delaware River &								
North Jersey	1	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Hackensack-Hudson								
Rivers	6	5	6	0	1.20	1.50	2.33	2.67
Raritan Bay area								
(w/Cheesequake)	21	12	23	12	1.92	1.74	2.00	1.54
Monmouth County	10	4	8	0	2.00	2.00	2.20	2.00
Barnegat Bay	53	40	59	36	1.48	1.88	1.94	1.88
Sedge Islands WMA	25	20	21	21	1.05	2.00	2.10	2.38
Great Bay to Atlantic								
City	66	51	94	81	1.84	1.79	1.68	2.12
Great Egg								
Harbor/Ocean City	62	57	131	126	2.30	2.09	1.32	2.43
Sea Isle City	26	23	56	22	2.43	1.68	1.78	1.91
Avalon/Stone Harbor								
Bays	55	50	106	82	2.12	1.79	1.75	2.02
Wildwood Bays &								
Cape May	30	24	59	43	2.46	2.00	2.13	1.50
Maurice River &								
Estuary Marshes	55	47	108	95	2.30	2.12	2.09	2.06
Salem Co./ Artificial								
Island / Delaware	10	6	15	8	2.50	1.90	1.62	2.38
TOTAL of Study								
Areas	420	339	686	526	2.02	1.92	2.07	1.97
Atlantic Coast only	354	286	563	423	1.97	1.88	2.07	1.92
Delaware Bay only	66	53	123	103	2.32	2.09	2.10	2.18
Total Checked Statewide		339	686	526	2.02	542		

Figure 1. Osprey nesting population (bar) and productivity (heavy line) 1984-2014 in New Jersey.



