

The 2015 Osprey Project in New Jersey



Bill Clarke, project supporter holds a young and feisty osprey that Ben Wurst prepares to band with a red auxiliary band on Barnegat Bay. July, 2015. Photo by Northside Jim.

Kathleen Clark,
Endangered and Nongame Species Program
NJ Division of Fish and Wildlife and
Benjamin Wurst,
Conserve Wildlife Foundation of NJ



December, 2015



The 2015 Osprey Project in New Jersey

We've entered a new realm in osprey management and conservation in New Jersey. The age of expensive and dangerous aerial surveys (the most deadly task for wildlife biologists) is over. Today, we can now survey an estimated 80% of the population, enough to get an accurate representation of the overall health. We have come to rely on the assistance of specially trained volunteers (our osprey banders) and many "Osprey Watchers" who report nests on Osprey-Watch.org. We are very thankful to all who help us monitor our ospreys!

To help track the health of our osprey population, each year biologists and a group of dedicated volunteers conduct ground surveys. These surveys target 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 major colony is checked and nest outcome data are used to determine how well our ospreys are faring. During these surveys nestlings are also banded with USGS bird bands for future tracking.

In general, New Jersey ospreys are doing quite well, continuing a trend that began five years ago. The productivity rate, which is the average number of chicks produced from active nests, is a good measure of population health. That rate has averaged 1.75 in recent years, remaining well above the minimum necessary for a stable population (1.0 young/active nest). The 2015 productivity rate was near the long term average and suggests the population will continue to grow.

In 2015, a total of 534 active nests were documented, more than any other year in the project's history. Of those, 423 known-outcome nests fledged an average of 1.74 young per active nest, and nearly 80% of the population was surveyed. Thirty-one new nests were found this year, and we combined that number with last year's census to estimate the overall population close to 600 pairs. Population growth remains around 10% since approximately 2009. 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 423 nests were surveyed. Data from these "known-outcome nests" were recorded, with 347 on the Atlantic Coast and 76 on Delaware Bay. Productivity averaged 1.74 young per active nest, down slightly from last year but well above the minimum needed to sustain a stable population (which is 0.80 young/active nest). A total of 737 young were produced from these known-outcome nests. A total of 432 young were banded by volunteers and staff with USGS leg bands for future tracking.

Since weather plays a role in the successful reproduction of ospreys, we looked at the departures from normal during their nesting season, early April through late July in New Jersey.



Ben Wurst checks a new "natural" nest inside Barnegat Inlet. Photo by Northside Jim.

Cold temperatures and heavy rain in late April-early May (during hatching) can lead to reduced productivity (as seen in 2003), but this was not a factor this year. Weather was optimal for nesting ospreys; temperatures in the spring were warm (third warmest May on record) and dry (third driest on record). Precipitation was above normal in June but did not seem to affect nest success. Ever since the derecho hit in late June 2012 we have been keen to watch these high wind storm events during summer months. This summer, one strong storm hit on June 23. It had high winds (around 70mph) which can blow young from nests. We conducted one survey in the Barnegat Bay area in the following days and found only five young that had fallen from nests (at three different nests). Two young were found alive and were placed back into their nest and the other three were unfortunately found dead. From these strong storm events we've learned that it is extremely important to remove excessive nesting material on platforms. This allows birds to build a deeper nest bowl and it also reduces stress on aging platforms.

Lastly, we continued to band young ospreys produced in Barnegat Bay with a red, coded auxiliary band. Project RedBand is focused on ospreys that nest in the Barnegat Bay watershed from Point Pleasant to Little Egg Harbor. The main goal of the project is to engage the public in osprey management and conservation along the Jersey Shore. At the same time, while collecting data from re-sightings, we will learn about their dispersal, foraging habits, site fidelity, migration routes, and life span. This year 33 bands were deployed, putting the total in the field at 95. This project will continue in 2016 with support from Northside Jim! Thanks, Jim!! 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 facebook.com/njospreyproject. For platform plans, a platform construction tutorial, project info, or to donate to help fund this project visit: conservewildlifenj.org.

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

Thanks to: Bill Clarke-Osprey Foundation, Jane and Peter Galetto; Giselle and John Smisko; Hans and Hanna Toft; Don and Karen Bonica; Fred Akers; Bill Stuempfig; Matt Tribulski; Northside Jim; Don Krider; Roberta Puican; Bernie Tice; Dr. Erica Miller of Tri-State Bird Rescue & Research; Damon Noe-The Nature Conservancy; Jeanne Heuser-Sandy Hook Unit of Gateway National Recreation Area; Osprey-Watch.org; Bill Schultz-Raritan Riverkeeper; Cattus Island Park-Ocean County Parks; Citizens United to Protect the Maurice River and its Tributaries; Great Egg Harbor Watershed Association, Island Beach State Park; Vinny Turner-Forsythe National Wildlife Refuge; Friends of Forsythe NWR; Friends of IBSP; Toms River Avian Care; Barnegat Animal Clinic; The Raptor Trust; Exelon-Oyster Creek Generating Station; Joe Fallon-Fort Monmouth; Ken Strait of PSE&G-Salem; Jim Wright-NJ Meadowlands; NJ-NY Baykeeper; Tri-County Building Supplies; The Home Depot in Manahawkin; Cape May County Mosquito Control Department; Ocean County Mosquito Commission; and all other donors and volunteers who assist with and support the project.



Osprey 76/C "Danny" who was banded at his nest prior to fledge in Loveladies, New Jersey. Photo by Northside Jim.

Thanks to everyone who donates to Conserve Wildlife Foundation of NJ, contributes to the Endangered and Nongame Species Program through the Check-Off for Wildlife on their NJ State Income Tax, and by purchasing Conserve Wildlife License Plates!

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

Table 1. Osprey nesting and productivity in 2015 in all major nesting areas. Productivity was determined by ground surveys in June-July. Productivity rates in 2012-2014 provided for comparison.

Nesting Area	# Nests	Known-Outcome Nests	# Young	# Banded	Production 2015	Previous Years		
						2014	2013	2012
Delaware River & North Jersey	5	5	10	0	2.00	n/a	n/a	n/a
Hackensack-Hudson Rivers	3	3	3	0	1.00	1.20	1.50	2.33
Raritan Bay area (w/Cheesequake)	44	15	29	13	1.93	1.92	1.74	2.00
Monmouth County	23	11	14	2	1.27	2.00	2.00	2.20
Barnegat Bay	63	49	65	37	1.33	1.48	1.88	1.94
Sedge Islands WMA	28	20	33	15	1.65	1.05	2.00	2.10
Great Bay to Atlantic City	83	59	86	36	1.46	1.84	1.79	1.68
Great Egg Harbor/Ocean City	73	66	121	62	1.83	2.30	2.09	1.32
Sea Isle City	35	30	56	23	1.87	2.43	1.68	1.78
Avalon/Stone Harbor Bays	63	57	100	79	1.75	2.12	1.79	1.75
Wildwood Bays & Cape May	34	32	60	38	1.88	2.46	2.00	2.13
Delaware Bay & Maurice River	80	76	160	127	2.11	2.30	2.12	2.09
TOTAL of Study Areas	534	423	737	432	1.74	2.02	1.92	2.07
Atlantic Coast only	449	347	577	305	1.66	1.97	1.88	2.07
Delaware Bay only	80	76	160	127	2.11	2.32	2.09	2.10
Total Checked Statewide		423	734	432	1.74	2.02	542	

Figure 1. Osprey nesting population (bar) and productivity (heavy line) 1984-2015 in New Jersey.

