

The 2016 Osprey Project in New Jersey



One, Two, Three...six week old ospreys in a nest while an adult watches from above. Sedge Island Wildlife Management Area. July, 2016. Photo by Eric Sambol.

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Over the past ten years, ospreys have had remarkable success. This year is no exception. With their population growth we enter more challenging times. In our densely populated state, especially along the coast, nesting ospreys are now present in almost every coastal township from Sandy Hook to Cape May. To help ensure their long term survival, we must continue to protect nest sites while dealing with nests built in dangerous locations to protect the loss of individual birds and damage to property.

In 2016, surveys of nesting ospreys occurred in late June and early July. The surveys are timed to occur when the young are most visible in their nest, around the age of 21 days old. Since 2013, we've been able to survey more of the statewide population by publishing the location of nests online. This has allowed us to rely on citizen scientists to help document activity at nests that have been outside of our traditional survey areas, helping to track the overall size and health of the population without the use of costly aerial surveys.

This year our team of trained nest observers conducted ground and boat surveys in all areas from Sandy Hook and south to Cape May, then west along the Delaware bayshore and up the Maurice River. These surveys are conducted in the most densely populated osprey nesting colonies. Our observers visit as many nests as possible and record whether a nest is active and how many young were produced. While there, if young are more than 3 weeks old, they are banded with a USGS bird band for future tracking. Since 2014 young within the Barnegat Bay watershed have been banded with both a USGS band and an auxiliary “field readable” red colored band. All nest structures are inspected to determine if future repairs are warranted and any man-made trash or debris is removed. Persistent plastic marine debris continues to be an emerging threat to ospreys and many aquatic and marine animals. Ospreys collect this debris in the course of finding natural, organic nesting material found in the upper wrack line, but plastics can ensnare and injure or kill osprey chicks as they grow.



Nests located inside Sedge Island WMA, Barnegat Bay.



Volunteer osprey bander Matt Tribulski returns a young osprey back into its nest. Photo by Larissa Smith/CWF

Highlights

In late June and early July volunteers and staff surveyed all the major nesting colonies along the Atlantic Coast and Delaware Bay. This year a total of 515 active nests were recorded. Of those, we determined the outcome of 376 nests. Data from these “known-outcome nests” were recorded including the presence of any young, with 316 on the Atlantic Coast and 60 on Delaware Bay. Productivity averaged 1.78 young per active nest, up slightly from last year but still well above the minimum needed to sustain a stable population (which is 0.80 young/active nest). A total of 670 young were produced from these known-outcome nests. A total of 361 young were banded by volunteers and staff with USGS leg bands for future tracking.

As we’ve mentioned in previous years, weather plays a role in the successful nesting attempt of ospreys. This summer was the second warmest on record. Precipitation was normal; however, the trend of strong storms during the peak nestling period (late June - early July) with high straight line winds continued this year. On June 21, 2016 a “microburst” struck lower Cape May County (in particular, the Wildwood osprey colony) with 80mph gusts and heavy downpours. After storms of this magnitude, we attempt to lessen the damage by conducting emergency surveys in the affected area(s).

It was hard to determine the exact damage since we did not conduct a pre-storm survey, but our results showed that of 50 nests surveyed, 15 had sustained damage, causing nestling mortality. Only one nestling was found alive and was successfully returned to its nest. As a result of this storm, we've pledged to conduct more preventive maintenance to osprey nesting platforms to help ensure they can withstand high winds events. Your continued financial support allows us to maintain a large quantity of high quality nesting platforms.



A natural nest inside Barnegat Inlet, Barnegat Light, New Jersey. Photo by Ben Wurst.

As with previous year's surveys, we estimate that around 80% of the total population was surveyed. This is largely due to the fact that we have many dedicated "Osprey Watchers" who observe and report nesting activity and success online, through our partner's website: www.osprey-watch.org. These citizen scientists range from casual observers to birders, homeowners or osprey fanatics! All are very helpful in documenting activity at many nests outside of our annual ground surveys and we are grateful for their contributions! A total of 42 new nests were found this year, an amazing growth from one year to the next. We are planning to conduct a state-wide census in 2017, so stay tuned for updates on how you can be involved.

Lastly, we are excited for the return of more red-banded ospreys in New Jersey. Young ospreys remain on their wintering grounds for two years before flying north to breeding grounds. In 2014 we began banding Barnegat Bay ospreys with red bands that are readable from a distance. "Project RedBand" is an osprey re-sighting project that we hope will engage the public in osprey conservation along the Jersey Shore.

In the course of collecting data from re-sightings of banded birds, we will learn about their dispersal, foraging habits, site fidelity, migration routes, and life span. In 2016, 62 red bands were fielded, putting the three-year total at 157. Five red-banded ospreys were re-sighted in 2016. Osprey 44/C (banded '14) was re-sighted alive flying at Island Beach State Park in July 2016. Osprey 05/C (banded '14) was reported dead in Forked River after being electrocuted in April 2016. Osprey 39/D (banded '16) was found dead only 10 days after being rescued by Ben Wurst in Bayville, July 2016. Osprey 38/D (banded '16) was re-sighted alive at a lake in Pennsylvania for several days in September, 2016. Osprey 31/D (banded '16) was captured due to injury in Haiti on 11/18/16; we are unsure of its present condition. 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/osprey.

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Thank you 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!



Ben Wurst prepares to band two osprey young with red auxiliary bands at a productive natural nest inside Barnegat Inlet, July 2016. Photo by Northside Jim

Funding also provided by the Osprey Foundation, U.S. Fish & Wildlife Service (through the Wildlife and Sportfish Restoration Act), with matching contributions from Osprey Project volunteers.

Table 1. Osprey nesting and productivity in 2016 in all major nesting areas. Productivity was determined by ground surveys in June-July. Productivity rates in 2013-2015 provided for comparison.

Nesting Area	# Nests	Known-Outcome Nests	# Young	# Banded	Production 2016	Previous Years		
						2015	2014	2013
Delaware River & North Jersey	6	4	4	0	1.00	2.00	n/a	n/a
Hackensack-Hudson Rivers	6	5	3		0.60	1.00	1.20	1.50
Raritan Bay area (w/ Cheesequake)	43	22	39	1	1.77	1.93	1.92	1.74
Monmouth County	23	11	21		1.91	1.27	2.00	2.00
Barnegat Bay	76	46	82	45	1.78	1.33	1.48	1.88
Sedge Islands WMA	26	17	37	18	2.18	1.65	1.05	2.00
Great Bay to Atlantic City	72	40	82	21	2.05	1.46	1.84	1.79
Great Egg Harbor/Ocean City	68	60	127	89	2.12	1.83	2.30	2.09
Sea Isle City	31	28	41	20	1.46	1.87	2.43	1.68
Avalon/Stone Harbor Bays	53	51	77	56	1.51	1.75	2.12	1.79
Wildwood Bays & Cape May	45	32	41	3	1.28	1.88	2.46	2.00
Delaware Bay & Maurice River	66	60	116	108	1.93	2.11	2.30	2.12
TOTAL of Study Areas	515	376	670	361	1.78	1.74	2.02	1.92
D. River Basin/N. Jersey	12	8	7	n/a				
Atlantic Coast only	437	316	554	253	1.75	1.66	1.97	1.88
Delaware Bay only	66	60	116	108	1.93	2.11	2.32	2.09
Total Checked Statewide	515	376	670	361	1.78	1.74		542 (# nests)

Figure 1. Osprey nesting population (bar) and productivity (heavy line) 1984-2016 in New Jersey.

