



## The 2013 Osprey Project in New Jersey

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In 2013, the Endangered and Nongame Species Program celebrates the 40<sup>th</sup> anniversary of the New Jersey Endangered and Nongame Species Conservation Act (our “ESA”). Ospreys made history in 1985 when they were the first species to be “downlisted” from endangered to threatened. In 2013, we record an exciting milestone: ospreys surpassing 500 nesting pairs!

Thanks to input from many volunteers and “Osprey Watchers” we passed this historic number of 500 pairs, which is the estimated population before DDT and habitat loss decimated ospreys in the 1950-1960s. Our population estimate comes from a huge ground-count effort by staff, project volunteers and watchers who contributed using Osprey-Watch.org. We partnered with the Center for Conservation Biology to use Osprey-Watch, by first uploading 1,000 nest points to the mapping available on [osprey-watch.org](http://osprey-watch.org). For the 2013 census, we asked the public to submit sightings of nesting activity at nest sites. The last census was conducted in 2009 using aircraft and ground counts, and resulted in documenting 486 pairs. While we estimate the population may now be near 550 pairs, this year’s work documented 542 pairs – it may not be a complete census, but is a huge milestone for New Jersey ospreys.

On top of the census, reports from 405 known-outcome nests shows that ospreys fledged an average of 1.92 young per active nest, which is up slightly from 1.81 in 2012, and foretells a population that is still growing. In the past our dedicated volunteers had covered around 70% of the known population and now, with the help from the general public, we covered 75% of the population in New Jersey.

This year, devoted volunteers, ENSP biologists, and Conserve Wildlife Foundation (CWF) staff conducted surveys that covered about 90% of the known population. For the census, we sought to get reports of nesting activity at known sites throughout the state. We used social media, press, and e-mail communications to help spread the word about the census. All major nesting colonies from as far north as the Meadowlands, and along the coast from Sandy Hook to Cape May and west to Salem were surveyed. Volunteers recorded the number of active nests and number of young produced and banded 65% of nestlings for future tracking. For the second year in a row we collected trash from active nests to reduce the occurrence of entanglement and to bring awareness to persistent plastic marine debris.

### ***Highlights***

In late June and early July volunteers and staff surveyed all the major nesting colonies along the Atlantic Coast and Delaware Bay. We checked a total of 542 nests this year, the most ever during a census year and without the use of aircraft. Data from 405 known-outcome nests were recorded, 337 on the Atlantic Coast and 68 on Delaware Bay. Productivity averaged 1.92 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 777 young were produced from 405

known-outcome nests. A total of 488 young (*a new all time high*) were banded by volunteers and staff with USGS leg bands for future tracking.

This past spring we installed a remote, wireless and solar-powered camera at an existing nest platform at Edwin B. Forsythe NWR in Oceanville. The stream went live on March 23. On March 29 both the adult male and female returned to the nest platform. Neither was banded, so we have no idea of their age or origin. The webpage that streamed the video had over 80,000 page views during the nesting season, and we were glad to have had the opportunity to share this wonderful experience with so many people! Check it out: [conserwildlifenj.org/ospreycam](http://conserwildlifenj.org/ospreycam).

Ospreys were largely unaffected by Superstorm Sandy. We took a proactive approach and surveyed most nesting colonies, but also relied heavily on input from the public to identify platforms that were lost or damaged as a result of the storm. Only ten platforms were damaged or destroyed along the whole coast and all were repaired or replaced before ospreys returned in late March.

Because the success of nesting osprey relies so heavily on weather and prey availability, we always look at both of these factors when summarizing results from the nesting season. From April through July temperatures were above normal with July being the fifth warmest on record. On the flip side, it was a very wet summer (second wettest on record), with June the wettest on record. Most young hatch in late May and early June and they require very close parental care. Young that are not sheltered from heavy rain by the adults might die from exposure and this was the case in some limited areas where many dead young were found in the nests. However, nest success was very high in most areas. Further, we recorded an unusual number, eight, of four-chick nests: one in Sandy Hook, three on Barnegat Bay, two in Great Egg Bay watershed, one in Wildwood and one on the Cohansey River. These are atypical results, as ospreys usually produce three young at most. The generally high productivity suggests that prey must have been plentiful; however, prevailing winds from the south kept warm water (and menhaden) far from shore for several weeks in June.

For updates from the field, check out the New Jersey Osprey Project on Facebook at [facebook.com/njospreyproject](https://facebook.com/njospreyproject). For platform plans, a platform construction tutorial, project info, or to donate to help fund this project visit: [conserwildlifenj.org](http://conserwildlifenj.org).

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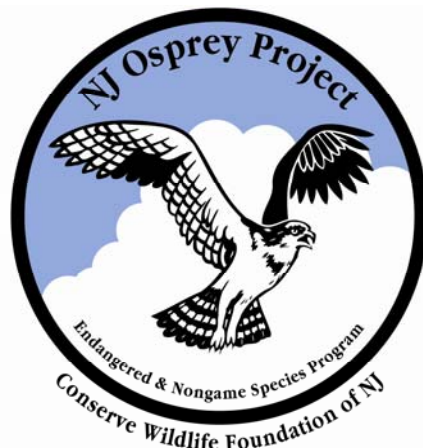
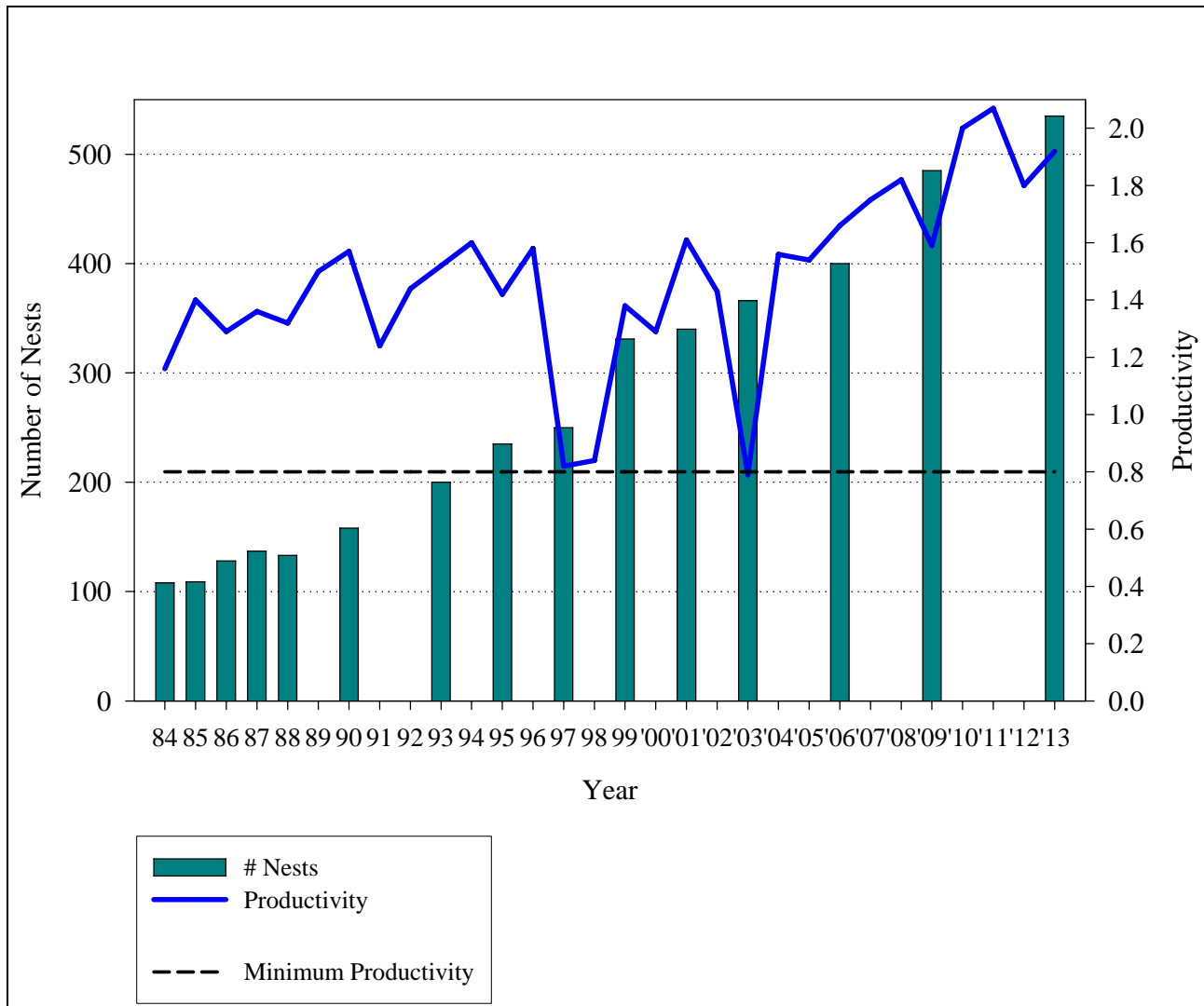
Thanks to everyone who contributes to the Endangered and Nongame Species Program through the **Check-Off for Wildlife** on their NJ State Income Tax, and by purchasing **Conserve Wildlife License Plates!**

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 2013 in all major nesting areas. Productivity was determined by ground surveys in June-July. Productivity rates in 2010-2012 provided for comparison.

Nesting Area	# Nests	Known-Outcome Nests	# Young	# Banded	Production 2013	Previous Years		
						2012	2011	2010
Delaware River & North Jersey	2			n/a			n/a	n/a
Hackensack-Hudson Rivers	5	4	6	n/a	1.50	2.67	2.67	n/a
Raritan Bay area (w/Cheesequake)	42	27	47	6	1.74	2.00	1.54	1.64
Monmouth County	29	16	32	18	2.00	2.20	2.00	1.86
Barnegat Bay	76	50	94	60	1.88	1.94	1.88	1.91
Sedge Islands WMA	25	15	30	27	2.00	2.10	2.38	1.29
Great Bay to Atlantic City	73	53	95	33	1.79	1.68	2.12	2.05
Great Egg Harbor/Ocean City	62	54	113	96	2.09	1.32	2.43	2.38
Sea Isle City	23	19	32	14	1.68	1.78	1.91	2.07
Avalon/Stone Harbor Bays	62	56	100	73	1.79	1.75	2.02	1.88
Wildwood Bays & Cape May	54	43	86	37	2.00	2.13	1.50	1.50
Maurice River & Estuary Marshes	63	58	123	120	2.12	2.09	2.06	2.10
Salem Co./ Artificial Island / Delaware	26	10	19	4	1.90	1.62	2.38	2.50
<b>TOTAL of Study Areas</b>	<b>542</b>	<b>405</b>	<b>777</b>	<b>488</b>	<b>1.92</b>		<b>2.07</b>	1.97
Atlantic Coast only	453	337	635	364	1.88		2.07	1.92
Delaware Bay only	89	68	142	124	2.09		2.10	2.18
<b>Total Checked Statewide</b>	<b>542</b>	<b>405</b>	<b>777</b>	<b>488</b>	<b>1.92</b>	--		

**Figure 1.** Osprey nesting population (bar) and productivity (heavy line) 1984-2013 in New Jersey.



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