



The 2012 Osprey Project in New Jersey
Prepared by Kathleen Clark,
Endangered and Nongame Species Program
NJ Division of Fish and Wildlife and
Benjamin Wurst,
Conserve Wildlife Foundation of NJ



Results are in and the osprey population had another great year, even after strong storms hit in the middle of the nesting season. We recorded an average of 1.81 young per active nest, down slightly from last year's record high of 2.07. The statewide census has not been conducted since 2009, when we documented 486 nesting pairs, but we estimate that the population is well above 500 nesting pairs in New Jersey. Next year we are planning to conduct the statewide census on a "shoestring," with minimal use of aircraft: we will be asking for volunteer osprey watchers to submit sightings of new nests and to report activity at all known nests. Since 2009 our volunteers have surveyed around 70% of the population each year. With more input from the general public we believe that we can expand reporting to get an accurate representation of the current population.

In 2012, dedicated volunteers, ENSP biologists, and Conserve Wildlife Foundation (CWF) staff conducted surveys that covered about 80% of the known population. Colonies from as far north as the Meadowlands, along the coast from Sandy Hook to Cape May and west to Salem were surveyed. Volunteers recorded the number of active nests, number of young produced, and banded young at a sample of nests. We collected small feather samples from 54 osprey nestlings for an ongoing study that uses stable isotopes to describe osprey diets and how they change over time.

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 389 nests this year, more than any other year. Data from 331 known-outcome nests (265 on the Atlantic Coast and 66 on Delaware Bay) were recorded. Productivity averaged 1.81 young per active nest, which is down slightly from last year's high, but well above the minimum for a stable population (which is 0.80 young/active nest). A total of 599 young were produced from 331 known-outcome nests. A total of 431 young (an all time high) were banded by volunteers and staff with USGS leg bands for future tracking.

For the past three years, staff and banders have collected feather samples from young ospreys to contribute to a study by the Academy of Natural Sciences in Philadelphia. This research uses stable isotopes in nestling feathers to describe the ospreys' diet and how it has changed over time, using archived samples going back to 1860. We contributed 102 samples in 2010, 79 in 2011, and 54 in 2012. This study may shed light on how osprey diets vary among inland, Delaware Bay and Atlantic coast regions of New Jersey.

Weather in the 2012 nesting season was relatively mild and conducive to successful nesting. Ospreys nest in open areas, which can make them vulnerable to high winds and storms. They feed on fish, so water clarity can affect foraging success. New Jersey experienced the

warmest spring on record and the summer was the sixth hottest on record. Precipitation was normal through the spring and summer. One major windstorm hit on June 30th, when a line of severe thunderstorms hit Cumberland, Salem, Atlantic and southern Ocean Counties. The storm brought 70-80 mph winds that blew many 3-5 week old osprey nestlings from their nests. The storm was called a “derecho,” a widespread, straight-line windstorm associated with a fast-moving band of severe thunderstorms. In Absecon, where pre- and post-storm surveys were done, nine of 22 young were either lost or found dead after the storm. Most damage did appear to be localized in the Atlantic County area, however, and post-storm nest checks in other areas did not show any losses. Therefore we think the nest success results reported here are accurate.

Looking ahead to 2013: We are excited to be installing a wireless, high resolution camera on an osprey nest at Edwin B. Forsythe National Wildlife Refuge in time for the 2013 nesting season beginning in April. We thank our partners: Osprey Foundation, Friends of Forsythe NWR, and Edwin B. Forsythe NWR staff. For more information or to donate to the project, visit: www.conservewildlifenj.org.

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

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

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Table 1. Osprey nesting and productivity in 2012 in all major nesting areas. Productivity was determined by ground surveys in June-July. Productivity rates in 2009-2011 provided for comparison.

Nesting Area	# Nests	Known-Outcome Nests	# Young	# Banded	Production 2012	Previous Years		
						2011	2010	2009
Delaware River & North Jersey				n/a			n/a	n/a
Hackensack-Hudson Rivers	3	3	7	0	2.67	2.67	n/a	n/a
Raritan Bay area (w/Cheesequake)	31	17	34	15	2.00	1.54	1.64	1.54
Monmouth County	14	10	22	14	2.20	2.00	1.86	1.25
Barnegat Bay	42	31	60	41	1.94	1.88	1.91	1.78
Sedge Islands WMA	24	21	44	36	2.10	2.38	1.29	1.57
Great Bay to Atlantic City	43	41	69	49	1.68	2.12	2.05	1.53
Great Egg Harbor/Ocean City	60	56	74	54	1.32	2.43	2.38	1.71
Sea Isle City	20	18	32	14	1.78	1.91	2.07	1.06
Avalon/Stone Harbor Bays	59	52	91	62	1.75	2.02	1.88	1.45
Wildwood Bays & Cape May	20	16	34	32	2.13	1.50	1.50	1.39
Maurice River & Estuary Marshes	60	53	111	104	2.09	2.06	2.10	1.78
Salem Co./ Artificial Island / Delaware	16	13	21	10	1.62	2.38	2.50	1.81
TOTAL of Study Areas	392	331	599	431	1.81	2.07	1.97	1.58
Atlantic Coast only	316	265	467	317	1.76	2.07	1.92	1.53
Delaware Bay only	76	66	132	114	2.00	2.10	2.18	1.78
Total Checked Statewide	392	331	599	431	1.81	--		486

Figure 1. Osprey nesting population (bar) and productivity (heavy line) 1984-2012 in New Jersey.

