



## The 2005 Osprey Project in New Jersey

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Greetings everyone! In 2005 ospreys in New Jersey had a pretty good year. We don't have a full population count to report: while we had planned to do the aerial and ground censuses in 2005, funding and time made it too tough. And we decided this would be a good time to reduce our survey effort to once every three years, rather than every two years. We were busy nonetheless! The Endangered and Nongame Species Program staff and our cooperators surveyed over 200 nests during May and June, which is a good portion of the 366-nest population last counted in 2003. We reached all major nesting colonies along the Atlantic and Delaware Bay coasts, 142 nests on the Atlantic, and 61 on Delaware Bay. We will resume the census by aerial survey in 2006.

During nest checks in June and July, biologists and volunteers surveyed 203 nests and found that osprey production was excellent. On average, 1.54 young were produced per active nest, a 25% increase from the 1997-2004 running average. Banders tagged a new high of 236 young with federal identification bands for future tracking.

The statewide average of 1.54 young per nest duly represented the Atlantic coast colonies, which together averaged 1.53 young per nest. For the first time in over five years, though, Delaware Bay nests produced fewer young than Atlantic coast nests, with 1.37 young per nest. This is nothing to worry about, since both regions showed productivity well above the minimum needed to sustain the population. And it was up 25% from the 1997-2004 average of 1.24 young per nest. Southern portions of Cape May County seemed to have some of the best success with an average of 1.89 young per nest, with 27 pairs hatching and raising 51 young.

Some insight into why the ospreys have been more productive this year may be the higher amounts of prey, calm weather, and the many suitable nesting platforms. During the crucial incubating and hatching time in April and May the weather consistently stayed calm and cool with average temperatures in the low to mid 50's. Precipitation was near average at about 3.5 inches per month. These environmental conditions probably helped osprey nesting success. Just as important, Atlantic menhaden, a favored prey item, were numerous in estuarine and coastal waters, as reported by Pete McLain. Both calm weather and high prey stocks no doubt led to the great results we saw this season.

Most New Jersey ospreys (92% surveyed) used 1-post, 4-post platforms and modified telephone poles for nesting. Only 6% used other structures such as channel markers, range lights, shack roofs, pilings and duck blinds. This year only four nests were found in trees, but more probably exist without being found. Staff and volunteers did great work in raising 23 new nest platforms along the coast. Some hearty souls also did maintenance of nests before and after nesting season, making repairs to the structures and predator guards. It is particularly important

to replace the old 4-post style platforms with new 1-post platforms, which are not as prone to predators and have great long-term success.

We remain grateful to all the osprey-faithful, those who contribute days of hard work and some, the funding to carry it out, to make the osprey project an ongoing success. We would not have this rebounding osprey population were it not for the dedication and support of all our volunteers and contributors: those who build nests, protect nests, observe and check nests, band chicks, donate materials, rehabilitate birds, and support habitat conservation. Thank you all!

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



Young banded at a nest in Ocean City.

Table 1. Osprey nesting and productivity in New Jersey in 2005, in the major nesting areas. Productivity figures from 1999-2004 are included for comparison.

Nesting Area	No. Nests Surveyed	Known-Outcome Nests	No. Young	No. Banded	Production Rate	Previous Years' Production					
						2005	2004	2003	2002	2001	2000
Raritan Bay area	12	11	21	7	1.91	1.15	1.07	0.56	1.38	1.67	1.00
Sedge Islands WMA	22	21	28	24	1.33	1.70	0.83	2.00	1.77	1.54	1.57
Great Bay to Atlantic City	12	11	21	20	1.91	1.91	0.78	1.44	1.37	2.00	1.07
Great Egg Harbor & Ocean City	16	16	23	15	1.44	1.06	0.87	0.88	1.09	0.67	n/a
Sea Isle City	9	9	11	7	1.22	1.20	1.13	1.39	1.82	n/a	n/a
Avalon/Stone Harbor Bays	44	40	51	58	1.28	1.81	0.48	0.60	1.88	0.88	1.35
Wildwood Bays & Cape May	27	27	51	48	1.89	1.67	0.46	1.70	1.23	1.06	0.93
Maurice River & Estuary Marshes	61	57	78	57	1.37	2.00	1.09	2.30	1.77	1.85	2.36
Salem / Artificial Island / Delaware R.	n/s	n/s	n/s	n/s	n/s		1.00	2.00	1.79	1.40	2.00
<b>Total of Study Areas</b>	<b>203</b>	<b>192</b>	<b>284</b>	<b>236</b>	<b>1.54</b>	<b>1.56</b>	<b>0.86</b>	<b>1.43</b>	<b>1.61<sup>b</sup></b>	<b>1.29</b>	<b>1.46</b>
Atlantic Coast only	142	135	206	179	1.53	1.57	0.73	1.04	1.57	1.10 <sup>a</sup>	1.26
Delaware Bay only	61	57	78	57	1.37	2.00	1.09	2.29	1.78	1.74	2.27
<b>TOTAL Statewide Census</b>			<b>284</b>	<b>236</b>	<b>1.54</b>		<b>366</b>		<b>340</b>		<b>331</b>

<sup>a</sup> Number of nests for Artificial Island were estimated at 12 in 2003

<sup>b</sup> Total and AC figures exclude Brigantine in 2000

Figure 1. Osprey nesting population (bar) and productivity (heavy line) from 1984 through 2005 in New Jersey. Productivity in 2005 returned to above-average levels after the low point in 2003. The census (bar) was not conducted in 2005, but is scheduled for 2006.

