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Division of Fish and Wildlife

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New Jersey Bald Eagle Project, 2007

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NEW JERSEY DIVISION OF
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CONSERVE WILDLIFE
FOUNDATION OF NEW JERSEY

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Adult eagle from Maurice River North, November 2006, by Jane Morton Galetto.

Cover photo: Little Swartswood Lake nest, Sussex County, May 2, 2007, by ENSP biologist M. Valent

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Abstract

The Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP) biologists and volunteer observers located and monitored bald eagle nests and territories. A new record high of 64 eagle pairs was monitored during the nesting season; 59 of those were active (with eggs), one pair was housekeeping. Four other pairs were seen in and around previous nest areas (territories), but it was unknown if and where they nested. New Jersey's Delaware Bay region remained the state's eagle stronghold, with 49 percent of all nests located in Cumberland and Salem counties. Five new nests were found this season, two in the south, two in central and one in northern NJ. Forty-one nests were successful in producing 62 young, for a productivity rate of 1.05 young per active nest. ENSP staff banded and took blood samples from 23 eaglets at 15 nests. Seventeen nests failed to fledge young. Five of these were weather-related failures. In January's Mid-winter Eagle Survey, ENSP staff, regional coordinators, and volunteers reported a total of 219 bald eagles, a new record high count. Twenty-one eagles were recorded in northern NJ and 198 in the south. The state's eagle population would not be thriving without the efforts of the dedicated eagle volunteers who observe nests, report sightings, and help protect critical habitat.

Introduction

Historic records are incomplete, but one study indicated New Jersey hosted more than 20 pairs of nesting bald eagles in the Delaware Bay region of the state (Holstrom 1985). As a result of the use of the pesticide dichlorodiphenyltrichloroethane, commonly known as DDT, the number of nesting pairs of bald eagles in the state declined to only one by 1970 and remained there into the early 1980s. Use of DDT was banned in the United States in 1972. That ban, combined with restoration and management efforts by biologists within the Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP), has resulted in a population increase to 64 active pairs by 2007. ENSP recovery efforts – implemented since the early 1980's – have resulted in an exceptional recovery as New Jersey's eagle population has rebounded from the edge of extirpation.

Recovery efforts were multifaceted. In 1982, after the Bear Swamp nest – New Jersey's only remaining nest since 1970 – had failed at least six consecutive years, ENSP biologists removed the egg for artificial incubation, and fostered the young nestling back to the nest. As a result of residual DDT contamination, the Bear Swamp eggs were too thin to withstand normal incubation. Artificial incubation and fostering chicks continued with success until 1989, when the female of the pair was replaced and the pair was able to hatch their own eggs.

Increasing the production from a single nest, however, was not enough to boost the state's population in a reasonable period of time; mortality rates are high in young eagles (as high as 80%), and they do not reproduce until about five years of age. ENSP instituted a hacking project in 1983 that resulted in the release of 60 young eagles in NJ over an eight-year period (Niles et al. 1991). These eagles contributed to the increase in nesting pairs since 1990.

Bald eagles nesting in NJ face many threats, with disturbance and habitat loss the greatest threats in our state. In addition, contaminants in the food web may negatively affect the eagles nesting in some areas of NJ.

Disturbance is defined as any human activity that causes eagles to change their behavior, and takes may forms, including mere presence of people in nesting or foraging areas. In general, people on foot evoke the strongest negative reaction (see Buehler 2000). The problem is that when eagles change their behavior in reaction to people, they cease doing what is best for their survival and the well being of their eggs and young; ultimately, that reduces the survival of individuals and the population. ENSP biologists continually work to manage and reduce disturbance in eagle habitats, especially around nest sites. A corps of experienced volunteers, as well as public education and established, safe viewing areas, are essential to this effort. Viewing eagles from safe distances, where eagles continue to act normally, is best for eagles and satisfies our natural desire to see them. Biologists also work to protect habitat in a variety of ways, including working with landowners, land acquisition and management, and applying the state's land use regulations. ENSP is also continuing to investigate the impacts of organochlorines and heavy metals in eagles and other raptors nesting in the Delaware Bay region. Bald eagles, ospreys, and peregrine falcons nesting in the region exhibited some reproductive impairment relative to other areas (Steidl et al. 1991, Clark et al. 1998), but recent research indicates problems may be limited to very local areas of contamination (Clark et al. 2001). ENSP biologists collect samples that allow monitoring of contaminants in eagles during the nesting season, and monitoring nest success is an integral part of this research.

ENSP biologists, with the Division's Bureau of Law Enforcement staff and project volunteers, work year round to protect bald eagle nest sites. However, with increasing competition for space in the most densely populated state in the nation, it is clear that critical habitat needs to be identified and, where possible, protected. Critical habitat for eagles includes areas used for foraging, roosting and nesting, and is included in the program's Landscape Project mapping of critical wildlife habitats.

The population of wintering bald eagles has grown along with the nesting population, especially in the last ten years. This growth reflects increasing nesting populations in NJ and the northeast, as each state's recovery efforts continue to pay off for eagles.

In 2007, a major milestone was reached for bald eagles in the U.S. In recognition of the national resurgence in the eagle population in the lower 48 states, the federal government removed the bald eagle from its list of Endangered Species in August 2007. The U.S. Fish and Wildlife Service will oversee a 20-year monitoring period (through 2027) to watch for and investigate any problems that could compromise the eagle recovery. The bald eagle's official New Jersey status remains state-endangered, and state regulatory protection will remain unchanged by the federal action.

Objectives of the New Jersey bald eagle program:
1) to monitor the recovery of the bald eagle in the state by documenting the status, distribution, and productivity of breeding bald eagles in NJ;
2) to enhance nest success by protecting bald eagles and their nest sites;
3) to monitor wintering areas and other concentration areas and plan for their protection;
4) to document locational data in the Biotics database and apply it to identify critical habitat using the Landscape Project mapping;

5) to provide information and guidance to landowners and land managers with regard to bald eagles on their properties;
6) to increase our understanding of bald eagle natural history in New Jersey.

Methods

Nest Survey

All known nest sites are monitored January through July. Volunteer observers watch most nests from a distance of 1,000 feet, using binoculars and spotting scopes, for periods of two or more hours each week. Observers record all data including number of birds, courtship or nesting behaviors, incubation, feeding, and other parental care behaviors that provide essential information on nesting status. ENSP staff contact volunteers weekly with an update and are available to discuss observer questions and data. Dates are recorded for incubation, hatching, banding, fledging, and, if applicable, nest failure. A nesting territory is considered "occupied" if a pair of eagles is observed in association with the nest and there is some evidence of recent nest maintenance. Nests are considered "active" if a bird is observed in an incubating position or if eggs or young are detected in the nest.

Observers report other bald eagle sightings to ENSP biologists, who review the information for clues to potential new nest locations. ENSP staff and volunteers investigate territorial bald eagles for possible nests through field observations. When enough evidence has been collected to suggest a probable location, ENSP biologists often conduct aerial surveys of the region to locate a nest.

When necessary, nests are secured from disturbance with barriers or posted signs. ENSP staff works in partnership with landowners and land managers to cooperatively protect each nest. Volunteers notify ENSP staff immediately if any unusual or threatening activities are seen around the nest site. The Division's Bureau of Law Enforcement conservation officers act to enforce protection measures as needed, and provide routine assistance as well.

At select nests, biologists enter the nest site to band young when nestlings are between five and eight weeks old. A biologist climbs the tree and places nestlings into a large duffel bag and lowers them, one at a time, to the ground. A team records measurements (bill depth and length, eighth primary length, tarsal width, and weight) and bands each eaglet with a federal band and a green state color band. A veterinarian examines each bird and takes a blood sample for contaminant analysis. Blood is collected and stored following techniques in Bowerman et al. (1994). Samples are stored frozen pending analysis by a technical lab. Nest trees are generally not climbed the first season to avoid associating disturbance with the new site.

Wintering Eagle Survey

The nationwide Midwinter Bald Eagle Survey is conducted every January to monitor population levels. The ENSP contracted New Jersey Audubon Society's Cape May Bird Observatory and Allan Ambler of the Delaware Water Gap National Recreation Area to coordinate the surveys in southern and northern NJ respectively. These researchers organized volunteers to cover all suitable and known wintering habitats, then tracked the number of individual eagles observed on both days of the survey using plumage characteristics and time observed. Their results, as well as those from ENSP volunteers at northern reservoirs, were compiled by ENSP biologists to determine statewide totals. Final results were tabulated by ENSP staff according to standardized survey routes, and provided to

the Raptor Research and Technical Assistance Center in the federal Bureau of Land Management. For the fifth year volunteers also mapped eagle activity during the two-day survey; these data delineating critical eagle wintering habitat will be incorporated into the NJ Landscape Project.

Results

Nest Survey

The statewide population increased to 64 territorial pairs in 2007, up from 59 in 2006. Fifty-nine pairs were known active (meaning they laid eggs). Forty-one nests were known to be successful in producing 62 young, for a productivity rate of 1.05 young per active nest, which is within the required range of 0.9-1.1 young per nest for population maintenance (Figure 2). Of the territories that were not active, one new pair, Assunpink, was found late in the season housekeeping; four other pairs were seen early in the season in the vicinity of previous nests, but it is unknown if they nested elsewhere. The Delaware Water Gap pair has not been relocated since their nest tree fell in 2005, it is unknown whether they are nesting in New Jersey or Pennsylvania.

Most nests were located in the southern part of the state, particularly within 20 km of Delaware River and Bay (Map 1). All nests and significant dates are listed in Table 1. Most nests (44, 68%) were located on private land, compared to 21 (32%) on public and conservation lands. Disturbance was a management issue at many nests, and posting and regular surveillance by staff and nest observers were essential to increase the chance success.

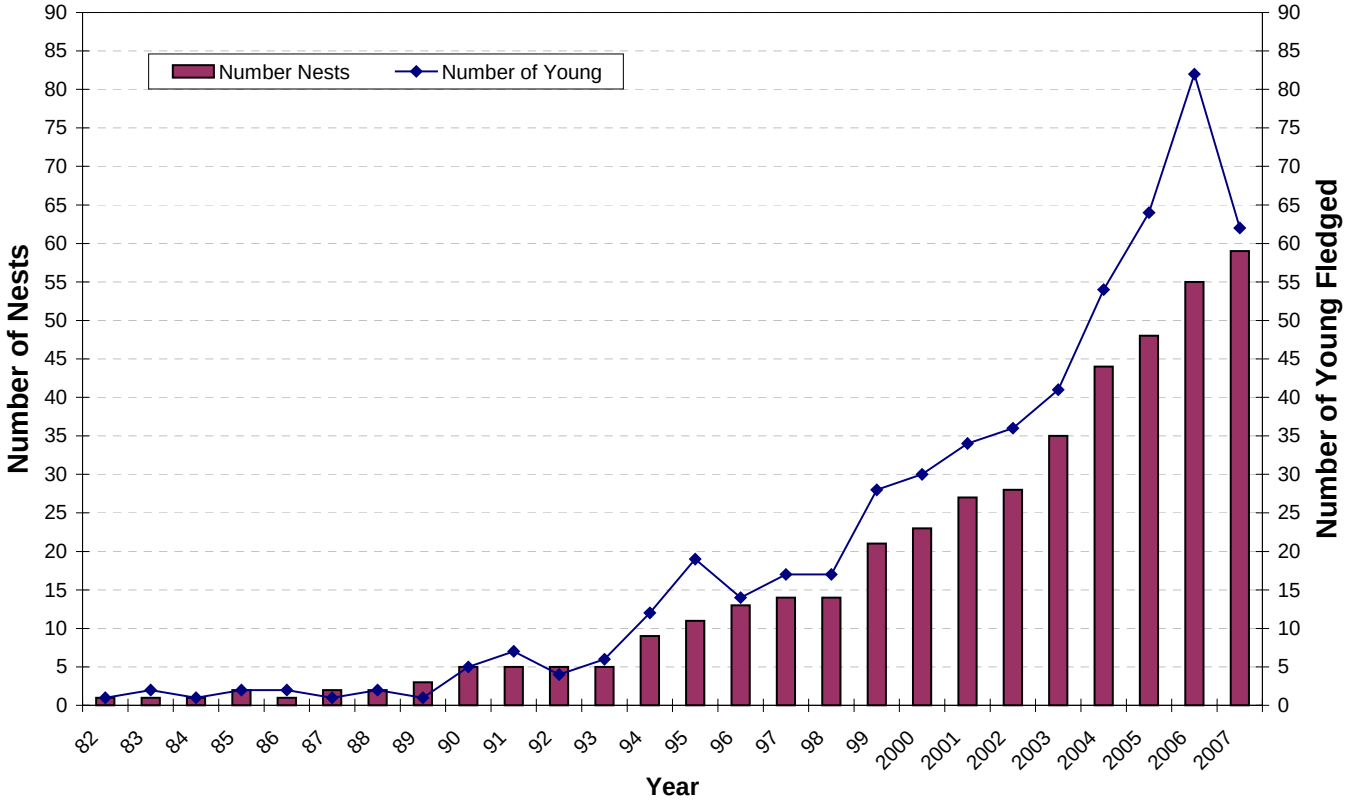

Figure 1. The number of active bald eagle nests and young produced in New Jersey, 1982-2007

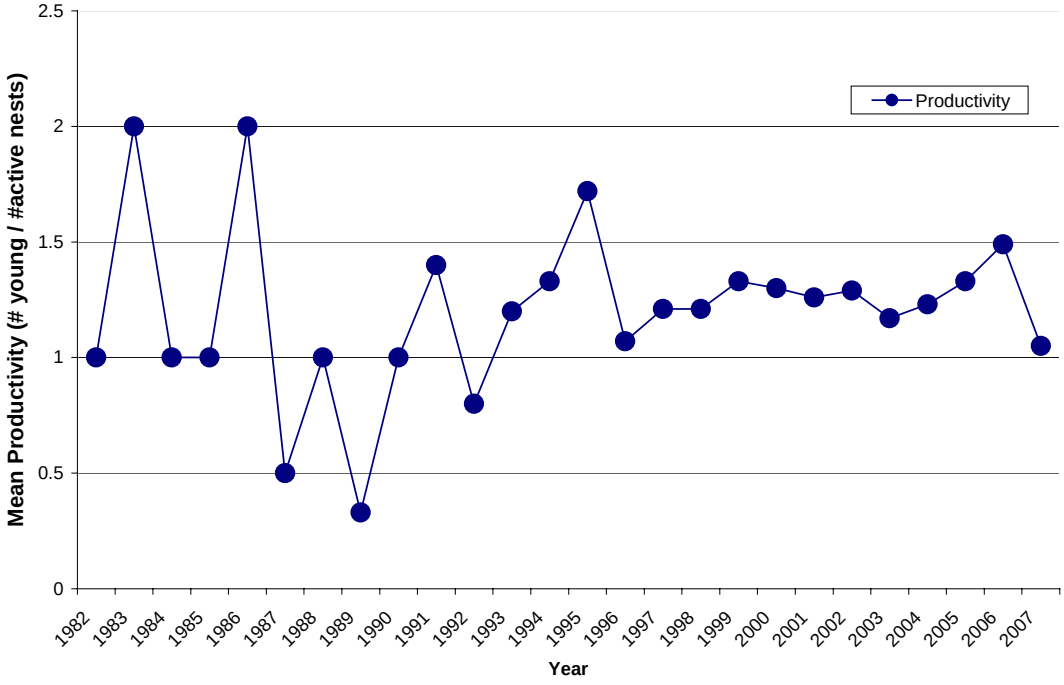

Figure 2. Productivity Of Eagle Nests in New Jersey, 1982-2007

Map 1. Bald Eagle Nest Sites, 2007

1 Wanaque
2 Rockaway
3 Newton Reservoir
4 Little Swartswood
5 Merrill Creek Reservoir
6 Round Valley Reservoir
7 South Branch
8 Princeton
9 Navesink River
10 Manasquan River
11 Manasquan Reservoir
12 Assunpink Lake
13 Prospertown
14 Burlington County/Delaware River
15 Rancocas Creek 1
16 Camden County
17 Mantua Creek
18 Raccoon Creek
19 Bridgeport
20 Oldman's Creek
21 Swedesboro
22 East Lake
23 Mannington Meadows 1
24 Mannington Meadows 2
25 Supawna
26 Alloways Creek 2
27 Alloways Creek 3
28 Elsinboro
29 Alloways Creek 1
30 Stow Creek 1
31 Elmer
32 Stow Creek 2
33 Wheaton Island
34 Bayside
35 Cohansey River-Greenwich
36 Cohansey River-Teaburner
37 Chohansey River-Shepards Mill
38 Cohansey River-Hopewell West
39 Cohansey River-Tindells Landing
40 Cohansey River-Middle Marsh
41 Cohansey River-Dix
42 Seabreeze
43 Bay Point Road
44 Nantuxent A
45 Nantuxent B
46 Turkey Point
47 Dividing Creek
48 Bear Swamp
49 Union Lake
50 Maurice River (Millville)
51 Maurice River (North)
52 Maurice River (Commercial)
53 Heislerville
54 South Dennis
55 Belleplain
56 Cedar Swamp Creek
57 Tuckahoe
58 Egg Harbor
59 Lake Lenape
60 Galloway
61 Mullica River
62 Wading River
63 Chatsworth
64 Fort Dix Military Reservation

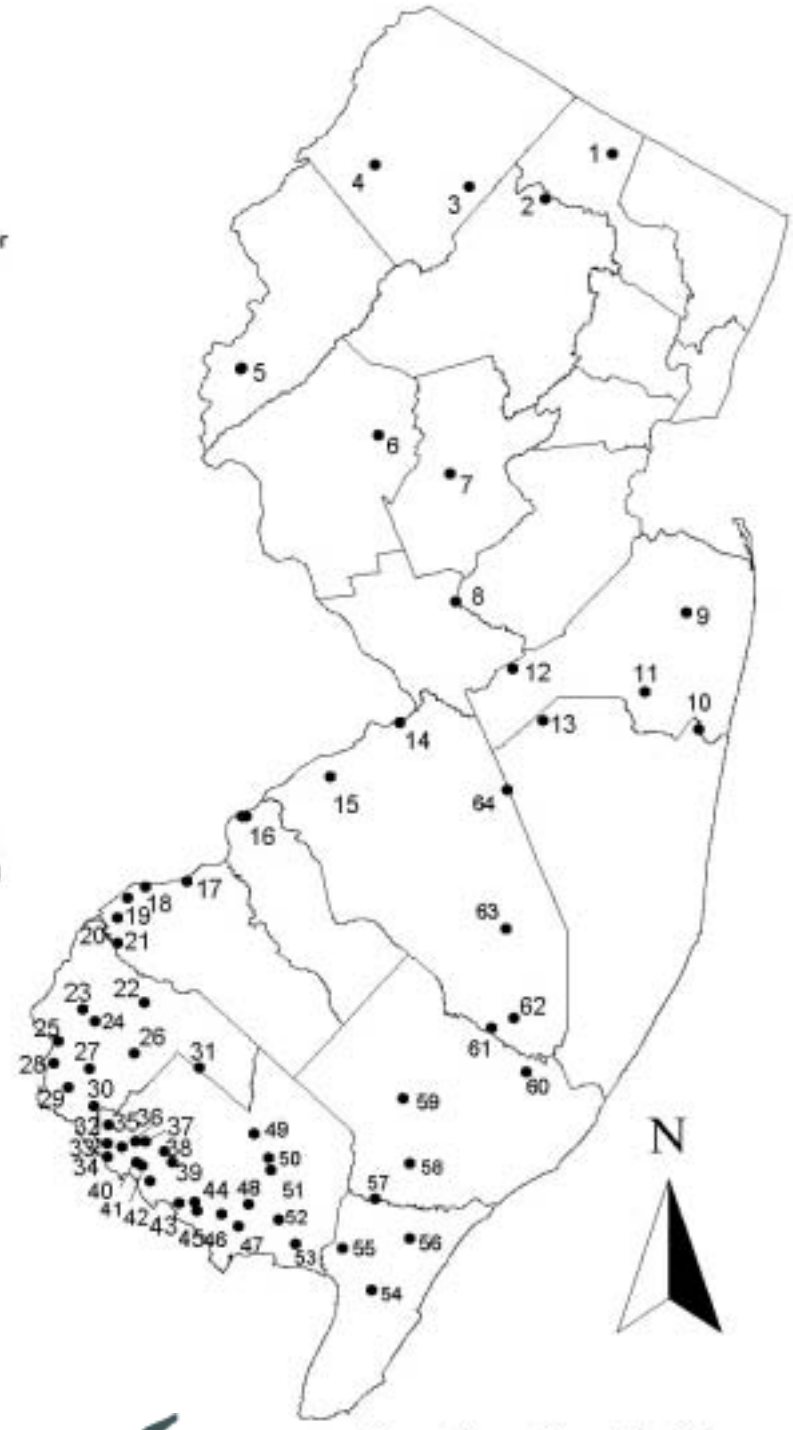

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Table 1. Production and Significant Dates of Bald Eagles Nesting in NJ, 2007

NEST SITE	Incubation	Hatching	Banding	Fledging	No. Fledged	Failed-Reason	Notes
Alloways Creek 1-Hancocks	3/22	4/26			0	5/8-Unknown	
Alloways Creek 2-CE	2/23	3/31		7/2	2		
Alloways Creek 3-Quinton	2/15	3/22		6/25	2		
Assunpink	T						New nest and territorial pair; found in April
Bay Point Road	~2/17	~3/24		~6/2	1		New nest
Bayside	3/1				0	4/12-Unknown	
Bear Swamp	~2/14	~3/29		~6/7	1		
Belleplain	F3/20				1		Aerial survey 3/29, incubating, 1 chick assumed fledged
Bridgeport	2/20	3/31		6/14	1		
Burlington Co./Del. R.	~2/21	~3/28		~5/28	1		
Camden County	3/24				0	4/7-Ground pred?	
Cedar Swamp Creek	F3/20				1		
Centerton (Elmer)	~3/13	~4/17		~6/15	2		
Chatsworth	>3/27	4/7			0	4/20-Unknown	New nest; 1 chick observed/lost @ approx. 2 wks.
Cohansey (Middle Marsh A)	T						Pair in area
Cohansey (Middle Marsh B)	2/27	4/10			0	4/18-Storm?	
Cohansey (Greenwich)	2/10	3/17	4/30	6/9	1		4/30, MD foster chick placed in nest
Cohansey (Teaburner)	2/1	3/8			0	3/17-Unknown	
Cohansey (Shepards Mill)	2/1	3/8	4/20	6/3	3		

Table 1. Continued

Cohansey (Hopewell)	2/10	3/19	4/30	6/8	1		
Cohansey (Tindells Landing)	2/2				0	2/24-Unknown	
Dividing Creek	2/25	3/27			0	4/16-Storm	Nest tree destroyed in storm, chick not found
East Lake	2/3	3/12		6/5	1		
Egg Harbor River	1/31				0	~3/14-Unknown	
Elsinboro	1/30	3/6		6/13	2		
Fort Dix	2/16	3/24	5/4	6/7	1		
Galloway	~3/10			6/3	2		
Heislerville	2/15				0	2/24-Storm	Nest destroyed in storm
Lake Lenape	T						Pair in area, not at '06 nest
Little Swartswood	2/12	3/23	5/2	6/22	2		11/07 nest destroyed in storm
Manasquan Reservoir	2/7	~3/21	5/4	6/8	1		5/4, MD chick fostered into nest 8/07 nest destroyed in storm
Manasquan River	2/17	3/17		6/16	2		
Mannington Meadows 1	2/22	3/29		6/1	1		New nest location
Mannington Meadows 2	2/28	4/1	5/14	7/4	2		
Mantua Creek	3/5	4/11	5/23	7/1	1		
Maurice River (Mauricetown)	2/?				0	<3/20-Unknown	Aerial survey 3/20: Ad on empty nest
Maurice River North	3/8	4/13		~7/6	1		Pair returned to 2005 nest tree
Maurice River (Millville)	2/11				1		

Table 1. Continued

Merrill Creek	2/12	3/18	5/2	~6/15	1		2 chicks observed in early May
Mullica River	<3/31	~5/1			1		
Nantuxent Creek A	2/18				2		
Nantuxent Creek B	2/24	~3/31			1		New pair
Navesink River	2/19	3/26	5/9	6/22	2		New nest tree
Newton Reservoir	<3/20	~4/21		7/10	1		New pair; 2 chicks observed early, one chick after 4/16 storm.
Oldman's Creek	2/10	3/20			0	3/28-Ground pred?	
Princeton	2/21	4/7	5/9	6/26	1		
Prospertown	~3/4				0	4/16-Storm	Nest destroyed 4/16 storm
Raccoon Creek	3/16				0	5/14-Infertile egg	Egg removed >9 wk incub.
Rancocas Creek 1	2/15				0	3/27-Unknown	
Raritan River (South Branch)	2/12	3/13	4/25	6/22	1		2 chicks originally; one missing after 4/15 storm
Rockaway	3/11				0	3/16-Unknown	
Round Valley	~2/23	3/30	5/11	7/7	2		Aerial survey 3/18, 2 chicks
Sea Breeze	T						Pair in area, outcome unknown
South Dennis	1/26	2/28		5/31	1		
Stow Creek N. (Canton)	2/11	3/22			0	4/16-Storm	One chick observed prior to 4/16
Stow Creek S. (Raccoon Ditch)	2/9	3/18		6/8	2		
Supawna Meadows	3/1	3/30		6/28	1		
Swedesboro-Birch Creek	3/12				0	4/2-Unknown, poss. pred.	

Table 1. Continued

Tuckahoe	T						Pair in area, nesting unknown
Turkey Point	2/24	4/1		6/29	3		
Union Lake	2/28	3/26	5/14	6/15	1		
Wading River	<1/23	3/3		5/26	2		
Wanaque	2/23	3/30	5/11	6/26	3		
Wheaton Island	2/17	~3/24		6/25	3		
Total: 64 territorial pairs	**Active: 59**				**Fledged: 62**		

Manasquan River fledgling, June 2007. Photo by nest observer Gina Mackey.

New Nesting Pairs

In 2007 five new pairs of eagles were located in New Jersey.

Assunpink – In April this housekeeping pair was found with a nest located on a lake in a Wildlife Management Area in Monmouth County. ENSP staff and volunteers will monitor this pair in the 2008 nesting season.

Bay Point Road – This new pair built a nest on an island in the tidal salt marsh along Delaware Bay in Cumberland County. Incubation began in mid-February and hatching occurred in the end of March. One chick was reported at the nest and fledged in early June.

Chatsworth – This new pair was found incubating in late March. The nest is in the Pine Barrens on land owned by a non-profit conservation organization. Hatching occurred around April 7, and one chick was observed in the nest. Failure occurred on April 20, with unknown cause.

Nantuxent B – This new pair built a nest in the marshes along Nantuxent Creek in Cumberland County. The pair began incubating around February 24 and hatching occurred in the end of March. One bird fledged from the nest.

Newton Reservoir – Early in the season a new pair of eagles was found nesting along Newton Reservoir. On March 20 the birds were found incubating. Hatching occurred around April 23, two chicks were reported from the nest.

2007 Nesting Season Highlights

Foster chicks were placed in two separate NJ nests, Greenwich and Manasquan Reservoir, which each held one nestling six weeks of age. The foster eaglets came from two different nests in Blackwater, Maryland, that were destroyed, and went through brief recovery at Tri-State Bird Research and Rescue in Newark, Delaware.

Among the negative highlights, there were seventeen nest failures this year. Many were weather related, specifically storms in late March and April, when eagles were incubating or just hatching. The April 15-16 storm brought heavy rain and wind that destroyed several nests. Some ground searches conducted afterward did not find any grounded eaglets. We suspect predation caused some nest failures where young (<2 weeks old) eaglets disappeared.

Under separate state funding, interpretive signs were placed at three eagle viewing areas in southern NJ (East Lake, Stow Creek, Beaver Swamp). The sites for the signs were chosen based on high visibility of the nests and the safety of viewing without causing disturbance. The signs provide life history information about bald eagles in NJ and their sensitivity to disturbance, and help to mark the limits of the safe viewing distance.

Several locations of previous territorial (and nesting) pairs were not found in 2007, including the Delaware Water Gap and Palisades Interstate Park. These sites merit watching in the coming season, and all state-boundary sites call for cooperation with PA and NY biologists to identify and manage eagle habitats.

Potential Nest Sites

ENSP biologists and observers actively searched for possible nesting eagles in several different locations. The searches were in response to the many reports of eagles engaging in breeding behaviors. Areas that remain promising are Big Timber Creek, Batsto Lake, Oswego Lake, Williamstown, Carney's Point, and middle Delaware River, which all have year-round eagle activity. In addition, several inland reservoirs in the north hold promise for eagle nesting.

Wintering Eagle Survey

A total of 219 bald eagles was observed during the Midwinter Survey on January 13-14, 2007 (Table 2). This was the highest count since the survey began in 1978, with 23 more birds than last year's record of 194 (Figure 3). Southern New Jersey's Delaware Bay region continued to host the majority of the state's wintering birds.

One hundred ninety-eight bald eagles were counted in southern NJ, of which 114 were adults (Table 2; Elia 2007). Most southern eagles were observed in the Delaware Bay region (49%), followed by the lower Delaware River (34%) and Atlantic Coast watersheds (17%). The transects with the highest counts were Salem County with 61 eagles, Maurice River/Turkey Point/Bear Swamp with 40 eagles, and Fortescue to Stow Creek with 28 eagles.

In northern NJ, the best habitats are along the Delaware River, in the Delaware Water Gap National Recreation Area, and the inland reservoirs. The Water Gap hosted 6 bald eagles (Ambler 2007), while the inland reservoirs and lakes had 14. One eagle was counted in northeastern NJ along the Palisades on the Hudson River.

Most survey volunteers recorded details on individual eagles sighted, including point locations on maps. Point locations were digitized and will be used to design critical wintering habitat areas.

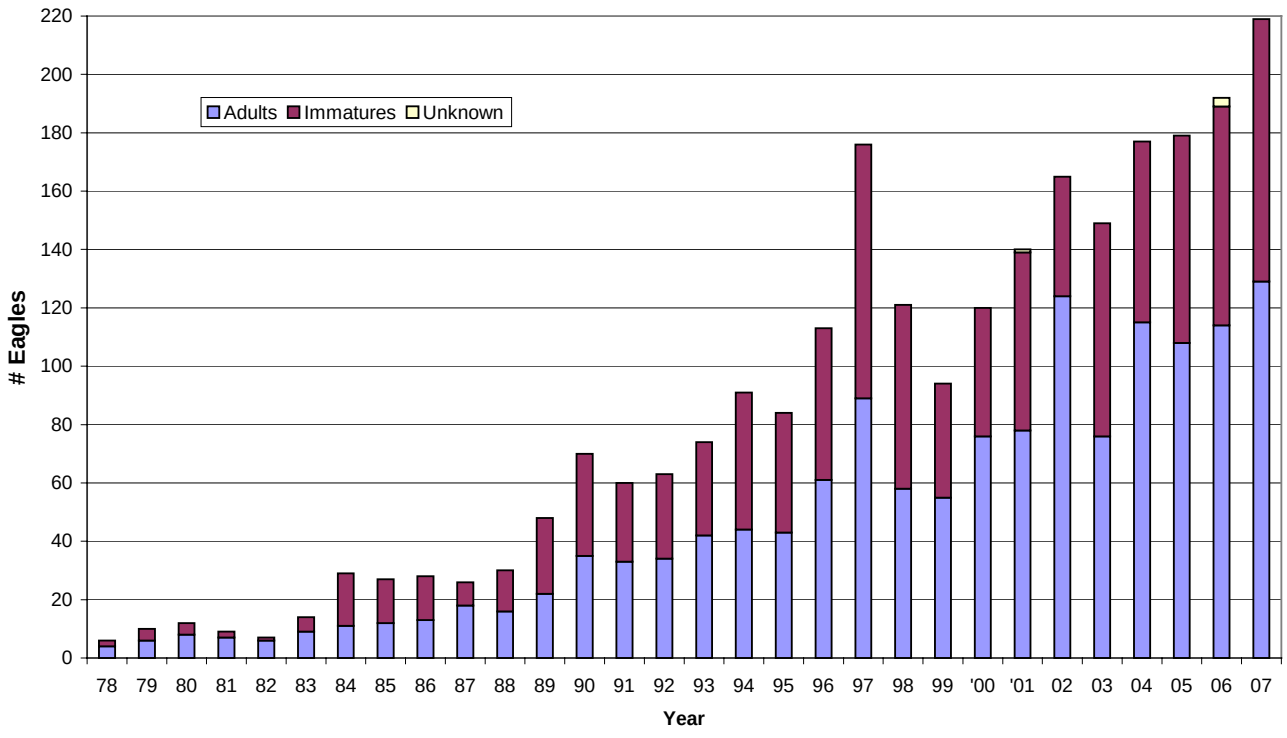

Figure 3. Midwinter Bald Eagle Counts 1978 - 2007

Table 2. Bald Eagles counted in the NJ Midwinter Bald Eagle Survey, January 13-14, 2007

Region	Survey Transect	Subregion	BE Total	Adult	Immature	Unkn. BE	Golden
South	Brigantine NWR	AC	0	0	0	0	0
	Cohansey River	DB	13	9	4	0	0
	Delaware River - Riverton to Trenton	SD	3	2	1	0	0
	Fortescue to Stow Creek	DB	28	11	17	0	0
	Fort Dix	AC	0	0	0	0	0
	Great Egg Harbor & Tuckahoe Rivers	AC	11	7	4	0	0
	Manahawkin to Lower Bass River	AC	2	2	0	0	0
	Manasquan Reservoir	AC	2	2	0	0	0
	Maurice River, Turkey Point, Bear Swamp	DB	40	25	15	0	0
	Mullica & Wading Rivers	AC	12	11	1	0	0
	Oldman's Creek	SD	2	2	0	0	0
	Princeton	SD	0	0	0	0	0
	Raccoon Creek	SD	1	1	0	0	0
	Rancocas Creek	SD	0	0	0	0	0
	Salem County	SD	61	30	31	0	0
	Stow Creek	DB	10	4	6	0	0
	Swimming River Reservoir	AC	0	0	0	0	0
	Thompson's to Reeds Beach	DB	7	3	4	0	0
	Whitesbog	AC	6	5	1	0	0
South	**Subtotal**		**198**	**114**	**84**	**0**	**0**
North	Delaware River - Columbia to Trenton	ND	0	0	0	0	0
	Delaware Water Gap	DWG	6	5	1	0	0
	Hudson River - Pallisades	P	1	1	0	0	0
	Jersey City Reservoirs (Boonton & Split Rock)	IR	3	1	2	0	0
	Merril Creek Reservoir	IR	2	2	0	0	0
	Newark Watershed (Clinton & Charlottesburg)	IR	1	1	0	0	0
	Oradell Reservoir	IR	2	1	1	0	0
	Round Valley Reservoir	IR	1	1	O	0	0
	Wanaque & Monksville Reservoir	IR	5	3	2	0	1
North	**Subtotal**		**21**	**15**	**6**	**0**	**1**
State	**Total**		**219**	**129**	**90**	**0**	**1**

Subregions: AC=Atlantic Coast, DB=Delaware Bay, DWG=Delaware Water Gap, IR=Inland Reservoirs, ND=Northern Delaware River, P=Palisades-Hudson River, SD=Southern Delaware River

Recoveries of Eagles in NJ

On December 31, 2006 the remains of an eagle were found near the Manasquan Reservoir. The bird had been banded in Delaware in May 1996.

A 3-year-old bald eagle was found injured in Rockaway Township, Morris County on January 18, 2007. The bird was taken to the Raptor Trust and diagnosed with an impact injury. After nine days at the rehabilitation center the bird was released along the Delaware River.

On February 4 the remains of an immature eagle were found under the Tuckahoe River nest. The bird was one of three nestlings that had been banded on May 22, 2006 at the Tuckahoe nest.

An adult eagle was found dead under a power line on March 2, 2007, on a farm along Sassafras River near Galena, MD. The bird had been banded in NJ at the Alloways Creek 1 nest on May 18, 2001. The cause of death was believed to have been electrocution.

An adult eagle was found injured in a yard in Bridgeton, Cumberland County on May 7, 2007. The bird was taken to Tri-State Bird Research and Rescue. The female eagle was euthanized due to severe injuries.

On July 30, 2007, Tri-State Bird Rescue and Research received an injured subadult (second-year) eagle. The bird was found in Logan Township, Gloucester County, with injuries that may have been a result of flying into power lines. It had a fractured shoulder and an electrical burn on one leg. After successful treatment the bird was released on September 18, 2007.

On August 10 an adult bald eagle was found dead next to the Delaware River in Gibbstown, Gloucester County. The bird was found under a power line, apparently electrocuted. The bird had been banded as a nestling in 1999 at the Alloways 1 nest, Salem County. It was likely the female from the breeding pair at Raccoon Creek.

On October 23 a second year eagle was found below power lines on a cranberry farm near Chatsworth. The bird was sent to the USFWS for a necropsy to determine cause of death.

An adult male eagle was found dead November 9, 2007, on a farm in Hammonton, Atlantic County. It had been banded as a nestling in 1992 at the Belleplain nest. Cause of death was presumed to be electrocution. He may have been part of the Lake Lenape pair, approximately 11 miles away.

Worth noting: Talented photographer Kim Steininger captured on film a NJ-banded eagle in November. A close-up of her photo enabled us to read the bird's bands. Although faded after five years, we identified "B00," banded in 2002 in Hopewell, Cumberland County. Unfortunately, he was in Conowingo, Maryland, rather than near a nest territory in NJ!

Acknowledgments

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Passings

We want to make special mention of two members of our eagle team who passed away in 2007. **Linn Pierson** was a prime example of the most dedicated of ENSP observers and naturalists. Linn donated her time generously to the eagle project, as well to monitoring peregrines in NJ's northeast, and surveying songbirds and raptors whenever asked. She surveyed wintering eagles for many years, and identified nesting at several locations.

Joe Cisco, Chief of security at Wanaque Reservoir, worked closely with ENSP biologists in the northern office and volunteers for more than 10 years in search of and finally protecting the eagles that made Wanaque their home. Joe helped keep staff and volunteers informed of the eagles' activities and was quick to recruit his own staff to help with our mission.
We will miss these special people and wish them high flying with eagles.

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