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Division of Fish and Wildlife

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New Jersey Bald Eagle Project, 2008

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Eagle in flight at Chatsworth, photo by Michael Hogan/hoganphoto.com

Cover photo: Adult eagle from East Lake pair, photo by Seclinda.

New Jersey Bald Eagle Project, 2008

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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 69 eagle pairs was monitored during the nesting season; 63 of those were active (with eggs); one was housekeeping. Five other pairs were seen in and around previous nest territories, but it was unknown if and where they nested. New Jersey's Delaware Bay region remained the state's eagle stronghold, with 46 percent of all nests located in Cumberland and Salem counties. Seven new nests were found this season, three in the south, two in central and two in northern NJ. Fifty nests were successful in producing 85 young, for a productivity rate of 1.35 young per active nest. ENSP staff banded 25 eaglets and took blood samples from 23 eaglets at 15 nests. Twelve nests failed to fledge young; the outcome of one nest was unknown. For three nests we could attribute the failures to weather (2) and predation (1). In January's Midwinter Eagle Survey, ENSP staff, regional coordinators and volunteers reported a total of 264 bald eagles, a new record high count. Forty-three eagles were recorded in northern NJ and 221 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 dichloro-diphenyl-trichloroethane, 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 69 active pairs by 2008. 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) monitor the recovery of the bald eagle in the state by documenting the status, distribution, and productivity of breeding bald eagles in NJ;
2) enhance nest success by protecting bald eagles and their nest sites;
3) monitor wintering areas and other concentration areas and plan for their protection;

4) document locational data in the Biotics database and apply it to identify critical habitat using the Landscape Project mapping;
5) provide information and guidance to landowners and land managers with regard to bald eagles on their properties;
6) 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 contracts New Jersey Audubon Society's Cape May Bird Observatory to coordinate the survey across southern NJ, and relies on biologist Allan Ambler of the Delaware Water Gap National Recreation Area to survey in the upper Delaware River area. . ENSP staff coordinate volunteers surveying northern NJ reservoirs. The volunteer effort is aimed at covering all suitable and known wintering habitats, and data are analyzed to track (to the extent possible) the number of individual eagles observed on both days of the survey using plumage characteristics and

time/place observed. These results are compiled by ENSP biologists to determine statewide totals. Final results are 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 69 territorial pairs in 2008, up from 64 in 2007. Sixty-three pairs were known active (meaning they laid eggs). Fifty nests were known to be successful in producing 85 young, for a productivity rate of 1.35 young per active nest, which is above 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, at Crosswicks Creek, was housekeeping; five other pairs were seen early in the season in the vicinity of previous nests, but it was unknown if they nested elsewhere.

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 (70%) were located on private land, compared to 30% 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.

Photo taken by Mick Valent at Greenwich nest banding

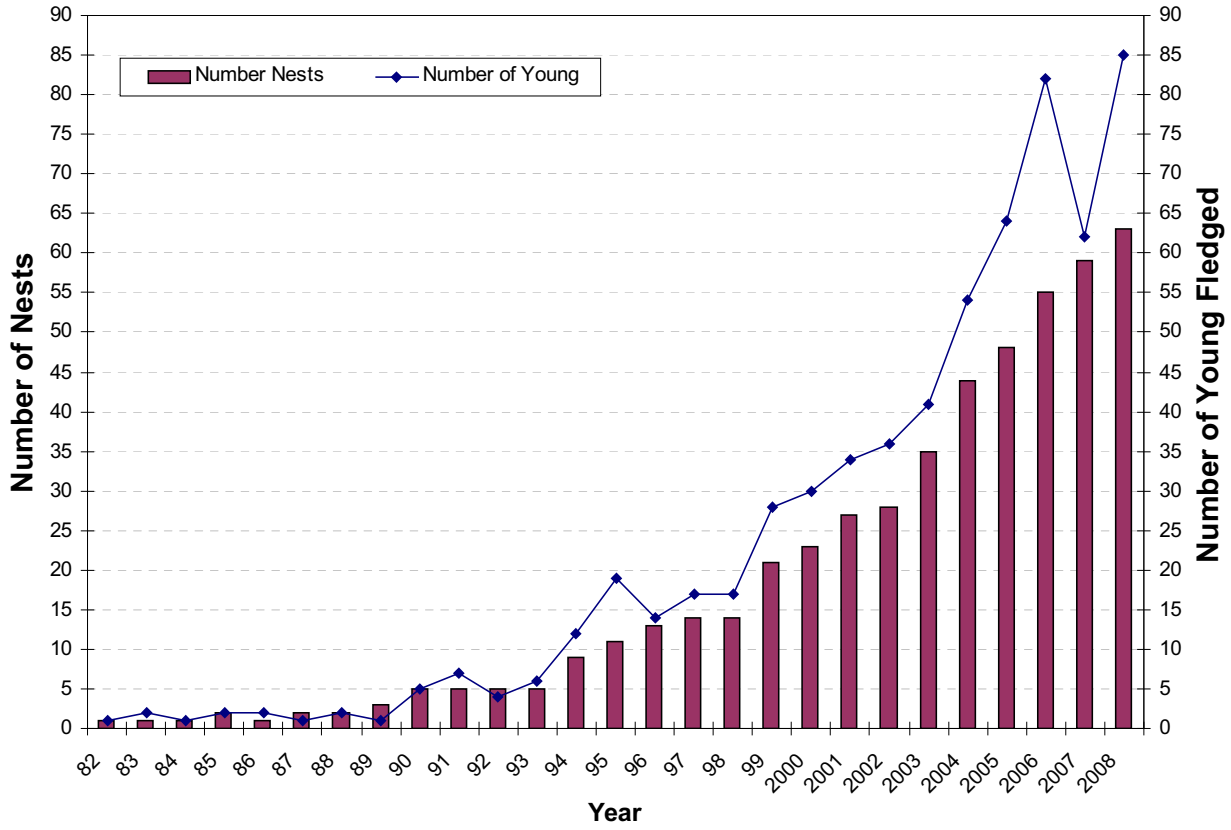

Figure 1. The number of active bald eagle nests and young produced in New Jersey, 1982-2008

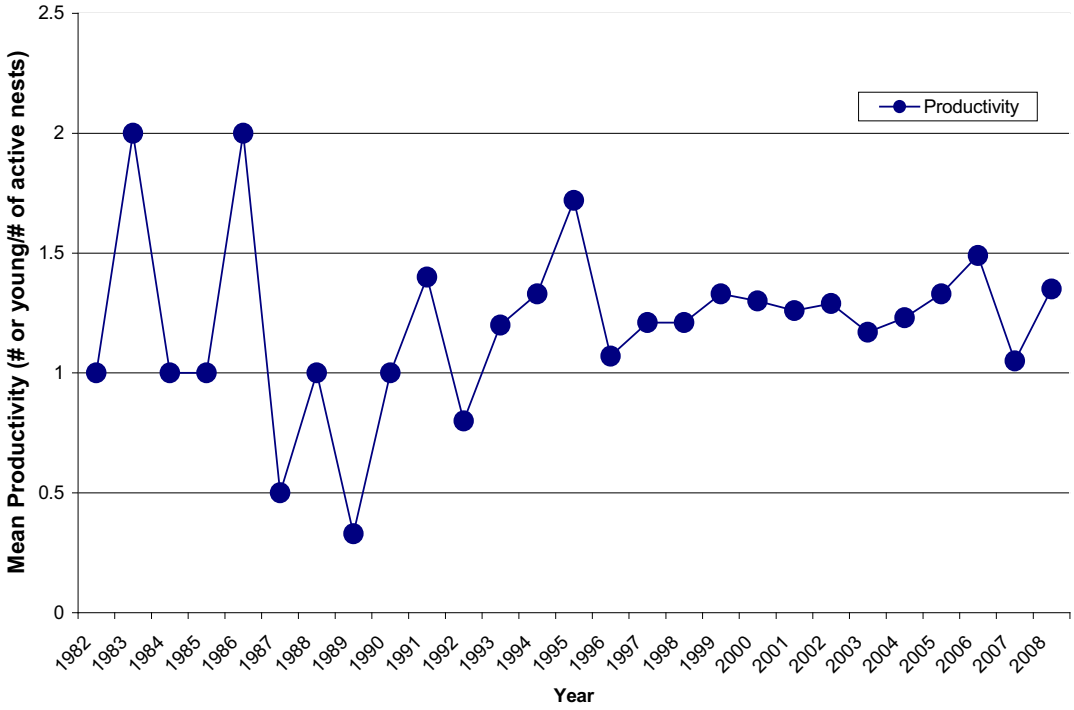

Figure 2. Productivity Of Eagle Nests in New Jersey, 1982-2008

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

Map 1. Bald Eagle Nest Sites, 2008

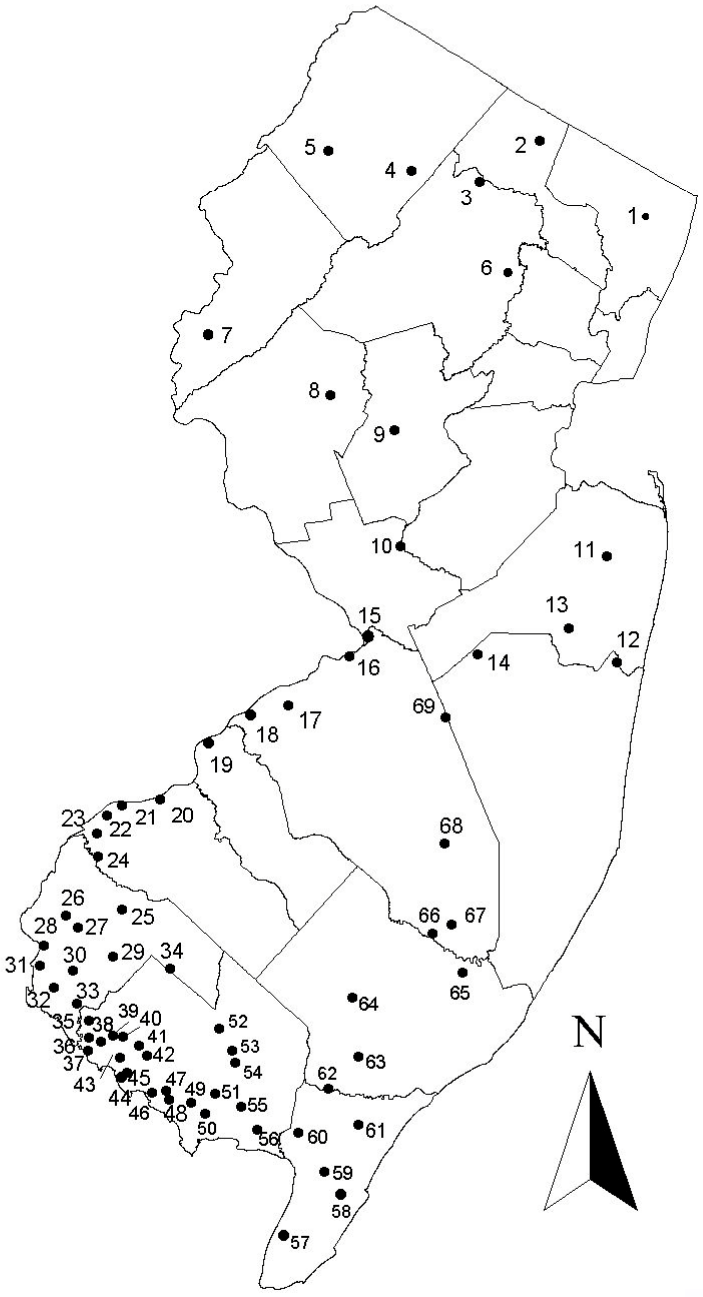

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Table 1. Production and Significant Dates of Bald Eagles Nesting in NJ, 2008

NEST SITE	Incubation	Hatching	Banding	Fledging	No. Fledged	Failed-Reason	Notes
Alloways Creek 1-Hancocks	3/7	4/11			1		
Alloways Creek 2-CE	3/1	4/4		~7/4	1		
Alloways Creek 3-Quinton	2/19	3/27		6/11	3		
Avalon	~3/29	~5/2	6/27	7/24	2		New pair
Bay Point Road							Not known where nesting
Bayside	2/23	4/1		7/1	2		
Bear Swamp	<3/10	3/6		6/12	2		
Belleplain	<3/10				1		Flew 3/10-incubating; fledging assumed
Bridgeport	2/17	3/24		6/20	2		
Burlington Co./Del. R.	<3/2				0	~5/25-unknown	
Camden County	3/11	4/15		7/16	1		
Cedar Swamp Creek	1/28	3/4		6/16	2		
Centerton (Elmer)	~2/11	~3/17		6/6	2		
Chatsworth	2/15	4/4	5/2	6/26	1		
Cinnaminson	2/14				0	4/2-unknown	New nest
Cohansey (Middle Marsh A)							Not known where nesting
Cohansey (Greenwich)	2/3	3/9	4/21	6/1-6/20	2		
Cohansey (Teaburner)	2/6	3/15	4/21	6/1	2		

Table 1. Continued

Cohansey (Shepards Mill)							Not known where nesting
Cohansey (Hopewell)	2/23				0	4/1-unknown	
Cohansey (Tindells Landing)	2/4	~3/24		5/26	2		
Crosswicks Creek							New pair; housekeeping
Dividing Creek	4/12 (2nd)	5/17			1		1st clutch failed 3/9 due to storm renested
East Lake	1/28	3/6		5/23-30	3		
Egg Harbor River	~2/24	~3/5		5/30	1		
Elsinboro	2/8				0		Nest fell out of tree in 3/5 storm
Fishing Creek	<5/21				?		New nest (found 5/21)
Fort Dix	2/14	3/20	5/2	6/13	2		
Galloway	2/5	~3/18			0	~4/13-unknown	
Heislerville	2/25	3/27		7/15	2		
Lake Lenape	3/2-3/12	4/19		7/19	2		Nest tree destroyed in storm 7/23
Little Swartswood	2/29	4/8	5/19	6/28	1		
Manasquan Reservoir	1/11	2/17	4/8	5/7	2		
Manasquan River	2/5	3/8		6/9	2		Originally 3 chicks in nest
Mannington Meadows 1	~2/9				1		
Mannington Meadows 2	2/24	3/29	5/13	7/14	2		
Mantua Creek	3/2	4/9	5/28	7/10	1		
Maurice River (Mauricetown)	<3/10				0	unknown	

Table 1. Continued

Maurice River North	2/8	3/21		5/26	3		
Maurice River (Millville)	2/14	3/21		6/6	1		
Merrill Creek	2/14	3/17	5/1	6/10	2		
Mullica River	2/29	~4/4		~7/3	1		
Nantuxent Creek A							Not known where nesting
Nantuxent Creek B	2/24	3/30		7/5	3		
Navesink River	2/18	3/22	5/13	6/18	1		
Newton Reservoir	2/21	3/30	5/19	6/22	2		
Oldman's Creek	2/20-24	3/26		6/24-7/8	3		
Oradell Reservoir	3/7	4/9			0	Male disappeared, female unable to hunt and incubate	New nest
Parsippany	~2/28	~4/10			0		New nest found 3/19
Princeton	2/23	3/28		6/7	1		
Prospertown	~2/25	~4/2		7/19	2		New nest tree found 4/2 with chicks
Raccoon Creek	2/14	3/24			0	4/26-predated	1 chick
Rancocas Creek 1	2/6	3/12		6/9	2		
Raritan River (South Branch)	2/25-3/1	3/30		7/9	2		
Rockaway	~3/15	4/19		6/30	2		
Round Valley	~2/23	3/29		6/24	1		
Sea Breeze 1	2/29	4/14		6/11	1		Nest tree destroyed June

Table 1. Continued

Sea Breeze 2	2/19	~3/22			1		
South Dennis	1/22	2/27		6/5	1		2 chicks initally;lost 1chick >4/30
Stow Creek N. (Canton)	2/12	3/21			0	4/9	
Stow Creek S. (Raccoon Ditch)	2/3	3/15		6/14	1		
Supawna Meadows	2/24	3/30		6/30	1		
Swedesboro-Birch Creek	4/10 (2^{nd})	5/14	7/1	8/15	1		1^{st} clutch in. 2/20-2/24; failed 3/14 renested
Tuckahoe							Not known where nesting
Turkey Point	2/15				0	3/8-storm	
Union Lake	2/11	3/14	4/25	6/12	2		
Wading River	1/18				0	unknown	
Wanaque	2/8	3/29		6/22	3		
Wheaton Island	29	3/17	4/25	6/13	2		
Total: 69 territorial pairs	**Active: 63**				**Fledged: 85**		

New Nesting Pairs/Territories

In 2008 seven new pairs of eagles were located in New Jersey.

Avalon – In June a pair of eagles and two nestlings were discovered by an osprey bander at an osprey nest platform on the Avalon marsh. Both nestlings were banded and determined to be seven weeks old. Both young fledged by mid July. This is the first known instance of eagles nesting on an osprey platform in New Jersey.

Cinnaminson – This new pair built a nest near the Delaware River in early January, on the edge of a construction site . In February it was suspected that the pair had another nest in the vicinity. The birds were found incubating in late February at a nest near Pompeston Creek. The nest failed around April 2. Biologists and nest observers will continue to monitor this pair

Crosswicks Creek – In February this housekeeping pair was discovered with a nest in the Trenton Marsh in Mercer County. ENSP staff and volunteers will monitor this nest during the 2009 nesting season.

Fishing Creek – This new pair was discovered by biologists during an aerial survey for shorebirds in May. One adult was observed incubating or brooding closely. This nest cannot be viewed from the ground and requires a fly-over, and the outcome was unknown in 2008. Biologists will monitor this nest next season.

Oradell – In November, 2007, this new pair was observed hunting the reservoir and building their nest. It is unclear as to whether this pair successfully hatched young, the female continued to sit on or by the nest well into April and at times appeared to be feeding young, but the sporadic nature seemed unlikely. In early May, the female spent little time at the nest, the male disappeared, and a new, sub-adult male appeared. No young were observed fledging. The couple has been diligently working on a new nest at the reservoir.

Parsippany – In March, a citizen reported this new nest after observing incubation behavior. It is believed a chick hatched in late April or early May, as both the nest observer and ENSP staff witnessed possible chick feeding. Unfortunately, the nest failed as no caretaking behavior was observed in early June and the adults had spent little time at the nest.

Sea Breeze 2 – in early November of 2007 a new nest was discovered in the marshes near Sea Breeze, owned by Wildlife Preserves, Inc. At first it was thought that this might be the Sea Breeze 1 pair, but that pair returned to their nest site. It is unknown whether this pair is a new pair or a pair from the Middle Marsh area. The pair successfully raised and fledged on chick.

2008 Nesting Season Highlights

In January an eagle nest tree in Millville, Cumberland County was cut down. Destruction of a bald eagle nest is a violation of the federal Bald and Golden Eagle Protection Act. A joint investigation was undertaken by the Division of Fish and Wildlife's Bureau of Law Enforcement and the US Fish and Wildlife Service , and legal action is being pursued.

Six pairs of eagles successfully raised 3-nestling clutches this season. Bald eagles lay between one and three eggs in a clutch, but normally raise one or two young. Conditions for incubating and rearing young evidently were good for many NJ eagles this season.

In addition, two nesting pairs (Dividing Creek and Birch Creek) that lost their first clutch of eggs laid second clutches and successfully fledged young. The Dividing Creek pair had been incubating three weeks when the nest failed due to a March 9 storm. Nest observers continued to monitor the pair a few weeks after the failure, but didn't witness any nesting activity. On May 27 they were surprised to find an adult feeding a ~ ten day old chick. The pair had built their nest up with the result that during incubation the adult couldn't be seen. The pair fledged one eaglet on August 9. The Swedesboro (Birch Creek) pair began incubating around Feb. 20 and nest failure was reported on March 14. On April 10 the nest observer checked the nest and to his amazement found an eagle incubating. The chick hatched on May 15 and was banded by biologists on July 1. The final chick of the season fledged on August 15th.

Eagle volunteers Elmer and Bunny Clegg and Red and Mary Jane Horner were honored by the NJ Audubon Society with the 2007 Richard P. Kane Conservation Award for volunteer work. The Cleggs began working with the bald eagle project in 1991. Today they monitor five nests in Camden and Gloucester counties. The Horners have been volunteers with the project since 1996. They currently monitor six nests in southern NJ.

On May 13 the parents of Army Lt. Dennis Zilinski II attended the Navesink eaglet banding. Lt. Zilinski was killed in action in Bayji, Iraq on November 19, 2005. In Dennis's memory the nest observer named the eaglet for him.

Several locations of previous territorial (and nesting) pairs were not found in 2008, including Tuckahoe, Nantuxent Creek A and Assunpink. Biologists and nest observers expect these pairs have active territories, and will continue to search for these nesting pairs in 2009.

Potential Nest Sites

ENSP biologists and observers actively searched for possible nesting eagles in several 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, Raritan River, Cheesequake Creek, Forked River/Oyster Creek, Evesham 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 264 bald eagles was observed during the Midwinter Survey on January 12-13, 2008 (Table 2). This was the highest count since the survey began in 1978, with 45 more birds than last year's record of 219 (Figure 3). Southern New Jersey's Delaware Bay region continued to host the majority of the state's wintering birds.

Two hundred twenty-one bald eagles were counted in southern NJ, of which 127 were adults (Table 2; Elia 2008). Most southern eagles were observed in the Delaware Bay region (42%), followed by the lower Delaware River (32%) and Atlantic Coast watersheds (26%). The transects with the highest counts were Salem County with 55 eagles, Maurice River/Turkey Point/Bear Swamp with 46 eagles, and Mullica and Wading Rivers 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 5 bald eagles (Ambler 2008), while the inland reservoirs and lakes had 34. Four eagles were 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.

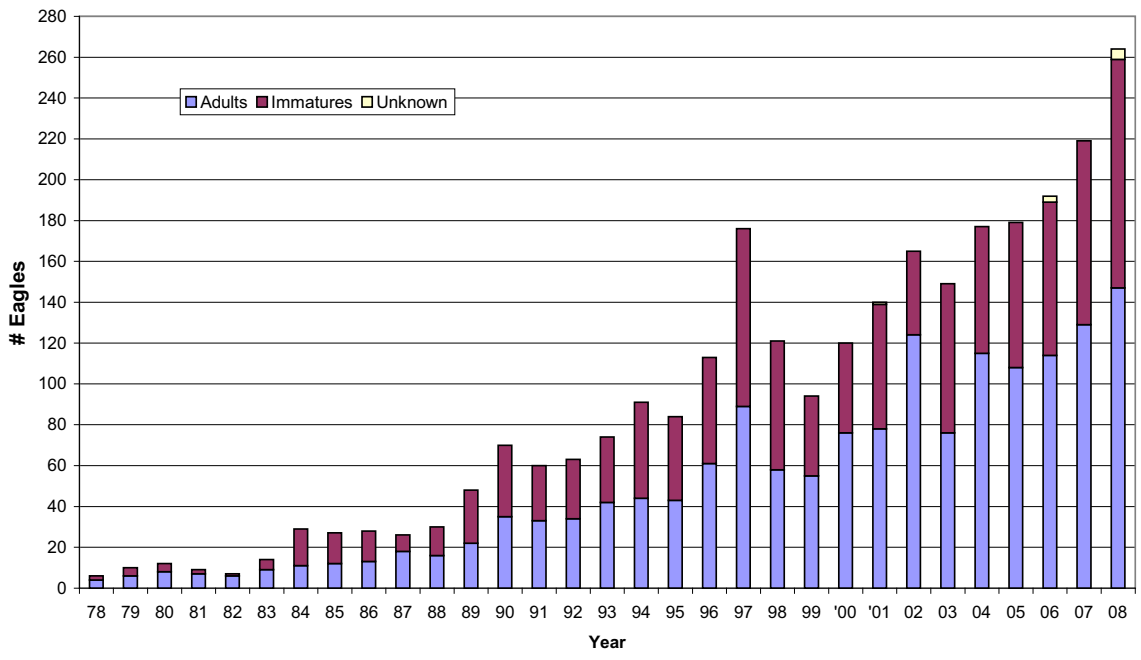

Figure 3. Midwinter Bald Eagle Counts 1978 - 2008

Table 2. Bald Eagles counted in the NJ Midwinter Bald Eagle Survey, January 12-13, 2008

Region	Survey Transect	Subregion	BE Total	Adult	Immature	Unkn. BE	Golden
South	Brigantine NWR	AC	1	1	0	0	0
	Cohansey River	DB	19	15	4	0	0
	Delaware River - Riverton to Trenton	SD	3	3	0	0	0
	Fortescue to Stow Creek	DB	15	9	6	0	0
	Fort Dix	AC	0	0	0	0	0
	Great Egg Harbor & Tuckahoe Rivers	AC	17	7	10	0	0
	Manahawkin to Lower Bass River	AC	3	3	0	0	0
	Manasquan Reservoir	AC	2	2	0	0	0
	Maurice River, Turkey Point, Bear Swamp	DB	46	22	24	0	0
	Mullica & Wading Rivers	AC	28	15	13	0	0
	Oldman's Creek	SD	2	2	0	0	0
	Princeton	SD	2	2	0	0	0
	Raccoon Creek	SD	4	4	0	0	0
	Rancocas Creek	SD	4	4	0	0	0
	Salem County	SD	55	26	29	0	0
	Stow Creek	DB	7	4	3	0	0
	Swimming River Reservoir	AC	2	2	0	0	0
	Thompson's to Reeds Beach	DB	7	4	3	0	0
	Whitesbog	AC	4	2	2	0	0
South	**Subtotal**		**221**	**127**	**94**	**0**	**0**
North	Delaware River - Columbia to Trenton	ND	0	0	0	0	0
	Delaware Water Gap	DWG	5	3	2	0	1
	Hudson River - Pallisades	P	4	2	0	2	0
	Jersey City Reservoirs (Boonton & Split Rock)	IR	6	2	4	0	0
	Merril Creek Reservoir	IR	2	2	0	0	0
	Newark Watershed (Clinton, Oakridge, & Charlottesburg)	IR	4	3	1	0	0
	Oradell Reservoir	IR	12	4	5	3	0
	Round Valley Reservoir	IR	2	2	0	0	0
	Wanaque & Monksville Reservoir	IR	8	3	5	0	0
North	**Subtotal**		**43**	**21**	**17**	**5**	**1**
State	**Total**		**264**	**148**	**111**	**5**	**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

In early November 2007 an adult female eagle was found electrocuted in close proximity to the Raccoon Creek/Greenwich Township nest. A necropsy was conducted by the USFWS National Fish and Wildlife Forensics Laboratory in Ashland, Oregon, which confirmed the electrocution. Caps were installed on all the power poles within view of the nest to prevent a recurrence of this loss.

On December 21 an adult eagle was found injured after flying into a utility line in Plumsted, Ocean County. The bird was picked up by Plumsted Animal control and transferred to Toms River Avian Care. The bird suffered from chest and rib injuries and its legs had been paralyzed. The eagle died from its injuries six days after being found.

On April 11, an injured adult bald eagle was found on the side of Route 55, vehicle-struck, and taken to Tri-State Bird Rescue and Research in Delaware. The bird was a female banded (A-63) in 2000 at the Raccoon Creek nest in Greenwich Township, where she had been fostered after donation from Maryland. She also got a backpack transmitter at the time, allowing ENSP biologists to track her for approximately four months. She was euthanized due to severe impact injuries. Tri-State veterinarians found evidence of a brood patch, which meant this bird had a nest. Based on the location where it was found, it may be a nest that we do not yet have on record.

On April 23 an adult bald eagle was found injured near Landisville, Atlantic County and transferred to Tri-State Bird Rescue and Research. She was banded with a federal band, 629-33923, which traced back to banding as a nestling in May, 1992, in Sussex County, Delaware. The bird died while being treated for poor body condition and many wounds, which were suggestive of fight wounds.

A dead adult bald eagle picked up on June 30 by the local Tri-County Animal Control. The bird was found in ditch next to Tuckahoe Road, Buena. The bird was not banded and probably had been grounded for a while because the tail feathers were very worn. It was also missing two primaries in the right wing that may have made this bird identifiable in flight.

An adult bald eagle was found injured in Monroe Twp, Gloucester County, on September 21 and was taken to Toms River Avian Care. The bird was a male and had been banded (629-39860) at Union Lake on May 9, 1996. He recovered from his injuries and was released on November 9, 2008.

On October 17 an adult was found injured in Mullica Hill, Gloucester County. The bird was taken to Tri-State Bird Rescue and Research. The wounds suggested that the eagle had been in combat with another raptor. The bird recovered and was released on November 11, 2008.

An adult eagle was found weak and unable to fly on October 18 near the Tuckahoe River, Atlantic County, and was taken to Toms River Avian Care. We suspect this eagle is the male from the Tuckahoe pair, previously found in June 2005 entangled in fishing line along the river shore. At that time, after two weeks of care the bird was banded and released July 13 on the Tuckahoe River, where he rejoined his mate and two fledglings. We expect that he will recover from his recent injuries and be re-released in November 2008.

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