New Jersey Department of Environmental Protection

Division of Fish and Wildlife

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Endangered and Nongame Species Program

New Jersey Bald Eagle Project, 2010

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NEW JERSEY DIVISION OF
Fish and Wildlife

CONSERVE WILDLIFE
FOUNDATION OF NEW JERSEY

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Empty nest at Union Lake. There was a record number of nest failures in 2010.

Cover photo: NJ-banded eagle, Forsythe NWR, by Eric C. Reuter /http://www.avianphotography.com

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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 94 eagle pairs was monitored during the nesting season; 82 of those were active (with eggs). New Jersey's Delaware Bay region remained the state's eagle stronghold, with 40% of all nests located in Cumberland and Salem counties. Thirteen new eagle pairs were found this season, 11 in the south, one in central and one in northern NJ. Forty-three (52%) nests were successful in producing 69 young, for a productivity rate of 0.84 young per active nest, which is the lowest rate in 17 years. Thirty-two (39%) nests failed to fledge young; the outcome of five nests was unknown. Poor productivity and nest success were attributed to heavy precipitation (snow and rain) during the late winter and spring, as well as some severe wind storms.

In January's Midwinter Eagle Survey, ENSP staff, regional coordinators and volunteers reported a total of 333 bald eagles, a new record high count. Seventy-five eagles were recorded in northern NJ and 258 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 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 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 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 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 coordinates 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. ENSP biologists compile all results to determine statewide totals and totals along standardized survey routes, which are provided to the Raptor Research and Technical Assistance Center in the U.S. Bureau of Land Management. For the sixth 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 94 pairs in 2010, up from 84 in 2009. Eighty-two pairs were known active (meaning they laid eggs). Forty-three nests (52%) were known to be successful in producing 69 young, for a productivity rate of 0.84 young per active nest, which is below the required range of 0.9-1.1 young per nest for population maintenance (Figure 2), and the lowest rate since 1993. The late winter and spring of 2010 had above-average snow and rain, causing widespread flooding statewide. The bad weather conditions, including high winds, damaged many eagle nests at sensitive times of incubation and near hatching. Of the eagle pairs that maintained territories but did not lay eggs, eight had known locations; four other pairs that had previously occupied territories were not found.

Most nests were located in the southern part of the state, particularly within 20 km of Delaware River and Bay (Figure 3). All nests and significant dates are listed in Table 1. Most nests (61%) were located on private land, while the rest were on state, federal, county and conservation-organization 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.

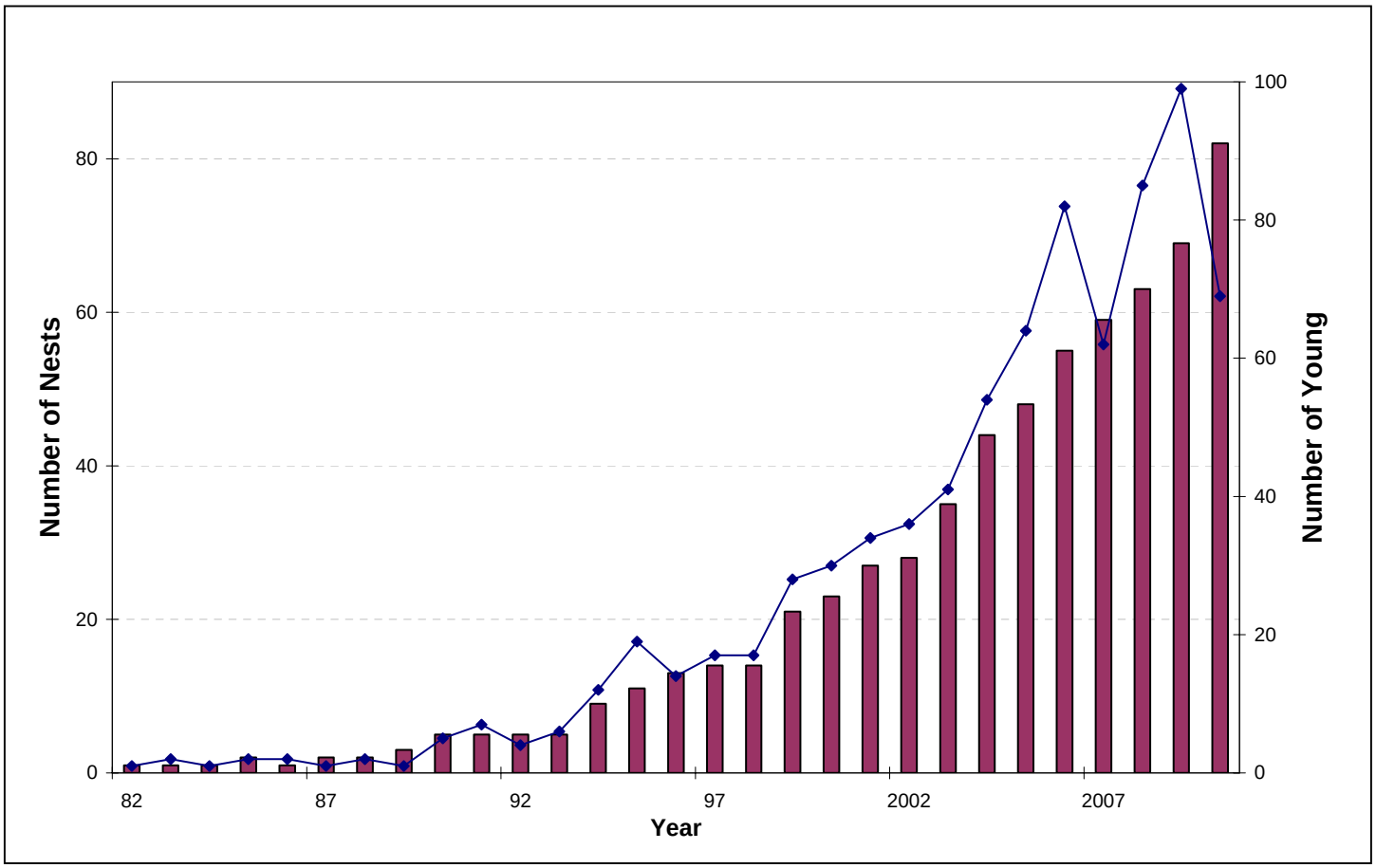

Figure 1. The number of active bald eagle nests (bars) and the young produced (lines) each year, 1978-2010.

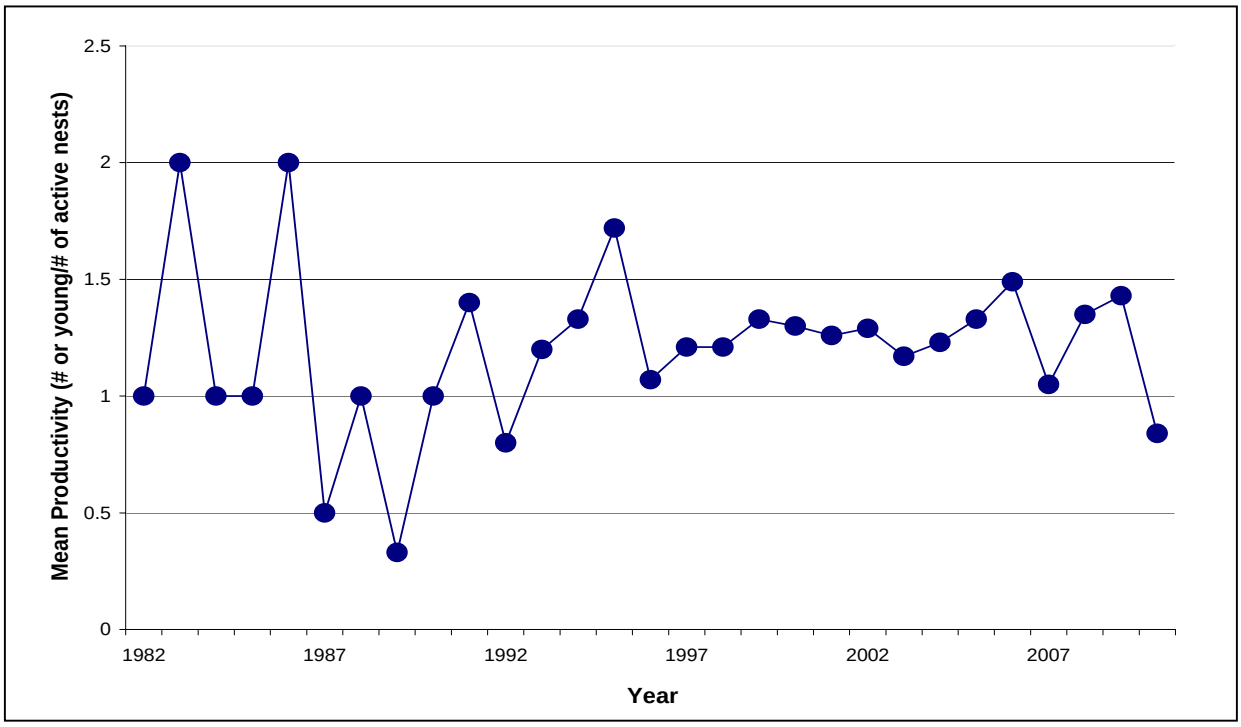

Figure 2. Productivity of bald eagles in New Jersey, 1982-2010

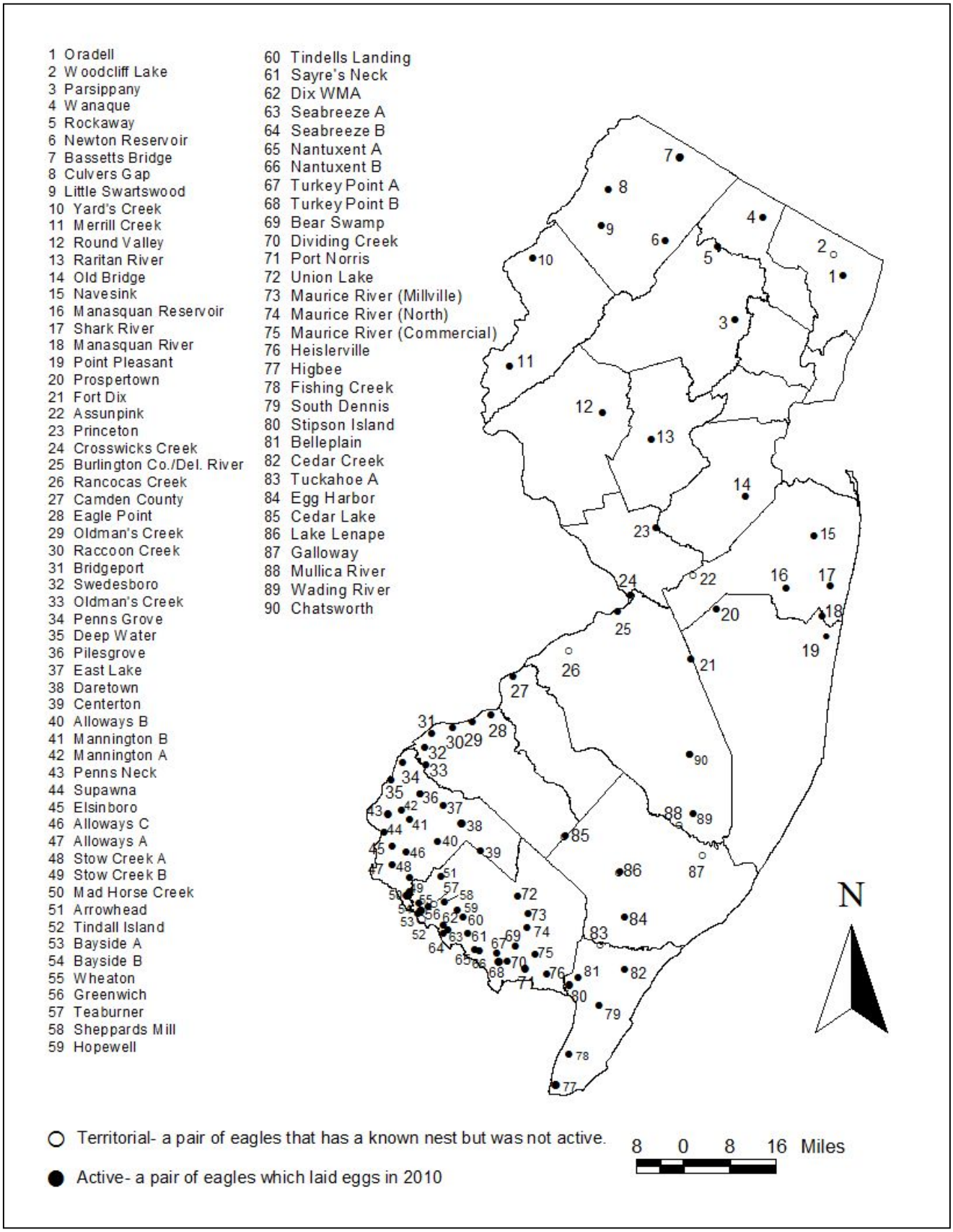

Figure 3. Bald eagle nest sites, 2010

Table 1. Production and significant dates of bald eagle nests in NJ, 2010.

NEST SITE	Incubation	Hatching	Banding	Fledging	No. Fledged	Failed date/ Reason	Notes
Alloways Creek 1-Hancocks	n/a						Seen in area
Alloways Creek 2-CE	3/2	4/6	5/17	6/29	1		
Alloways Creek 3-Quinton	2/27	4/2		6/16	2		
Arrowhead	2/20						Outcome unknown; new pair
Assunpink							Seen in area
Avalon							Unknown where nesting
Bassetts Bridge	2/17				0	4/1	
Bay Point Road							Unknown where nesting
Bayside A	3/6				0	4/6	
Bayside B	2/22	3/31			0	4/1	New pair
Bear Swamp	2/20	3/28		6/30	2		
Belleplain	Unk				0		Likely failed (aerial survey 4/15)
Bridgeport	2/18				0	3/31	
Burlington Co./Del. R.	3/21						Outcome unknown
Camden County	2/21				0	4/7	
Cedar Lake (Gloucester)	~3/15	<4/9		unk	1		Fledging unconfirmed
Cedar Swamp Creek	2/22	3/16			2		
Centerton (Elmer)	Unk				2		
Chatsworth	3/8				0	5/8	
Cohansey (Greenwich)	1/29	3/6	4/21	6/8	3		
Cohansey (Dix)	3/4						Outcome unknown
Cohansey (Teaburner)	2/5	3/15		6/7	2		
Cohansey(Sheppards MillA)	2/24	<4/12		Unk			New nest tree
Cohansey (Hopewell)	~3/21						Outcome unknown
Cohansey (Tindells Lnding)	2/12						Outcome unknown; new nest tree
Crosswicks Creek	4/12 (2^{nd})	6/2			0	7/14	1^{st} clutch failed 4/5
Culvers Gap	3/2	~4/10		7/7	1		Fledge found dead 7/14
Daretown	2/9				0	3/3	
Deepwater	<3/11			unk	1		
Dividing Creek	1/29	3/5			0	3/13-weather	Chicks found dead on ground after severe storm.
Eagle Point	2/9	3/20		6/9	2		
East Lake	1/26	3/4		6/1	1		
Egg Harbor River	2/4				0	3/23	
Elsinboro	1/27	3/2		6/10	2		
Fishing Creek	Unk				0		Aerial survey 4/15; on 1 egg

Forked River							Unknown where nesting
Fort Dix	2/8				0		
Galloway	n/a						Pair in area
Heislerville	3/16	~4/2		unk	1		
Higbee Beach	2/28	3/19		6/11	1		New pair
Lake Lenape					0	<4/15	Aerial survey 4/15; failed
Little Swartswood	2/15	3/24	5/5	6/16	2		
Mad Horse Creek	1/28	~3/24		6/16	1		New pair
Manasquan Reservoir	1/5	2/15	3/31	5/11	1		
Manasquan River	1/30	~3/13	4/23	6/1	1		
Mannington Meadows 1	2/20				0	3/26	
Mannington Meadows 2	2/21	3/26	5/7	6/19	2		
Mantua Creek	2/28	4/3	5/17	6/23	1		
Maurice River-Mauricetown	2/19	~3/26		unk	2		
Maurice River North	Unk				0	?	
Maurice River-Millville	2/12	3/19			0	3/30	New nest tree
Merrill Creek	4/3				0	4/21	
Mullica River							Nest damaged
Nantuxent Creek A	2/12	3/28		6/5	2		New nest tree
Nantuxent Creek B	1/31	3/15		6/5	3		New nest tree
Navesink River	~2/14-3/6				0	4/15	New nest tree
Newton Reservoir	2/17	3/31			0	4/21	
Old Bridge	Unk				0		Likely failed early
Oldmans Creek	2/11				0	3/31	
Oradell Reservoir	~2/15				0	<hatching	1 egg collected from nest
Parsippany	3/13	4/20		7/15	2		
Penns Grove	>3/29	4/18		6/25	1		New pair
Penns Neck	~3/9						Outcome unknown; New pair
Pilesgrove	3/5	4/17		6/30	1		
Point Pleasant	2/14				0	?	New pair
Port Norris	2/17				0	3/2	New pair
Princeton	2/20				0	3/31	
Prospertown	~1/29	~35	4/23		2		
Raccoon Creek	3/6				0	4/3	
Rancocas Creek 1	n/a						Pair at nest
Raritan River (So. Branch)	2/24	3/27	5/10	6/19	2		
Rockaway	3/17	4/10			0	5/15	
Round Valley	2/22	3/29			1		New nest tree
Sayres Neck	2/5	3/14		5/30	2		
Sea Breeze A	~2/12	~3/14		~6/6	2		
Sea Breeze B	2/12	3/14		6/10	2		

Shark River	2/6	~3/17		6/17	1		
South Dennis	1/18				0	2/19-weather	
Stipson Island	~2/2	~3/9		6/30	2		New pair
Stow Creek N. (Canton)	~3/16	~4/20		~7/6	2		
Stow Creek S. (Raccoon Ditch)	~3/16	~4/20		~7/6	2		
Supawna Meadows	2/18				0	3/27	
Swedesboro-Birch Creek	2/18				0	3/31	
Tindall Island							New pair
Tuckahoe A							In area; Unknown where nesting
Tuckahoe B							Unknown where nesting
Turkey Point A	2/15	3/17		6/13	1		
Turkey Point B	2/21				0	3/13	
Union Lake	~3/8	~4/12			0	~5/13	
Wading River	1/21	2/19		6/4	1		
Wanaque	2/17	4/11		6/4	1		New nest tree
Wheaton Island	2/5	3/18	4/28	6/9	2		
Woodcliff Lake							Territorial pair
Yards Creek	2/24	~3/31		unk	2		
Total: 94 territorial pairs	**Active: 82**				**Fledged: 69**		

New Nesting Pairs/Territories
In 2010, thirteen new pairs of eagles were located in New Jersey.

Arrowhead- This new pair built a nest along the edge of a field in Cumberland County close to a small lake. The pair started incubation on February 22, but due to difficulty viewing the nest the outcome of the nest was unknown.

Bayside B- This pair built a nest along Delaware Bay in Cumberland County and began incubating in late February. The nest failed shortly after feeding behavior (indicating hatching) was observed.

Culvers Gap- This new nest in Sussex County started incubating in early March. Two chicks were reported but only one survived to fledge in early July. That fledgling was killed on the highway near the nest in mid-August.

Daretown- This pair had been seen in 2009 at this site in farm fields in Salem County. This season the pair started incubating on February 9; nest failure was reported on March 3.

Higbee- This new pair built a nest on state land on the Cape May peninsula. They started incubating in late February and fledged one chick in mid-June.

Mad Horse Creek- A new pair of eagles built a nest in the marshes along Delaware Bay in Salem County. Incubation began in late January and one chick fledged in mid-June.

Penns Grove- This new pair was found nesting along the edge of a farm field in Gloucester County. They fledged one chick this season.

Penns Neck- This new pair built a nest on the west side of Mannington Meadows in Salem County. Incubation began in early March. The outcome of this nest was unknown due to the difficulty of viewing the nest.

Point Pleasant- This pair nested on an osprey platform in Ocean County. The pair began incubating on February 14, but failed to hatch eggs.

Port Norris- A dead tree located in the marshes along Delaware Bay, Cumberland County, was the nesting site for this new pair. The pair began incubating on February 17, but failure was reported on March 2.

Stipson Island- This pair nested in a pine tree along the Delaware Bay marshes in Cape May County. The pair began incubation in early February, hatching occurred in mid-March, and two chicks fledged in late June.

Tindalls Island- This new pair built a nest on an island in the marshes along Delaware Bay in Cumberland County. The nest was taken over by great horned owls prior to any egg-laying by eagles.

Turkey Point B- This pair nested on an island in the Glades, Cumberland County. The pair began incubation in late February but failure was reported in mid-March.

2010 Nesting Season Highlights

The 2010 season was one of the worst on record for nest success. While we saw a new high of 82 active nesting pairs, only 43 (52%) were successful in raising young, compared to an average of 77% success in the previous ten years. The productivity rate of 0.84 young per active nest (69 young/82 active nests) was one-third lower than the 1.30 average rate of the last ten years. Most nests seemed to fail during the incubation period, and we attributed most failures to storms that produced snow, rain and wind. While these losses were disappointing, the lower productivity rate in 2010 is not likely to have a detrimental effect on the NJ eagle population in the long term; our eagle population has produced at a higher rate than the minimum necessary for population maintenance for the past 17 years.

A NJ-banded bird was reported to be nesting along Noxontown Pond in Delaware during the 2010 season. The bird was identified only by its green color band.

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, Cheesequake Creek, Evesham, Flemington/Raritan River, Farrington Lake, Hyper Humous, Canoe Brook Reservoir, Pointview Reservoir, 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 333 bald eagles were observed during the Midwinter Survey on January 9-10, 2010 (Table 2). This was the highest count since the survey began in 1978, with 51 more birds than last year's record of 282 (Figure 3). Southern New Jersey's Delaware Bay region continued to host the majority of the state's wintering birds.

Two hundred fifty-eight bald eagles were counted in southern NJ, of which about half (132) were adults (Table 2; Elia 2010). Most southern eagles were observed in the Delaware Bay region (49%), followed by the lower Delaware River (28%) and Atlantic Coast watersheds (23%). The transects with the highest counts were Maurice River/Turkey Point/Bear Swamp with 60 eagles, Salem County with 57 eagles, and the Cohansey River with 33.

In northern NJ, the best winter habitats are along the Delaware River, in Delaware Water Gap National Recreation Area, and the inland reservoirs. The Water Gap hosted 51 bald eagles while the inland reservoirs and lakes had 23. Twelve were counted in the far northeast at Oradell Reservoir and the Palisades of 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.

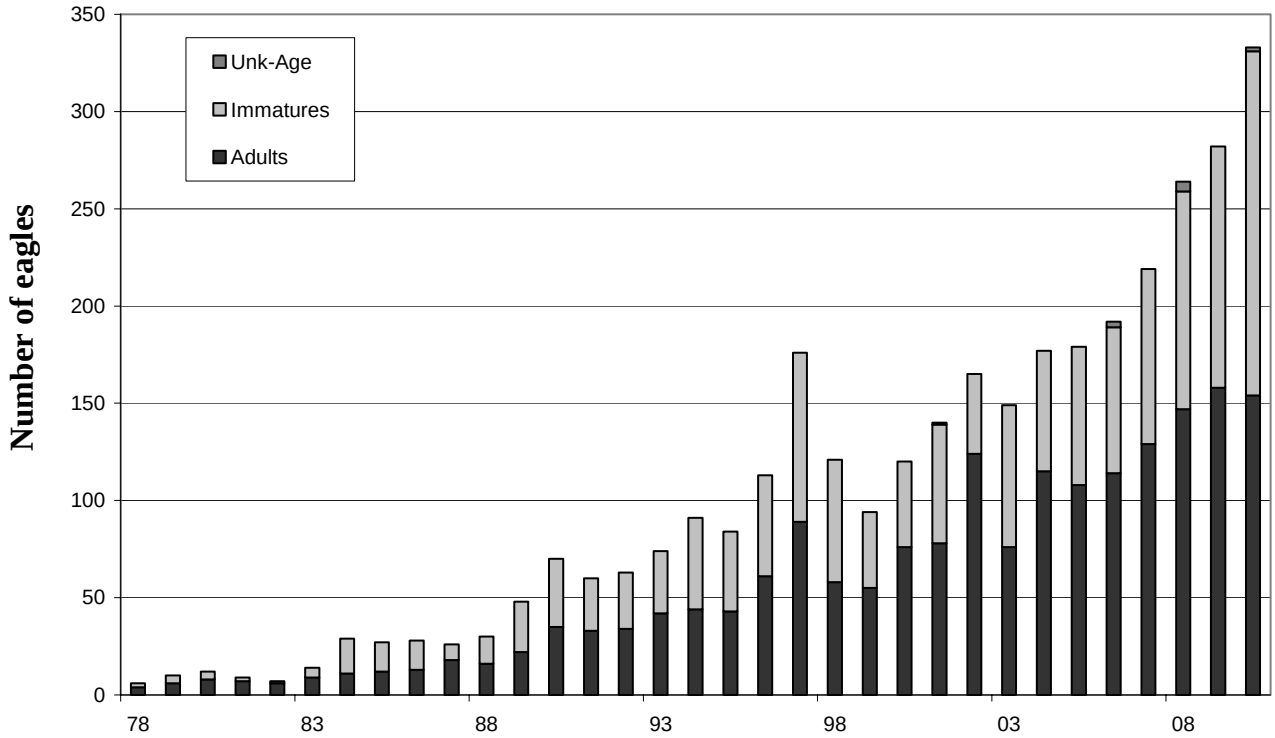

Figure 4. Bald eagles counted during Midwinter Eagle Surveys, 1978–2010.

Table 2. Eagles counted in the NJ Midwinter Eagle Survey, January 9-10, 2010.

Region	Survey Transect	Subregion	BE Total	Adult	Immature	Unkn. BE	Golden
South	Brigantine NWR	AC	5	3	2	0	0
	Cohansey River	DB	33	14	19	0	0
	Delaware River - Riverton to Trenton	SD	10	7	3	0	0
	Fortescue to Stow Creek	DB	17	11	6	0	0
	Fort Dix	AC	1	1	0	0	0
	Great Egg Harbor & Tuckahoe Rivers	AC	25	14	11	0	0
	Manahawkin to Lower Bass River	AC	na	na	na	na	na
	Manasquan Reservoir	AC	0	0	0	0	0
	Maurice River, Turkey Point, Bear Swamp	DB	60	21	39	0	0
	Mullica & Wading Rivers	AC	23	10	13	0	0
	Oldman's Creek	SD	2	2	0	0	0
	Princeton	SD	na	na	na	na	na
	Raccoon Creek	SD	3	1	2	0	0
	Rancocas Creek	SD	na	na	na	na	na
	Salem County	SD	57	31	26	0	0
	Stow Creek	DB	6	6	0	0	0
	Swimming River Reservoir	AC	2	2	0	0	0
	Thompson's to Reeds Beach	DB	11	7	4	0	0
	Whitesbog	AC	3	2	1	0	0
South	**Subtotal**		**258**	**132**	**126**	**0**	**0**
North	Delaware River - Columbia to Trenton	ND	na	na	na	na	na
	Delaware Water Gap	DWG	51	12	37	2	2
	Hudson River - Palisades	P	1	0	1	0	0
	Jersey City Reservoirs (Boonton & Split Rock)	IR	5	2	3	0	0
	Merril Creek Reservoir	IR	2	2	0	0	0
	Newark Watershed (Clinton, Oakridge, & Charlottesburg)	IR	0	0	0	0	0
	Oradell Reservoir	IR	11	3	8	0	0
	Round Valley Reservoir	IR	1	1	0	0	0
	Wanaque & Monksville Reservoirs	IR	4	2	2	0	0
North	**Subtotal**		**75**	**22**	**51**	**2**	**2**
State	**Total**		**333**	**154**	**177**	**2**	**2**

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

Of twelve eagles recovered in the past year, three were alive and were successfully treated and released. The remaining nine were cases where eagles were found dead; the cause of death was electrocution (4), car-struck (2) and unknown (3). Details of each follow:

- NJ American Water personnel discovered an injured female eagle on December 17, 2009, at their Canoe Brook Water Treatment Plant in Short Hills, Essex County. With the help of employees from the Raptor Trust the bird was captured and taken to the Raptor Trust to recover.

- On December 30, 2009, a dead bald eagle was found at the base of a power pole in the Woodbine landfill, Cape May County. Landfill employees contacted NJDFW and the bird was retrieved. The eagle was a sub-adult female that had been banded (# 679-01721, color band C/87) on May 11 2009 at the Sheppards Mill nest in Cumberland County.

- On March 28, 2010, an eagle was found dead along a road in Alloways Township, Salem County. The bird was a female banded (# 629-46852, color band C/44) on May 14, 2007 at the Mannington Meadows 2 nest.

- On March 28, 2010, a dead eagle was reported to the USFWS near Supawna Meadows, Salem County. The bird was unbanded; cause of death was unknown pending a necropsy.

- The remains of a NJ-banded bird (#679-01735, color band D/00) were found at Aberdeen Proving Grounds in Harford County, MD, on June 21. The bird had been banded on June 8, 2009 at Merrill Creek Reservoir NJ. No cause of death could be established.

- A juvenile eagle was found on Gunnison Beach in late June inside Gateway National Recreation Area on Sandy Hook. The eagle was spotted by park visitors on the beach in distress. The eagle was transported by the NPS to the Raptor Trust, located in Millington, New Jersey. On August 3, 2010, the male eagle was banded and released in Downe Township, Cumberland County.

- On June 18, 2010, a first-year eagle was reported injured in Ocean City, NJ. The bird was taken to Toms River Avian Care. It was deemed unreleasable and will be transferred to an educational facility.

- An unbanded, sub-adult, female eagle was found dead on July 13, 2010. The bird was found under a power pole in Pilesgrove Township, Salem County. Cause of death was electrocution.

- On July 14, 2010 a NJDEP Parks & Forestry employee recovered the carcass of a fledged chick from the Culvers Lake nest. The bird was transferred to NJDFW for examination; the young eagle was in good body condition before being car-struck on the highway.

- A dead eagle was recovered on August 1, 2010, in Hawley, Wayne County, PA. The cause of death was electrocution. The bird was an 11-year old male banded (#629-39889, color band A/43) at Merrill Creek Reservoir on May 13, 1999.

- On September 17, 2010 a fourth-year eagle was found dead along a road in Estell Manor, Atlantic County. The bird had been struck and killed by a vehicle.

- On December 29, 2010, a Division conservation officer found the carcass of an adult eagle in Mannington Meadows. Its location suggested it had been electrocuted. The bird was not banded, and was turned over to the US Fish and Wildlife Service.

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