

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, 2018

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Summary

The Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP) biologists, Conserve Wildlife Foundation (CWF) staff, and volunteer observers located and monitored bald eagle nests and territories. Two hundred-four nest sites were monitored during the nesting season, of which 185 were documented to be active (with eggs) and 19 were territorial or housekeeping pairs. Thirty new eagle pairs were found this season, 20 in the south, nine in central and one in the north. One hundred-twenty-one nests (66%) of the 182 known-outcome nests produced 172 young, for a productivity rate of 0.94 young per active/known-outcome nest. The failure rate was well above average with 61 nests (33%) failing to produce. The Delaware Bay region remained the state's eagle stronghold, with roughly half of nests located in Cumberland and Salem counties and the bayside of Cape May County.

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 the Division of Fish and Wildlife's Endangered and Nongame Species Program (ENSP), resulted in population increases to 23 pairs by 2000, 48 pairs by 2005, 82 pairs by 2010, and 150 pairs by 2015. ENSP recovery efforts – implemented since the early 1980's – have resulted in a steady recovery as New Jersey's eagle population has rebounded from the edge of extirpation.

Recovery efforts were multifaceted. In 1982, after New Jersey's only remaining nest (located in Cumberland County's Bear Swamp) had failed at least six consecutive years, ENSP biologists removed the egg for artificial incubation at Patuxent Wildlife Research Center in Maryland, 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 did not return and a new, younger female was able to hatch eggs without intervention.

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 eagles 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 observed after 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 many forms, including mere presence of people in nesting or foraging areas. In general, people on foot evoke the strongest negative reaction (Buehler 2000). 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 volunteer observers, as well as education and 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 has a history of investigating 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 have 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. Landscape Project mapping identifies suitable habitat that is associated with nests, foraging areas, and documented communal roosts.

The population of wintering bald eagles has grown along with the nesting population, especially in the last ten years. The NJ Eagle Project discontinued Mid-winter eagle surveys, but has expanded surveys to document important roosting areas in winter and year-round.

The federal government removed the bald eagle from its list of Endangered Species in August, 2007, in recognition of the national resurgence in the eagle population in the lower 48 states. The U.S. Fish and Wildlife Service oversees a 20-year monitoring period (through 2027) to watch for and investigate any problems that could compromise the eagle recovery. In addition, a revised version of the Bald and Golden Eagle Protection Act remains in effect to protect nest and

roost sites for bald eagles nationwide. The bald eagle's official New Jersey status remains state-endangered for the breeding season and state-threatened for the non-breeding season, and state regulatory protection remained 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 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 or through fledging. 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 or CWF 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 or CWF 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 evidence suggests a probable location, biologists may conduct aerial surveys of the region to locate a nest. Following guidance from the US Fish and Wildlife Service's post-delisting monitoring plan (USFWS 2009), we maintain a list of occupied nests and territories for population monitoring.

When necessary, nests are protected from disturbance with barriers or posted signs. 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 sites, ENSP 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 with an alpha-numeric code. 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.

Winter and Roost Surveys

In recent years, we in New Jersey did not participate in the National Mid-Winter Eagle survey held in January. As eagle numbers have increased in NJ we found that the standardized count no longer covered all important eagle areas, and that volunteer efforts could be put to better use. Biologists asked eagle project volunteers to search for locations where eagles roost and otherwise concentrate in the winter months of January and February. In 2018, volunteers conducted surveys at a dozen known roosts on a quarterly basis, to confirm roost locations and measure eagle use at different times of the year. Those results will be part of the Biotics database documentation.

Results

Nest Survey

The statewide population increased to 204 territorial pairs in 2018, a slight increase from 178 last year. One hundred eighty-five pairs were known active (meaning they laid eggs), thirty-two more than last year (Figure 1); 19 pairs maintained nest territories but did not lay eggs. One hundred twenty-one nests (66%) were known to be successful in producing 172 young, for a productivity rate of 0.94 young per known-outcome/active nest, which is in the range of 0.9 to 1.1 young per nest for population maintenance. Sixty-one (33%) nests failed to fledge young, a rate that is above average for New Jersey. We documented nest failures and brood loss that occurred as 194 chicks were reported at active nests, but only 172 fledged. The number of young lost could be higher as monitors can't always see the number of chicks in the first few weeks.

Most nests were located in the southern portion of the state, particularly within 20 km of Delaware River and Bay (Figure 2). The majority of nests were located on private land, while the rest were on state, federal, county, and conservation-dedicated lands. Disturbance was a management issue at many nests, and posting and regular surveillance by staff and nest observers remained essential to increase the chance of success.

All documented nests and significant dates of the nesting season are listed in Table 1. Excluded from our nest table are 42 previously documented nest sites that were unoccupied and where no new nest could be found, or search effort was lacking (Table 2).

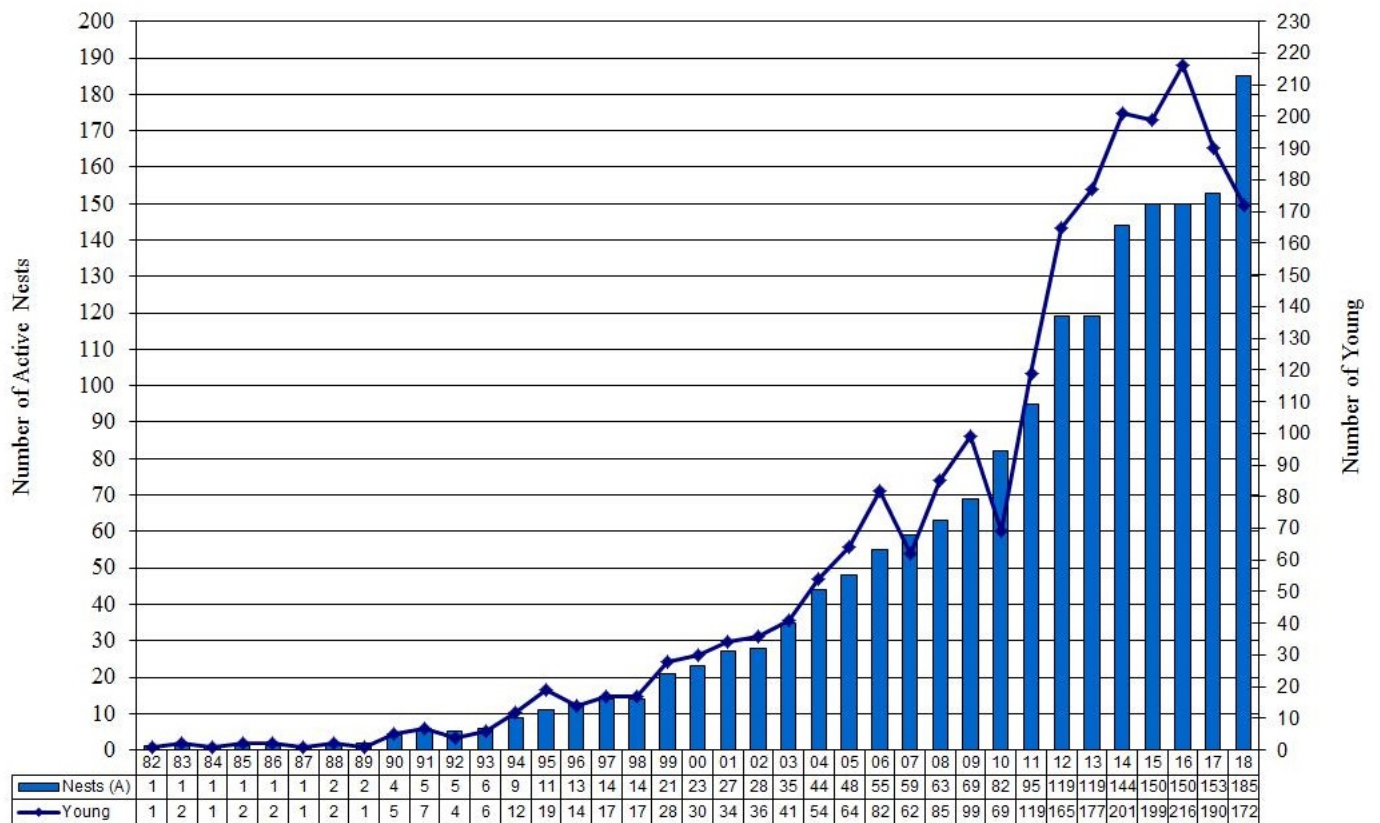
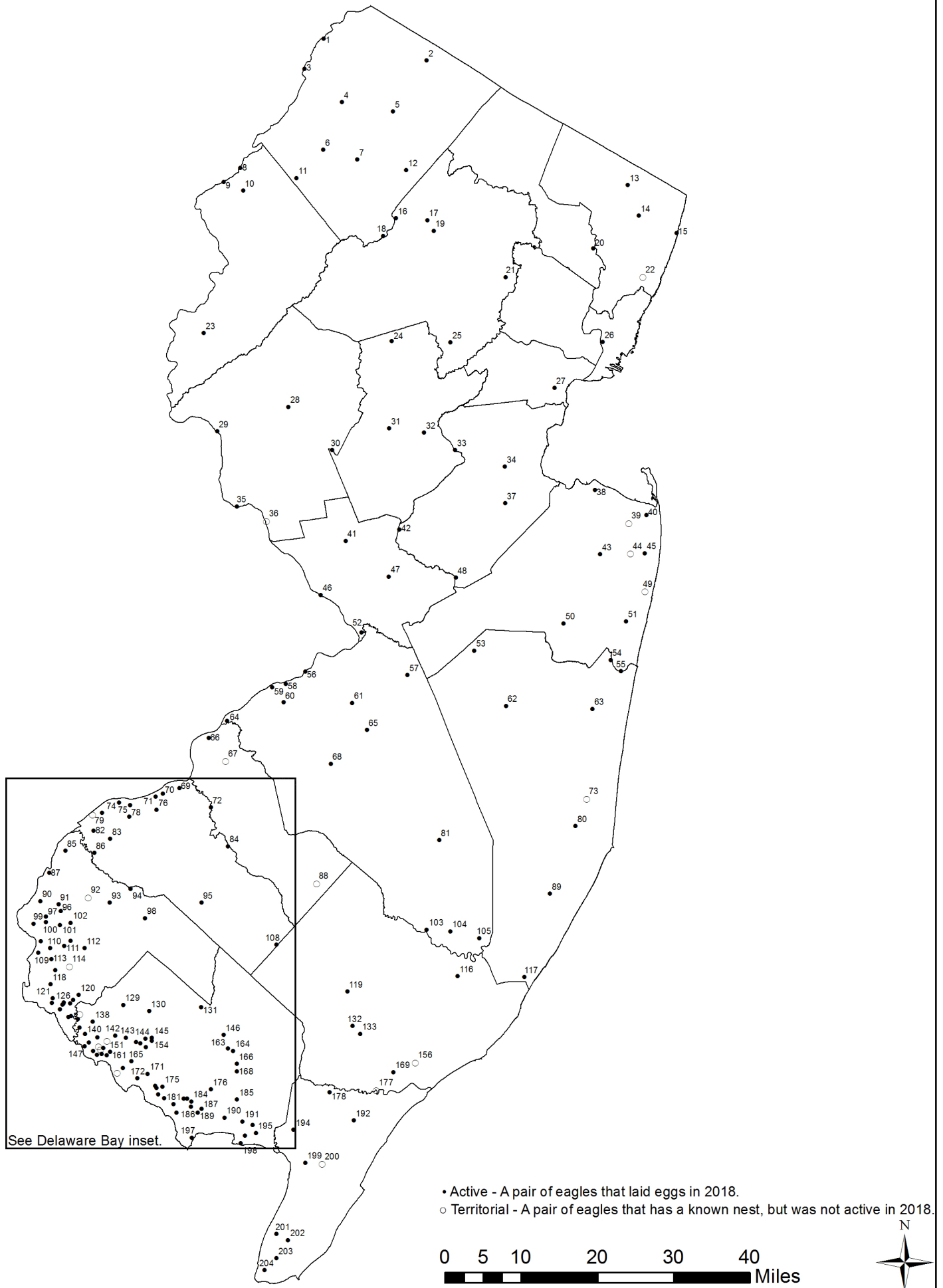


Figure 1. Bald eagle nesting population and young produced in New Jersey, 1982-2018.

Figure 1. Number of bald eagle nests and young fledged in New Jersey, 1982–2018. Blue bars = number of nests, and blue lines = number of young produced each year. In 2018, 185 pairs were active and 172 young were produced.

001 Minisink Island	052 Crosswicks Creek	103 Mullica River	154 Cohansey CC B
002 Bassetts Bridge	053 Prospertown	104 Wading River	155 Tindalls Island
003 Dingmans Ferry	054 Manasquan River	105 Ballanger Creek West	156 Patcong Creek B
004 Culvers Gap	055 Brielle	106 Supawna Meadows A	157 Hancock B
005 Lewisburg-Wantage	056 Burlington Island	107 Fenwick Creek	158 Tindall's Island B
006 Little Swartswood	057 Jacobstown	108 Cedar Lake (Gloucester)	159 Cohansey (Ragged Island)
007 Hyper Humus	058 Edgewater Park	109 SFE Tower	160 Cohansey (Middle Marsh C)
008 Poxono Island	059 Delanco	110 Salem (Chestnut)	161 Cohansey (Middle Marsh A)
009 Tocks Island	060 Rancocas Creek A	111 Keasbey's Creek	162 Cohansey (Tindall's Landing)
010 Yards Creek	061 Fairgrounds	112 Quinton	163 M.R. (Millville)
011 Stillwater	062 JB Lakehurst	113 Elsinboro	164 M.R. (Peeks Preserve)
012 Newton Reservoir	063 Kettle Creek	114 Alloways Creek C	165 Husted's Landing
013 Woodcliff Lake	064 Palmyra Cove	115 Alloways Creek F	166 M.R. (Burcham)
014 Oradell Reservoir	065 Pemberton	116 Galloway	167 Seabreeze A
015 Palisades B	066 Camden County	117 Great Bay Blvd.	168 M.R. (Somes Drive)
016 Lake Hopatcong A	067 Westmont	118 Grossup	169 Patcong (Lower)
017 Picatinny/Lake Denmark	068 Medford	119 Lake Lenape	170 Seabreeze B
018 Lake Hopatcong B	069 Eagle Point	120 Canton Sheep Farm	171 Sayre's Neck A
019 Mount Hope Lake	070 Woodbury Creek	121 Mad Horse Creek	172 Sayre's Neck B
020 Paterson	071 Mantua Creek A	122 Devil's Gut	173 Bay Point Road A
021 Parsippany	072 Timber Creek	123 Stow Creek G	174 Bay Point Road B
022 Overpeck Creek	073 Forked River	124 Stow Creek F	175 Nantuxent Creek A
023 Merrill Creek	074 Mond's Island	125 Stow Creek E	176 Bear Swamp
024 Far Hills/Ravine Lake	075 Dupont/Raccoon Creek	126 Stow Creek D	177 Tuckahoe B
025 Great Swamp	076 Mantua Creek B	127 Stow Creek C	178 Tuckahoe A
026 Kearny	077 Bridgeport	128 Stow Creek A (North)	179 Nantuxent Creek D
027 Linden	078 Gibbstown	129 Shiloh Tower	180 Nantuxent Creek B
028 Stanton Station	079 Ferry Road Tower	130 Sunset	181 School House
029 Milford Tower	080 Waretown	131 CC Co Imp Auth	182 Beaver Dam
030 Three Bridges	081 Chatsworth	132 South River-Atlantic	183 Turkey Point A
031 Duke (Raritan River)	082 Swedesboro (Birch Creek)	133 Miry Run	184 Warfle
032 Manville	083 Stone Meetinghouse	134 Newport Meadows D	185 M.R. (Mauricetown)
033 Johnson Park	084 Turnersville	135 Newport Meadows C	186 Turkey Point B
034 Edison Tower	085 Penns Grove	136 Newport Meadows A	187 Dividing Creek A
035 Bull's Island	086 Oldman's Creek	137 Newport Meadows B	188 Fortescue A
036 Lambertville Tower	087 Deepwater	138 Davis Mill	189 Dividing Creek B
037 Old Bridge	088 Blue Anchor	139 Newport Meadows E	190 Port Norris
038 Keansburg	089 Cedar Run (Ocean)	140 Wheaton Island	191 Matts Landing
039 McClee's Creek	090 Pennsville	141 Cohansey (Greenwich A)	192 Cedar Swamp Creek
040 Hartshorne Woods Park	091 Marshalltown	142 Cohansey (Sheppards Mill)	193 Heislerville
041 Pennington	092 Pilesgrove	143 Cohansey (Loatman)	194 Belleplain
042 Princeton	093 Salem River	144 Cohansey (Hopewell East)	195 Riggins Ditch
043 Navesink River/Reservoir	094 Upper Oldmans	145 Cohansey CC A	196 Sadie Lane
044 Parker's Creek	095 Silver Lake	146 Maurice River (Millville North)	197 Egg Island
045 Oceanport Creek	096 Mannington A	147 Bayside A	198 East Point
046 Trenton	097 Penns Neck A	148 Bayside B	199 Dennis Creek
047 Mercer County GC	098 Daretown	149 Hancock A	200 South Dennis
048 Upper Millstone	099 Supawna Meadows B	150 Cohansey (Middle Marsh D)	201 Fishing Creek
049 Harvey Brook	100 Penns Neck B	151 Cohansey (Greenwich B)	202 Rio Grande
050 Manasquan Reservoir	101 Harris (Salem)	152 Cohansey (Hopewell West)	203 Cold Spring
051 Shark River	102 Seabrook	153 Cohansey (Hopewell Central)	204 Higbee

2018 Bald Eagle Nest Status



2018 Bald Eagle Nest Status

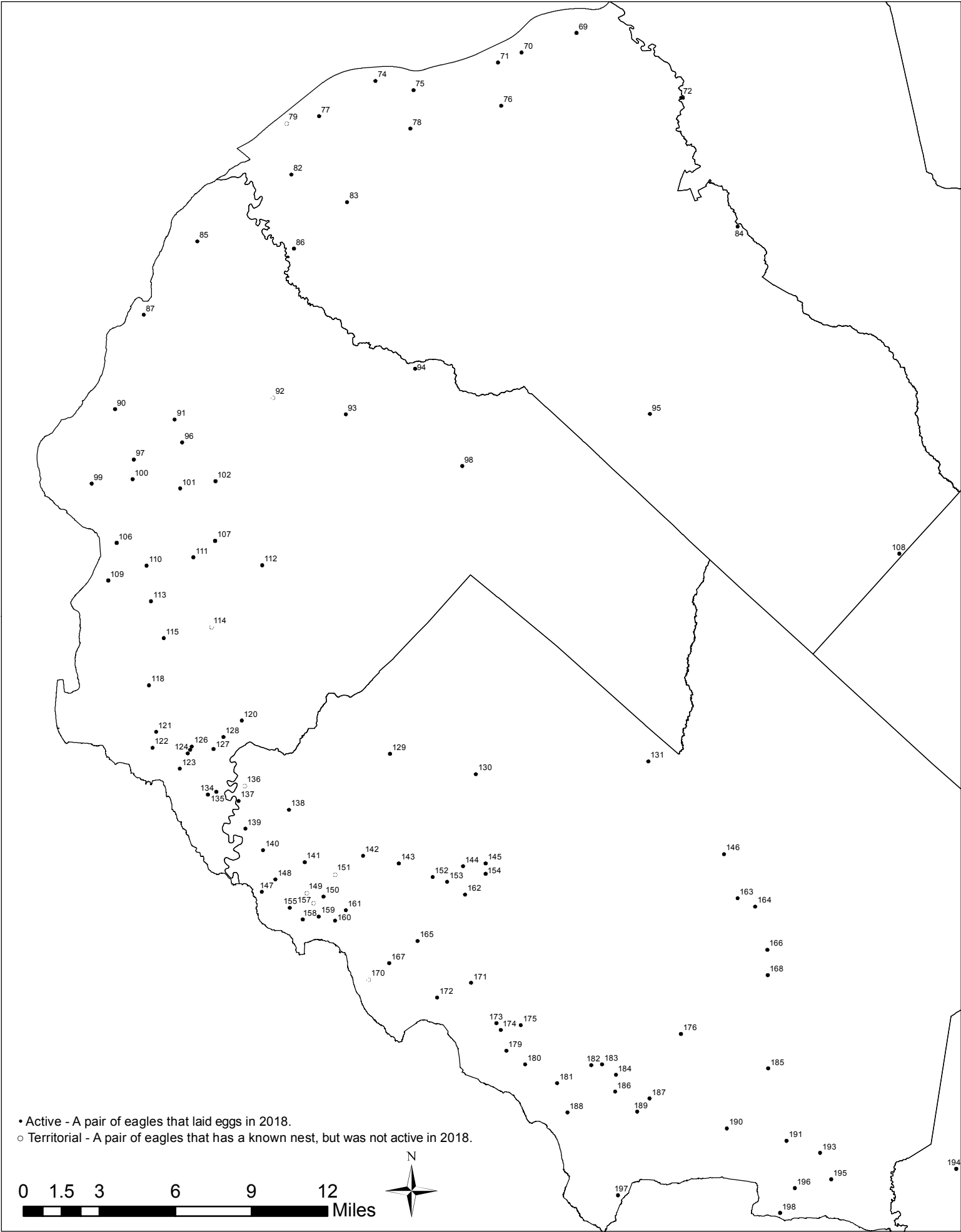


Table 1. Production and estimated dates for bald eagle nests in NJ, 2018. Fledging and other dates are not always known, thus some are left blank, others may be estimates. T=Territorial

NEST SITE	Incubation	Hatching	Banding	Fledging	No. Fledged	Failed date	Notes
Allows Creek C	T						
Allows Creek F	2/28	4/16		6/11	1		
Ballanger Creek West	2/16	3/23		6/15	1		New tree
Bassett's Bridge (Wallkill)	2/13	3/20		6/15	1		
Bay Point Road A	2/14	3/24		6/14	2		
Bay Point Road B	2/8	3/15			0	4/21	New pair
Bayside A	?				2		
Bayside B	?				1		
Bear Swamp	3/19				0	5/8	
Beaver Dam (osp)	2/9				0	3/4	New pair
Belleplain	2/1	3/8		5/31	1		
Blue Anchor	T						
Bridgeport	2/12	3/19			0	3/25	
Brielle (Tr. Is.)	<4/16				?		Outcome unknown
Bulls Island	4/5	5/10		7/31	2		
Burlington Island	2/16	3/23		6/10	1		
Camden County	3/6				0	4/19	
Canton Sheep Farm/Canton	2/8	3/19		7/2	1		
Cedar Lake (Gloucester)	2/6				0	4/5	
Cedar Run (Ocean)	1/24	3/13		6/5	1		
Cedar Swamp Creek	2/8	3/15		6/8	2		
Chatsworth	2/26	4/7			0	4/28	
Cohansey (Greenwich A)	1/24	3/2		5/10	1		New tree
Cohansey (Greenwich B)	T						
Cohansey(Hopewell Central)	3/8	3/18		5/27	1		
Cohansey (Hopewell East)	3/4	4/8		6/14	2		
Cohansey(Hopewell West)	3/8	4/1			0	4/8	
Cohansey (Loatman)	3/11	4/1		5/27	2		
Cohansey (Middle Marsh A)	2/27	4/2		6/26	2		
Cohansey (Middle Marsh C)	2/3	3/11		6/10	2		
Cohansey (Middle Marsh D)	2/10	3/17		6/16	2		New pair
Cohansey (Ragged Island)	2/12	3/19		6/18	1		New pair
Cohansey(Sheppards Mill)	?				1		
Cohansey(Tindells Landing)	2/9	3/13		6/13	2		
Cohansey CC A	1/20	3/4		5/20	1		
Cohansey CC B	2/14	3/19			0	4/2	
Cold Springs	2/4	3/20			0	4/4	

Crosswicks Creek	4/9	5/15		7/30	1		
Culvers Gap	3/8	4/18		7/5	2		
Cumberland Co Imp Auth	2/5				0	3/8	
Daretown	1/31	3/11	4/19	6/2	1		
Davis Mill	1/27	3/4		5/28	1		
Deepwater	2/27				0		
Delanco	2/27	3/30			0	4/24	New tree
Dennis Creek	2/12	3/15		6/7	1		New tree
Devil's Gut	2/2	3/12		6/11	2		
Dingman's Ferry	3/1	4/10			1		
Dividing Creek	2/19				0	4/2	
Dividing Creek B	2/9	3/24		6/14	1		
Duke (Raritan River)	2/14				0	3/23	
Dupont/Raccoon Creek	3/9	4/13		6/22	2		
Eagle Point	3/10				0	5/25	
East Point	2/19	3/24		6/15	1		
Edgewater Park	3/23	3/30		6/25	1		New pair
Edison Tower	2/12	3/19		6/15	2		
Egg Island	2/15	3/23	5/4	6/15	1		
Elsinboro	2/7	3/17		5/29	2		
Fairgrounds	2/13	3/19			0	4/9	Nest partially fell; chick found dead
Far Hills/Ravine Lake	2/13	3/23		6/15	1		
Fenwick Creek	3/16				0	4/29	
Ferry Road Tower	T						
Fishing Creek	?				0		Aerial flight 5/3
Forked River	T						
Fortescue	2/8	3/15		6/3	1		
Galloway	2/14	3/13	5/1	6/4	2		
Gibbstown	2/1	3/28		6/23	1		
Great Bay Blvd.	3/14	4/18		7/6	2		New pair
Great Swamp	1/27	2/27			0	3/27	
Grossup	2/20	3/27		6/24	1		
Hancock A	T						New pair
Hancock B	T						New pair
Harris (Salem)	3/4	4/12		6/24	1		
Hartshorne Woods Park	2/14	3/27		6/3	1		
Harvey Brook	T						New pair
Heislerville	2/13	4/2		6/18	3		New nest
Higbee	3/12				0	5/2	
Husted's Landing	2/2				0	3/24	
Hyper Humus	3/26	4/30		7/9	1		
Jacobstown	1/14	2/18		5/6	1		New pair

JB-Lakehurst	3/9				0	3/23	New pair
Johnson Park	2/27				0	4/22	
Keansburg Cell	3/21				0	4/23	
Kearny	2/24	3/31			0	5/20	
Keasbeys Creek	2/4	3/24		5/26	2		
Kettle Creek	2/10	3/16		6/12	1		
Lake Hopatcong A	Unk				0		
Lake Hopatcong B	2/21	3/30		6/28	1		New nest tree
Lake Lenape	3/6	4/10		6/26	2		
Lambertville Tower	T						
Lewisburg-Wantage	3/10				?		Outcome unknown
Linden	2/26	4/4		7/3	2		
Little Swartswood	2/27	3/25		6/17	2		
Lower Patcong Creek	3/19				0	4/14	
Mad Horse Creek	2/8	3/16		7/2	1		
Manasquan Reservoir	1/21	3/1			0	3/11	
Manasquan River	1/24	3/1	4/13	5/22	1		
Mannington Meadows A	2/18	4/1		6/24	1		
Mantua Creek A	2/28	4/4		6/27	2		
Mantua Creek B	2/10				0	4/29	
Manville	2/12	3/19		6/1	1		2 chicks grounded: 1 fostered, 1 euthanized
Marshalltown	1/22	3/4		5/22	2		
Matts Landing	1/31				0	3/2	Nest tree fell in storm
Maurice River- Burcham	2/18	3/9		6/1	2		
Maurice River-Mauricetown	3/6	4/3		6/26	2		
Maurice River-Millville North	2/9	3/16		6/8	1		New nest tree
Maurice River-Millville	3/19				0	5/18	
Maurice River- Peek Preserve	2/4				?		Outcome unknown
Maurice River-Somes Drive	2/3				0	3/19	
McClees Creek	T						New pair
Medford	2/20	3/28		6/30	2		
Mercer County GC	2/21	3/28		7/3	1		New pair
Merrill Creek Res.	3/5	4/10			0	6/7	
Milford Tower	2/23	3/30		6/22	2		
Minisink Island	3/1				2		
Miry Run	3/19				0	5/8	
Mond's Island	3/3	4/11		6/28	1		
Mount Hope Lake	?				0	3/20	
Mullica	?				1		
Nantuxent Creek A	2/8	3/15		6/3	1		
Nantuxent Creek B	2/2	3/9		6/3	2		

Nantuxent Creek D	2/8	3/15		6/3	2		
Navesink River	2/14	3/24		6/14	2		
Newport Meadows A	T						
Newport Meadows B	2/22	3/21		7/2	1		New pair
Newport Meadows C	2/22	3/21		7/2	1		New pair
Newport Meadows D	3/27				0	6/10	New pair
Newport Meadows E	2/22	3/16		7/2	1		New pair
Newton Reservoir	3/1				0	3/15	
Oceanport	2/19				0	3/19	
Old Bridge	3/15				0	4/15	
Oldmans Creek	1/28	3/4		5/30	2		
Oradell Reservoir	2/23	3/30			2		
Overpeck Creek	T						
Palisades B	2/19	3/23		6/8	1		
Palmyra Cove	2/26				0	4/16	
Parkers Creek	T						
Parsippany	2/17	3/24		6/9	1		
Patcong Creek B	T						New male
Paterson	3/22	4/22			1	7/27	
Pemberton	1/15				0	3/23	
Pennington	3/1				0	3/10	
Penns Grove	2/26	4/7			0	?	
Penns Neck A				5/22	2		
Penns Neck B (Lower)	2/26				1		
Pennsville	2/16	3/23		6/17	1		
Picatinny/Lake Denmark	3/18	4/22		7/15	1		
Pilesgrove	T						
Port Norris	2/6	3/18		6/1	1		
Poxono Island	3/1				0	3/20	
Princeton	3/5	4/17			2	7/2	
Prospertown	2/2	3/9		6/1	1		
Quinton	2/17				0	3/25	
Rancocas Creek	2/21	3/23			0	4/14	
Riggins Ditch	2/26				0	4/2	New nest tree
Rio Grande	2/10	3/25			0	4/24	
Sadie Lane	2/5	3/6		6/7	2		
Salem (Chestnut)	2/19				0	4/1	
Salem River	1/15	2/19		5/10	1		
Sayres Neck	1/18	2/23		5/14	2		
Sayres Neck B	2/23	4/2			0	4/21	New pair
School House	2/20	3/24		6/14	1		New pair
Seabrook	2/28	4/10			0	5/16	New pair

Sea Breeze A	2/17				0	3/25	
Sea Breeze B	T						
SFE Tower	2/15	3/27		6/5	1		New pair
Shark River	2/22	3/29		6/18	1		
Shiloh Tower	1/17	2/21		5/22	1		
Silver Lake	1/24	3/2		6/1	1		
South Dennis	T						
South River-Atlantic	2/6	3/13		6/5	2		
Stanton Station	2/26	4/2		7/12	2		
Stillwater	2/28				0	3/10	New pair
Stone Meeting House	2/12				0	4/20	
Stow Creek A (North)	2/3	3/12			0	4/5	
Stow Creek C	2/1	3/10		5/23	1		
Stow Creek D	2/22	3/16		6/29	1		New pair
Stow Creek E	2/22	3/17		7/2	1		New pair
Stow Creek F	2/22	3/17		7/2	1		New pair
Stow Creek G	2/21	3/18		6/10	1		New pair
Sunset	1/17	2/21		6/8	1		
Supawna Meadows A	3/1				0	4/5	
Supawna Meadows B	2/26	4/7		6/5	1		
Swedesboro-Birch Creek	1/23	2/27		5/22	1		
Three Bridges	2/18	3/27	5/11	6/25	3		Foster chick from Manville; fledged 7/24
Timber Creek	2/13	3/25		6/22	2		
Tindall Island	?				1		
Tindall Island B	?				2		New pair
Tocks Island	2/20	3/27			1		
Trenton	2/25	4/19		7/23	2		
Tuckahoe A	2/20	3/27		7/4	2		
Tuckahoe B	T						
Turkey Point A	2/3	3/10		6/3	2		
Turkey Point B	2/14	3/24			0	4/16	
Turnersville	2/19	3/26			0	4/16	
Upper Millstone	2/3	3/10		5/26	1		
Upper Oldmans	2/19	3/16		6/18	2		
Wading River A	?				2		
Waretown	3/8	4/12		6/26	2		New pair
Warfle	2/19	3/9		6/3	1		
Westmont	T						
Wheaton Island	?				1		
Woodbury Creek	3/3				0	5/19	
Woodcliff Lake	2/25				0	3/30	

Yards Creek	3/1	4/12		6/29	2		
Total Nests Monitored	204						
Total Nests Active & Known Outcome	182						
Successful Nests	121						
Failed Nests	61						
Young Fledged	172						
Nests Active but Unknown Outcome	3						

Table 2. Previously documented eagle nests that were not used, or could not be documented, in 2018.

Alloways Creek-B CE	Fortescue B	National Park	Wanaque A
Ballanger Creek East	Goshen	Oyster Creek	Wanaque B
Bayside C	Harrisonville	Palisades A	Westons Mill Pond
Bidwell Creek	Humphrey's (Salem)	Patcong Creek A	
Birch Creek B	Lake Musconetcong	Pequest	
Cedar Pond (Passaic)	Liberty Loop	Point View Reservoir	
Charlottesville (Rockaway)	Mad Horse WMA (tower)	Pompton lakes	
Cheesequake	Mannington Meadow C	Round Valley	
Cohansey (Middle Marsh B)	Mannington Meadows B	Silver Lake Tower	
Cohansey (Teaburner)	Maurice River (Bluffs)	Stathems Neck	
Dias Creek West	Maurice River- Bowkers	Stipson Island	
Egg Harbor River	Maurice River (Leesburg)	Stow Creek B	
Fort Dix	Nantuxent C	Union Lake	

2018 Season Highlights

Telemetry

Endangered and Nongame Species Program biologists, with the Conserve Wildlife Foundation, have attached satellite transmitters on several eagle fledglings over the past four years. In 2018, no new fledglings were tagged, but one four year old (subadult) was tagged after a short period in rehabilitation. “EagleTrax” mapping shows the movements of all these eagles, and can be found on the Conserve Wildlife Foundation of NJ’s [website](http://www.conservewildlifenj.org/protecting/eagle-trax/), <http://www.conservewildlifenj.org/protecting/eagle-trax/>

In 2018, Eagle Project vet Dr. Erica Miller and volunteer John Fox did an evening rescue of three eagles that fed on a dead fox, and ended up near-death. The three eagles were captured and immediately went into treatment for poisoning at Tri-State Bird Rescue and Research. One eagle died the next day, but the other two responded to treatment. One of them, a four year old, became our choice to carry a refurbished satellite tag; he would be of interest as an older bird likely to settle in southern NJ to nest, and also to track the success of a rehabilitated eagle. As a four year old bald eagle, he has a mostly white head, but still has a mix of brown feathers in his head and tail. “Pedro,” banded E/62, was named for Pedricktown, where he was found. Since his release on April 29, Pedro ranged around the Oldman’s, Raccoon, and Mantua creeks, and inland to abandoned cranberry bogs and other wetlands.

During 2018, two eagles previously tagged in NJ stopped transmitting signals.

“Nacote” (D/95) was banded as a nestling in June 2014 and fledged in July. Just weeks after fledging he made a big northern movement in August, 2014, heading due north and out of transmission range. He returned to northern New York where his transmitter’s data downloaded to our computers, showing he’d spent most of the fall in a remote area of Quebec. He returned to southern NJ in November, 2014, and spent the rest of 2015, 2016 and 2017 in Atlantic, Cape May, and Cumberland counties. He had been photographed several times at Forsythe NWR in Atlantic County. In the beginning of January 2018, Nacote was in Cape May County. His transmitter began to fail and we received fewer data transmissions. The last transmission was recorded on January 23, but we expect that he is still flying in the wild.

In 2013, we tagged “Haliae” (D/88) as a Merrill Creek nestling. She fledged and spent the winter of 2013-14 ranging around northern Chesapeake Bay in MD. In April 2014, she headed through PA and NY and into Canada. In June she was back in NJ’s Warren County, though she continued to wander and spent that summer in northern Maine and Canada. In fall 2014, she headed to eastern PA, and spent most of 2015, 2016 and part of 2017 on Maryland’s eastern shore. In fall 2017 she ranged around eastern PA and northern MD, generally in the Susquehanna River watershed. On April 12, 2018, she was photographed along the Susquehanna River in Darlington, MD, which showed that one of the harness straps looked to be broken. Despite this, we continued to get normal signals indicating her movements around Chesapeake Bay for five more months. The last known location occurred on September 22, where the signal stopped; then another transmission from the same site on October 22 suggested the transmitter was not moving. Eagle Project volunteers Jeff and Cathy White offered to search the last known location in a woodland in Whiteford, MD.

They were able to find the transmitter and torn harness on the ground, with no sign of Haliae. She is no doubt flying free and possibly on the verge of her first nesting season.

“Harmony 2” is the last nestling tagged with a transmitter that is still working. Harmony 2 (banded D/64) fledged in 2012 and spent her first winter on lower Chesapeake Bay before traveling to Maine. She has spent the last six years in a 100-mile swath of western Connecticut and Massachusetts, suggesting she will end up nesting there. On May 8, 2018, she was photographed in Marlboro, Vermont.

These tagged eagles are helping us to identify good eagle habitat and overnight roost areas with more precision. Depending on funding, we will continue to use satellite tags on NJ eagles to help us understand habitat use and eagle distribution.



Potential Nest Sites

Biologists and observers actively searched for possible nesting eagles in several locations. The searches were in response to reports of eagles engaging in breeding behaviors. Areas that remain promising are Batsto Lake, Oswego Lake, Indian Mills Lake, Williamstown, Evesham, Flemington/Raritan River, Canoe Brook Reservoir, White Lake, Musconetcong River and middle Delaware River, all of which have year-round eagle activity. In addition, several inland reservoirs in the north hold promise for eagle nesting.

Resightings of Banded Eagles

Resightings of NJ (green) banded eagles have increased over the years, as well as eagles seen in NJ that were banded in other states. In Table 3, we list the eagles resighted in recent years in our state and, in some cases, surrounding states. These resightings, accumulated with the help of many photographers and birders, provide insight into eagle movements during the years between fledging and settling into a territory, as well as adult birds at a nest site.

The list of resightings in Table 3 is ordered by the bird's identifier, mostly the color band code. For some individuals, we have multiple resightings that provide some history and a story of that bird's movements.

New Jersey-banded eagles have been observed at nests in Pennsylvania, New York, and Connecticut. There are six cases of New York-banded eagles at NJ nests, and one of a Connecticut-banded eagle. There are at least five known NJ-banded eagles documented at nests within our state. The nesting pair at Ravine Lake includes a green-banded NJ female (unknown code) and a red/black-banded NY male (A/18). This male was released as part of a hacking project in New York City in 2005.

The resighted eagles from the surrounding states clearly show that eagles move around the mid-Atlantic and northeast states. The majority of eagles are not marked with bands, and many states don't maintain a banding program, so the small proportion of banded birds are a sample by which we can interpret eagle survival and movements in and around our state.

Table 3. Resightings of marked Bald Eagles in New Jersey and elsewhere, 2003-2018.

Band #	Color Band (green unless otherwise noted)	Date Resighted	Reported	Resight Location	Resight State	Band Origin	Band Date	Comments
0629-45456	A/06 red/black	5/1/10	Alice	Overpeck Creek	NJ	Hacked in NYC	6/10/04	Nesting F at Overpeck Cr
0629-46295	A/12 red/black	3/29/17		Pleasantdale	NJ	Hacked in NYC	6/9/05	
	A/18 red/black	5/7/17	Dallas Hetherington	Ravine Lake	NJ	Hacked in NYC	6/28/05	Nesting at Ravine Lake with NJ banded female
0629-05438	A-83?	8/20/13	Lori Borda	Promised Land St Park	PA	Camp Edge	5/18/01	
0629-45841	B/36	5/1/15	Richard Clifton	Prime Hook Beach Rd.	DE	Dividing Creek	4/25/03	
0629-45841	B/36	10/10/15	Arthur Weidner	Prime Hook Beach Rd.	DE	Dividing Creek	4/25/03	
0629-45842	B/37	9/13/09	Roger Horn	Villas WMA	NJ	Dividing Creek	4/25/03	
0629-45855	B/50	1/14/18	Gina Mackey	Manasquan River	NJ	Navesink	5/29/03	Nesting M at Man. River nest
0629-45870	B/64	4/7/13	Justin Pursell	Perkiomen Creek	PA	Hopewell-West	5/10/04	Nesting in PA since 2010
0629-45870	B/64	5/28/14	Linda Oughton	Montgomery	PA	Hopewell-West	6/26/05	Nesting in PA since 2010
0629-45878	B/74	4/10/14	John Fox	Woodstown	NJ	Mannington A	4/10/04	Nesting at Salem nest
0629-45882	B/77	2/22/15	K & K Buynie	Crosswicks Creek	NJ	Navesink	5/19/04	Female nesting at Crosswicks Creek
0629-45887	B/82	1/7/16	Lynne Falterbauer	Peace Valley Park	PA	Walpack	6/3/14	
0629-45894	B/87	2/22/15	K & K Buynie	Crosswicks Creek	NJ	Fort Dix	5/13/05	Male nesting at Crosswicks since 2009
	blue	1/26/15	Don Torino	Hackensack River	NJ	NY		
0629-46811	C/04	2/16/15	Rich Owner	Oyster Creek/Lacy	NJ	Fort Dix	5/5/06	
0629-46812	C/05	4/14/13	Holly Rtella	Cohanzick Zoo	NJ	Lake Lenape	5/10/06	
0629-46816	C/09	2/8/15	Oak Duke	6 mi E. Wellsville	NY	Merrill Creek	5/12/06	
0629-46819	C/11	3/8/15	Nina VanDeleur	Lambertville	NJ	Princeton	5/17/06	Nesting at Stanton Station nest
0679-0156x	C/2 black	4/20/15	Joe Koscielny	Wayne	NJ	Middletown, CT	6/1/09	Female nesting-Point View
0679-01701	C/67	8/3/16	Michael Arter	SSW Dingmans Ferry	PA	Newton Res	5/19/08	
0679-01718	C/84	4/5/13	Pete Stegemann	Cold Spring Harbor	NY	Princeton	5/8/09	Obs with male; possibly on territory
0679-01728	C/94	3/11/15	Cyndi Pratt Didan	Vernon	CT	Duke Farms	5/18/09	Male nesting in CT
0679-01729	C/96	12/1/13	Kevin Smith	Conowingo Dam	MD	Duke Farms	5/18/09	
0670-01732	C/98	5/19/12	Chuck Hantis	Millburn	NJ	Newton Res	5/18/09	
0679-01732	C/98	11/2/13	David Holsten	Conowingo Dam	MD	Newton Res	5/18/09	
0679-01732	C/98	3/7/14	Deborah Kral	Conowingo Dam	MD	Newton Res	5/18/09	
0679-01732	C/98	1/24/16	Abigail Birnbryer	Salisbury Mills	NY	Newton Res	5/18/09	

Table 3. Resightings, continued

Band #	Color Band (green unless noted)	Date Resighted	Reported	Resight Location	Resight State	Band Origin	Band Date	Comments
0679-01732	C/98	4/15/18		Cornwall	NY	Newton Res	5/18/09	
0679-01732	C/98	5/4/18	Derek Robertson	Washingtonville	NY	Newton Res	5/18/09	
0679-01745	D/10	10/22/17	Christine Alber	Highland Lakes	NJ	L. Swartswood	5/5/10	Male nesting, since 2013
0679-01754	D/18	1/21/17	Laurie Glasser	Spring Lake Heights	NJ	Manasquan Res	3/25/11	
0679-01754	D/18	4/15/17	Mary Dunham	Lake Como, Belmar	NJ	Manasquan Res	3/25/11	
0679-01754	D/18	8/6/17	John Shea	Bombay	NY	Manasquan Res	3/25/11	
0679-01754	D/18	3/24/18	Gary Celeste	Silver Lake, Belmar	NJ	Manasquan Res	3/25/11	Observed with 2 nd adult eagle
0679-01754	D/18	4/24/18	Chris Kucinski	Lake Como, Belmar	NJ	Manasquan Res	3/25/11	
0679-01754	D/18	10/16/18	Chris Kucinski	Lake Como, Belmar	NJ	Manasquan Res	3/25/11	At osprey nest on cell tower
0679-01760	D/24	12/6/15	Theresa Anderson	Browns Mill	NJ	Swedesboro	4/18/11	
0679-01761	D/25	1/16/16	Justine Lee	Rossmoor	NJ	Manasquan Rvr	4/20/11	
0679-01761	D/25	11/25/16	Rich Owner	Forked River	NJ	Manasquan Rvr	4/20/11	Obs with mate
0679-01765	D/28	9/28/16	osprey webcam	Forsythe NWR	NJ	Fort Dix	5/6/11	Obs on osprey cam
0679-01766	D/29	11/3/14	osprey webcam	Forsythe NWR	NJ	Fort Dix	5/6/11	
0679-01766	D/29	4/12/16	Elizabeth Henzel	Tinton Falls	NJ	Fort Dix	5/6/11	
0679-01767	D/30	11/16/15	Katie Steward	Germantown	NY	Navesink	5/6/11	
	D/30 blue	12/3/16	Herb Houghton	Paterson	NJ	Coxsackie, NY	6/5/08	Obs with another eagle Passaic River
0679-01776	D/39	3/20/13	Kristen Nicholas	Lake Tappan	NJ	Oradell Res	5/23/11	
0679-01778	D/40	1/25/15	Kristen Nicholas	Haverstraw	NY	Newton Res	5/23/11	
0679-01778	D/40	3/31/17	Reid Hoffer	Nyack	NY	Newton Res	5/23/11	Nesting at reservoir in NY
	D/41? R leg	9/1/16	Margaret Fowle	Waterbury	VT	Duke Farms?		Possibly D/41, female; uncertain band read
0679-01782	D/44	10/20/16	osprey webcam	Forsythe NWR	NJ	Tuckahoe River	4/11/12	Obs on osprey cam
0679-01786	D/47	3/22/15	Eric Wagner	Enfield	CT	Prosper town	4/13/12	
0679-01786	D/47	2/28/18	Buynies	Mercer Co.	NJ	Prosper town	4/13/12	Male nesting at Mercer Co GC
0679-01788	D/49	3/24/16	Max Garfinkle	Harriman Park	NY	Manasquan Rvr	4/20/12	Federal band missing
0679-01788	D/49	11/24/17	Bob Kane	Plainsboro	NJ	Manasquan Rvr	4/20/12	Obs on game cam
0709-01553	D/64	5/8/18	Andrew Drummond	Marlboro	VT	Merrill Creek	5/31/13	"Harmony 2," transmitter
0709-01554	D/65	11/19/16	Timothy Shaheen	Hartshorne Co. Park	NJ	Merrill Creek	5/29/12	Obs with another eagle at Navesink nest
0709-01560	D/70	12/12/14	Brian Kushner	Forsythe NWR	NJ	Manasquan Rvr	5/1/13	

Band #	Color Band (green unless noted)	Date Resighted	Reported	Resight Location	Resight State	Band Origin	Band Date	Comments
0709-01561	D/71	2/18/18	Avril Armstrong	Verplanck	NY	Navesink	5/1/13	
0709-01562	D/72	11/25/16	Bob Kane	Cranbury	NJ	Navesink	5/1/13	
0709-01562	D/72	2/5/18	Rich Owner	Waretown	NJ	Navesink	5/1/13	F Waretown pair
0709-01563	D/73	12/16/17	Bob Kane	Plainsboro	NJ	Nantuxent B	5/3/13	Obs on wildlife cam
0709-01583	D/93	2/5/17	Bob Kane	Plainsboro	NJ	Manasquan Rvr	5/2/14	Obs on wildlife cam
0709-01583	D/93	2/14/18	Randy Lubischer	Fort Monmouth	NJ	Manasquan Rvr	5/2/14	F in Oceanport pair
0709-01585	D/95	4/8/16	Kelly Hunt	Forsythe NWR	NJ	Galloway	5/6/14	
0709-01591	E/01	11/22/16	Ami Shecter	Paulinskill, Blairstown	NJ	L. Swartswood	5/12/14	
0709-01591	E/01	2/15/17	Greg Zanoni	Mercer Co. Park	NJ	L. Swartswood	5/12/14	
0709-01491	E/01	4/26/17	Bob Yeager	Greentown	PA	L. Swartswood	5/12/14	
0709-01597	E/07	10/16/17	Amie Ware	Purcellville	VA	Merrill Creek	6/10/14	Photographed on dead deer
0709-01603	E/13	10/29/18	William Donnelly	Staten Island	NY	Mantua A	5/13/15	
0709-01615	E/25	2/25/17	Michael Rucci	Octoraro Reservoir	PA	Merrill Creek	6/18/15	
0709-01622	E/32	11/17/16	Diane Henry	Forsythe NWR	NJ	Galloway	4/21/16	
	E/80 blue	10/14/15	Rob Leigh	Swartswood Lake	NJ	Sullivan, NY	5/9/01	
0709-02117	M/K orange	10/20/16	Greg Zanoni	Rt 206, Columbus	NJ	Waltham, MA	5/25/16	Obs feeding
0679-04100	R/9 orange	4/18/13	via T. French	Oradell Res. Dam	NJ	Fall River, MA	5/23/12	
	S/93 blue		Jeff Crown	Culver's Gap	NJ	Sullivan Gap, NY	5/31/07	Nesting F at Culvers Gap
	W/34 blue	10/22/17	Randy Lubischer	Asbury Park	NJ	Onondaga Co NY	10/7/11	Male in pair, Asbury Park
	W/73 blue	4/1/13	Kumar Patel	Palisades B	NJ	NY	6/30/05	Nesting at Palisades B
	W/73 blue	4/13/15	Kumar Patel	Palisades B	NJ	NY	6/30/05	Nesting at Palisades B
	W/73 blue	3/24/16	Kumar Patel	Palisades B	NJ	NY	6/30/05	Nesting at Palisades B
	green	7/8/17	Arthur Gurmankin	Albrightsville	PA			NJ green: no band read
	L leg green	10/13/13	Chad Rachman	Staten Island	NY	unk		Adult w/some brown in tail
	L leg green	3/3/14	Bob Grimm	Haddonfield Twp	NJ	unk, >2002		Adult
	L leg green	11/30/15	Eileen Palmer	Elkton	MD	unk, >2002		Adult obs w/unbanded ad-M
	L leg green	9/13/15	Jim Yates	Hudson River	NY	unk, >2002		5th yr bird
	L leg green	3/8/18	Bob Mclean	Port Deposit	MD	Unk, >2002		Obs in vicinity of nest
	R leg green	10/15/13	Mark Johnson	Elkton	MD	unk, older band		
	R leg green	8/29/14	Logan Parker	Augusta	ME	unk, >2002		Adult
	R leg green	9/5/14	Mike	Lake Shohola	PA	unk, >2002		Adult
	R leg green	7/2/15	Vic Godley	Bayshore Floodgates	NJ	unk, >2002		Adult
	R leg green	11/14/15	Peggy Cadigan	Manasquan Inlet	NJ	unk, >2002		5th yr bird
	R leg green	1/14/17	Dawn	Fallsington	PA	unk, >2002		3rd yr bird; no band read
	R leg green C/?	7/12/14	Mike Busch	Brookhaven	NY	unk, >2002		Adult



Recoveries of Eagles in New Jersey

During this reporting period, 32 eagles were recovered, five of which were treated and released after injuries. The remaining birds were either found dead or were euthanized for these reasons: electrocution (6), impacts with vehicles (2), wires (1), train (2); fell from nest (2); pox (1); poisoned (3); eagle-eagle fighting (2) and unknown circumstances (8) (Table 4). Electrocution is a significant risk for bald eagles everywhere, because power distribution relies on smaller poles where “hot” wires are strung close enough that an eagle’s wingspan can cause the bird to make wire connections. ENSP works with the electric suppliers (Atlantic Electric, PSE&G, and JCP&L) to retrofit poles and mark lines where they are high risk, and we use data on eagle nests, roosts, and foraging areas to identify priority sites for those corrections.

Table 4. Bald eagles recovered injured or found dead in this project year.

Date Found	Location Found	Facility	Age-Sex	Details
12/8/17	Vincentown, Burlington	CRO		Obs eating deer carcass with lethal injection tag
12/9/17	Greenwich Twp, Cumberland	NJDFW Tuckahoe	Ad-U	Found dead near road
1/23/18	Lizard Tail Swamp, CM	NJDFW Tuckahoe	Juv-U	Too decomposed for necropsy
1/25/18	Downe Twp, Cumberland	NJDFW Tuckahoe	Ad-F	Reason for death undetermined
2/3/18	Tuckahoe Sand & Gravel, CM	NJDFW Tuckahoe	Ad-M	Electrocution
2/3/18	Tuckahoe Sand & Gravel, CM	NJDFW Tuckahoe	Juv-F	Cause of death undetermined due to condition
2/12/18	Fairfield Twp, Cumberland Co.	NJDFW Tuckahoe	Juv-U	Found under pole
2/16/18	Pennsville, Salem	Tri-State Bird Rescue	Ad-M	Found in chicken coop; released 2/27/18
4/6/18	Little Silver, Monmouth Co	CRO	Ad-M	Electrocution
5/1/18	Middlesex Boro, Middlesex	NRO	Ad	Hit by train
5/14/18	Chemours Plant, Carneys Point	Tri-State Bird Rescue	Juv-U	Electrocution
5/8/18	Manville eagle nest	Raptor Trust	7wks-F	Fell from nest; euthanized due to injuries
5/23/18	Shiloh nest site, Salem	Tri-State Bird Rescue	fledge	Released back at nest 6/1/18
4/9/18	Fairgrounds, Burlington Co.	CRO	3wks	Nest partially fell, chick found dead
4/15/18	Pedricktown, Salem	Tri-State Bird Rescue	2yrs-	Debilitated after scavenging; released 4/17
4/15/18	Pedricktown, Salem	Tri-State Bird Rescue	3yrs-F	Debilitated after scavenging; died in rehab
4/15/18	Pedricktown, Salem	Tri-State Bird Rescue	4yrs-M	Debilitated after scavenging. Rel. 4/29 w/sat tag
6/8/18	Plumsted Twp., Ocean Co	CRO	Ad-F	Cause of death undetermined
6/25/18	Port Norris, Cumberland	NJDFW Tuckahoe	Juv-M	Found under powerlines
7/19/18	Port Norris, Cumberland	NJDFW Tuckahoe	Juv-F	Found dead near road
7/31/18	CMC MUA	NJDFW Tuckahoe	Juv-F	Electrocution
8/6/18	CMC MUA	NJDFW Tuckahoe	Juv-M	Impact (wires?)
8/14/18	Washington Crossing, PA	Mercer Co. Wildlife	4yr-F	Euthanized; banded by Raptor Trust as HY in 2014
8/20/18	Paterson Cemetery	Raptor Trust	HY-M	Grounded, emaciated Paterson fledgling; died 8/23
8/20/18	Monmouth Beach, Monmouth	Raptor Trust	Juv-M	Fractured leg; released 10/18/18
8/29/18	CMC MUA	NJDFW Tuckahoe	Juv-F	Found dead
10/19/18	Monroeville, Gloucester	Tri-State Bird Rescue	4yr-F	Found injured, lead poisoned; died 10/20/18
10/24/18	Mercer County	Mercer Co. Wildlife		Hit by train
11/26/18	Teaneck, Bergen Co.	Raptor Trust	4yr-F	Found dead; cause of death undetermined
11/23/18	Millville, Cumberland Co.	Tri-State Bird Rescue	AD	Injured from fight with eagle; euthanized
12/12/18	LAC, Salem	Tri-State Bird Rescue		Injured from fight with eagle; in treatment
12/13/18	Sea Isle City, CM	NJDFW Tuckahoe	Juv	Found dead; pox

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