

New Jersey Department of Environmental Protection Division of Fish and Wildlife

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New Jersey Bald Eagle Project, 2021

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Cover photo: An established bald eagle pair in Somerset County. Photo courtesy of Bald Eagle Project nest monitor Rose Joy.

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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 and forty-seven nest sites were monitored during the nesting season, of which 222 were documented to be active (with eggs) and 25 were territorial or housekeeping pairs. Twenty-seven new eagle pairs were found this season, twelve in the south, three in central and twelve in the north. One hundred-seventy-seven nests (82%) of the 215 known-outcome nests produced 296 young, for a productivity rate of 1.37 young per active/known-outcome nest. Thirty-seven nests (17%) failed to produce young. The Delaware Bay region remained the state's eagle stronghold, with roughly half of all 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 project cooperators and volunteers who observe nests, report sightings, and help protect critical habitat.

Introduction

Records documenting the abundance and distribution of eagle nests in New Jersey do not exist. In the 1930s-1950s, when local naturalists and birders began documenting bird activity, bald eagles had already been subject to persecution for decades because of their perceived predatory relationship to game and farm animals (US Fish & Wildlife Service at <https://www.fws.gov/midwest/eagle/history/>). One study supported by NJDFW in southern NJ indicated more than 20 pairs of nesting bald eagles in the Delaware Bay region of NJ in the 1950s (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 after hatching, 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 a new, younger female took over 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 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 from Canada over an eight-year period (Niles et al. 1991). These eagles contributed to the increase in nesting pairs observed after 1990.

Bald eagles nesting 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, identifying land for 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 more 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. The competition for space in the most densely populated state in the nation makes it clear that critical habitat needs to be identified and, where possible, protected, to support a recovered bald eagle population. 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 conducted 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, 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 currently remains state-endangered for the breeding season and state-threatened for the non-breeding season, and state regulatory protection was unchanged by the federal action. The Division of Fish and Wildlife continues to monitor the population to provide data used in status assessments.

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 location data in the Biotics database and apply it to identify critical habitat using the Landscape Project mapping following mapping protocols;
- 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 ground or 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 nests. Nest monitors 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 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.

Results

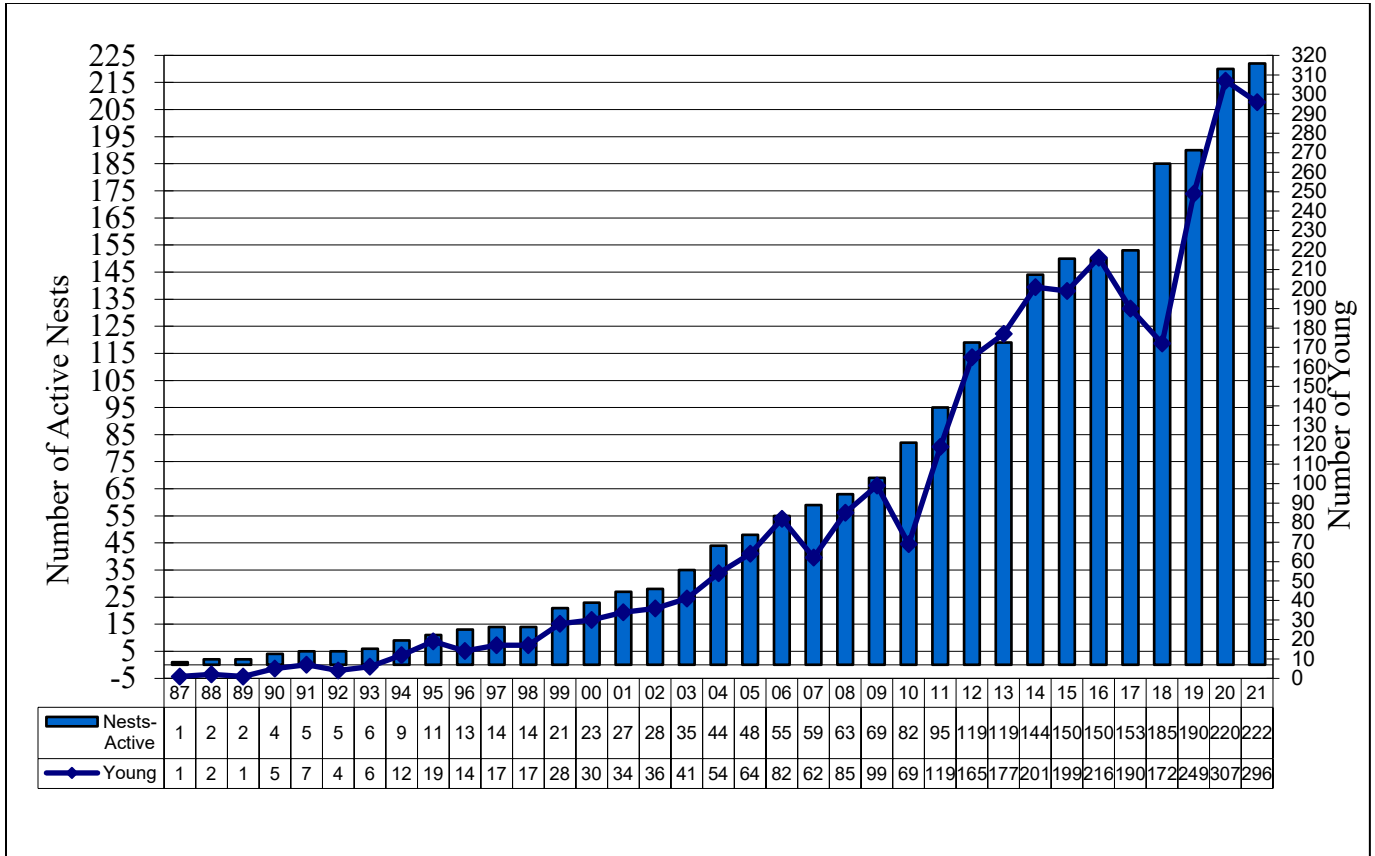
Nest Survey

The statewide population remained stable at 247 territorial pairs in 2021, a difference of one nest from last year. We documented 222 pairs that were known active (meaning they laid eggs), an increase of 4 nests from 2021 (Figure 1); 25 pairs maintained nest territories but did not lay eggs. Eighty-two percent of nests, 177, were known to be successful in producing 296 young. The productivity rate for 215 known-outcome nests was 1.37 young per active nest, which is above the range of 0.9 to 1.1 young per nest for population maintenance. Seventeen percent of nests (37) nests failed to fledge young. Nest monitors documented nest failures and brood loss that occurred: 316 chicks were reported as nestlings but only 296 were documented at fledging. The number of nestlings lost could be higher as monitors often cannot see the number of chicks in the first weeks after hatching.

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 an issue at many nests; posting and regular surveillance by staff and nest monitors 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 the nest table were 67 previously documented nest sites that were unoccupied and where no new nest could be found, or search effort was lacking (Table 2).

Figure 1. Number of bald eagle nests and young fledged in New Jersey, 1985–2021. Blue bars=number of nests, and blue lines=number of young produced each year. In 2021, 222 pairs were active and 296 young were produced.



Key to nest map in Figure 2.

| # | Nest name | # | Nest name | # | Nest name | # | Nest name | # | Nest name |
|----|------------------------|-----|------------------|-----|------------------|-----|------------------|-----|----------------------|
| 1 | Alloway Lake | 51 | Corbin City | 101 | Keansburg | 151 | Newport A | 201 | School House |
| 2 | Alloways Cr C | 52 | Cranbury Neck | 102 | Kearny | 152 | Newport B | 202 | Seabreeze B |
| 3 | Alloways Cr D | 53 | Crosswicks Creek | 103 | Kettle Creek | 153 | Newport D | 203 | Seabrook |
| 4 | Alloways Cr E | 54 | Culvers Gap | 104 | Kirkwood Lake | 154 | Newport E | 204 | SFE Tower |
| 5 | Alloways Cr F | 55 | Daretown | 105 | Labar | 155 | Oberlin | 205 | Shark River |
| 6 | Audubon | 56 | Davis Mill | 106 | Lake Como | 156 | Oceanville | 206 | Sheep Pen Creek |
| 7 | Ballanger West | 57 | Deepwater-2 | 107 | Lake Hopatcong B | 157 | Old Bridge | 207 | Silver Lake |
| 8 | BassettsBr/Wallkill | 58 | Delanco | 108 | Lake Lenape | 158 | Oldmans Creek | 208 | South River-Atlantic |
| 9 | Bay Point Road A | 59 | Dennis Creek | 109 | Lake Mohawk | 159 | Oradell Res | 209 | Stanton Station |
| 10 | Bay Point Road B | 60 | Devil's Gut | 110 | Linden | 160 | Overpeck Creek | 210 | Stillwater |
| 11 | Bayberry Kindle | 61 | Dias Creek East | 111 | Lit. Swartswood | 161 | Palisades B | 211 | Stow Creek A (No) |
| 12 | Beaver Dam | 62 | Dingman's Ferry | 112 | Lockatong | 162 | Palmyra Cove | 212 | Stow Creek E |
| 13 | Beesley Pt | 63 | Dividing Creek A | 113 | Long Bridge | 163 | Parker's Creek | 213 | Stow Creek F |
| 14 | Berrys Creek | 64 | Dividing Creek B | 114 | Lower Patcong | 164 | Parsonage Run | 214 | Stow Creek G |
| 15 | Bidwell Creek | 65 | Duffield Run | 115 | Mad Horse Cr | 165 | Patcong Cr B | 215 | Sunset |
| 16 | Blairstown | 66 | Duke/Raritan Rvr | 116 | Mad Horse Is | 166 | Paterson | 216 | Supawna A |
| 17 | Blue Anchor | 67 | DuPont/Raccoon | 117 | Makepeace Lk | 167 | Pedricktown | 217 | Supawna B |
| 18 | Bogota | 68 | Eagle Point | 118 | Manasquan Res | 168 | Pemberton | 218 | Swedesboro-Birch Cr |
| 19 | Boonton | 69 | Eagle Point-2 | 119 | Manasquan Rvr | 169 | Pennington | 219 | Sylvan Lake Twr |
| 20 | Branchburg | 70 | East Point | 120 | Mannington A | 170 | Penns Neck A | 220 | Three Bridges |
| 21 | Brielle | 71 | Edgewater Park | 121 | Mantua Creek A | 171 | Penns Neck B | 221 | Timber Creek |
| 22 | Bulls Island | 72 | Edison/Kin-Buc | 122 | Mantua Creek B | 172 | Pennsauken CC | 222 | Tocks Island |
| 23 | Burlington Island | 73 | Egg Island | 123 | Manville | 173 | Picatunny | 223 | Toll Bridge |
| 24 | Camden County | 74 | Elmer | 124 | Marshalltown | 174 | Pilesgrove | 224 | Trenton |
| 25 | Canoe Brook | 75 | Elsinboro | 125 | Mattison Res | 175 | Point View Res | 225 | TSG |
| 26 | Canton Drain | 76 | Fairgrounds | 126 | Matts Landing 2 | 176 | Pointers-Auburn | 226 | Tuck ROW |
| 27 | Carasaljo | 77 | Ferry Rd | 127 | Medford | 177 | Pointers-AuburnB | 227 | Turkey Pt A |
| 28 | Carmel | 78 | Five Mile Run | 128 | Mercer Oaks | 178 | Port Norris | 228 | Turkey Pt B |
| 29 | Cedar Hill | 79 | Flat Top | 129 | Merchantville | 179 | Poxono Island | 229 | Turnersville |
| 30 | Cedar Lake | 80 | Foampak | 130 | Merrill Creek B | 180 | Princeton | 230 | Union Lake |
| 31 | Cedar Run | 81 | Fortescue A | 131 | Mickleton | 181 | Prospertown | 231 | Upper Greenwood |
| 32 | Cedar Swamp Cr | 82 | Fortescue C | 132 | Milford | 182 | Quinton | 232 | Upper Millstone |
| 33 | Cedarville CT | 83 | FR-Stouts Creek | 133 | Millhurst | 183 | Quinton B | 233 | Upper Oldmans |
| 34 | Centerton | 84 | Gibbstown | 134 | Mond's Island | 184 | Quinton C | 234 | Upper Ramapo |
| 35 | Chatsworth | 85 | Great Bay Blvd. | 135 | Money Island | 185 | Rainbow Lake | 235 | Wading River |
| 36 | Chatsworth-2 | 86 | Great Swamp | 136 | Mount Hope Lk | 186 | Rancocas Cr A | 236 | Wanaque A |
| 37 | Clinton | 87 | Grossup Tower | 137 | MR-Burcham | 187 | Ravine Lake | 237 | Wanaque B |
| 38 | Cohansey CC A | 88 | Hackett | 138 | MR-Dorchester | 188 | Readington | 238 | Wantage |
| 39 | Cohansey Greenwich A | 89 | Hackettstown | 139 | MR-Millville No | 189 | Repauno | 239 | Waretown |
| 40 | Cohansey Greenwich B | 90 | Hacksite | 140 | MR-Peek Pres. | 190 | Riggins | 240 | Warfle |
| 41 | Cohansey Hopewell East | 91 | Hansey Creek | 141 | MR-Sandplant | 191 | River Barge Pk | 241 | Wawayanda |
| 42 | Cohansey Hopewell West | 92 | Harmony River | 142 | MR-Somes Drive | 192 | River Edge | 242 | Whiting |
| 43 | Cohansey Loatman | 93 | Hartshorne Woods | 143 | Mt Airy | 193 | Roadstown | 243 | Woodbury Creek |
| 44 | Cohansey MidMarsh A | 94 | Heislerville | 144 | Mullica River | 194 | Robbins Lane | 244 | Woodbury GC |
| 45 | Cohansey MidMarsh C | 95 | Higbee | 145 | Nantuxent Cr A | 195 | Round Valley | 245 | Woodcliff Lake |
| 46 | Cohansey MidMarsh D | 96 | Horicon Lake | 146 | Nantuxent Cr B | 196 | Sadie Lane | 246 | Wreck Pond |
| 47 | Cohansey MidMarsh E | 97 | Husted's Landing | 147 | Nantuxent Cr D | 197 | Salem N | 247 | Yards Creek |
| 48 | Cohansey Ragged Island | 98 | Hyper Humus | 148 | Navesink B | 198 | Salem River | | |
| | | | | | Navesink | | | | |
| 49 | Cohansey Sheppards | 99 | Jacobstown | 149 | River/Res. | 199 | Sayres Neck A | | |
| 50 | Cohansey Tindalls Ldg | 100 | Johnson Park | 150 | New Hampton | 200 | Sayres Neck B | | |

Figure 2a. Map of active (black circle) and territorial (x) bald eagle nests in NJ in 2021.

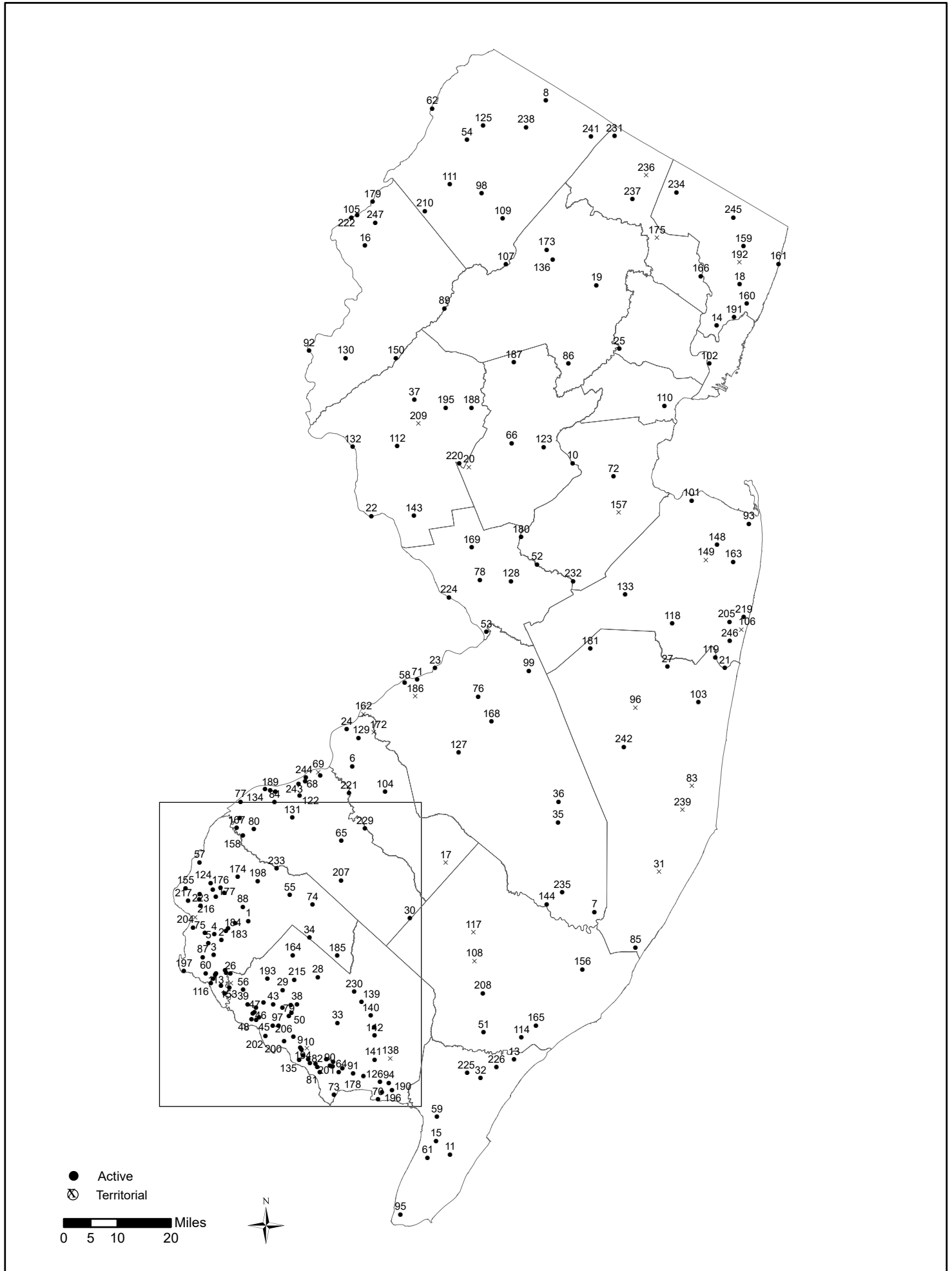


Figure 2b. Map of active (black circle) and territorial (x) bald eagle nests in NJ in 2021. Delaware Bay region view.

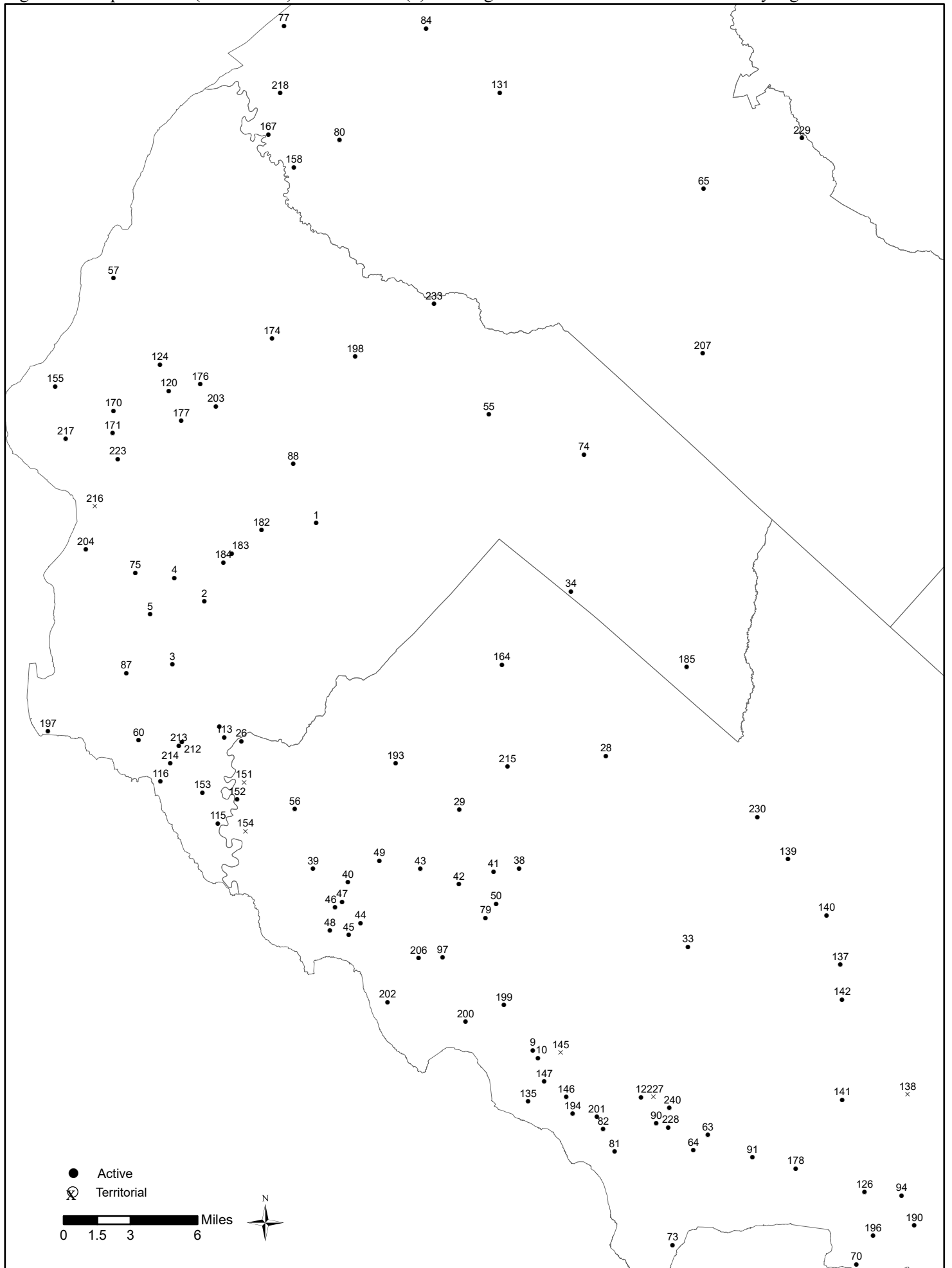


Table 1. Production and estimated dates for bald eagle nests in NJ, 2021. Some dates are unknown and left blank; others may be estimates or first-observed dates. T=Territorial.

| NEST SITE | Incubation | Hatching | Banding | Fledging | No. Fledged | Failed date | Notes |
|-----------------------------|------------|----------|---------|----------|-------------|-------------|--|
| Alloway Lake | 3/9 | 4/17 | | 7/2 | 1 | | |
| Alloways Creek C | 2/6 | | | | 0 | 4/3 | |
| Alloways Creek D | 2/12 | 4/7 | | 6/11 | 2 | | |
| Alloways Creek E | 1/27 | 3/4 | | 5/23 | 1 | | |
| Alloways Creek F | 1/20 | 2/26 | | 5/23 | 2 | | |
| Audubon | | ~4/20 | | 6/20 | 1 | | New pair |
| Ballanger Creek West | 2/8 | 3/23 | | 5/30 | 2 | | |
| Bassett's Bridge (Wallkill) | 2/22 | | | | 0 | 4/8 | |
| Bayberry- Kindle | 2/10 | 3/22 | | 6/14 | 2 | | |
| Bay Point Road A | 2/4 | 3/20 | | 6/10 | 2 | | |
| Bay Point Road B | 2/21 | 4/3 | | 6/23 | 2 | | |
| Beaver Dam (osp) | 2/4 | 3/20 | | 6/2 | 1 | | |
| Beesleys Point | 2/6 | 3/19 | | 6/9 | 1 | | |
| Berrys Creek | 3/2 | 4/7 | | 6/24 | 2 | | New pair |
| Bidwell (East) | 1/18 | 2/23 | | 5/23 | 1 | | |
| Blairstown | 2/14 | | | | 0 | 3/20 | New pair |
| Blue Anchor | T | | | | | | |
| Bogota | 3/1 | 4/5 | | 6/30 | 2 | | |
| Boonton | 1/30 | | | | 0 | 2/28 | |
| | | | | | | | |
| Branchburg | T | | | | | | New pair |
| | | | | | | | |
| Brielle (Tr. Is.) | 2/1 | 3/8 | | 5/31 | 3 | | |
| Bulls Island | 2/4 | 3/11 | | 5/23 | 1 | | |
| Burlington Island | 2/9 | | | | 0 | 3/22 | |
| Camden | 3/8 | 4/12 | | 6/28 | 1 | | New tree |
| Canoe Brook Reservoir | 3/11 | 4/8 | | 6/28 | 2 | | |
| Canton Drain | 2/6 | 3/12 | | 6/6 | 2 | | |
| Carasaljo | 3/4 | 4/14 | | 7/6 | 1 | | New pair: fledgling grounded 7/6, released at DC site 8/5/21 |
| Carmel | 1/17 | 2/25 | | 6/2 | 1 | | |
| Cedar Hill (Cumberland) | 1/19 | 3/4 | | 5/30 | 2 | | |
| Cedar Lake (Gloucester) | 1/22 | 2/24 | | 5/19 | 1 | | |
| Cedar Run (Ocean) | T | | | | | | New tree |
| Cedar Swamp Creek | 2/20 | 3/25 | | 6/16 | 3 | | |
| Cedarville Cell | 1/9 | 2/21 | | 5/22 | 1 | | New pair |
| Centerton | 2/10 | 3/20 | | 6/10 | 1 | | |
| Chatsworth | | | | 6/17 | 1 | | |

| | | | | | | | |
|-----------------------------|-------|------|------|------|---|-------|-----------------------|
| Chatsworth B | | | | 6/23 | 1 | | New pair |
| Clinton | 3/16 | 4/20 | | 7/9 | 1 | | New pair |
| Cohansey (Greenwich A) | 1/24 | 3/1 | | 6/13 | 2 | | |
| Cohansey (Greenwich B) | 2/6 | 3/13 | | 6/27 | 2 | | |
| Cohansey (Hopewell East) | 2/5 | 3/9 | | 6/8 | 2 | | |
| Cohansey (Hopewell West) | 2/5 | 3/9 | | 5/25 | 1 | | |
| Cohansey (Loatman) | 2/5 | 3/20 | | 6/5 | 1 | | |
| Cohansey (Middle Marsh A) | 2/6 | 3/12 | | | 0 | <3/19 | |
| Cohansey (Middle Marsh C) | 3/7 | | | | 0 | 4/7 | |
| Cohansey (Middle Marsh D) | 1/30 | 3/7 | | 6/5 | 2 | | |
| Cohansey(Middle Marsh E) | 2/26 | 4/1 | | 6/26 | 2 | | |
| Cohansey (Ragged Island) | 2/26 | 4/1 | | 7/3 | 2 | | New tree |
| Cohansey (Sheppards Mill) | 2/20 | 4/4 | | 6/20 | 1 | | |
| Cohansey (Tindells Landing) | 2/21 | 3/28 | | 7/3 | 3 | | |
| Cohansey CC A | 1/21 | 3/7 | | 5/27 | 2 | | |
| Corbin City | | | | | 0 | 3/10 | |
| Cranbury Neck | 2/19 | 3/26 | | 6/10 | 1 | | |
| Crosswicks Creek | 3/11 | 5/12 | | 8/18 | 2 | | |
| Culvers Gap | 3/12 | 4/21 | | 7/11 | 2 | | |
| Daretown | 1/22 | 2/26 | | 5/17 | 1 | | |
| Davis Mill | 1/31 | 3/11 | | | 0 | 4/20 | Nest fell out of tree |
| Deepwater-2 | 1/29 | 3/10 | | 6/1 | 3 | | |
| Delanco | 3/3 | | | | 0 | 4/5 | |
| Dennis Creek | 2/15 | 3/28 | | 6/20 | 3 | | |
| Devil's Gut | 2/5 | 3/12 | | 5/23 | 2 | | |
| Dias Creek (East) | 2/18 | 3/25 | | | ? | | Unknown outcome |
| Dingman's Ferry | 2/23 | 3/30 | | 6/25 | 2 | | |
| Dividing Creek A | 2/21 | 3/25 | | 6/23 | 3 | | |
| Dividing Creek B | 2/4 | | | | 0 | 3/12 | |
| Duffield Run | <3/17 | | | | ? | | Unknown outcome |
| Duke (Raritan River) | 1/17 | 2/26 | | 5/16 | 2 | | |
| Dupont/Raccoon Creek | 2/20 | 3/29 | | 6/23 | 2 | | |
| Eagle Point | 3/27 | | | | 0 | 4/23 | |
| Eagle Point B | T | | | | | | New pair |
| East Point | 2/14 | 3/21 | | 5/29 | 1 | | New nest location |
| Edgewater Park | 2/24 | | | | 0 | 4/5 | |
| Edison tower (Kin-Buc) | 3/15 | 4/24 | | 6/27 | 2 | | |
| Egg Island | 1/17 | 3/2 | 4/13 | 5/18 | 2 | | |
| Elmer | 2/3 | 3/11 | | 5/31 | 2 | | |
| Elsinboro | 2/8 | | | | 0 | 3/4 | |
| Fairgrounds | 3/6 | 4/10 | | 6/26 | 1 | | |

| | | | | | | | |
|-----------------------|------|-------|--|------|---|-------|--|
| Far Hills/Ravine Lake | 2/12 | 3/17 | | 5/29 | 2 | | |
| Ferry Road | 2/20 | 3/27 | | 6/25 | 1 | | |
| Five Mile Run | 2/23 | 3/30 | | 6/13 | 1 | | |
| Flat Top | 2/27 | 3/21 | | 6/13 | 2 | | |
| Foampak | 2/22 | 3/29 | | 6/23 | 3 | | |
| Forked River | T | | | | | | New nest location |
| Fortescue | 2/21 | 3/25 | | 6/23 | 2 | | |
| Fortescue C | 1/9 | 2/21 | | 5/12 | 1 | | |
| Gibbstown | 1/14 | 2/28 | | 6/2 | 2 | | |
| Great Bay Blvd. | 1/27 | | | | 0 | 2/1 | Nest blew down |
| Great Swamp | 1/27 | 3/4 | | 5/23 | 1 | | |
| Grossup | 2/5 | 3/12 | | 5/30 | 1 | | |
| Hack Site | 2/21 | 3/25 | | 6/23 | 1 | | New pair |
| Hackett (Salem) | 2/5 | 3/12 | | 5/30 | 1 | | |
| Hackettstown | 2/20 | 4/3 | | 6/30 | 2 | | |
| Hansey Creek | 2/2 | 3/9 | | 5/25 | 2 | | |
| Harmony | <4/5 | 4/23 | | 6/29 | 1 | | New pair |
| Hartshorne Woods Park | 2/6 | 3/20 | | 6/2 | 1 | | |
| Heislerville | 2/16 | 3/25 | | 6/17 | 1 | | New nest location |
| Higbee | 2/23 | 4/8 | | 6/25 | 1 | | |
| Horicon Lake | T | | | | | | Nest fell in storm |
| Husted's Landing | 1/30 | 3/7 | | 6/5 | 2 | | |
| Hyper Humus | 4/6 | 5/4 | | 7/23 | 2 | | |
| Jacobstown | 1/9 | 2/13 | | 5/17 | 1 | | |
| Johnson Park | 3/12 | | | | 0 | 4/21 | |
| Keansburg | 3/9 | 4/15 | | 7/3 | 1 | | New nest location |
| Kearny | 2/26 | 3/28 | | 6/25 | 2 | | |
| Kettle Creek | 2/14 | 3/21 | | 6/9 | 3 | | 6/19 fledge found on ground: recovered at Tri-State; released 7/20 |
| Kirkwood Lake | 2/6 | 3/7 | | 6/7 | 2 | | |
| Labar Island | 2/5 | 3/12 | | 5/31 | 1 | | New pair |
| Lake Como cell | T | | | | | | |
| Lake Hopatcong B | 3/5 | 4/19 | | 7/5 | 2 | | |
| Lake Lenape | T | | | | | | |
| Lake Mohawk | | <5/18 | | | 2 | | |
| Linden | 2/6 | 3/17 | | 5/24 | 2 | | |
| Little Swartswood | 2/14 | 3/18 | | 6/3 | 1 | | |
| Lokatong Creek | 3/2 | 4/13 | | 6/29 | 2 | | New pair |
| Long Bridge | 1/19 | 3/4 | | 5/30 | 2 | | |
| Lower Patcong | 2/3 | 3/14 | | 6/10 | 3 | | |
| Mad Horse Creek | 2/6 | 3/16 | | | 0 | >3/16 | |
| Mad Horse Island | | <4/27 | | | | | New pair; unknown outcome |

| | | | | | | | |
|--------------------------------|------|-------|--|------|---|------|--|
| Makepeace | T | | | | | | |
| Manasquan Reservoir | 2/3 | 3/13 | | 6/6 | 2 | | |
| Manasquan River | 2/13 | 3/20 | | | 0 | 4/19 | |
| Mannington Meadows A | 3/19 | 4/29 | | | 0 | 5/23 | |
| Mantua Creek A | 2/26 | 4/2 | | 6/18 | 1 | | |
| Mantua Creek B | 1/30 | 3/6 | | 6/27 | 2 | | |
| Manville | 2/25 | | | | 0 | 4/12 | |
| Marshalltown | 2/12 | | | | 0 | 3/20 | |
| Mattison Reservoir | 2/24 | 4/5 | | 7/4 | 1 | | |
| Matts Landing 2 | 2/6 | 3/13 | | 5/29 | 1 | | |
| Maurice River- Burcham | 2/14 | | | | 0 | 2/22 | |
| Maurice River- Dorchester | T | | | | | | New pair, found late in nesting season |
| Maurice River-Mauricetown | | <3/29 | | | 0 | 5/9 | |
| Maurice River- Millville North | 2/21 | 3/9 | | 6/26 | 1 | | |
| Maurice River- Peek Preserve | 2/4 | 3/11 | | 5/27 | 1 | | |
| Maurice River- Somes Drive | 1/21 | 2/25 | | 5/13 | 2 | | |
| Medford | 2/15 | 4/12 | | 7/5 | 2 | | |
| Mercer County GC | 3/7 | 4/7 | | 7/6 | 3 | | |
| Merchantville | 3/9 | 4/13 | | 6/29 | 3 | | New pair |
| Merrill Creek B | 3/5 | 5/18 | | 7/1 | 1 | | |
| Mickleton | 2/21 | 4/2 | | 6/12 | 2 | | |
| Milford | 2/21 | 4/4 | | 6/19 | 2 | | |
| Millhurst | | | | 6/19 | 2 | | New pair |
| Mond's Island | 2/20 | 4/2 | | 6/23 | 1 | | |
| Money Island | 2/10 | 3/25 | | 6/10 | 1 | | |
| Mount Hope Lake | 3/5 | 4/9 | | 7/16 | 2 | | |
| Mt Airy | 2/4 | 3/12 | | 6/6 | 3 | | |
| Mullica | | <4/10 | | | ? | | Unknown outcome |
| Nantuxent Creek A | T | | | | | | |
| Nantuxent Creek B | 2/4 | 3/20 | | 6/2 | 1 | | |
| Nantuxent Creek D | 2/26 | | | | 0 | 3/20 | |
| Navesink River | T | | | | | | |
| Navesink B | 2/15 | 3/22 | | 5/28 | 1 | | |
| New Hampton | 2/12 | 3/19 | | 6/25 | 2 | | |
| Newport Meadows A | T | | | | | | |
| Newport Meadows B | 2/13 | 3/12 | | 6/6 | 2 | | |
| Newport Meadows D | 2/26 | | | 6/14 | 1 | | |
| Newport Meadows E | T | | | | | | |
| Oberlin | 2/21 | | | | ? | | Unknown outcome |
| Oceanville | 3/6 | 4/10 | | 7/19 | 3 | | |
| Old Bridge | T | | | | | | |
| Oldmans Creek | 2/8 | 3/22 | | 6/14 | 1 | | |

| | | | | | | | |
|------------------------|------|------|--|------|---|-------|-----------------------------------|
| Oradell Reservoir | 3/29 | 4/18 | | | 0 | <4/18 | New nest location |
| Overpeck Creek | 2/12 | 3/23 | | 6/7 | 1 | | |
| Palisades B | 2/11 | 3/19 | | 6/1 | 1 | | |
| Palmyra Cove | T | | | | | | |
| Parkers Creek | 2/17 | 4/12 | | 6/12 | 1 | | |
| Parsonage Run | 1/14 | 2/26 | | 5/20 | 1 | | |
| Patcong Creek B | 2/7 | | | | 0 | 4/14 | |
| Paterson | 3/10 | 4/19 | | 7/6 | 2 | | |
| Pedericktown | 2/22 | 3/30 | | 6/23 | 1 | | New pair |
| Pemberton | 1/12 | 2/23 | | 5/17 | 1 | | |
| Pennington | 2/20 | 3/30 | | 6/13 | 2 | | |
| Penns Neck A | 1/27 | | | | 0 | 3/4 | |
| Penns Neck B (Lower) | 3/4 | 4/23 | | 7/6 | 1 | | |
| Pennsauken CC | T | | | | | | Female in pair found dead 1/12/21 |
| Picatinny/Lake Denmark | | | | 7/16 | 2 | | |
| Pilesgrove | 1/24 | 3/4 | | 5/30 | 2 | | |
| Pointers Auburn | 2/12 | 3/19 | | 5/23 | 1 | | |
| Pointers Auburn B | 2/17 | 3/29 | | 6/20 | 1 | | New pair |
| Point View Reservoir | T | | | | | | New nest location |
| Port Norris | 2/18 | 3/25 | | 6/24 | 2 | | |
| Poxono Island | 3/6 | 4/14 | | 7/5 | 3 | | |
| Princeton | 2/20 | 3/27 | | 6/12 | 1 | | |
| Prospertown | 2/9 | 3/14 | | 5/19 | 2 | | |
| Quinton | 2/14 | 3/21 | | 6/12 | 2 | | |
| Quinton B | 2/4 | 3/16 | | 6/2 | 1 | | |
| Quinton C | 2/17 | 4/3 | | | 0 | 5/15 | |
| Rainbow Lake | 1/21 | 3/7 | | | 0 | 4/8 | |
| Rancocas Creek | T | | | | | | |
| Readington | 3/5 | 4/5 | | 6/27 | 2 | | New pair |
| Repauno | 2/26 | 4/4 | | 6/28 | 2 | | New pair |
| Riggins Ditch | 1/23 | 2/27 | | 6/12 | 1 | | New nest location |
| River's Edge | T | | | | | | New pair |
| River Barge Park | 3/4 | 4/13 | | 7/6 | 2 | | |
| Roadstown | 2/5 | 3/12 | | | 0 | 5/30 | |
| Robbins Lane | 2/10 | 3/20 | | 6/18 | 2 | | |
| Round Valley | 2/15 | 3/22 | | 6/16 | 1 | | New nest location |
| Sadie Lane | 1/14 | 2/28 | | 5/8 | 2 | | |
| Salem Nuclear HTT | | | | | ? | | New pair; unknown outcome |
| Salem River | 1/20 | 3/4 | | 5/23 | 2 | | |
| Sayres Neck | 1/24 | | | | 0 | 3/9 | |
| Sayres Neck B | 2/10 | 3/20 | | 6/10 | 1 | | |
| School House | 1/21 | 2/26 | | 5/22 | 1 | | |

| | | | | | | | |
|------------------------|------|-------|------|------|---|------|---|
| Seabrook | 2/13 | 3/20 | | 6/11 | 1 | | New nest location |
| Sea Breeze B | 2/6 | | | | 0 | 3/12 | |
| SFE Tower | 2/12 | 3/29 | | 6/20 | 2 | | |
| Shark River | | <3/14 | | 7/1 | 1 | | New nest location |
| Sheep Pen Creek | 2/6 | 3/13 | | 6/19 | 2 | | |
| Silver Lake | 2/4 | 3/5 | | 6/11 | 2 | | |
| South River-Atlantic | 2/23 | 4/1 | | 7/1 | 1 | | |
| Stanton Station | T | | | | | | |
| Stillwater | 2/24 | | | | 0 | 4/20 | |
| Stow Creek A (North) | 2/13 | 3/27 | | 6/14 | 1 | | |
| Stow Creek E | 1/19 | 3/12 | | 6/6 | 2 | | |
| Stow Creek F | 2/20 | 3/12 | | 6/6 | 2 | | |
| Stow Creek G | 2/20 | 4/15 | | 6/14 | 2 | | |
| Sunset Lake | 1/25 | 3/1 | | 5/17 | 1 | | |
| Supawna Meadows A | T | | | | | | |
| Supawna Meadows B | 2/5 | 3/12 | | 5/30 | 2 | | |
| Swedesboro-Birch Creek | 1/21 | 3/2 | | 5/28 | 2 | | |
| Sylvan Lake Tower | 3/13 | 4/18 | | 7/10 | 2 | | |
| Three Bridges | 2/24 | 4/2 | 5/14 | 6/20 | 2 | | 7/4 1 fledgling found on ground taken to Raptor Trust; released mid-August. |
| Timber Creek | 2/14 | 3/21 | | 6/6 | 2 | | |
| Tocks Island | 3/3 | 4/7 | | 7/5 | 2 | | New nest location |
| Toll Bridge | 2/12 | 3/29 | | 6/11 | 1 | | |
| Trenton | 2/16 | 3/26 | | 6/19 | 3 | | |
| TSG | 2/6 | 3/21 | | 6/6 | 1 | | |
| Tuckahoe C | 3/4 | 4/2 | | 6/14 | 1 | | New nest location |
| Turkey Point A | T | | | | | | |
| Turkey Point B | 1/15 | 2/21 | | 5/7 | 1 | | New nest location |
| Turnersville | 2/10 | 3/21 | | 6/6 | 2 | | |
| Union Lake | 1/30 | 3/6 | | 5/22 | 1 | | |
| Upper Greenwood | 3/4 | 4/8 | | 7/1 | 2 | | New pair |
| Upper Millstone | 2/4 | 3/13 | | 6/10 | 1 | | |
| Upper Oldmans | 3/4 | | | | 0 | 4/12 | |
| Upper Ramapo | 2/28 | 4/4 | | 6/20 | 2 | | New pair |
| Wading River A | 1/6 | 2/10 | | 4/28 | 2 | | |
| Wanaque A | T | | | | | | New nest location |
| Wanaque B | | | | | 3 | | |
| Wantage | 2/28 | | | | 0 | 4/4 | |
| Waretown | T | | | | | | |
| Warfle | 2/21 | 3/25 | | 6/23 | 2 | | |
| Wawayanda | 3/8 | 4/8 | | 6/30 | 3 | | New nest location |
| Whiting | 2/23 | 3/31 | | 6/29 | 2 | | |

| | | | | | | | |
|---|------------|------|--|------|---|---|-----------------|
| Woodbury Creek | 3/20 | | | | 0 | ? | |
| Woodbury Creek B | 3/20 | | | | 0 | ? | |
| Woodcliff Lake | 2/24 | 3/30 | | 6/13 | 1 | | |
| Wreck Creek Pond | 2/13 | 3/6 | | 5/30 | 2 | | New pair |
| Yards Creek | <3/28 | | | | ? | | Unknown outcome |
| Total Nests Monitored | 247 | | | | | | |
| Total Nests Active | 222 | | | | | | |
| Total Nests Active & Known Outcome | 215 | | | | | | |
| Successful Nests | 177 | | | | | | |
| Failed Nests | 37 | | | | | | |
| Young Fledged | 296 | | | | | | |
| Nests Active but Unknown Outcome | 7 | | | | | | |

Table 2. Previously documented eagle nests that were not used, or could not be documented, in 2021.

| | | | |
|-----------------------------|-----------------------|------------------------|---------------------|
| Alloways Creek-B CE | Dias Creek West | Maurice River-Bluffs | Salem Chestnut |
| Bacons Neck | Egg Harbor | Maurice River- Bowkers | Seabreeze A |
| Ballanger Creek East | English Creek | Maurice River-Leesburg | Silver Lake Tower |
| BaysideA | Fenwick | Mason Point | Stathems Neck |
| Bayside B | Fishing Creek | Matt's Landing A | Shiloh Tower |
| Bayside C | Fort Dix | McClees Creek | South Dennis |
| Bear Swamp | Fortescue B | Memorial lake | Stonemeeting House |
| Belford | Fort Mott | Merrill Creek | Stow Creek B |
| Belleplain East | Galloway | Minisink Island | Stow Creek C |
| Birch Creek B | Goshen | Miry Run | Stow Creek D |
| Bridgeport | Hancock A | Montague Hollow | Stipson Island Area |
| Bridgeton | Hancock B | Nantuxent C | Tindall Island |
| Birch Pond (Passaic) | Harrisonville | National Park | Tindall Island B |
| Camden 2 | Harris -Salem | Newport Meadows C | Tindall Island C |
| Canton Sheep Farm | Harvey Brook | Newton Reservoir | Tuckahoe A |
| Cedar Pond (Passaic) | Humphreys (Salem) | Oceanport | Tuckahoe B |
| Charlottesburg Res | JB-Lakehurst | Oyster Creek | Westmont |
| Cheesequake | Keasby's Creek | Palisades A | Westons Mill Pond |
| Cohansey (Hopewell Central) | Lake Hopatcong A | Parsippany | Wheaton Island |
| Cohansey CC B | Lake Musconetcong | Patcong Creek A | |
| Cohansey -Middle Marsh B | Lambertville Tower | Pennsville | |
| Cohansey -Teaburner | Lewisburg-Wantage | Pequest | |
| Cold Springs | Mad Horse WMA (tower) | Pigeon Swamp | |
| Deep Water 3A | Mannington Meadow C | Reaville | |
| Dennis Creek 2 | Mannington Meadows B | Rio Grande | |

2021 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 six years. These tagged eagles are helping to identify eagle habitat and overnight roost areas by their activity patterns. Depending on funding, we will continue to use satellite tags on NJ eagles to help us understand habitat use and eagle distribution. In 2021 we followed one eagle.

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/>

Duke

We have been following “Duke” on [NJ EagleTrax](#), since he fledged from the Duke Farms nest on June 15, 2019. He spent January in the Chesapeake Bay region, and in February-March he was ranging around northern MD and southern PA. On March 21, he made a big move up to NJ and was very close to his old nest. In April he ranged along the Susquehanna River in southern PA and the Chesapeake region in MD, but also made a quick trip north into PA and back to MD. Duke spent all of May, 2020, along the Susquehanna River near the Conowingo Dam. For the first week of June, 2020, he ventured to the Duke Farms area, then returned and spent the rest of the month along the Susquehanna River; remaining there July through October. In November, 2020, Duke returned to NJ and spent the next four months ranging around Somerset County, often close to his natal site. In March, 2021, he made a brief trip back to MD, then returned to central and northern NJ, but in April he returned to Conowingo Dam in MD just until May. He remained in central NJ May, 2021. He spent time in central/north Jersey and along the Delaware River. His satellite tag did not transmit data Sept 11-Dec 14 due to a battery failure, but the spotty data in mid-December showed his movements remained in the Somerset-Mercer (NJ) and Bucks (PA) county area. His movements can be followed on [NJ EagleTrax](#).

Notable Efforts

For a second year, ENSP ran a “soft release site” in Dividing Creek, where we provided supplemental food (fish and road-killed mammals) to support young eagles separated from their parents, giving them a safe area where other eagles would provide the social learning they needed. On June 19, a fledgling was found grounded with a leg fracture, most likely from the Kettle Creek nest. The bird was in rehab for enough time that his family had mostly dispersed from the nest site, so he was released at the Dividing Creek site on July 20. On August 4, a second juvenile was released at the site, after spending a month in rehab after fledging poorly from a Lakewood nest. At the release site, food was left daily for the first two weeks, then every 2-3 days, and trail cameras were used to document eagle use. Neither of the two released eagles were documented on trail cams in the following weeks. However, the cameras did identify two banded eagles (a 2020 fledgling who had been released in Dividing Creek, and a 2021 fledgling from a nest in Maryland); at least six young eagles and two adults were also photographed. The release site was monitored until the end of September.

The vast majority of eagle nests were monitored by an experienced corps of volunteers, now numbering over 130 people. Their efforts at regular nest observations provided the data for this report and the Division of Fish & Wildlife's database. The Conserve Wildlife Foundation of NJ worked to coordinate volunteers, maintain communications, and assist with the NestStory data collection system.

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, 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 have 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, primarily the color band code. For some individuals, we have multiple resightings that are interesting in that they provide some history and a story of that bird's movements.

Table 3. Resightings of marked Bald Eagles in New Jersey and elsewhere, 2020-2021.

* Denotes a band that was resighted in previous years. Band code with a dash (-) has letter-number in line; code with a slash (/) has letter above the number.

| Band # | Color Band (green unless noted) | Date Resighted | Reporter | Resight Location | Resight State | Band Origin | Band Date | Comments |
|------------|------------------------------------|----------------|--------------|---------------------|---------------|-----------------------|-----------|---|
| 0629-05440 | A-85 | 10/29/21 | C. Gesicki | Manasquan Res. | NJ | Galloway | 5/22/01 | F in Man Res pair |
| 0629-45805 | A-90 | 12/17/21 | T. Ford | Milton | DE | Greenwich | 5/10/02 | Photographed on deer in ag field |
| 0629-45810 | A-95* | 1/2/21 | M. Pacheco | John Heinz NWR | PA | Mannington Meadows | 5/1/02 | |
| 0629-45830 | B-10 | 10/21/21 | C. Gesicki | Lakewood | NJ | Tri-State Bird Rescue | 7/14/21 | M adult from Carasaljo pair, treated and released. |
| 0629-46820 | C/11* | 5/4/21 | L. Rapacki | Clinton | NJ | Princeton | 5/17/06 | M in Clinton pair |
| 0679-01732 | C/98* | 1/27/21 | D. Robertson | Salisbury | NY | Newton Reservoir | 5/18/09 | In nesting pair |
| 0679-01745 | D/10* | 6/21/21 | C. Alber | Wawayanda | NJ | Little Swartswood | 5/5/10 | M in Wawayanda |
| 0679-01761 | D/25* | 12/5/20 | R. Nicol | Lacey, | NJ | Manasquan River | 4/20/11 | Seen with D/49 |
| 0679-01766 | D/29* | 7/4/21 | A. Panyi | Hammonton | NJ | Fort Dix | 5/6/11 | |
| | D/29* | 12/19/21 | D. Bittle | Hammonton | NJ | Fort Dix | 5/6/11 | |
| Missing | D/49* | 12/5/20 | R. Nicol | Lacey, Forked River | NJ | Manasquan River | 4/20/12 | Seen with D/25 |
| 0709-01582 | D/92 | 4/19/21 | B. Harrison | Whiting | NJ | Fort Dix | 5/2/14 | F in Whiting pair |
| 0709-01583 | D/93* | 6/24/21 | B. Allen | Fort Monmouth | NJ | Manasquan Res | 5/2/14 | M in Parker's Creek pair |
| 0709-01589 | D/99* | 1/18/21 | | Allentown | NJ | Duke Farms | 5/12/14 | |
| 0709-01617 | E/27* | 1/14/21 | D. Denner | Bristol | PA | Prospertown | 4/8/16 | M in nesting pair |
| 0709-01617 | E/27* | 10/31/21 | K. Buynie | Burlington | NJ | Prospertown | 4/8/16 | M in nesting pair |
| 0709-01621 | E/31 | 2/6/21 | R. Nicol | Forsythe NWR | NJ | Egg Island | 4/21/16 | |
| 0709-06504 | E/63 | 2/21/21 | P. Ferry | Hackensack River | NJ | Galloway | 5/1/18 | |
| 0709-06521 | E/81 | 3/5/21 | B. Wurst | Mercer eagle cam | NJ | Princeton | 5/16/19 | |
| 0709-06522 | E/82 | 12/5/20 | R. Reynolds | Conowingo Dam | MD | Three Bridges | 5/16/19 | |
| 0709-06523 | E/83 | 12/17/21 | D. Denner | Tulleytown, Bucks | PA | Three Bridges | 5/16/19 | |
| 0709-06531 | E/91 | 1/24/21 | R. Nicol | Forsythe NWR | NJ | English Creek | 5/2/20 | |
| 0709-06531 | E/91 | 1/30/21 | T. Rosa | Forsythe NWR | NJ | English Creek | 5/2/20 | |
| 0709-06531 | E/91 | 2/24/21 | R. Basner | Forsythe NWR | NJ | English Creek | 5/2/20 | |
| 0709-06539 | E/99 | 5/1/21 | C. Boswell | Waterford | NY | Sylvan Lake | 7/30/20 | Grounded after fledging, treated at Toms River Avian; released DC July 2020 |
| 0706-01697 | none | 4/2/21 | M. Cassella | Wall Twp | NJ | Raptor Trust | 5/19/16 | Banded at Raptor Trust as a 3yr old (hatched 2013) |
| 0706-01697 | none | 4/6/21 | T. McKelvey | Shark River Inlet | NJ | | | Male in Lake Como pair |

| | | | | | | | | |
|------------|-----------------|----------|-----------------|------------------|----|--------------------|-----------|--|
| | L leg blue S/#2 | 3/20/21 | F. DeBlasio | Culver Lake | NJ | NY | | |
| | A/H (black) | 11/20/21 | P. Ferry | Edgewater | NJ | Easton, CT | 5/13/2019 | |
| 0709-08255 | R/7 (black) | 11/8/21 | P. Ferry | Edgewater | NJ | New Haven, CT | 5/11/18 | |
| 0679-03668 | S/3 (black) | 3/23/21 | D.Heatherington | Hunterdon | NJ | CT | 5/16/16 | F in Readington pair |
| | U/O (black) | 2/10/21 | L. Katz | Hackensack River | NJ | Easton, CT | 5/11/09 | |
| 0679-01461 | 79/D (purple) | 8/1/21 | NJDFW | Dividing Creek | NJ | Patuxent River, MD | 5/6/21 | |
| 0629-46272 | P/11 (blue) | 12/26/21 | | Bassetts Bridge | NJ | Sullivan Co, NY | 3/5/05 | Hatched 2002, banded as NY wintering bird. |
| | L leg green E? | 2/27/21 | R. Nicol | Forsythe NWR | NJ | | | 3 rd year plumage |
| | R leg green | 2/4/21 | L. Katz | Hackensack River | NJ | | | 2 nd year plumage |
| | R leg green | 1/2/21 | S. Matson | Allenton | NJ | | | |
| | R leg green?4 | 12/21/20 | A. Statuto | Goshen | NY | | | |
| | R leg green | 12/22/21 | P. Brennan | Franklin Lakes | NJ | | | |
| | Orange(left) | 11/7/21 | L. Katz | Hackensack River | NJ | | | Hatch year |

Photos of some resighted eagles:

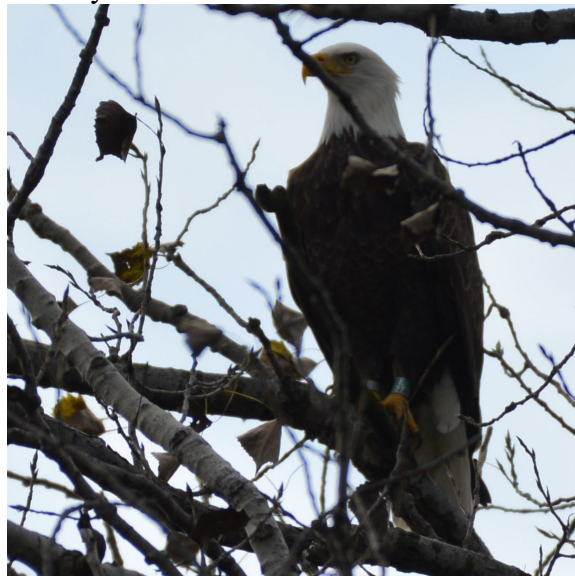
E/99 (origin 2020 Dividing Creek) observed in Waterford, NY in April 2021, by C. Boswell



D/29 (origin 2011 Fort Dix) seen in Hammonton in July 2021 by A. Panyi.



E/27 (origin 2016 Prospertown) seen in January and October 2021.



E/31 (origin 2016 Cumberland Co) seen at Forsythe by R. Nicol.



E/82 (origin Three Bridges in 2019) seen in Dec 2020 at Conowingo Dam. R. Reynolds.



S/3 (origin CT in 2016) observed March 2021 by D. Hetherington in Whitehouse.



Recoveries of Eagles in New Jersey

During this reporting period, 58 eagles were recovered, and of those, ten were [treated and released](#). The remaining birds were found dead, died while in care, or were euthanized for these reasons: electrocution (7), impacts with vehicles (6), impact with train (3) impact trauma (3), fell from nest (1); West Nile Virus (3); eagle-eagle combat (5); poisoning (2), lead toxicosis (2); and unknown circumstances (16) (Table 4). Electrocution is a significant risk for bald eagles everywhere, because power distribution relies on smaller poles where “hot” wires are often positioned less than six feet distant where an eagle’s wingspan can result in wire connections. ENSP works with 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. Among the eagles that died from undetermined cause, disease (like West Nile Virus) and lead exposure could be involved in deteriorated condition.

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

| Date Found | Location Found | Facility | Origin | Age-Sex | Details |
|------------|-------------------------------|-----------------------|-----------------|---------|---|
| 9/5/20 | Bordentown, Burlington | Mercer Co Wildlife | | AD-F | Vehicle impact; euth due to injuries |
| 12/5/20 | Watkins Mill Road | Tri-State Bird Rescue | | AD -F | Died due to old injuries |
| 12/7/20 | Cumberland Co. Landfill | Tri-State Bird Rescue | | HY | Poisoning |
| 12/8/20 | Skillman, Somerset | NJDFW- Assunpink | | AD | Undetermined |
| 12/15/20 | Route 55, Cumberland | NJDFW- Tuckahoe | | AD | Vehicle impact |
| 1/12/21 | Pennsauken CG, Camden | Tri-State Bird Rescue | Oradell 2011 | AD-F | Eagle combat; found dead under nest. Band 0679-01777 |
| 1/17/21 | Hopewell, Cumberland | NJDFW-SRO | | 4yr-F | Found dead; vehicle impact |
| 1/29/21 | Millville, Cumberland | Tri-State Bird Rescue | | AD | Vehicle impact; euth due to injuries |
| 1/6/21 | Cecil Co., Maryland | | Man. Res 2007 | AD | Eagle-eagle combat; band C/34 |
| 2/24/21 | Riverline RR, Camden | Tri-State Bird Rescue | | AD-M | Impact with train |
| 2/26/21 | Elsinboro, Salem | Tri-State Bird Rescue | | AD-M | Found dead, electrocution |
| 3/2/21 | Monroeville, Gloucester | Tri-State Bird Rescue | | 4yr-U | Found dead; electrocution |
| 3/6/21 | Clinton, Hunterdon | NJDFW-NRO | Princeton, 2007 | AD-F | Impact with train |
| 3/7/21 | Upper Deerfield, Cumb. | Tri-State Bird Rescue | | AD-M | Impact with vehicle |
| 3/14/21 | Franklinville, Gloucester | Tri-State Bird Rescue | | AD-F | Trauma; euth due to injuries |
| 3/17/21 | Little Egg Harbor, Ocean | NJDFW-Tuckahoe | | AD-M | Found dead; electrocution. clutching rabbit |
| 3/20/21 | Vineland, Cumberland | Tri-State Bird Rescue | | AD-F | Grounded; died 3/23 lead toxicosis |
| 3/20/21 | Hopewell, Cumberland | NJDFW | | AD | Found dead near nest; band C/74 |
| 3/26/21 | Pennsauken, Camden | Tri-State Bird Rescue | | AD | Injured, badly fractured wing and possible WNV; euthanized. |
| 3/20/21 | Hopewell Twp, Cumb. | NJDFW-SRO | Greenwich 2009 | AD-M | Impact trauma |
| 4/2/21 | Willow Creek Winery, Cape May | NJDFW-Tuckahoe | | AD-F | Impact with vehicle |
| 4/5/21 | Round Valley Res., Hunterdon | NJDFW-NRO | | AD-? | Carcass decomposed; undetermined |
| 4/19/21 | Springfield Twp., Burling. | Mercer Co Wildlife | | 3yr-F | Released 4/24/21 |
| 4/28/21 | Dix WMA, Cumberland | Tri-State Bird Rescue | | AD-M | Possible combat wounds; released 7/27, banded B-11 |

| | | | | | |
|----------|-------------------------------|-------------------------------------|-----------------|-------|---|
| 5/5/21 | Phillipsburg, Warren | NJDFW-NRO | | AD-M | Impact with train |
| 5/13/21 | Lakewood, Ocean | TRAC/Tri-State Bird Rescue | | AD-M | Released 7/14, banded B-10 |
| 5/15/21 | Goshen, Cape May | Tri-State Bird Rescue | | AD-F | Euth 5/15 due to poor condition |
| 5/30/21 | Paulsboro, Gloucester | Carcass not recovered | | AD | Found dead, electrocution |
| 5/31/21 | Charlottesville Res., Passaic | NJDFW-NRO | | AD-F | Found dead, electrocution |
| 6/1/21 | Edison, Middlesex | Raptor Trust | | 4yr | Euth due to injuries; undetermined |
| 6/18/21 | Toms River, Ocean | TRAC/Tri-State Bird Rescue | Kettle Creek | HY-F | Grounded > fledging, released 7/20 at Dividing Creek banded H/07 |
| 7/4/21 | Three Bridges, Hunterdon | Raptor Trust | Three Bridges | HY-M | Grounded > fledging, released 8/10 near nest site, banded H/05 |
| 7/6/21 | Lakewood, Ocean | Toms River Avian | Carasaljo | HY-M | Grounded > fledging released 8/4; banded H/12 |
| 7/9/21 | Sandy Hook, Monmouth | Carcass disposed | | HY | Undetermined |
| 7/13/21 | Mannington, Salem | Tri-State; USFWS | | 3y | Poisoning; died after 24hr. |
| 7/14/21 | Paterson, Passaic | Raptor Trust | | HY | Found dead under nest |
| 7/15/21 | Flemington, Hunterdon | Tri-State Bird Rescue | | Sub-F | <i>Impact trauma</i> |
| 7/22/21 | Galloway, Atlantic | USFWS | | HY | Found dead, electrocution |
| 8/2/21 | Cape May Co Landfill | NJDFW | | 4y-U | Grounded, euth due to poor condition |
| 8/8/21 | Port Elizabeth, Cumberland | Tri-State Bird Rescue | | AD-M | Found injured on marsh; euth due to injury |
| 8/17/21 | Salem Co Landfill | Tri-State Bird Rescue | | AD-F | Poisoning; released 8/19, banded B-12 |
| 8/17/21 | Near Salem Landfill, Salem | Tri-State Bird Rescue | | HY- | Poisoning; released 8/23 Mannington Meadows, banded H/13 |
| 8/17/21 | Almond Rd, Salem | NJDFW-Tuckahoe | | AD | Undetermined |
| 8/19/21 | Lawrence Harbor, Monmouth | Toms River Avian/ Tri-State Bird | | HY | Grounded fledgling; euth 9/16 due to injuries suspected by fall from nest |
| 8/21/21 | Culver Lake, Sussex | NJDFW-NRO | | HY | Found dead, electrocution |
| 9/13/21 | Pittsgrove, Salem | | | | Euthanized; undetermined |
| 9/14/21 | Parkway, Cape May | Tri-State Bird Rescue | | 5-M | Released 9/23/21 TSBRR; banded B-14 |
| 9/18/21 | West Orange, Essex | Raptor Trust | | AD | Eagle combat; died in transport |
| 9/28/21 | Bevans WMA, Cumber. | Tri-State Bird Rescue | | HY-U | Found under powerline; euth. |
| 10/5/21 | Hampton, Hunterdon | Raptor Trust | | 2y | Euth 10/10/21; West Nile Virus |
| 10/7/21 | Cedarville, Cumberland | NJDFW-SR0 | | AD | Found injured and died before capture |
| 10/18/21 | Dupont, Gloucester | Tri-State Bird Rescue | | HY | Euthanized 10/19; West Nile Virus |
| 10/24/21 | Mirror Lake, Burlington | NJDFW-CRO | | AD | Found dead; West Nile Virus |
| 11/30/21 | Belleplain, Cape May | NJDFW | Belleplain 2004 | AD | Found dead, eagle combat. Band B/76 |
| 12/8/21 | Columbia, Warren | Raptor Trust | | AD | Died on arrival at TRT; lead toxicity, combat wounds. |
| 12/9/21 | Southampton, Burlington | Tri-State Bird Rescue | | AD | Euthanized 12/9 |
| 12/11/21 | Mullica Hill, Gloucester | Tri-State Bird Rescue | | AD-M | Found injured: released 12/20/21 |
| 12/17/21 | Gloucester City, Glouc. | Cedar Run | | AD-F | Euth: 2/17/21; eagle to eagle combat |

Our sincere thanks to everyone who pitched in to help rescue, transport, and treat eagles!

Those interested in helping, please look for the new Raptor Alliance group! Organization and training will be developed in 2022. Follow at www.NJRaptors.org.

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"Duke" photographed in December 2021 in Somerset County, by B. McKee.