

The Peregrine Falcon in New Jersey

Report for 2002

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Project Objective: To maintain, monitor and protect the Peregrine Falcon (Falco peregrinus anatum) population in New Jersey.

Summary: History was restored in 2002: For the first time in about 50 years, peregrine falcons nested on natural cliffs in northern New Jersey, at one of their historical nest sites. While this pair's attempt was washed out in an extreme rainstorm, we expect them to return to nest next year. Statewide, the peregrine population remained stable with 18 pairs active. Twelve pairs nested on towers and buildings and five on bridges, as well as the natural nest. Of 12 pairs on towers and buildings, ten nested successfully, producing 20 young for a rate of 1.54. This is close to the 1.7 average since 1986 when the population became stable. Four pairs occupied bridges spanning the NJ-PA border and four the NJ-NY border, of which New Jersey monitored three; two bridges entirely in New Jersey were active. Productivity on the bridges was 1.00 for five known-outcome nests in NJ.

While overall productivity was more than adequate, it was slightly lower than recent years. Only one nest produced four young (of which three fledged). The breeding falcon from the Atlantic City casino that occupied that city site since 1985 died in October 2001 at the age of 16; she was replaced this season by a new female. Biologists banded 21 young, including one that fledged prematurely from a bridge and died. The peregrine falcon was delisted by the USFWS in 1999, but remains "endangered" in NJ.

Background: The decline of the peregrine falcon in the eastern U.S. was linked to persistent organochlorine pesticide contamination. The eastern population plunged from an estimated 350 active sites in the 1930's and 1940's to no active breeding birds in 1964 or 1975. Recovery efforts began in 1975 after DDT was banned in the U.S. The Division of Fish and Wildlife and the Peregrine Fund first hacked falcons in 1975 at Sedge Islands Wildlife Management Area in Barnegat Bay. Hacking continued at several sites until pairs established territories. Wild nesting began at Forsythe National Wildlife Refuge in 1980, and expanded slowly until 1993, when the population reached its present level. In New Jersey, the recovery goal is *consistent, successful* nesting by eight to ten pairs. While there have been 8-10 pairs successful since 1999 (disregarding the variable bridges), we seek longer term success and expansion into historic and well-protected nest sites to achieve recovery. Further, we continue to study the effects – and threats – of persistent organochlorine contaminants on the peregrine population. Management focuses on monitoring nests, banding young, and improving conditions at nest sites in order to enhance productivity.

Highlights: The highlight of the year was the pair that occupied natural cliffs that had been empty of peregrines since about 1950. This return to historic cliffs marks a milestone for the species' recovery in NJ and the East.

While the elder falcon at the Atlantic City Hilton died last year, her replacement, a 4 year old from the Chincoteague area (identified by her alpha-numeric color band), showed new tenacity by incubating her infertile eggs for five months. The pair atop 101 Hudson Street in Jersey City fledged three young in their third year, and educated many who watched via website camera.

Productivity was above average at tower and building nest sites, with only two site (Forsythe-Barnegat and the Hilton casino) failing to produce. Heislerville, Tuckahoe, Jersey City and Stone Harbor fledged three each, Forsythe-Brigantine and Swan Bay fledged two each, and Sedge Island, Marmora, Egg Island and Ocean Gate fledged one each. A single falcon was present near the rooftop nest box in Trenton for a short time in early spring, but apparently did not remain.

On the Delaware River bridges, four young fledged at the Betsy Ross nest box but one died on the roadway. Two young fledged from the Walt Whitman in PA. Two young also fledged from the PA side of the NJ-PA Turnpike Bridge. No young fledged from the Ben Franklin (where there were two nest attempts) or the Commodore Barry Bridge. At northern New Jersey bridges, three fledged at the George Washington Bridge, and one at the NJ Turnpike-Vince Lombardi site. A new pair was discovered using the Newark Bay Bridge, but no young fledged.

Recoveries: A peregrine banded as a nestling at Atlantic City in 1997 was recovered injured under a bridge at the Rappahannock River in VA in September; it was probably nesting at that site the last two seasons. Remains of a young bird banded at Swan Bay in 2001 were recovered during our maintenance trip in February of 2002; cause of death was unknown. The only nestling from the Stone Harbor site in 2001 was recovered (alive and well) at a Cape May raptor banding station that fall.

Conclusions: Peregrines experienced good nest success in 2002, their 23rd year of nesting in New Jersey. Nest success held steady near 75%, and 18 active pairs fledged 25 young. We need to continue the investigation of contaminants in unhatched, salvaged eggs, as well as the close monitoring of nesting pairs to detect problems. Management of nesting pairs and nest sites is essential to maintain peregrines in New Jersey: bridge-nesting birds are especially vulnerable to nest-site problems, and many other pairs occupy human-constructed sites. With management and the cooperation of bridge and building personnel, these sites can contribute to population viability. Expansion of peregrines into historic, natural habitat made 2002 a landmark year for the peregrine's recovery in NJ.

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Figure 1. Nesting and productivity of Peregrine Falcons in New Jersey, with comparisons between towers/buildings and bridges.

