The Peregrine Falcon in New Jersey
Year 2000 Report

*Endangered and Nongame Species Program - Project Objective: To maintain, monitor and protect the Peregrine Falcon (*Falco peregrinus anatum*) population in New Jersey.*

In summary, the NJ peregrine falcon population held steady this year with seventeen nesting pairs. Eleven nested on salt marsh towers and urban buildings, and six on large bridges. Of the eleven pairs on towers and buildings, eight nested successfully, producing 17 young. This productivity rate, 1.55 young per nest, is slightly below the 1.7 average since 1986 (when the population became stable). Three occupied bridges spanned the NJ-PA border (down from 1999) and three the NJ-NY border, of which NJ co-monitored four; two bridges were entirely in NJ. Bridge sites were inconsistent, with two Delaware River sites becoming inactive and two northern NJ sites discovered. Productivity on all bridges was 1.00 for six nests. ENSP biologists banded 12 young with USFWS and color bands, but several sites (especially bridges) were inaccessible. While the peregrine falcon was delisted by the USFWS in August, 1999, its state status in NJ remains as "endangered."

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 & 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 about its present level. In NJ, the recovery goal is *consistent*, *successful* nesting by eight to ten pairs. With variable, generally poor, nesting on bridges, and recent erratic success at coastal towers, that goal has not been met. 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 to enhance productivity.

Highlights: A building roof-top site was added with the installation of a nest box on a "101 Hudson Street" in Jersey City: a pair aggressively claimed the site and fledged two young. The birds at the Atlantic City Hilton nested for the 14th year (with the same female), but fledged only one after losing one nestling to a bacterial infection; we treated the surviving nestling. The pair that resided in previous years on the building at PSE&G-Kearny was not present this year.

At towers, only one site, Forsythe-Brigantine, fledged a full clutch of four young. Swan Bay WMA fledged three, Sedge Island, Forsythe-Barnegat and Heislerville each fledged two young, and Ocean Gate and the Hilton fledged one each. The nest failure at Tuckahoe WMA was caused by crow predation, but the failure at Marmora WMA could not be tracked to a cause. We collected seven addled eggs from five sites, which we will hold for contaminant analysis.

At bridges, volunteer L. Pierson documented one fledgling each at the George Washington Bridge and the Turnpike/Lombardi bridge, and nest failure at the Turnpike/Secaucus bridge. The latter two bridges were new additions in 2000. On the Delaware, two young fledged at the Betsy Ross and Walt Whitman, despite both pairs nesting under the roadway, ignoring the nest boxes above in the superstructure. Birds on the Turnpike Bridge failed.

Contaminant Studies: In June, ENSP shipped eight peregrine eggs to a lab for organochlorine pesticide analyses. This work is being funded by the U.S. Fish and Wildlife Service as a cooperative study among four states. Results will be compiled with 1998-99 findings to determine the levels and impacts of contaminants to mid-Atlantic peregrines. Contaminants documented in an earlier study of NJ eggs found PCBs and their dioxin equivalents were at levels which may cause behavioral aberrations in adults.

Recoveries: We recovered one dead bird, band # 2206-20233, on Margate beach in April. It had been banded the previous June at the Atlantic City Hilton. We continue to see poor fledging and survival in peregrines from the Hilton site.

Conclusions: Peregrines experienced average nest success in 2000, their 21st year of nesting in NJ. Nest success held steady at 70%, and 17 active pairs fledged 23 young. We need to continue the investigation of contaminants in unhatched, salvaged eggs. We believe that close monitoring of nesting pairs and behavior is essential to observe the subtle signs of contaminant problems. In addition, management of nesting pairs and nest sites is essential to maintain peregrines in NJ; bridge-nesting birds are especially vulnerable to nest site problems. With management and the cooperation of bridge personnel, these sites can help support the population.

Our Thanks To: Volunteers who protect and watch over peregrine falcons in NJ, including Linn Pierson, Pete McLain, McDuffy Barrow, Tracy Casselman, Sue and Mark Canale, Tim Jankowski, Larry Walton, Keith and Jackie Parker, Bob Kozinsky, Don Bonica, Steve Calvanese, Paula Cunningham, Atlantic City Hilton staff, Forsythe NWR staff and volunteers, Delaware River Port Authority staff, AT&T staff, PSE&G staff, and all others who support conservation of wildlife.

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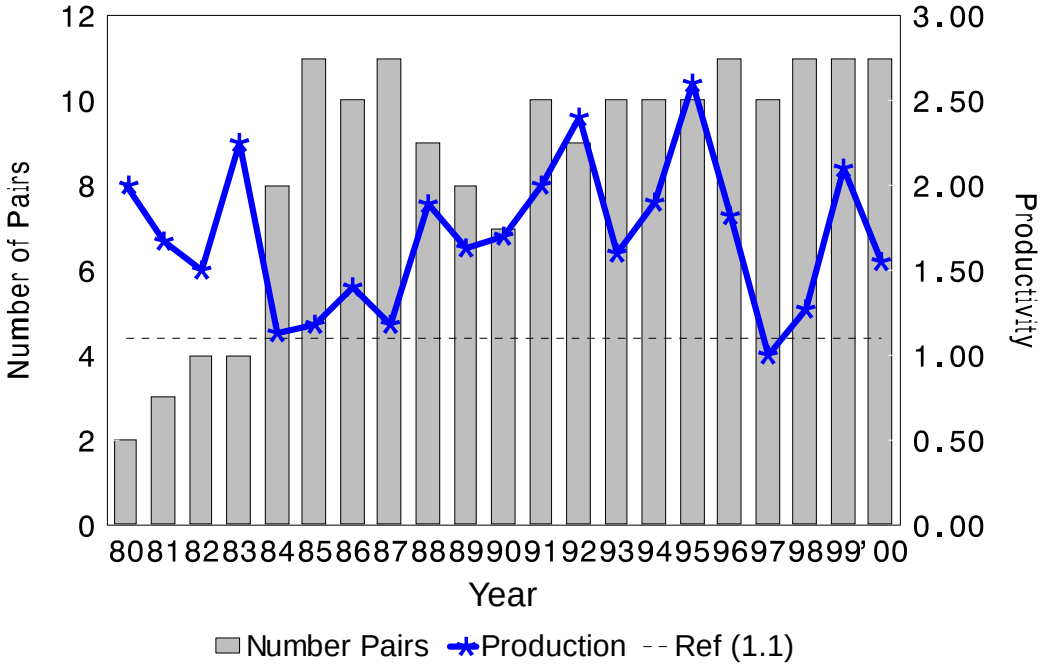
Figure 1. Peregrine Falcon nesting and productivity on coastal tower and building sites in NJ, 1980-2000.



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