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BACK FROM THE BRINK

BY BARBARA ALLEN LOUCKS AND CHRISTOPHER A. NADARESKI

The comeback story of the peregrine falcon, *Falco peregrinus*, began in the 1980s thanks to a successful restoration program (see the *Conservationist*, September-October 1992). Once encountered only rarely in New York State, the peregrine falcon can be seen much more regularly today, due to increasing wild populations and the popularity of nest webcams broadcast via the Internet (see *page 23*).

Nearly Tragic Ending

Peregrines once nested in 40-50 locations throughout New York and at more than 350 other locations in the eastern U.S. But by the early 1960s, peregrines had been eliminated as breeding birds in New York due to reproductive problems caused by DDT residues in their prey. Once a commonly-used pesticide, DDT was banned in the U.S. in 1972. A massive, innovative restoration program began in earnest, spearheaded by The Peregrine Fund.

In cooperation with The Peregrine Fund, DEC released nearly 160 captive-raised birds through a process known as "hacking" from 1974-1988 at a dozen sites from New York City to the Adirondacks. These efforts led to the first nesting in recent history in 1983 on two New York City bridges and in 1985 at two historic Adirondack cliff sites. The population has grown steadily since then. In 2004, a record 52 territorial pairs inhabited New York State. Forty-five of these bred—37 were successful—and 79 young were produced, fewer than the record of 96 young in 2001. It's now DEC's job to protect and manage this hard-earned population.

Monitoring and Management

If the peregrine population is going to continue to increase, nest sites must be protected. More than half of the young produced each year will perish during their first winter. Each fall, inexperienced young falcons are found injured, starving, or dead during migration. Although most hazards can't be controlled, we can try to maximize the success of nesting falcons. The first step is to locate the pairs and work with whoever has authority over the site (e.g. bridge authority, building owner, or property owner at cliff sites) to help protect the nest. DEC also records the number of eggs and young in each nest, and bands the young when possible. Management challenges vary from site to site and from year to year, but certain things remain constant: the need to keep bridges and buildings safe and functional, and the need for peregrines to stay relatively undisturbed during key periods of courtship and nesting from February through July. How these needs are reconciled is the challenge.

Since the recovery began, returning peregrines have occupied every bridge from New York City to Albany, spread west to Binghamton, Syracuse, Rochester, and Buffalo, and north, with more than two dozen active Adirondack sites. This success has made the task of monitoring and managing existing sites and discovering new ones more daunting each year. Cooperation and assistance provided by a large network of other agencies and individuals has become increasingly important.

Upstate Urban Peregrines

Five cities in upstate New York have nesting peregrines (Albany, Binghamton, Syracuse, Buffalo, and Rochester). Three of the nest sites can be viewed on the Internet (see sidebar, page 23). At the Statler Towers in Buffalo, the installation of a nest box and camera allows nest activity viewing on-site in the street-level lobby.

Southeastern New York Peregrines

With DEC leading the way statewide, the New York City Department of Environmental Protection is the main partner in monitoring and managing peregrine falcons in southeastern New York State—including New York City, Long Island, and the lower Hudson

Adult female flying past the Met Life Building eyrie with a view of Manhattan.

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Placing and monitoring nest boxes like this one at the New York Presbyterian Hospital overlooking the East River are cooperative projects involving the DEC/DEP and many partners throughout the state.

Eastman Kodak Company

The placement of nest boxes at strategic locations has resulted in a marked increase in the peregrine's reproductive success, and has certainly aided in its comeback.

River Valley. In the Hudson Valley region, just east of the Catskill Mountains in the Shawangunk Ridge, the Mohonk Preserve Research Center is monitoring a pair of cliff-nesting peregrines. Sharing the crags with recreational climbers, the pair of falcons arrived in 1998 at a former "eyrie" that had been empty for 40 years. The adult female has been identified as a NYC-hatched "transplant."

New York City remains a regional population stronghold for the peregrine. With 12 nesting pairs present, and numerous reports of territorial birds, the city offers a full array of peregrine delights. Feeding almost entirely on birds here is not difficult for a peregrine. Waterways zigzag through the five boroughs, interspersed with "green space" which covers more than 20 percent of the city. During the migratory or wintering season, peregrines can be observed pouncing on visiting red-tailed hawks who prefer foraging on small mammals along roadsides.

The Port Authority has assisted with the management of four peregrine nests in the Big Apple. By constructing towers with restricted access, the falcons can remain undisturbed during the breeding season—and required bridge work can still be completed. Peregrines have a strong attachment to the nest and will often return to the same area for many years. The George Washington Bridge (GWB), host to a peregrine pair since 1992, offers peregrines a choice of two different nest boxes more than 600 feet above the water—one on each side of the bridge. When construction work occurs on one side of the bridge, the falcons can simply occupy the nest on the other side.

A few wing flaps north up the Hudson from the GWB is the Tappan Zee Bridge, which has been home to a pair of falcons since 1988. A two-nest-box option, one on each tower, has proven to be successful, even considering ongoing maintenance and construction over the years.

In Manhattan, peregrines nest on five high-rise building nest sites. A nest on the Brooklyn Bridge is also home to a pair of peregrines. Not far to the south is the peregrine nest at 55 Water Street which can be seen on the Internet. Towering 610 feet above Grand Central Station is one of NYC's tallest peregrine eyries at the Met Life Building, where the first hatching occurred in 1992. The Met Life Corporation, along with its building management company, has provided an upper floor ledge and a custom nest box. Special arrangements are made to avoid disturbing the nesting falcons while renovation projects are underway.

DID YOU KNOW?

- New York State lists the peregrine falcon as endangered. Peregrines were de-listed by the federal government in 1999 but are still protected by the Migratory Bird Treaty Act.
- Peregrines are 15-18 inches long, with a wingspan of 36-40 inches, and females are larger than males.
- Adult peregrines are gray with barred breasts; immature peregrines are brown with streaked breasts. All have dark cheek patches or moustache marks on their faces.
- The peregrine's diet mainly consists of birds of various sizes.
- When diving or swooping on prey, peregrines may reach speeds of 200 mph.
- Peregrines nest on cliffs, buildings, bridges and artificial towers.
- A peregrine nest is a simple hollow depression called a scrape, and is normally made in the gravel of nest boxes or on cliff ledges.
- Peregrines lay clutches of two to five brownish eggs.
- Young peregrines migrate; adults often reside in urban areas year-round.

Left: a recently fledged young peregrine in the Shawungunks.

Bottom: a nest box at the Kodak building in Rochester.

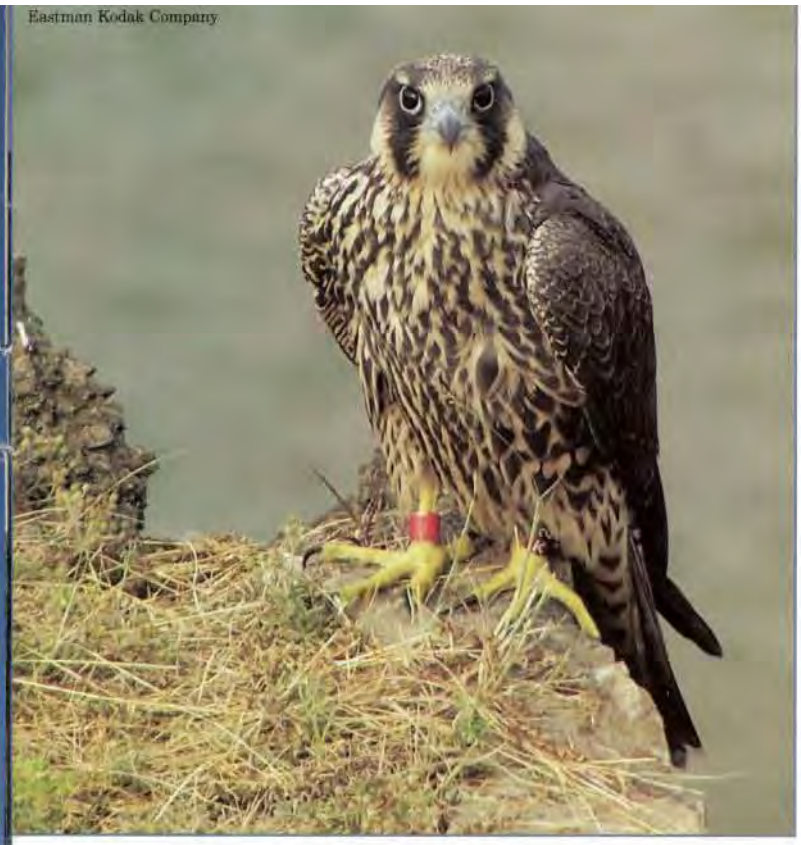
Right: a young banded peregrine takes a clifftop perch near Rochester.

Staten Island is guarded by territorial falcons at all access points. The four main bridges connecting Brooklyn and New Jersey to Staten Island are commanded by the presence of New York's aerial "trolls." No bird goes unnoticed by the resident falcons; red-tailed hawks and ospreys almost twice the size of the female falcon are often subject to humiliation when the pair pursues in battle mode to protect young in the nest. Crow remains often litter the concrete shelves below the Arthur Kill falcon nests—victims of attempts to steal eggs or prey parts left behind by their reaper with its sharp talons.

After 20 years of nesting under the roadway structure, the falcon family at the Verrazano-Narrows Bridge has moved to the upper reaches of the tower due to a long-term construction project. Heading towards Long Island, the Throgs Neck Bridge also has a box on a high tower. The adult female at this site, originally banded in Virginia, has drawn more blood from one of the authors during routine nest site visits to band the chicks than any other falcon in the city.

Adirondack Peregrines

The Adirondack peregrine population has grown over the last 20 years and continues to expand, with 20 pairs present in 2004. Many of the same cliffs attractive to rock climbers are also attractive to peregrines. DEC has received excellent support and cooperation from the rock-climbing community. In some cases, certain popular climbing routes need to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be closed for several months to avoid undue disturbance to the nesting peregrines. More than a dozen area rock-climbing and outdoor shops are notified annually, and signs are posted at rock-climbing sites.

Always the Wanderer

Peregrine means wanderer, and wander they do. While many of the urban adults appear to stay put in the winter months, New York-raised peregrine falcons have scattered in all directions. Thanks to colored leg bands on many of the young raised in the East, biologists and bird lovers are sometimes successful in reading the bands to discover a bird's origins. In 2003, at the Security Mutual Life Insurance building in Binghamton, a volunteer observer was able to read the nesting adult male's bands. A few phone calls and e-mails later, DEC staff learned that the falcon had been born in 1999 at a nest on the Sheraton Hotel in Toronto, Ontario. He was one of four young born that year to the pair, and the only one of that group that has been seen since.

Although peregrines mate for life, they do select a new partner if injury or death befalls their mate. Peregrines hatched at New York eyries have nested as far east as Massachusetts, as far west as Wisconsin, and as far south as Maryland and Washington, D.C. Hacked peregrines have nested as far north as Ontario and as far west as Ohio and Nebraska.

The Future

For the peregrine falcon to continue to thrive, protection and management of nest sites must continue, along with education of the public, to prevent the occasional shooting. When the peregrine's successful restoration led to its de-listing by the U.S. Fish and Wildlife Service (FWS) in 1999, an initiative of post de-listing monitoring began nationwide. It will continue at three-year intervals, and end in 2015. Biologists intend to monitor territory occupancy, nest success, and productivity; these indices of population health are key to ensuring the recovery succeeds.

The peregrine falcon is still listed as an endangered species in New York State. If the monitoring data or other information indicate that the population is in trouble again, the FWS will consider federal re-listing. For now, we can all enjoy this magnificent raptor, more easily than ever before.

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PEREGRINES ON THE WEB

Five webcams feature bridge and building nests throughout the state. These nests can be viewed on either DEC's website at **www.dec.state.ny.us** (search "peregrine falcons") or at **www.nyc.gov/dep** (search "peregrine falcons"), the New York City Department of Environmental Protection's website.

Cooperators such as Kodak and 55 Water Street Corporation, who have excellent websites on pairs in Rochester and New York City, have helped satisfy and foster an interest in peregrines, leading to legions of fans and many interesting discussion board conversations. The excited look on school children's faces when they witness young falcons being banded at Kodak's corporate headquarters says it all—this superb flyer continues to fascinate as it has for centuries.