

Expeditions at The Field Museum

Monitoring Endangered Peregrine Falcons in Chicago

Text from web pages at: <http://www.fieldmuseum.org/expeditions/mary4/about.html>



Step out on a ledge with Field Museum scientist Mary Hennen as she and her team climb some of Chicago's tallest skyscrapers to monitor our recovering population of Peregrine Falcons.

Once a federally endangered species, Peregrine Falcons had all but completely disappeared from the Midwest by the 1960s, due to the use of DDT. But over the last 20 years, Mary and her fellow team members on the Chicago Peregrine Program have helped to successfully reintroduce these beautiful birds back into the Midwest.

By 2007, Illinois Peregrines totalled over 20 pairs. Spread throughout the state, the Chicagoland area has the highest concentration.

Join Mary and her colleagues as they spend the summer monitoring these nest sites, tracking parents, and watching offspring hatch, mature, and fledge (take their first flight). Through these observations, scientists can determine how well their efforts are working to create a self-sustaining population of Peregrines.

Before you explore the expedition website, feel free to learn more below about Peregrine Falcons, their recovery status, and what you can do to help. Take a look at our **[Live Web Camera](#)** that lets you peer into a Peregrine nest and check on the chicks' progress.

Peregrine Biology

The Peregrine Falcon (*Falco peregrinus*) is a medium-sized raptor found almost worldwide. Three subspecies are recognized in North America, but the one you're most likely to see in the Midwest is the American Peregrine Falcon (*F. p. anatum*). Its range extends from Alaska and Canada all the way south to Mexico.

Historically in Illinois, Peregrines were documented nesting along the Mississippi River between the cities of Alton and Grafton, as well as near the Illinois and Wabash Rivers in

Jackson County. Today, the current population follows the Lake Michigan Shoreline, with an occasional pair found in the Springfield and/or Quad Cities areas.

Peregrines are naturally cliff-dwelling birds that build their nests—called *eyries* (EYE-reez)—on ledges. They lay their eggs in a *scrape* (a small depression) made in the substrate of the cliff ledge. A typical clutch size is four eggs, but occasionally a falcon may lay five. Peregrines produce only one brood per season but may try to re-nest if their first clutch of eggs fails.

Unlike hawks, Peregrines don't circle the skies while scanning the ground for small mammals to snatch. Instead, these raptors are aerial hunters, known for the speed at which they can dive on other birds in flight, their primary prey. The Peregrine's ability to take birds as large as waterfowl led to its being called the Duck Hawk. In fact, the sport of *falconry*—raising and training birds of prey to hunt for food—has been around for thousands of years.

Decline and Recovery

Historically, an estimated 400-500 pairs of Peregrines once nested in the Midwest and eastern United States. But by the 1960s, the species had been *extirpated* (wiped out regionally) and few were seen during migration. The primary cause was the buildup of *organo-chlorines*—DDT and its byproducts—in the birds. These accumulated chemicals caused addling of eggs, abnormal reproductive behavior in adults, and thinning of shells, which led to egg breakage.

In 1972, the government banned the use of DDT in the United States, and a year later, placed the Peregrine Falcon on the Federal Endangered Species List. During this same time period, the Peregrine Fund was established. It oversaw the reintroduction of Peregrines in the east using a process called *hacking*, a delicate method of releasing birds back into the wild. (View our [Photo Gallery](#) to see how this method works.)

The Midwest launched its own release programs in the 1980s under the coordination of the Raptor Center in Minnesota. The Chicago Peregrine Program began in 1985 as a cooperative effort between the Chicago Academy of Sciences, Lincoln Park Zoo, Illinois Department of Conservation, and Illinois Audubon Society.

From 1986-1990, the Peregrine Program released a total of 46 Peregrines from four different hack sites. The goal was to help re-establish Peregrines on a regional basis in the Midwest, with the hope that some birds would return to Illinois to breed. This regional falcon dispersal can be seen through the identity of our adult Peregrines. Over the years, Illinois-based birds have originated from nest sites located in Indiana, Minnesota, Iowa, and Wisconsin.

When population levels in the Midwest finally began to rise, the focus of Peregrine programs shifted from releasing birds to monitoring nesting pairs. Illinois has now progressed from having only a single breeding pair at the Chicago-Wacker site in 1988, to 12 breeding pairs in over 20 different territories by 2008.

Status and Monitoring

The Peregrine Falcon was removed from the Federal Endangered and Threatened Species List in August of 1999. Outlined as a requirement for removal, a monitoring plan was developed and is currently in affect. If populations were again to decline, the species would be reinstated.

Each individual state also maintains an Endangered and Threatened Species List. The Field

Museum's Chicago Peregrine Program monitors our Illinois Peregrines. Monitoring is critical for evaluating population viability and recovery.

The Peregrine Program's goal is to have a self-sustaining population of breeding falcons that is at a low risk (less than 1%) of statewide extirpation. With current population levels, we are well on our way to achieving this goal.

Injured Birds

The Chicago Peregrine Program often receives valuable information about bird movements from birdwatchers, building managers, and other concerned citizens. These helpful folks call in to provide updates on the status of Peregrine nests or to report downed birds. However, not all Peregrines that end up on the street are injured. The first flight from the nest is usually a glide to a lower ledge, with a fledgling occasionally making it all the way down to the ground.

To avoid any potential injury from cars, all downed Peregrines found in the city are retrieved. They're quickly transported to the Lincoln Park Zoo hospital for an examination. If a Peregrine has sustained any fractures, or otherwise needs long-term care, it's then transferred to SOAR, an organization that rehabilitates raptors. If the young Peregrine is fine, it's returned to the nest ledge. If you happen to spot a downed Peregrine and would like to help, below are a few tips for handling injured birds.

TIPS

1. Do not attempt to take care of the bird on your own. Get the bird to a licensed rehabilitator.
2. Do not attempt to force feed any bird.
3. Handle the bird only when absolutely necessary. Wear heavy gloves and wrap the injured bird in a towel.
4. Transport the bird in a cardboard box with plenty of ventilation holes.

Frequently Asked Questions

1. Where are Peregrine Falcons found?

Peregrines live on all continents except Antarctica. Three subspecies of Peregrines are native to the United States, and the American Peregrine Falcon is the one you're most likely to see here in the Midwest. We have 20+ pairs of Peregrines right here in the Chicagoland area.

2. How fast do Peregrines fly?

In level flying, a Peregrine's typical speed is 40-55 mph. And while cheetahs are the fastest mammals on Earth, reaching speeds of 60 miles per hour, Peregrines can attain speeds of over 200 mph when diving (called "stooping") on their prey.

3. What do Peregrines eat?

Peregrines are aerial hunters that capture their prey while in flight—which means their diet is predominantly birds (although they'll feed on bats, too).

4. Are Peregrines effective in reducing the Pigeon population?

Peregrines cannot be relied upon to patrol a particular building for Pigeons. Peregrines are wild birds that travel anywhere within their large territory. A breeding pair of Peregrines typically hunts within a territory measuring two to five square miles. The population of Pigeons in this territory will always far outnumber Peregrines, because pigeons breed incredibly rapidly and Peregrines don't eat only Pigeons.

5. Do Peregrines have natural predators?

Although Peregrines rarely suffer from predation, Great-horned Owls and Golden Eagles will occasionally kill a Peregrine. (Most likely these predators will be able to take down only an immature or sick bird.)

6. How endangered was the Peregrine Falcon?

By the time biologists realized the magnitude of our Peregrine decline, approximately 90% of the historic North American population was lost. To help repair the damage in the Midwest, environmental groups released a total of 1,772 Peregrines over time, from 1981-1997. Peregrines have since made a marked recovery, resulting in the bird's removal from the Federal Endangered Species List. Although Peregrines still remain endangered in some states, in Illinois, the population has rebounded. In fact, our Peregrine status has been upgraded from "Endangered" to "Threatened."

7. How big are Peregrines?

Peregrine's weigh about 1.25-2.75 pounds and have an average body length of 15-20 inches. Female Peregrines are larger than males.

8. Do Peregrines ever attack the scientists who check on their nests?

Like most animals, Peregrines will often defend their nests. However, they don't use their talons to tear at an infringing scientist. They merely bump the interloper with the back of their knuckles in an attempt to knock him or her away from the nest. To protect themselves from parents who might become aggressive, scientists always wear helmets and thick jackets while examining the nest.

9. What is falconry?

Falconry is the art of hunting using trained birds of prey. In the Middle Ages, falconry was called the "sport of kings." The species a person flew was dictated by their social rank.

- **Emperor:** Golden Eagle, Vulture, & Merlin
- **King:** Gyrfalcon (male & female)
- **Prince:** Female Peregrine
- **Duke:** Rock Falcon (subspecies of the Peregrine)
- **Earl:** Peregrine
- **Baron:** Male Peregrine
- **Knight:** Saker
- **Squire:** Lanner Falcon
- **Lady:** Female Merlin
- **Yeoman:** Goshawk or Hobby
- **Priest:** Female Sparrowhawk
- **Holywater clerk:** Male Sparrowhawk
- **Knaves, Servants, Children:** Old World Kestrel