Questions and Answers about the Post-delisting Monitoring Results for the American Peregrine Falcon (*Falco peregrinus anatum*)

What is a peregrine falcon?

The peregrine falcon is a charismatic raptor, the world's fastest flying bird, whose population dropped to precipitously low levels because of pesticide contamination (from pesticides now banned throughout much of the western hemisphere). Concern about their long-term survival led the U.S. Fish and Wildlife Service to list the species as Endangered in 1971. Due to population recovery it was removed from the list in 1999.

What subspecies of peregrine falcon are native to North America?

Peregrine falcons have a nearly worldwide distribution. There are three subspecies nesting in North America:

- The Arctic peregrine falcon (Falco peregrinus tundrius) nests on the north slope of Alaska east across northern Canada to Greenland and winters in Latin America.
- The Peale's peregrine falcon (Falco peregrinus pealei) is a year-round resident on the coasts of Washington, British Columbia and Alaska north to the Aleutian Islands.
- The American peregrine falcon (Falco peregrinus anatum) nests in southern Alaska, Canada, United States and northern Mexico.

Peregrine falcons that nest in subarctic areas generally winter in South America, while those that nest at lower latitudes exhibit variable migratory behavior. Some are non-migratory.

Why are we monitoring the American peregrine falcon?

The Endangered Species Act requires that species removed from the list because of recovery need to be monitored for 5 years in order to assure the long-term survival of those species.

How was the monitoring effort carried out?

Across the nation, 438 peregrine falcon territories were monitored: 36 in the Southwestern Region; 21 in the Southeastern Region; 100 in the Alaska Region; 96 in the Pacific Region; 95 in the Midwestern/Northeastern Region; and 90 in the Rocky Mountain/Great Plains Region. (More information on the monitoring effort is available at http://www.fws.gov/endangered/i/B22_051506.html

How many of these territories were occupied?

The percentage of the monitored territories that were occupied by a pair of birds varied from 78 percent to 95 percent across regions and averaged 87 percent for the nation.

What was the nesting success rate?

The percentage of occupied territories that managed to successfully raise at least one young ranged from 64 percent to 78 percent across regions and averaged 71 percent for the nation.

How many of the nests successfully produced fledglings?

The number of young actually produced (productivity) varied from 1.45 to 2.09 across regions and averaged 1.64 for the nation.

What do these numbers mean for peregrine falcon recovery?

These estimates of territory occupancy, nest success and productivity are at or above the levels we expect of healthy peregrine falcon populations, and are above the targets we set in the peregrine falcon monitoring plan.

How many peregrine falcons are there in North America?

Additional data collected by this effort documented that the total number of nesting pairs for this subspecies in North America is estimated at 3,005. This includes estimates of 400 pairs in Canada, 170 pairs in Mexico, approximately 1,000 pairs in Alaska, and the rest distributed among 40 of the lower 48 States.

Who participated in the monitoring?

More than 300 observers (volunteers and paid personnel) from state and federal agencies, Native American tribes, universities, conservation organizations and private individuals participated in the effort.

How did they gather information?

Observers ventured into the selected territories in 2003 at least two times and sometimes many more times over a three-to-four month period to observe peregrine falcons. Territory accessibility ranged from roadside to remote, at times requiring hiking, rafting or access by air. Observers visited each territory to determine occupancy, nest success and productivity.

Were cities included in the territories monitored?

The monitoring effort showed that peregrine falcons are thriving in many urban areas, where they nest successfully on smokestacks, tall buildings and bridges. This is particularly true in the Northeastern and Midwestern areas of the nation. In the rest of the nation, peregrines nest most of the time on cliffs.

When will the next year of monitoring occur?

A second year of monitoring was done in 2006, and three more years are planned, in 2009, 2012 and 2015. Final results of the 2006 monitoring will be available in summer 2007.

Are observers collecting other information besides occupancy, nesting success and productivity?

Individuals with the proper permits who are already visiting nests to band young peregrines are also collecting feather samples and addled (unhatched) eggs. These will be analyzed for contaminants. Results of this effort will be included in future monitoring reports.

What do peregrine falcons look like?

The peregrine falcon belongs to the genus "Falco," which is characterized by long pointed wings. In fact the word Falco is derived from "falx," the Latin word for sickle, in reference to the distinct sickle-shaped silhouette of the peregrine falcon's extended wings in flight. Also unique to this species is the notched beak that is used to kill prey by severing the spinal column at the neck. The peregrine falcon is a crow-sized bird, weighing just over two pounds with a wing span of approximately 3 feet. An adult peregrine has a dark grey back and crown, dark bars or streaks on a pale chest and abdomen, and heavy malar (cheek) stripes on the side of the face. Immature peregrines are buff colored in front and have dark brown backs; adults are white or buff in front and bluish-gray on their backs. Females and males are identical in appearance, however, the female can be a third larger than the male.

Where is the peregrine falcon found?

The peregrine falcon has the most extensive natural distribution of any bird in the world, limited only by high elevations, extreme heat and extreme cold. It is found on all continents except Antarctica. In most parts of the world, it is absent only in the high mountains, in large tracts of desert or jungle, and on isolated islands in the oceans. The American peregrine falcon breeds in Mexico, the United States, and Canada.

How did the peregrine falcon get its name?

Peregrine in Latin is "Peregrinus," which means traveler. peregrine falcons are well known for their long fall and spring migratory flights to and from their nesting and wintering habitats. The Arctic peregrine falcon lives up to its name, breeding on the north slope of Alaska east across northern Canada to Greenland in summer and migrating as far south as the tip of South America to winter.
The sport of falconry involves training falcons to hunt game, and people who practice the sport are called falconers. Early falconers referred to peregrine falcons as such because - unlike most birds use for the sport of falconry - they were always trapped during migration and not taken from the nest.

How fast can a peregrine falcon fly?
In level flight, the normal speed for peregrines is about 40 to 55 miles per hour. In a stoop (dive) peregrine falcons can attain speeds in excess of 200 miles per hour as they attack their prey.

How do they capture their prey?

Peregrine falcons are aerial predators, feeding on live birds and an occasional bat, which they capture in mid-air. Peregrine falcons often hunt in tandem, alternately diving on their prey until it is caught.

Do peregrine falcons have natural predators?

Peregrine falcons are fast, aggressive and fearless predators located at the top of their food-chain; they rarely suffer from predation by other animals. Great-horned owls and golden eagles are known to occasionally kill fledgling peregrines, and less often, adults. Peregrine eggs sometimes fall victim to raccoons and red-tailed hawks. The nestlings of ground-nesting Arctic peregrine falcons may be preyed upon by grizzly bears and foxes.

Do peregrine falcons mate for life?

Yes, peregrine falcons are monogamous. They also breed in the same territory or area for their entire lives. There are exceptions, such as when one mate dies or is replaced by a stronger individual. Sexual maturity occurs during the second year of life, followed by approximately one month of courtship. In the spring, 3 or 4 eggs are laid. Incubation takes approximately 33 days and although both parents share incubating duties, the female performs the greater share. Two or three chicks usually hatch and fledge in approximately 42 days. After fledging, young peregrine falcons are still dependent on their parents for food until they learn to hunt, which takes about a month and a half.

Do peregrine falcons build nests?

Most birds build nests made of sticks and soft natural fiber material in which their eggs are incubated. Peregrine falcons lay their eggs in "scrapes," which are shallow indentations they scratch out with their talons in the soft earth on the floor of their nests. Peregrine falcons typically nest on ledges and in small shallow caves located high on cliff walls. They have been known to use the abandoned nests of other birds, and on the north slope of Alaska, commonly nest on the ground.

When do American peregrine falcons breed?

American peregrine falcons begin breeding activities in the south earlier than in northern States. In Arizona and coastal California, peregrines begin nesting in late February and early March. In Alaska, nesting begins in May.

What was the historical size of the American peregrine falcon population?

The historical status of the American peregrine falcon is not known, but the species was probably never common, even when compared to other birds of prey. The limited historical data suggest a best estimate of 3,875 nesting pairs. The decline of the American peregrine falcon population began in the 1940s, was most pronounced during the 1950s and continued through the 1960s into the early 1970s throughout

most of its range. By the time biologists realized the magnitude of the American peregrine falcon decline, the population was only about 12 percent of what it had been prior to the introduction of modern pesticides.

What caused the near extinction of the peregrine falcon in North America?

The use of DDT as a pesticide during the 1940s, 1950s and 1960s resulted in a precipitous decline of peregrine falcons in North America. During this period of DDT use, eggshell thinning and nesting failures were widespread in peregrine falcons, and in some areas, successful reproduction virtually ceased. As a result, there was a slow but drastic decline in the number of peregrine falcons in most areas of its range in North

America. DDE, a metabolite of DDT, prevents normal calcium deposition during eggshell formation, resulting in thin-shelled eggs that are susceptible to breakage during incubation. Peregrine falcons feed near the top of the food chain and suffered from the accumulation of DDE due to eating contaminated prey.

How many American peregrine falcons were there when the bird was first placed on the endangered species list?

The eastern population of the American peregrine falcon was gone and the populations in the west had declined by as much as 90 percent below historical levels. By 1975, there were only 324 known nesting pairs of American peregrine falcons.

What's the status of the peregrine falcon now?

Thanks to the increase in peregrine falcon population, the U.S. Fish and Wildlife Service was able to remove the species from the Federal list of threatened and endangered species effective August 25, 1999. The peregrine falcon will be monitored at least through 2015 to ensure that it no longer needs the protection of the Endangered Species Act. If necessary, the species can be added back to the list in the future. For more on the recovery of the falcon and the species' monitoring plan, visit the peregrine falcon recovery page at http://www.fws.gov/endangered/i/B22_051506.html

-- FWS --