

# **Peregrine Falcon**

## (Falco peregrinus)

### International Migratory Bird Day (IMBD)



Set on the second Saturday in May, IMBD is an invitation to celebrate and support migratory bird conservation. The peregrine falcon is one of nature's swiftest and most beautiful birds of prey. Long noted for its speed, grace, and aerial skills, the peregrine is also now a symbol of North America's recovering threatened and endangered species.

#### **Natural History**

Peregrine falcons are crow-sized birds with a wingspan of about 40 inches. Adults have slate blue-gray wings and backs barred with black; pale undersides; white faces with a black stripe on each cheek; and large, dark eyes. Younger birds are browner and darker underneath.

The species is found almost worldwide, mostly along mountain ranges, river valleys, and coastlines. Three peregrine subspecies exist in North America. The Peale's falcon (Falco peregrinus pealei), is a year-round resident of the northwest Pacific coast. The Arctic peregrine (Falco peregrinus tundrius) nests in the tundra of Alaska, Canada, and Greenland, and typically winters as far south as South America. The American peregrine (Falco peregrinus anatum) nests from central Alaska, central Yukon Territory, and northern Alberta and Saskatchewan, east to the Maritimes, and south throughout western Canada and the United States to Baja California. American peregrine falcons that nest in subarctic areas generally winter in South America, while those that nest at lower latitudes usually don't migrate as far.

Peregrine falcon nests (eyries) are typically just scrapes or depressions dug in gravel on a cliff ledge. Rarely, though, peregrines will nest in a tree cavity or an old stick nest. Some peregrines have readily accepted manmade structures such as skyscraper ledges, tall towers, and bridges as urban equivalents of cliff ledges. Peregrines vigorously defend their nests, although they may abandon them if harassed.

Courtship and territorial displays include a high circling flight by the male and dives and chases by both sexes. Females lay clutches of three to five eggs and incubate them for 32-34 days. During incubation and when nestlings are very young, the male hunts to feed the family; when nestlings are older, both the male and female hunt.

Peregrine falcon nestlings first fly at 39 to 49 days. They generally reach breeding maturity at age 2, and may mate for life. The longevity record for North American peregrines is almost 17 years, but few wild peregrines live this long.

Peregrine falcons feed primarily on other birds, such as songbirds, shorebirds, ducks, and—in urban areas—starlings and pigeons. Flying high above their intended prey, peregrines will "stoop" or dive and strike in mid-air, killing the prey with a sharp blow. Scientists estimate the speed of a diving peregrine to be more than 200 miles per hour.



#### **Decline and Recovery**

Peregrine falcons have never been very abundant. In the 1930s and 1940s, there were about 500 breeding pairs of peregrine falcons in the East and about 1,000 in the West and in Mexico. Then, beginning in the late 1940s, peregrine falcon populations plummeted.

Scientists found unusually high concentrations of the pesticide DDT and its breakdown product DDE in birds of prey, which accumulated DDT by feeding on birds that had eaten contaminated insects or seeds. DDE interfered with eggshell formation, so eggs often had shells so thin they broke during incubation. Because reproduction was poor, peregrine populations shrank precipitously.

By the mid-1960s, American peregrines had been practically eliminated east of the Rocky Mountains and south of the boreal forest in Canada. In the West, peregrine populations were reduced by 80 to 90 percent by the mid-1970s. Only the population of Peale's peregrines appeared stable.

In 1970, the American and Arctic subspecies were listed as endangered. The U.S. Fish & Wildlife Service established peregrine falcon recovery teams comprised of federal, state, and independent biologists to recommend actions necessary to restore peregrines in the U.S. The Canadian Wildlife Service took a similar action for peregrines in Canada.

For the American peregrine falcon, recovery plans included captive breeding and release and/or relocations of wild stock to re-establish breeding pairs in areas where the species had been extirpated. However, the most significant



action to aid peregrines probably was the ban on most uses of DDT in Canada and the U.S.

Following restrictions on the use of DDT and other recovery efforts, Arctic peregrine numbers increased to the point that the subspecies was reclassified in 1984 from endangered to threatened. Then, in October 1994, the U.S. Fish & Wildlife Service announced that the Arctic peregrine falcon no longer needed the protection of the Endangered Species Act and could safely be delisted. There are now an estimated 2,000 to 5,000 breeding pairs in North America.

Populations of peregrine falcons have also recovered in the historical range of the American subspecies. In 1998, there were a minimum of 1,425 breeding pairs of American peregrine falcons in the U.S. and Canada, plus an additional 225 breeding pairs of mixed subspecies heritage (associated with reintroductions in the eastern U.S.), and an unknown number of pairs in Mexico. In August 1999, the U.S. Fish & Wildlife Service removed the American peregrine falcon from the list of endangered and threatened species, marking one of the most dramatic success stories of the Endangered Species Act.

#### **Future Outlook**

Though no longer listed under the U.S. Endangered Species Act, the peregrine falcon is still a protected species. The Migratory Bird Treaty Act regulates the take of peregrine falcons as well as all other migratory birds in the U.S., while the Convention on International Trade in Endangered Species regulates the international trade of peregrines because peregrine subspecies are listed as threatened, endangered, or otherwise at risk in other countries. Moreover, state laws and regulations protect peregrine falcons, and may be more restrictive than federal rules.

Peregrine falcon populations continue to be monitored under the Endangered Species Act. Because DDE residues are still found in some areas of the country, and DDT continues to be used in many Latin American countries where some peregrines and their prey spend the winter, depressed reproduction is still a concern. Efforts are underway to reduce use of this chemical in Mexico and other Latin American countries.

Overall, a cleaner environment and the success of cooperative recovery efforts for the peregrine falcon in North America.

For more information on the recovery of the peregrine falcon, visit http:// endangered.fws.gov/peregrin.html.

For more information, contact: U.S. Fish & Wildlife Service Office of Migratory Bird Management **IMBD Events and Information Coordinator** 703/358 2318 IMBD@fws.gov

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