

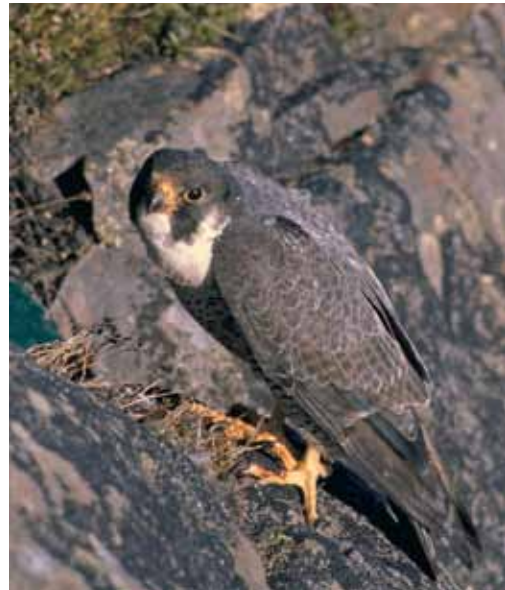


Peregrine Falcons

RESOURCE BRIEF

Importance

The peregrine falcon is among the fastest birds, flying at up to 55 mph and diving at more than 200 mph when striking avian prey in mid-air. Peregrine populations began to decline in the 1940s because of pesticide contamination. One of three North American subspecies, the peregrine in Greater Yellowstone (*Falco peregrinus anatum*) was considered extirpated by the 1960s. As part of a national reintroduction program, captive-bred peregrines were released in Bighorn Canyon National Recreation Area and Grand Teton and Yellowstone national parks during the 1980s. They typically reside in Greater Yellowstone from March through October, when their favored prey—songbirds and waterfowl—are most abundant. During winter they may migrate as far south as Mexico.

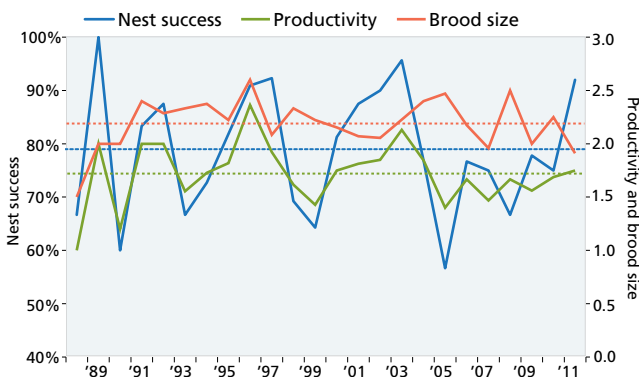


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Status and Trends

The American peregrine falcon was removed from the federal endangered species list in 1999 following population gains brought about by restrictions on organochlorine pesticides in Canada and the United States, habitat protection, and the reintroduction program. In Yellowstone, the most nesting pairs recorded was 32, in 2007, and they produced 47 fledglings. Although nesting pairs may reuse the same eyrie for many years, their remote locations on cliff ledges makes it impractical to locate and monitor activity at all eyries in a single year.

Although Grand Teton has many cliffs suitable for nesting peregrines, the number of known occupied eyries has not exceeded four during the last decade. In 2011, hatchlings fledged at two eyries, in Garnet Canyon and Baxter's Pinnacle, where a popular rock climbing route was closed to prevent human disturbance. Peregrines nested in Webb Canyon, but hatched no eggs. The fourth known territory, in Glade Creek, was not occupied. Peregrine productivity (the number of young per nest) has been relatively stable in Grand Teton over the last 15 years, but averaged only one per nest, possibly reflecting the area's short breeding season and harsh spring weather.



Annual nest success (% of nests that produce fledglings), productivity (average number of fledglings per active nest) and average brood size of recorded eyries in Yellowstone National Park. Dotted lines indicate 1988–2011 averages.

Discussion

While the organochlorines found in peregrine eggshell fragments and feather samples have declined significantly, several studies indicate that certain flame retardant chemicals developed in the 1970s for use in electronic equipment, textiles, paints, and many other products leach into the environment and have been found in birds of prey at levels that impair their reproductive biology. For the last two years, eggshell fragments, feathers, and prey remains have been collected from nest sites in Yellowstone after fledging occurred. Comparative data on eggshell thickness, which is an indicator of environmental contaminants, is not available for the northern Rockies, but the eggshells from Yellowstone have been within the range considered normal for the Pacific Northwest. The prey remains have included fish fins, snake remains, and the foot of a pine marten.