

Peregrine Falcon

Falco peregrinus

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DESCRIPTION

Taxonomy and Basic Description

The peregrine falcon is a crow-sized raptor in the family Falconidae (Order: Falconiformes). Adults have slate-gray upperparts, pale underparts with dark bars and spots and a dark facial stripe from the eye down to the side of the cheek. Immature birds are similar to adults, but with pale to brown upperparts and dark streaks on buffy underparts. Male peregrines measure 36 to 49 cm (14 to 19 inches) while females measure 44 to 58 cm (17 to 23 inches).

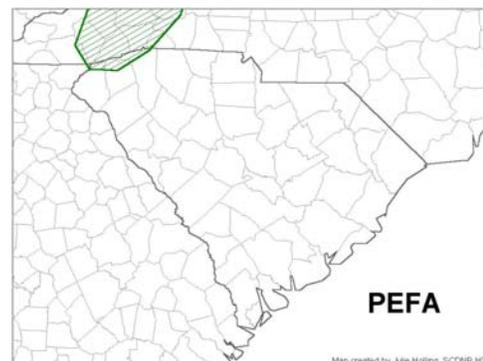
Status

The peregrine falcon was listed as Federally Endangered in 1970 and transferred to the 1973 Endangered Species Act because of large-scale population declines from the 1950's to mid-1970's. The species saw total extirpation in the U.S. east of the Rocky Mountains, and reduction in North America to 324 nesting pairs in that time period. Population declines were caused mainly by effects of synthetic organic chemicals, like DDT, on nesting success. After listing, peregrine falcon populations rebounded, largely due to captive breeding programs and reductions in DDT and other organic chemicals in the environment. By 1998, the species had returned to much of its former range and continental populations were viable. Therefore, the species was federally de-listed in 1999 (USFWS 2003).

As of 2003, the peregrine falcon was listed as endangered on the South Carolina Rare, Threatened & Endangered Species Inventory. It is also protected under the Migratory Bird Treaty Act under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (1975).

POPULATION DISTRIBUTION AND SIZE

Peregrine falcons have a worldwide distribution. In the United States, the species was formerly extirpated from large portions of its historic range but now breeds locally in western, northern, midwestern and eastern states. By 2002, there were more than 2000 breeding pairs in the U.S. and Canada (White et al. 2002).



Peregrine falcons have successfully bred at Table Rock State Park in Pickens County, South Carolina annually since 1990. However, it is not known where the juveniles go once they depart (Cely, pers. comm.). Most other peregrine falcon observations occur during the wintering season or during migration. Post and Gauthreaux note the peregrine as an uncommon winter visitor on

South Carolina's coast and a rare winter visitor to the coast, interior or piedmont of South Carolina (1989).

HABITAT AND NATURAL COMMUNITY REQUIREMENTS

Peregrines breed in most North American terrestrial biomes, although occupied habitats usually contain cliffs for nesting with open gulfs of air for foraging (White et al. 2002). The species historically nested on ledges along cliffs 8 to 400 m (26 to 1,312 feet) high. However, they will also use nest boxes and artificial structures like towers and buildings, as well as abandoned stick nests such as those previously built and occupied by osprey, red-tailed hawk, bald eagle and common raven (White et al. 2002). Peregrine falcon density is limited by availability of suitable nest locations and by territorial spacing (White et al. 2002).

Peregrine falcons mainly prey upon birds (77 to 99 percent by frequency), ranging in size from hummingbirds (2.5 to 3.5 g or 0.08 to 0.12 ounces) to small Canada geese (1,400 g or 49 ounces). They also occasionally eat mammals and, rarely amphibians, fish and insects. In North America, Peregrines eat more than 429 avian species and 23 mammal species, 10 of which are bats. Prey is usually captured in the air while the falcon is in flight, but also from the surface of the water or ground. The peregrine falcon generally captures prey with its feet and kills by dislocating the cervical vertebra. Surplus prey is cached.

During migration and the wintering period, peregrine falcons prefer wetland areas that have concentrations of waterfowl and shorebirds (White et al. 2002).

CHALLENGES

Peregrines are sensitive to loss or modification of nest sites, though they can switch among alternate sites if more than one exists in a territory (White et al. 2002). They are also sensitive to human presence above a nest cliff (Cely, pers. comm.). Loss or degradation of wetlands may negatively impact non-breeding peregrines. Continued conservation of this species will require more precise knowledge of breeding and potential breeding sites as well as information regarding winter distributions.

CONSERVATION ACCOMPLISHMENTS

By 1998, most North American populations had stabilized due to intensive captive breeding programs and reductions in DDT and other organic chemicals in the environment. The species was federally de-listed in 1999.

CONSERVATION RECOMMENDATIONS

- Conduct statewide surveys to identify areas used by breeding and non-breeding peregrines.
- Protect existing and potential peregrine falcon nest sites from destruction, physical alteration and excessive human disturbances. Barrier islands, inland lagoons and other

coastal and inland wetlands that support abundant prey for non-breeding peregrines should also be protected, particularly those within 24 km (15 miles) of active nests.

- Modify peregrine falcon nest sites to increase safety from predators and inclement weather.
- Construct alternate safe nesting places on buildings, towers or elsewhere for peregrine falcons (see Anderson 2004).
- Monitor peregrine falcon population trends and breeding productivity, including banding juveniles from the Table Rock area.
- Monitor nesting peregrines at known locations in South Carolina. This includes continued coordination with USFWS personnel.
- Determine the historical distribution of peregrine falcons in South Carolina and evaluate potential sites for peregrine reintroduction.

MEASURES OF SUCCESS

The protection of nesting and foraging sites, coupled with the creation of alternate safe nesting sites, should result in a net increase in South Carolina's peregrine falcon population and in an increase in use during migration. Peregrine population trends and distributions in South Carolina should be monitored over time to assess potential changes.

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