

## 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 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 in.) while females measure 44 to 58 cm (17 to 23 in.).

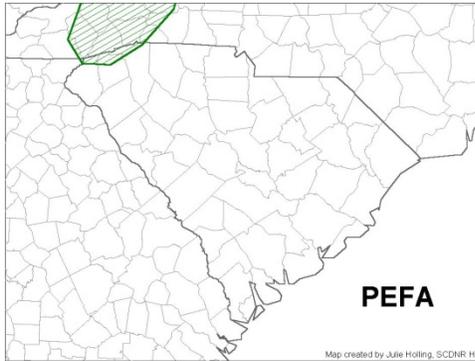
#### Status

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 US east of the Rocky Mountains, and an overall 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 and Endangered Species Inventory. In addition, the Peregrine Falcon and other birds of prey are protected by South Carolina state wildlife law section 50-11-852 which states that it is: "unlawful to molest or kill birds of prey." Federal law protects the Peregrine Falcon under the Migratory Bird Treaty Act, while internationally, the Peregrine Falcon is protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES 1975).

#### POPULATION SIZE AND DISTRIBUTION

Peregrine Falcons have a worldwide distribution. In the United States, the species breeds in western, northern, midwestern and eastern states. By 2002, there were more than 2000 breeding pairs in the US and Canada (White et al. 2002).



In South Carolina, Peregrine Falcons have successfully bred at Table Rock State Park in Pickens County since 1990. The Table Rock nesting pair has produced on average at least 2 young each year through 2011 (Mary Bunch, per. comm.) The state's second nesting pair of Peregrine Falcons appeared at Jocassee Gorges in 2008. Through 2011 the Jocassee Gorges pair has produced 2 young each year (Mark Hall, pers. comm.).

Most other Peregrine Falcon observations in South Carolina occur during the wintering season

or during migration. Post and Gauthreaux (1989) 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. Monthly beachfront shorebird surveys conducted in Cape Romain National Wildlife Refuge since 2007 observe the presence of Peregrine Falcons on barrier islands every month except for June, July, and August (CRNWR, USFWS, shorebird data). Research indicates that Peregrine Falcons from Greenland and eastern Canada migrate southward along South Carolina's coast, and some birds may remain through the winter (Fuller et. al. 1998).

## 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 ft.) 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% by frequency), ranging in size from hummingbirds (2.5 to 3.5 g or 0.08 to 0.12 oz.) to small Canada Geese (1,400 g or 49 oz.). 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 (White et. al. 2002).

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. In 2003 the “Monitoring Plan of the American Peregrine Falcon” was implemented by the USFWS. South Carolina’s peregrine falcon nesting territories are within the Southeastern region, and reports are annually submitted on the status of nesting and number of fledged young.

### CONSERVATION RECOMMENDATIONS

- Conduct statewide surveys to identify areas used by breeding and migrating Peregrine Falcons; especially survey state and federally owned coastal properties for migrating and wintering peregrine falcons.
- Protect existing and potential Peregrine Falcon nest sites from destruction, physical alteration and excessive human disturbances.
- Conserve barrier islands, inland lagoons and other coastal and inland wetlands that support abundant prey for migrating peregrines.
- Monitor nesting Peregrine Falcons and breeding productivity in coordination with USFWS personnel at the Table Rock and the Jocassee Gorges nesting sites.
- Conduct banding of juveniles and assessment of prey items at the present nesting locations to determine migration and foraging needs.

### MEASURES OF SUCCESS

The protection of nesting and foraging 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.

### LITERATURE CITED

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