

Peregrine Falcon, *anatum* Subspecies

Falco peregrinus anatum

Prepared by Chris Gill, MSc, RPBio
Kestrel Consulting
Phone: (250) 835-8256
Email: cegill@gmail.com

Disclaimer: The following document was compiled based on a review of information currently available for this species as of November 25, 2005. This document can be used to assist with the identification of this species and to support the development of management recommendations as they relate to forestry activities. For more information on this species, please refer to the reference section or consult with a Species at Risk specialist.

Description

The Peregrine falcon is a crow-sized raptor characterized by a blackish "moustache" (black stripe below the eye) and bluish-grey or slate-coloured upper parts. The under parts are white to buff with brown bars on the sides and thighs, and spots on the abdomen; the underside of the wing is white with black bars. Young peregrines have a blackish moustache, brownish upper parts, a dark brown tail with buff-coloured bars and white tips, and buff-coloured under parts with blackish-brown streaks¹. Peregrine Falcons average approximately 42 centimeters long, with a wingspan of 105 cm. They weigh between 450-950 grams, with the female being larger than the male². When defending their nest, Peregrine Falcons make a loud, rapid "kek-kek-kek" vocalization². [Click here](#) for more information on this species including a recording of its vocalization.

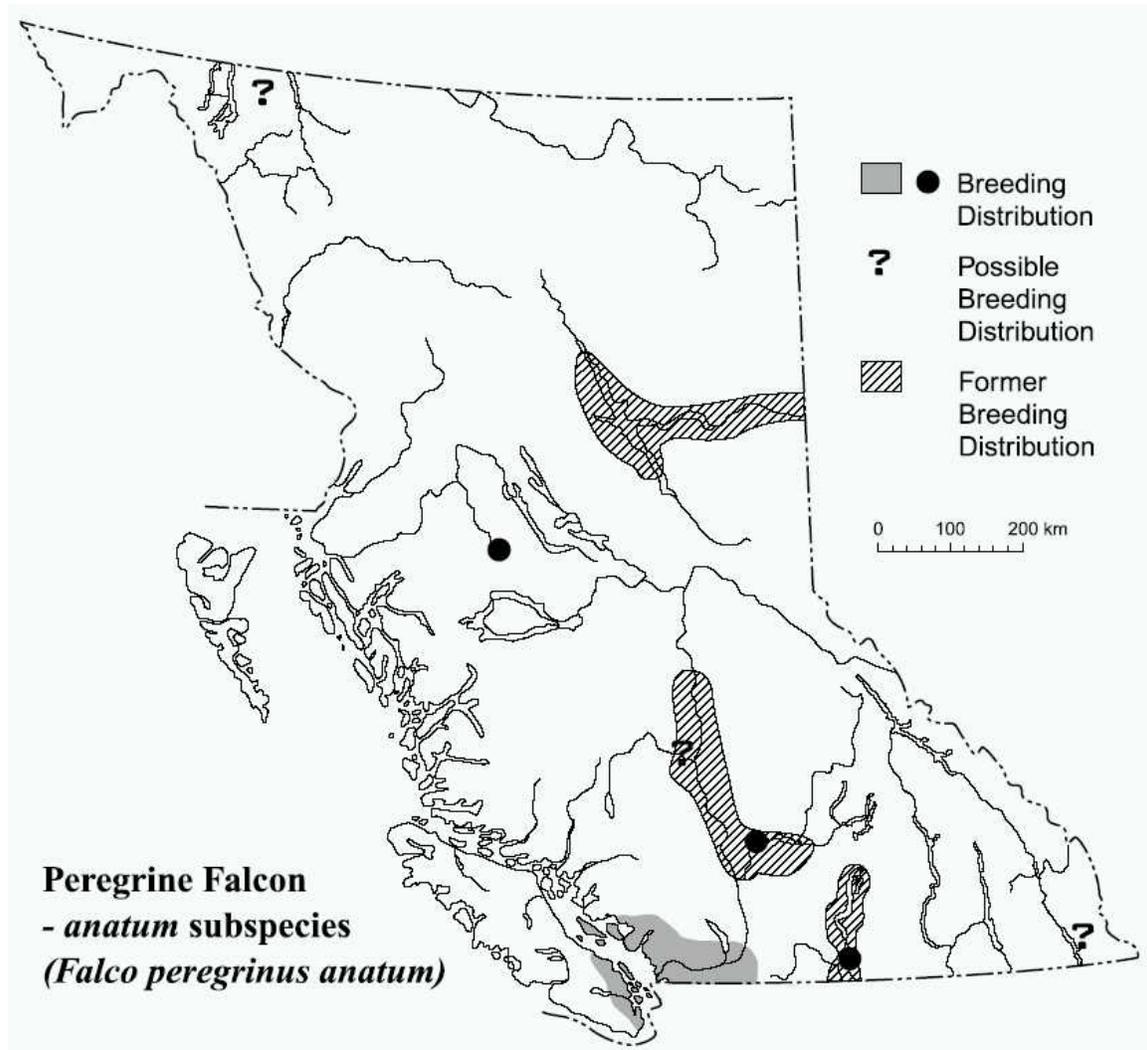


Photo courtesy of Brian K. Wheeler

Distribution

The Peregrine Falcon *anatum* subspecies, breeds south of the treeline in Alaska and Canada, throughout most of the U.S.A., and from central to south Mexico. The northern birds winter from Mexico south to southern South America¹.

Recent surveys (1999) identified approximately 20 known active aeries in British Columbia. Most are near the coast in the lower Fraser River valley, only 3 are in the southern and central interior. Other undiscovered sites may exist, particularly in the northern interior³.



Distribution of the Peregrine Falcon in British Columbia³

Forest Districts⁴

- Central Cariboo Forest District (DCC)
- Chilliwack Forest District (DCK)
- **Kamloops Forest District (DKA)**
- Nadina Forest District (DND)

- Okanagan Shuswap Forest District (DOS)
- Peace Forest District (DPC)
- Sunshine Coast Forest District (DSC)
- South Island Forest District (DSI)
- Squamish Forest District (DSQ)

Ecoprovinces³

- GED, COM, SOI, CEI (possibly BOP, SIM, SBI, NBM)

Biogeoclimatic Units⁴

- BG - Bunchgrass
- BWBS - Boreal White and Black Spruce
- CDF - Coastal Douglas Fir
- CWH - Coastal Western Hemlock
- IDF - Interior Douglas-fir
- MS - Montane Spruce
- PP - Ponderosa Pine
- SBS - Sub-Boreal Spruce

Elevation

Approximately 150 to 2,750 meters (for nest sites)³.

Map of Known Locations

Peregrine Falcon occurrence data is considered sensitive by the Conservation Data Centre (CDC). Therefore, known location data for this species is not available to the public. Please contact the CDC to request this data at:

Phone: (250) 356-0928

Fax: (250) 387-2733

Biology

Peregrine Falcons over winter from Vancouver Island south to California and from Arizona, New Mexico, Colorado, s. Nebraska, Missouri, Illinois, Indiana, Ohio, s. Ontario, New York and the Maritime Provinces south perhaps as far as Argentina and Chile. They return to their breeding range in British Columbia in early spring^{1,2,3}.

Reproduction

Peregrine Falcons reach sexual maturity in their second year¹. Peregrines return to the nesting cliffs in late April. Eggs are usually laid in the first half of May and clutch size varies from 3-5 eggs with incubation lasting 32 to 34 days. Eggs are a dark tan with dark speckles and have an approximate size of 52 by 41mm. The young typically fledge between 35 and 40 days. The young are dependent on the parents for food for several weeks after they leave the nest^{3,5}.

Foraging

Peregrine Falcons typically hunt their prey in the air and prey is either struck to the ground or killed outright by a blow from the talons. They will also pursue prey in a low, fast flight, or attack passing birds from a perch. Some pairs hunt cooperatively with the larger female diving for the prey first and then if successful, eating first from the prey

item³. A Peregrine Falcon in a hunting dive, or “stoop,” can reach speeds of over 300 km/h².

The Peregrine Falcon will primarily eat pigeon-size birds but may feed on large numbers of lemmings and voles when present³. The diet of this species includes jays, flickers, meadowlarks, pigeons, starlings, shorebirds, waterfowl and other readily available species. Due to their larger size, the females may take larger prey items⁴.

Habitat

Peregrine Falcons are found in various open situations from tundra, moorlands, steppe, and seacoasts, especially where there are suitable nesting cliffs, to mountains, open forested regions, and human population centers. When not breeding, they occur in areas where prey concentrate, including farmlands, marshes, lakeshores, river mouths, tidal flats, dunes and beaches, broad river valleys, cities, and airports⁷.

Important Habitats and Habitat Features

The habitat requirements of the Peregrine Falcon can be divided into three components:

1) **nest site**: nests are usually scrapes made on cliff ledges on steep cliffs, usually near wetlands – these can include artificial cliffs, such as quarries and buildings¹. Aeries described in British Columbia are located on the ledges of cliffs (6–260 m high) that overlook marine waters, large lakes and rivers⁷.

2) **nesting territory**: the area defended around the nest preventing other pairs from nesting within 1 km or more, ensuring adequate food for all nesting pairs and their young¹. Examples of important hunting areas are wetlands and riparian habitats; meadows and parklands; crop lands such as hayfields, grain fields and orchards; and areas such as gorges, mountain valleys and lakes over which prey are vulnerable⁵.

3) **home range**: the extended, non-defended area in which the peregrines hunt for additional food and which can extend up to 27 km from the nest; peregrines prefer open habitats such as wetlands, tundra, savannah, sea coasts and mountain meadows, but will also hunt over open forest¹.

Nesting

Important features for nesting include cliffs, consisting of granite, sandstone, basalt rims and glacial till that provide ledges that are inaccessible with rocky overhangs that provide protection from the sun and inclement weather. The favored aspect for these nest sites is south or southwest⁷.



Photo courtesy of Cherilyn Drew

Foraging

In close proximity to these nesting sites should be open foraging habitats such as open grasslands or sagebrush flats⁶; wetlands and riparian habitats; meadows and parklands; crop lands such as hayfields, grain fields and orchards; and areas such as gorges, mountain valleys and lakes^{6,7}.



Photo courtesy of Cherilyn Drew

Conservation and Management

Status⁴

Provincial Rank: S2B (Provincially Imperiled, applies to the breeding population)

BC List: Red (Endangered)

COSEWIC Status: Threatened

SARA Schedule: 1 (Threatened)

Threats

Much of the decline of Peregrine Falcon populations is attributed to the use of DDT which resulted in eggshell thinning. Eggshell thickness, and hence egg viability, is extremely sensitive to tissue levels of this bioaccumulative organochlorine pesticide. As a result, the reproductive success of the species declined drastically¹. Following the ban of DDT use in Canada in 1969, populations have begun to recover. However, the southern interior of BC remains one of the few regions where Peregrines have failed to recover possibly due to high levels of residual DDE (the break-down product of DDT) in potential prey species.

In addition to the negative impacts of toxins, loss of habitat is an ongoing and significant threat. Cliff nesting habitat is secure in British Columbia, but development of hillsides below nesting cliffs or recreational use of cliffs (i.e. rock climbing) may be a local problem since Peregrine Falcons can be sensitive to repeated human disturbance at aeries⁷.

Management Recommendations

Consult with a Registered Professional Biologist prior to implementing the following management recommendations because certain situations may require custom solutions based on specific site characteristics.

- Budget permitting, develop a habitat model to help identify high value habitat found within your areas of interest. The complexity of the model, and therefore its accuracy, will be dependent on budgetary constraints.
- Identify the locations where this species is known to occur: if available, obtain occurrence data from the Conservation Data Centre (<http://srmwww.gov.bc.ca/cdc/>) and if necessary conduct surveys to confirm presence or absence of this species.

Where this species is identified:

- Create a 60 m “no harvest” buffer zone around active aeries (J. Cooper pers comm.).
- Do not conduct forestry activities (including harvest, salvage, hauling, and road construction) within 1 km of an active nest during the breeding season (March 1 to September 30).
- Do not blast within 1 km of an active nest during the breeding season (March 1 to September 30). Avoid helicopter activity within 500 m of an active nest.
- Maintain large trees (age class 6–9) and snags (preferably decay class 2–4) along edges of cliffs, grasslands and wetlands in areas where Peregrine Falcons have been identified. These perches are important for roosting and for hunting. Snags and debris located on mud flats should also be left for winter perching and roosting.

References

- ¹ Environment Canada Species at Risk. Website: http://www.speciesatrisk.gc.ca/search/speciesDetails_e.cfm?SpeciesID=29
- ² British Columbia's Wildlife at Risk: Peregrine Falcon. 1998. Ministry of Environment, Lands and Parks. Website: http://wlapwww.gov.bc.ca/wld/documents/perfal_s.pdf
- ³ Pagel, J.E. 1995. American Peregrine Falcon: Status of species, Columbia River Basin. USFS Pacific Northwest Region. Website: <http://www.icbemp.gov/science/pagel.pdf>
- ⁴ Zeiner, D. C., W., F. Laudenslayer, Jr., K. E. Mayer, M. White. Editors. 1990. California's Wildlife. Volume 2. Birds. State of California, Department of Fish and Game. Sacramento, California. 731 pp.
- ⁵ Volume 2: The MSHCP Reference Document. Riverside County Integrated Project. Website: http://www.rcip.org/mshcpdocs/Vol2/mshcpvol_2_toc.htm
- ⁶ Hooper, T.D. 1997, Status of the Prairie Falcon in the Chilcotin-Cariboo Region, British Columbia. Wildlife Working Report No. WR-85. BC Ministry of Environment, Lands and Parks.
- ⁷ Cooper, J.M., and S.M. Beauchesne. 2003b. Status of the Peregrine Falcon in British Columbia. Rep. prepared for the Terrestrial Ecosystem Sci. Sect., B.C. Minist. Water, Land and Air Prot., Victoria. 15 March 2003.