

BC's Coast Region: Species & Ecosystems of Conservation Concern Pine Grosbeak *carlottae* subspecies (*Pinicola enucleator carlottae*)

Global:G5T3 Provincial:S3B COSEWIC: N/A BC List: Blue



Male (Mainland form)



Female (Mainland form)

Notes on *Pinicola enucleator carlottae*: A member of the family Fringillidae (“true finches”), Pine Grosbeak are one of four species of grosbeak known to breed in BC. Ancestors of North American Pine Grosbeak may have been wind-blown individuals which arrived via the northern Pacific during the Late Miocene (11-5 million years ago). One of four subspecies the genus *enucleator* in BC, *P.e. carlottae*, also referred to as “Queen Charlotte Pine Grosbeak” is endemic to BC’s coastal islands and coastal mainland. Much about its biology is inferred from the species and other subspecies.

Description

Length 19 cm. Mature males demonstrate a rich red colouration. Sub-adult males are a deep slate grey with strong amber to orange crowns and rumps. Females are similar to sub-adult males but colour is more washed out. The bill is thick and heavy for breaking into conifer cones and other seed sources. The *P.e. carlottae* subspecies may have a somewhat more curved bill than other Pine Grosbeak sub-species. This subspecies is smaller than other forms.

Diet

As with other grosbeaks, this subspecies feeds on a wide variety of seeds, fruits and insects. While most foraging is done in the mid to upper canopy, food is also taken from the ground. Winter feeding sites are a mix of stands of large, mature spruce and other large seed cone species and berry producing shrubs.

Look's Like?

The range of the slightly larger species form also includes Haida Gwaii and the Central and North Coast, making identification difficult. Female Crossbill, though having a distinctly unique beak shape, are similar in size and plumage colouration to female and sub-adult males of both the species and subspecies of Pine Grosbeak.

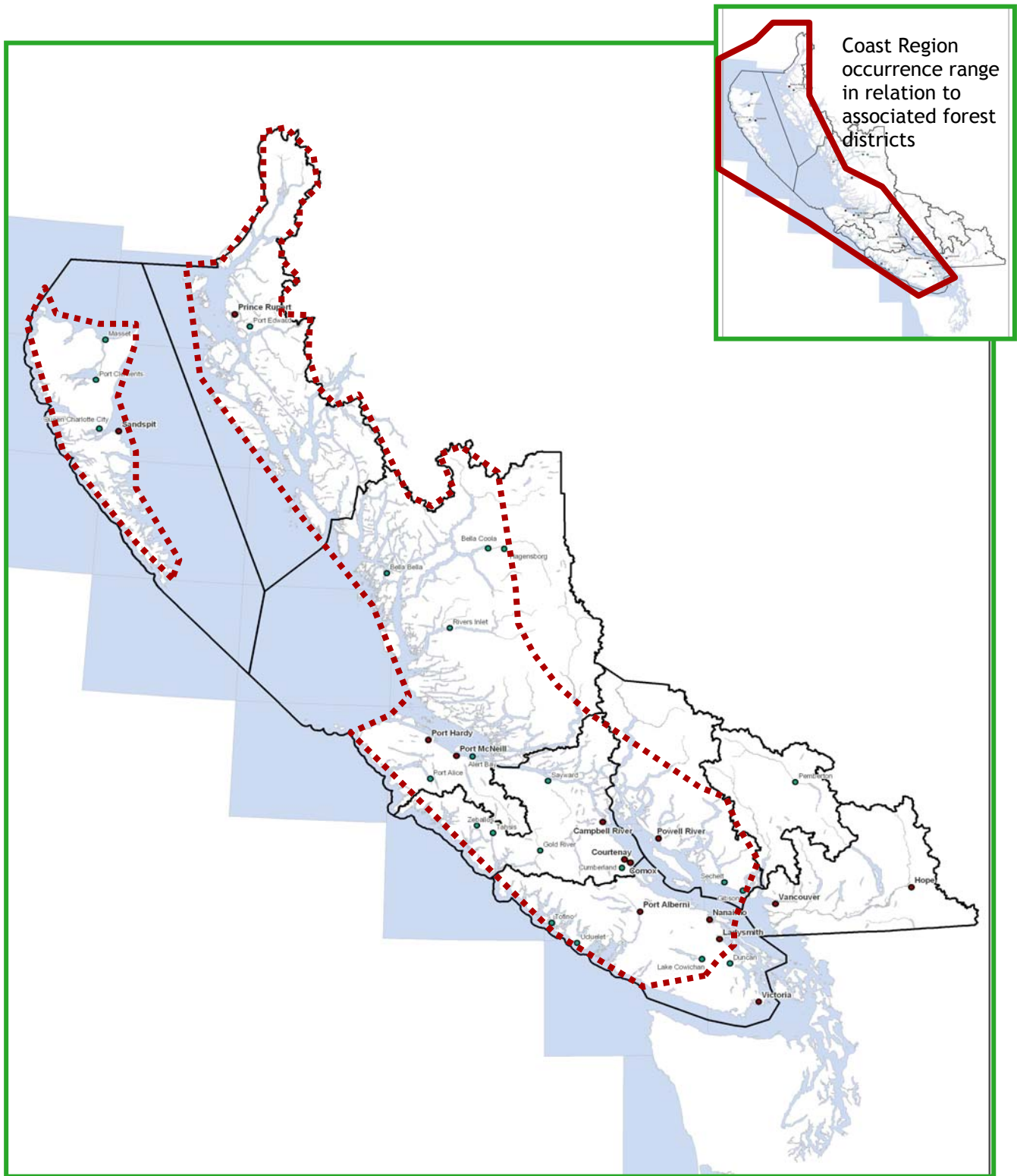


Photo by A. Wilson

Female Crossbill

Distribution

Breeding elevation 1200-1800 m. The *P.e. carlottae* subspecies is likely the main breeding form of Pine Grosbeak on Vancouver Island. The subspecies overlaps with the species and other subspecies forms in higher elevation coniferous forests on Haida Gwaii as well as the Central and North Coast (and possibly the South Coast).



Pine Grosbeak *carlottae* subspecies (*Pinicola enucleator carlottae*), potential occurrence range for the Coast Region

Habitat Preferences

Pine Grosbeak have a preference for sub-alpine forests and parklands dominated by mountain hemlock, subalpine fir, and Engelmann spruce. Openings and edges provide foraging areas. While higher elevation coniferous stands are preferred, birds may range down to adjacent lower elevation settlement areas to exploit feeding stations.



Critical Features

Nests are made from twigs, rootlets, grass, and moss, and are placed 2-9 m above ground in open coniferous stands. It is unclear if the same habitat territories used for breeding are used for overwintering on the Coast.

During short distance migration and overwintering, deciduous forest, woodland, second growth and understory shrub communities are utilized. Less commonly used forest types include mixed coniferous-deciduous stands.

Seasonal Life Cycle

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				Breeding /Nesting, clutch size 4-5. Chicks fledge June-July.							
Juveniles & adults over winter							Juveniles & adults over winter				

Threats

- ◆ This Pine Grosbeak subspecies is rare and sparsely distributed. Fragmentation of forested areas and loss of preferred nesting features may impact population viability.
- ◆ Large-scale clearcut removal of forest cover, especially mature seed trees (e.g. spruce), may reduce long-term availability of food sources.
- ◆ Disturbance (especially due to industrial activity like road building and logging), may contribute to nest abandonment or low breeding success.
- ◆ Predation on adults and chicks by raptors (e.g. Northern Goshawk), American Marten, Fisher and Red Squirrel, though naturally occurring, may be exacerbated by silviculture practices such as thinning and other activities that reduce cover and provide easier access to nest locations.

Conservation & Management Objectives

- ◆ Apply conservation and management approaches as recommended in “Rare birds of British Columbia, Pine Grosbeak *carlottae* subspecies *Pinicola enucleator carlottae*.” General wildlife measures for Identified Wildlife species such as Northern Goshawk that specify requirements for seral stage distribution and stand structure may be a suitable surrogate for *P.e. carlottae* management and should be investigated.
- ◆ Assess, inventory and monitor using methodology set out in the RISC standards # 15 Inventory Methods for Forest and Grassland Songbirds Version 2.0

Specific activities should include:

- ◆ Identification of specific habitat requirements and development of a species-habitat model are required to allow more accurate habitat inventory and mapping. Delineation of range boundaries on the mainland is especially needed.
- ◆ The subspecies should be considered for listing as Identified Wildlife under the *Forest & Range Practices Act*.
- ◆ Reduce harvesting of mature second growth stands that prevent mature forest structure from forming (e.g. harvesting at <100 years).
- ◆ Avoid activities that result in a reduction in stem density, canopy volume and habitat quality in forested stands (e.g. under storey brushing, patch cutting and clearcutting)
- ◆ Core zones should have limited access and no disturbance. Core breeding zones can be determined using summer nest sites combined with nestling/post fledging foraging boundaries.

This species is subject to protections and prohibitions under the Migratory Birds Convention Act and BC Wildlife Act. Habitat for this species may also be governed under provincial and federal regulations including the Fish Protection Act and Federal Fisheries Act as well as Regional and local municipal bylaws.

Content for this Factsheet has been derived from the following sources

Adkisson, Curtis, A. 1977. [Internet] Morphological Variation in North American Pine Grosbeaks. THE WILSON BULLETIN. Vol. 89, No. 3. B.C. Conservation Data Centre. 2010. [Internet] Species Summary: *Pinicola enucleator carlottae*. B.C. MoE.

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