

BC's Coast Region: Species & Ecosystems of Conservation Concern

Northern Pygmy-owl, *swarthi* subspecies (*Glaucidium gnoma swarthi*)

Global: G4G5T3Q Provincial:S3 COSEWIC: Not Listed, BC List: Blue, Identified Wildlife



Adult (front)



Adult (back eyespots)



Juvenile

Notes on *Glaucidium gnoma swarthi*: A member of the family Strigidae (“typical owls”), this is one of three subspecies of Northern Pygmy Owl that breed in BC. The *swarthi* subspecies is also referred to as “Vancouver Island Pygmy Owl”. Recent DNA evidence suggests the present designation of *G. gnoma* may warrant reclassification to *G. californicum*, composed of four distinct western races in North America. There has been little studied on the *swarthi* subspecies and much about its biology is inferred from the mainland form.

Description

Length: 15.5-18 cm. As the name implies Northern Pygmy Owl are small owls. As with several other owl species, they are “earless” (lacking ear tufts on the head). Adult plumage for this subspecies is the same on both sexes and “reverse sexual dimorphism” (females being larger than males) is evident. The body is plump with a long narrow tail that the bird flicks up and down when perching. Dorsal and wing plumage is brown to reddish brown with large white spots. The head is brown, speckled with white and the yellow eyes have white eyebrows. Chest and belly plumage is creamy white with dark bars and streaks. The long dark brown tail has white horizontal barring. Juvenile birds are similar to adults but do not develop spots on the body or head until they mature. This owl is diurnal (active during the day) and more specifically crepuscular (hunt at dawn and dusk), and is often a target of defensive aerial “mobbing” from other birds (e.g. crows). Two distinct black “eyespot” outlined in white on the back of the head are thought to confuse and distract birds when they attack, possibly protecting the front of the head and eyes.

Diet

All Pygmy-owls employ a “perch and pounce” hunting tactic. Northern Pygmy-owl have a variable diet influenced by seasonal availability and parenting demands. Approximately 90% of the bird’s diet is composed of small mammals (i.e. rodents) and songbirds. However reptiles, amphibians and insects are all exploited. An aggressive predator for its size, Pygmy-owls have been known to take prey up to twice their weight.

Look’s Like?

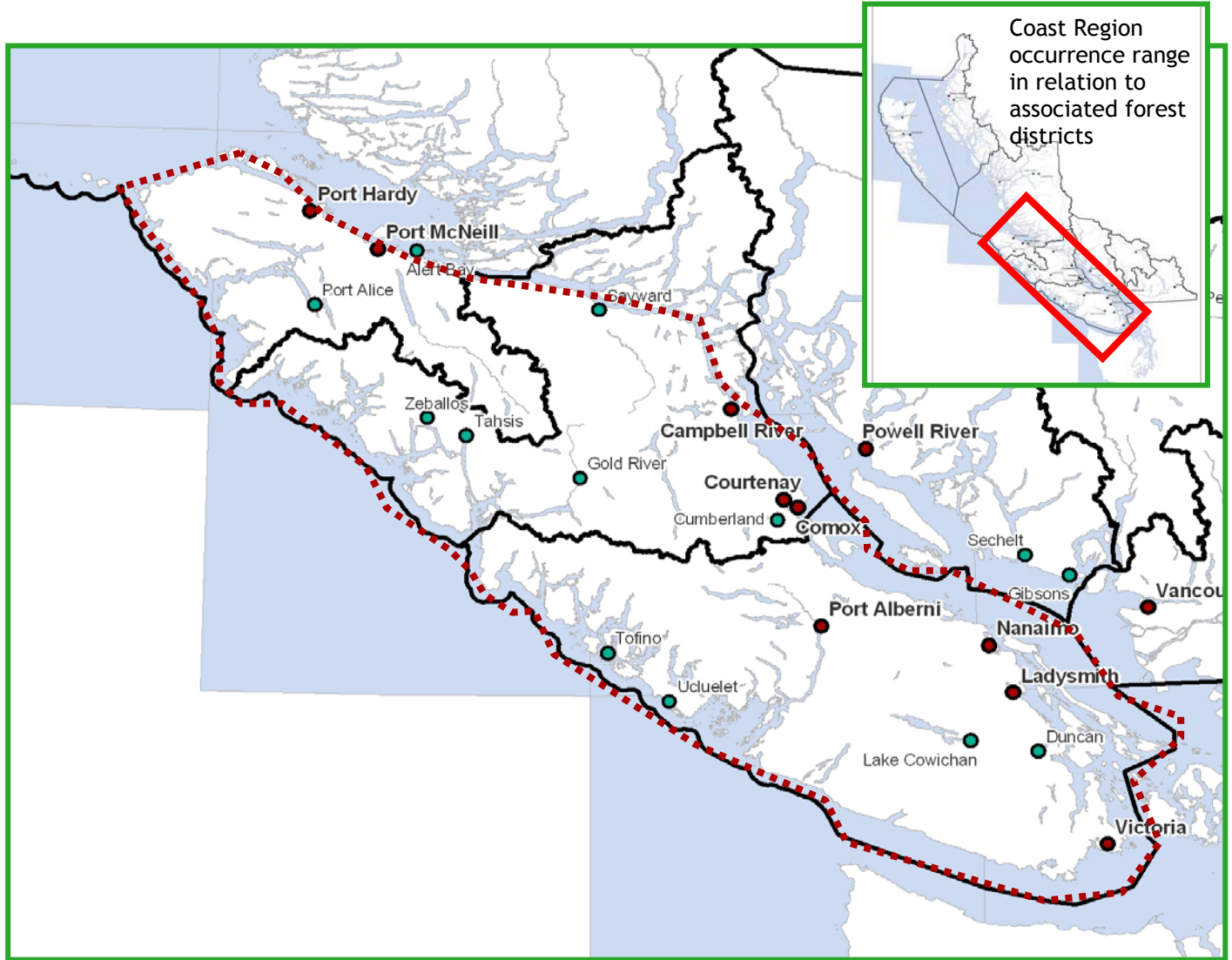
Northern Saw-whet owl are the only other small owl species that could be mistaken for Northern Pygmy-owl. However the larger Saw-whet has a stubby tail and lacks eyespots on the back of the head.



Northern Saw-whet Owl (mainland form)

Distribution

Elevations: 50 to <1700 m. This subspecies is resident and endemic across Vancouver Island and the Gulf Islands.



Northern Pygmy-owl, *swarthi* subspecies (*Glaucidium gnoma swarthi*), known occurrence range for the Coast Region

Habitat Preferences

Northern Pygmy-owl is more of a generalist than other owl species and will utilize interior forest areas, riparian zones and open stands as well as clearings and immature stands with lower structural diversity. Abandoned woodpecker (Northern Flicker and Hairy Woodpecker) cavities 3-18 meters from the ground, in a variety of mainly coniferous species located near the forest edge are used for nesting.

Critical Features

Large mature trees (>60 cm dbh) with cavities appear to be a major factor for habitat use. Nest sites are strongly associated with stands on steep hillsides, precipitous talus slopes, or steep ravines not far from water. This subspecies is non-migratory. During breeding season nesting sites and associated habitat are strongly defended. Home range size has been observed at up to 75 ha in size anywhere from 600 m to 1.6km apart from adjacent breeding pairs.

This non-migratory owl is adaptable to a range of forest types and associated habitat features as long as sufficient nest cavities are available and disturbance is low.



Seasonal Life Cycle

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | |
|--|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|-----|--|
| | | | Breeding – April-June, 3-5 eggs laid sequentially every 2 days, incubation begins after last egg laid. July, Chisk in the nest from June - August | | | | | | | | | |
| Young of the year, Juveniles & adults active all year. | | | | | | | | | | | | |

Breeding birds begin to defend nest cavities and territories as early as late February. Breeding begins at one year of age, birds breed every year.

Threats

- ◆ The *swarthi* subspecies of Northern Pygmy-owl is endemic and limited in distribution to Vancouver Island and adjacent islands. Population density and abundance is likely low and is tied to nest cavity availability. Cavity excavator species such as woodpecker (Northern Flicker, Hairy Woodpecker) may provide an important link to Pygmy-owl population dynamics, leaving this subspecies vulnerable should these other species populations suffer declines.
- ◆ While Northern Pygmy-owl utilizes a mix of mature and less structurally diverse open forest habitats rural/urbanized landscapes appear to be avoided. Excessive fragmentation, loss of preferred nesting features and prey availability (tied to forest structure) are moderate threats.
- ◆ Barred Owl prey on smaller owl species and are expanding their range in BC and may be having a negative impact on Northern Pygmy-owl. Raccoon and Red Squirrel may predate on eggs and chicks, European Starling and Red Squirrel may compete with or harass adults for nesting cavities.

Conservation & Management Objectives

- ◆ Apply conservation and management objectives as set out in the Identified Wildlife Provisions for this subspecies found in Accounts and Measures for Managing Identified Wildlife - Accounts V. Northern Pygmy-Owl *Glaucidium gnoma swarthi*
- ◆ Integrate complimentary management recommendations as set out in “Status of Vancouver Island Northern pygmy-owl (*Glaucidium gnoma swarthi*) in British Columbia” and Best Management Practices for Raptor Conservation during Urban

and Rural Land Development in British Columbia. Assess, inventory and monitor using methodology setout in the RISC standards # 11 Inventory Methods for Raptors (Version 2.0).

Specific activities should include:

- ◆ Determine the minimum amount and distribution of core habitat needed to maintain a stable, self-sustaining population distributed throughout the subspecies' natural range.
- ◆ Maintain the hierarchical structure of core zones and home range zones e.g. nest sites, nest areas, post-fledging area and foraging areas. Core zones should have limited access and no disturbance.
- ◆ Though presently Blue-listed and not federally listed, subspecies, such as *G. g. swarthi*, are likely to become threatened (Red-listed) if current threats to the survival of their population are not dealt with and trends reversed

This subspecies is subject to protections and prohibitions under the BC Wildlife Act and is Identified Wildlife under the Forest and Range Practices 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

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Every effort has been made to ensure content accuracy. Comments or corrections should be directed to the South Coast Conservation Program: info@sccp.ca. Content updated August 2010.

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