

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

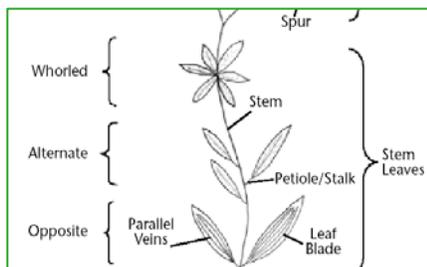
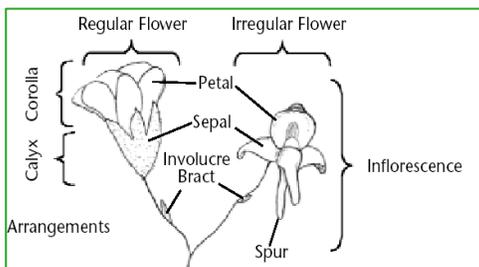
Scouler's Corydalis (*Corydalis scouleri*)

Global: G4 Provincial: S3S4 COSEWIC: NAR, BC List: Yellow, Identified Wildlife



Notes on *Corydalis scouleri*: A member of the family Fumariaceae (“bleeding heart”), “corydalis” is Greek for “crested lark” likely in reference to the array of flowers thought to resemble a flock of birds. Also referred to as “Scouler’s fumewort” the plant was named after Dr. John Scouler who accompanied David Douglas in his explorations of the Pacific Northwest.

Plant Anatomy



Description

Height 40 cm - 1.2 m. A tall, herbaceous perennial arising from thick rhizomes, the hollow stems may be branched or un-branched. Scouler’s corydalis often forms extensive patches in the forest understory. The blue-green 20-80 cm long leaves have a powdered or waxy whitish to blue appearance. There are usually three leaves per stem. The 15-35 distinctive thin tubular light pink flowers are arranged irregularly along a single stem. Flowers produce an ovoid capsule 1-1.5 cm long containing shiny black seeds.

Look's Like?

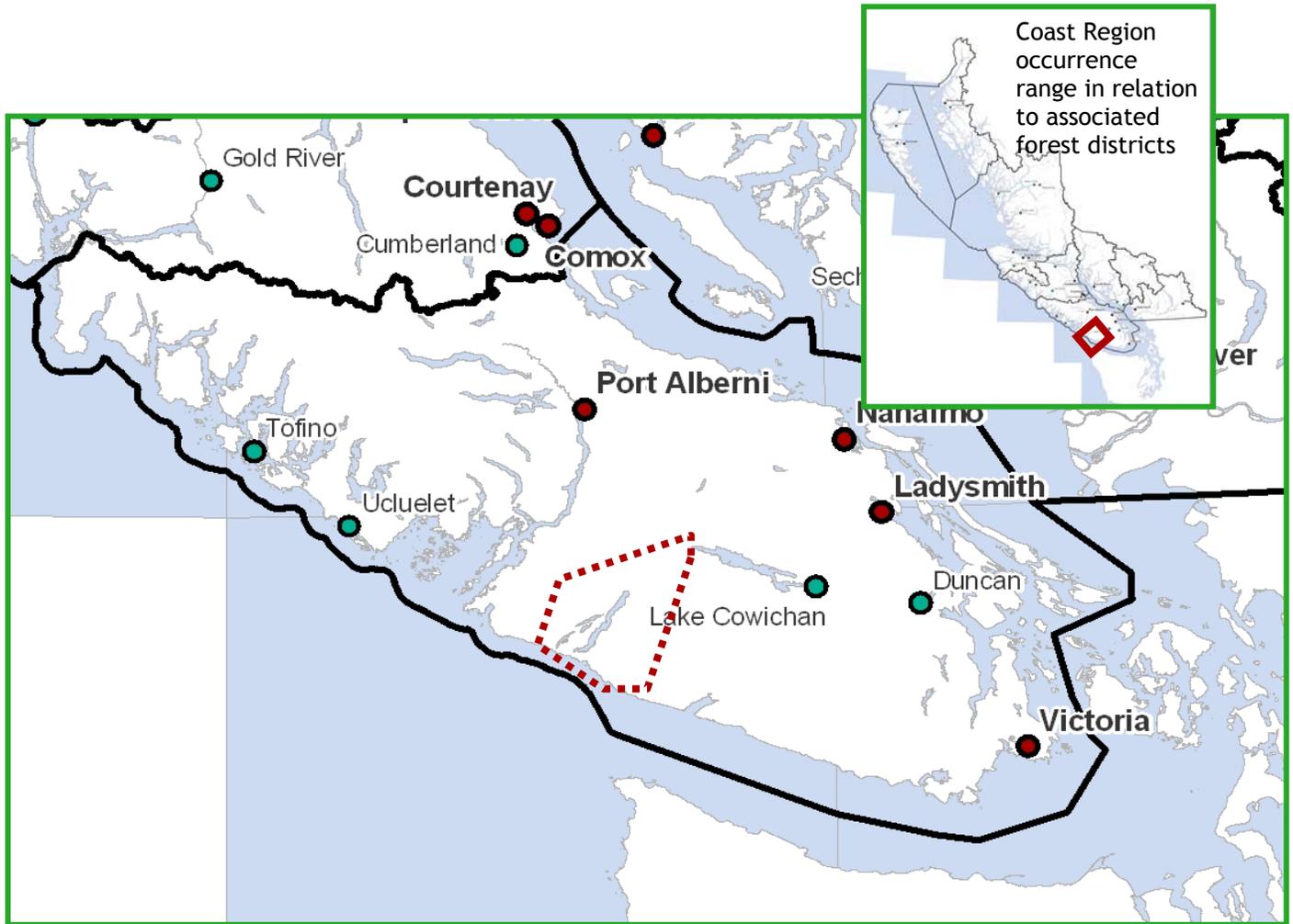
Other species in this genus such as pink corydalis have similar leaves. Pink corydalis, the only other species occurring within the general range of Scouler’s Corydalis has smaller, pink tubular flowers with bright yellow tips. Pink corydalis arises from a taproot while Scouler’s corydalis emerges from a rhizome.



Pink Corydalis

Distribution

Elevation: 0-200 m. This species is generally found in coastal forests west of the Cascades from Northwest Oregon through Washington to the northern extent of its range on Southwest Vancouver Island. Main populations on the Coast Region are found in the Nitinat watershed, Klanawa River valley, and Kissinger Lake area to the west of Cowichan Lake. This species may be more widely distributed than presently documented and may potentially have populations in the Lake Cowichan and Walbran Valley watersheds.



Scouler's Corydalis (*Corydalis scouleri*), known range of population occurrences (red-dotted line) for the Coast Region

Habitat Preferences

Scouler's corydalis is associated with well shaded nutrient rich moist soils found within riparian forests of primarily mature deciduous hardwoods (red alder, bigleaf maple) and conifers (Sitka spruce, western hemlock). Associated understory species include sword fern and salmonberry. Adjacent flowing waters can range from small streams to large rivers.



Critical Features

Moisture, shade and nitrogen rich soils appear to be the key features for populations of this species to persist. Adjacency to flowing waters may potentially be an important mechanism for seed dispersal.

While this species has a preference for more organic and well vegetated riverine sediments, it will also colonize coarser floodplain deposits.

Seasonal Life Cycle

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
				Flowering (after 4+ years)							
				Fruit and Seed production, plant dies back by late summer							

This species appears able to reproduce well vegetatively from rhizomes, resulting in extensive clones with numerous stems arising from a single plant. Sexual reproduction by way of seeds is possible but requires pollination by another separate clone and at times only flowers at the terminal end of the stem reproduce. Plants take 4 or more years to reach flowering stage. Once produced capsules burst open with some force dispersing seeds over a wide area.

Threats

- ◆ While the typical riparian habitat and associated plant community for this species is abundant on the Coast Region, population distribution appears limited to valleys in a small area of southwest Vancouver Island, perhaps due to limited capacity to reproduce sexually. Reproductive limitations may also reduce genetic diversity for existing populations, making them more vulnerable to disease.
- ◆ This species dies back and becomes dormant in summer making it hard to detect. Trampling, where populations occur in association with areas supporting summer outdoor recreation activities (e.g. Nitinat River Bridge) may impact rhizome integrity.
- ◆ While generally protected within required riparian retention buffers in logged areas, hazard tree and woody debris management (e.g. removal and thinning) may impact rhizome integrity. Thinning may also change shade levels and microclimates.
- ◆ While seasonal high water appears important for seed transport, this species preference for floodplain habitats makes it potentially vulnerable to damage from severe flooding events and erosion.
- ◆ Removal and picking of flowers through illegal collection.

Conservation & Management Objectives

- ◆ Apply conservation and management objectives for this species as set out in the “Accounts and Measures for Managing Identified Wildlife - Accounts V. 2004. Scouler’s Corydalis *Corydalis scouleri*.” Integrate complimentary measures and

recommendations identified in the COSEWIC Assessment and Update Status Report on the Scouler's corydalis *Corydalis scouleri* in Canada.

- ◆ Collection activities should be limited and apply practices identified in the Province's "Voucher Specimen Collection, Preparation, Identification and Storage Protocol: Plants & Fungi." Inventory activities should consider approaches and references identified in E-Flora's Protocols For Rare Vascular Plant Surveys.

Specific activities should include:

- ◆ Consider increasing the number of present Wildlife Habitat Areas (WHA's) for this species under the Forest and Range Practices Act to protect new populations as they are identified.
- ◆ Although generally considered stable, data is needed to fully describe critical habitat attributes and threats. A targeted inventory is needed to determine if undiscovered populations exist elsewhere within the Coast Region (i.e. elsewhere on Vancouver Island).
- ◆ Ensure existing data on distribution and occurrence is utilized for land use and resource activities.
- ◆ Conduct outreach to raise awareness of this species and how to identify it to improve distribution knowledge.
- ◆ Monitor existing populations on an ongoing basis to assess viability and reduce potential disturbance from land use activities.

This species is Identified Wildlife under the Forest and Range Practices Act. This species may also be subject to protections and prohibitions under the 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

- B.C. Conservation Data Centre. 2010. [Internet] [Updated April 3 2007] Conservation Status Report: *Corydalis scouleri*. B.C. MoE.
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- Proulx, Gilbert et al. 2003. A Field Guide to Species at Risk in the Coast Forest Region of British Columbia. Published by International Forest Products and BC Ministry of Environment. Victoria (BC).

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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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