

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

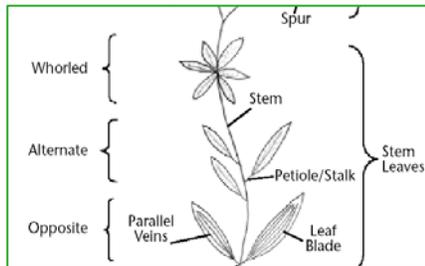
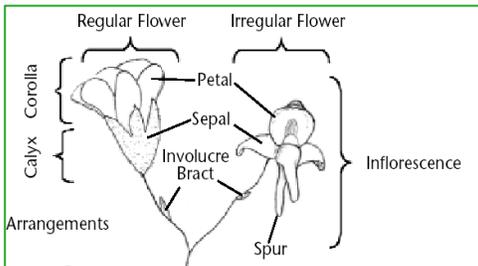
Water-plantain Buttercup (*Ranunculus alismifolius* var. *alismifolius*)

Global: G5T5, Provincial: S1, COSEWIC: E, BC List: Red



Notes on *Ranunculus alismifolius* var. *alismifolius*: This member of the family Ranunculaceae (“buttercups”), is also referred to as “plantainleaf buttercup”. This variety of *alismifolius* is known only from British Columbia and is one of two federally at risk, and one of four red listed members of the genus *Ranunculus* in BC.

Plant Anatomy



Description

Height 30-60 cm. An erect, perennial herb with one or more soft, hairy and hollow branching stems. Roots of this species are fibrous and tuberous. Leaves occur in basal formations as well as along the stems. The 2-14 cm long basal leaves tend to be large, deep-green and elongated, and grow from stout, long stalks. Their margins are smooth to slightly toothed, looking far more like leaves of water-plantain than a typical buttercup. Stem leaves are much smaller, have shorter stalks and are arranged in an alternate or opposite position along the stem, becoming increasingly reduced farther up the stem. The yellow flowers occur at the tips of the stem branches. The flowers have five petals, 5-14 mm long and slightly hairy. Each flower can produce 30-50 single-seeded fruits, 3-7 mm long. The 1.6-2.8 mm long seed capsules are smooth or covered in short, stiff hairs

Look's Like?

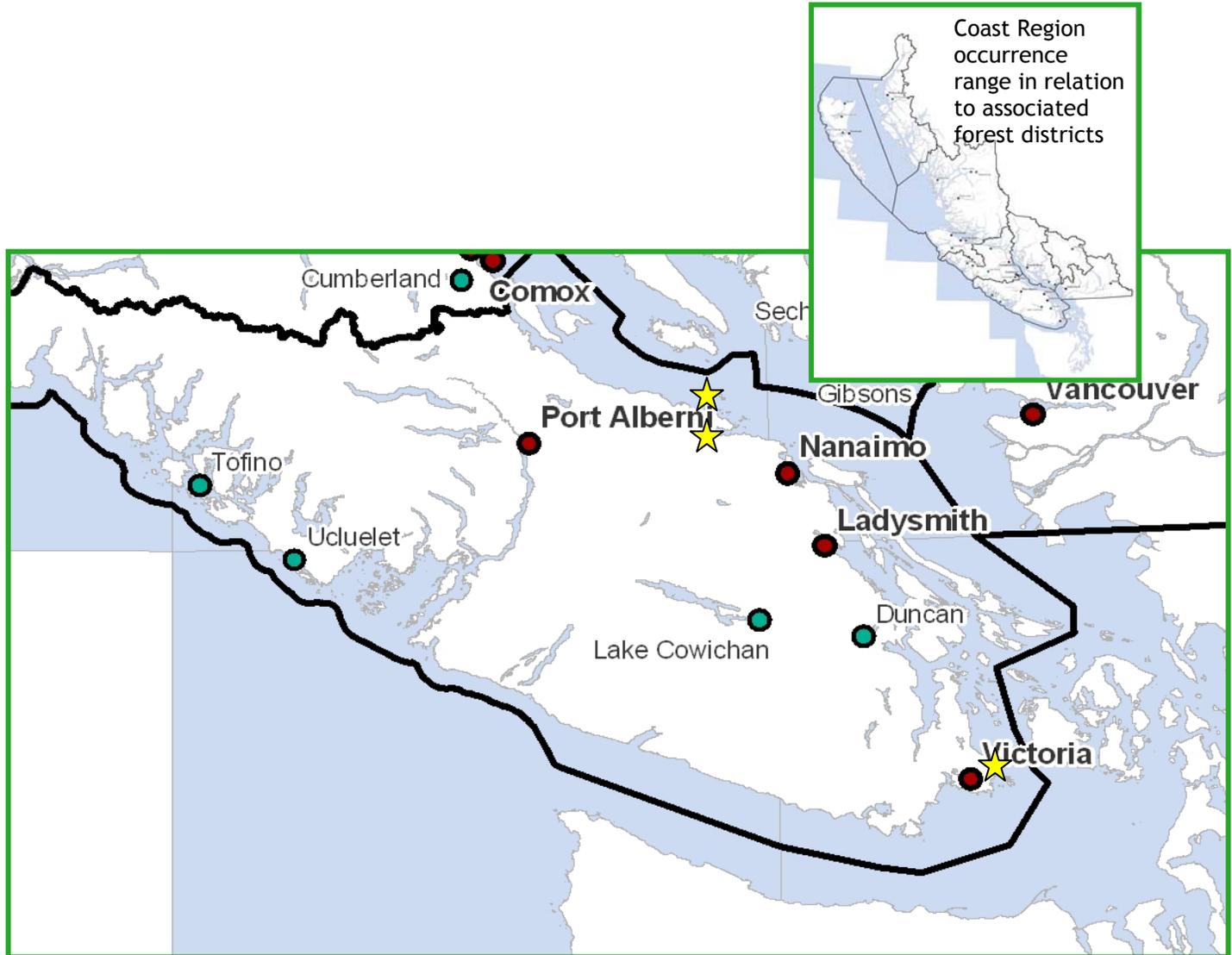
The elongated tapered leaves, which resemble those of English plantain and the robust upright, hollow stems are one of the best ways to distinguish this variety from other *Ranunculus* species such as western buttercup. After flowering, the foliage of water-plantain buttercup turns a distinctive yellow-green.



Western Buttercup

Distribution

Elevations: 0- 15 m. This variety is widely distributed across the Pacific Northwest on both sides of the Cascades including California, Montana, Oregon, Washington state and Idaho. In BC, where it is at the northern extent of its range it is found only in two locations (Uplands Park in Oak Bay/Greater Victoria on Southeast Vancouver Island and Nanoose Bay/Ballenas Island area south of Parksville). Two other historic locations in and around Oak Bay and Cadboro Bay Rd. in Greater Victoria are either extirpated or actually refer to the present site in Uplands Park.



Water-plantain Buttercup (*Ranunculus alismifolius* var. *alismifolius*), known population occurrences (yellow stars) for the Coast Region

Habitat Preferences

This variety occurs in association with western buttercup, white triteleia and common camas. A number of introduced and invasive species may compete with water-plantain buttercup, including sweet vernal grass, orchard-grass, and species of brome. The small vernal pools where it occurs may become shaded by shrubs, including native species such as common snowberry and introduced species such as Scotch broom and Himalayan blackberry. Water-plantain buttercup will also utilize wet disturbed areas such as ditches as well as sites which undergo periodic flooding and summer drought.



In Canada, this subspecies of buttercup is restricted to shallow, vernal pools which dry up as the summer progresses.

Critical Features

Where it occurs in BC, this variety has a direct association with vernal pools, wet meadows and flooded areas within Garry oak and associated woodlands which dry out in the summer. At one time periodic fires would have created new habitat for this species.

Seasonal Life Cycle

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
			Vegetative growth appear in early spring, flowers emerge April-May								
					Seeds mature in June, during late summer drought periods plants die back, becoming dormant until following spring						

This variety only reproduces by seed. It is likely that a number of insect pollinators are responsible for pollination. Seed dispersal is likely through birds and small mammals.

Threats

- ◆ The preferred ecological associations of water-plantain buttercup are geographically limited and subject to urban development and associated habitat loss.
- ◆ Changes to soil moisture, seasonal inundation, water table levels and surface and groundwater diversion as a result of adjacent development, logging and agricultural activity.
- ◆ Disturbance and trampling from outdoor recreation activities, direct mortality from infilling of habitat and landscape maintenance activities in parkland.
- ◆ Fire suppression may contribute to wetland succession to dryer shade dominant plant communities and increased spread and encroachment of competitive plant species including several invasive species.

Conservation & Management Objectives

- ◆ Apply conservation and management objectives for this species and its habitat as set out in the “Recovery Strategy for Multi-species at Risk in Vernal Pools and Other Ephemeral Wet Areas in Garry Oak and Associated Ecosystems 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:

- ◆ While this plant appears stable in its existing populations there is a need to adequately assess actual level and extent of threats.
- ◆ A targeted inventory is needed to determine if undiscovered populations exist elsewhere within the Coast Region and to assess the status of all known populations.
- ◆ Monitor existing populations on an ongoing basis to assess viability and reduce potential disturbance from land use activities. Where suitable habitat occurs, work with land managers and land owners to ensure development or recreational activities do not disturb or encroach on sensitive areas.
- ◆ Consider historic distribution as part of developing a reintroduction program to suitable sites.
- ◆ Conduct outreach to raise awareness of this plant and how to identify it to improve distribution knowledge
- ◆ Effective long-term control and reduction in competition from invasive or aggressively spreading vascular plants (e.g. invasive grasses such as introduced reed canary grass species) must form part of strategies to protect and recover populations. Disturbance to rare plant species and communities must be minimized during control activities.

This variety of water-plantain buttercup is listed under the Federal Species at Risk Act (SARA) and may 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]. BC Species Summary: *Ranunculus alismifolius* var. *alismifolius*. 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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*1Original account prepared by Cindy Sayre.

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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