

Lomatium dissectum var. *dissectum*

English names coastal chocolate-tips, fern-leaved desert-parsley, fernleaf biscuitroot

Scientific name *Lomatium dissectum* var. *dissectum*

Family Apiaceae or Umbelliferae (Parsley)

Other scientific names *Leptotaenia foliosa* var. *dissecta*

Risk status

BC: critically imperilled (S1); red-listed

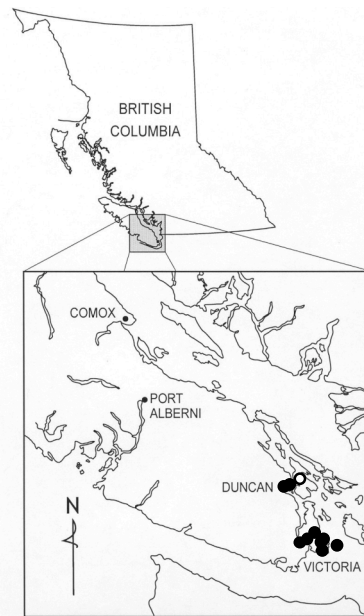
Canada: apparently secure (N4); COSEWIC: not yet assessed

Global: apparently secure (G4T4)

Elsewhere: California, Oregon, Washington - reported (SNR); Idaho - vulnerable (S3)

Range/known distribution

Coastal chocolate-tips occurs chiefly on the west side of the Cascade Mountains from British Columbia to northern California. In Canada, it has only been found on southeastern Vancouver Island (between Victoria and Duncan) and on a few adjacent Gulf Islands. These Canadian populations represent the northern limit of the geographic range of the species in North America. Currently there are 13 known occurrences (plus one reported, but recently unconfirmed, occurrence on Salt Spring Island). Confirmed populations are limited to the Greater Victoria area (8 occurrences), the Gulf Islands (1 occurrence) and the Duncan area (3 occurrences).



Distribution of *Lomatium dissectum* var. *dissectum*

● recently confirmed sites
○ unconfirmed site

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Field description

Coastal chocolate-tips is a **large perennial herb** from a stout taproot. Each plant may develop **several flowering stalks** ranging from 50 to 150 cm tall. Most of the **leaves are basal and are large** (up to 35 cm wide), **triangular in outline**, and 1-3 times **dissected** (divided), giving them a **distinct fern-like appearance**. A few smaller leaves occur on the stems. The **reddish-maroon** (or occasionally yellow) **flowers are arranged in compound umbels** (round topped clusters) consisting of 10-30 main branches at the ends of long peduncles (stalks). The fruits are oblong or oval, 8-18 mm long, glabrous (smooth), with **corky-thickened wings** (margins).

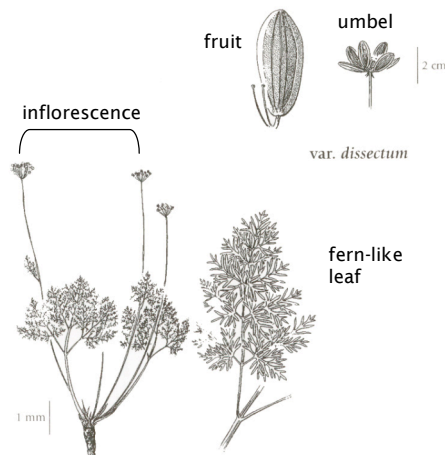
IDENTIFICATION TIPS

Coastal chocolate-tips is similar in appearance to a close relative, also known as fern-leaved desert-parsley (*Lomatium dissectum* var. *multifidum*), which is found in the southern interior of the province. The fruits of coastal chocolate-tips are stalkless or very short-stalked, while those of the interior variety of fern-leaved desert-parsley have well-developed stalks. These two plants are in turn distinguished from other *Lomatium* species by the small size of the ultimate (outermost) leaf segments (less than 1 cm long) in combination with the distinctively thickened fruit margins.



Hans Roemer

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Life history

The life span of this long-lived perennial can exceed 10 years. Plants bloom from April to May, with seeds maturing in late June. Following seed dispersal, all aboveground plant parts die back until the following year. Once dispersed, as many as 99% of the seeds may be consumed by mammalian and insect seed predators. Foliage and flowers are also commonly grazed or parasitized by insects such as leaf miners, galls and caterpillars, and attacks by fungal pathogens are also frequent. Pocket gophers have been documented feeding on the roots of *Lomatium*, a disturbance that can be fatal for the plant. In a study of one *L. dissectum* population (variety unknown) in Washington State, over 40% of the deaths observed over a 10-year span were directly attributable to the activity of pocket gophers.

Habitat

In Canada, coastal chocolate-tips is found on shallow well-drained soils in a variety of habitats including Garry oak (*Quercus garryana*) woodlands, rock outcrops and open maritime meadows. The ground layer is typically forb- or grass-dominated, with an open shrub understorey sometimes present as well. Introduced grasses are prevalent at some sites. The Gulf Island site is a rich coastal meadow with a shrub layer of Nootka rose (*Rosa nutkana*), tall Oregon grape (*Mahonia aquifolium*), bracken fern (*Pteridium aquilinum*) and creeping blackberry (*Rubus ursinus*). Associated forbs and grasses include camas (*Camassia* spp.), fescue (*Festuca* spp.), orchard grass* (*Dactylis glomerata*), common velvet-grass* (*Holcus lanatus*) and tufted hairgrass (*Deschampsia cespitosa*). The Langford site is a Garry oak – Douglas-fir (*Pseudotsuga menziesii*) woodland with a moderate shrub layer dominated by snowberry (*Symphoricarpos albus*). The Thetis Lake site is a Garry oak – Arbutus (*Arbutus menziesii*) / mixed grass-forb woodland on shallow soil over bedrock, with a shrub layer of Scotch broom* (*Cytisus scoparius*) and oceanspray (*Holodiscus discolor*). One of the Saanich sites is on an eroding coastal bluff of sedimentary rock, with stunted Garry oak thickets and a weedy herb layer.

Why the species is at risk

There are only 13 populations known in Canada, all of which are small, ranging in size from 3 to 300 individuals. The total known Canadian population numbered approximately 600-700 reproductive individuals in 2006. The lone Victoria population occurs within a heavily used urban park. At last count it numbered only 5 individuals and is considered to have a low probability of persisting. Potential threats to the other few remaining populations include land use, habitat fragmentation, fire suppression, coastal soil erosion, grazing



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pressure from plant pests (e.g. insects, rodents) and competition from introduced plant species.

What you can do to help this species

Management practices should be tailored to the specific circumstances at the site. Potential management tools will depend on the specific circumstances and may require experimentation on artificially established populations prior to implementation. **Before taking any action, expert advice must be obtained and no action taken without it. Please refer to the introductory section of this manual.**

Public and private landowners should be made aware of new populations of this species if they are discovered, and appropriate management practices suggested. Existing populations should be monitored on an ongoing basis to determine their viability, as well as for any negative impacts stemming from land development, trampling, fire suppression and weed encroachment.

References

British Columbia Conservation Data Centre. Botany Program. 2007.

Database containing records of rare plant collections and observations in the province of British Columbia.

Fairbarns, M. 2006. 2006 Field Surveys for Coastal Chocolate-tips *Lomatium dissectum* var. *dissectum*. Unpublished draft report prepared for Parks Canada Agency, Victoria.

Thompson, J.N. 1985. Postdispersal seed predation in *Lomatium* spp. (Umbelliferae): variation among individuals and species. *Ecology* 66:1608-1616.

Thompson, J.N. 1998. Coping with multiple enemies: 10 years of attack on *Lomatium dissectum* plants. *Ecology* 79: 2550-2554.

For further information, contact the Garry Oak Ecosystems Recovery Team, or see the web site at: www.goert.ca.

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*Refers to non-native species.