

## *Silene scouleri* ssp. *grandis*

**English name** coastal Scouler's catchfly

**Scientific name** *Silene scouleri* ssp. *grandis*

**Family** Caryophyllaceae (Pink)

**Other scientific names** *Silene grandis*, *S. pacifica*, *S. grandis* var. *pacifica*, *S. scouleri* var. *pacifica*, *S. scouleri* ssp. *grandis*, *S. scouleri* ssp. *scouleri* var. *scouleri*, *S. repens* var. *costata*

### Risk status

BC: critically imperilled (S1); red-listed

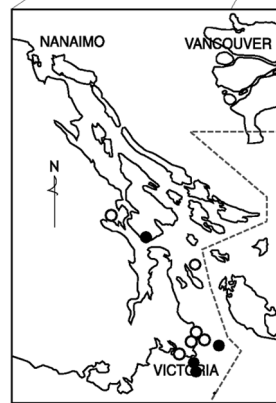
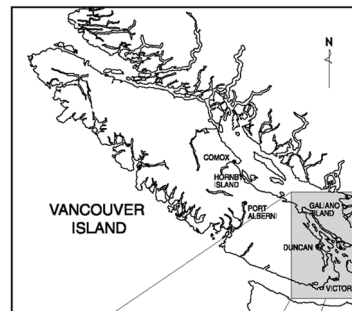
Canada: not ranked (NNR); COSEWIC: endangered (2003)

Global: Not yet ranked (TNR)

Elsewhere: Washington, Oregon, California – reported

### Range/known distribution

Coastal Scouler's catchfly is found in southwestern British Columbia and northern Washington, 550 km disjunct from its main range in southern Oregon and northern California. In British Columbia, coastal Scouler's catchfly is known only from small islands and a single Gulf Island off southeastern Vancouver Island. There are currently 3 known sites on small islands (Trial Island, Little Trial Island and Alpha Islet), and 1 site on Salt Spring Island. A further 6 populations have been extirpated.



Distribution of *Silene scouleri* ssp. *grandis*

- recently confirmed sites
- unconfirmed or extirpated sites

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### Field description

Coastal Scouler's catchfly is a **hairy perennial** (15-80 cm tall) with one to several stems growing from a woody stem base. The **basal leaves are 6-20 cm long and up to 1.5 cm wide** and are borne on slender stalks. There are 3-11 pairs of opposite stem leaves, which become smaller with shorter stalks up the stem. The flowers are clustered in a narrow spike. The **petals are greenish-white to purplish** with two to almost 4 lobes with **prominent lateral teeth**. The united **sepals (calyx) form a 10-nerved, hairy tube** that surrounds the petals. The pimply seeds are borne in elliptic to egg-shaped capsules.

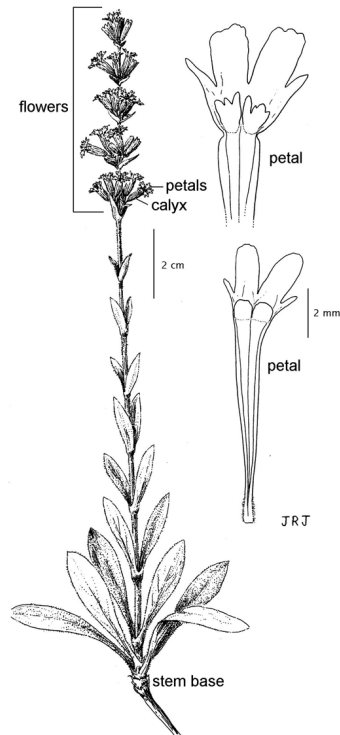
### IDENTIFICATION TIPS

Although coastal Scouler's catchfly is the only native perennial *Silene* species in Garry oak ecosystems, two introduced perennial species, bladder campion (*Silene vulgaris*) and white cockle (*S. latifolia*) may be found in the same range. Bladder campion has a hairless, inflated calyx whereas the calyx in coastal Scouler's catchfly is hairy and not inflated. White cockle lacks the prominent lateral teeth on the blades of the petals.



Matt Fairbairns

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### **Life history**

Unlike other *Silene* species, coastal Scouler's catchfly produces above ground vegetation every year and does not have extended dormancy. Established plants begin growing when shoot dormancy is broken in late November to January. Most shoots partially die back during summer droughts. Summer drought can kill both juvenile and mature plants as well as limiting the amount of flowering and seed set. The mature shoots that survive form flowering stems in June or early July, and flowers open in late August or early September. Seeds ripen in September or October and are dispersed, primarily by gravity, well into November. The onset of cool fall weather limits reproduction by rotting the remaining flowers and seed capsules.

In the field, germination occurs in February and March, however seed germination is poor and many small seedlings are killed by drought. Recruitment of new plants may require exceptional weather such as the absence of dry periods over the winter and moderate moisture levels continuing into June or July. Specific germination microsites are also required.

The name "catchfly" comes from the sticky hairs on the surface of the leaves and calyces that trap small insects trying to steal nectar without pollinating the flowers.

### **Habitat**

Three of the coastal Scouler's catchfly sites are gently sloping low elevation meadows within 30 m of sea level. A fourth site is on open, gradually sloping meadows at higher elevations (up to 600 m). Trees and shrubs such as Douglas-fir (*Pseudotsuga menziesii*), Garry oak (*Quercus garryana*), big-leaf maple (*Acer macrophyllum*), Nootka rose (*Rosa nutkana*) and common snowberry (*Symphoricarpos albus*) may occur at the edge of the habitat. Trees or shrubs do not occur in the meadows due to drought, wind and in the maritime populations, salt spray. Associated plants include strawberry (*Fragaria* spp.), bracken fern (*Pteridium aquilinum*), white-top aster (*Sericocarpus rigidus*), field chickweed (*Cerastium arvense*), red fescue (*Festuca rubra*), yarrow (*Achillea millefolium*), woolly eriophyllum (*Eriophyllum lanatum*), Puget Sound gumweed (*Grindelia integrifolia*), barestem desert-parsley (*Lomatium nudicaule*), hairy cat's ear\* (*Hypochaeris radicata*), common velvetgrass\* (*Holcus lanatus*), Kentucky bluegrass\* (*Poa pratensis*), sweet vernalgrass\* (*Anthoxanthum odoratum*) and hedgehog dogtail\* (*Cynosurus echinatus*).

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### **Why the species is at risk**

Much of the former habitat of coastal Scouler's catchfly has been destroyed by urban development. Poor reproduction prevents populations from increasing in size and limits dispersal into new habitat. Fires, which create the open mineral soil required for germination, have been entirely suppressed. If fires do occur, increased fuel loading may burn the root crowns of plants and the resulting disturbed soils will be invaded by opportunistic invasive species. Drought, which is a naturally occurring stressor in these habitats, is intensified by competition for moisture with invasive plants.

### **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 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.**

Existing populations should be monitored on an ongoing basis to determine their viability, as well as for any negative impacts stemming from demographic collapse, fire suppression, trampling and weed encroachment. Plants on private land should be protected from development. In order to prevent demographic collapse, nursery propagation and augmentation of the smaller populations should be considered.

### **References**

- Fairbarns, M. 2005. Demographic and Phenological Patterns of *Silene scouleri* ssp. *grandis* (Coastal Scouler's Catchfly). Aruncus Consulting, Victoria, BC.
- Fairbarns, M. and K. Wilkinson. 2003. COSEWIC Status Report on the Coastal Scouler's Catchfly *Silene scouleri* ssp. *grandis* in Canada, in COSEWIC assessment and status report on the coastal Scouler's catchfly *Silene scouleri* ssp. *grandis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa, ON.
- Parks Canada Agency. 2006. Recovery Strategy for Multi-Species at Risk in Maritime Meadows Associated with Garry Oak Ecosystems in Canada. In Species at Risk Act Recovery Strategy Series. Ottawa, ON.

For further information, contact the Garry Oak Ecosystems Recovery Team, or see the web site at: [www.goert.ca](http://www.goert.ca).

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\*Refers to non-native species.

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