

Silene scouleri ssp. *grandis* – Coastal Scouler’s Catchfly

English name: Coastal Scouler’s Catchfly

Other English name: N/A

Scientific name: *Silene scouleri* ssp. *grandis* (Eastw.) Hitch. & Maguire

Other scientific name: *S. scouleri* Hook. ssp. *scouleri*, *S. grandis* Eastw., *S. pacifica* Eastw., *S. grandis* Eastw. var. *pacifica* Jeps., *S. scouleri* Hook. var. *pacifica* (Eastw.) C.L. Hitchc., *S. scouleri* Hook. ssp. *grandis* (Eastw.) C.L. Hitchc. & Maguire

Family: *Caryophyllaceae* (Chickweed Family)

Risk status

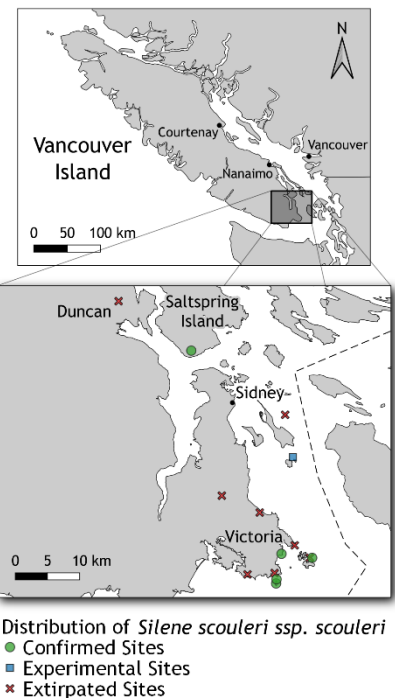
BC: critically imperilled (S1); red-listed

Canada: Endangered

Global: not ranked (G5T3T5)

Elsewhere: Washington, Oregon not ranked (SNR), California imperilled (S2S3), Idaho not ranked (SNR), Montana uncertain (SU)

Taxonomic Note: Numerous subspecies and varieties of Scouler’s Catchfly have been described but recent treatments have generally rejected most as not being distinctive taxa, leaving only ssp. *hallei*, ssp. *pringlei*, and ssp. *scouleri* according to the most restrictive treatments. There is certainly considerable disagreement about whether *Silene scouleri* ssp. *grandis* deserves to be recognized as distinct from *Silene scouleri* ssp. *scouleri*, an uncommon plant which otherwise occurs in dry grasslands of interior British Columbia where it was collected three times, between 1951 and 1962. In Canada, *Silene scouleri* ssp. *grandis* is protected under the Species At Risk Act (SARA) but the Province of British Columbia follows the recent trend to include that subspecies and *Silene scouleri* var. *pacifica* a near synonym, as merely elements of *Silene scouleri* Hook. ssp. *scouleri*. In the future, genomic studies may reveal the relationships amongst these taxa. Because Canadian federal legislation recognizes and protects *Silene scouleri* ssp. *grandis*, that is the entity described in this fact sheet.



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Range/Known distribution: In Canada, *Silene scouleri* ssp. *grandis* is known from 15 sites (4 extant) from the Cowichan Valley to Victoria, and the southern Gulf Islands,

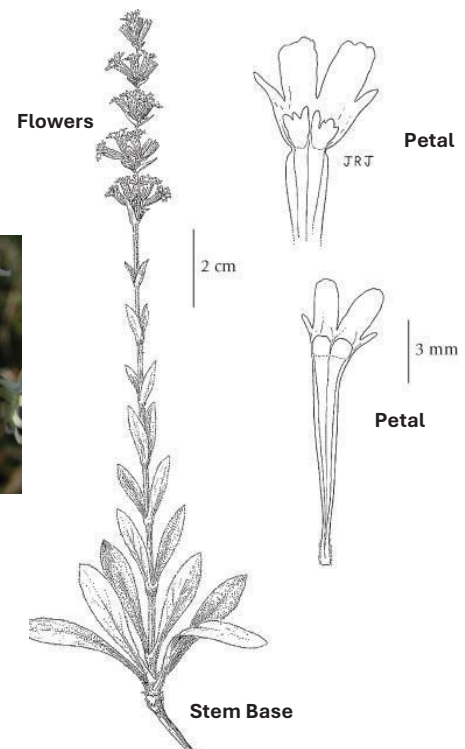
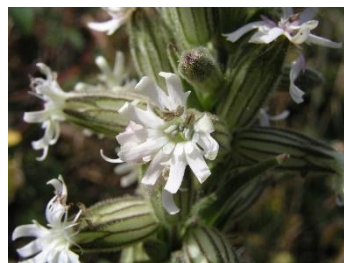
In the United States, *Silene scouleri* ssp. *grandis* has been reported from coastal areas from southern Oregon to the San Francisco Bay region.

Field description: Coastal Scouler’s Catchfly is a perennial with a persistent semi-woody base which produces one or more annual stems that are up to 80 cm tall. It has 3-11 pairs of opposite, oblanceolate leaves. Leaves at the base of the stem have distinct petioles while those farther up the stem are progressively smaller and shorter-stalked, or sessile. The foliage is densely covered with hairs and the hairs on the middle and upper stem and leaves are glandular and quite sticky. The inflorescence is a narrow, elongate, raceme-like cyme of short-stalked flowers. The distinctly 10-nerved calyx is tubular, 10-18 mm long, densely glandular-pubescent, and not inflated in fruit. The corolla is white to greenish white or pink-tinged. The claw of the petals has hairy margins, and the blade is 4-8 mm long. The flowers have 3 stigmas. The fruit is a dry capsule, and the seeds are small, greyish-brown, and covered in conspicuous papillae (small bumps).

Identification tips: Within its Canadian Range, Coastal Scouler’s Catchfly is distinctive because of its perennial habit, densely glandular-pubescent and strongly-nerved calyx, large flowers and 3 styles. Sleepy Catchfly* (*Silene antirrhina*), Small-flowered Catchfly* (*S. gallica*), and Night-flowering Catchfly* (*S. noctiflora*) are annuals. The calyx of Bladder Champion* (*Silene vulgaris*) is almost glabrous. The flowers of White Cockle* (*Silene latifolia*) have 4-5 styles or all male flowers. The flowers of Menzies Champion (*Silene menziesii*) are smaller with a calyx that is under 10 mm long and lacks prominent nerves.



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Life history: Coastal Scouler’s Catchfly relies exclusively on seed to reproduce. The seeds germinate in late February and March. Germination rates are low, and seedling mortality is high except in years in which there are no droughts in late spring or early summer. Plants take 2-5 years to mature.

Established plants break dormancy in late autumn or winter, and they are quite cold-tolerant. Growth occurs quickly in late April and May and flowering may begin as early as mid-June and end as late as mid-August. By late September, most fruits have matured and dehisced, dispersing their seeds. The capsules dehisce at their tips, shedding the seeds in the ‘saltshaker’ strategy when blown about or battered by raindrops. The seeds lack any structures to aid in long-distance dispersal and most probably remain close to the parent plant.

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: In Canada, Coastal Scouler’s Catchfly is found on well-drained soils in a mix of vegetation types including open meadows, shrublands, and woodlands of Garry Oak (*Quercus garryana*) and Douglas-fir (*Pseudotsuga menziesii*). Associated species may include native shrubs such as Nootka Rose (*Rosa nutkana*), Tall Oregon-grape (*Berberis aquifolium*), Common Snowberry (*Symphoricarpos albus*) and trailing Blackberry (*Rubus ursinus*). Native forbs are often abundant, including camas (*Camassia quamash* and *C. leichtlinii*), Common Strawberry (*Fragaria virginiana*), Barestem Desert-parsley (*Lomatium nudicaule*), Pacific Sanicle (*Sanicula crassicaulis*), Yarrow (*Achillea millefolium*), Woolly Sunflower (*Eriophyllum lanatum*), Chocolate Lily (*Fritillaria affinis*), and Field Chickweed (*Cerastium arvense*). Bracken Fern (*Pteridium aquilinum*) is often present. Native graminoids tend to be less abundant, but may include Tufted Hairgrass (*Deschampsia caespitosa*), California Brome (*Bromus carinatus*), Long-stoloned Sedge (*Carex inops*), and Beach Red Fescue (*Festuca rubra* ssp. *pruinosa*). Mosses and lichens are rarely abundant except in pristine areas where Maritime Reindeer Lichen (*Cladonia portentosa*) may form large tufts.

Why this species is at risk: Over 95% of Garry Oak and associated ecosystems in Canada have been lost to development since European settlement began in the 19th century and it is likely that a similar proportion of Coastal Scouler’s Catchfly populations were lost in the process. Fire suppression, and concomitant forest and shrubland ingrowth, may have also eliminated some. Predator control and the associated increase in deer have probably increased grazing pressure.

The greatest threat comes from competition with invasive species. These include shrubs such as Scotch Broom* (*Cytisus scoparius*), English Ivy* (*Hedera helix*), and Spurge Laurel* (*Daphne laureola*). Invasive grasses pose just as great a threat, including Orchard Grass* (*Dactylis glomerata*), Common Velvet Grass* (*Holcus lanatus*), Sweet Vernal Grass* (*Anthoxanthum odoratum*), Kentucky Bluegrass* (*Poa pratensis*), and Tall Oatgrass* (*Arrhenatherum elatius*). Invasive forbs tend to be less of a threat although Hairy Cat’s-ear* (*Hypochaeris radicata*), Common Vetch* (*Vicia sativa*), and Ribwort Plantain* (*Plantago lanceolata*) are often present and sometimes abundant.

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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 habitats. 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: All populations should be monitored to determine their viability, as well as for any negative impacts stemming from land development, recreational pressure, and invasion by competitive shrubby species.

Fencing may be required to protect populations from trampling and trail maintenance activities. Deer- and rabbit-proof fencing may be necessary where populations are being damaged by herbivory..

Invasive species within populations of Coastal Scouler’s Catchfly should be controlled. This includes removing invasive shrubs but may also include mowing invasive grasses and raking the thatch. Mowing and raking should not be done until after thorough consideration of the pros and cons, as it could have undesirable impacts on native species including other rare plants unless conducted properly.

References

- B.C. Conservation Data Centre. 2024. BC Species and Ecosystems Explorer. B.C. Minist. of Environ. Victoria, B.C. Available: <https://a100.gov.bc.ca/pub/eswp/> (accessed Mar 15, 2024)
- COSEWIC 2003. 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. vi + 17 pp.
- 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: Parks Canada Agency. 93 pp.

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