

Githopsis specularioides – Common Bluecup

English name: Common Bluecup

Other English name: none

Scientific name: *Githopsis specularioides* Nutt.

Other scientific name: *Githopsis calycina* Benth.

Family: *Campanulaceae* (Bluebell Family)

Risk status

BC: vulnerable (S3); blue-listed

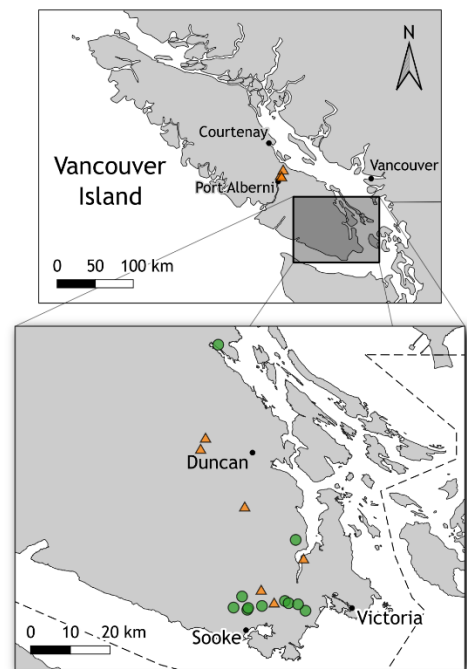
Canada: not assessed

Global: secure (G5)

Elsewhere: Washington vulnerable (S2S3), Oregon, California unranked (SNR), Idaho critically imperilled (S1), Montana imperilled (S1S2)

Range/Known distribution: In Canada, Common Bluecup has been reported from approximately twenty low to medium elevation locations on eastern Vancouver Island from Port Alberni to Sooke, but only six of these populations have been recently verified. In the United States, disjunct populations are known from the Lake Chelan area and the Kootenay Mountains, both about 100 km south of the Canadian border. Elsewhere in Washington and Oregon it is known from the Coast and Cascade Mountains and occasionally in the basin between the Cascades and the Rocky Mountains. In California, it occurs in the Coastal Ranges east to the lower slopes of the Sierra Nevada and south to the hills west of Palm Springs.

Field description: Common Bluecup is a small and easily overlooked annual plant commonly 5-30 cm tall. The stem, which is branched in larger individuals, bears long and narrow (4-20 mm long, 1-3.5 mm wide), alternate leaves that are sparsely toothed. Common Bluecup has up to three or four flowers, borne in the axils of the upper leaves, but in BC the plants often have a single flower which appears to be borne at the tip of the stem. Its flowers are solitary and terminal (at the ends of stems). Each flower is composed of an outer calyx of five long (5-15 mm), narrow lobes that extend beyond the deep blue 5-lobed corolla. The fruits are 6-15 mm long, cigar-shaped capsules which are prominently ribbed, and which open at the tip.



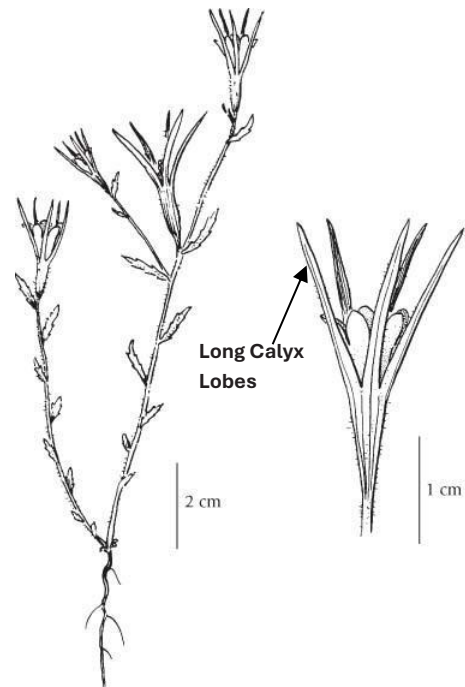
Distribution of *Githopsis specularioides*
● Confirmed Sites
▲ Unconfirmed Sites

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Identification tips: There are a number of small annual plants with narrow, sparsely-toothed leaves in vernal moist habitats on southern Vancouver Island, but no others have a calyx with long narrow lobes enclosing a blue flower.



Githopsis specularioides



Life history: Common Bluecup is a short-lived annual. Little is known about its life cycle in British Columbia, where it is at the northern limit of its range. Extrapolating from life history studies of the species further south, Common Bluecup probably germinates in the late spring. It usually flowers in May or June (occasionally early July, at upper elevations). It is capable of self-pollinating. The seeds lack any structures to aid in long distance dispersal.

Habitat: In Canada, Common Bluecup usually occurs at an elevation of between 150-550 m above sea level. It occurs in rocky seepage areas, usually on open, windswept, warm slopes. Such sites are moist to wet in the winter and spring, providing conditions necessary for germination, growth, and maturation. The sites become very dry in the summer, which prevents more robust perennial competitors from dominating the vegetation. The most common native species associating with Common Bluecup include grasses such as Roemer's Fescue (*Festuca roemerii*) and California Oatgrass (*Danthonia californica*); forbs such as Woolly Sunflower (*Eriophyllum lanatum*), Pretty Shooting-star (*Primula pauciflora* var. *pauciflora*), Spring Gold (*Lomatium utriculatum*), Hooker's Onion (*Allium acuminatum*), Fool's Onion (*Triteleia hyacinthina*), saxifrages (e.g., *Micranthes rufidula*), and annual clovers (e.g., *Trifolium willdenovii*), and mosses and moss-like plants such as Grey Rock Moss (*Racomitrium elongatum*) and Wallace's Selaginella (*Selaginella wallacei*).

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Why this species is at risk: Despite extensive searches, Common Bluecup has only been reported from about twenty locations in Canada. It is found in vernal moist seepage areas which are fragile habitats that are vulnerable to alteration, and some are at risk from residential and commercial development associated with urban expansion. Though apparently capable of self-pollination, this short-lived annual appears to be a weak disperser, which means that new populations may rarely establish.

Many of the Canadian populations of Common Bluecup are small and isolated and can, therefore, be lost to chance events. The main threats to Common Bluecup include invasive grasses and forbs that may dominate seeps, and invasive shrubs such as Scotch Broom* (*Cytisus scoparius*) which may encroach on the outer edges of occupied sites and provide competition and shading. Native trees and shrubs such as Common Snowberry (*Symphoricarpos albus*) may also encroach, although they are less likely to overtake the low-lying seasonally wet sites. Human disturbance from trampling or off-road vehicles, and activities that would alter the hydrology of occupied sites, such as soil compaction, trail construction, or road building, may pose a threat. As an annual species of moist openings, Common Bluecup is more likely to be affected by climate change than many other species. Climatic fluctuations which affect annual temperature and rainfall patterns may affect factors such as moisture availability, germination timing, and seedling survival, potentially leading to population declines. Once lost, a population is unlikely to be re-established by natural events because the seeds are such weak dispersers.

What you can do to help this species: Management practices should be tailored to the needs of the site. Potential management tools will depend on the specific circumstances and may require experimentation prior to implementation. Public and private landowners should be made aware of new populations of this species if they are discovered.

Management needs include protecting sites from development, protecting their natural hydrological patterns, limiting access, and carefully removing invasive shrubs such as Scotch Broom* (*Cytisus scoparius*) present in or around Common Bluecup populations without damaging the seeps. Surveys should be conducted to determine the status of populations which haven't been visited for decades, and to search for new populations. Regular inventories of known populations should be conducted to monitor their status and identify any negative impacts.

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References

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- Morin, N. 1993. Campanulaceae (in part). pp. 459-468. In: Hickman, J.C. (ed.) *The Jepson Manual: Higher plants of California*. University of California Press, Berkeley

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