

Viola praemorsa ssp. *praemorsa*

English name yellow montane violet, canary violet, upland yellow violet

Scientific name *Viola praemorsa* ssp. *praemorsa*

Family Violaceae (Violet)

Other scientific names *Viola nuttallii* var. *praemorsa*

Risk status

BC: imperilled (S2); red-listed

Canada: threatened (N2); COSEWIC: endangered (2007)

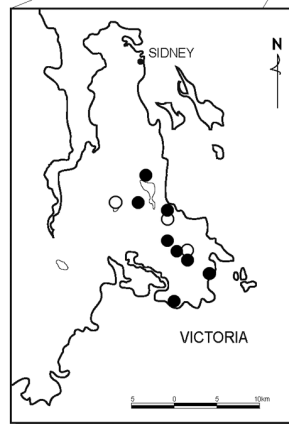
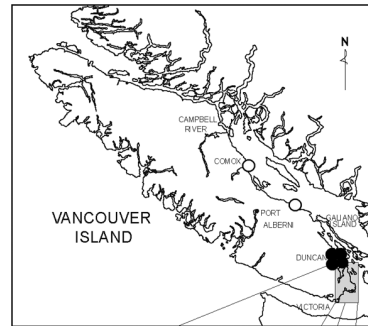
Global: secure (G5T5)

Elsewhere: California, Oregon, Washington – reported (SNR)

Range/Known distribution

Yellow montane violet occurs on the west coast of North America from southwestern British Columbia to northern California. In Canada, it is currently restricted to Salt Spring Island and southeastern Vancouver Island, from Duncan to Victoria.

These Canadian populations represent the northern limit of the geographic range of yellow montane violet in North America. Currently, there are 14 known occurrences and 5, or possibly 6, sites are presumed extirpated. The number of plants in the larger populations may have large fluctuations from year to year due to seasonal weather variation.



Distribution of *Viola praemorsa* ssp. *praemorsa*

- recently confirmed sites
- unconfirmed or extirpated sites

Species at Risk in Garry Oak and Associated Ecosystems in British Columbia



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Field description

Yellow montane violet is a yellow-flowered perennial with short, erect stems 5-30 cm tall. **The basal leaves are broadly egg- to lance-shaped, and conspicuously hairy.** Basal leaves are 2-10 cm long and 1-3.5 cm wide with leaf stalks (petioles) 3-15 cm long. The flowering stem may be leafless or may have a few reduced leaves. **Bright yellow flowers arise singly on stalks** from the axils of the leaf stems. The lowest petal has a 1- to 2-mm long hollow tube (spur) at the base. **The inside of the lower 3 petals have thin brown markings.** Flowers that do not open (cleistogamous flowers), and are therefore self-pollinated, are also produced. Fruits are dry capsules, 6-11 mm long, with dark brown seeds.

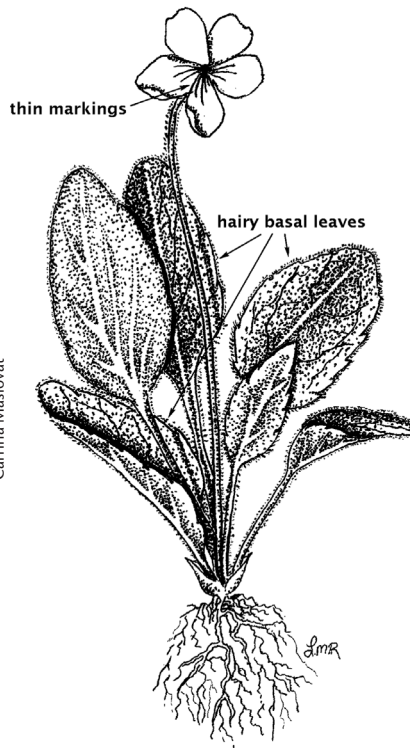
IDENTIFICATION TIPS

This species is readily recognized by the solitary, yellow 5-petalled flowers that are held above basal egg- to lance-shaped hairy leaves that are longer than they are wide. Other yellow-flowered violets generally occur in more shaded habitats and have leaves that are generally much wider than long.



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Carrina Maslovat



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Life history

Yellow montane violet leaves emerge in early spring (March). The showy cross-pollinated flowers appear in late April and May and the inconspicuous self-pollinated flowers are produced slightly later until late May or June under favourable weather conditions. Seeds are explosively ejected from capsules during June and July. Most plants die back by midsummer (mid- to late June) although some plants can persist until late summer (mid- to late July).

It takes at least two years for plants to become large enough to flower. Yellow montane violet does not reproduce vegetatively, hence, seed production is required to spread this species into new habitats. Flies, butterflies, solitary bees and thrips are known to pollinate closely related violet species. Ants are attracted to the small fat bodies (elaiosomes) attached to the seeds and help disperse the seed.

Habitat

Yellow montane violet occurs in Garry oak (*Quercus garryana*) woodlands and maritime meadows. Most sites are at low elevations (<30 m), but yellow montane violet occurs in one site as high as 600 m. Yellow montane violet can grow in relatively deep soils where there is little exposed bedrock but most sites have shallow soils (10-30 cm) over bedrock. Sites range from nearly level to slopes as much as 50%. Most sites are south facing with little or no shrub cover although some stands have an understory of shrubs, in particular snowberry (*Symphoricarpos albus*) and Scotch broom* (*Cytisus scoparius*). There is usually a rich layer of herbaceous species including native species such as common camas (*Camassia quamash*), spring gold (*Lomatium utriculatum*) and Pacific sanicle (*Sanicula crassicaulis*), in addition to a range of introduced grass species.

Habitats that support yellow montane violet may have been maintained in the past by frequent fires, both natural and human lit.

Why this species is at risk

Habitat destruction has been the major historic threat to yellow montane violet. The introduction of European plant species has resulted in degradation of the remaining habitat. The non-native shrub, Scotch broom* (*Cytisus scoparius*), is the biggest threat because it shades out herbaceous plants, alters soil chemistry and facilitates the invasion of other exotic species. Fire suppression may have contributed to the decline of populations by allowing infilling of native trees such as red alder (*Alnus rubra*) and Douglas-fir (*Pseudotsuga menziesii*) and native shrubs such as common snowberry (*Symphoricarpos albus*). Fire suppression also changes the composition of the herbaceous plant community, alters soil fertility levels and decreases the amount of bare soil "microsites" available for germination.

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Grazing may help keep other potentially competitive species in check, however, grazing also facilitates the invasion of nonnative species increasing competition if grazing pressure is removed. Invertebrates such as slugs and insects eat leaves, flowers and seeds of yellow montane violet. Trampling may also damage plants. Six of the remaining populations are very small (<50 plants) and may be particularly vulnerable to local extinction (extirpation).

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. **Before taking any action, expert advice should 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. Management needs include removal of invasive species and limiting access to sensitive habitat. Existing populations should be monitored on an ongoing basis to determine their viability, as well as for any negative impacts stemming from land development, grazing and weed encroachment.

References

- COSEWIC. 2007. COSEWIC assessment and update status report on the Yellow Montane Violet *Viola praemorsa ssp. praemorsa praemorsa* subspecies 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 Garry Oak Woodlands 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

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*Refers to non-native species.

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