

Eurybia radulina – Rough-leaved Aster

English name: Rough-leaved Aster

Other English name: Roughleaf Aster

Scientific name: *Eurybia radulina* (A. Gray) G.L. Nesom

Other scientific name: *Aster radulinus* A. Gray, *Weberaster radulinus* (A. Gray) A. Löve & D. Löve

Family: *Asteraceae* (Daisy Family)

Risk status

BC: critically imperilled (S1); red-listed

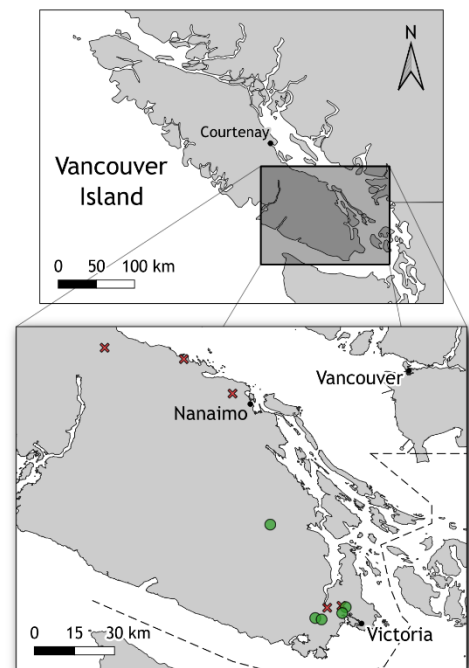
Canada: Endangered

Global: critically imperilled (G4)

Elsewhere: Washington critically imperilled (S1)

Range/Known distribution: In Canada, Rough-leaved Aster ranges along the west side of Vancouver Island from Parksville south to the Victoria area. There are five recently confirmed sites and five more sites where it has not been observed for more than 50 years (some of these may be based on mis-identifications).

In Washington, it is known from the San Juan Islands. These populations are disjunct from a number of occurrences that have been reported from the east slopes of the Cascade Ranges in Washington. Rough-leaved Aster appears to be more widespread in Oregon, occurring in many places in the Coast and Cascade Ranges and less frequently in the basin between the Cascades and the Rocky Mountains. In California it occurs in the northern Sierra Nevada and in the Coastal Ranges as far south as Santa Barbara and the Channel Islands with a disjunct population in the northern Santa Ana Mountains. It is possible that many populations reported from the eastern part of its range are actually based on mis-identifications of closely-related species such as Subalpine Aster (*Eurybia merita*) or Showy Aster (*E. conspicua*). Two collections from Montana, both made in 1900, need to be verified as this would represent a major range extension, not recognized in the Flora North America treatment for the species.



Distribution of *Eurybia radulina*
● Confirmed Sites
✕ Extirpated Sites

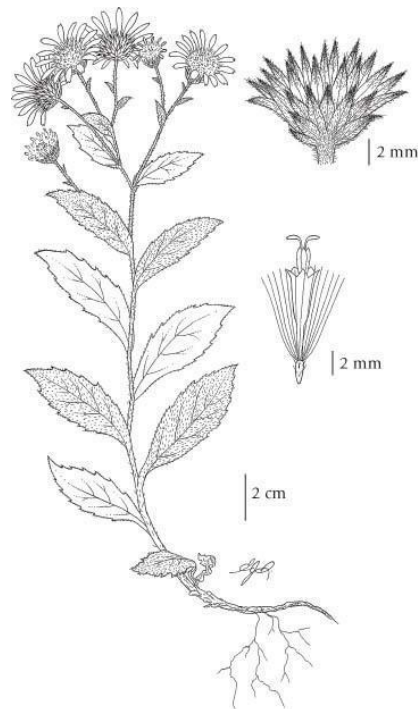
Eurybia radulina – Rough-leaved Aster

Field description: Rough-stemmed Aster is a perennial herb with a long, slender rhizome. The 10-70 cm tall stems are sparsely to copiously hairy, and often purplish. The leaves are rough-hairy on their lower surface. The basal leaves soon wither. The largest stem leaves are found near the bottom of the shoot and the middle and upper leaves are gradually smaller. The stem leaves are relatively broad and sharply toothed. As is the case in all of the Aster family, the ‘flowers’ are actually condensed inflorescences called heads, and the ‘petals’ are actually individual flowers. The involucral bracts, which subtend the heads, are arranged in overlapping series. These bracts are often strongly purple-margined and are usually sharp-pointed, stiff-hairy on their backs, and have a prominent midrib. There are 10-15 white to pale violet ray flowers and the 30-70 disk flowers are yellow at first but may become tinged with purple or pink as they age. The achenes have 7-9 ribs, are sparsely stiff-hairy, and bear a tawny pappus.

Identification tips: A number of other Asters and Fleabanes occur in Garry Oak and associated ecosystems. The Fleabanes are easily distinguished because their involucral bracts are all about the same length. Rough-leaved Aster is the only aster in Garry Oak and associated ecosystems which has the following combination of characters: 10-15 ray flowers, hairs on the involucre and upper stems not glandular, involucral bracts with purplish tips and margins, and leaves rough beneath. It is closely related to Subalpine Aster and Arctic Aster (*E. sibirica*), but those species don’t occur in our area.



Eurybia radulina



Eurybia radulina – Rough-leaved Aster

Life history: The shoots of Rough-leaved Aster arise from buds at the tips of its rhizome, emerging in April or May. Many shoots, particularly in shaded areas, fail to produce flowers. When flowers do form, they are usually found in July and August. Little more is known about the biology of Rough-leaved Aster. In similar species, the pappus on the achene aids in wind dispersal but few seeds are likely to travel more than 50 cm from the parent plant.

Habitat: Rough-leaved Aster grows in dry - sometimes rocky - thickets and Douglas-fir woodlands.

Why this species is at risk: Little is known about the risks faced by Rough-leaved Aster in Canada. Roadside populations can be damaged by mowing. Many populations may be threatened by forest infilling as the result of fire suppression, which discourages flowering and may eventually kill the plants.

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. Public and private landowners should be made aware of new populations of this species if they are discovered, and appropriate management practices suggested.

Roadside populations of Rough-leaved Aster should be protected from mowing. Forest may be thinned experimentally to see if that increases flowering and seed production in populations growing under moderate to dense Douglas-fir canopies.

References

- Brouillet, L. *Eurybia* In: Flora of North America Editorial Committee, eds. 1993+. Flora of North America North of Mexico [Online]. 25+ vols. New York and Oxford. Vol. 20. http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=112402. Accessed [March 9, 2023].
- Singleton, Rhine, Sana Gardescu, P.L. Marks, and Monica A. Geber. 2001. Forest herb colonization of postagricultural forests in central New York State, USA. *Journal of Ecology* 89: 325-338.

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

Line art Copyright © Province of British Columbia. All rights reserved. Reprinted with permission of the Province of British Columbia. www.ipp.gov.bc.ca. Photograph reprinted with permission of James Miskelly.

© 2024

*Refers to non-native species