

Sericocarpus rigidus

English name white-top aster, white-topped aster, Columbian whitetop aster

Scientific name *Sericocarpus rigidus*

Family Asteraceae (Aster)

Other scientific names *Aster curtus*

Risk status

BC: imperilled (S2); red-listed

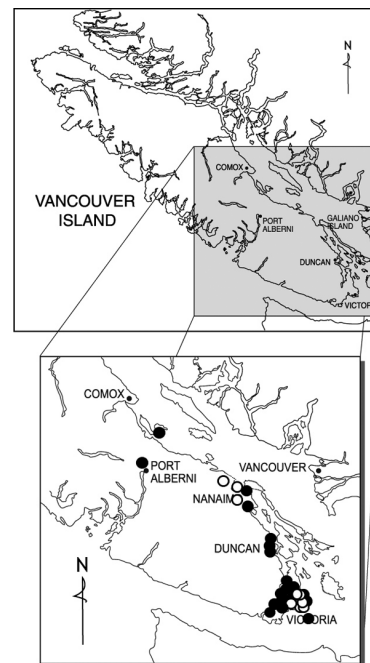
Canada: vulnerable (N3); COSEWIC: special concern (2009)

Global: vulnerable (G3)

Elsewhere: Oregon – threatened (S2); Washington – vulnerable (S3)

Range/Known distribution

White-top aster occurs west of the Coast and Cascade Mountains from southwestern British Columbia, through the Puget Trough in Washington, to the Willamette Valley in Oregon. In Canada, it has been found on Hornby Island and southeastern Vancouver Island from Port Alberni south to Victoria. Currently, there are 22 occurrences in British Columbia and as many as 9 historic localities may have been extirpated. Of the extant sites, 16 occur mostly or entirely within park land protected from development.



Distribution of *Sericocarpus rigidus*

- recently confirmed sites
- unconfirmed or extirpated sites

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Field description

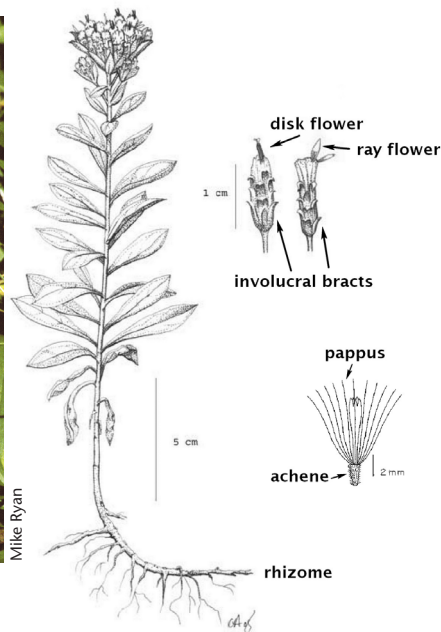
White-top aster is a perennial herb from a creeping rhizome. The rhizome has fibrous roots and produces fertile or sterile shoots at intervals. The stems are 10-30 cm tall and have **broadly lance-shaped alternating leaves, 2.5 to 3.5 cm long**. Both the lower and upper leaves on the stem are smaller than those in the middle. The 5 to 20 flower heads are borne on short stalks and are arranged in a terminal cluster. The leaf-like structures enclosing the flower head (involucre bracts) are narrow, white and papery at the bottom, with a light green tip at the top. Each flower head is composed of both strap-shaped ray flowers and central tube-like disk flowers. The **ray flowers are few (1-3), white, 1-3 mm long, and inconspicuous**. The **disk flowers are pale yellow and 9-21 in number**. Fruits are single-seeded, non-splitting fruit (achenes) attached to a tuft of hair-like bristles (pappus).

IDENTIFICATION TIPS

When in flower, white-top aster is easily distinguished from other members of the Aster family in British Columbia by the whitish disk and ray flowers and by the small number of very short ray flowers that are obscured by the involucre bracts. The plants are most often recognized by their characteristic foliage, especially late in the season when the leaves turn yellow.



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

Sericocarpus rigidus

Life history

Rhizome buds break dormancy between November and February and shoots are visible in March or April. White-top aster can flower from July to September with seed dispersal occurring from September to November. Foliage dies back between May and September and the shoots die back to the rhizomes between September and November.

White-top aster is a slow-growing, long-lived plant. Seed germination and seedling establishment is rarely observed in the wild. The species spreads primarily by rhizomes and the number of flowering stems produced per site is low. The plants are self-fertile but produce more seed with cross-fertilization. The amount of seed produced and the viability of the seed vary widely in different locations. The seed requires light to germinate and germination increases if the seed coat is scratched (scarification) and if the seed is exposed to a cold wet period (stratification). The tuft of bristles attached to the seed facilitates dispersal by wind.

Habitat

White-top aster inhabits meadows in Garry oak (*Quercus garryana*) woodlands and Douglas-fir (*Pseudotsuga menziesii*) is often present. Elevation ranges from 10 – 240 m. The sites are either exposed or shaded by canopy cover: plants are often found in openings along the edges of woody vegetation, or under the canopy of Garry oak, Douglas-fir or Arbutus (*Arbutus menziesii*). Associated shrubs include oceanspray (*Holodiscus discolor*), common snowberry (*Symphoricarpos albus*), and Scotch broom* (*Cytisus scoparius*). Associated native herbaceous species are variable and include California oatgrass (*Danthonia californica*), long-stolonated sedge (*Carex inops*), common camas (*Camassia quamash*), yarrow (*Achillea millefolium*), Gairdner's yampah (*Perideridia gairdneri*), woolly sunflower (*Eriophyllum lanatum*) and mosses. The sites can also be dominated by introduced grasses including sweet vernal-grass* (*Anthoxanthum odoratum*) and Kentucky bluegrass* (*Poa pratensis*).

Fire may have helped to maintain the open grassland habitat and prevent habitat modification due to succession. Established plants can survive under shrub cover for a few years.



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Why the species is at risk

Habitat destruction has caused the historic decline of white-top aster and may threaten populations on private land. Fire suppression and invasion by Douglas-fir (*Pseudotsuga menziesii*), snowberry (*Symphoricarpos albus*), Scotch broom* (*Cytisus scoparius*) and other non-native species (particularly grasses) have degraded suitable habitat. Invasive shrubs are also associated with increased herbivory by black-tailed deer (*Odocoileus hemionus*) and eastern cottontail rabbits (*Sylvilagus floridanus*), which have contributed to the decline of white-top aster. Trampling from hikers and dogs may damage some populations and erosion may facilitate the invasion of non-native plants. Some colonies are limited to a few hundred individual stems and may be in danger of becoming locally extinct (extirpated).

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. 2009. COSEWIC assessment and update status report on the White-top Aster *Sericocarpus rigidus* 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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