

Entosthodon fascicularis

English name banded cord-moss

Scientific name *Entosthodon fascicularis*

Family Funariaceae

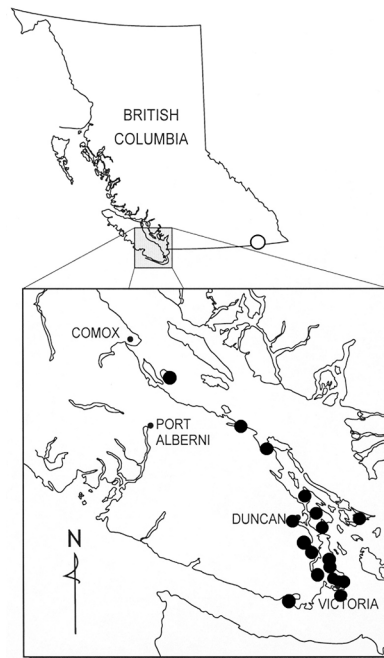
Other scientific names *Funaria leibergii*, *Funaria fascicularis*

Risk status

BC: imperilled/special concern (S2S3); blue-listed
Canada: imperilled (N2); COSEWIC: special concern (2005)
Global: apparently secure/widespread (G4/G5)
Elsewhere: Washington, Oregon – critically imperilled (S1); Arizona, California, Idaho – not ranked

Range/known distribution

Banded cord-moss is known from disjunct locations in western North America from Arizona north to southern British Columbia. Globally, it has been recorded from Sweden, Denmark, Britain and Ireland, and possibly, the Middle East. In Canada, banded cord-moss has been found in 18 locations: one on Trial Island, one on Saturna Island, one on Hornby Island, three on Salt Spring Island, and in 12 locations on southeastern Vancouver Island from Nanoose to Sooke. An additional population in southeastern BC (Kootenay Region) has not been recently observed. Some of the populations are protected in municipal parks, provincial ecological reserves or on federal lands.



Distribution of *Entosthodon fascicularis*

- recently confirmed sites
- not recently confirmed site



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Field description

Banded cord-moss is a small moss (usually 2-4 mm high) with pale green to yellow-green, oblong to egg-shaped leaves. The leaves are erect and spreading when wet but are often slightly twisted when dry. The leaves are crowded at the top of the stems and measure 1-2 mm wide and 1.5-4 mm long. Male and female reproductive structures are found on the same stem. The spore producing capsules (sporophytes) are produced at the end of the main stems. The sporophytes are small (usually 5-9 mm), rounded, and are red- to yellow-brown in colour when mature. **The spore capsule is covered by a large, distinctive hood (calyptra) that has a long thin tip.**

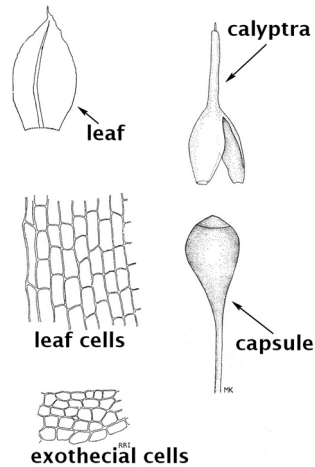
IDENTIFICATION TIPS

There is only one other *Entosthodon* species found in British Columbia, *E. rubiginosus*. *E. rubiginosus* has elongated epidermal cells in the upper capsule wall (exothecial cells) and leaves with smooth edges, whereas banded cord-moss has short exothecial cells and leaves with small forward-pointing teeth. Banded cord-moss is most often confused with common cord-moss (*Physcomitrium pyriforme*). The latter species usually occupies disturbed areas and has a short beak or pointed bump on the capsule lid (operculum), whereas banded cord-moss usually has a small, rounded bump on its operculum or it is smooth.



Entosthodon fascicularis

Christian Engelstoft



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Life history

Banded cord-moss is either an annual or short-lived perennial. In Canada, banded cord-moss grows during the late winter and early spring. Sporophytes are common and spores mature in late winter into spring, although sporophytes have been found as late as August in some years. Banded cord-moss also produces buds on underground stems, which may persist from year to year. There is no information on reproduction, dispersal conditions, viability, germination, or longevity of spores.

Habitat

Banded cord-moss requires small, bare patches of soil where there is little or no competition from other species. Most sites occur in seepage areas on or near rock outcrops that are wet in the winter and early spring and dry out completely in the summer. Banded cord-moss usually grows amongst other moss species and small vascular plants. Sites are usually fairly open. In coastal BC, banded cord-moss has been found in openings in Garry oak ecosystems and dry Douglas-fir forests. The outlier site in the Kootenay Region is in a dry pine/fir forest.

Why the species is at risk

Habitat loss due to urban development and road construction has destroyed some of the highly specialized habitat required by banded cord-moss and threatens some of the remaining populations. Recreational activities including trampling by people or dogs and vehicle or bike traffic threatens banded cord-moss by disturbing habitat and damaging plants. The degree of threat from invasive exotic plant species is not known.



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What you can do to help this species

Management practices should be tailored to the specific circumstances at the site. Potential management tools will depend on specific circumstances and may require experimentation prior to implementation. **Before taking any action, expert advice must 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 limiting access by people and dogs 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, recreation and invasive species.

References

COSEWIC. 2005. COSEWIC Assessment and Status Report on the Banded Cord-moss *Entosthodon fascicularis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa, ON.

McIntosh, T. 2010. Personal Communication. Bryologist, Vancouver, BC.

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.

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