

## ***Buxbaumia viridis* (DC.) Moug. & Nestl.**

**Status:** State Working List

**Rank:** G3G4SU

**General Description:** *Buxbaumia viridis* is a small annual bryophyte that develops a sporophyte from an ephemeral protonema (Crum and Anderson 1981). Because the gametophytic generation is very reduced and not persistent the only visible structure is the sporophyte. The seta is 5-8 mm long with a slightly swollen base. The capsule is 5-6 mm by 2.3-3 mm in size, flattened on the dorsal side and rounded on the ventral, not glossy, green when young and yellowish-brown to brown when mature. In mature capsules, the cuticle on the upper surface splits down the length of the urn and peels back along the margins.

**Identification Tips:** Because this species lacks a perennially gametophyte generation, mature sporophytes must be present for identification. Young sporophytes are green, becoming yellowish-brown to brown, and the peristome teeth are visible. The primary feature used to separate *Buxbaumia viridis* from *B. piperi* is the cuticle on the upper surface of the capsule. In *B. piperi*, the cuticle peels back around the "mouth" of the capsule, while in *B. viridis* the cuticle tears the full length of the capsule and peels back along the margins of the urn. *Buxbaumia aphylla*, also a rare species, has a smaller, flattened disc-shaped, chestnut red capsule that has the cuticle peeling back around the "mouth" of the capsule.

**Range:** *Buxbaumia viridis* is a Western North America - Western European disjunct species and is known in Washington from Clallam, Chelan, Cowlitz, Klickitat, Lewis, Okanogan, Pierce, Skamania, Snohomish, Whatcom and Yakima counties.

**Habitat:** *Buxbaumia viridis* is found on very well rotted logs (decay class three, four and five) and peaty soil and humus, in coniferous forests, from low elevation to subalpine. It is found on very well rotted logs on the west slopes of the Cascades. On the eastern slopes of the Cascades it occurs on logs that are extremely decayed and appear to have "melted" into the soil.

**State Status Comments:** The distribution of this species in Washington is probably inadequately documented because it is difficult to find mature, identifiable sporophytes in the field.

**Inventory Needs:** Additional inventory in suitable habitat is needed throughout the state.

**Threats and Management Concerns:** Removal of large coarse woody debris would eliminate substrate for this species. Harvest of moss as a special forest product from logs could lead to the destruction of populations.

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## References:

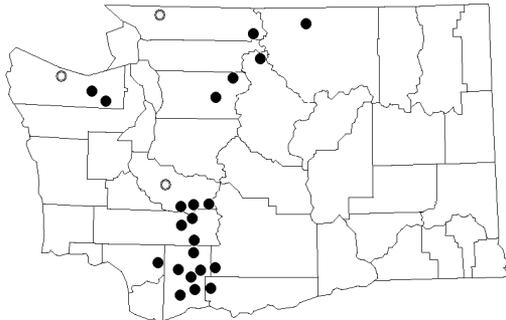
Crum, H.A., L.E. Anderson. 1981. *Mosses of Eastern North America, 2 Volumes*. Columbia University Press. New York. 1328 pp.



Sporophyte of *Buxbaumia viridis*

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## Known distribution of *Buxbaumia viridis* in Washington



● Current (1980+)

○ Historic (older than 1980)

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