Scouleria marginata E. Britton

marginate splashzone moss Scouleriaceae

status: State Threatened, BLM sensitive, USFS sensitive

rank: G3 / S2

General Description: A dapted from Flora of North America (1993+) and Lawton (1971): Plants clustered in tufts, dark green to nearly black, attached to rocks by rhizoids. Stems 4-10 cm long. Leaves erect to ascending and somewhat contorted when dry, spreading when wet, $2.5-4 \times 0.8-1.2$ mm, usually about 3 mm long; margins toothed or entire, bordered throughout by 3-5 layers of thick-walled cells, except at the base and tip, where the margins are 2-layered. Costa ends just before the tip.

Reproductive Characteristics: Produces male and female sex organs on separate plants. Seta short, 1/3 to 1/2 capsule length. Capsules glossy black, nearly spherical when wet, lacking a peristome. Spores $40-55~\mu m$.

Identification Tips: Scouleria marginata often grows mixed with or near the more common Scouleria aquatica. However, S. aquatica can be distinguished by its 32 peristome teeth and its leaf margins, which are usually only 1 cell thick (but often 2 cells thick in some area). In contrast, the leaf margins in S. marginata are multistratose, forming a thick, ropelike border around the edge of the leaf. Peristome teeth are lacking in S. marginata. Field identification of this species can be difficult; it should be confirmed with a microscope.

Range: Endemic to western N.A., from southeastern B.C., ID, WA, south to central CA.

Habitat/Ecology: On bedrock or large boulders at the waterline of perennial rivers and streams; rock may be volcanic or granitic in origin. This taxon is frequently submerged by high water, but usually exposed at low flows. It has extremely strong rhizoids that remain attached to rock through turbulent flood events. Elevations throughout its range: 0-1300 m (0-4265 ft).

Comments: There are fewer than 4 extant sites for this species in WA. It is also rare in OR and possibly extirpated in Canada. Threats include in-stream alterations, dam construction, siltation, changes in water flow or water quality, and some recreational activities.

References: British Columbia Bryophyte Recovery Team 2007; Flora of North America 1993+, vol. 27; Harpel 2005; Lawton 1971.





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