

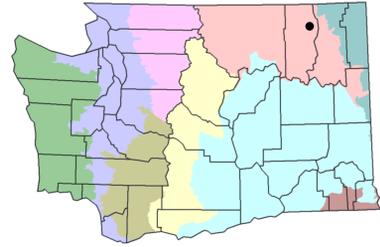
Botrychium lineare W.H. Wagner

skinny moonwort

Ophioglossaceae - adder's-tongue family

status: State Threatened, BLM sensitive, USFS sensitive

rank: G2? / S1



General Description: Adapted from Wagner & Wagner (1994): A small, pale green fern, 6-18 cm long above the upright subterranean stem, with a papery, rigid texture. Produces one branched stem per season, with a sterile leafy portion and a fertile spore-bearing branch. Sterile leaf blade sessile to stalked up to 1 cm. Blade oblong, 1-pinnate. Pinnae in 4-6 pairs, strongly separated (not overlapping), moderately ascending, approximately equal in length except for shorter ones at the tip. Pinnae mostly straight, slightly upcurved, narrowly linear, commonly forked with linear lobes.

Reproductive Characteristics: Fertile branch 1-2 times the length of the sterile branch, with a single major axis. Spores mature late June to July.

Identification Tips: *B. lineare* is not in Hitchcock & Cronquist (1973). It is distinguished by its pinnae, which are narrowly linear, commonly divided at least once at the tips, and nearly uniform in size from the base to tip of the blade. The fertile branch is 1-2 times the length of the sterile branch.

Range: AK, B.C., Alberta, the Pacific Northwest south to CA, CO, UT, NV. Also in SD, MN, Quebec, and New Brunswick.

Habitat/Ecology: Found in a variety of habitats, including grassy meadows, riparian floodplains, under trees, and on limestone cliffs. It typically occurs in montane forests or meadows at higher elevations. The WA occurrence is at 1000 m (3300 ft), on a flat floodplain of a perennial stream. Associated species include redcedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*), red-osier dogwood (*Cornus sericea* ssp. *sericea*), snowberry (*Symphoricarpos albus*), thimbleberry (*Rubus parviflorus*), wild ginger (*Asarum caudatum*), heartleaf arnica (*Arnica cordifolia*), and other moonworts (*Botrychium crenulatum*, *B. minganense*, *B. montanum*).

Comments: This species has a wide range but populations are few and small throughout. Threats at the WA site include livestock grazing.

References: Wagner & Wagner 1994.



photo by Kirk Larson, USFS



© Ben Legler