

Botrychium pedunculatum W.H. Wagner

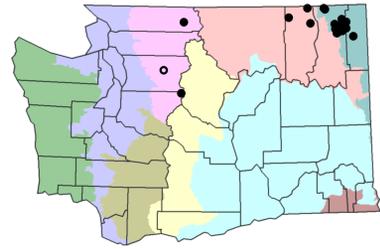
stalked moonwort

Ophioglossaceae - adder's-tongue family

status: State Sensitive, Federal Species of Concern, BLM

sensitive, USFS sensitive

rank: G2G3 / S2



General Description: Adapted from Wagner & Wagner (1993): Perennial fern (5) 11-13 (25) cm tall, producing one forked stem per season, with a leafy branch and a fertile spore-bearing branch. Common stalk usually reddish brown, (4) 6-7 (15) cm tall. Leaf blade solitary, dull green, leathery, ovate-oblong to triangular-oblong, 1-pinnate, up to 4.5 x 2 cm (1/2 the length of the leafy branch). Pinnae up to 5 pairs, close to well separated; basal pair approximately equal in size and shape to adjacent pair, ovate-rhombic to spatula-shaped, margins entire to irregularly lobed, venation pinnate. Extra sporangia usually present on the lower pinnae.

Reproductive Characteristics: Fertile branch 2-4 times the length of the sterile branch, 1-3 pinnate, bearing clusters of globelike sporangia. Identifiable June to August; leaves appear in late spring and die in early fall.

Identification Tips: This species is not in Hitchcock & Cronquist (1973). *B. ascendens* and *B. pedunculatum* are the only moonworts that often have extra sporangia on the lower pinnae. *B. ascendens* is distinguished by its pinnae with fanlike venation, lacking a central midrib. *Botrychium pinnatum* has a short blade stalk (0-2 mm long), bright green, papery blades, and up to 7 pairs of pinnae. *B. hesperium* has a blade stalk up to 1/4 the length of the blade, blades up to 6 x 5 cm, and pinnae usually close or overlapping.

Range: Scattered distribution from southern B.C. to southern Sask., south to WA, OR, ID, MT. Also in AK and Quebec.

Habitat/Ecology: Moist or dry meadows, springs, stream terraces, coniferous forests, and forest edges. Elevations in WA: 500-1325 m (1640-4340 ft). Associated species include lodgepole pine (*Pinus contorta*), Engelmann spruce (*Picea engelmannii*), redcedar (*Thuja plicata*), mosses, and several other moonworts (*Botrychium* spp.).

Comments: This species is rare throughout its range. Threats include plowing, overgrazing, road building and maintenance, camping, and off-road vehicle use.

References: Flora of North America 1993+, vol. 2; Lellinger 1985; Wagner & Wagner 1986.



photo by Kirk Larson, USFS