

## *Botrychium alaskense*

**Family:** Ophioglossaceae  
**Genus:** *Botrychium*  
**Subgenus:** *Botrychium* (syn. *Eubotrychium*)  
**Species:** *Botrychium alaskense* Wagner and Grant  
**Common Name:** Alaska Moonwort  
**Ploidy:** Tetraploid



**Published description:** Trophophore stalk 3—10 mm long, up to 2 times the length of the trophophore rachis; lamina bright green, leathery, oblong-deltate, 1-pinnate, up to 6 cm long and wide; pinnae up to 6 pairs, horizontal to slightly ascending, approximate to distant, the basal and supra-basal pair not or slightly more distant than the supra-basal and 3<sup>rd</sup> pairs, the basal pinnae equal to or slightly longer than the supra-basal pair, broadly lanceolate to broadly trullate, unlobed (small plants) to deeply lobed (large plants), with up to 5, narrowly oblong pairs of lobes, these up to 10 mm long, 3 mm wide, asymmetrically truncate, broadly (2—3 mm) attached and confluent to the rachis, shallowly concave at the basiscopic base; lobe tips irregularly crenate-dentate. Sporophore 2 pinnate, with 3 major branches. Chromosomes evidently tetraploid. (Wagner and Grant 2002)



## Identification

*Botrychium alaskense* is one of three commonly occurring twice-dissected moonworts occurring in Alaska and the Yukon territory, the other two being *B. pinnatum* and *B. lanceolatum*. Although *B. alaskense* sometimes has a yellow-green color, all three species can have a similarly dark green color and a lustrous surface. *B. alaskense* is most easily distinguished from *B. lanceolatum* by its distinctly pinnately divided trophophore with basal pinnae only slightly larger than the second pair, in contrast to the ternately divided trophophore of *B. lanceolatum* with basal pinnae more than twice as wide as the second pair. It is most easily distinguished from *B. pinnatum* by its ternately divided sporophore in contrast to the pinnately branched trophophore of *B. pinnatum*. However trophophores of small plants of *B. alaskense* often have a more or less triangular shape similar to those of *B. lanceolatum* and sporophores that are pinnately branched. In such cases *B. alaskense* can be distinguished from *B. lanceolatum* by its longer sporophore stalk (exceeding  $\frac{1}{2}$  the length of the trophophore) and from *B. pinnatum* by its wedge shaped pinna bases and sharply angular pinna and pinna lobe apices.

Two other twice-dissected species have rare occurrences in the far northwestern mountains, *B. hesperium* and *B. pedunculatum*. Both can be differentiated from the three species described above by their distinctly stalked trophophores and glaucous surfaces.

## Distribution

*Botrychium alaskense* occurs in the southern third of Alaska including the Alaska peninsula and the panhandle. It has not been recorded in the Yukon Territory although it occurs nearby in the Wrangell-St. Elias Mountains of Alaska.

## Habitat

At low elevations in interior Alaska *B. alaskense* grows in naturally or artificially disturbed meadows, roadsides, riverbars and infrequently mowed lawns and fields. At higher elevations it grows in riverine meadows, sandy fields and lightly vegetated scree slopes.

Additional photographs of *Botrychium alaskense*:

