

Botrychium pseudopinnatum

Family: Ophioglossaceae
Genus: *Botrychium*
Subgenus: *Botrychium* (syn. *Eubotrychium*)
Species: *Botrychium pseudopinnatum* W. H. Wagner
Common Name: False Northwestern Moonwort
Ploidy: Hexaploid



Published description: Similar to *B. matricariifolium*. Trophophore nearly sessile, somewhat lustrous (when alive), lanceolate-oblong, 1-5 cm long, 0.4-2.5 cm wide. Pinnae approximate to overlapping, 5-7 pairs. Pinna outline deeply and regularly lobed, 0.3-1.3 cm long, 0.2-0.9 cm wide, blunt-tipped. Sporophore mostly short, 1.2-2.0 times as long as trophophore, the stalk 0.4-0.6 times as long as the sporangial cluster. Chromosome number: $n = 135$. (Wagner and Wagner, 1990)

Identification

Among eastern moonworts with which it may be found, *B. pseudopinnatum* most closely resembles stout, compact forms of *B. matricariifolium*. Upon closer inspection it can be seen to differ consistently from *B. matricariifolium* in a number of characters. The trophophore is short-stalked to sessile (never long-stalked as it often is in *B. matricariifolium*), green and somewhat lustrous rather than yellow- to gray-green and dull. The pinnae are approximate to overlapping, especially in the upper half, with rounded to broadly obtuse apices whereas the pinnae of *B. matricariifolium* are well-spaced throughout with narrowly obtuse to toothed apices. Likewise, the pinnules of *B. pseudopinnatum* are approximate to overlapping with rounded margins as opposed to being well spaced and angular to toothed in *B. matricariifolium*. As in *B. pinnatum*, the sporophore of *B. pseudopinnatum* is pinnate with the basal branches not exaggerated whereas the sporophore of larger plants of *B. matricariifolium* is more or less ternately divided into three main branches.

Distribution

Botrychium pseudopinnatum is known only from the Thunder Bay region of Ontario, Canada near the northwest shore of Lake Superior. Genetic analysis of plants from Minnesota and Michigan thought to be this species has shown them to be robust sun forms of *B. matricariifolium*. The two species are easily distinguishable genetically because of their difference in chromosome number (*B. pseudopinnatum* is the only known hexaploid moonwort) and consequent number of alleles that can be expressed in an individual.

Habitat

Plants of *B. pseudopinnatum* have been described as “locally frequent in sod on sandy soil” (Wagner and Wagner, 1990).

Additional photographs of *Botrychium pseudopinnatum*:

