

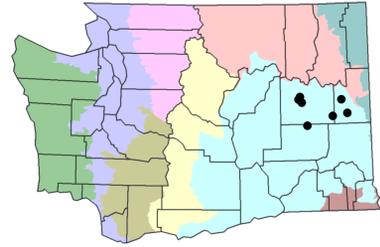
Pilularia americana A. Braun

American pillwort

Marsileaceae - water-clover family

status: State Threatened, BLM sensitive, USFS sensitive

rank: G5 / S1S2



General Description: Aquatic perennial fern forming dense clones; tiny, arising from threadlike rhizomes growing along or beneath the substrate. Roots arise at nodes. Leaves sparsely hairy, threadlike, elongate, with an unbranched midvein, round in cross section, 1.6-10.2 cm long, about 0.5 mm wide.

Reproductive Characteristics: Sporocarps subterranean, borne on short stalks 1-3 mm long, attached to base of leaves, spherical, covered with matted or woolly hairs until mature, 1.6-2.7 mm diameter, opening into 4 valves. Sporocarps present underground June to July; plants are most easily identifiable before vernal pools dry up in late June.

Identification Tips: This fern resembles a very small clump of grass. However, unlike grasses, the leaves are initially coiled from the tip downward, and unfurl like a typical fern *fiddlehead*. The leaves also become distinctively curly when dry. Sporocarps look like small woolly marbles and are important for identification.

Range: West coast and southern central states of N.A.

Habitat/Ecology: In WA, *P. americana* grows in vernal pools at elevations of 590 to 730 m (1930-2400 ft). Associated species include mosses, annual hairgrass (*Deschampsia danthonioides*), tiny mouse-tail (*Myosurus minimus*), popcornflower (*Plagiobothrys* spp.), pale spike-rush (*Eleocharis macrostachya*), needle spike-rush (*Eleocharis acicularis*), fruitleaf knotweed (*Polygonum polygaloides* ssp. *confertiflorum*), Pacific foxtail (*Alopecurus saccatus*), whitehead navarretia (*Navarretia leucocephala*), elegant calicoflower (*Downingia elegans*), and water mudwort (*Limosella aquatica*).

Comments: This species is sensitive to disturbance from domestic grazing. Much of its potential habitat in WA is grazed. This taxon may be overlooked due to its small size, lack of flowers, and grasslike appearance. It is rare throughout most of its range and is most common in CA vernal pools.

References: Flora of North America 1993+, vol. 2; Hickman 1993.

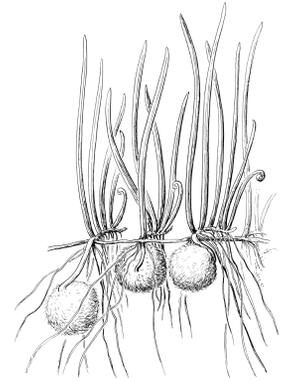


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