

Potamogeton filiformis* Pers. var. *occidentalis (J.W. Robbins) Morong
western fineleaf pondweed
Potamogetonaceae (Pondweed Family)

Status: State Review Group 1

Rank: G5T5S1S2

General Description: Adapted from Hitchcock et al. (1969): *Potamogeton filiformis* var. *occidentalis* is an aquatic perennial with slender stems that are freely branched below, but less so above, mostly less than 20 in. (59 cm) long, and almost cylindrical. All the leaves are submersed. The blades are thread-like to very narrowly linear, tapering to a pointed or bristle-like apex, 1-nerved, up to 4 in. (10 cm) long, and rarely as much as 1/16 in. (1.5 mm) wide. There is a pair of leaf-like appendages found at the bases of the petioles (stipules). The stipules are fused with the leaf to form a closed, closely clasping sheath which is usually at least as long as the rather fragile, ultimately deciduous, free, upper ligule-like portion. The leafless flower stalks are slender and up to 6 in. (15 cm) long. The spikes consist of 2-5 remote to crowded whorls of flowers. The tepals are brownish, 1/16 to 1/8 in. (1-2 mm) long, and <1/16 to 1/8 in. (0.5-2 mm) wide. The achenes (fruit) are obovoid, about 1/8 in. (2 mm) long, with a low, rounded dorsal keel. The stigma is broad, directly attached to the ovary, and persists as a small wart on the fruit.

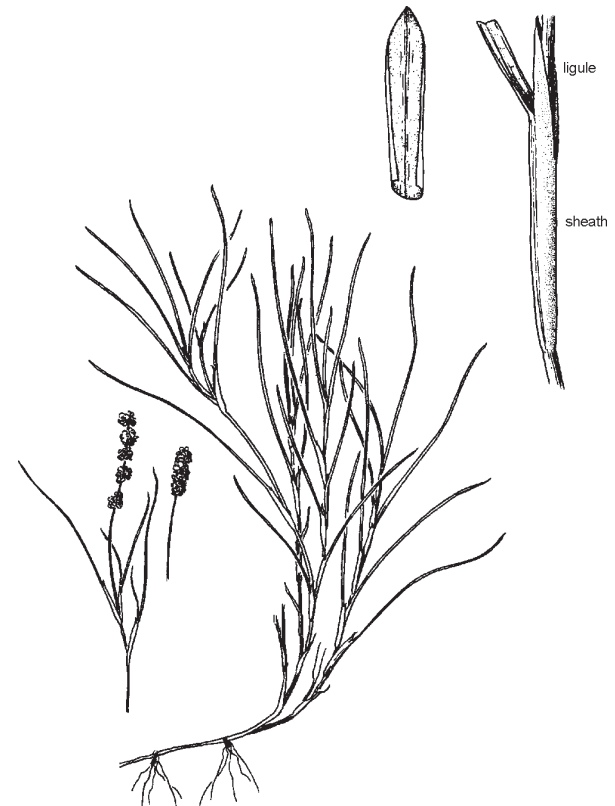
Identification Tips: There is one other variety of *Potamogeton filiformis* in Washington: *P. filiformis* var. *macounii*, which is known from Yakima and Whatcom counties. *P. filiformis* var. *occidentalis* may be distinguished from var. *macounii* by its relatively longer stems and broader leaves. The stems of var. *occidentalis* are up to 20 in. (59 cm) tall and the leaves are 0.5-1.5 mm wide, while the stems of var. *macounii* are up to 12 in. (30.5 cm) tall and the leaves are less than 0.5 mm wide. A technical key is needed for identification.

Phenology: In Washington the taxon was observed in June and in August.

Range: This taxon occurs in Eurasia, Africa and Australia. In North America the taxon occurs from Alaska to Newfoundland, south to New England, and from Wisconsin to Washington south to New Mexico. In Washington it is known from Grant County and historically from Okanogan County.

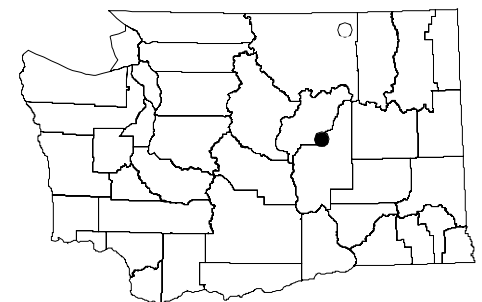
Habitat: This taxon is typically found in shallow, standing, or slow moving water. In Washington it was found from 1074 to 3550 feet (327-1082 m) elevation.

Potamogeton filiformis* var. *occidentalis
western fineleaf pondweed



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Known distribution
of *Potamogeton filiformis*
var. *occidentalis*
in Washington



- Current (1980+)
- Historic (older than 1980)

Potamogeton filiformis var. occidentalis

western fineleaf pondweed



Dr. Barre Hellquist



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Ecology: This taxon is found in highly alkaline water throughout its range (Hellquist et al. 2002). Hybridization may be fairly common among the species of *Potamogeton*; therefore many specimens may be intermediate in morphology (Hitchcock et al. 1969).

State Status Comments: Because this taxon was recently added to the Washington rare plant list, not much is known about the degree of its rarity in the state at this time.

Inventory Needs: Appropriate habitat in eastern Washington should be surveyed for additional populations. The known occurrence sites should be revisited for updated population information.

Threats and Management Concerns: Hydrologic alteration and water quality issues may pose a threat to this taxon.

Comments: Hitchcock et al. (1969) do not differentiate the varieties of *Potamogeton filiformis* Pers. A synonym for this taxon is *Stuckenia filiformis* (Pers) Boerner ssp. *occidentalis* (J.W. Robbins) Haynes, D.H. Les, & M. Kral. Furthermore, a synonym for *P. filiformis* var. *macounii* is *Stuckenia filiformis* (Pers) Boerner ssp. *alpinus* (Blytt) Haynes, D.H. Les, & M. Kral.

References:

Cronquist et al. 1977. *Intermountain Flora Vascular Plants of the Intermountain West, U.S.A. Volume 6: the Monocotyledons*. The New York Botanical Garden, Bronx, New York. 584 pp.

Hellquist, C.B., L. Bush, & K. Parzych. 2002. *Stuckenia filiformis* subsp. *occidentalis* (slender pondweed) conservation and research plan for New England. New England Wild Flower Society, Framingham, Massachusetts, USA.

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1969. *Vascular Plants of the Pacific Northwest Part 1: Vascular Cryptogams, Gymnosperms, and Monocotyledons*. University of Washington Press, Seattle, WA. 914 pp.

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