

VARIABLE PONDWEED

GRASS-LEAVED PONDWEED

Potamogeton gramineus

NATIVE TO MAINE

Habitat: Variable pondweed grows in the submersed plant community of lakes, ponds and streams. It is generally found in firm sediments at depths of about one meter, but can grow in a range of depths from very shallow to several meters.

Description: Slender, often profusely branching stems emerge from spreading rhizomes. As the common name implies, the habit and form of individual plants (and plant populations) can be highly variable, depending on growing conditions: some plants are compact, very bushy, with small leaves; others are sprawling, more leggy, with larger leaves. The stems are circular to slightly flattened in cross-section. Variable pondweed has two distinct leaf types. The submersed leaves are alternately arranged, elongate to lance shaped, finely serrate under magnification, 3 to 10 mm wide and 3 to 8 cm long. The leaves lack stems (petioles) but taper slightly at the point where they attach to the stem. Each leaf has 3 to 7 veins running length-wise. (The submersed leaves are translucent so the best way to view the veins is to hold the leaf up to a light source and observe with a hand lens.) The floating leaves are more elliptical to oval in shape (0.5 to 2.5 cm wide, 2 to 5 cm long), and have slender petioles that are generally longer than the leaf blade. Floating leaves may occur singly, in pairs, or in a whorl. Stipules occur in the axils of both leaf types; they are "free" (not fused to the leaf) with a blunt, slightly hooded tip. The flowers, followed by fruits, occur among the floating leaves and are densely arranged in a cylindrical spike (1.5 to 3 cm long). The individual fruits are oval to egg shaped, with a smooth ridge along a portion of the rim and an erect protrusion called a beak.



Variable pondweed has two distinct leaf types

Range: Variable pondweed is native to Maine, New England and much of the northern United States. Variable pondweed hybridizes freely with several other pondweed species including *P. perfoliatus*. Four distinct hybrids are known

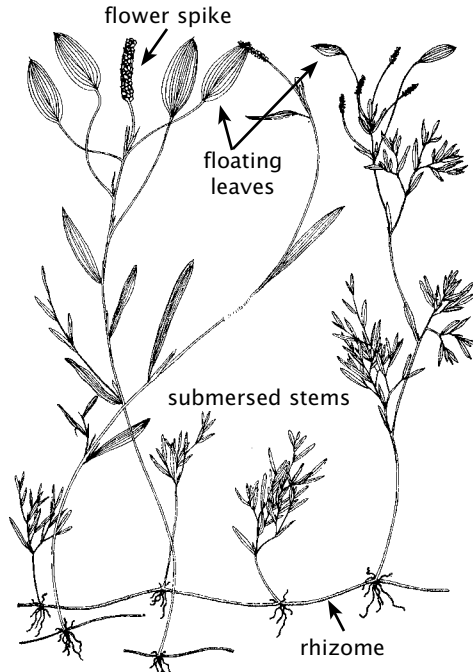


to occur in Maine.

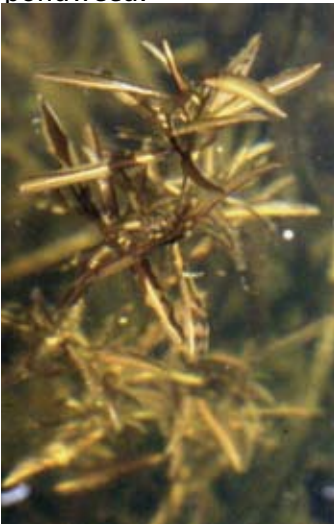
Annual Cycle: Variable pondweed is an aquatic perennial that propagates by spreading rhizome, winter buds (turions), and seeds. Flowering occurs early in the growing season and fruit is produced by mid summer. Turions form toward the end of the growing season in response to the decrease in daylight hours. Plants break up at the end of the season, dying back to their rhizomes. Turions, set adrift in the process of fragmentation, settle to the sediments where they overwinter. New growth sprouts from the rhizomes and winter buds when the water begins to warm in the spring.

Value in the Aquatic Community: The fruits and foliage are grazed by waterfowl, muskrat, beaver, deer and moose. The branching stems provide habitat for invertebrates and shelter and foraging opportunities for fish.

Look Alikes: May be confused with other species of the *Potamogeton* genus including curly-leaf pondweed.



This illustration shows the variability of habit that is typical of variable pondweed



Variable pondweed



The submersed leaves are highly variable in width and length; the leaves lack stems and taper inward at both ends