

Three of the eleven invasive aquatic plants listed by Maine law as imminent threats to our waters are water-milfoils (genus *Myriophyllum*): variable water-milfoil (*M. heterophyllum*), Eurasian water-milfoil (*M. spicatum*), and parrot feather (*M. aquaticum*). The search for these invaders is somewhat complicated by the fact that Maine is home to six native water-milfoil species, five of which are considered 'look-alikes,' bearing at least some resemblance to one or more of the invasive species. (The sixth native water-milfoil, the toothpick-like dwarf water-milfoil lacks leaves entirely, and is not considered a look-alike.)

The stems of all leafy milfoils are elongated, and sometimes branching. All have finely-divided leaves arranged in a radiating pattern around the stem, like a bottle-brush. The submersed leaves in ALL cases are feather-divided. Indeed, if you find a submersed aquatic plant with true feather-divided leaves it IS a milfoil, which means it is suspicious until proven otherwise.



Under the Hand Lens:

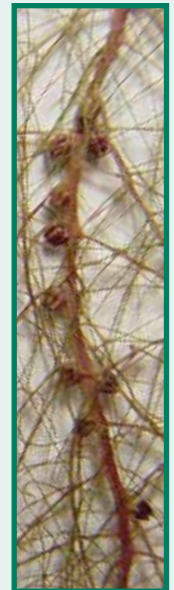


Beyond these common features, milfoils could be sorted into two distinct groups:

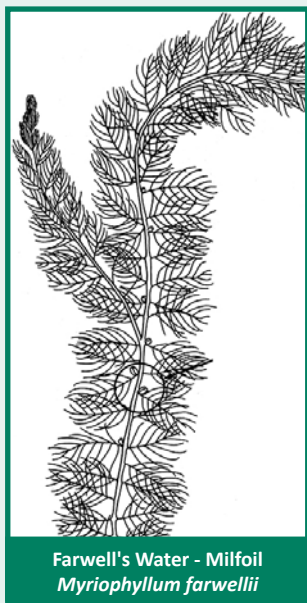
Group 1 milfoils have two distinct leaf types. The submersed leaves are feather-divided and consistently arranged in whorls. A second (generally different) leaf-type occurs on the emergent flower stalk. The leaves that are associated with the flowers are called bracts. All three milfoils in Maine's prohibited list are Group 1 milfoils.



Group 2 milfoils, featured at right and below, have one leaf type only; they do not produce emergent flower stalks; fruits and flowers are formed along the submersed stems at the point at which the leaf meets the stem is known as the leaf axil; though the leaves radiate around the stem in bottle-brush fashion, the leaves do not consistently form whorls; at least some of them are offset, occurring along the stem in a scattered radiating pattern.



Group 2 Milfoils - Knowing the characteristics of the Group 2 milfoils can be very helpful to those who participate in the hunt for aquatic invaders. *Once you know you have a Group 2 milfoil you can rule out all three invasive milfoils.*



Farwell's Water - Milfoil
Myriophyllum farwellii



Farwell's milfoil has submersed leaves only. The leaves are arranged in an inconsistent whorl pattern with at least some leaves offset to form more of a scattered radiating pattern. The tiny flowers, followed by tiny fruits, are formed along the submersed stems in the leaf axils. The fruits, when mature, are comprised of four segments with bumpy ridges running along the length of each segment.

Low water-milfoil has submersed leaves only. The leaves are arranged in a scattered radiating pattern with few, if any, true whorls. The tiny flowers, followed by tiny fruits are formed along the submersed stems in the leaf axils. The fruits, when mature, are comprised of four smooth-sided segments (as opposed to the bumpy ridged fruits of Farwell's milfoil).



Low Water - Milfoil
Myriophyllum humile