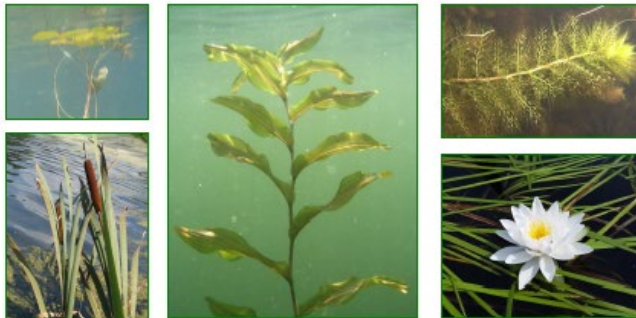


What's the Key to Identifying Aquatic Plant Species?

A Key to Common Vermont Aquatic Plant Species



Lakes and Ponds Management and Protection Program

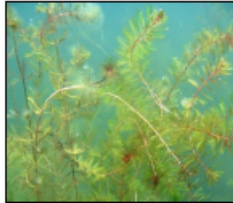
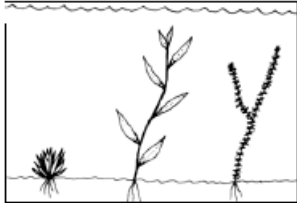


**Let's
practice
using the
key...**

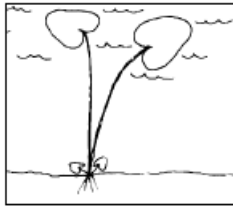


1. Where are the leaves of the plant in relation to the surface of the water?

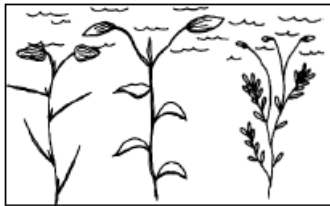
1A. Submersed – Plants are growing almost entirely beneath the water's surface...see part 2 on page 8.



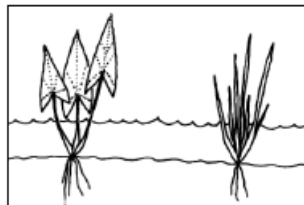
1B. Floating-leaved – Plants have many leaves floating on the water's surface, and the surface of floating leaves shed water...see part 13 on page 21.



1C. Combination of Submersed and Floating-leaved – Plants have some leaves that are growing underwater, but have some on or above the surface of the water...see part 22 on page 27.



1D. Emergent – Plants are rooted on the pond bottom and extend upright above the water's surface...see part 23 on page 28.



Submersed Plants

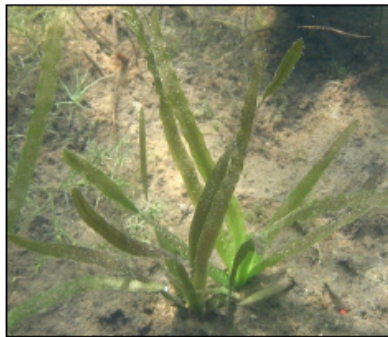
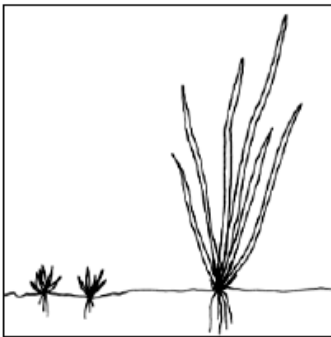
Page 8

~~2. Are submersed leaves connected along the stem, or are all leaves basal?~~

2A. Leaves on the stem – leaves are positioned along the stem...see part 4 on page 10.



2B. Basal Leaves – all leaves emerge from a single point near the pond bottom...see part 3 on page 9.

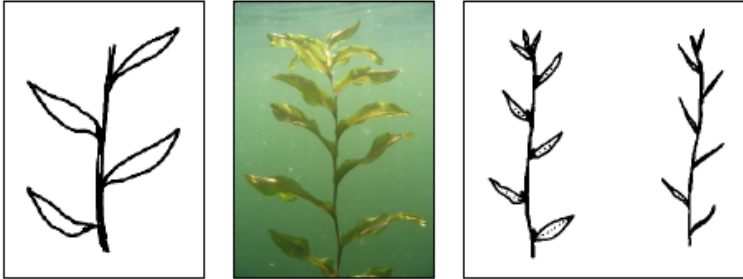


Submersed Plants

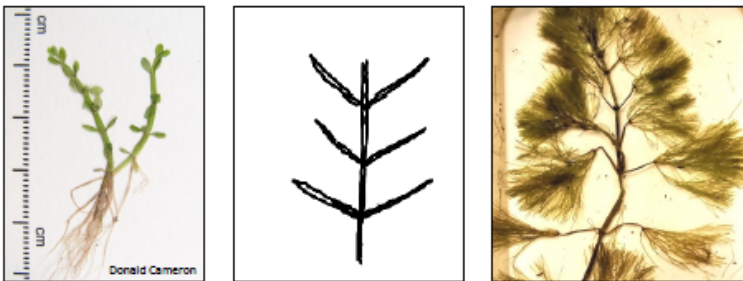
Page 10

4. Are the leaves alternate, opposite, or in whorls around the stem?

4A. Leaves are alternate - leaves are not located across from one another along the stem...see part 5 on page 11.



4B. Leaves are opposite - leaves are symmetrical in groups of two along the stem...see part 8 on page 13.



4C. Leaves are in whorls - leaves are grouped in whorls with 3 or more leaves around the stem... see part 9 on page 14.

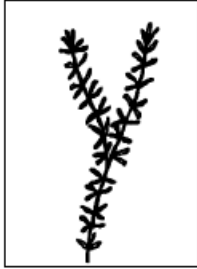


Submersed Plants

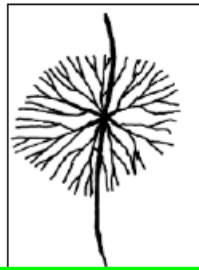
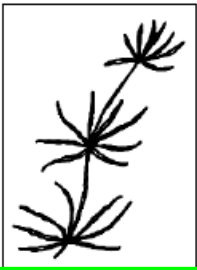
Page 14

9. Are the whorled leaves rounded, slender, or feathered?

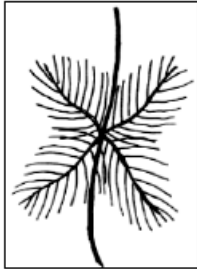
9A. Leaves are entire and rounded...see part 10 on page 15.



9B. Leaves are slender and look more like branches...see part 11 on page 16.



9C. Leaves are feathered...see part 12 on page 19.



Submersed Plants

Page 19

12. Watermilfoils: There are eight species of Watermilfoil in Vermont

Northern Watermilfoil (*Myriophyllum sibiricum*)



Typically 4 leaves per whorl with 4-12 leaflets on each side of the stout white or tan mid-stem.

Variable-leaf Watermilfoil (*Myriophyllum heterophyllum*)

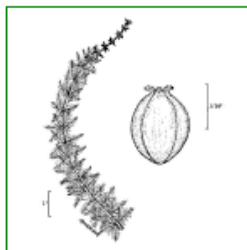
⚠ This is an invasive plant



4-6 leaves per whorl with each leaf feather divided with 6-14 leaflets on each side of the mid-stem. Plant has an emergent flower spike that has 4-6 leaves per whorl. Each of these leaves is 1/2 inch long, entire, and minutely serrated.



Whorl-leaved Watermilfoil (*Myriophyllum verticillatum*)



Each whorl has 4-5 leaves that are finely divided with 5-14 leaflets per leaf. Stem is green or brown.



Continued next page...



Not sure?

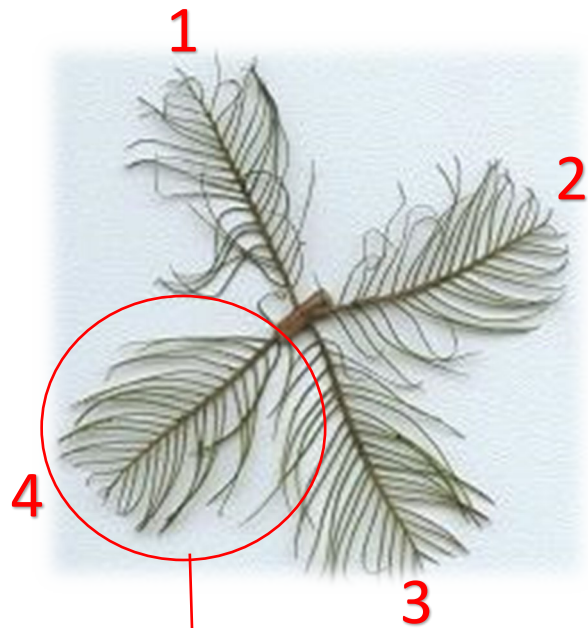
Let's take a closer at each individual whorl

How many leaves are on each whorl?

*remember a whorl is a circle of 3 or more leaves that originate from the same point on the stem

How many leaflets per leaf?





~16 leaflets



Submersed Plants

Page 19

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Variable-leaf Watermilfoil (*Myriophyllum heterophyllum*)

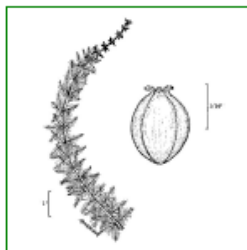
⚠ This is an invasive plant



4-6 leaves per whorl with each leaf feather divided with 6-14 leaflets on each side of the mid-stem. Plant has an emergent flower spike that has 4-6 leaves per whorl. Each of these leaves is $\frac{1}{2}$ inch long, entire, and minutely serrated.



Whorl-leaved Watermilfoil (*Myriophyllum verticillatum*)



Each whorl has 4-5 leaves that are finely divided with 5-14 leaflets per leaf. Stem is green or brown.



Continued next page...



12. Watermilfoils:

Eurasian Watermilfoil (*Myriophyllum spicatum*)

⚠ This is an invasive plant



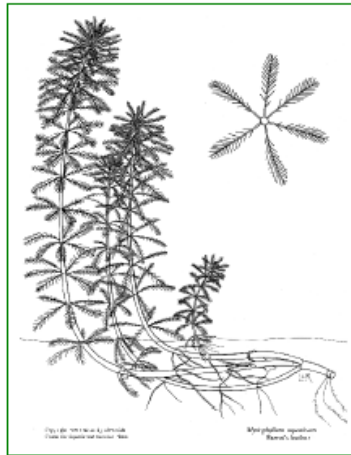
Usually 4 leaves per whorl with 12-20 leaflets on each side of midstem. Tips of leaves often have redish color.

Parrot Feather (*Myriophyllum aquaticum*)

⚠ This is an invasive plant not found in Vermont



Parrot feather has not yet been observed in Vermont. It has 4-6 leaves per whorl with each leaf feather divided with 10-18 leaflets per side of the med-stem. Plant can emerge to stand 1 foot above the surface of the water.



The answer is:

EURASIAN WATERMILFOIL

