

Eurasian water-milfoil *Myriophyllum spicatum* L.



<http://nas.er.usgs.gov/queries/FactSheet.aspx?SpeciesID=237>

Identification: A submersed, rooted, perennial herb. Consisting of long underwater stems that branch and produce many whorled, finely divided leaves upon nearing the surface. Distinguished from the native *M. sibiricum* primarily by the overall shape of the leaf and then by the number of leaflets. Leaves are divided into threadlike leaflets, usually in pairs of more than 14 (Nichols 1975). Leaflets are uniformly tapered so that the leaf shape is more like an equilateral triangle with a curved base. Leaflets stand at acute angles (less than 45 degrees) to the rachis and are parallel to each other (Ceska 1985). Meanwhile, *M. sibiricum* has basal leaflets that are as long as the leaf. They curve over and extend almost to the top of the leaf, forming a more feathery shape. Aiken (1981) provides a detailed key for fertile specimens.

Common Waterweed

Elodea canadensis



- **Distribution** - Common waterweed is primarily a freshwater species, and occasionally grows in brackish upper reaches in many of the Bay's tributaries. It prefers loamy soil, slow-moving water with high nitrogen and phosphorous concentrations.
- **Recognition** - The leaves of common waterweed can vary greatly in width, size and bunching. In general, the leaves are linear to oval with minutely toothed margins and blunt tips. Leaves have no leaf stalks, and occur in whorls of 3 at stem nodes, becoming more crowded toward the stem tips. Common waterweed has slender, branching stems and a weak, thread-like root system. ¹

¹ http://www.dnr.state.md.us/bay/sav/key/common_waterweed.asp

Curly Pondweed

Potamogeton crispus L.

Description

General: Pondweed family (Potamogetonaceae). Curly pondweed is an introduced, fast growing perennial. The stems are flattened and somewhat branching, forty to eighty centimeters long and mostly one to two millimeters wide (Guard 1995). The leaves are simple, long, narrow and attached directly to the stem. The flowers are brownish and inconspicuous and usually occur from May to October.

Distribution: Curly pondweed has been introduced from Massachusetts to Minnesota, south to Virginia and Missouri (Tiner 1987). For current distribution, please consult the Plant profile page for this species on the PLANTS Web site.²



Source: Robin Scriballo
Perdue University



Source: Mark Malcher
Lake Champlain Sea Grant/VTDES

European Frog-Bit

Hydrocharis morsus-ranae

Habitat: European frog-bit (or frog's bit) is found in the floating-leaved plant community. It is a free-floating plant that thrives in open marsh habitat and quiet backwaters, forming dense floating colonies.

Description: European frog-bit is a small free-floating aquatic plant. Its small kidney or heart shaped leaves (1.5 to 6.5 cm long) are not anchored to the bottom sediments. The leaves have elongated stalks (4-6 cm long) and occur in clumps, forming a bouquet-like rosette. Unbranched root-like tendrils (resembling slender bottle brushes) dangle below. The flowers of European frog-bit have three white petals with a yellow center.³

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http://plants.usda.gov/plantguide/pdf/pg_pocr3.pdf

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<http://www.mainevolunteerlakemonitors.org/mciap/herbarium/EuropeanFrogbit.php>

Coontail

Ceratophyllum demersum



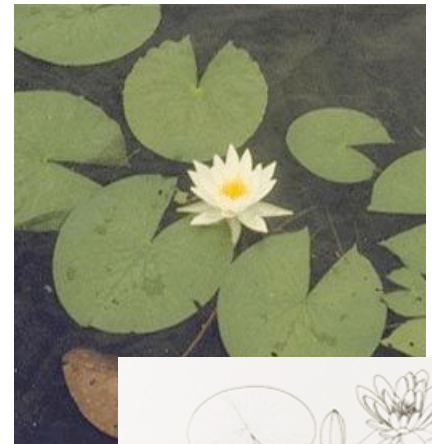
Coontail, or sometimes called hornwort, is a dark olive-green, rootless submerged perennial plant that often forms dense colonies. Leaves are relatively stiff, whorled with many forks and small teeth along one edge. The tips of branches are crowded with leaves giving it a "coontail" resemblance. Coontail reproduces by seeds and fragmentation.⁴

White water lily

(Fragrant Water Lily)

Nymphaea odorata

The white water lily is a perennial plant that often form dense colonies. The leaves arise on flexible stalks from large thick rhizomes. The leaves are more round than heart-shaped, bright green, 6 to 12 inches in diameter with the slit about 1/3 the length of the leaf. Leaves usually float on the water's surface. Flowers arise on separate stalks, have brilliant white petals (25 or more per flower) with yellow centers. The flowers may float or stick above the water and each opens in the morning and closes in the afternoon. The flowers are very fragrant. White water lily can spread from seeds or the rhizomes.⁵



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http://aquaplant.tamu.edu/database/submerged_plants/coontail.htm

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http://aquaplant.tamu.edu/database/emergent_plants/white_water_lily.htm

Spatterdock (Cow Lily)

Nuphar luteum

Spatterdock is a perennial plant with leaves that arise from a large spongy rhizome. The leaves have a slit that makes them roughly heart-shaped, 8 to 16 inches long by 10 inches wide, and can float on the surface or stand above the surface on thick round (in cross section) stalks. Flowers are spiracle with 6 to 9 green sepals and yellow petals. Flowers can float on the water or stand above it. Fruits are oval with a flat top and greenish or yellowish in color. Spatterdock can spread from seeds or the rhizomes.⁶



Cattail

Typha spp.

Cattails have flat to slightly rounded leaves that twist slightly over their length and can grow to 5 or 10 feet in height. Flowers form a dense dark brown, cigar-shape at the end of spikes (called the catkin). Cattails can be partially submerged or in boggy areas with no permanently standing water. Cattails spread rapidly because their seeds blow in the wind and float on the water's surface and vegetatively they spread from underground rhizomes.⁷



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http://aquaplant.tamu.edu/database/emergent_plants/spatterdock.htm

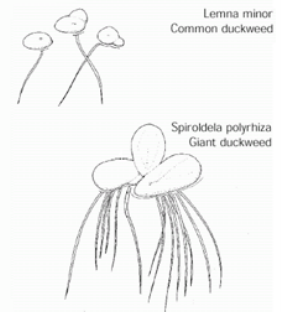
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http://aquaplant.tamu.edu/database/emergent_plants/cattail.htm

Common Duckweed

Lemna minor

Common duckweed is a very small light green free-floating, seed bearing plant. Duckweed has 1 to 3 leaves, or fronds, of 1/16 to 1/8 inch in length. A single root (or root-hair) protrudes from each frond. Duckweeds tend to grow in dense colonies in quiet water, undisturbed by wave action. Often more than one species of duckweed will be associated together in these colonies. Duckweeds can be aggressive invaders of ponds and are often found mixed in with mosquito fern or watermeal. If colonies cover the surface of the water, then oxygen depletions and fish kills can occur. These plants should be controlled before they cover the entire surface of the pond.



Bulrush

Scirpus spp.

There are several species of bulrushes. Bulrushes are perennial grass-like plants and can grow to 10 feet tall in shallow water or in moist soils. Soft-stem bulrush can grow to 10 feet and grows in dense colonies from rhizomes. Soft-stem bulrush has a round (in cross section), light gray-green, relatively soft stem that comes to a point with no obvious leaves (only sheaths at the base of the stems). Flowers usually occur just below the tip of the stem.

Giant bulrush can also grow to 10 feet, is dark green with a hard, triangular stem and no obvious leaves (sheaths at the base of the stems).⁹

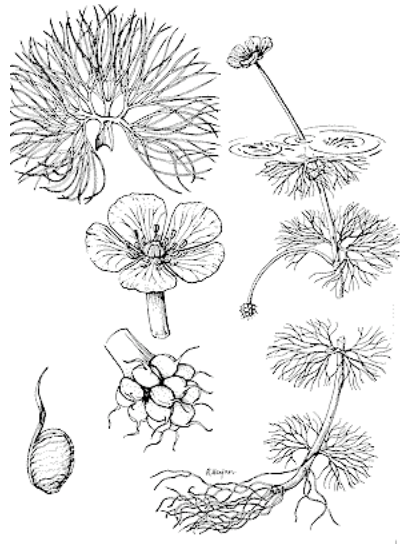


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http://aquaplant.tamu.edu/database/floating_plants/common_duckweed.htm

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http://aquaplant.tamu.edu/database/emergent_plants/bulrush.htm



Water buttercup *Ranunculus*



Leaf: The leaf form is variable depending on the season and growing conditions, but the leaves are always alternately arranged on the stem. Submersed leaves are branched into more than 20 thread-like segments. These fan-shaped leaves are 1-4 cm wide and are attached to the stem by 1-2 cm long leaf stalks. These underwater leaves generally collapse when removed from the water. When growing on mud, more compact versions of the submersed leaf will form. Floating leaves: are often absent. When present, these scalloped leaves (0.5-2 cm long) are flat and have 3 to 5 main lobes.

Stem: The long smooth or slightly hairy stem can grow to 1 m and is weak, branched, and rooting at the lower nodes.

Flower: Single flowers on stalks (1-6 cm long) rise above the water surface. Each flower is 1-2 cm across, has a yellow center, and 5 white petals. As the fruit matures, the petals detach and the flower stalks tend to curve away from the stem.

Fruit: White water-buttercup has clusters of 10 to 50 achenes per flower. Each achene is 1.5 -2.5 mm long, has a pointed end, and often has cross ridges.

Root: Fibrous roots often emerge from nodes on the lower portions of the stems.

Habitat: Ponds, lake margins, rivers, slow-moving streams or ditches.