

AQUATIC PLANTS: THE GOOD & THE BAD

Our lakes and rivers would seem barren without lush plants along the shore. Plants do more than give us pleasing vistas—they are havens for wildlife and birds. Fish rely on aquatic plants for food and habitat. Plants improve water quality by absorbing nutrients and filtering pollutants. They protect the lake shoreline by holding soil on the lake bottom and water's edge—which in turn reduces erosion. Aquatic plants are an important part of the lakeshore environment.

As beneficial as aquatic plants are, some can create problems and become nuisance weeds. Some plants not native to an area are called "invasive" or "nuisance" plants. As they proliferate, invasive aquatic plants can impede boaters and swimmers, and generally lower the aesthetic and economic value of the waterbody. Infested waterways decrease property values, hurt tourism, impact fisheries, and cost communities money required to control and manage the invasive weeds.

Preventing the introduction and spread of invasive weeds is essential to the health of our lake. You can help, starting with early detection. Learn to identify native and non-native 'invasive' plants.

Eurasian Water-Milfoil - Invasive



Description

Eurasian water-milfoil **stems** are reddish-brown to whitish-pink. They are branched and commonly grow to lengths of six to nine feet. The **leaves** are deeply divided, soft and feather-like. Leaves are about two inches long. The leaves are arranged in whorls of three to six leaves about the stem. The **flowers** of Eurasian water-milfoil are reddish and very small. They are held above the water on an emerged flower spike that is several inches long.

Curly-leaved Pondweed – Invasive



Description

Curly-leaved pondweed is another hardy and incredibly invasive submerged aquatic. It has oblong 2 – 3 inch blue-green leaves that are wavy along the edges, like lasagna. Along the edges of the leaves you will find very small serrated edges. Like Eurasian Watermilfoil, the flower stalks stick above the water's surface and appear reddish-brown in color. This plant produces small greenish brown pine cone look-a-likes called turions. Curly-leaved pondweed forms dense mats in the water, which die off to create a great deal of waste in bodies of water. This plant has an extensive and dense root system and can tolerate extreme conditions.

European Water Chestnut - Invasive



Description

The water chestnut is native to Europe, Asia and Africa. In its native habitat, the plant is kept in check by native insect parasites. These insects are not present in North America and the plant, once released into the wild, is free to reproduce rapidly. *Trapa* colonizes shallow (less than 16 feet deep) areas of freshwater lakes and ponds, and slow-moving streams and rivers, where it forms dense mats of floating vegetation. Water chestnut favors nutrient-rich waters with a pH range of 6.7 to 8.2 and an alkalinity of 12 to 128 mg/l of calcium carbonate. It should be pointed out that this plant species is not the same as the “water chestnut” (a tuber from a different plant) which can be purchased in cans at the supermarket and which is used in Asian cooking. The fruits of *Trapa natans*, however, are used as a source of food in Asia and have been utilized for their medicinal (and claimed) magical properties. The European water chestnut is a rooted aquatic plant with submersed and floating leaves. The feathery submersed leaves form whorls around the stem; the 3/4 to 1 1/2 inch glossy green floating leaves are triangular with toothed edges and form rosettes around the end of the stem. Single small, white flowers with four 1/3-inch long petals sprout in the center of the rosette. The plant’s cord-like stems are spongy and buoyant and can reach lengths of up to 16 feet (although typical lengths tend to be in the six to eight foot range). The stems are anchored to the bed of the waterbody by numerous branched roots. Water chestnut is an annual that dies back at the end of each growing season. Seeds germinate in the spring with each seed producing 10 to 15 rosettes with each rosette capable of producing up to 20 seeds. The plants starts to produce hard, nut-like seeds in July with the seeds ripening in about a month. The inch to inch and a half wide fruits grow under water and have four very sharp spines, which can lead to injuries when stepped on. Overwintering of populations is accomplished through the mature, greenish brown seeds sinking to the bottom where they can remain viable in the sediment for up to 12 years. Old nuts, black in color, will float and are not viable. *Trapa* seeds generally fall almost directly beneath their parent plants and serve to propagate the parent colony. Some seeds, however, or plant parts (rosettes) that still contain seeds, may be moved downstream in currents. Ducks, geese and other waterfowl may also play a role in the seeds’ dispersal (the spiny nuts have been observed tangled in the feathers of Canada geese).

Water Chestnut Nut-like Seed - **Invasive**



Elodea - Native



Coontail - Native



Description Elodea

Elodea is a rooted multi-branched perennial plant but can survive and grow as floating fragments. The dark green blade-like leaves ($\frac{3}{5}$ inch long and $\frac{1}{5}$ inch wide) are in whorls of three with finely toothed margins. The flowers of Elodea have three white petals with a waxy coating that makes them float. Submerged portions of all aquatic plants provide habitats for many micro and macro invertebrates. These invertebrates in turn are used as food by fish and other wildlife species (e.g. amphibians, reptiles, ducks, etc.). After aquatic plants die, their decomposition by bacteria and fungi provides food (called "detritus") for many aquatic invertebrates. Elodea has no known direct food value to wildlife but is used extensively by insects and invertebrates. Elodea is often confused with Hydrilla and Egeria. Elodea has only 3 leaves in the whorl and no midrib teeth.

Description Coontail

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.

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