



# Midwest Aquatic Plant Management Society

## Plant Reference Chart



### EURASIAN WATERMILFOIL

(*Myriophyllum spicatum*)

An aggressive plant, this exotic milfoil can grow 10 feet (or more) in length forming dense mats at the waters surface. Growing in muck, sand, or rock, it has become a nuisance plant in many lakes and ponds by quickly outcompeting native species. Identifying features include a pattern of 4 leaves whorled around a hollow stem. Feathery in appearance, each leaf consists of 10-21 pairs of closely packed leaflets. Out of the water the leaves become limp, compressing against the stem. Hybridization with native milfoil species is common.



### NORTHERN WATERMILFOIL

(*Myriophyllum sibiricum*)

This native species of milfoil has a hollow stem with whorled leaves at intervals along the entire length of the plant. Leaves are finely dissected to the mid-rib and featherlike in appearance. Each feathery leaf consists of 6-10 pairs of leaflets, which is less than that found in non-native Eurasian Watermilfoil. This entire plant is submerged with the exception of a tiny stalk of flowers that may extend above the water surface. This plant can easily be confused with and hybridize with invasive Eurasian Watermilfoil.



### FANWORT

(*Cabomba caroliniana*)

This submerged exotic species is not common but management tools are limited. Very similar to aquarium species. Leaves are divided into fine branches in a fan-like appearance, opposite structure, spanning 2 inches. Floating leaves are small, diamond shape with an emergent white/pinkish flower. Dense stands can occur forming mats at the waters surface. This species is native to parts of the Southeast United States.



### COONTAIL

(*Ceratophyllum demersum*)

Supporting waterfowl, fish, and insects, Coontail can be a desirable aquatic plant. However, thick growths around shore can be problematic. Lacking true roots, it commonly floats near the surface later in summer. Stiff leaves are whorled around a hollow stem in groups of five to twelve. Coontail can be differentiated from milfoils by forked, not feathery leaves. Leaf spacing is highly variable, but the ends are often bushy, like a raccoons tail.



### BLADDERWORT

(*Utricularia* spp.)

This plant is free floating and does not utilize a standard root system having yellow or purple snap-dragon like flowers which emerge just above the waters' surface. There are finely divided leaves scattered along the stem with many small structures that look like bladders attached to the leaves. These bladders act as traps to capture small aquatic invertebrates.



### SLENDER NAIAD

(*Najas flexilis*)

Leaves of the Slender Naiad may occur in pseudo-whorls or oppositely positioned pairs (whorls tend to occur at the end of the stems). The short and narrow leaves are submersed with variable spacing between nodes. The edges may or may not appear spiny and the leaf tips taper to a fine point. Naiads are annual plants, growing from seed each year, and can form dense, bushy masses by midsummer.



### SOUTHERN NAIAD

(*Najas guadalupensis*)

Closely resembling Slender Naiads, Southern Naiads tend to be slightly wider and more robust than slender naiad with reddish brown stems. Leaves appear spiny along the margins. Sheaths at the base leaves surround the stem and may conceal seeds.



### WILD CELERY

(*Vallisneria americana*)

Also known commonly as Eelgrass or Tapegrass, this submersed plant can form thick beds and dominate an area. The ribbon-like leaves are all attached at the base of the plant, and have a distinctive "stripe" down the center of the leaf. Individual plants are often attached to each other along creeping underground rhizomes. Flaccid when out of the water, the foliage occurs in tufts, much like turf grass. Soft muck bottoms are its preferred substrate.



### CURLY-LEAF PONDWEED

(*Potamogeton crispus*)

This undesirable exotic, also known as Crisp Pondweed, bears a waxy cuticle on its upper leaves making them stiff and somewhat brittle. The leaves have been described as resembling lasagna noodles, but upon close inspection a row of "teeth" can be seen to line the margins. Growing in dense mats near the water's surface, it outcompetes native plants for sun and space very early in spring. By midsummer, massive natural die-offs can dramatically lower oxygen levels triggering fish kills.



### CLASPING-LEAF PONDWEED

(*Potamogeton richardsonii*)

Appearing extremely leafy at the tip due to frequent branching, Claspingleaf can be easily confused with Curly-leaf Pondweed. Both bear wavy, submerged leaves, however Curly-leaf Pondweed's leaves are serrated along the edges. Claspingleaf has leaves with smooth edges and a wide base that wraps around the stem almost completely.



### LARGE-LEAF PONDWEED

(*Potamogeton amplifolius*)

Thick, large stems and broad football shaped leaves aid in identification of Large-leaf pondweed. The submerged leaves appear wavy and taper toward the stem. Floating leaves are egg shaped. Rarely is this pondweed found branching.



### LONG-LEAF PONDWEED

(*Potamogeton nodosus*)

Floating leaves are lance-like, oval in shape with the tips slightly pointed. The base tapers to a very long, distinct petiole. The submerged leaves of this plant are often lance-like, and also taper to a long petiole. This plant generally has sparse leafing that is arranged alternately.



### HYDRILLA

(*Hydrilla verticillata*)

This extremely invasive submersed plant has leaves arranged in whorls of 3 to 8 leaves. The leaf has distinctive toothed margins, with pointed spines on the underside mid-rib. It is easily confused with native elodea, which has 3 leaves per whorl and lacking evident toothed leaf margins. This plant reproduces through turion formation and fragmentation. In 2006 Hydrilla was confirmed in the Midwest.



Photo courtesy of Michael J. Grodowitz, U.S. Army Engineer Research and Development Center

### ELODEA

(*Elodea canadensis*)

This submersed weed with broad oval leaves at first glance appears very similar to Hydrilla, however this plant usually contains its leaves in whorls of 3 around the stem. Whorls are compact near the growth tip with spacing between the whorls gradually increasing as you go down the stem. This plant has leaves that have smooth edges and lack the spine on the underside of the leaf that Hydrilla has.



### STARRY STONEWORT

(*Nitellopsis obtusa*)

This plant-like algae is very similar in appearance to Chara. Unfortunately it is highly invasive not only outcompeting native submersed plants but exotic species also. It also destroys crucial fish spawning habitat. It has uneven branches that look angular at each joint. Branches feel smooth with a green gelatin appearance. A cream colored star-shaped bulbil can be found at the base of each cluster of branches. This species can be found growing in shallow and slow moving deep waters.



### CHARA

(*Chara* spp.)

Chara is typically found growing in clear, hard water. Lacking true stems and leaves, Chara is actually a form of algae. It's stems are hollow with leaf-like structures in a whorled pattern. It may be found growing with tiny, orange fruiting bodies on the branches called akinetes. Thick masses of Chara can form in some areas. Often confused with Starry stonewort, Coontail or Milfoils, it can be identified by a gritty texture and musky odor when crushed between the fingers. The gritty texture is caused by calcium deposits on the surface of the stems and branches.



### WATERMEAL

(*Wolffia* spp.)

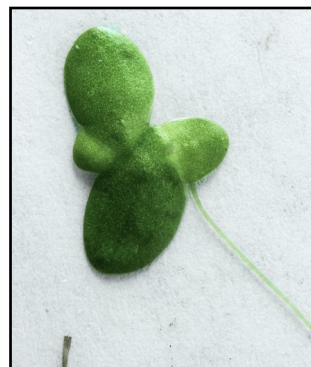
This plant is extremely small, no larger than a pin head. It shows no visible roots and looks like green cornmeal or grits. The smallest of the flowering plants, it is usually very abundant when present. It is also often mistaken for seeds floating on the surface. This species is generally very difficult to control, and often coexists with duckweed.



### DUCKWEED

(*Lemnaceae* spp.)

Duckweeds are members of the family containing the world's smallest flowering plants. They are generally a very small floating green plant, usually smaller than your smallest fingernail. Often mistaken for algae, this plant floats on the surface of the water and reproduces very rapidly. This plant may or may not have a 'root' extending from the underside, but the plant is not rooted to the soil.



### WATER LILY

(*Nymphaea* spp.)

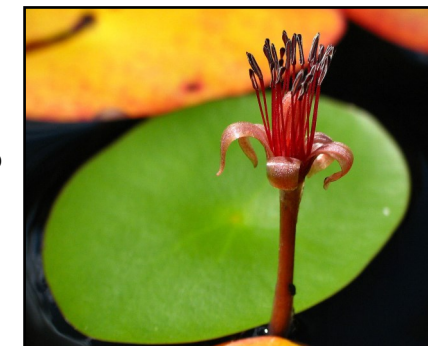
Large round pad with a cleft running almost to mid-vein. Leaves are usually 6-8 inches in diameter and the leaf veins radiate outward from the petiole. The underside of the leaf is a purplish red color and the flower is white with many rows of petals. This plant has a thick, fleshy rhizome network buried in the mud.



### WATERSHIELD

(*Brasenia schreberi*)

Also known commonly as Dollar Bonnet. This plants leaves are oval to elliptical with a smooth edge. The stem (petiole) is attached to the middle of the leaf. Leaves are 2-5 inches in length. Mature plants will have a slimy, gelatinous coating on the leaf underside. This plant produces a dull purple flower in later summer, and the plant is rooted in the sediment.



### PURPLE LOOSESTRIFE

(*Lythrum salicaria*)

An established invasive species. Outcompeting many wetland species and altering habitat. Plants form dense stands reaching heights of six feet. Leaves are opposite or sometimes in whorls of 3 attached directly to the stem with a heart shaped base. The flowers are magenta with five to seven petals. Flowers usually appear in July and continue to bloom thru October.



### ARROWHEAD

(*Sagittaria* spp.)

This plant is named for its arrow shaped leaf. This emergent plant may also have some elliptical emergent leaves and sometimes will also have ribbon, or tongue-like submersed leaves. This plant has underground rootstocks with tubers and may at times have tiny white flowers present.



### COMMON REED

(*Phragmites australis*)

This emergent exotic plant grows extremely tall (15 ft.), outcompeting native wetland plants and altering hydrology and blocking sunlight to aquatic shoreline species. Phragmites is a perennial grass that has broad pointed flat leaves (6-24 in. long) (1-6 cm wide), which arise from a very thick stalk. The plant flowers in July thru October with dense, fluffy, gray or purple appearance. Although less common, native species also exist.



### BULRUSH

(*Schoenoplectus* spp.)

This plant has a long, tall triangular or round stem that may or may not contain leaves. This plant has a cluster of brownish flowers and seeds located at the end of the stem. This plant will generally be found along the shoreline or in shallow waters.



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