

The Importance of Aquatic Plants

Plant information was gathered from Borman et al. (1997), Eggers and Reed (1997), Fasset (1940), Fink (1994), Nichols and Vennie (1991), and Whitley et al. (1999). Images obtained from Schmidt and Kannenberg (1998) and Borman et al. (1997).

Elodea (*Elodea canadensis*) or **common waterweed** is made up of slender stems with small, lance-shaped leaves that attach directly to the stem. Leaves are found in whorls of two or three and are more crowded toward the stem tip. The branching stems of elodea provide valuable cover for fish and are home for many insects that fish feed upon. Elodea also provides food for muskrats and waterfowl.



Coontail (*Ceratophyllum demersum*) produces whorls of narrow, toothed leaves on a long trailing stem that often resembles the tail of a raccoon. The leaves tend to be more crowded toward the tip. Coontail blankets the bottom, which helps to stabilize bottom sediments. Tolerant to nutrient-rich environments, coontail filters a high amount of phosphorus out of the water column. Coontail provides a home for invertebrates and juvenile fish. Seeds are consumed by waterfowl, but are not of high preference.



Flat-stem Pondweed (*Potamogeton zosteriformis*) emerges from a rhizome, which has strongly flattened stems. The leaves are narrow and grow 4-8 inches long. Leaves contain a prominent mid-vein and many fine parallel veins. Ecologically, flat-stem pondweed provides a home for fish and invertebrates, and is grazed by waterfowl and muskrats.



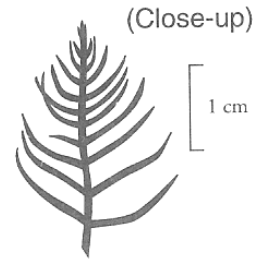
Although **native pondweeds** (*Potamogeton spp.*) may vary in appearance, there are a number of key features that members of this genus have in common. Pondweed leaves alternate on the stem and have a noticeable midvein. The nutlets, leaves, and stipules of a particular species can often be used to reliably identify it. The pondweeds grow in a wide range of aquatic habitats. They all emerge from rhizomes, which help the plants overwinter. The pondweeds are a valuable food source for waterfowl and a number of mammals. They also provide a home for fish and invertebrates.



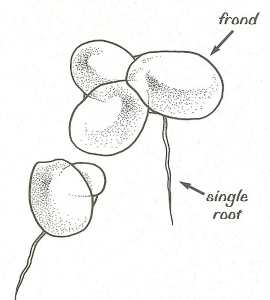
Stiff Water Crowfoot (*Ranunculus longirostris*) produces white flowers with 5 petals that emerge above the water's surface. Leaves are finely cut into thread-like divisions and are in an alternate arrangement along the stem. White water crowfoot is not tolerant to pollution and considered an indicator of good water quality. Waterfowl graze on both fruit and plant foliage. Crowfoot provides habitat for invertebrates, which in turn are fed upon by fish.



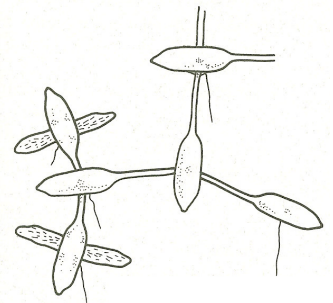
Northern Watermilfoil (*Myriophyllum sibiricum*) produces whorls of feather-like leaflets from a fairly stout stem. Northern watermilfoil is identified by its 5 to 12 pairs of leaflets that become progressively longer near the base of the leaf – giving the leaf a candelabra-like appearance. The leaves and fruit of this plant are eaten by a variety of waterfowl. Its finely divided leaves are habitat for numerous invertebrates that fish feed upon. Northern watermilfoil is an indicator of good water quality, as the plant seldom survives in more eutrophic environments.



Small Duckweed (*Lemna minor*) is one of the world's smallest flowering plants. Individual lesser duckweed plants are tiny, round, bright green disks, each with a single root. In lakes, they are found scattered among emergent plants or massed together in floating mats. Duckweeds are also commonly found in stagnant waters. Common duckweed fronds are nearly circular to oval. They occur as single plants or up to five plants may be connected. They provide food for fish and waterfowl and habitat for aquatic invertebrates.



Star Duckweed (*Lemna trisulca*) individuals are called fronds. Each frond consists of a small, green, floating body with a single root that extends into the water from the undersurface, but is not rooted to the soil. Star duckweed can grow rapidly, reproducing not by seeds, but by simple division of a frond to produce new "daughter" fronds. The developing daughter fronds remain attached to the "mother" frond for a short time, but eventually break apart. Star duckweed is a good food source for waterfowl. Large amounts of star duckweed can provide cover and habitat for fish and invertebrates.



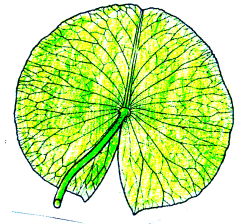
Water Stargrass (*Heteranthera dubia*) resembles some of the narrow-leaved pondweeds. It is dark green to brown with thread-like leaves scattered on flexible stems. A close examination of the leaves will show that they have several veins but no obvious midvein. It reproduces from plant fragments. Water stargrass usually becomes abundant in late summer. It settles to the bottom in late autumn where it forms a decaying mat in the winter that provides habitat to many small aquatic animals. Water stargrass provides valuable habitat for fish and serves as a source of macroinvertebrates for fish.



Floating Leaf Pondweed (*Potamogeton natans*) is a perennial that emerges from a red-spotted rhizome. Leaves that rest at the water's surface are heart shaped. Submerged leaves tend to be longer and skinnier than floating leaves. Fish find this pondweed to be useful for foraging opportunities and shelter. Growing upright in the water column, floating leaf pondweed attracts many aquatic invertebrates. Muskrats, ducks, and geese all graze on the plant.



White Water Lily (*Nymphaea odorata*) emerges from a buried rhizome. Durable round stalks grow up from the rhizome. This perennial herb supports large round leaves (4-10 inches) wide that float at the water's surface. Leaves appear waxy green on top and reddish-purple on their undersides. At mid-summer showy white flowers float at the water's surface. Lilies serve as important fish cover, especially for largemouth bass. White water lily seeds are eaten by waterfowl. Rhizomes, flowers, and leaves are consumed by muskrats, beaver, and deer. With large broad leaves, lilies also help prevent shoreline erosion by slowing wave action.



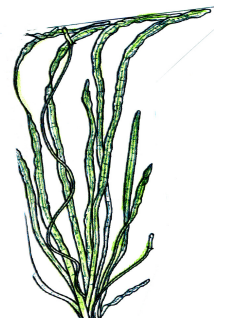
Sago Pondweed (*Potamogeton pectinatus*) is a perennial herb that emerges from a slender rhizome that contains many starchy tubers. Leaves are sharp, thin, and resemble a pine needle. Reddish nutlets (seeds) that resemble beads on a string rise to the water surface in mid-summer. Sago pondweed produces a large crop of seeds and tubers that are valued by waterfowl. Juvenile fish and invertebrates utilize sago pondweed for cover.



Bushy pondweed (*Najas flexilis*) also known as **slender naiad** has a finely branched stem that grows from a rootstock. Leaves are short (1-4 cm), pointed and grow in pairs. Bushy pondweed is an annual and must grow from seed each year. It tends to establish well in disturbed areas. Bushy pondweed is one of waterfowl's favorite foods and considered very important. Waterfowl, marsh birds, and muskrats relish seeds, leaves and stems. Bushy pondweed stabilizes bottom sediment and offers cover for fish.



Wild Celery (*Vallisneria americana*) also known as **eelgrass** has long ribbon-like leaves that emerge in clusters. Leaves have a prominent central stripe and leaf tips tend to float gracefully at the water's surface. In the fall, a vegetative portion of the rhizome will break free and float to other locations. Wild celery is considered one of the best all natural waterfowl foods. The entire plant is relished by waterfowl, especially canvasbacks. Eelgrass beds serve as an important food source for sea ducks, marsh birds, and shore birds. Fish also find wild celery to be a popular hiding spot.



Spatterdock (*Nuphar variegata*) is a perennial herb that produces yellow, rounded flowers. Large (4-10 inches) long, heart-shaped leaves float at the waters surface. Leaf stalks have flattened wings and emerge from a buried spongy rhizome. With large buried rhizomes, spatterdock helps stabilize bottom sediment. The large leaves also help buffer the impact of wave action on the shoreline. Like lilies, spatterdock offers excellent fish habitat. Seeds are eaten by waterfowl; leaves, rhizomes, and flowers are relished by muskrats, beaver, and deer.

