A Field Guide of Aquatic Macrophyte Species Found in New York Lakes along with Potential Non-Native (Exotic) Invaders

January 2013

Photos on cover:

Elodea sp. Top left

Vallisneria americana Top right

Myriophyllum spicatum Bottom left

Potamogeton crispus Bottom right

The following plant photographs and descriptions are an introduction to higher aquatic plant (macrophyte) identification for stakeholders of New York State Lakes. The purpose of this plant summary is to inform lakeshore residents, anglers, and other recreational users about the different types of aquatic plants other than algae that they may encounter while at the lake. This booklet is not a taxonomic text for identification of specific plant species. You can use several excellent books listed in the references for a more in-depth study of aquatic plants many of which are in New York State Lakes. We encourage lake users to associate names with the plants they encounter while on the lake. Our goal is to promote the public understanding that not all aquatic plants are a nuisance and that, in fact, most are beneficial to the ecosystem of the lake.

We include native plants that are indigenous to the surrounding area and to New York State. Native plants species are essential to health of the lake. While at times these plants may become overabundant and detract from the utility of the lake, we usually find them at low densities and not an impediment to recreation. A high diversity and moderate density of native plants is the most favorable plant mix for the lake's ecosystem.

We also include non-native (exotic) plants that are not native to most New York Lakes but some species are in our lakes while others could invade in the future. These plants deserve special attention because many become over abundant and will push out desirable native species. These plants do provide important habitat for very large populations of invertebrates and small fish. However, we do not list the value of these exotic plants because the potential for a negative impact on the lake ecosystem from these plant species.

We include some non-native (exotic) plant species not yet in our lakes but these are species that stakeholders need to be on the lookout for. These plant species have the potential to adapt and may enter many lakes at sometime in the future and that introduction needs documentation.

While this plant grouping is in no way an encyclopedia of aquatic plants and does not include all of the species found in New York State Lakes, it is an important tool for the public to use to identify major higher plant species (macrophytes) in the lake.

The following plant pictorial summary depicts natives with a black label and non-natives have red labels.

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January 2013

Native Aquatic Plants are plants indigenous to the area and NYS

Non-Native Plants (Exotic)

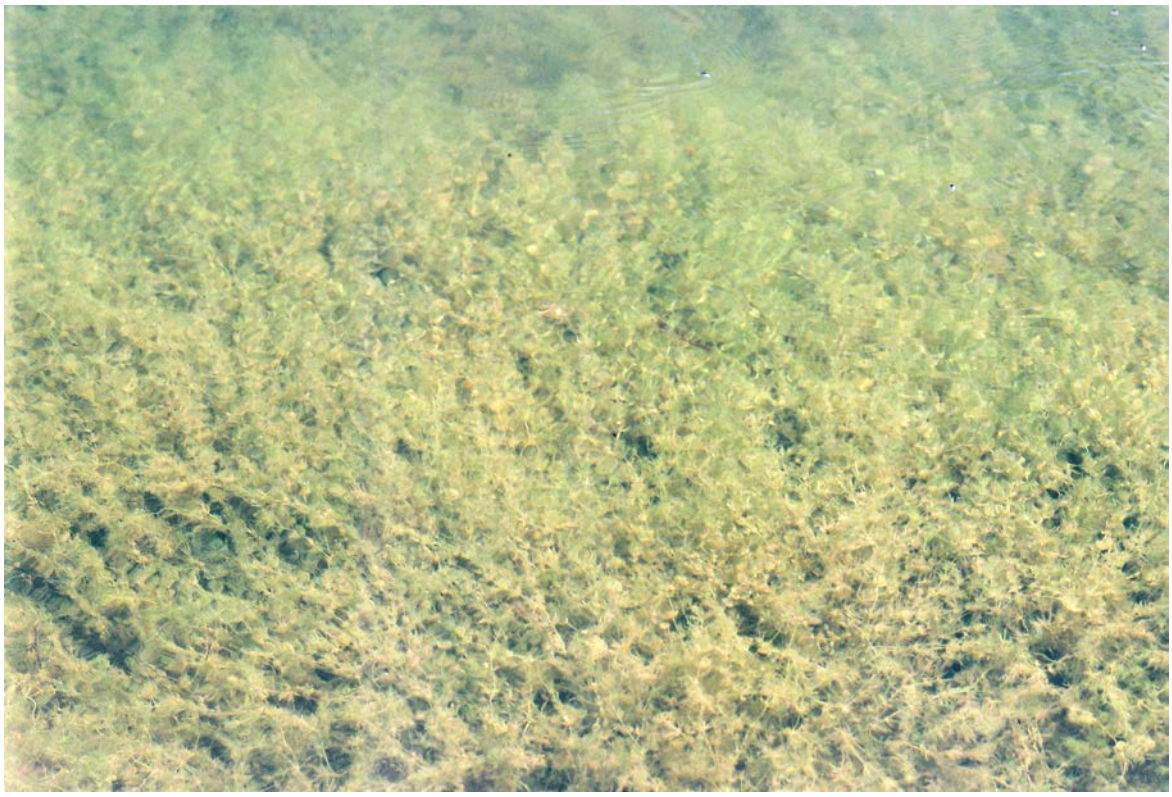
Ceratophyllum demersum - Coontail

Description: Coontail is a native submersed aquatic plant that lacks true roots, often uses holdfasts, (root-like structures) to attach to the sediment and is sometimes free floating. Coontail pulls nutrients directly from the water column. Leaves are ridge, bristle-like and forked arranged in whorls around the stem with the leaf margins having fine teeth. Tightly packed whorls of leaves at the growing end of the branches give the tip of the plant a raccoon tail appearance. This plant also keeps its shape out of water due to its rigidity.

Habitat: Since it is not rooted, it drifts between various depth zones, and further has high tolerance for poor light conditions; thereby allowing it to grow in waters several meters deep. Moreover, it gathers its nutrients from the surrounding water rather than from the sediment.

Value: The rigid whorls of the leaves provide a shelter for many organisms such as scuds and midges especially in the winter where many others plants are no greater than roots or rhizomes. Waterfowl, i.e. black duck, bufflehead, gadwall, mallard, etc. eat the foliage and fruit of this plant. The stems of coontail harbor myriad invertebrates and provide shelter and foraging possibilities for fish.

Chara vulgaris - Chara, muskgrass



Description: Even though chara looks like a higher plant, it lacks roots or true leaves and is a macro-alga. Its main branches grow out of the sediment producing side branches in whorls similar to bike spokes. Calcium carbonate covers these branches giving the plant a crusty feeling. However, the most obvious identifying trait is the strong musk, skunk or garlic-like odor produced when removed from the water suggesting one of the common names, muskgrass. Chara often displays very conspicuous orange fruiting bodies that produce spores.

Habitat: Found in hard, deeper waters (up to 10 meters) and tolerates muddy to sandy substrate

Value: Muskgrass is the favorite waterfowl food, and also valuable fish habitat and food, especially for young trout, large- and smallmouth bass. Algae and small invertebrates that collect on the stems are attractive food to waterfowl.

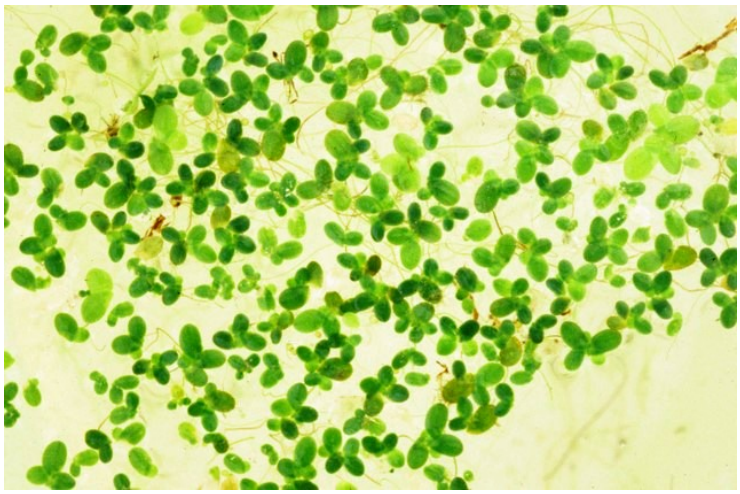
Elodea sp. (E. canadensis, E. nuttallii) - Elodea, waterweed

Description: A native submersed aquatic plant, elodea, has smooth and slender leaves normally arranged in whorls of three that get more crowded near the growing tip. Stems are usually rigid and tend to branch forming a tangled mat. Elodea produces tiny white flowers, with three petals at the ends of thin stalks, in the summer. There are two species, *E. canadensis* and *E. nuttallii*, in NY lakes. It is difficult to distinguish between these two species.

Habitat: Elodea grows in water depths ranging from elbow deep to several meters deep, but is most prolific on fine sediments enriched with organic matter. These can live in freshwater ponds, slow moving streams or even tidal tributaries.

Value: The branching stems offer grazing opportunities for fish. However, these can grow too dense and obstruct fishes' movement. Muskrats and waterfowl also feed on elodea, which also eat the invertebrates that live on the elodea.

Lemna minor - Common duckweed, lesser duckweed

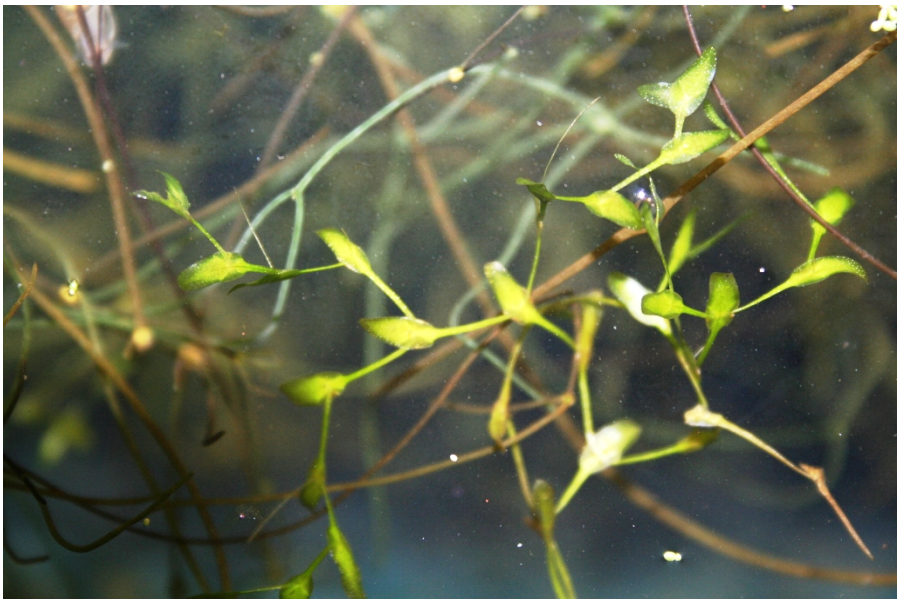


Description: Common duckweed, a native, belongs to the group of plants known as free-floaters. Each greenish-yellow leaf has three faint veins on the top and floats on the water with a single root hanging down below the surface. Duckweeds most commonly reproduce by budding new leaf bodies that usually remain attached creating floating clusters on the water.

Habitat: Found in the still waters of bays and ponds. Since it is free-floating, its growth or proliferation does not depend on depth, sediment type or water clarity, but it requires water with adequate nutrients unconditionally. It is often that duckweed is very dense in eutrophic waters.

Value: Duckweed can provide up to 90% of the dietary needs of a variety of ducks and geese, and additionally muskrat, beaver and fish feed on duckweed. Surface clusters of duckweed provide shade for some fish and other invertebrates. More importantly, dense clusters of duckweed can prevent excessive mosquito breeding.

Lemna trisulca - Forked duckweed, star duckweed, ivy leaf duckweed



Description: Star duckweed has a distinct shape that makes it unique compared to other duckweeds. Each leaf is flat and elongated with a stalk-like protrusion that connects it to other leaf dies. Star duckweed mainly grows below the surface and reproduces by budding new leaf bodies that all have one small root.

Habitat: Found just beneath the surface of still water. Like its smaller cousin, common duckweed, it floats freely and does not depend on variables such as depth, sediment type or water clarity. However, as usual there must be adequate nutrients in the water for it to grow and flourish.

Value: Forked duckweed is a good food source for waterfowl. Tangled masses of fronds also provide cover for fish and invertebrates.

Myriophyllum heterophyllum - Variable watermilfoil

Description: Variable watermilfoil is native to North America but is invasive in New Hampshire and Maine. There is recent concern in New York's Adirondack lakes where it appears to display aggressive growth and an expanding range. Variable watermilfoil has fine feather-like leaves usually 1-1.5 inches long and having 7-10 pairs of thread-like leaflets on each leaf. Its leaves can be scattered along the stem but typically are spaced very close together, arranged in whorls of four. Stems appear green or reddish and range greatly in width. Flowering occurs between July and August when the plant reaches the surface. A spike emerges above the water's surface with small, reddish flowers arranged in whorls hidden under small leaf-like structures called leaf bracts.

Habitat: Various-leaved watermilfoil grows on various sediments in water up to 5 meters deep, and often grows in large and dense clusters (stands). It can survive under ice, and if stranded on dewatered shorelines, they form erect spikes called "terrestrial morphs," which resemble miniature pine trees. There, they wait for the water to come back whereupon they morph back into water plants.

Value: Waterfowl consume the fruits and foliage of various-leaved watermilfoil. The copious foliage provides invertebrate habitat and traps detritus for their food. Beds and stands of various-leaved watermilfoil offer shade, shelter and grazing possibilities for fish.

Myriophyllum sibiricum - Northern watermilfoil

Description: Northern watermilfoil, a native aquatic macrophyte, has feather-like leaves normally arranged in whorls of four and having 5-11 pairs of leaflets on each leaf. Apical stems appear greener and leaves are more rigid than *Myriophyllum spicatum* (Eurasian watermilfoil) and it is appears stiffer when removed from the water while *M. spicatum* tends to collapse. Small, reddish flowers arranged in whorls around a slender stem similar to *M. spicatum* emerge above the water's surface. In the fall, thick winter buds form at the base of the stem or at the growing tips of the plant that look like miniature plastic Christmas trees. *M. spicatum* does not produce these winter buds.

Habitat: Usually found in soft sediment in relatively clear-watered lakes, and ranges from shallow waters to up to 4 meters. It is sensitive to diminished water clarity and in lakes that have become increasing eutrophic, has declined in numbers.

Value: A number of waterfowl, i.e. ducks, geese, etc. consume the leaves and fruit of northern watermilfoil. The plant's feathery foliage traps detritus, while providing invertebrate habitat, shade, shelter and foraging opportunities for fish.

Najas flexilis - Slender/bushy naiad

Description: A small native aquatic plant, slender naiad, has fine narrow leaves with a broad base. Leaves arranged in pairs often get crowded at the leaf axils. These leaves, which can range from 0.5-1.5 inches long, are also finely serrated and tapered. Plant stems are thin and can be quite fragile, helping the plant fragment and spread in the water. Slender naiad germinates in the spring entirely from seeds and will reach a flowering stage by midsummer to produce small faintly pitted seeds for the next year's generation.

Habitat: The slender naiad grows at a very wide range of depths, from shallow up to several meters deep. It can be found near patches of wild celery (Vallisneria americana) in sand or gravel sediment in ponds, lakes or slow-moving streams. Slender naiad is a plant that is sensitive to pollution and has disappeared in some locations due to excessive nutrients and low light levels.

Value: It is one of the most important plants for waterfowl, with consumption of stems, leaves and seeds by a large variety of ducks, as well as a variety of marsh birds and muskrats. Further, it provides food and shelter to different types of fish.

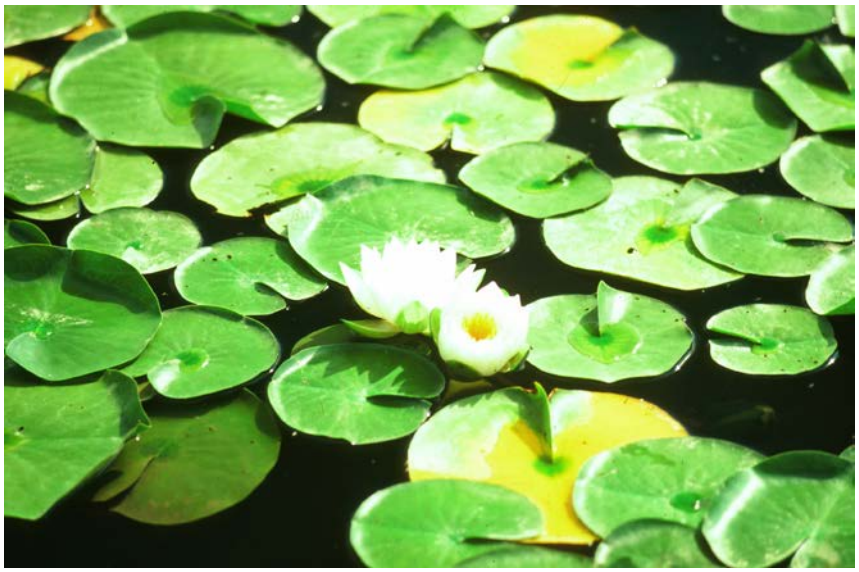
Najas guadalupensis **- S**outhern naiad

Description: *Najas guadalupensis* (southern naiad) is an annual plant that has long stems with many branches. The leaves are opposite, narrow and clustered near the end of the stem. *N. guadalupensis* can be difficult to distinguish from *Najas flexilis*, but *N. guadalupensis* has leaves that are wider and less pointed than *N. flexilis*. The most effective way of distinguishing these species is through their seeds. The seeds of *N. guadalupensis* have a pitted appearance and those of *N. flexilis* appear smooth.

Habitat: this species grows in substrates ranging from gravel to clay, tolerates, and thrives in a high nutrient environment as opposed to *N. flexilis* that is sensitive to increased nutrient levels. In spite of its classification as an annual plant growing from seeds each season we are seeing more plants overwinter in an evergreen state and continues growing from the previous year's growth in the spring in New York.

Value: *N. guadalupensis* is an important food source for waterfowl when present and provides shelter for small fish and insects.

Nymphaea odorata - White water lily

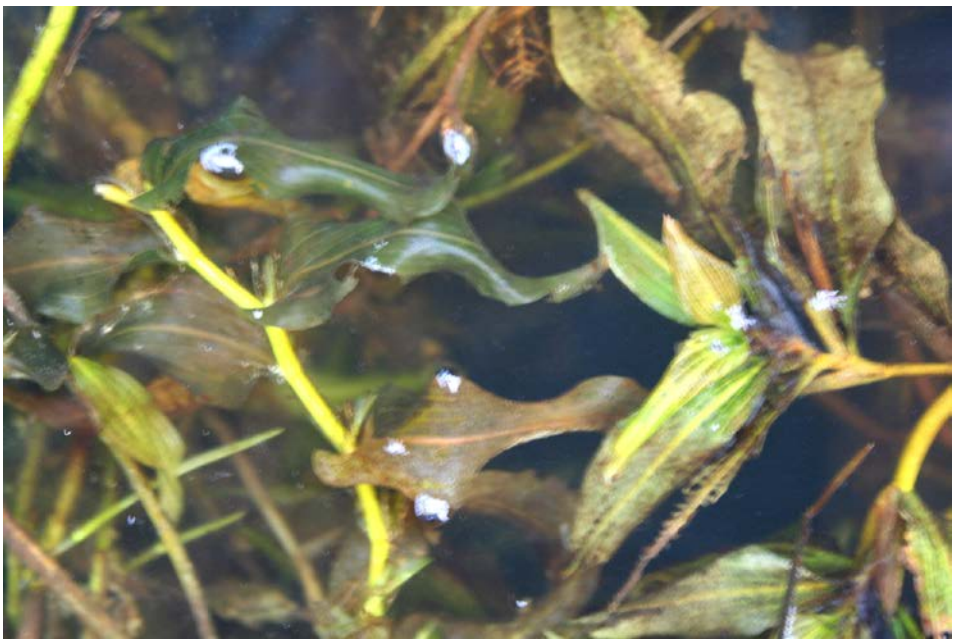


Description: White water lily is a well-known native emergent aquatic plant easily identified by its round floating leaves. Leaves range between 4-12 inches wide with a darker reddish underside and leaf-veins radiating out from the center stem. The water lily blossom is about 4-8 inches wide with many white petals arranged around a yellow center. Both the flowers and the leaves develop on individual stalks growing out of large tubers anchored in the sediment.

Habitat: White water lily grows in quiet water of lakes or ponds, growing in a variety of sediment types in shallow waters of less than 2 meters deep.

Value: This plant also provides seeds for waterfowl. Deer, muskrat, beaver, moose and porcupine eat the plant's rhizomes. The pads offer shade for fish.

Potamogeton amplifolius - Large-leaf pondweed, bass weed, musky weed



Description: Bass or musky weed, a native, has some of the broadest submersed leaves in the *Potamogeton* genus, ranging up to 6 inches long and 3 inches wide. Each leaf, attached to the stem with a stalk, appears slightly folded along the edges with many prominent veins. Leaf stalks and stipules connect at the nodes along the stem. The stipule is a long pointed sheath attached to the stem that once held the young leaf. A stout fruiting stalk emerges in midsummer with tiny flowers that produce densely packed tiny seeds. This plant is commonly confused with Illinois pondweed that has narrower leaves.

Habitat: Large-leaf pondweed is common in soft sediments from one to several meters deep. It is sensitive to elevated turbidity and is sensitive to damage from boats' motors.

Value: Its broad leaves offer shade and grazing opportunities for fish. Large nutlets make a valuable waterfowl food.

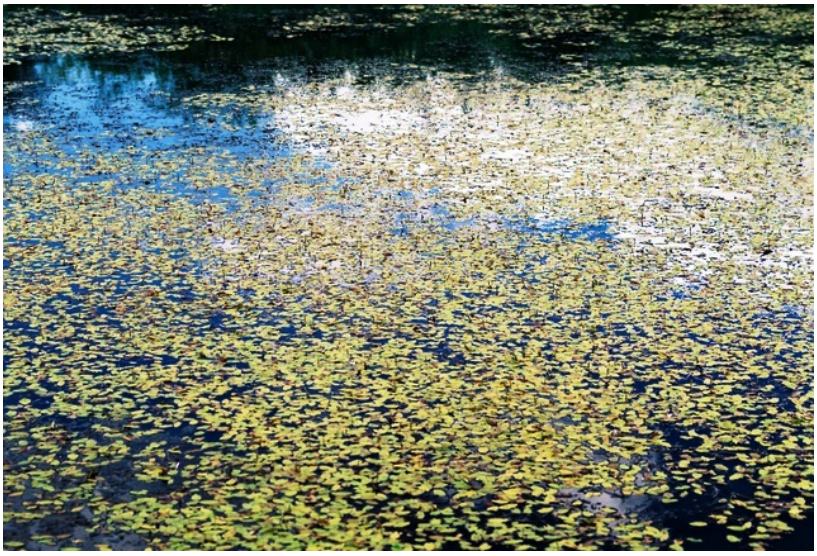
Potamogeton foliosus - Leafy pondweed

Description: Leafy pondweed is a small native *Potamogeton* species that usually grows in shallow waters. Its leaves are very narrow and can be up to 3 inches long. They extend from the stem in opposite pairs with a short stipule at the base. The stipule is a long pointed sheath attached to the stem that once held the young leaf. Each leaf typically has 3-5 noticeable veins and tapers to a point at the tip. Flowers usually bloom mid-season in New York at the tips of short stalks. These stalks will then produce seeds in clusters of small flat nutlets that have an obvious ridge or "keel" on the seed. This is an important identifying characteristic.

Habitat: Leafy pondweed grows in a very wide range of habitats. It is often found in shallow waters, however grows in water up to 1 meter deep. It prefers soft sediments but is tolerant of eutrophic waters.

Value: Its fruit is an important food source for black duck, mallard, pintail and ring-necked duck, and geese. In particular, it is important since it matures before many other aquatic fruits. A myriad of other terrestrial animals, such as deer, beaver, muskrat and even moose graze on this fruit. It also provides important cover for young fish.

Potamogeton nodosus - Long-leaf pondweed



Description: Long-leaf pondweed, a native, grows primarily out of branching rhizomes that send up new stems in the spring. Each stem can be up to 6 feet with leaf stalks extending out in an alternating formation. Leaves at the water's surface are usually 3-10 inches long and 0.5-1.5 inches wide but can grow narrower and longer when submersed. Flowering occurs early in the summer on a long spike that emerges above the water. Stipules are present on the stem but break down gradually throughout the season before the entire plant dies back in the fall and over winters as a hardy rhizome. The stipule is a long pointed sheath attached to the stem that once held the young leaf.

Habitat: Longleaf pondweed is actually more common in flowing water than in ponds or lakes. You will often find the plant in water 1 meter deep in various sediment types. It is tolerant of murky, turbid water and found in conjunction with other species that do well in low light conditions.

Value: Ducks and geese graze on this pondweed's fruit along with terrestrial mammals such as beaver, muskrat, moose and deer. It offers foraging opportunities to fish and invertebrates.

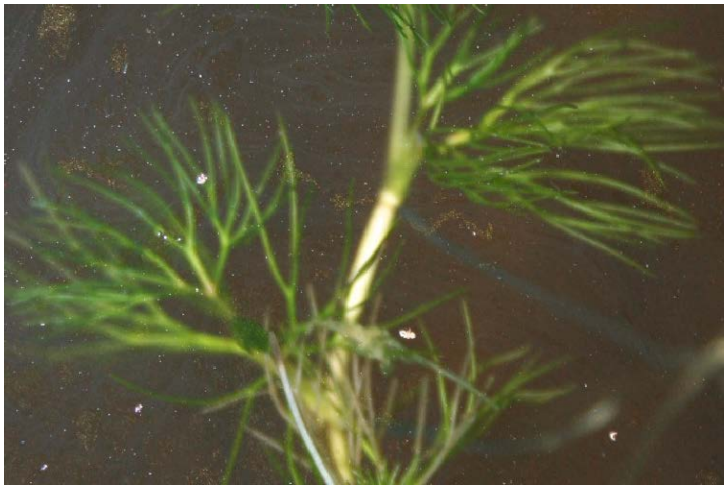
Potamogeton pusillus - Small pondweed

Description: *Potamogeton pusillus* (small pondweed) is a slender native pondweed that is an early dominant, flowering early in the spring at a similar time as *Potamogeton crispus*, the non-native invasive. *P. pusillus* produces fruits and many winter buds (turions) that mature by early summer with the plant dying back shortly after producing seeds and turions. This species can be confused with *Potamogeton foliosus* (leafy pondweed) because of their similar leaves; however, *P. pusillus* has tiny glands at the leaf nodes. *P. pusillus* produces few seeds that appear smooth while *P. foliosus* produces many seeds with a distinct toothed keel.

Habitat: Grows in depths of up to 3 meters on clay to silt sediments and can tolerate turbid conditions. The plant grows rapidly in the spring from the tiny winter buds and flowers in late spring.

Value: *P. pusillus* forms extensive beds providing food and cover for fish and invertebrates. Waterfowl show a preference to feed on this species.

Ranunculus longirostris - Stiff white water buttercup/crowfoot

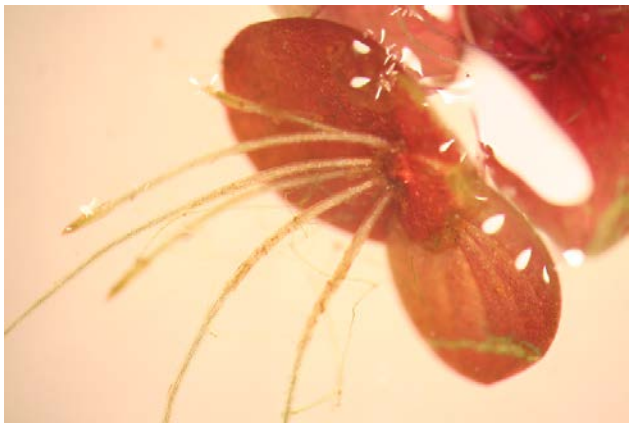


Description: Stiff water crowfoot is a native aquatic macrophyte that has small thread-like leaves branching out from a thin leaf stalk. Each leaf stalk connects to its own node on the stem by a protrusion called a petiole. Leaves appear on opposite sides of the stem in an alternating arrangement. String-like roots extend out from some of the nodes. Small white flowers emerge over several weeks starting early in the growing season and eventually producing fruit by midsummer. A very similar species *Ranunculus trichophyllus* (white water crowfoot) is limp with a noticeable stalk between the stem and leaf than the stiff tiny stalk of *R. longirostris.*

Habitat: Crowfoot lives in both streams and lakes with higher alkalinity, in 2 meters of water depth or less.

Value: Waterfowl and upland game birds like ruffed grouse consume the fruit and foliage of crowfoot. It is also a source of food for trout by providing shelter and habitat for invertebrates.

Spirodela polyrhiza - Great duckweed



Description: A free-floating aquatic plant, great duckweed, can easily be confused with the common duckweed. Each greenish-yellow leaf body has 5-15 faint veins radiating out from a single reddish spot on the top. The underside of the plant is a reddish-purple with 5-12 roots hanging down below the surface. Duckweeds most commonly reproduce by budding new leaf bodies that usually remain attached creating floating clusters on the water.

Habitat: Great duckweed is free-floating and found with other duckweed species. It drifts with the wind or current thus it does not depend on many aquatic variables such as sediment time or water clarity. However, there must be adequate nutrients in the water for its sustained growth.

Value: This is a good waterfowl food, consumed by many ducks and geese including canvasback, mallard and wood duck. Muskrat and some fish also consume it. Patches of duckweed provide shade for invertebrates and fish.

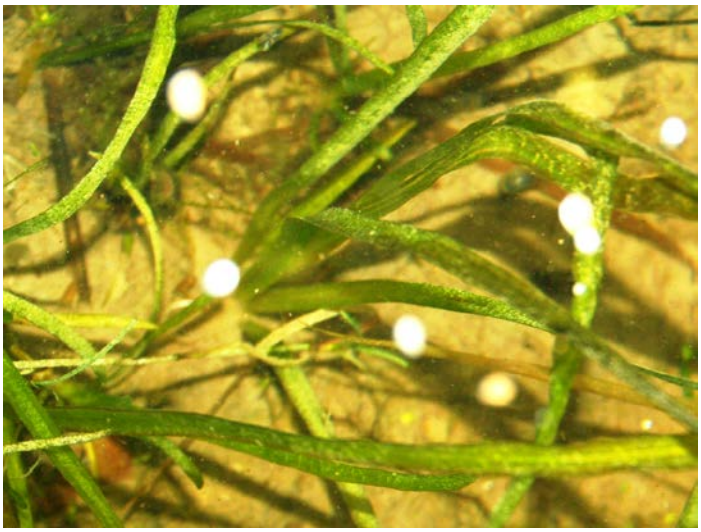
Stuckenia vaginata - Sheathed pondweed

Description: *Stuckenia vaginata* (sheathed pondweed) is a perennial that has thread-like to narrowly ribbon-like alternating leaves with a blunt, obtuse tip. Often the leaves spread out to form a bush-like appearance. We distinguish *S. vaginata* from a very close look-alike *Stuckenia pectinata* (sago pondweed) by the inflated sheaths of its stipules and the lack of a beak, or slight beak, of its seeds. In contrast, *S. pectinata* has pointed leaves and seeds that have a well-defined beak.

Habitat: Grows in a wide range of water clarity and substrates to depths of 4 meters.

Value: This species is an important food source for waterfowl and many other aquatic animals. It provides valuable cover for invertebrates and small fish.

Vallisneria americana - Wild celery, eel grass, tape grass

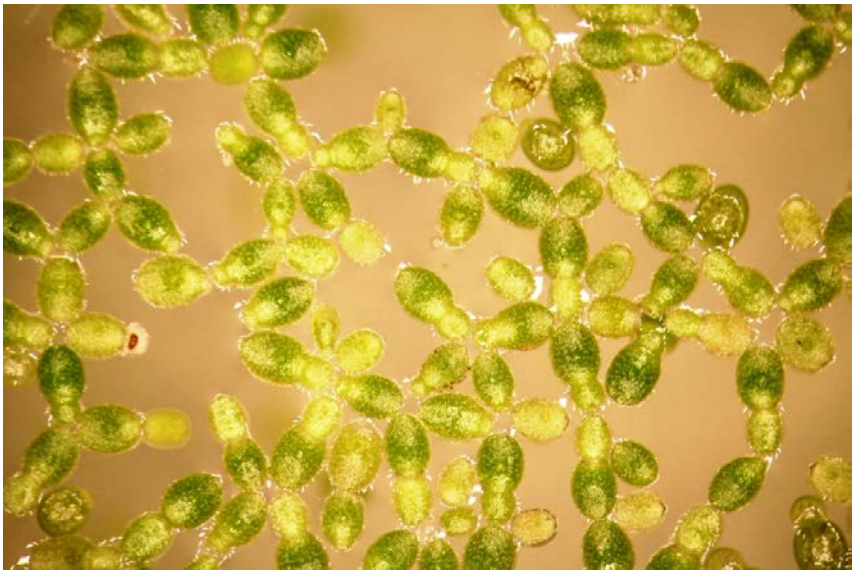


Description: Wild celery is one of the most recognizable submersed aquatic macrophytes due to its long ribbon-like leaves. Leaves can be up to 6 feet long and have a visible central stripe running down its length. The plant lacks any real stems but clusters of leaves emerge from tubers in the sediment. Flowering can occur in midsummer but most reproduction is vegetative from creeping rhizomes.

Habitat: We find eel grass growing in solid substrates in depths ranging from elbow deep to several meters. Further, it survives in water of varying acidity and is tolerant to eutrophic and murky water conditions.

Value: Wild celery is a primary source of food for waterfowl, in particular canvasback ducks, and all portions of the plant are consumed (foliage, tubers, fruit, and rhizomes). This plant is also important to marsh and shore birds including plover, snipe, sand piper and rail. Small mammals like muskrat also graze on it. It provides good cover and feeding opportunities for small fish.

Wolffia Columbiana - Common water meal

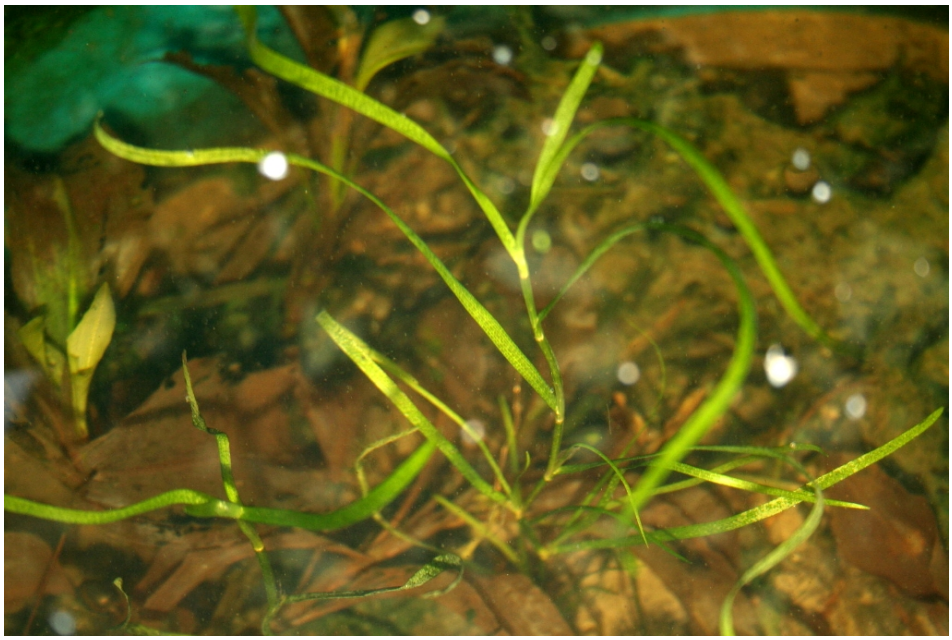


Description: Water meal is a small grainy free-floating aquatic plant that lacks any roots, stems or true leaves. Its tiny globular body simply floats on the surface absorbing nutrients directly out of the water. Water meal's primarily method of reproduction is budding, which can result in great numbers if nutrients are available.

Habitat: This plant is often found interspersed with other duckweed species and is a current and wind drifter so it does not depend on variables such as depth, sediment type, etc. It needs adequate nutrients in order to flourish.

Value: A variety of ducks and geese including mallard and scaup often consume water meal. An interesting result of dense water meal canopies controls mosquito larvae by blocking the water surface and necessary oxygen for larvae survival.

Zosterella dubia - Water stargrass



Description: Water stargrass is a native aquatic macrophyte that is often confused for one of the many *Potamogeton* species found in lakes, but it has several characteristics that will identify it to its own family of plants. First, its narrow leaves can be up to 6 inches long. Leaves lack prominent midveins thereby appearing smooth, and they attach directly to the stem in an alternating pattern. Water stargrass produces unique yellow star-shaped flowers in midsummer. Lastly, water stargrass over winters by hardy stems and rhizomes buried in the sediment and produce new shoots in the spring.

Habitat: Stargrass grows in many depths, from very shallow to several meters deep and can survive in a range of sediment types. The plant is generally very hardy.

Value: It is a locally important source of food for geese and northern pintail, blue-winged teal and wood ducks. It provides good cover for fish and decent foraging opportunities.

Non-Native Plants (Exotic)

Cabomba caroliniana - Fanwort

Description: Fanwort, not native to the Northeast has invaded some NY lakes. This macrophyte has small thread-like leaves that branch out from a short leaf stalk in opposite pairs. Each leaf shows fine divisions and has a flat shape resembling a fan. Submerged during most of the growing season it may reach the surface in the fall and it can produce oval water lily-like floating leaves with additional small white flowers emerging on individual stalks.

Habitat: Fanwort grows in the submersed and floating-leaved plant communities, and flourishes in a variety of substrates. It thrives in stagnant or slow-moving waters of lakes and ponds up to depths of three meters.

Egeria densa - Brazilian elodea

Description: Brazilian elodea a non-native is an exotic invasive submersed aquatic plant that comes from South America and resembles our native elodea, as well as hydrilla. However, this plant has very smooth and slender leaves arranged in whorls of four but can range from 3-6 leaves per whorl. Leaves tend to be more crowded on the stems and usually grow to be about twice the size of both elodea and hydrilla. Brazilian elodea produces white flowers with three petals in the summer, which are much larger than the flowers of the native elodea.

Habitat: This plant found growing in the submersed plant community. It can grow in substrates of sand/mud/stone in depths of up to 6 ½ meters. The plant produces most of its biomass near the surface. It occurs as nuisance drifting mats and densely rooted stands.

Hydrilla verticillata - Hydrilla

Description: Hydrilla is non-native and an exotic invasive submersed aquatic plant that very much resembles elodea. However, it has slender, scratchy feeling leaves normally arranged in whorls of five but can range from 3-8 getting more crowded at the growing tip. The plant stem can grow up to about 25 feet and tends to branch out forming a tangled mat. Hydrilla uses small (under sediment) turions or (tubers) and leaf axis formed turions (specialized overwintering buds) to overwinter and spread. These same turions can survive for several years in the sediment and germinate in a later year.

Habitat: It grows in the submersed plant community. Hydrilla often dubbed as the "perfect weed" because it is extraordinarily adaptable to a wide range of environmental conditions, i.e. various substrates, in still or flowing waters, and waters low or high in nutrients. Hydrilla is also a threat to estuary systems since the plant is able to tolerate salinities of up to 10 parts per thousand. The plant is resistant to low light conditions and can thrive in such environments. It is one of the most problematic of aquatic invaders.

Myriophyllum spicatum - Eurasian watermilfoil

Description: Eurasian watermilfoil is a non-native (exotic) aquatic macrophyte with feather-like leaves normally arranged in whorls of four and having 11 or more pairs of leaflets on each leaf. Its leaves are delicate and fall limp to the stem when removed from the water. The apical stem can appear green or reddish-brown when growing near the water surface. This invasive plant generally flowers between mid-June and August when the plant reaches the surface and canopies. Flowers are small and reddish arranged in whorls around a slender stem that emerges above the water's surface. This canopy formation shades out smaller native plants and an undesirable watermilfoil monoculture is the result.

Habitat: Watermilfoil is an extremely adaptable plant, and it is able to thrive in a wide variety of adverse conditions. It can thrive in still or flowing waters, surviving under ice and tolerate mild salinities. It can grow in depths of 1 to 10 meters. It favors fine-textured, inorganic sediments but can thrive in various types of sediment.

Nitellopsis obtusa - Starry stonewort

Description: Starry stonewort, a macro algae, is non-native and an exotic invader that looks similar to nitella a native macro algae. The plant lacks roots, leaves and its main branches grow out of white holdfasts in the sediment producing long un-even jointed side branches. These branches emerge in whorls and can feel smooth to the touch. Starry stonewort can be short and bushy forming a mat in shallow water or grow tall with less tangled branches in deeper water. This plant also produces small white calcareous asexual reproductive bodies, resembling a star, which can form a new plant when separated from the stem.

Habitat: Grows in 1-2 meter depth without other plant competition on clay to silt substrate. Stonewort grows with a very dense compact growth structure preventing growth of other species.

Potamogeton crispus - Curly-leaf pondweed

Description: Curly-leaved pondweed a non-native is an invasive exotic species that grows early in the season and will often reach the water's surface by mid-June. It eventually dies back, dropping out of the water column, by the end of July. Leaves grow in an alternating fashion and are denser at the apical tip. Each leaf is about 1-4 inches long and has finely serrated wavy margins giving it the familiar "crispy" texture. As curly-leaved pondweed dies back in July, plant tips harden and form sharp turions that fall to the bottom where they remain dormant until late fall when the plant begins to re-grow, even under thick ice.

Habitat: This plant often dominates the submersed plant community. It prefers soft sediments and it grows in waters that are shallow or deep, flowing or still. Curly-leaf thrives where many species cannot; in particular, it is able to thrive in waters that are turbid, polluted, disturbed or lack sunlight.

Trapas natans - Water chestnut

Description: Water chestnut a non-native is an invasive exotic floating-leaved aquatic plant that is easy to recognize but difficult to eradicate once established. Stems can reach up to 18 feet long with a rosette of leaves at the water's surface. Submersed leaves are feather-like. However, leaves at the surface are waxy and broad-leafed with toothed margins on two of the sides. Flowers in mid-July form on the rosettes producing large horned fruit, or "chestnuts," which can be very painful if stepped on. These nuts fall to the bottom and will eventually germinate into a new plant.

Habitat: Water chestnut grows among the submersed and floating-leaf plant community. It flourishes in soft sediments of still, eutrophic waters in lakes, ponds and slow streams. The plant thrives on the water's edge and can survive when stranded on the shore.

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