

Field Guide

to the

Aquatic Macrophytes of Warner's Pond



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Overview

This field guide covers aquatic plant species observed by ESS Group, Inc. during a comprehensive survey of Warner's Pond in 2011. Each species is presented in alphabetical order by scientific name. Key identification features, habitat and similar species are noted. Photos and line drawings, when available, accompany each species account.

All line drawings courtesy of USDA. Photographs are by ESS Group, Inc., unless otherwise noted.

"Similar species" marked with an asterisk (*) are not included in this field guide.

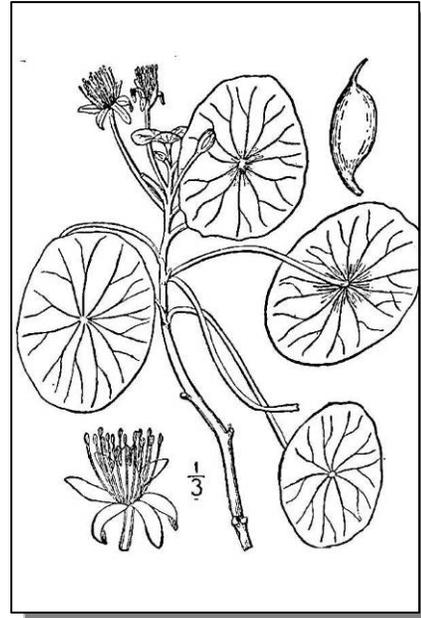
***Brasenia schreberi* - Watershield**

Native

Key Features: Alternate floating leaves (2"-3" long) with petiole joining at center of elliptical leaf. Mucilaginous (slimy) coating on stems and underside of leaves. Solitary reddish flowers in mid-summer.

Habitat: Shallow waters of ponds, lakes and sluggish streams

Similar Species: *Nelumbo lutea**, *Nymphaea odorata*, *Nuphar lutea variegata*, *Nymphoides peltata**



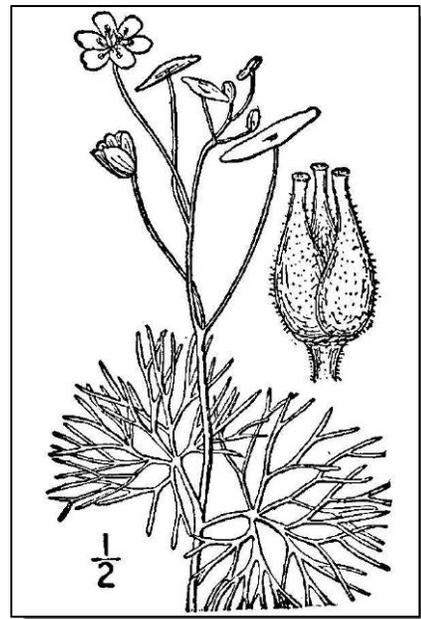
***Cabomba caroliniana* - Fanwort**

**Exotic
Invasive**

Key Features: Finely dissected, fanlike leaves arranged oppositely on submersed stems. Small, white flowers with small floating leaves emerge in late summer but submersed leaves will remain obvious.

Habitat: Ponds, lakes and other sluggish waters. Can form dense, extensive monocultures.

Similar Species: *Ranunculus* sp.*



Callitriche heterophylla – Water Starwort

Native

Key Features: Opposite leaves either linear (submersed) or spatulate (floating). Highly variable.

Habitat: Muddy shores and shallow, protected waters of ponds and lakes.

Similar Species: *Potamogeton* spp., *Najas* spp.*



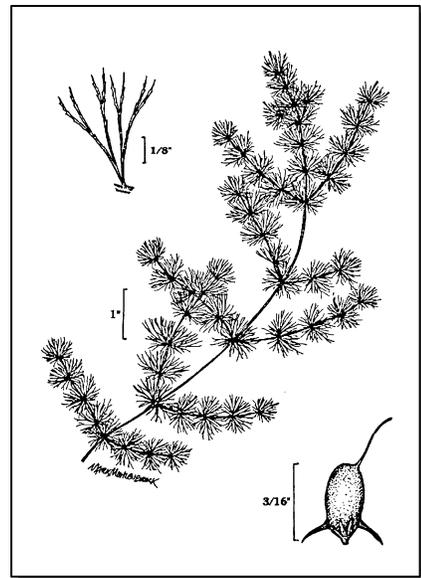
Ceratophyllum demersum - Coontail

Native

Key Features: Finely dissected, whorled leaves are branched. Leaves often cluster together near the stem tips giving them a look reminiscent of a raccoon tail. Plants are rootless.

Habitat: Ponds, lakes and other sluggish waters. Can grow to nuisance levels.

Similar Species: *Myriophyllum* spp.



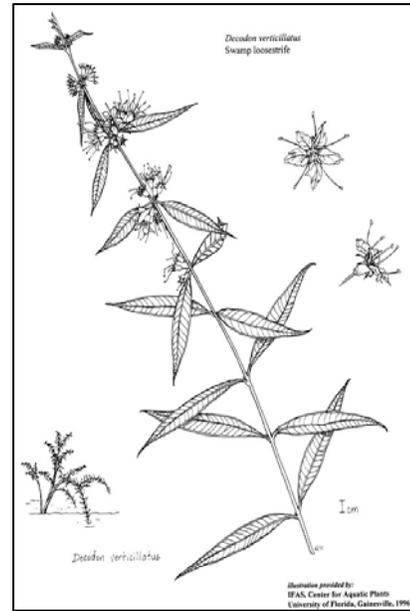
Decodon verticillatus – Swamp Loosestrife

Native

Key Features: Leaves are opposite or in whorls of 3 to 4. Leaves are relatively narrow and pointed. Pink flowers with long stamens.

Habitat: Swamps, streams, and pond edges.

Similar Species: *Lythrum salicaria**



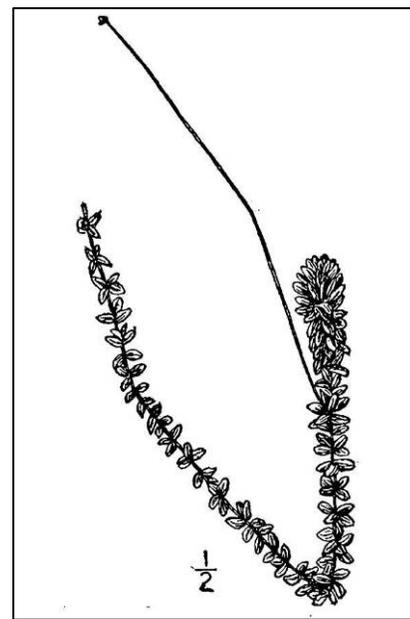
Elodea canadensis – Canadian waterweed

Native

Key Features: Whorls of 3 to 4 leaves with bunching near the stem tips. Leaves are relatively wide and blunt tipped. Small flowers occasionally found arising from long pedicels.

Habitat: Alkaline to circumneutral ponds, lakes and slow streams.

Similar Species: *Elodea nuttallii**



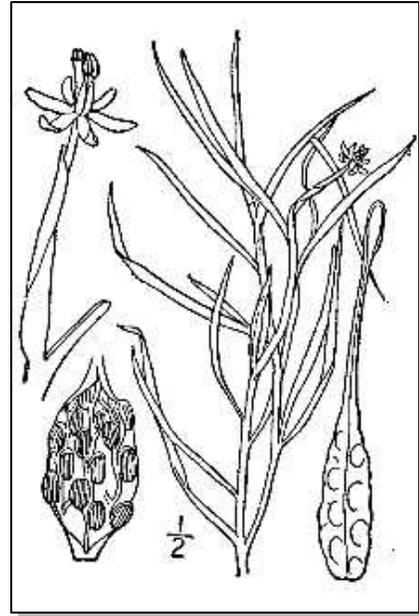
Heteranthera sp. – Mudplantain

Native

Key Features: Long, narrow leaves with smooth edges. Each plant produces one small, yellow flower, which is short-lived.

Habitat: Rivers and along the edges of ponds. Often grows in large clusters.

Similar Species: *Potamogeton* sp.



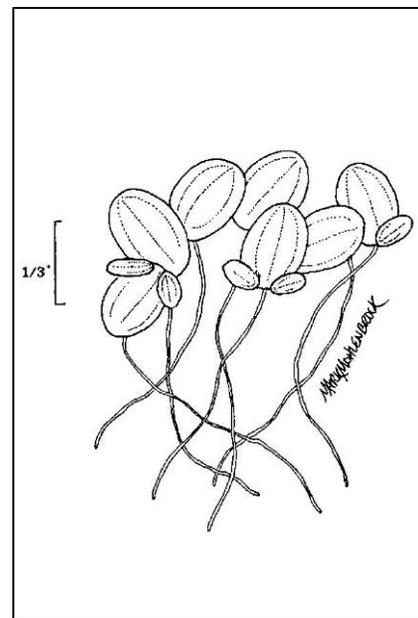
Lemna sp. - Duckweed

Native

Key Features: Small free-floating plant with up to five green leaves per plant. Each leaf has one root.

Habitat: The surface of ponds, lakes and other sluggish waters. Capable of rapid vegetative reproduction – can cover the surface of protected coves.

Similar Species: *Wolffia* sp.* and *Spirodela polyrrhiza**



Myriophyllum heterophyllum
– Variable-leaf Milfoil

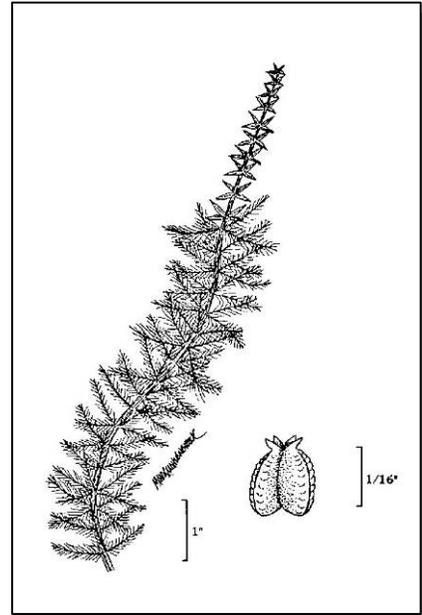
Key Features: Finely dissected, feathery leaves arranged in whorls of 4-6 on submersed stems. Emergent stems form comblike or serrated bracts that are larger than the flowers and look very different from the submersed leaves in August and September. Stems can grow more than 10' long.

Habitat: Shallow edges and quiet waters of protected coves and stream outlets. Can form dense, extensive monocultures.

Similar Species: *Myriophyllum* spp.



Nonindigenous
Transplant with
Invasive Potential



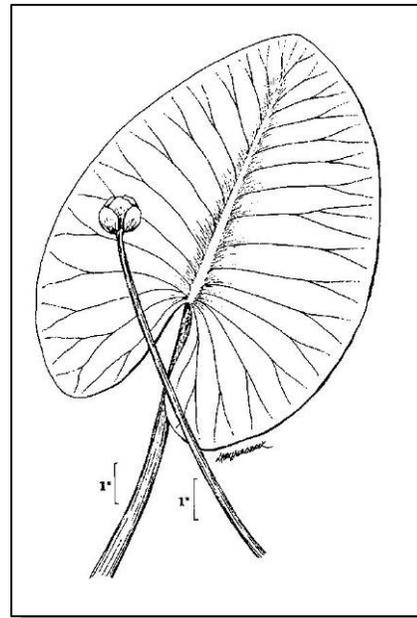
Nuphar lutea variegata – Yellow Water Lily

Native

Key Features: Large (6"-8") floating leaves with rounded lobes behind the petiole. Veins join along large central midrib. Yellow flowers are prominent in the summer.

Habitat: Shallow waters of ponds, lakes and sluggish streams on organic substrates.

Similar Species: *Nelumbo lutea**, *Nymphaea odorata*, *Nymphoides peltata**



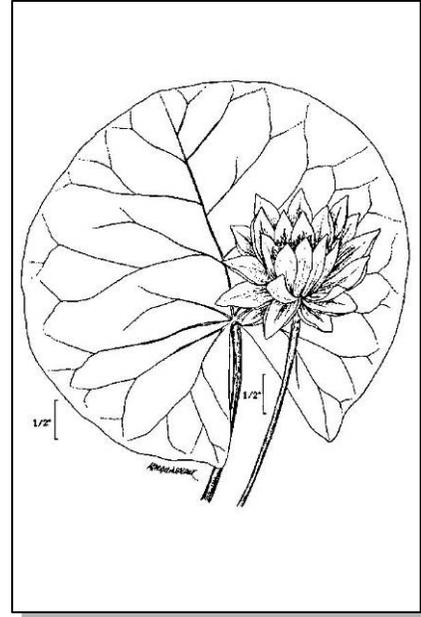
Nymphaea odorata – White Water Lily

Native

Key Features: Floating leaves 2"-18" wide with sharp lobes behind petiole. Veins appear to radiate more strongly from petiole than central midrib. Large white flowers appear throughout summer.

Habitat: Shallow waters of ponds, lakes and sluggish streams on organic substrates.

Similar Species: *Nelumbo lutea**, *Nymphaea odorata*, *Nymphoides peltata**



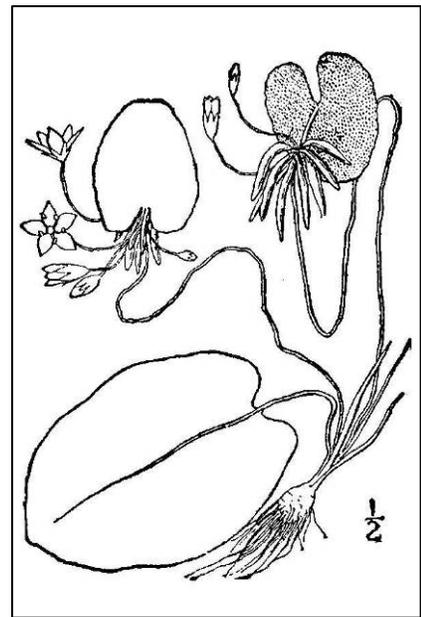
Nymphoides cordata – White Floating Heart

Native

Key Features: Floating leaves are heart-shaped and 0.5"-2" wide. Tuberos roots cluster on stems near the water's surface. Flowers are small and white.

Habitat: Ponds, lakes and other sluggish waters. Can grow in very shallow (<6") water.

Similar Species: *Nelumbo lutea**, *Nymphaea odorata*, *Nuphar lutea variegata*



Polygonum sp. – Smartweed

Native

Key Features: Thick stem is emergent, and lance-shaped leaves float on the water. Terminal cluster of several five-lobed pink flowers.

Habitat: Shallow waters of lakes and ponds. May also grow on muddy shorelines.

Similar Species: *Polygonum* spp.



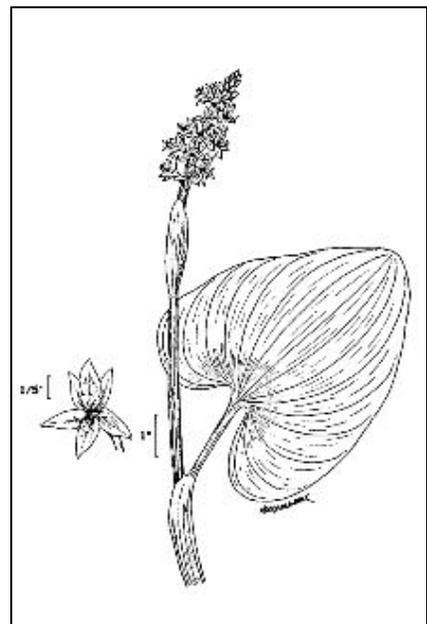
Pontederia cordata – Pickerelweed

Native

Key Features: Leaves shiny, heart-shaped to lance-shaped, and up to seven inches long. Flowers are violet, and grow in a terminal spike up to four inches long.

Habitat: Shallow waters of lakes and ponds.

Similar Species: *Peltandra virginica**



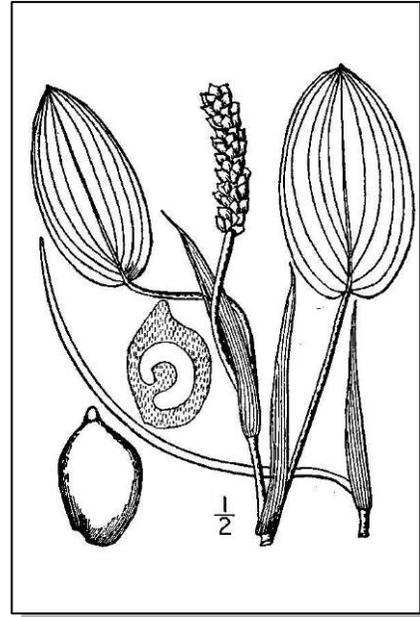
Potamogeton natans – Floating Pondweed

Native

Key Features: Floating leaves up to 3½" long are notched at the base and set off from the stem by a long petiole. Submersed leaves are very thin and stemlike. Sharp stipules arise from leaf axils.

Habitat: Shallow waters of lakes and ponds.

Similar Species: *Potamogeton pulcher**



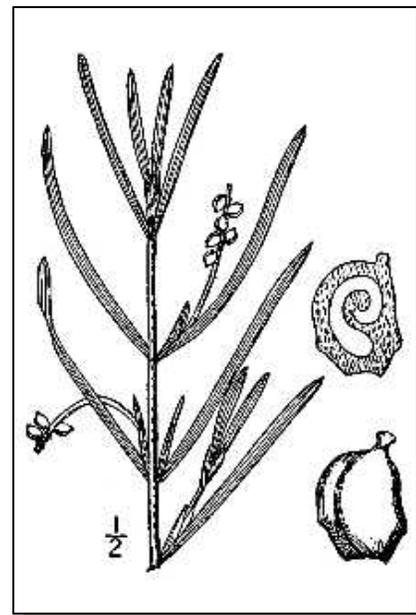
Potamogeton zosteriformis – Flatstem Pondweed

Native

Key Features: Very narrow, flattened stem. Leaves rigid and linear. Small spike of flowers arises from the surface of the water.

Habitat: Ponds, lakes, and slow-moving streams.

Similar Species: *Potamogeton pusillus**



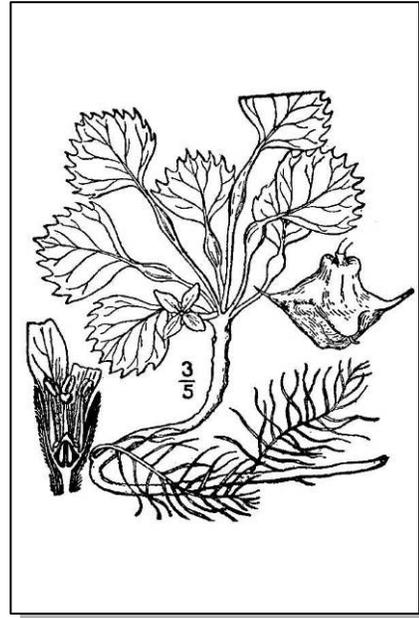
Trapa natans – Water Chestnut

**Exotic
Invasive**

Key Features: Floating leaves characterized by rosettes of shiny toothed leaves with swollen, air-filled petioles. Submersed leaves are finely divided and whorled around the stem. Floating seeds are set in the summer and are four-barbed and large (see inset).

Habitat: Shallow areas of lakes, ponds and sluggish streams. May quickly form dense monoculture beds.

Similar Species: None



Utricularia gibba – Humped Bladderwort

Native

Key Features: Bladders occur with leaves. Leaves are small, finely dissected and branch 1 to 3 times. Flowers, when they appear, are bright yellow.

Habitat: Shallow waters and damp edges of acid ponds and lakes. May also be found floating freely in small masses.

Similar Species: *Utricularia* spp.

