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## Lake Conservation Notes

Northeast Glacial Lakes Watershed Project

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### Common Aquatic Plants of Pickerel Lake

Aquatic macrophytes (macro = large, phytes = plants) are an essential component of a lakes ecosystem. They provide habitat for aquatic insects and fish, food for invertebrates and waterfowl, produce oxygen (essential for all aquatic life), and are an important component of a lakes nutrient cycle. Aquatic plants are classified by how and where they grow. Emergent aquatic plants grow in shallow areas where they are rooted in the water, however a majority of the plant is exposed above the water's surface. Examples of emergent plants are cattails and bulrush. Floating-leaf plants are rooted in the bottom, have long stems and large leaves that float on the water's surface. Floating-leaf plants include pond lilies and the large-leaved potamogetons. Submersed aquatic plants are found living completely under the water. Examples include coontail and sago pondweed. The following species were found during a survey of Pickerel Lake, August 2020.

#### Coontail (*Ceratophyllum demersum*)



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## **Coontail continued:**

**Native.** The most abundant aquatic plant occurring in Pickerel Lake. Coontail is a submersed plant that can survive in low light allowing the plant to grow in the deeper areas of a lake. Un-rooted plants tend to drift around the lake in large mats of vegetation. The plant has long stems with whorled spiny thin leaves surrounding the stem. The leaf whorls become quite dense at the end of the branches. Can grow to nuisance levels in lakes with high levels of phosphorus.

## **Northern Water Milfoil (*Myriophyllum sibiricum*)**



**Native.** Submersed plant having a similar growth pattern and look of coontail. Stems can grow as long as 6 feet or more in length. The introduced Eurasian milfoil, not yet found in Pickerel Lake, has more than 14 pairs of leaf divisions while northern milfoil has less than 14 pairs.

*Aquatic macrophytes, like algae, can become a nuisance in lakes over enriched with phosphorus. Plants may form dense beds of vegetation that restrict boating and other aquatic activities.*



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**Slender Naiad (*Najas flexilis*)**



**Native.** A small submersed aquatic plant with leaves densely clustered at the stem tips. One of the few annual aquatic plants that dies back completely in the fall. Another important food for waterfowl.



*If a lake becomes dominated by blue-green algae reducing water clarity, aquatic macrophytes may not be able to grow reducing habitat and food for fish and other aquatic species.*

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**Large-leaf Pondweed (*Potamogeton amplifolius*)**



**Native.** The largest submersed plant found in Pickerel Lake. Stands of this plant are considered ecologically valuable habitat for fish, thus the common names bass weed and musky weed. One of the lake's rarer aquatic plants.

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**Sago Pondweed (*Potamogeton pectinatus*)**



**Native.** Another abundant aquatic plant in Pickerel is sago pondweed. This submersed plant has several branched slender stems that end in thin sharp-pointed leaves. A favorite food of ducks and geese.

*When aquatic vegetation washes ashore, remove and compost in an area that does not drain to the lake. By removing this vegetation you can help lower the amount of phosphorus in Pickerel Lake.*



**Clasping-leaf Pondweed (*Potamogeton richardsonii*)**



**Native.** Another common submersed species in Pickerel Lake. As the name implies the lance-shaped leaves are not connected to the stem by a leaf stalk or petiole, instead the leaf clasps or surrounds a portion of the stem. Can be confused with the invasive curly-leaf pondweed shown below.

*Clasping-leaf pondweed may be confused with curly-leaf pondweed, an invasive species also found in Pickerel Lake. See description on next page.*



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**Curly-leaf Pondweed (*Potamogeton crispus*)**



**Introduced.** Native to Europe, this aquatic plant was first collected in the United States in the mid-1800s and since spread to most areas of North America. This is a cool-season aquatic plant that has a split growing season. Prevalent in early spring the plant can form dense mats of vegetation. The plant dies back mid-summer and begins to grow again in September. The leaves are more linear and have serrated edges (clasping-leaf does not), and the leaves only partially clasp the stem. First observed in Pickerel Lake in 2019, spread from lake to lake mainly by plant fragments attached to boat trailers. Previously observed in Roy Lake (Marshall County) and Big Stone Lake (Grant/Roberts Counties, South Dakota).

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**Water Stargrass (*Zostrella dubia*)**



**Native.** Water stargrass is a small submersed aquatic plant, not as branched and with wider leaves than sago pondweed. Often seen growing along the shoreline in shallow water. Another important food for ducks and geese.



Two other native species not observed in 2020, that were found in a 2002 survey of Pickerel Lake are; Flatstem Pondweed (*Potamogeton zosteriformis*) shown above, and *Potamogeton friesii* (no common name). Both of these species look similar to water stargrass (top picture) and each other.

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**Spatterdock (*Nuphar variegata*)**

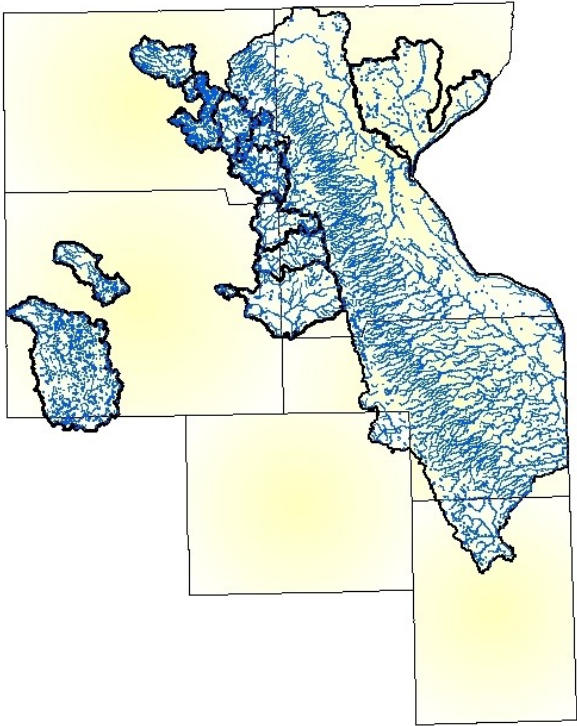


**Native.** Large-leaved floating plant with a distinctive yellow flower. Only occurs near the mouth of Chekapa creek where it enters Pickerel Lake.

**Native.** Small free floating plants. Found growing in protected bays around the lake, especially the north bay and inlet of Chekapa Creek. Two species may occur in the lake, however they're difficult to tell apart.

**Duckweed (*Lemna minor/Lemna turionifera*)**





**Northeast Glacial Lakes Watershed  
Protection and Improvement Project**

**For More Information:**  
Visit the Project Website at;  
[www.neglwatersheds.org](http://www.neglwatersheds.org)

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- Water Quality Testing and Reporting**
- Shoreline Buffer Designs and Plantings**
- Watershed Conservation Practice Cost Share**

**Information and Educational Events/  
Workshops**

**Project Lakes and Reservoirs:**

- Amsden Dam Reservoir
- Blue Dog Lake
- Buffalo Lakes
- Clear Lake (Marshall Co.)
- Enemy Swim Lake
- Lake Traverse
- Minnewasta Lake
- Nine Mile Lake
- Pickerel Lake
- Pierpont Dam Reservoir
- Red Iron Lake
- Roy Lake
- White Lake Dam

**Upper Minnesota River Basin:**

- Little Minnesota River
- Jorgenson River
- Whetstone River (North and South Forks)
- Yellowbank River (North and South Forks)
- Standfast Creek
- Big Spring Creek
- Big Coulee Creek

