

# KEEP A LOOK OUT

for **NEW AQUATIC INVASIVE PLANTS** in the Midwest!

These species could be spreading in your area. *Early detection and eradication* can prevent an invasion!

To report a sighting, please contact: <http://www.mipn.org/EDRRContacts.html>



**FLOWERING RUSH**

**POND WATER-STARWORT**

**SWAMP STONECROP**

**BRAZILIAN WATERWEED**

**WATER HYACINTH**

**REED MANNA GRASS**

**HYDRILLA**

**EUROPEAN FROGBIT**

**INDIAN SWAMPWEED**

**EUROPEAN WATER CLOVER**

**PARROT FEATHER**

**EURASIAN WATERMILFOIL**

**BRITTLE WATERNYMPH**

**YELLOW FLOATING HEART**

**WATER LETTUCE**

**WATER CHESTNUT**

The maps show current reported distribution in the Midwest, including Ontario.

□ Not known    ■ Isolated ( → = single county reports)    ■ Locally abundant    ■ Widespread

Ⓢ = Also sold in the aquatic plant trade

Last updated July 2008

See reverse side for species descriptions

**FLOWERING RUSH** (*Butomus umbellatus*) **Emergent, perennial herb** (can be submersed in deep water). Emergent **leaves** 3 feet tall, stiff, narrow, and triangular in cross-section. **Flowers** with 3 petals and 3 sepals, white or pink, in a distinctive flat-topped spray atop a tall stalk. **Spreads** by rhizomes and root pieces.

**POND WATER-STARWORT** (*Callitriche stagnalis*) **Perennial herb** with stems from 4 - 12 inches long. **Leaves** opposite, floating or submersed. **Floating leaves** oval or spoon-shaped with 5 - 7 veins, 0.1 - 0.3 inches wide and up to 0.8 inches long. **Submersed leaves** linear, with 1 vein, 0.2 - 0.4 inches long (can resemble floating leaves). **Flowers** tiny, located in the leaf axils. **Fruits** nearly round, 0.06 - 0.08 inches thick with a thin winged margin. **Spreads** by plant fragments and seed.

**SWAMP STONE CROP** (*Crassula helmsii*) **Perennial aquatic or semi-terrestrial, succulent herb** with round stems 4 - 12 inches long, floating or creeping with roots forming at the nodes. **Leaves** opposite and succulent, 0.2 - 0.8 inches long, 0.03 - 0.06 inches wide, linear-lanceolate to ovate-lanceolate, acute. **Flowers** white or pinkish, with 4 petals born singly, 0.12 - 0.14 inches wide. **Fruits** follicles, with 2 - 5 round, tiny, smooth seeds. **Spreads** by fragments and buds (turions).

**BRAZILIAN WATERWEED** (*Egeria densa*) **Submersed, perennial herb**. Very bushy, rooted in water up to 20 feet or drifting. Lacks specialized storage organs, such as tubers. **Stem** single or branching. **Leaves** bright green, 0.8 - 1.2 inches long, up to 0.2 inches wide, usually in whorls of 4 - 6 in short intervals along stem (bushy appearance). **Leaf edges** minutely serrated. **Flowers** white, 0.7 - 1 inch across, with 3 petals. **Spreads** by plant fragments.

**WATER HYACINTH** (*Eichhornia crassipes*) **Free-floating, perennial herb**. **Leaves** entire, round, waxy, up to 6 inches wide, with floating, air-filled petioles, and growing in rosettes. **Inflorescence** a showy spike of 8 - 15 light purple, six-petaled flowers. **Roots** dark purple to black, feathery, and hanging beneath submersed leaves. **Fruit** three-celled capsule, rarely observed. **Spreads** vegetatively by new rosettes formed on floating stolons.

**REED MANNA GRASS** (*Glyceria maxima*) **Emergent, perennial grass** 1.5 - 8 feet tall. **Stem** unbranched. **Leaves** flat, 9 - 12 inches long and 0.3 - 0.8 inches wide with prominent mid-ribs. **Leaf sheath** closed for most of length. Leaf edges with short, stiff hairs, rough to the touch. **Inflorescence** open with many branches (panicle), strongly drooping at maturity with 50+ flattened, egg-shaped spikelets, each with 4 - 10 minute flowers. **Spreads** by rhizomes and seed.

**HYDRILLA** (*Hydrilla verticillata*) **Submersed, perennial herb** rooted in saturated soil, in water up to 20 feet deep. **Stem** slender, branching, up to 25 feet long. **Leaves** green, 0.6 inches long with pointed tips, in whorls of 3 - 10, 0.13 - 2 inches apart on stem. **Leaf edges** saw-toothed, rough to touch. Male and female **flowers** on separate plants. **Spreads** by plant fragments, buds (turions) and tubers.

**EUROPEAN FROGBIT** (*Hydrocharis morsus-ranae*) **Free-floating herb**, similar to a miniature water lily. **Leaves** leathery, heart-shaped, 1 - 2 inches wide, smooth-edged with spongy, purplish-red undersides. **Flowers** 0.5 inches across appear singly with 3 white petals and yellow centers. **Roots** 3 - 8 inches long, unbranched, dangle from the underside of each rosette. **Spreads** by fragments and buds (turions).

**INDIAN SWAMPWEED** (*Hygrophila polysperma*) **Submersed** (partly emersed), **perennial herb**. **Stems** creeping to 6 feet in length, brittle. **Leaves** opposite, round, hairy, with pointed tips, light green to brown or red, up to 3 inches long. **Flowers** small, white with 2 lobes on upper lip and 3 lobes on lower lip, solitary in leaf axils. **Roots** numerous on stem. **Spreads** by plant fragments.

**EUROPEAN WATERCLOVER** (*Marsilea quadrifolia*) **Herbaceous, perennial fern** with floating or emersed leaves when rooted underwater. **Leaves** composed of 2 double leaflets that give it a four-leaf clover appearance; leaves not hairy. New leaves emerge as fiddleheads. **Spreads** by rhizomes and spores, producing sporocarps that are thick, oval, and hairy.

**PARROT FEATHER** (*Myriophyllum aquaticum*) **Emergent, perennial herb** with leaves trailing on water surface. **Stems** up to 5 feet long, become erect at the tips and can emerge up to a foot above the water surface. **Leaves** oblong, feathery, 0.5 - 2 inches long, in whorls of 4 - 6 around the stem. **Flowers** inconspicuous, white. **Spreads** by plant fragments.

**EURASIAN WATERMILFOIL** (*Myriophyllum spicatum*) **Submersed, perennial herb**. Like native milfoils, **stems** slender, whorled by submersed, feathery leaves and tiny flowers produced above the water surface. **Stem** thickens below the inflorescence and doubles its width further down. **Leaves** threadlike, 9 - 21 pairs of leaflets per leaf, typically uniform in diameter. **Flowers** four-petaled or without petals. **Fruits** nut-like bodies, four-jointed. **Spreads** by plant fragments.

**BRITTLE WATERNYMPH** (*Najas minor*) **Submersed, annual herb** up to 4 feet long. **Stems** slender with many branches. **Leaves** opposite, linear, toothed, stiff, curled, 1 - 2 inches long. **Flowers** small, inconspicuous, and born singly in the leaf axils. **Spreads** by seed and plant fragments.

**YELLOW FLOATING HEART** (*Nymphoides peltata*) **Rooted, perennial herb** up to 3 feet long with floating leaves. **Leaves** arise from long stalks attached to creeping rhizomes on bottom. **Leaves** heart-shaped to round with wavy margins, purplish underneath. **Flowers** bright yellow, with 5 fringed petals, arranged on stalks of 2 - 5 flowers. **Fruit** a small capsule. **Spreads** by seeds, rhizomes, stolons and plant fragments.

**WATER LETTUCE** (*Pistia stratiotes*) **Floating, perennial herb**. Resembles a head of lettuce. **Leaves** thick, dull, light green, up to 6 inches long, covered in soft hairs with ridged parallel veins. **Flowers** inconspicuous, clustered on small, fleshy stalk in leaf axils. **Roots** feathery. **Spreads** by producing many secondary rosettes.

**WATER CHESTNUT** (*Trapa natans*) **Rooted, annual herb** with a leafy rosette that floats on the surface. **Stems** up to 16 feet long, with 2 types of leaves. **Submersed leaves** feathery, whorled along the stem and up to 6 inches long. **Emergent leaves** triangular, 1 - 2 inches long, waxy with toothed edges. **Leaf stems** with bladder-like swelling. **Flowers** small, white with 4 petals. **Fruit** 1 inch wide, hard nut with 4 stout barbs. **Spreads** by seeds and plant fragments.

**HELP STOP THE SPREAD OF AQUATIC INVASIVE PLANTS!**  
AQUATIC INVASIVE PLANTS SPREAD AS WATER GARDEN PLANTS, AS CONTAMINANTS ON NON-INVASIVE WATER GARDEN PLANTS, AS HITCHHIKERS ON BOATS AND OTHER WATER VEHICLES, AND THROUGH DUMPING OF UNWANTED PLANTS OR PLANT PARTS FROM AQUARIUMS.

**To stop the spread of aquatic invasive plants, follow these rules: 1) Do not release aquatic invasive plants into any waters; 2) Rinse your aquatic garden plants before planting; 3) Keep aquatic plants contained in your water gardens; and 4) Clean all recreational vehicles and trailers before leaving any lake or river.**