

New Aquatic Invasive Spreading into the Midwest

“Brazilian elodea (*Egeria densa*, also known as Brazilian waterweed) is spreading into Midwest lakes and streams. It is native to South America, but is considered exotic and invasive in the United States. Until 2008, this invasive aquatic plant was only known in 17 counties in the Midwest and Ontario, with only one known population surviving the cold winters of central Minnesota.

Previously not known to Lake County, IL two populations of Brazilian elodea were found in Libertyville during the summer of 2008 by the environmental consultant Integrated Lakes Management (ILM) while conducting routine maintenance of two ponds owned by the Village of Libertyville. ILM reported the populations to the New Invaders Watch Program (NewInvaders.org), a regional early detection program for invasive species in the Chicago region. Identification was confirmed by the Illinois Natural History Survey. On January 22, 2009 the Lake County Health Department, Lakes Management Unit (LMU) sampled the ponds and found that Brazilian elodea was overwintering beneath 8 inches of ice covered by 6 inches of snow. The Village planned to begin removal of the populations this spring. Once established, Brazilian elodea is difficult to completely eradicate. Brazilian elodea can grow aggressively in our lakes and streams; infestations can cause a decline in water quality, restrict water movement, interfere with navigation and traditional recreational uses, and reduce the abundance and diversity of native plants, such as our native American elodea (*Elodea canadensis*) also known as common waterweed.

Aquatic invasive plants can spread as water garden plants, as contaminants on non-invasive water garden plants, as hitchhikers on recreational vehicles, trailers, and equipment, and through the dumping of unwanted plants or plant parts from aquaria. Unfortunately, this plant is widely sold as an aquarium and water garden plant and an “oxygenator” for water nurseries under the name “Anacharis”. The problem occurs when the plants from aquaria or water gardens are released into a neighboring water body instead of being disposed of properly. This harmful practice is common with other invasive aquatic plants as well. The LMU has found the exotics parrot feather, water hyacinth, and water lettuce during annual monitoring. All three species are popular water garden plants sold at many local stores. However, unlike Brazilian elodea, these species have not yet been found overwintering in Lake County. If you have water garden or aquarium plants that become over abundant, please dispose of the excess plants in the trash.

Brazilian elodea has the potential to be our next Eurasian water milfoil– a widely abundant and problematic aquatic invasive plant throughout much of the Midwest. Detection and rapid control of small, isolated populations increases the likelihood of successful, cost effective, eradication. In states where it has become established, management efforts focus on keeping beaches free of plant growth, opening boat lanes from the shore to open water, maintaining favorable plant cover for fish populations, and restoring the diversity of submersed plant communities all of which are very costly. Established populations of Brazilian elodea are also maintained to prevent further spread by fragmentation.

Control measures are conducted early in the year before fragmentation occurs. Management objectives for Brazilian elodea control should involve prevention and eradication.”

“Brazilian elodea is a rooted, submersed perennial with bright green, finely toothed leaves densely arranged in whorls of 4 to 6. The leaves are 1 - 3 cm long and up to 5 mm wide with a pointed tip. Having more than 3 leaves per whorl, and leaves more than 1 cm in length help to distinguish this plant from American elodea (*Elodea canadensis*). Branches form irregularly along the stems. The plant appears dense with leaves because whorls grow close together on the stem. The slender roots are pale and unbranched. In our region, the plant reproduces vegetatively through fragmentation.

Brazilian elodea prefers moderate water temperatures; therefore, optimum growth occurs in the spring and fall. During the summer and winter, growth may slow or cease completely. When water temperatures become extreme, plants will die back to the roots. Areas on the stems with double nodes play an important role in food storage and reproduction. Roots and branches are both produced from double nodes on the stem. If a Brazilian elodea fragment does not have a double node, it can not grow into a new plant. It is unable to produce seeds, because only male flowers are present on plants found in the United States. The monitoring, control, and education of this plant has been a collaborative effort by groups from the private sector (ILM), local government (Village of Libertyville), county government (LMU and Lake County Forest Preserve District), state government (Illinois Environmental Protection Agency and Illinois Department of Natural Resources), and non-governmental organizations (Midwest Invasive Plant Network, Illinois Natural History Survey, and Illinois – Indiana Sea Grant).”