Eichhornia crassipes, **Water hyacinth**

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Common Name:	Water hyacinth, common water-hyacinth, floating water-hyacinth
Scientific Name:	*Eichhornia crassipes*
ID Description:	Water hyacinth is a free floating aquatic plant that typically grows 1.5-3ft tall. The leaves are thick and waxy and leaf stems have air bladders that keep the leaves afloat. It has very showy lavender-blue flowers that occur in groups of 8-15 on a single spike. Flowers have 6 petals each with the upper petal having a yellow splotch in the center.
Current Distribution in US and VT:	Found in: Alabama (1971), Arkansas (1934), Arizona (1934), California (1934), Colorado (2000), Connecticut (1893), Delaware (1993), District of Columbia (2010), Florida (1890), Georgia (1902), Hawaii (1930), Illinois (1975), Indiana (2000) Iowa (2019), Kansas (1998), Kentucky (1986), Louisiana (1884), Maryland (1998), Massachusetts (1992), Michigan (2011), Montana (2013), Mississippi (1916), Missouri (1930), New Hampshire (1956), New Jersey (2002), New Mexico (2022), New York (1929), North Carolina (1949), Ohio (1995), Oregon (1956), Pennsylvania (1993), Rhode Island (2009), South Carolina (1952), Tennessee (1972), Texas (1931), Virginia (1977), Wahington (1995), Wisconsin (2005).
Habitat:	Water hyacinth is a free floating, perennial aquatic plant. It grows in a variety of freshwater habitats including lakes, rivers, canals, ponds, ditches
Regulated/restricted in these Northeastern states:	NY, MA
Concern:	Creates large mats that shade out other native aquatic plants and interrupts recreational activities. When this plant dies the large mats sink to the bottom, which will take up other dissolved oxygen and impact fisheries. It also creates more habitat for mosquito larvae.
Means of Introduction and Spread:	Water hyacinth is native to South America. Introduction would likely be from water hyacinth bought online or in-store and placed in an ornamental pond or aquarium, then released to the wild. The plant can then spread by fragmentation and through watercraft entering different waterbodies.

Plant Pest Designation Rationale

Ecological Threat:
Water hyacinth (*Eichhornia crassipes*) poses a significant ecological threat in the northeastern United States due to its invasive characteristics and rapid spread in aquatic environments. This invasive aquatic plant grows vigorously, forming dense mats on the water surface, which can quickly cover large areas and outcompete native aquatic vegetation. These thick mats of water hyacinth block sunlight from reaching submerged plants and disrupt the natural balance of aquatic ecosystems. The dense growth of water hyacinth reduces oxygen levels in the water, leading to hypoxic conditions that can harm fish and other aquatic organisms. Its ability to reproduce rapidly through vegetative propagation and the production of abundant seeds further exacerbates its impact, allowing water hyacinth to colonize new areas and displace native species.

Economic Impact:
Water hyacinth poses an economic threat in Vermont due to its invasive nature and adverse effects on various sectors, including tourism, recreation, agriculture, and water management. As an invasive

aquatic plant, water hyacinth can form dense mats on the surface of water bodies, impeding navigation and hindering recreational activities such as boating, fishing, and swimming. The presence of water hyacinth in water bodies can disrupt water flow and drainage systems, leading to increased maintenance costs for infrastructure and water management facilities.

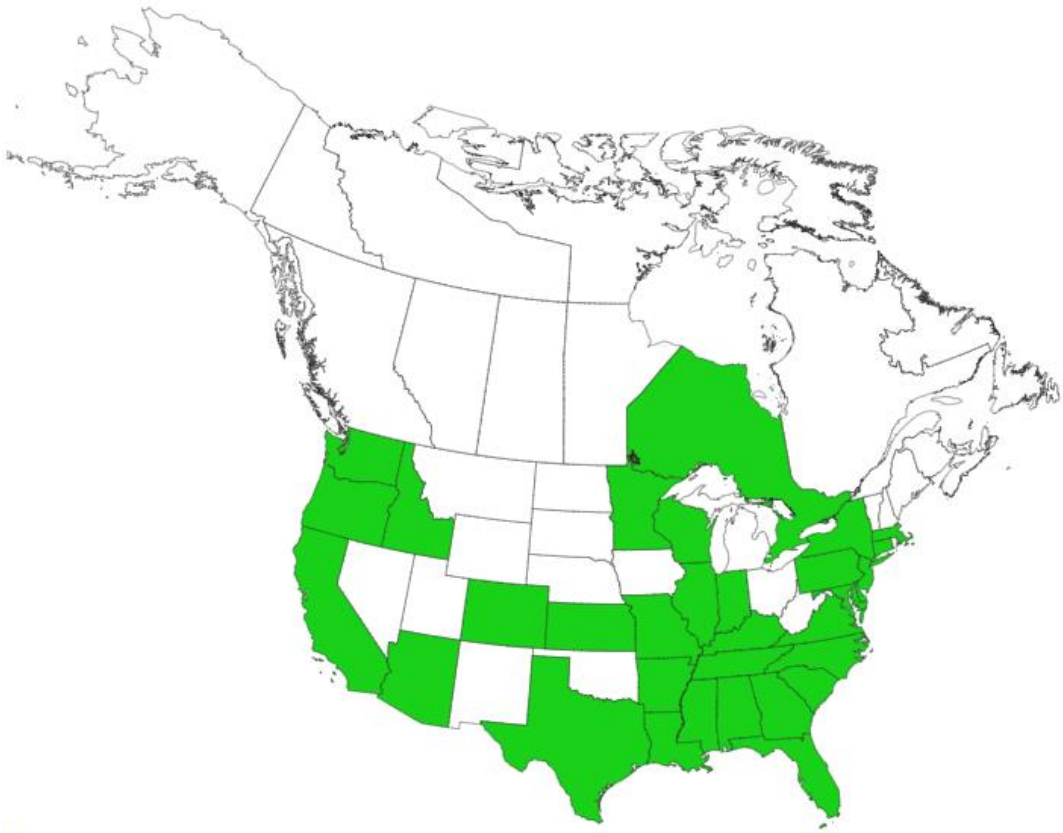
Water hyacinth can negatively impact agriculture by clogging irrigation systems, reducing water availability for crops, and impeding agricultural activities such as irrigation and harvesting. In addition, the dense growth of water hyacinth can degrade water quality.

Feasibility of control and spread prevention:
Controlling and preventing the spread of water hyacinth in Vermont is feasible with a combination of management strategies. Mechanical control methods such as hand-pulling and cutting can be effective in smaller infestations, especially when combined with follow-up treatments to prevent regrowth. Biological control methods such as the introduction of natural enemies or pathogens specific to water hyacinth can help suppress its population growth. Monitoring and surveillance programs can help track the spread of water hyacinth and identify new infestations early, allowing for timely intervention and containment efforts. Public outreach is another key tool in preventing spread of aquatic plants. Boaters should carefully clean boats and equipment when moving between bodies of water; all soil and organic debris should be removed as well as bilge water. Gardeners and hobbyists should only plant non-invasive or native plants in ponds or aquariums. Aquarium water should be disposed of in a way that does not contaminate natural water-bodies.

Hyacinth invasion

Photo credit: Ted D. Center, USDA ARS.

Reported US distribution of *Eichhornia crassipes* in EDDMaps



EDDMapS. 2024. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at http://www.eddmaps.org/; last accessed February 16, 2024.

References:

Virgina Invasive Species: water hyacinth

Water Hyacinth | FWC (myfwc.com)

Water hyacinth.doc (mass.gov)

Common water-hyacinth | U.S. Geological Survey (usgs.gov)

Ontario Invasive Species

*This content was edited with the assistance of a generative artificial intelligence, ChatGPT. The content has been reviewed and verified to be accurate and complete and represents the intent of the Plant Health Section of the VT Agency of Agriculture, Food and Markets.