



The  
UNIVERSITY  
of VERMONT

## Vermont Legislative Research Shop

### Eradication of Eurasian Milfoil

Eurasian Milfoil is an aquatic nuisance that first entered the United States over fifty years ago (Phillips 1997). Today, the dense growth of Eurasian milfoil makes it difficult for native species to survive. It is considered to be the worst aquatic weed in the United States and has been accounted for in lakes in over thirty states (University of Florida 1997). How to rid our lakes of the milfoil has puzzled experts around the country. States where the milfoil has come under particular scrutiny are Washington, Iowa, Connecticut, Florida, Minnesota, and Mississippi.

#### Methods of Eradication

There are three ways that states deal with the eradication of the eurasian milfoil. First natural predators of the eurasian milfoil can be introduced into contaminated areas. These species thrive on destroying the weed, but do not affect the ecological environment of the native species. For example, in Brownington Pond (VT) the weevil, an herbivoric insect that eats milfoil (*Euhrychiopsis Lecontei*) was introduced and was extremely effective in ridding the pond of the milfoil (EPA 1997). The weevil is also being used all over New England as well as many other states (Minnesota Pollution 1998). It has been found more effective in cold weather climates; in warmer climates, such as Florida and California, the weevil has been found to only work with only about 50% success (University of Florida 1997). Besides the weevil there are two other natural predators of the milfoil being used: the *Acentria Ephemera*, (a native moth who feeds on the milfoil, while at the same time hiding in its leaves), and a caterpillar who likes to eat milfoil called *Cricotopus Myriophylli* (University of Florida 1997). Connecticut is also experimenting with the grass carp (Connecticut Department of Environmental Protection 1998).

The second way of ridding our water systems from the eurasian milfoil is through chemical control. Herbicides are very effective in controlling and killing the milfoil, however their application is not only expensive but can also be extremely harmful to the native species. In Minnesota, chemical control has been priced to cost anywhere from \$200 to \$2000 per acre (Minnesota Pollution 1998). The Wisconsin Department of Natural Resources does not recommend herbicidal use because it is "typically disruptive to aquatic ecosystems and not selective in the vegetation it affects" (Wisconsin Department of Natural Resources 1999).

Finally, the third way of alleviating the problem is through manual removal of the plant. The eurasian milfoil can be either pulled out or cut with a machine and removed from water; however, this solution will not last very long because milfoil grows very rapidly and it is virtually impossible to remove all of the plant in this manner. In order for this to be affective it must be repeated all summer long. This type of removal can cost anywhere from \$300 to \$600 per acre (Minnesota Pollution 1998). Also divers have taken to suctioning the milfoil with a large vacuum, but this technique can also destroy nearby native plants and temporarily raise water turbidity (Wisconsin Department of Natural Resources 1999).

#### Funding

The Federal Water Pollution Control Act (The Clean Water Act) provides that the physical and biological integrity of the Nation's water be preserved (United States Congress). States fund their milfoil projects from a surcharge on watercraft licenses, grants from Environmental and Natural resource organizations, property taxes, and monies granted by the federal government's Clean Water Act. The 1999 Wisconsin Department of Natural Resources annual report describes a process that generates \$1,100,000 through a five-dollar surcharge on watercraft licenses. They also received federal funding from the U.S. Fish and Wildlife Service in the amount of \$19,000, to implement an interstate management plan that addresses prevention and management of aquatic nuisance species on the St. Croix River (Wisconsin Annual Report 1999). New Hampshire also has an additional two-dollar fee for watercraft licenses (State of New Hampshire 1997).

## References

The Adirondack Aquatic Institute. 1997. Paul Smith's University. "Adirondack Aquatic Institute Eurasian Milfoil Information" <http://www.paulsmiths.edu/aai/milfoil.html>.

Agency of Natural Resources. March 6, 1998. Eurasian Watermilfoil: A Problem in Vermont. [www.anr.state.vt.us/dec/waterq](http://www.anr.state.vt.us/dec/waterq).

Connecticut Department of Environmental Protection. October 30, 1998. "State Bond Commission Awards \$13.5 Million for Environmental Projects" <http://dep.state.ct.us/whatshap/press/1998/mf103098.htm>.

Erdelen, John 1996. "Eurasian Milfoil Executive Summary" <http://www2.bitstream.net/~fnact/s/stuff/milfoil.htm>.

Hansen, Dan. 1998. "Poison likely weapon in fight against milfoil". *The Spokesman-Review*. September 10, 1998 <http://www.spokane.net/stories/1998/Sep/10/s448489.asp>.

Minnesota Pollution Control Agency. June 1998. "Creature of the Month: June," <http://www.pca.state.mn.us/kids/c-june98.html>.

Phillips, Gary. 1997. "Iowa's Eurasian Watermilfoil Program" *Iowa Conservationist* <http://www.state.ia.us/government/dnr/organiza/fwb/fish/news/exotics/milprog.htm>.

The State of New Hampshire. House Bill 560-FN. 1997

United States Congress. Federal Water Pollution Control Act ("Clean Water Act"). *Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service.* <http://www.fws.gov/laws/digest/reslaws/fwatrpo.html>.

United States Environmental Protection Agency, Office of Water. October, 1997. Watershed Protection: Clean Lakes Case Study. "Use of Aquatic Weevils to Control a Nuisance Weed in Lake Bomoseen, Vermont." [www.epa.gov/owow/wtr1/lakes/bomoseen.html](http://www.epa.gov/owow/wtr1/lakes/bomoseen.html).

University of Florida. 1997. Aquatic and Wetland Plant Information Retrieval System. Biological Control Insects for Aquatic and Wetland Weeds. "Eurasian water milfoil." <http://aquat1.ifas.ufl.edu/euras.html>.

Washington Department of Fish and Wildlife. 1998. "Washington State Aquatic Nuisance Species management Plan"

Wisconsin Department of Natural Resources. 1999 Annual Report.

Wisconsin Department of Natural Resources. April 30, 1999. "Eurasian Water Milfoil" <http://www.dnr.state.wi.us.ORG/land/er/invasive/factsheets/milfoil.htm>.

---

Compiled by Sara Davies and Sarah Fisher, February 14, 2000