

The Introduction and Progression of Invasive Eurasian Water Milfoil in Minnesota

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Background

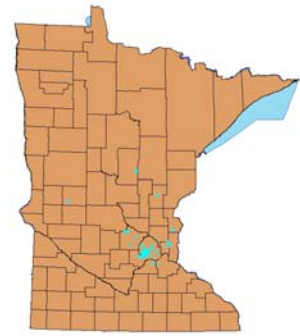
Eurasian Water milfoil (*Myriophyllum spicatum*) is an invasive species native to Europe, and Asia. Eurasian Water milfoil reached some Midwestern states as early as the 1950's, but wasn't recorded in Minnesota until the mid 1980's. The invasive milfoil's success can be granted to its ability to reproduce merely by stem fragments which produce new roots and off chutes. Once milfoil becomes well-established within a water body, it is difficult or impossible to remove. However, in smaller water bodies, it is possible to contain the plant by using aquatic herbicides, dredging, or harvesting. By 2005, Eurasian water milfoil had been found in 160 lakes, rivers, and streams in Minnesota waters.



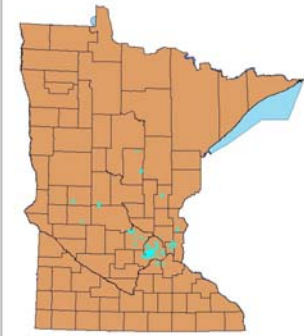
Abstract

Foreign invasive species have long been problematic around the globe, and Eurasian Water milfoil is just one threat to the United States and its water bodies. Eurasian Water milfoil grows rapidly and tends to form a dense canopy on the water surface, which drives out native aquatic plant species, inhibits water flow, and impedes navigation. There is also concern that the methods may harm certain non-target organisms. Eurasian water milfoil was first discovered in Minnesota in Lake Minnetonka in 1987. Because of the problems the plant had caused in other states and the fact that it was found in a heavily used recreational lake, the DNR initially took aggressive management efforts aimed at eradicating or significantly reducing its abundance. This study maps the progression and paths of Eurasian Water milfoil, throughout Minnesota. By using this data we can understand common trends and potential threats that Eurasian Water milfoil consist of.

1987-1992 Eurasian Milfoil Infestation



1993-1997 Eurasian Milfoil Infestation

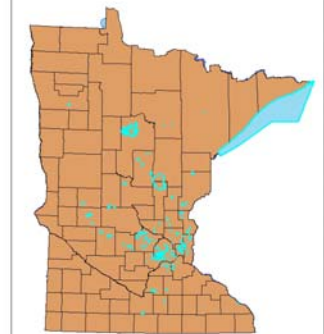


Blue outlines and fills represent water bodies infested.

1998-2002 Eurasian Milfoil Infestation



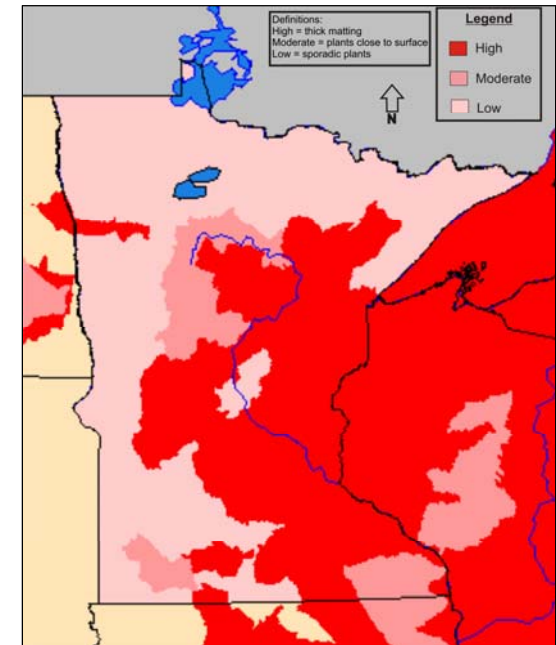
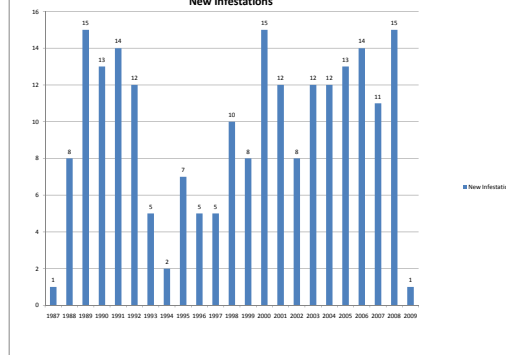
2003-Present Eurasian Milfoil Infestation



Objective

Eurasian Water milfoil is increasing in population throughout Minnesota lakes, streams, and rivers, and future control of this invasive species is critical. Our objective for this study is to create trends of growth based on data presented by the state of Minnesota. We can establish where the current highest levels of Milfoil are, and with that information we can make predictions of where the next infestation may take place. By knowing which lakes and water bodies are susceptible to a milfoil invasion, the state of Minnesota can take preemptive measures to reduce the chance of a takeover by Eurasian Water milfoil.

New Infestations



Above is a USGS estimate of the areas now affected by invasive Eurasian Milfoil

References

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