



# Battling with Beetles

*Northern Michigan residents fight invasive species with a native predator*

---

## A pesky problem



If you've visited a wetland area during the summer, you may have noticed the stunning magenta spikes of flowers proliferating the landscape. Though beautiful, the non native species purple loosestrife is a dangerous threat to Northern Michigan wetlands.

Purple loosestrife has gained a strong foothold in many North American wetlands, rivers and lakes, including many in Northern Michigan. Native to Europe and Asia, purple loosestrife can be identified by its purple flowers which bloom from June to September. Purple loosestrife produces square woody stalks 4 to 7 feet high. Leaves are heart or lance shaped and flowers have 5 to 7 petals. Due to the long flowering season, purple loosestrife plants have the ability to produce millions of seeds each year. In addition to seeds, purple loosestrife can also produce vegetatively by sending up shoots from the root systems. The underground stems can grow up to a foot each growing season.

Imported in the 1800s for ornamental and medicinal uses, purple loosestrife poses a serious threat to wetlands because of its prolific reproduction. The plant has been reported in every state except for Florida. Unfortunately, it is still sold as an ornamental plant in many states. Purple loosestrife threatens native species by crowding them out and competing for water and sunlight. When loosestrife replaces native plants, it destroys the habitats of animals and insects that depend on native species for food and shelter. Duck, geese and muskrat populations have all seen declines since purple loosestrife was imported. Dense stands of loosestrife impede water flow and impair the use of wetland recreation areas, in turn requiring costly management efforts.

## What can be done?

For years, conventional ways of dealing with the purple loosestrife problem were tested. For small stands of loosestrife, burning, spraying, and pulling are still the best ways to rid an area of the plants. However, for large stands, such methods are impractical and costly.

Luckily, scientists have found a promising alternative—biological control offers a natural solution. By introducing a natural predator of purple loosestrife from its native range, wetland protectors have been able to significantly reduce the density of purple loosestrife populations. The *Galerucella* beetle, which keeps plant populations in check in Europe and Asia, feeds on the stem, leaf, and bud of loosestrife plants, preventing the plant from reproducing. *Galerucella* beetles have been released in 16 states to date according to the National Parks Service and the Michigan Sea Grant reported successful depletion of purple loosestrife in Michigan, Ontario, and Minnesota by using *Galerucella* beetles.

Rearing and releasing *Galerucella* beetles is simple, though rather labor intensive. School and environmental groups have been pivotal in Michigan's *Galerucella* release programs. Tip of the Mitt Watershed Council has played an active role in fighting purple loosestrife in Northern Michigan by organizing groups to collect and release *Galerucella* beetles.

You can help in the battle against purple loosestrife by reducing your travel through stands of purple loosestrife to avoid spreading seeds. For small stands, purple loosestrife plants can be pulled or dug up, but be careful to remove every part of the plant as purple loosestrife resprouts easily. Experts suggest placing purple loosestrife cuttings in black garbage bags and placing them in the sun for several days to kill the plants before disposing of them. Releasing *Galerucella* beetles appears to be one of the most effective methods for fighting the spread of purple loosestrife.



---

To contact Tip of the Mitt Watershed Council  
call (231) 347-1181  
or visit [www.watershedcouncil.org](http://www.watershedcouncil.org)

*The Tip of the Mitt Watershed Council is the voice for Northern Michigan's waters. We are dedicated to protecting our lakes, streams, wetlands, and ground water through respected advocacy, innovative education, technically sound water quality monitoring, and through research. We achieve our mission by empowering others and we believe in the capacity to make a positive difference. We work locally, regionally, and throughout the Great Lakes Basin to achieve our goals.*