

The Purple Monster

By John Brunner

With top billing in the The Weed Hall of Shame, purple loosestrife has a growing legion of enemies who plot to wipe out the pest-plant known as Beautiful Killer and Purple Monster.

Purple loosestrife (*Lythrum salicaria*) is a perennial wetland plant that is native to Europe and Eurasia. It is an outstandingly attractive perennial herb with a square, woody stem and opposite, lance-shaped leaves. The leaves are stalkless and rounded at the base. Loosestrife plants grow from four to ten feet high and produce striking magenta-colored flower spikes from July through September.

Purple loosestrife has a long history of use as a medicinal herb for treatment of diarrhea, dysentery, bleeding wounds and ulcers. The ancient Greeks used the plant to make hair dye and burned it as an insect repellent. Modern-day herbalists recommend an infusion of the leaves and flowers for everything from a gargle for sore throats to use as a douche.

Purple loosestrife was introduced to the East Coast of North America in the 1800's as a garden flower, and it may have been introduced to coastal areas via ship ballast. As valued as the plant is within its native range, purple loosestrife is on the hit list of biologists all over the US and Canada, and for good reason.

The plant adapts readily to open wetlands that allow ample exposure to the sun (it does not proliferate in shady, forested wetlands). An invasion of the Purple Monster into a wetland can result in the destruction of the resident plant community and the eventual alteration of the wetland's structure and function. Large stands threaten native wetland plants and wildlife by eliminating natural foods and cover.

Two characteristics enable purple loosestrife to out-compete and replace native grasses, sedges, and other flowering plants. The flowers are insect pollinated and an individual plant produces millions of tiny seeds that are easily airborne and transported by water. Mature plants can spawn dozens stems arising from a single rootstock.

According to the U.S. Fish and Wildlife Service, purple loosestrife now occurs in every state except Florida, and its highly invasive nature makes it a threat to some endangered and threatened species. It is officially regulated as a noxious weed in 19 states. The New Jersey Department of Agriculture and the Division of Fish and Wildlife recognize purple loosestrife as an invasive species of concern, but it is not regulated as a noxious weed by the state.

Purple loosestrife infestations are more common in northern states and Canada, where glaciation has left an abundance of open wetland habitat types. A web-search turned up nearly sixty entries dedicated to the plant's control and eradication. Michigan State University has enlisted and trained an army of school children to do battle with the "Purple Monster." Wyoming declares purple loosestrife the "new enemy." The problem is so serious in Vermont that the DEC sponsors

a "Community Rearing Project" that trains volunteers to raise loosestrife-eating beetles that are set loose infested wetlands.

And the "new enemy" has arrived in New Jersey with infestations reported in the central and northern regions of the state. In 1997 the NJDEP's Division of Fish and Wildlife Endangered and Non-Game Species Program asked the Department of Agriculture (NJDA) for help in controlling heavily infested state-owned lands where chemical controls were impractical or unsuitable. NJDA's Division of Plant Industry established a colony of loosestrife predators in the its Beneficial Insect Laboratory. By the fall of 1998 NJDA had raised and released over 270,000 adult beetles in central and northern areas of the state.

Purple loosestrife is beginning to take hold in the Musconetcong watershed, especially where there are expanses of open wetlands. The large, shallow dam pools and open wetlands above both the Saxton Falls and Waterloo Village dams are experiencing a growing infestation. Some headwater areas above Lake Hopatcong are also under siege. Further down the valley purple loosestrife is infiltrating small wetland areas along certain Musconetcong River tributaries. A particularly conspicuous infestation can be observed along Rt. 57 just above Penwell, where the Beautiful Killer is advancing yearly in a large marsh along the river. It has even made a recent appearance on MWA's meadow property across from the Asbury Grist Mill.

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While biological control is the preferred method for large infestations of purple loosestrife, small infestations of young purple loosestrife plants may be pulled by hand. For older plants, spot treating with a glyphosate type herbicide (Rodeo for wetlands, Roundup for uplands) may be necessary.

MWA urges residents of the watershed to help control purple loosestrife by eradicating the plant at the earliest possible stage of infestation. A great deal of information exists to guide property owners in helping to not only repel the plant, but protect native wetland species in the process. The Rutgers Cooperative Extension Service is just one of many excellent sources of information on the control and eradication of purple loosestrife.

PURPLE LOOSESTRIFE RESOURCES

Rutgers Extension Service: www.rce.rutgers.edu

Ducks Unlimited Canada: www.ducks.ca

Alien Plant Working Group: www.nps.gov/plants/alien

Cornell University: www.dnr.cornell.edu