

## Purple Loosestrife



Photo credits:

Gary A. Monroe @ USDA-NRCS PLANTS Database (distant view and medium view).

Robert H. Mohlenbrock @ USDA-NRCS PLANTS Database / USDA SCS. 1989. Midwest wetland flora: Field office illustrated guide to plant species. Midwest National Technical Center, Lincoln. (close up of plant).

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Control of the non-native invasive wetland PURPLE LOOSESTRIFE (*Lythrum salicaria*) plant is available from the non-native *Gallerucella calmariensis* beetle.

This non-native imported beetle that eats the invasive plant is being used to restore native wetland species such as Common Cattail, Arrow Head, Bulrush, Marsh-Marigold and others. Purple Loosestrife is an unwanted “beauty” in our midst. This statement so definitely describes the non-native Purple Loosestrife wetland plant in North America.

The *Gallerucella calmariensis* has been shown as an effective method for lowering Purple Loosestrife populations. The beetles feed exclusively on Purple Loosestrife leaves and seed heads, stunting the plants and reducing them without doing any damage to any other plant. Every year there are folks that express concern that the beetles will take their eating efforts to other plants. Damage to native plants is not a concern because before the first beetles were released they were completely studied to total satisfaction by Michigan State University that they would not eat any native plants. Over time, and usually within a year, the Purple Loosestrife is brought under control and the native species return. The importance of native plants is that native animals and other native species evolved over time and are now dependent on them. Non-native plant species have little to no value for them.

In Michigan, many hundreds of species of plants, birds, mammals, reptiles, insects, fish and amphibians rely on healthy native wetland habitat for their survival. We are currently losing healthy wetland habitats at an alarming rate due to the spread of this invasive species.

Purple Loosestrife is a tall (four to six feet), broad, dark green clump of stems with showy reddish-purple flowers from July into August. It grows along rivers, lakes, streams, in wetlands and drainage ditches and along roadsides. A highly infested wetland can be uniformly covered with the purple blossoms. A pretty sight but very damaging to the wetland environment.

It is estimated that just one mature plant can produce in excess of 2.7 million seeds in one season. The seeds are very tiny and are spread by wind, water, the fur and feathers of animals, or in mud attached to animals or humans and carried from place to place.

In 1995, Michigan passed an amendment to Act 189 of the Public Acts of 1931, which forbids the sale and distribution of Purple Loosestrife. It is now against the law to sell, distribute or propagate this plant in the state.

Purple Loosestrife should never be cut and used in a flower arrangement or transplanted to a garden, roadside or landscape area. It will quickly overtake a garden and become a nuisance for the gardener and will soon disperse and spread to other areas and overtake and kill out the native species. Other effective methods for control are to pull out the plant or cut it off at its base. Cuttings and the plants need to be disposed of in such a way that new plants cannot sprout from the cuttings and seeds cannot be dispersed. Composting is not recommended as the seeds may remain viable even after composting.

Michigan State University and Michigan Sea Grant created the Purple Loosestrife Project in 1996 which uses *Gallerucella californiensis* as a biological control agent for Purple Loosestrife. The method has been successfully introduced into hundreds of infested sites with excellent success. The beetles feed exclusively on Purple Loosestrife leaves and growing tips, stunting the plants and reducing seed production. Effective results are that often within one year the Purple Loosestrife is brought under control and the native species begin their return to health. This method also has been used in the City of Rockford along the Rogue River and appears to be succeeding. From a good beginning in 2007 this method of control has successfully re-established many wetland areas in the Rockford area (under the leadership of the Dwight Lydell Chapter of the IWLA and the Rogue River Watershed Council in the Rogue River watershed and in the townships of Cannon and Grattan) all with volunteer help. Volunteers from the area collect emerging adult beetles in a beetle colonized wetland as they emerge from the soil and beginning their spring eating and mating process. The aim of these volunteers is to collect beetles before they lay their eggs and transplant them into areas with P.L. so the eggs will be hatched in the new area. That way two beetles transplanted produces 500 new larvae to eat loosestrife blossoms and seeds making the effort very effective. The adults eat the plant leaves. It is an effective one two punch assault on the P.L.

The process is generally a four week effort during the last two weeks of April and the first two weeks of May. A really nice time to be outdoors. For more information please contact Jim Biener (616-361-1353) or Bob Stegmier (616-866-4769) of the Dwight Lydell Chapter of the IWLA.

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