

Aquatic Invasive Species

in the Chesapeake Bay

A M A R Y L A N D S E A G R A N T B R I E F

Purple Loosestrife

What Is Purple Loosestrife?

Purple loosestrife (*Lythrum salicaria*) is a perennial wetland plant introduced to North America in the early 1800s. People brought it here on purpose as an ornamental plant and accidentally through ship ballast dumped from foreign ships. Purple loosestrife can grow in a variety of habitats, particularly non-tidal brackish and freshwater wetlands. It can quickly colonize disturbed or stressed areas, such as riverbanks, wet meadows, bogs, swamps, roadsides, ditches, and the edges of ponds and reservoirs. In Maryland, the plant has been found in at least 17 of the state's 24 counties.

Purple loosestrife has been well established along the New England coastline since the 1830s and has spread to almost all of the continental U.S. states. The species has had a substantial effect on native plant life, displacing more than 50 percent of native plant species in some wetland communities. Purple loosestrife has become established in the Chesapeake Bay watershed, where it is considered a nuisance species.

Why Is It Harmful to the Chesapeake Bay?

As purple loosestrife invades wetland areas, it suppresses the growth of native plants, such as cattails and bulrushes. It degrades the quality of wetland



habitats and is a poor source of food and shelter for native animals. Stands of purple loosestrife have replaced the traditional nesting sites and nursery grounds for muskrats, waterfowl, the endangered bog turtle, and other organisms. Dense growths of the plant can also impede boat traffic and obstruct recreational activities such as hunting and trapping.

What Is Being Done to Control Purple Loosestrife?

Natural resource managers employ chemical, mechanical, and biological controls to slow the spread of purple loosestrife. Leaf-feeding beetles (*Galerucella californiensis* and *Galerucella pusilla*) and flower-feeding beetles (*Nanophyes marmoratus*), which feed on purple loosestrife, have been used to target the plant in Maryland, New Jersey, Pennsylvania, Virginia, and Washington, D.C. Mowing and herbicide treatments have also been used in Pennsylvania and Washington, D.C. The Maryland Department of Natural Resources (DNR) also offers a training program to teach people how to identify and report infestations of purple loosestrife in Maryland. These "Loosestrife Scouts" help DNR to locate and remove purple loosestrife. (See contact information below.)

In 2002 the Chesapeake Bay Program (CBP), in partnership with Maryland Sea Grant, sponsored a work-

shop aimed at developing Baywide management strategies for problematic invasive species, including purple loosestrife. A *Lythrum salicaria* working group, comprised of natural resource managers, jurisdictional representatives, and federal partners, was appointed in 2002 to develop a regional management plan to halt the spread of purple loosestrife and support native plants and animals.

The Maryland Department of Natural Resources advises people not to plant purple loosestrife in gardens because this can advance its spread elsewhere. Instead, use native and non-invasive landscape plants like salvia or gayfeather.

What Is Its Status?

New Jersey has been successfully releasing *Galerucella* spp. beetles since 1997, significantly impacting the purple loosestrife population. Dense stands of purple loosestrife have been reduced by 70 percent, and the species is no longer the dominant plant in the ecosystem. Maryland and Delaware have also success-

fully experimented with releasing *Galerucella cala-mariensis* and *Galerucella pusilla* to control the spread of purple loosestrife. Long-term use of biological controls appears to be the most successful means of suppressing the growth of purple loosestrife.

For More Information

Facts About Purple Loosestrife
(Maryland Department of Natural Resources)
http://www.dnr.state.md.us/wildlife/Plants_Wildlife/PurpleLoosestrife/

To become a citizen "Loosestrife Scout," contact Kerrie L. Kyde, Invasive Plant Specialist, Maryland Department of Natural Resources, kkyde@dnr.state.md.us, (301) 948-8243

Online form for citizens to report sightings of purple loosestrife in Maryland
<http://dnrweb.dnr.state.md.us/wildlife/PurpleLoosestrife/plrForm.asp>