

5) Help to Control Established Purple Loosestrife in Your Area!

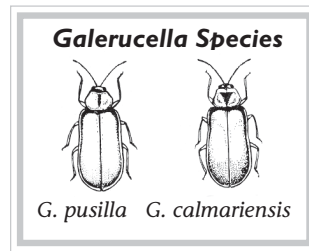
Choose biological control or chemical/mechanical methods, or combine them. Always avoid excessive soil disturbance that exposes the loosestrife seed bank. Dry/burn all removed plant parts or put them in a capped landfill; do not compost. Always obtain landowner permission. For detailed information check the WDNR website, or contact your region's Aquatic Plant Management Coordinator or the Purple Loosestrife Biocontrol Program.

Mechanical/Chemical Control

- ❖ Typically used on smaller infestations; can be very expensive on large sites.
- ❖ Offer quick control, but a seed bank may require years of follow-up work.
- ❖ Remove or kill plants prior to flowering, or carefully bag all flower tops to avoid spreading seeds.
- ❖ Prevent new infestations by pulling out young, small plants gently to get all their roots.
- ❖ To destroy the current year's seed crop only, cut off and bag flower tops just as flowering begins.
- ❖ For large, older plants herbicides are most effective, usually by cutting and treating stems, perhaps by careful foliar spraying.
- ❖ Use herbicides in July and August.
- ❖ Choose from two types of herbicides, Glyphosate (kills all plants) and Triclopyr (kills only broad-leaved plants), depending on the native vegetation on your site. Always refer to herbicide labels for instructions and warnings. **A special herbicide formulation and a WDNR permit are required when using over water.**

Biological Control: A Long-Term Solution

Biocontrol uses one organism to control another. European insects that feed exclusively on purple loosestrife were tested and imported because North American insects cannot control purple loosestrife. Biocontrol in Wisconsin began in 1994 with the release of two small, brown beetle species that eat its leaves. Root and flower feeding weevils came a year later. Monitoring for over 10 years has ensured that these insects pose no threat to either crop plants or native flora, and do not bother people.



The foliage beetles can cause dramatic reductions in local purple loosestrife in a few years and the WDNR and UWEX have created a program for citizens to locally raise and release these beetles. Hundreds of citizens have already raised millions of beetles, representing over 90% of all beetles released in Wisconsin to date! Every person with uncontrolled purple loosestrife nearby should consider joining this effort. Purple loosestrife can never be eliminated from Wisconsin, but a natural balance may be restored using biocontrol.

- ❖ Usually used on larger sites, or small areas to create future local beetle collection sites.
- ❖ Takes longer to set up than other methods, but is cheaper, self-sustaining and disseminating.
- ❖ Collect, propagate, or buy control beetles in the spring, and distribute them in local purple loosestrife infestations then or in mid summer.

- ❖ Propagating beetles at home or school – to protect local wetlands! – is easy, inexpensive, and fun. Free equipment is offered by WDNR's Purple Loosestrife Biocontrol Program.
- ❖ Contact the Biocontrol Program or check WDNR's website for project details and read Appendix 2 of the Educators' Manual described above for detailed rearing instructions.

For More Information:

WDNR Invasive Species Website:

<http://dnr.wi.gov/invasives>.



Purple Loosestrife Biocontrol Program:

Brock Woods, Coordinator
brock.woods@dnr.state.wi.us
608/221-6349.

Purple Loosestrife State Mapping Project:

www.glifwc-maps.org.

* This black and white version of the color Purple Loosestrife brochure (PUB-WT-799-2004) is designed to be easy to reproduce, but it does not contain identification details or the field guide to similar native plants.

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240.

This publication is available in alternative format (large print, Braille, audiotape, etc.) upon request. Please call 608/267-7694 for more information.



UW
Extension

PUB-WT-829 2006

Designed by L. Pohlod, Blue Sky Design, LLC



PRINTED ON
RECYCLED
PAPER

PURPLE Loosestrife

in
Black and White*



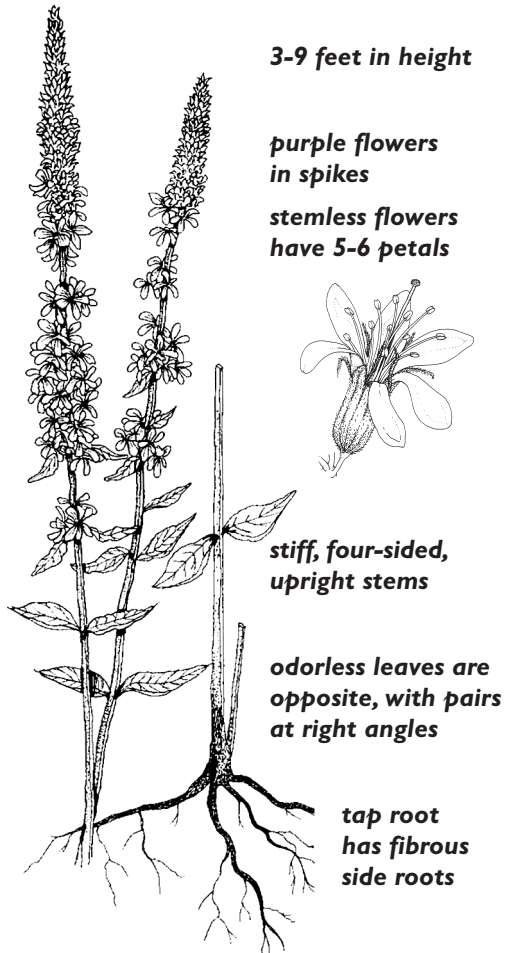
**A Major Threat
to Wisconsin's Wetlands
and Waterways**

The Ecological Problem:

Purple loosestrife (*Lythrum salicaria*) is an attractive wetland perennial from Europe and Asia that was introduced to North America without the specialized insects and diseases that control it there. This allows it to grow faster than our native wetland plants and produce larger amounts of seed. Thus, it often shades out native competitors in the many wetlands that its seeds reach. It has spread rapidly in Wisconsin over the last 20 to 30 years.



Purple Loosestrife Identification



3-9 feet in height

purple flowers in spikes

stemless flowers have 5-6 petals



stiff, four-sided, upright stems

odorless leaves are opposite, with pairs at right angles

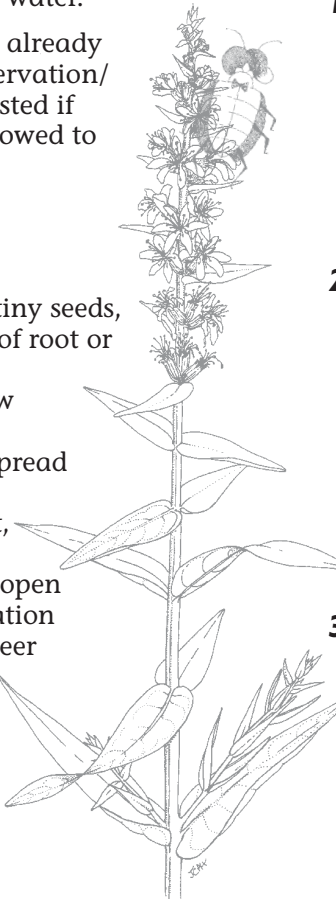
tap root has fibrous side roots

Why Should this Concern You?

- ❖ Plant diversity in wetlands can decline, threatening many rare and endangered plants.
- ❖ Wetland animals that depend on native plants for food and shelter can decline significantly.
- ❖ Recreational uses of wetlands may decrease.
- ❖ Wetland changes may reduce their effectiveness in trapping and cleaning water.
- ❖ The millions of dollars already spent on wetland preservation/restoration may be wasted if purple loosestrife is allowed to dominate them.

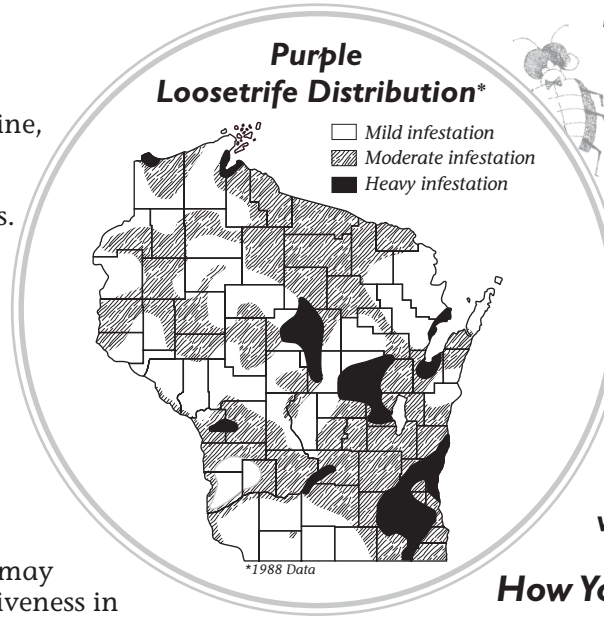
How Does Purple Loosestrife Spread?

Dispersal is primarily by tiny seeds, but can also be from bits of root or stem fragments (from mowing) that readily grow new plants. Water, wind, animals, and people all spread the seed easily. All sunny wetlands, including moist, abandoned farm fields and roadside ditches, are open to invasion. A new infestation often starts with one pioneer plant that produces millions more seeds and many more plants.



History and Distribution

Purple loosestrife came to North America in the early 1800s, probably in ship ballast. It has spread to all 50 states and Canada, but is worst in the Midwest. Arriving in Wisconsin after 1900, it is now found in all 72 counties. A website map with up-to-date state locations is at www.glifwc-maps.org



How You Can Help

1) Learn to Identify Purple Loosestrife.

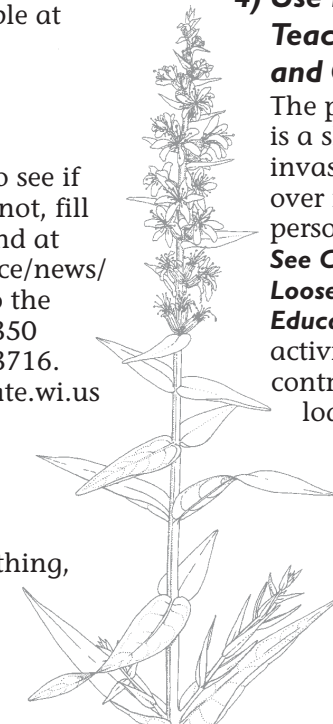
Distinguish from similar plants in a plant class, with a plant ID book, or with a PL watch card [PUB-WT-744] or state color PL brochure [PUB-WT-799; see and download <http://clean-water.uwex.edu/pubs/purple.pdf>], both available at WDNR and UWEX offices.

2) Report New Purple Loosestrife Infestations.

Check www.glifwc-maps.org to see if your infested site is known. If not, fill out a WDNR Watch Form found at www.dnr.state.wi.us/org/caer/ce/news/on/3200119.pdf and send it to the Purple Loosestrife Program, 1350 Femrite Drive, Monona, WI 53716. Or email brock.woods@dnr.state.wi.us

3) Help Prevent the Spread of Purple Loosestrife.

- ✓ Be sure you do not disperse loosestrife seed on your clothing, footwear, or equipment.



- ✓ Encourage your local highway department to use alternatives to mowing the plant on roadsides, which promotes spread by dispersing seeds and cut-up stem pieces. Offer to flag roadside patches for them to avoid.
- ✓ Help curb local use of the plant, especially by gardeners. State law bans the sale, distribution or cultivation of purple loosestrife. Report sales of the plant to the Wis. Dept. of Agriculture, Trade and Consumer Protection at 608-224-4571. Include Internet sales and accidental sales, such as loosestrife seed found in "wildflower seed mixes." Work with your local government to draft local ordinances that back up the state law.
- ✓ Remove pioneering purple loosestrife plants wherever you find them, before they flower. This includes along roads and waterways, in addition to wetlands. **Get landowner permission first.**

4) Use Local Purple Loosestrife to Teach About Invasive Species and Citizen Action.

The purple loosestrife problem is a showy example of how invasive species can take over if allowed, and how personal action can prevent it. **See Cella Chow: A Purple Loosestrife Biocontrol Manual for Educators** has 15 complete student activities based on investigating and controlling the plant. It can be downloaded or ordered on the web (dnr.wi.gov/org/es/science/publications/ss981_2003.htm), or is available in hard copy (PUB-SS-981 2003) at your local WDNR service center or from the Wisconsin Wetlands Association (608-250-9971).

