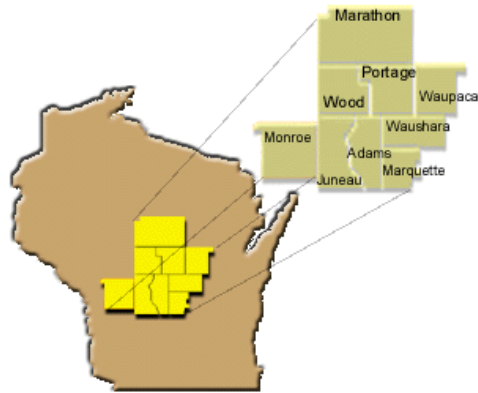


What is Golden Sands RC&D?

Golden Sands Resource Conservation and Development (RC&D) Council, Incorporated was established in 1972. Our primary concern is to improve the area's economy, while conserving its natural resources. We network within the Wisconsin Counties of Adams, Juneau, Marathon, Marquette, Monroe, Portage, Waupaca, Waushara, and Wood. We are an independent, non-profit 501(c)(3), non-partisan group which allows us to receive tax deductible contributions.



Golden Sands Resource Conservation & Development Council, Inc.

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Golden Sands
Resource Conservation
& Development

Biological Control of Purple Loosestrife...



...As An Educational Project.

Purple Loosestrife (*Lythrum salicaria*)

Biological Impacts

Purple loosestrife's prolific seed production and high seed viability enables it to form dense monotypic stands within a few years. This influx of purple loosestrife creates a choking effect, which reduces plant diversity, in turn, reducing many productive components of our wetlands and shorelines. Many species of plants, birds, fish, insects, and amphibians rely on healthy wetland habitat for their survival. Habitat where fish and wildlife once fed, sought shelter, reproduced, and reared their young, becomes degraded once purple loosestrife takes over. Once a wetland is dominated by purple loosestrife, traditional residents such as muskrat and waterfowl decline significantly in numbers. By reducing the density of purple loosestrife, many of these productive components will return when natural vegetation returns.



One purple loosestrife plant
can produce up to 2.7 million
seeds annually.

Control Methods

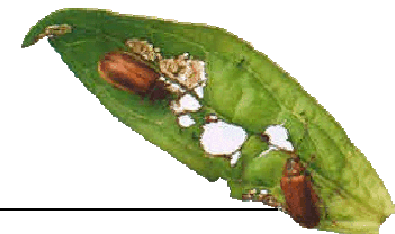
Dense stands of loosestrife have been known to defy most traditional methods of control. Although hand removal is recommended as the first method of control, this is only practical for very small stands of loosestrife. The use of chemical methods (applied by hand) to manage larger stands is often time consuming and very expensive. These two methods provide only temporary control of this invasive species. This is why biological control is recommended as a sustainable, cost-effective, and long-term management tool to reduce large populations of purple loosestrife.

Biological Control Agent

In the 1980s and early 90s, the Department of Natural Resources worked with the U.S. Dept. of Agriculture to find, study and import "single-host" insects that fed only on purple loosestrife. One example of insects that were found to be host-specific were two similar species of beetles in the genus *Galerucella*. The *Galerucella* beetle, nicknamed "Cella", eats foliage quickly, stops the plant from flowering and severely weakens loosestrife plants on smaller sites in only 2-3 years.

How Can You Help?

Look inside to find out how you and Cella can team up to restore productive components of Wisconsin's wetlands and shorelines.



Teaming Up With Cella...

Golden Sands RC&D has initiated a biocontrol project for schools and youth organizations in our nine county area. This program utilizes the carefully-researched, leaf-feeding *Galerucella* beetle to reduce dense populations of purple loosestrife.

Rearing Projects

Golden Sands RC&D, in conjunction with the Wisconsin DNR, are helping area schools and youth organizations raise beetles in captivity. Each project starts with fifty beetles. Within a two month period the beetles can reproduce to numbers ranging from 5,000 to 10,000 beetles.



New London High School Beetle Rearing Project

Our aim is to involve students in a “hands-on” project that will not only help control the population and spread of purple loosestrife but also introduce important ecological concepts, such as the dynamics of exotic plant invasions and the importance of plant diversity in plant-wildlife interactions.

Now educators have a new publication, “See *Cella Chow: A Purple Loosestrife Biological Control Manual for Educators*”, to help them bring these concepts into the classroom. Developed by teachers and produced by the DNR and Wisconsin Wetlands Association,, this manual is filled with fun, educational activities and detailed instructions for successfully rearing beetles. This manual may be downloaded as a PDF file from the DNR website at http://dnr.wi.gov/org/es/science/publications/ss98I_2003.htm or by calling 608/266-0842.

Rearing Setup - Overview

A typical rearing project starts out with 5-gallon pails, netting sacks and a wading pool. Holes are drilled in the bottom of the pails. This is done so that, when placed in the wading pools, water is absorbed through the bottom of the pails. In spring, (March/April) loosestrife root crowns are dug up and placed in the pails, along with a potting soil/fertilizer mix. The plants, covered in netting sacks, are then placed in the wading pool (approximately 1/4 full of water) and are grown until the plant is at least two feet tall, lush and healthy. Then, in May, the beetles are placed within the netting sacks to begin reproduction. Starting with ten beetles per netting sack, approximately 6 to 8 weeks later you will have up to 1000 beetles per sack to release! Once new adults begin to emerge, (June or July) the plants are taken out to a predetermined release site and the netting sacks are removed to release the beetles.



Starting a School or Youth Organization Project

Golden Sands RC&D’s Biological Control of Purple Loosestrife Program sponsors schools or youth organizations who want to start their own biocontrol project as an educational activity. Our program can supply your group with the necessary equipment (pots, pool, netting) and technical assistance.

For a project to be successful, we must have one, reliable **Contact Person** to see the project to completion. Contact Person responsibilities include:

- Organize a "dig day" with the school or youth organization to dig up loosestrife plants for the rearing project.
- Ensure the plants get watered, 1- 2 times a week, throughout the project (April - July).
- Choose a release site.
- Help the students release the beetles at the right time.

There are two different ways to start a school beetle rearing project. (Please indicate your situation on the Enrollment Form)

Option 1

You are affiliated with a school (teacher/faculty/other) and can personally carry out the Contact Person’s responsibilities.

Option 2

You or your organization will “sponsor” (seek out and work directly with) a school or youth group in your area. You will be Golden Sands RC&D’s Contact Person and will work with your teacher/faculty contact to ensure responsibilities are met.

For additional information:

Call: (715) 343-6215
Email: gsrcd@co.portage.wi.us
Visit us on the Internet:
www.goldensandsrcd.org

Enrollment Form

Option 1

Name of School/Youth Organization

Contact Person (Name)

Contact Phone

Mailing Address

Email Address

Option 2

Sponsoring Individual/Organization Information

Name of Organization

Contact Person (Name)

Contact Phone

Mailing Address

Email Address

School/Youth Organization Information

Name of School

School/Youth Org Contact Person (Name)

Contact Phone

Mailing Address

Email

Please Detach & Return to:
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& Development Council, Inc.

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