

Great Lakes *Phragmites* Collaborative: A Partnership to Link People, Information, and Action

Katherine Hollins
Great Lakes Commission

Overview

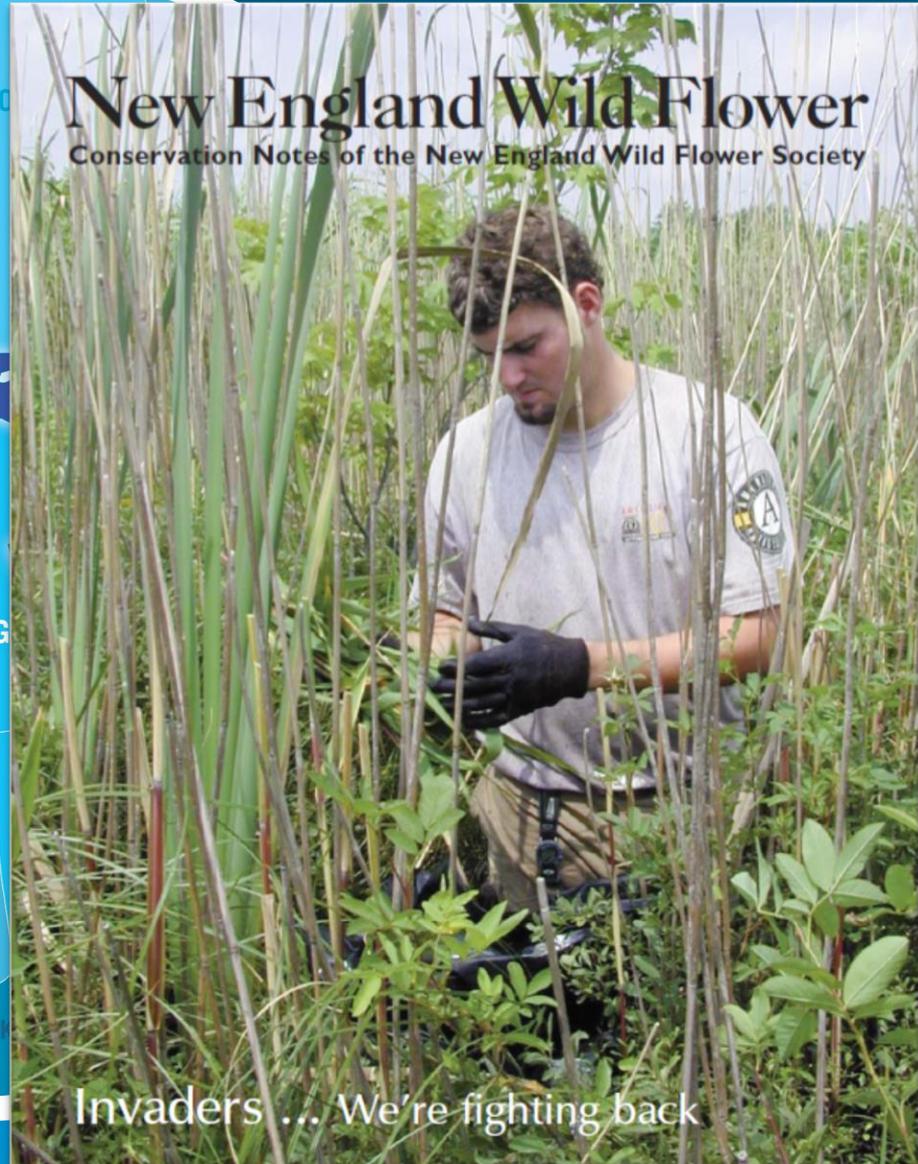
- Background on Great Lakes Phragmites Collaborative
- Vision and Goals
- Organizational Structure
- Communication Tools and Other Products
- Status and Future Activities



\$11.5 million

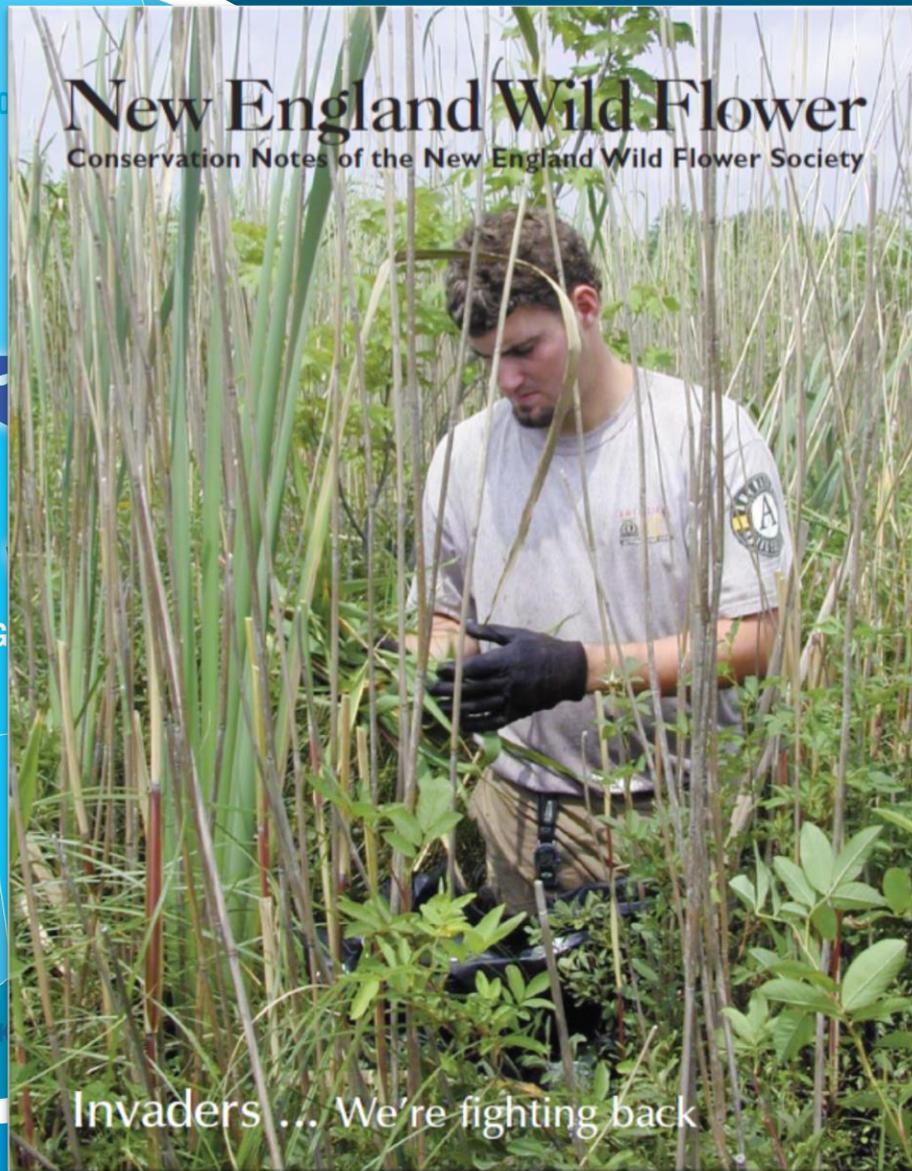
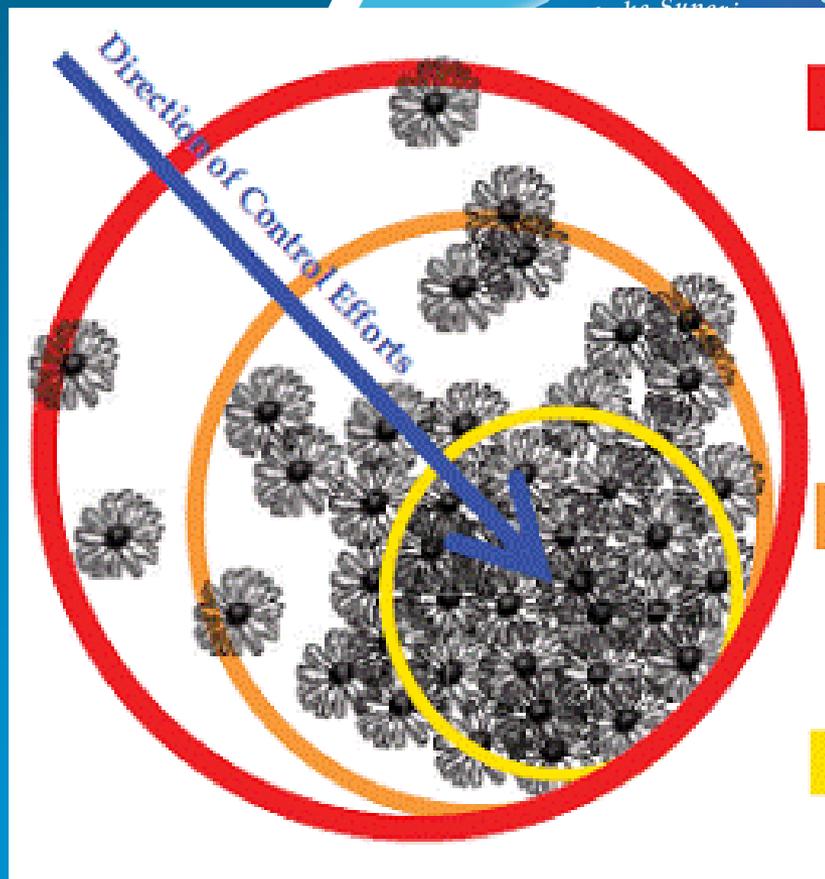


\$11.5 million

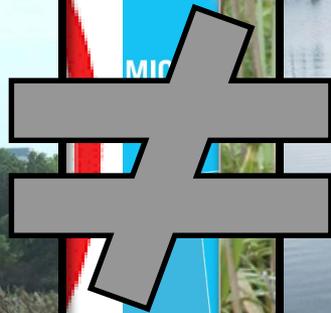


Invaders ... We're fighting back

\$11.5 million



\$11.5 million



Invaders ... We're fighting back



The Vision

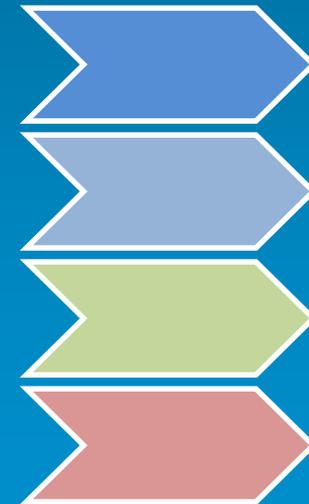
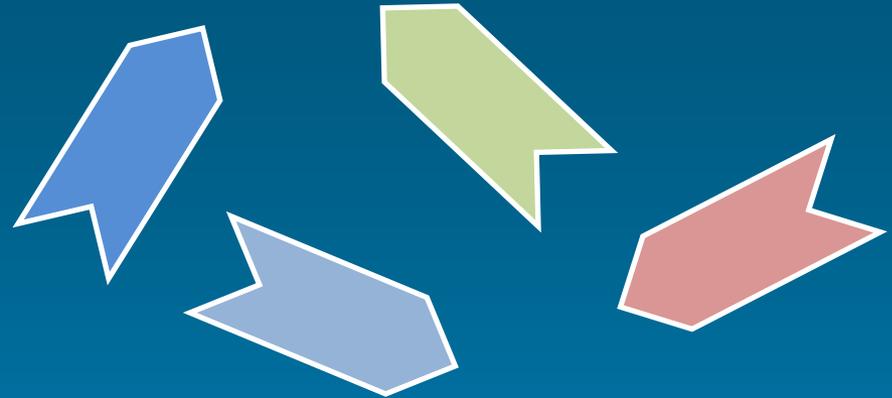
A Regional, interactive, web-based communication strategy dedicated to technology transfer, information sharing, and network building

Goals:

- Engage stakeholders interested in or involved with *Phragmites*
- Streamline information transfer and reduce redundancy
- Better link science and management
- Facilitate adaptive management
- Encourage a systems approach to management and conservation

Structure

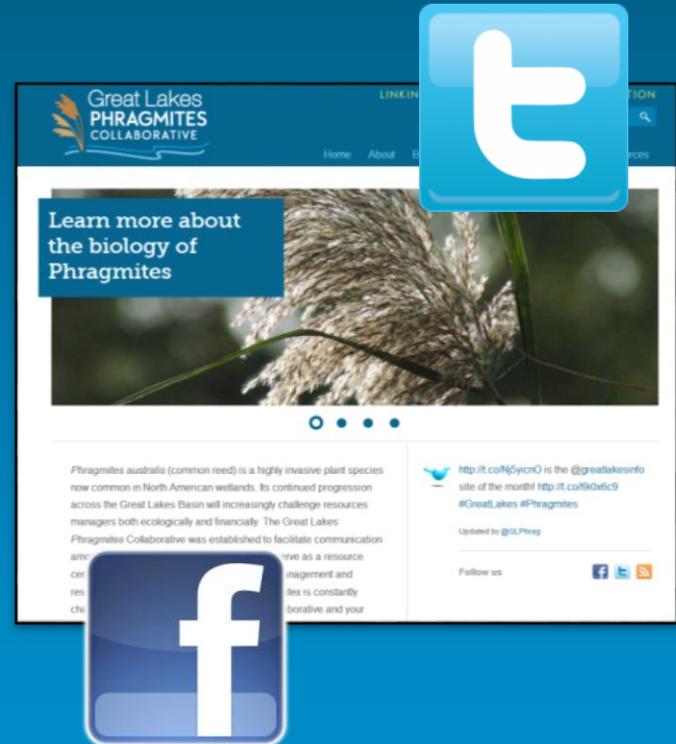
- Advisory Committee
 - Federal
 - State/Provincial
 - Academia
 - Local/Nonprofit
 - Tribal
 - Private
- Research Subcommittee
- Staff Support



Collective Impact Model

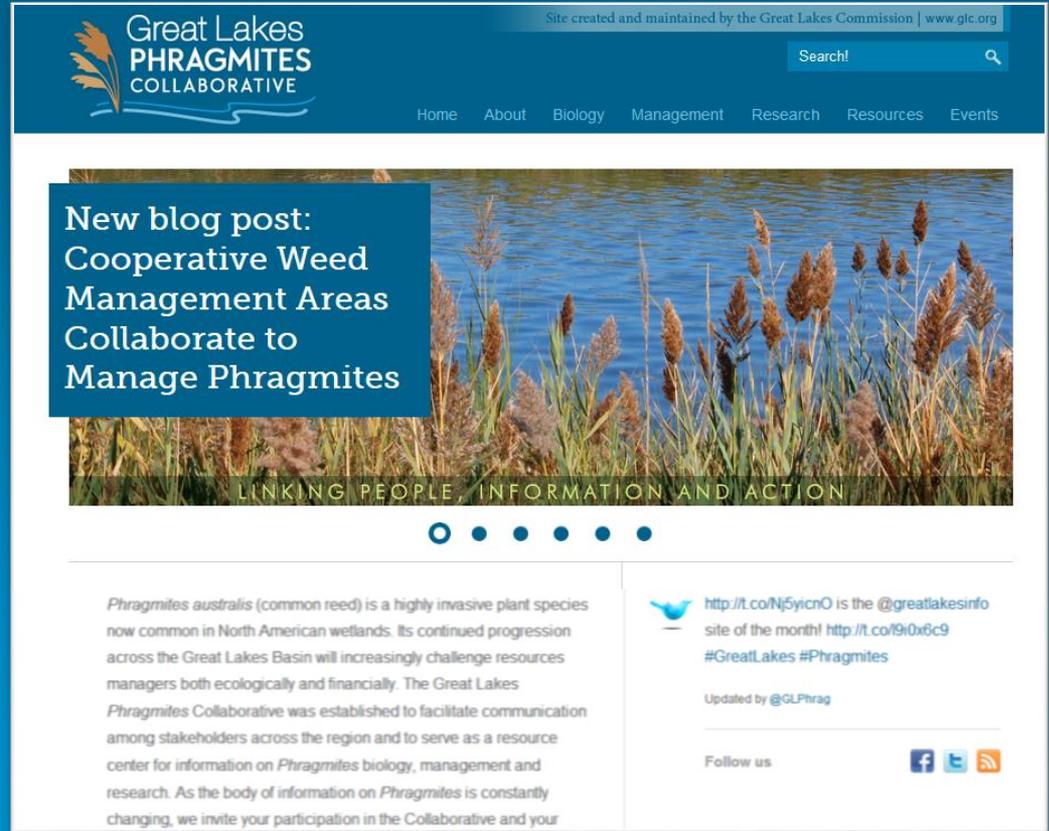
Communication Tools / Other Products

- Interactive Communication
 - Web-hub
 - Webinar Series
 - Social Media
- Research and Management Products



Web-hub resources

- Dynamic
- Interactive
- Sections
 - About the GLPC
 - Biology
 - Management
 - Research
 - Resources
 - Blog



The screenshot shows the website's header with the logo and navigation menu. A search bar is located in the top right. The main content area features a large image of reeds with a blue text box overlay that reads: "New blog post: Cooperative Weed Management Areas Collaborate to Manage Phragmites". Below the image is a tagline: "LINKING PEOPLE, INFORMATION AND ACTION". The footer contains a paragraph about *Phragmites australis* and a sidebar with a tweet and social media links.

Great Lakes PHRAGMITES COLLABORATIVE

Site created and maintained by the Great Lakes Commission | www.glc.org

Search!

Home About Biology Management Research Resources Events

New blog post:
Cooperative Weed
Management Areas
Collaborate to
Manage Phragmites

LINKING PEOPLE, INFORMATION AND ACTION

Phragmites australis (common reed) is a highly invasive plant species now common in North American wetlands. Its continued progression across the Great Lakes Basin will increasingly challenge resources managers both ecologically and financially. The Great Lakes *Phragmites* Collaborative was established to facilitate communication among stakeholders across the region and to serve as a resource center for information on *Phragmites* biology, management and research. As the body of information on *Phragmites* is constantly changing, we invite your participation in the Collaborative and your

http://t.co/Nj5yicn0 is the @greatlakesinfo site of the month! http://t.co/f9t0x6c9 #GreatLakes #Phragmites

Updated by @GLPhrag

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<http://greatlakesphragmites.net/>

Web-hub resources: About/Biology

- Basics
- Native vs. Invasive
- How does it spread?
- Fact Sheets

Native vs. invasive?

When managing *Phragmites*, it is important to first determine if the plants in question are the native or invasive strain. Native *Phragmites* has been an important part of healthy Great Lakes coastal wetlands for thousands of years. The table below, adapted from “A Guide to the Control and Management of Invasive *Phragmites*” can help with identification.

Here are the basic facts:

- 🌿 can grow up to 15 feet tall
- 🌿 can spread over 10 feet per year
- 🌿 can negatively affect the overall biodiversity and ecological functions of invaded habitats
- 🌿 impair recreational use (it's hard to walk through!)
- 🌿 reduce property values (it's hard to see through)
- 🌿 it is a fire hazard (it burns very hot)

	Native	Invasive
Characteristic		
Stem color	 Stem nodes are shiny and reddish-purple	 Stem nodes are tan-green, dull and rigid
		

Web-hub resources: Management

- Techniques
- Roadside Management
- Ongoing/Monitoring
- Data Analysis

Backhoe



Herbicide

▼ click to continue reading

Prescribed fire



Photo credit: Michigan
Department of Natural
Resources

Fire is not effective as a stand-alone management technique because it does not affect the root system. In fact, it can actually stimulate regrowth. However, fire is an effective method of removing the sometimes large amount of standing dead biomass that remains after herbicide treatments. Removing the biomass through burning or manual means (e.g., raking) can stimulate native plant regeneration. Ideally, burning should be conducted the year after herbicide treatment in late summer or winter.

Burning is dangerous and should always be done by licensed professionals. For more information contact your local fire department.

▲ click to collapse content

Mechanical removal

▼ click to continue reading

Grazing

Web-hub resources: Programs and Projects



Web-hub resources: Programs and Projects

Project: Northeast Michigan Cooperative Weed Management Area

Huron Pines is working within 11 counties of Northeast Michigan to help landowners protect their land from invasive species and make the best decisions about restoring what they have. The point on the map represents a project-dense area, but this project is quite broad. Read more about their [on-the-ground work](#)

[Zoom](#)



Web-hub resources: Research

- Biology
- Ecology
- Alternative Control
- Mapping and Monitoring
- Recent Research
- Current Research

Gene silencing

What if land managers could treat *Phragmites* without fear of affecting other plant species or the environment? What if this treatment specifically targeted the traits that make *Phragmites* most problematic? That's what scientists at Wayne State University and the U.S. Geological Survey are working towards, and their approach starts with a basic understanding of where these traits originate: within a plant's genes.

Genes give instructions used in plant development and function. For example, genes dictate the design, color and emergence of flowers on a plant. Genes also regulate key plant processes like photosynthesis and seed production. Genes drive plant processes by coding for the formation

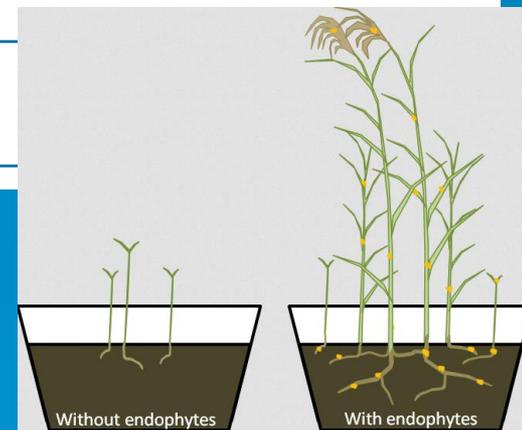


Motivating question(s) of the research *

Research Approach *

Key Findings

Management Implications *



Web-hub resources: Research

- Biology
- Ecology
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Genes give instructions used in plant development and function. For example, genes dictate the design, color and emergence of flowers on a plant. Genes also regulate key plant processes like photosynthesis and seed production. Genes drive plant processes by coding for the formation of specific proteins that ultimately result in the expression



Ecology of native vs. introduced *Phragmites australis* (common reed) in Chicago-area wetlands

Name: Amy Price, Jeremie Fant, and Dan Larkin

Email: dlarkin@chicagobotanic.org

Citation: Price, AL, JB Fant, and DJ Larkin. 2014. Ecology of native vs. introduced *Phragmites australis* (common reed) in Chicago-area wetlands. *Wetlands* 34:369–377

Link to Paper or Abstract: <http://sites.northwestern.edu/larkin/files/2014/08/PriceEtAl2014-PhragEcol-Wetlands-29kodzz.pdf>

Motivating question(s) of the research: Do introduced and native lineages of *Phragmites* exhibit a similar level of invasiveness in Chicago-area wetlands?

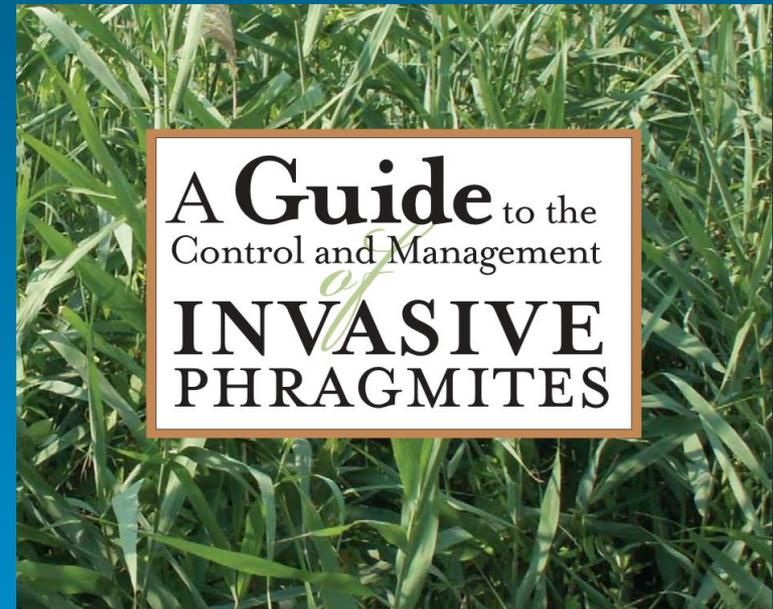
Research approach: Wetland plots of native vs. introduced *Phragmites* were paired with native reference vegetation to compare plant community diversity, composition, and associated environmental conditions.

Key Findings: Introduced *Phragmites*' growth was more positively correlated with soil nutrient availability and salinity than native *Phragmites*. Where introduced *Phragmites* occurred, plant diversity was lower and community composition was altered relative to reference vegetation. Similar evidence of invasiveness was not observed in native *Phragmites*.

Management Implications: We recommend that *Phragmites* populations be differentiated by lineage (using morphological and/or genetic indicators) and, unless there is compelling evidence

Web-hub resources: Resources

- Factsheets and Management Guidelines
- Videos
- List of Contractors



"*Invasive Phragmites*", a very informative video on why *Phragmites* is an issue, how to distinguish native vs. invasive, methods of spread, management strategies and techniques, and the importance of early detection and rapid response. The video has great, practical suggestions as well as interviews with ecologists, managers, policy makers, and community members. *A great*

resource!



Webinar Series



Objectives:

- Communication
- Education
- Technology transfer

Status:

- 13 public webinars since Summer 2012
- Management, Mapping, Research
- Average 100 attendees from all over US and Canada
- Recorded and available for viewing online



Social Media



Twitter

- 343 followers
- @GLPhrag



Facebook

- 143 likes



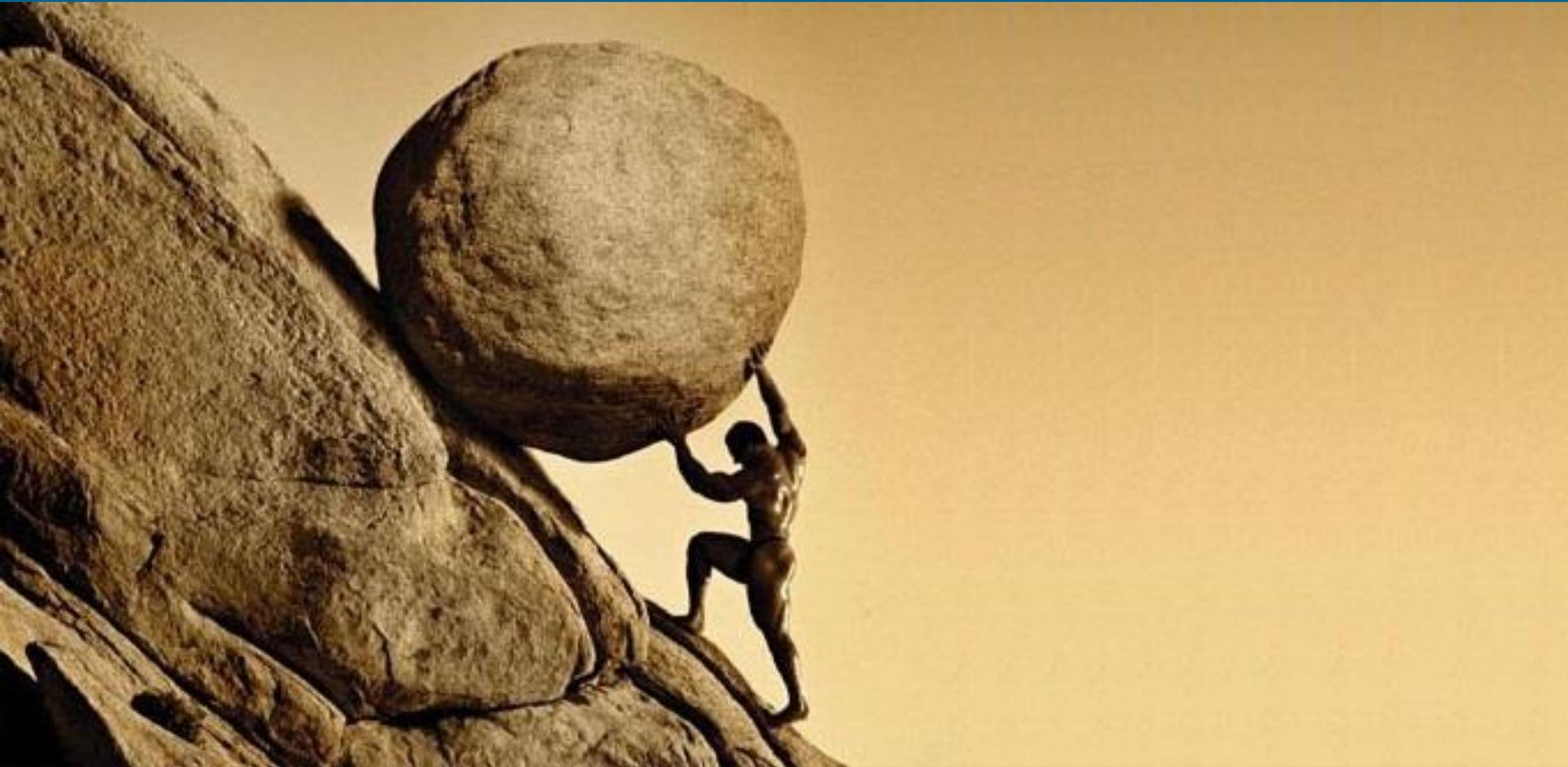
Listserv

- 529 members
- phragmitesnet@great-lakes.net

Status and Future Actions

- Research Subcommittee
 - Collaborative for Microbial Symbiosis Research
 - Regional Best Management Guidance
 - Monitoring Protocol
-
- Data Analysis Tool
 - Regional Decision Support Tool
 - Evaluation of GLRI-funded Phragmites Management Projects
 - Common Agenda/Regional Strategy for Phragmites
 - Conferences/Workshops

Where are we going?



Where are we going?



Thank you!

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