Dear Conference Participants:

The Minnesota Invasive Species Advisory Council, the Invasive Plants Association of Wisconsin, and the Midwest Invasive Plant Network are pleased to host the first ever Minnesota-Wisconsin Invasive Species Conference in St. Paul, Minnesota. As hosts, we would like to officially welcome you to the Crowne Plaza St. Paul Riverfront Hotel. We hope you have an educational – and fun – conference.

Your presence at this joint-state conference serves to emphasize the need for this forum. Its purpose is to improve invasive species management and minimize the impacts of terrestrial and aquatic invasive species across Minnesota, Wisconsin, and the Midwest. Attending the conference are representatives from our region in all sectors – private landowners and lake association representatives, public agency staff, environmental consultants, academics, extension staff, and others. The breadth of representation shows our collective commitment to learning from each other and working together.

Our invited Plenary Speakers highlight the diversity of our audience and their expertise. They will share with us the latest research; tools and strategies for large-scale, state and regional invasive species programs; and the broader public policy concerns that will help you to improve your invasive species research, management or outreach challenges.

In addition to our six concurrent sessions and poster session, exhibitors from all across the region will showcase the latest products, services, and opportunities for managing invasive species.

There are many things to do outside the conference in downtown St. Paul. You will find some of St. Paul's finest dining options steps away from the Crowne Plaza, attractions such as the State Capitol, the Science Museum of Minnesota, and much more. See the St. Paul map and guide at the Registration Desk for more information.

On behalf of the conference hosts, sponsors, executive committee, program committee and everyone who has contributed to this event, we hope you enjoy the conference and everything that St. Paul, Minnesota has to offer.

Enjoy!

Laura Van Riper
Terrestrial Invasive Species Coordinator
Minnesota Department of Natural Resources

Steve Chaplin
Senior Conservation Scientist
The Nature Conservancy
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**Conference-At-A-Glance**

### Sunday, November 7

| Registration | 4:00 pm - 7:00 pm | Registration is on the Lower Level of the Crowne Plaza |

### Monday, November 8

| Registration | 7:00 am - 5:00 pm | Registration is on the Lower Level of the Crowne Plaza |
| Coffee With Exhibitors | 8:30 am - 10:00 am | Enjoy coffee or tea with exhibitors |
| **Opening Plenary** *Great River Ballroom* | 10:00 am - 12:00 pm | Welcome from host organizations and Minnesota State Rep. Jean Wagenius, and speakers: Lindsay Chadderton, Great Lakes Project, The Nature Conservancy; Janet Clark, Sweetgrass Consulting; and Troy Weldy, The Nature Conservancy - New York |
| Lunch | 12:00 pm - 1:10 pm | Lunch will be served in Garden Court East |

**Concurrent Sessions**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Topics</th>
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<tbody>
<tr>
<td>1:20 pm - 2:35 pm</td>
<td>Terrestrial and Overview - Weed Laws and Policies - <em>Kellogg I</em>; Terrestrial - Biology and Impacts of Invasive Species - <em>Kellogg II</em>; Aquatic Prevention - Interrupting Pathways - <em>Great River I</em>; Aquatic Biology and Management of Plants - Biology of Invasive Submersed Plants - <em>State I</em>; Aquatic - Management of Invasive Aquatic Plants 1 - <em>State III</em>; Workshops - Terrestrial Invasive Plant Management: Early Detection &amp; Rapid Response - <em>Great River II</em>; Poster and Exhibit Reception - 4:30 pm - 6:30 pm in Governors Hall: Enjoy hors<code>d</code>oeuvres and a cash bar while talking with poster presenters</td>
</tr>
<tr>
<td>3:05 pm - 4:20 pm</td>
<td>Terrestrial - Best Management Practices - <em>Kellogg I</em>; Terrestrial - Outreach &amp; Prevention 1 - <em>Kellogg II</em>; Aquatic Prevention - Interrupting the Boating Pathway - <em>Great River I</em>; Aquatic Biology and Management of Plants - Biology of Invasive Emergent Plants - <em>State I</em>; Aquatic - Aquatic Invasive Species Public Awareness - <em>State III</em>; Workshops - Terrestrial Invasive Plant Management: Prairie - <em>Great River II</em></td>
</tr>
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### Tuesday, November 9

| Registration | 7:00 am - 5:00 pm | Coffee and Tea will be served in Governors Hall from 7:00 am - 8:30 am |
| Lunch Plenary - *Great River II* | 12:00 pm - 1:20 pm | MISAC - Carol Mortensen Award and Speaker: Lee Frelich, University of Minnesota |
| *Concurrent Sessions* | 8:30 am - 10:10 am | 10:40 am - 11:55 am | 1:30 pm - 2:45 pm | 3:15 pm - 4:30 pm |
| Aquatic Prevention | Ballast Water - *Great River I* | Aquatic Invasive Species in Pondweed - *State III* | Aquatic Invasive Species Management of Curlyleaf Pondweed - *State I* | Aquatic Invasive Species Management of Invasive Submersed Plants: Funding and Economics - *Kellogg II* |
| Aquatic and Cooperative Weed Management Areas | Aquatic Invasive Species Control: Technology and Efforts - *Kellogg II* | Aquatic Invasive Invertebrates - *Kellogg II* | Cooperative Weed Management Areas 1 - *Kellogg I* | Cooperative Weed Management Areas 2 - *Kellogg I* |

**Tuesday Evening Reception**

4:30 pm - 6:30 pm Reception in Windows on the River (22nd floor) |

### Wednesday, November 10

| Registration | 7:00 am - 10:00 am | Coffee and tea will be served in Governors Hall from 7:00 am - 8:30 am |
| *Concurrent Sessions* | 8:30 am - 10:10 am | 10:40 am - 11:55 am |
| Terrestrial | Restoration - *Kellogg II*; Citizen and Business Involvement - *Great River I* | Outreach & Prevention 2 - *Kellogg II*; Distribution and Detection - *State III* | Aquatic Early Detection and Rapid Response - *Great River I*; Aquatic and Invasive Fish Management - *State I* |
| Aquatic Biology and Management of Plants | Aquatic Biology and Management of Plants | Workshops | Emerald Ash Borer Workshop 3 - *Capitol Ballroom*; Emerald Ash Borer Workshop 4 - *Capitol Ballroom* |

**Conference Ends**

12:00 pm Exhibits and Posters must be removed by 2:00 pm |

*Note: Concurrent Sessions are comprised of 3 or 4, 20 minute presentations and 5 minutes for questions.*
Soil and Water Conservation Society - Minnesota Chapter
The SWCS is a nonprofit scientific and educational organization – founded in 1943 - that serves as an advocate for conservation professionals and for science-based conservation practice, programs, and policy. Our mission is to foster the science and art of natural resource conservation. Our work targets conservation of soil, water, and related natural resources on working land - the land used to produce food, fiber, fuel, and other services that improve the quality of life people experience in rural and urban communities. We work to discover, develop, implement, and constantly improve ways to use land that sustains its productive capacity and enhances the environment at the same time. **Join us on Monday afternoon in Kellogg I from 4:30pm - 5:00pm for an informal session about what SWCS is all about and how you can get involved.**

Conference Host Organizations
The Minnesota Wisconsin Invasive Species Conference is being hosted by the following organizations dedicated to the control of invasive species in the Midwest.

**Invasive Plants Association of Wisconsin**
The mission of the Invasive Plant Association of Wisconsin is to promote better stewardship of the natural resources of Wisconsin by advancing the understanding of invasive plants and encouraging the control of their spread. IPAW sponsors several committees and groups that work to educate and organize people to defend against the spread of invasive species. The membership of IPAW is made up of concerned citizens, agronomists, horticulturists, professors, and business.

**Midwest Invasive Plant Network**
The Midwest Invasive Plant Network’s mission is to reduce the impact of invasive plants in the Midwest. Our network bring together government agencies, non-profit and for-profit corporations, scientists, and private citizens across the Midwest to collaborate on projects and share information on invasive plants. MIPN’s efforts are focused on providing education on invasive plants in the Midwest; promoting effective prevention methods and early detection of new invaders; providing information on recent research that is relevant to management of invasive species; supporting the growth and development of Cooperative Weed Management Areas; and connecting states within our region to each other and to invasive species organizations at a national level.

**Minnesota Invasive Species Advisory Council**
The Minnesota Invasive Species Advisory Council is a diverse group with a common interest in battling non-native invasive species in Minnesota that was initiated in May 2001. The Council was formed in response to Presidential Executive Order 13112 on invasive species, the National Invasive Species Management Plan, and Minnesota Legislation that encouraged the state to plan and take action on invasive species. The purpose of MISAC is to review information concerning the current status and management of terrestrial and aquatic invasive species including animals, insects, plants, and diseases in Minnesota. The group is working cooperatively to identify and locate invasive species and share strategies in order to maximize resources for managing invasive species.

**Fiscal Sponsor**
Soil and Water Conservation Society - Minnesota Chapter
The SWCS is a nonprofit scientific and educational organization – founded in 1943- that serves as an advocate for conservation professionals and for science-based conservation practice, programs, and policy. Our mission is to foster the science and art of natural resource conservation. Our work targets conservation of soil, water, and related natural resources on working land- the land used to produce food, fiber, fuel, and other services that improve the quality of life people experience in rural and urban communities. We work to discover, develop, implement, and constantly improve ways to use land that sustains its productive capacity and enhances the environment at the same time. **Join us on Monday afternoon in Kellogg I from 4:30pm - 5:00pm for an informal session about what SWCS is all about and how you can get involved.**
Conference Host Organizations

Invasive Plants Association of Wisconsin
- Thomas Boos – Wisconsin Department of Natural Resources
- Willis Brown – Michler and Brown, LLC
- Jerry Doll – University of Wisconsin Extension
- Mark Feider – Milwaukee Audubon Society
- Robert J. Frank – Fish and Wildlife Association
- Tom Hunt – University of Wisconsin Platteville
- Vija Pandian – Brown County
- Brian Pillsbury – USDA – Natural Resources Conservation Service
- Jim Reinartz – University of Wisconsin - Milwaukee
- Gene Roark – Wisconsin Woodland Owners Association
- Amy Staffen – The Prairie Enthusiasts
- Rolf Utegard – Eau Claire County Extension Center
- Anne Walker – Home Land Garden, LLC

Midwest Invasive Plant Network
- Heather Bacher – Central Indiana Land Trust
- Roger Becker – University of Minnesota
- Trish Beckjord – Landscape Architect
- Lisa Brush – The Stewardship Network
- Carmen Chapin – National Park Service – Great Lakes Exotic Plant Management Team
- Steve Chaplin – The Nature Conservancy
- Bob Clancy – Ecological Restoration Specialist
- Janet Clark – Sweetgrass Consulting
- Brian Corr – Valen Biosciences Corporation
- Bob Fitch – Minnesota Nursery and Landscape Association
- Rachel Gagnon – Ontario Invasive Plant Council, Ontario Federation of Hunters and Anglers
- Bob Hartzler – Iowa State University
- Chris Henze – Johnson County Secondary Road Department
- Jennifer Hillmer – Cleveland Metroparks
- Kelly Kearns – Wisconsin Department of Natural Resources
- Zach Lowe – Max McGraw Wildlife Foundation
- Bob Masters – Dow AgroSciences, LLC
- Debbie Maurer – Lake County Forest Preserve District
- Christoper Pierce – USDA Animal & Plant Health Inspection Service, Plant Protection & Quarantine
- Mark Renz – University of Wisconsin
- Jan Schultz – USDA Forest Service
- Kate Howe - MIPN Coordinator

Minnesota Invasive Species Advisory Council

Co-Chairs
- Teresa McDill – Minnesota Department of Agriculture
- Jay Rendell – Minnesota Department of Natural Resources
- Mark Abrahamson – Minnesota Department of Agriculture
- Robert Becker – University of Minnesota
- Robert Bruesewitz – US Fish and Wildlife Service
- Susan Burks – Minnesota Department of Natural Resources
- Shannon Carpenter – Soil and Water Conservation Society – Minnesota Chapter
- Kevin Connors – USDA-APHIS
- Tony Curtellet – Minnesota Dept. of Agriculture
- Essam Dabaan – USDA-APHIS PPQ
- Jack Greenlee – USDA-Forest Service
- John Haanstad – USDA-APHIS PPQ
- Michael Hoff – US Fish & Wildlife Service
- Doug Jensen – University of Minnesota Sea Grant Program
- Rhett Johnson – The Nature Conservancy
- Byron Karns – National Park Service-St. Croix National Scenic Riverway
- Susan Kedzie – Leech Lake Band of Ojibwe
- Robert Koch – Minnesota Department of Agriculture
- Ginger Kopp – Minnesota Natural Resources Conservation Service
- Ben Lang – Minnesota Crop Improvement Association
- Tina Markeson – Minnesota Department of Transportation
- Robin Martinek – Natural Resources Conservation Service
- Eric Nordelle – Bailey Nurseries
- Tim Power – Minnesota Nursery & Landscape Association
- Greg Senst – Minnesota Association of County Agricultural Inspectors
- Luke Skinner – Minnesota Department of Natural Resources
- Dan Shaw – Minnesota Board of Water and Soil Resources
- Barb Spears – Minnesota Forestry Association
- Carol Strojny – Minnesota Board of Water and Soil Resources
- Karli Swenson – Minnesota Board of Water and Soil Resources
- Laura Van Riper – Minnesota Department of Natural Resources
- Rob Venette – USDA Forest Service
- Kathy Widin – Minnesota Shade Tree Advisory Committee

Fiscal Sponsor

Soil and Water Conservation Society - Minnesota Chapter
- Russell Kleinschmidt – President
- Shannon Carpenter – Past President
- Sid Cornelius – Treasurer
- Mary Jane Reetz – Secretary
- Greg Larson – Northern Surface Waters
- Dave Copland – Karst and Driftless Area
- Kay Clark – Minnesota/Missouri Watershed
- Jeff Hellermann – Red River of the North

Executive Committee

Co-Chairs
- Steve Chaplin – The Nature Conservancy
- Laura Van Riper – Minnesota Department of Natural Resources
- Roger Becker – University of Minnesota
- Thomas Boos – Wisconsin Department of Natural Resources
- Shannon Carpenter – Soil and Water Conservation Society – Minnesota Chapter
- Kate Howe – Midwest Invasive Plant Network
- Doug Jensen – University of Minnesota Sea Grant Program

Sponsorship Committee

Chair
- Roger Becker – University of Minnesota
- Jerry Doll – University of Wisconsin
- Doug Jensen – University of Minnesota Sea Grant Program

Program Committee

Leads
- Kate Howe - Midwest Invasive Plant Network
- Laura Van Riper – Minnesota Department of Natural Resources

Terrestrial
- Lead: Kelly Kearns - Wisconsin Department of Natural Resources
- Roger Becker – University of Minnesota
- Tara Kelly – Belwin Conservancy
- Patricia Morton - The Nature Conservancy
- Dan Shaw – Minnesota Board of Water and Soil Resources

Forestry
- Lead: Susan Burks – Minnesota Department of Natural Resources
- Majorji Brzeskiewicz – USDA Forest Service
- Andrea Diss-Torrance – Wisconsin Department of Natural Resources
- Dennis McDougall – USDA Forest Service
- Rob Venette – USDA Forest Service

Aquatic
- Lead: Chip Welling – Minnesota Department of Natural Resources
- Laura Herman – University of Wisconsin Extension Lakes
- Brittany Hummel – Minnesota Department of Natural Resources
- Doug Jensen – University of Minnesota Sea Grant Program
- Eric McFarlane – University of Wisconsin Extension Lakes
- Scott van Egeren – Wisconsin Department of Natural Resources

Conference Administration
- Bergner Associates – Milwaukee, Wisconsin

Graphics Design
- Bonnie Reichert – Wisconsin Department of Natural Resources
- Bergner Associates – Milwaukee, Wisconsin

Webmaster
- Dennis Fuchs – Soil and Water Conservation Society - Minnesota Chapter
Conference Location
All conference sessions, poster displays, exhibits, lunches, receptions, and plenary presentations will be held at the Crowne Plaza St. Paul Riverfront Hotel, 11 E Kellogg Blvd, St. Paul, MN.

Getting to the Conference
From Minneapolis/St. Paul International Airport (7.5 miles):
Take I-494 East to Highway 5 (7th Street). Follow Highway 5 to downtown St. Paul. Turn right/east onto Kellogg Boulevard. At the third stoplight, turn left/north onto Wabasha Street. The hotel parking garage will be on your right.

Parking
The Crowne Plaza Ramp on Wabasha St. (5’ 9” height restriction) is available for a reduced Conference daily rate of $7.00; $14.00 for overnight guests. The Capitol City Ramp at 50 4th St. is available for the same rates, does not have a height restriction, and is also connected to the hotel. Enter from 4th Street, Cedar Street, or Kellogg Blvd. Attendees may pick up parking vouchers for both garages at Conference Registration in the lower lobby.

Hotels and Accommodations
The Crowne Plaza St. Paul Riverfront Hotel provides a beautiful setting for the Minnesota-Wisconsin Invasive Species Conference. The hotel offers spectacular views of the Mississippi River and downtown St. Paul. The Crowne Plaza also offers several amenities including: swimming pool, exercise facilities, whirl pool, in-house restaurant, and free wi-fi. The hotel is located only blocks away from several downtown options for entertainment, shopping, and dining.

Blocks of rooms are reserved in Hudson, Wisconsin for Wisconsin state government employees who must stay in state.  
- Holiday Inn Express (1200 Gateway Boulevard)  
- Best Western Hudson House Inn (1616 Crest View Drive)  
- Fairmount Inn (2400 Center Drive)

Registration
The Registration desk is located on the lower level of the Crowne Plaza St. Paul Riverfront Hotel. Registration hours are:

<table>
<thead>
<tr>
<th>Date</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Sunday, November 7</td>
<td>4:00 pm - 7:00 pm</td>
</tr>
<tr>
<td>Monday, November 8</td>
<td>7:00 am - 5:00 pm</td>
</tr>
<tr>
<td>Tuesday, November 9</td>
<td>7:00 am - 5:00 pm</td>
</tr>
<tr>
<td>Wednesday, November 10</td>
<td>7:00 am - 10:00 am</td>
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On site costs for Registration are $225 for a full Registration, $140 for Monday OR Tuesday only, and $90.00 for Wednesday.

Speaker Ready Room - The Parlor
7:00 am - 3:00 pm: Monday and Tuesday  
7:00 am - 10:00 am: Wednesday
The Parlor, located on the main floor of the Crowne Plaza St. Paul Riverfront, will be available for speakers as a quiet area to prepare for presentations. A computer will be provided and wi-fi will be available. (Note: This room will not be secured. Presenters will be responsible for their own valuables)

Power Point Presentations should have been uploaded to the conference speakers’ online drop box (www.mnwiisc.org). If you were unable to upload your presentation, bring it on a USB flash drive or CD clearly labeled with your name and presentation title. Your presentation will need to be uploaded the day prior to your presentation or by 8:00 am on the day of.

Resource Tables
Our presenters, hosting organizations, and exhibitors are encouraged to bring complimentary invasive species publications and other materials for distribution in the foyer area near registration. Sale of items is not allowed.

Food and Beverages
Starbucks Coffee and Tazo Teas will be offered each morning and at all breaks in Governors Hall. Monday morning from 8:30 - 10:30; Tuesday and Wednesday from 7:30 am - 8:30 am.

A box lunch will be provided on Monday, November 8 for all attendees. On Monday evening there will be an Exhibit and Poster Reception held in Governors Hall. Refreshments will be served and a cash bar will be available.

On Tuesday, November 9, a plated lunch will be served for the Tuesday Lunch Plenary session. All Lunches and Receptions will have vegetarian options. On Tuesday evening, a reception for all attendees will be held in the beautiful “Windows on the River”, located on the 22nd floor of the Crowne Plaza hotel. This room features vast panoramic views of the Mississippi River Valley and downtown, a classic rotating dining room, and a scenic glass elevator that goes directly from the lobby to the 22nd floor. Hors d’oeuvres and a cash bar will be served.

*Note: Meals are not guaranteed to those who register at the door.

Posters and Exhibits
Posters and Exhibits will be on display in Governors Hall, located on the lower level of the Crowne Plaza, for the duration of the conference. Doors open at 8:30am on Monday, November 8. We have a variety of exhibitors with valuable information regarding invasive species identification, management, and restoration services who will be available throughout the conference.

Exhibits may be set up on Sunday, November 7 from 3:00 pm – 7:00 pm or Monday, November 8 from 7:00 am – 8:30 am. Setup for posters will be available Monday, November 8 from 7:00 am until 9:00 am. All exhibits and posters must be removed between 12:00 pm and 2:00 pm on Wednesday, November 10.
Monday Plenary Presentations
10:00 am - 12:00 pm Great River Ballroom

The Minnesota-Wisconsin Invasive Species Conference has invited some of the nation’s premier experts on invasive species to give our plenary presentations. Our presenters have worked regionally, nationally, and across the globe on researching or managing invasive species and invasive species issues. The Monday, November 8 Opening Plenary will feature welcome addresses from the host organizations, Minnesota State Representative Jean Wagenius, followed by three guest speakers whose presentations are described below.

Monday, November 8

**Troy Weldy**
*Director of Ecological Management*
The Nature Conservancy - New York

**Advancing a State Level Invasive Species Program**

For many years, New York talked about the threat from invasive species and the need to take action. Various efforts were started, only to later fail or fizzle out. Over the last five years though, New York has organized many partners and laid a strong foundation for a statewide invasive species program. This program has quickly grown where New York now has an Office of Invasive Species Coordination within the NYS Department of Environmental Conservation with five agency staff, dedicated annual state funding, an Invasive Species Council that includes all state agencies impacted by invasive species, an Invasive Species Advisory Committee which consists of various organizations impacted by invasive species, and mobilized hundreds of volunteers to aid in our efforts to combat invasive species. This presentation will highlight how New York accomplished this work, including pitfalls to avoid and important steps to include. The direction taken by New York may provide other states with a template to improve upon the work started in New York.

**Biographical Information**
Troy Weldy is currently the Director of Ecological Management for the New York Chapter of The Nature Conservancy, a Research Associate for the New York State Museum and Adjunct Faculty for the Institute of Wetland Environmental Education and Research. He is author of over 75 articles and other publications including the newly released New York Flora Atlas and a chapter on invasive species management within *Conserving Biodiversity on Military Lands*. Troy lobbies for invasive species support with many New York partners which has resulted in dedicated state funding (nearly $25M to date), the creation of the New York State Invasive Species Council and Advisory Committee, the formation of eight regional partnerships, and a formalized approach to establish New York’s first regulatory invasive species list. His previous roles include Director of US Network Operations for NatureServe, Executive Director of the New York Flora Association, Botanist for the New York Natural Heritage Program, and Faculty Research Associate for Vassar College. He has a BS from Butler University and a MA from the College of William & Mary.

**W. Lindsay Chadderton**
*Aquatic Invasive Species Director*
Great Lakes Project, The Nature Conservancy

**Detection of Asian Carp (*Hypopthalmichthys molitrix* and *H. nobilis*) Invasion Front in Chicago Area Waterway System Using Environmental DNA (eDNA)**

Detection of new incursions of invasive species commonly relies upon the ability to detect and monitor low densities of patchily distributed non-indigenous species. This can be particularly challenging in aquatic ecosystems where even large organisms can be difficult to directly observe or capture. Traditional sampling methods are only effective in a narrow range of habitats, principally shallow water with slow water velocities or moderate to high visibility. Genetic based sampling methods have the potential to overcome many of the constraints posed by traditional aquatic monitoring and detection gear. Here we present results of an ongoing surveillance effort using environmental DNA to delimit the spread of bighead and silver carps (*Hypopthalmichthys nobilis* and *H. molitrix*) from the Illinois River through the Chicago Area Waterway System to Lake Michigan. Repeated detection of Asian carp DNA above the electric barriers in 2009 and 2010 indicate that the invasion of Lake Michigan by silver carp has started and is imminent for bighead carp. Our results show that monitoring for the presence of environmental DNA of high-risk invasive species has potential to provide a sensitive early detection surveillance method in aquatic environments.
Biographical Information
Lindsay has worked as the Aquatic Invasive Species Director for The Nature Conservancy’s Great Lakes Project since January 2007. He joined the Conservancy from New Zealand where he worked for 16 years for the Department of Conservation, a federal government agency (equivalent to USFWS, USFS, and National Park Service), the last seven years spent leading their freshwater science program. He has experience in the management of invasive species in terrestrial, marine and freshwater ecosystems having managed or advised on rat eradication programs in New Zealand, Falkland Islands and Fiji, established an incursion response and eradication program for an introduced marine algae (Undaria pinnatifida), and was a principle technical advisor on national and regional rapid response programs for common carp, mosquito fish, rudd and European gudgeon, and an introduced diatom (Didymosphenia geminata). Lindsay is based at the University of Notre Dame and was part of the four person team that developed the environmental DNA surveillance methods being used to track the invasion Asian carp in Chicago waterways.

Janet Clark
Owner
Sweetgrass Consulting
The National Buzz: Politics, Trends & Opportunities

Natural resource management decisions are often based as much on politics as good science. Understanding the current political milieu helps identify opportunities for partnerships, publicity, and funding. Invasive plant issues will be discussed in the context of national programs, organizations, legislation, and what’s hot inside the Beltway.

Biographical Information
Based in Montana, Janet Clark is self-employed as a writer/editor, project manager, and researcher of conservation and agriculture issues, policies, and funding opportunities. She serves on the Invasive Species Advisory Committee for the National Invasive Species Council and on the Boards of Directors for the Midwest Invasive Plant Network and the Pacific Northwest Invasive Plant Council. Janet has worked on invasive plant projects for 20+ years in various capacities, often coordinating multi-partner projects, publications, and events in the West and nationally. She is particularly interested in effective communication and organizational networking, natural resource policy, ecosystem sustainability issues, and public participation in legislative and policy-making processes.
There are six concurrent sessions during each time period. Every presentation listed is 20 minutes followed by 5 minutes of questions unless otherwise noted. Asterisk (*) indicates the presenting speaker. Aquatic sessions are Blue, terrestrial sessions are Green, and workshops are Tan.

### 1:20 pm - 2:35 pm

**Weed Laws and Policies**

**Kellogg I**

**Moderator:**
Tom Boos, Wisconsin Department of Natural Resources

1:20pm *The Revised Minnesota Noxious Weed Law*
Anthony B. Cortilet, Minnesota Department of Agriculture

1:45pm *Wisconsin's New Comprehensive Invasive Species Rule*
Kelly Kearns, Wisconsin Department of Natural Resources

2:10pm *Minnesota's State Management Plan for Invasive Species*
Jay Rendall* and Luke Skinner, Minnesota Department of Natural Resources

**Biology and Impacts of Invasive Species**

**Kellogg II**

**Moderator:**
Roger Becker, University of Minnesota

1:20pm *Principles of Invasion Biology and Their Role in Invasive Species Management*
Robert Venette*, USDA Forest Service; Nadilia N. Gomez Raboteaux, University of Minnesota

1:45pm *Invasive Earthworm Impacts on Ground-Nesting Songbirds in Northern Hardwood Forests*
Scott Loss* and Robert B. Blair, University of Minnesota

2:10pm *Garlic Mustard (Alliaria petiolata) Invasion & Impacts: Implications for Management & Restoration*
Laura Phillips-Mao, University of Minnesota

**Interrupting Pathways**

**Great River I**

**Moderator:**
Doug Jensen, University of Minnesota Sea Grant Program

1:20pm *Using Technology to Prevent Invasive Species Introduction at Boat Accesses*
Ronald Faust*, Gull Chain Of Lakes Association; Eric Lindberg*, Environmental Sentry Protection, LLC

1:45pm *Effects of Fishing Tournaments in Minnesota’s Laurentian Region*
Drew Christianson, University of Minnesota

2:10pm *Invasive Aquatic Species on Our Door Step: The Need for Vigilant Neighbors*
Martha Balfour*, Jennifer Hauxwell, Alison Mikulyuk, Michelle Nault, and Scott van Egeren, Wisconsin Department of Natural Resources

**Biology of Invasive Submersed Plants**

**State I**

**Moderator:**
Alison Mikulyuk, Wisconsin Department of Natural Resources

1:20pm *Seasonal Water Quality Patterns in Curly-leaf Pondweed Plots*
William F. James, Eau Galle Aquatic Ecology Laboratory

1:45pm *Invasion Trajectories and Population Trends of Eurasian Watermilfoil (Myriophyllum spicatum) in Wisconsin*
Scott van Egeren*, Jennifer Hauxwell, Alison Mikulyuk, and Michelle Nault, Wisconsin Department of Natural Resources

2:10pm *Control of Dormancy in Curly-leaf Pondweed (Potamogeton crispus L.) Turions*
D. Jo Heuschele* and Florence Gleason, University of Minnesota

**Management of Invasive Aquatic Plants 1**

**State III**

**Moderator:**
Laura Herman, University of Wisconsin Extension - Lakes

1:20pm *Assessment Techniques for Determining Treatment Areas for Curlyleaf Pondweed and Eurasian Watermilfoil*
Steve McComas* and Jo Stuckert, Blue Water Science

1:45pm *Past, Present, and Future Efforts to Manage Flowering Rush (Butomus umbellatus) in Minnesota*
Darrin Hoverson, Minnesota Department of Natural Resources

2:10pm *Purple Loosestrife (Lythrum salicaria) Management in Minnesota*
Joe Eisterhold, Minnesota Department of Natural Resources

**Terrestrial Invasive Plant Management Workshop: Early Detection and Rapid Response**

**Great River II**

**Moderator:**
Cathy McGlynn, Chicago Wilderness

1:20pm *Identification and Management of Weedy Umbels*
Courtney LeClair, Wisconsin Department of Natural Resources

1:45pm *Narrowleaf Bittercress (Cardamine impatiens) – A Newly Recognized Invasive Plant in Minnesota*
Katie Farber, Fortin Consulting, Inc.

2:10pm *Japanese Stiltgrass Ecology and Management: A Report from the Stiltgrass Summit*
Katherine M. Howe*, Midwest Invasive Plant Network, Purdue University; Christopher Evans, River to River CWMA
Monday, November 8

3:05 pm - 4:20 pm

**Best Management Practices**  
*Kellogg I*  
Moderator: Dennis McDougall, U.S. Forest Service

3:05pm **Best Management Practices for Terrestrial Invasive Species**  
Thomas Boos II, Wisconsin Department of Natural Resources

3:30pm **Rights-of-Ways and Invasive Species Best Management Practices**  
Thomas Boos II*, Wisconsin Department of Natural Resources; Mike Grisar*, We Energies; Tim Ramburg*, St. Croix County, Wisconsin; Crystal Koles*, American Transmission Company; and Tina Markeson*, Minnesota Department of Transportation (*This is 50 minutes*)

**Outreach and Prevention 1**  
*Kellogg II*  
Moderator: Janet Clark, Sweetgrass Consulting

3:05pm **Prevention Through Policy and Partnership**  
Bonnie L. Harper-Lore, Restoration Ecologist

3:30pm **Outreach Efforts Around Recreational Pathways for Terrestrial Invasive Species**  
Susan Burks, Minnesota Department of Natural Resources

3:55pm **Gravel Pit Certification, ATV and Snowmobile Trail Invasive Plant Management**  
Marsha J. Watland, Becker County Agriculture Inspector

**Interrupting the Boating Pathway**  
*Great River I*  
Moderator: Nathan Olson, Minnesota Department of Natural Resources

3:05pm **Invasive Species Prevention through Watercraft Inspection**  
Maureen Ziskovsky* and Heidi Wolf, Minnesota Department of Natural Resources

3:30pm **Launching Clean Boats and New Career Opportunities**  
Teresa W. Wolfe, St. Croix National Scenic Riverway

3:55pm **Cleaning of Recreational Boats to Slow the Spread of Aquatic Invasive Species**  
John D. Rothlisberger*, USDA Forest Service, Eastern Region; W. Lindsay Chadderton, The Nature Conservancy; Joanna McNulty and David M. Lodge, University of Notre Dame

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**Biology of Invasive Emergent Plants**  
*State I*  
Moderator: Joe Eisterhold, Minnesota Department of Natural Resources

3:05pm **Possible Negative Impacts of Hybrid Cattail on Wetlands in South Central Minnesota**  
Laurence N. Gillette, Three Rivers Park District

3:30pm **Ecological and Genetic Variation of Purple Loosestrife Following Introduction of Biocontrol Agents**  
Gina L. Quiram, University of Minnesota

3:55pm **Exploring Molecular Determinants of Invasion in Purple Loosestrife (Lythrum salicaria) using Metabolomics**  
Will Menzel*, Adrian Hegeman and Gina Quiram, University of Minnesota

**Aquatic Invasive Species Public Awareness**  
*State III*  
Moderator: Mindy Wilkinson, Wisconsin Department of Natural Resources

3:05pm **Stop Aquatic Hitchhikers!TM From Theory to Application**  
Doug Jensen, University of Minnesota Sea Grant Program

3:30pm **Aquatic Invasive Species Prevention through Public Awareness: Examples from Minnesota DNR And Its Partners**  
Jay Rendall, Minnesota Department of Natural Resources

3:55pm **Great Lakes Invasive Species Outreach Partnerships**  
Pat Conzemius* and Doug Grann*, Wildlife Forever

**Terrestrial Invasive Plant Management Workshop: Prairie**  
*Great River II*  
Moderator: Tara Kelly, Belwin Conservancy

3:05pm **Canada Thistle (Cirsium arvense) Management in Minnesota Native Prairies**  
Roger Becker*, University of Minnesota; Milt Haar, Badlands National Park; Judy Markl, Luke Skinner, and Laura Van Riper, Minnesota Department of Natural Resources; Lee Klossner, Brad Kinkaid, Doug Miller, and Elizabeth Jean Katovich, University of Minnesota; and J.B. Bright, US Fish and Wildlife Service

3:30pm **Another Tool for the IPM Toolbox? Assessing Wetblade Technology to Manage Canada Thistle**  
Kevyn Juneau* and Catherine Tarasoff, Michigan Technological University; Ken Graeve, Minnesota Department of Transportation

3:55pm **Controlling Spotted Knapweed (Centaurea stoebe) in NW Minnesota State Parks and Trails**  
Chris Weir-Koetter, Minnesota Department of Natural Resources
Naturalized Yellow-flowered Alfalfa (Medicago sativa ssp. falcata): Is it Invasive?
Roger N. Gates*, Arvid A. Boe, Patricia S. Johnson, and Lan Xu, South Dakota State University

An Invasive Species May Limit Diet Expansion In a Native Lady Beetle
Kristina Prescott* and David A. Andow, University of Minnesota

Evaluating the Invasive Potential of Norway Maple (Acer platanoides L.) and Amur Maple (Acer tataricum L. ssp. ginnala (Maxim.)) in Central Minnesota – Initial Results
Steve McNamara*, Mary Gervais, and Stan C. Hokanson, University of Minnesota

Phenology of Flowering Rush and Hardstem Bulrush in the Detroit Lakes Chain
Casey Olson*, Samantha Dusek*, and Michelle Marko, Concordia College; John Madsen and Joshua Chesier, Mississippi State University; and Tera Gutter, Pelican River Watershed District

Inter Simple Sequence Repeat (ISSR) Variation in Reed Canarygrass (Phalaris arundinacea L.)
Michael Nelson* and Neil Anderson, University of Minnesota

Site and Climate Effects on Midwest Forest Invasibility by Non-Native Plants
Cassandra Kurtz*, USDA Forest Service; Rebecca Montgomery and Neil Anderson, University of Minnesota; W. Keith Moser, USDA Forest Service

Population Biology of Garlic Mustard (Alliaria petiolata) in Minnesota Hardwood Forests
Laura Van Riper* and Luke Skinner, Minnesota Department of Natural Resources; Roger Becker, University of Minnesota

Light Brown Apple Moth Cold Hardiness: Potential for Overwintering in the Midwest
Lindsey D.E. Christanson*, University of Minnesota; Robert C. Venette, USDA Forest Service; Robert L. Koch, Minnesota Department of Agriculture; William D. Hutchison, University of Minnesota

Competitive Responses of Tansy and Goldenrod Differ According to Ploidy and Genotype
Ada Tse* and Julie Etterson, University of Minnesota

Spatial Distribution of Nonnative Invasive Plants Inventory in the North by Forest Inventory and Analysis
Cassandra Olson* and Greg Liknes*, USDA Forest Service

Invasive Reed Canarygrass (Phalaris arundinacea) in Wisconsin Trout Stream Restorations
Amanda Little*, Hope Larsen, and Camille Thorson, University of Wisconsin

Celastrus orbiculatus (Oriental bittersweet) at the UW Arboretum, Madison, WI
Rebecca Mosel* and Timothy Kuhman, Edgewood College

Wisconsin DNR Monitor Effort for Aquatic Invasive Species: A Partnership Approach
Laura Herman*, University of Wisconsin Extension – Lakes; and Mindy Wilkinson, University of Wisconsin Extension – Environmental Resource Center

Current Regulatory Policy for Invasive Earthworms in Minnesota
Jenna Kallestad*, Hamline University; and David A. Andow, University of Minnesota

Demand for Earthworm Bait
David Northbird, University of Minnesota

Genetic Conservation of Minnesota’s Ash Resource
Julie Hendrickson*, University of Minnesota; and Andrew David, University of Minnesota—North Central Research and Outreach Center

Semi-Automated Identification of Municipal Ash Trees Using High Resolution Aerial Imagery
Dacia M. Meneguzzo*, Greg C. Liknes, and Susan J. Crocker, USDA Forest Service

Clean Boats, Clean Waters: Citizens and Staff Work Together to Protect Wisconsin’s Lakes
Erin McFarlane, University of Wisconsin Extension - Lakes

Youth Protecting Wisconsin Waters: The Department of Workforce Development Boat Inspection Program
Erin McFarlane*, University of Wisconsin Extension – Lakes; and Jeff Bode, Wisconsin Department of Natural Resources

Preventing Saltcedar (Tamarix spp.) Invasion in the Northern Great Plains
Michelle Ohrtman*, Sharon Clay, and Alexander Smart, South Dakota State University

Firewood Use and Movement: Before and After Regulation and an Education Campaign
Andrea Diss-Torrance*, Kim Peterson, and Ed Nelson, Wisconsin Department of Natural Resources

What Does “Local” Firewood Buy You? Managing the Risk of Invasive Species Introduction
Andrea Diss-Torrance*, Wisconsin Department of Natural Resources; Patrick C. Tobin and Laura M. Blackburn, USDA Forest Service; and Brian D. Brown, Wisconsin Department of Natural Resources

NR 40 - Wisconsin’s New Comprehensive Invasive Species Rule
Kelly Kearns* and Thomas Boos II, Wisconsin Department of Natural Resources
Poster Presentations, continued

**Forest Resource Information to Support Decision-Makers and Land Managers**
Susan J. Crocker*, Dacia M. Meneguzzo, Greg C. Liknes, Barry T. Wilson, Patrick Miles, and Charles H. Perry, USDA Forest Service

**Freshwater Ballast Treatment- Moving Toward Prevention in the Great Lakes**
Jeffery Henquinet, University of Wisconsin- Milwaukee

**Invasive Species Early Detection and Rapid Response**

**Early Detection System for the Great Lakes Early Region**
Brendon Panke* and Mark Renz, University of Wisconsin; and Carmen Chapin, National Park Service, National Institute of Invasive Species Science, and Midwest Invasive Plant Network

**New Invaders in Wisconsin Waters**
Laura Herman*, University of Wisconsin Extension-Lakes; Heidi Bunk; Scott van Egren and Scott Provost, Wisconsin Department of Natural Resources

**Early Detection of Invasive Cereal Cyst Nematodes using PCR-Restriction Fragment Length Polymorphism**
Tina Seeland, Minnesota Department of Agriculture

**Invasive Species Control and Management**

**Yellow Floating Heart Eradication Experiences in Wisconsin**
Susan Graham*, Wisconsin Department of Natural Resources

**Biological Control of Garlic Mustard (Alliaria petiolata): An Update**
Elizabeth Jean Katovich*, Roger Becker, and David Ragsdale, University of Minnesota; Hariet Hinz and Esther Gerber, CABI Biosciences; Luke Skinner, Minnesota Department of Natural Resources; and Bernd Blossey, Cornell University

**Impact of Mowing Timing on Japanese Hedge Parsley (Torilis japonica) Seed Production**
Rose Menyon Heflin* and Mark J. Renz, University of Wisconsin

**Cool Season Grass Management in Riparian Zones and Resulting Impact on Stream Characteristics**
Ryan deRegnier*, Mark Renz, and Kris Wright, University of Wisconsin

**Developing Biological Control for Common and Glossy Buckthorn**
Andre Gassmann, CABI Biosciences; Laura Van Riper* and Luke Skinner, Minnesota Department of Natural Resources

**Biological Control of Invasive Plants in Minnesota**
Monika A. Chandler*, Minnesota Department of Agriculture; Luke Skinner and Laura Van Riper, Minnesota Department of Natural Resources

**Southeast Ohio Non-Native Invasive Species Interest Group: Building Collaboration for Landscape-Level Impacts**
Cheryl Coon* and Ryan Orwan, Wayne National Forest

**Preliminary Characterization of Digestive Enzymes in Native Mussels and Zebra Mussels: A Step Toward Developing a Species-Specific Control for Aquatic Invasive Species**
Blake Sauey*, Scott Cooper, and Sandra Grunwald, University of Wisconsin; Jon Amberg, Teresa Newton, and Mark P. Gaikowski, US Geological Survey

**Efforts to Develop Potential Selective Agents for the Control of Common Carp (Cyprinus carpio) Through Large-Scale Synthesis of GD-174 and Analog Design**
Jared Scherr, Rhianna Nichols, and Tammy Clark*, Viterbo University; Terrance D. Hubert and Mark P. Gaikowski, US Geological Survey

**The Effects of Burning and Herbicide Treatments on Spotted Knapweed (Centaurea maculosa)**
Alan Einck, St. Cloud State University

**Identification and Management of Weedy Umbels**
Courtney LeClair, Wisconsin Department of Natural Resources

**Post-Invasion Restoration**

**Prairie Restoration: Increasing Warm-Season Native Grasses with Fire, Herbicide, and Nitrogen Application**
Shauna Waughtel*, Sharon A. Clay, Alexander Smart, David E. Clay, and Leo Schleicher, South Dakota State University

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*Photo Credit: WI DNR

Parrot Feather, Myriophyllum aquaticum

Zebra Mussels, Dreissena polymorpha
Mississippi
National River and Recreation Area

A partner park:
to preserve, enhance, and make special places available to visitors by working with other agencies and volunteers just like you.

This national park offers opportunities to work alongside our rangers on a wide variety of restoration projects. Volunteers provide valuable assistance in restoring colorful native landscapes where invasive species presently exist.

Visit our booth here at the conference or contact the park by phone at (651)290-3030 to find out how you can help preserve, enhance, and make special places invasive free.

Invasive species volunteer opportunities are made possible in part by:

Great Lakes Restoration

For more information on the Mississippi National River and Recreation Area, visit www.nps.gov/miss
Zebra mussels clustered on a native mussel.

Stop Aquatic Hitchhikers!

I've made the commitment to

Stop Aquatic Hitchhikers!

Have you?

Kent Hrbek, former Minnesota Twin and avid outdoorsman.

Remember...

- Clean off aquatic plants, animals, and mud from boat, trailer, and gear.
- Drain all water from bilge, livewell, and bait container.
- Dry or spray boat and gear to remove or kill invasive species that are hard to see.
- Dispose of unwanted live bait in the trash.

Minnesota Department of Natural Resources.
### Concurrent Sessions

**Tuesday, November 9**

**8:30 am - 10:10 am**

| Herbicides
| Kellogg I
| Moderator: Bob Masters, Dow AgroSciences |

8:30am Invasive and Noxious Weed Management With Aminopyralid
Byron B. Sleugh*, Mary B. Halstvedt, Daniel C. Cummings, Pat L. Burch, William N. Kline, Vernon B. Langston, David Hillger, and Vanelle F. Peterson, Dow AgroSciences, LLC

8:55am Native Forb Tolerance to Aminopyralid (Milestone® VM) Applications for Invasive Weed Control
Mary Halstvedt*, Dow AgroSciences LLC; K. George Beck, Colorado State University; Roger Becker, University Of Minnesota; Celestine Duncan, Weed Management Services; Rodney Lym, North Dakota State University; Peter Rice, University Of Montana; and Byron Sleugh, Dow AgroSciences, LLC

9:20am Herbicide Use Questions? Ask the Experts
Bob Masters*, Dow AgroSciences; Mark Renz*, University of Wisconsin-Madison Extension; Louanne Brooks*, IVM Dow AgroSciences; Dale S. Sutherland* and Rick Schulte*, CPS Timberland; and Lee Shambeau*, 4 Control, Inc. *(This is 50 minutes)*

**Forest Early Detection and Rapid Response State I**

| Moderator: Essam Dabaan, USDA APHIS |

8:30am Forest Pest First Detector a Voluntary Early Detection Program in Minnesota
Angela S. Gupta*, University of Minnesota Extension; Mark Abrahamson, Minnesota Department of Agriculture; Val Cervenka, Minnesota Department of Natural Resources; Jeff Hahn and Dean Herzfeld, University of Minnesota Extension; Ken Holman, Minnesota Department of Natural Resources; Mike Reichenbach and Gary Wyatt, University of Minnesota Extension

8:55am Predicting the Distributions of Invasive Plants Across Northern Wisconsin
Steve Garske and Miles Falck*, Great Lakes Indian Fish & Wildlife Commission

9:20am Determining the Potential Range of Forest Invaders Using Freely-Available Software and Climate Information
Greg C. Liknes*, Susan J. Crocker and Dacia M. Meneguzzo, USDA Forest Service

9:45am Invasive Plant Survey and Modeling to Support Forest Management Planning
Susan Burks*, Jim Rack, and Melissa Powers, Minnesota Department of Natural Resources

**Ballast Water Great River I**

| Moderator: Dale Bergeron, Minnesota Sea Grant |

8:30am Great Lakes Ballast Water Collaborative Update Panel Session
Dale Bergeron*, University of Minnesota Sea Grant Program; Craig Middlebrook*, St. Lawrence Seaway Development Corporation, US Department of Transportation; Jeff Stollenwerk*, Minnesota Pollution Control Agency; and Susan Sylvester*, Wisconsin Department of Natural Resources *(This is 75 minutes)*

9:45am The Great Ships Initiative: Performance Assessment of a Candidate Ship-Board Treatment System
Euan D. Reavie*, Natural Resources Research Institute, University of Minnesota-Duluth; Mary D. Balcer, Heidi Saillard and Matthew C. TenEyck, University of Wisconsin-Superior; Allegra A. Cangelosi and Nicole L. Mays, Northeast-Midwest Institute; Lisa E. Allinger, NRRI, UMD; Donald M. Reid, Nepean, Ontario; and Tyler Schwerdt, AMI Engineering

**Management of Invasive Submersed Plants: Herbicide Use State III**

| Moderator: Brittany Hummel, Minnesota Department of Natural Resources |

8:30am Management of Invasive Aquatic Plants in Minnesota: Defining Success
Chip Welling, Minnesota Department of Natural Resources

8:55am Sampling of Herbicide Residuals Confirms Extended Exposure to Low Concentrations of 2,4-D and Triclopyr can Control Eurasian Watermilfoil
John G. Skogerboe*, Michael D. Netherland, and LeeAnn M. Glomski, US Army Engineer Research and Development Center

9:20am Aquatic Herbicide Use Patterns: Differences in Restoration, Nuisance Control, and Eradication Strategies
Michael D. Netherland, US Army Engineer Research and Development Center

9:45am Effects of Whole Lake Early Season 2,4-D on Eurasian Watermilfoil (Myriophyllum spicatum)
Michelle Nault*, Jennifer Hauxwell, and Alison Mikulyuk, Wisconsin Department of Natural Resources; John Skogerboe, US Army Corps of Engineers; Scott van Egeren, Wisconsin Department of Natural Resources

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*Photo Credit: WI DNR Gypsy moth larva, Lymantria dispar*
### Aquatic Invasive Species Control: Technology and Efforts

#### Kellogg II

**Moderator:** Maureen Ziskovsky, Minnesota Department of Natural Resources

- **8:30am** Reducing Spread of Invasive Species Through In-Line Screening
  Lindsey Roberts McKenzie*, Donald Lutch, and Emily Davis, Short Elliott Hendrickson, Inc.; Tom Wesolowski, City of Shoreview, Minnesota; and William (Jay) Rendall, Minnesota Department of Natural Resources

- **8:55am** Response to Appearance of the Red Swamp Crayfish (*Procambarus clarkii*) in Southeast Wisconsin
  Scott van Egeren*, Wisconsin Department of Natural Resources; Erin Vennie-Vollrath, University of Wisconsin; Heidi Bunk, Wisconsin Department of Natural Resources; and Aaron Meinke, University of Wisconsin

- **9:20am** Development of Methods to Orally Deliver Biocides to Control or Limit Invasive Aquatic Animals
  Terrence D. Hubert* and M.P. Gaikowski, US Geological Survey

- **9:45am** Key Points from the 2010 International Symposium on Genetic Biocontrol of Aquatic Invasive Species
  Leah M. Sharpe*, University of Minnesota; and Anne R. Kapuscinski, Dartmouth University

### Terrestrial Invasive Plant Management Workshop: Prairie and Wetlands

#### Capitol Ballroom

**Moderator:** Brian Pillsbury, USDA Natural Resources Conservation Science

- **8:30am** Reed Canary Grass – Why Is It So Successful and How Can it be Controlled?
  Kelly Kearns, Wisconsin Department of Natural Resources

- **8:55am** Large Scale Control of Phragmites and Lyme Grass in Wisconsin on Lake Michigan
  Mark Martin, Wisconsin Department of Natural Resources

- **9:20am** Cheatgrass (*Bromus tectorum*) Management for High Diversity Dry Prairies in Minnesota
  Wiley S. Buck*, Great River Greening; Karen Schik*, Friends of the Mississippi River; and Rich Biske, The Nature Conservancy

- **9:45am** Management of Invasive Species of the Prairie
  Justin Sykora, Prairie Restorations, Inc.

### Biocontrol of Terrestrial Invasives

#### State I

**Moderator:** Kathleen Knight, USDA Forest Service, Northern Research Station

- **10:40am** The Minnesota Department of Agriculture's New and Established Biological Control Programs
  Monika A. Chandler, Minnesota Department of Agriculture

- **11:05am** Biological Control of Garlic Mustard (*Alliaria petiolata*) and Buckthorn: an Update
  Elizabeth Jean Katovich*, Roger Becker and David Ragsdale, University of Minnesota; Hariet Hinz and Esther Gerber, CABI Biosciences, Delemont, Switzerland; Luke Skinner, Minnesota Department of Natural Resources; and Bernd Blossey, Cornell University

- **11:30am** Status of Biological Control Development for Several Invasive Wetland and Terrestrial Plants
  Brock Woods, Wisconsin Department of Natural Resources and University of Wisconsin Extension

### Forest Insect Pests

#### Kellogg I

**Moderator:** Val Cervenka, Minnesota Department of Natural Resources

- **10:40am** An Overview of Asian Longhorned Beetle (*Anoplophora glabripennis*) in the United States
  Carlos Dominguez, USDA-APHIS-PPQ

- **11:05am** Wood and Phloem Feeding Insects in Lake States Forests
  John F. Kyhl, USDA Forest Service, Forest Health Protection

- **11:30am** Gypsy Moth (*Lymantria dispar*) Monitoring & Treatments in Minnesota - MDA Program Update
  Natasha Northrop, Minnesota Department of Agriculture

### Aquatic Invasive Species in Lake Superior

#### Great River I

**Moderator:** Joe Eisterhold, Minnesota Department of Natural Resources

- **10:40am** Comparing Planktonic Bacterial Communities in Ship Ballast Water and the Duluth-Superior Harbor
  J. B. Welch,* and Randall E. Hicks, University of Minnesota-Duluth

- **11:05am** Status of Aquatic Non-Indigenous Species in the Duluth-Superior Harbor
  Anett Trebitz*, Gregory Peterson, Joel Hoffman, John R. Kelly, and Corlis West, US Environmental Protection Agency
Tuesday Plenary
12:00 pm - 1:20 pm Great River Ballroom

The Tuesday, November 9 Lunch Plenary will feature the Carol Mortensen Award given by the Minnesota Invasive Species Advisory Council (MISAC) and guest speaker Dr. Lee Frelich.

Tuesday, November 9

Carol Mortensen Invasive Species Award

The Carol Mortensen Invasive Species Award honors the memory of Carol Mortensen who represented the Leech Lake Band of Ojibwe on the Minnesota Invasive Species Advisory Council (MISAC). She worked tirelessly to promote awareness of, and education on invasive species and authored books on noxious weeds and invasive species. Working as an individual or in collaboration with others, Carol was always passionate about proactively addressing issues related to invasive species. Her contributions and achievements helped to protect Minnesota's natural resources. The Carol Mortensen Invasive Species Management Award shall be presented annually by the Minnesota Invasive Species Advisory Council to a person or entity which has made significant contributions to the prevention, management, and increased awareness of invasive species in the state of Minnesota. This award is intended to publicly recognize an award recipient in honor of Carol's spirit and leadership.

The award is given to a recipient who has demonstrated outstanding achievement through their professional conduct or community service, or leadership, or contributions to address invasive species issues (locally, multi-county or statewide) through:

1. Improving cooperation and coordination among invasive species partners;
2. Raising awareness of invasive species issues including innovative educational approaches; and
3. Demonstrated significant contributions or achievement to prevention, management or control of invasive species.

Lee E. Frelich
Director of The Center for Hardwood Ecology
University of Minnesota

Climate Change and Invasive Species in Forests of Minnesota and Wisconsin

Forests in the Upper Midwest are very likely to experience a large magnitude of changes from a warming climate and from invasive species. Invasive earthworms change seedbed characteristics and the water and nutrient cycles within the soil, changing the suite of native plant species that do well, and facilitating invasive plant species. A warming climate is likely to lead to loss of the boreal species, as well as expansion of drought tolerant tree species and savannas at the expense of mesic forests. Interactions between invasive species and climate change are likely to lead to very large changes to forests, as well as alternative future scenarios that depend on the extent to which invasive species are kept out of the forest.

Biographical Information
Lee E. Frelich is Director of the University of Minnesota Center for Hardwood Ecology. He received a Ph.D. in Forest Ecology from the University of Wisconsin-Madison in 1986. Dr. Frelich teaches courses in Forest Fire Ecology and Landscape Ecology on St. Paul Campus. He has advised 20 graduate students, and is a senior member of the Conservation Biology, Natural Resource Science and Management, Ecology, and Invasive Species Graduate Programs. Dr. Frelich has published numerous papers on forest ecology and has been listed among the top 1% of all scientists in the world in the Science Citation Index, Ecology and Environment Category. He has appeared in the news media 250 times including The New York Times, Newsweek, National Geographic, and many TV and radio stations. Current research interests include fire and wind in boreal forests, long-term dynamics of old-growth hemlock and maple forests, invasive earthworms in forests, and global warming.
You can count on Dow AgroSciences for intelligent solutions to control invasive species. We continuously update our portfolio with prescriptive solutions that meet your evolving needs. Our proven products are backed by the dedicated support of vegetation management specialists who provide you with expert recommendations, valuable resources and in-depth training. We are committed to meeting your needs.
Tuesday, November 9

11:30am Lake Superior Aquatic Invasive Species Complete Prevention Plan
Roger Eberhardt, Michigan Department of Natural Resources; Susan Greenwood, Ontario Ministry of Natural Resources; Nancy Stadler-Salt, Environment Canada; Elizabeth LaPlante, US Environmental Protection Agency; and Amy Thomas*, Battelle

Management of Curlyleaf Pondweed
State III
Moderator:
Nathan Olson, Minnesota Department of Natural Resources

10:40am Attempts To Improve Water Quality By Management of Curlyleaf Pondweed in Minnesota
Chip Welling, Minnesota Department of Natural Resources

11:05am Control and Management of Curlyleaf Pondweed (Potamogeton crispus) in a Shallow Lake
Udai B. Singh*, Minnehaha Creek Watershed District; Steve McComas, Blue Water Science; and Yvette Christianson and Kelly Dooley, Minnehaha Creek Watershed District

11:30am Evaluation of Lake-wide, Early-season Herbicide Treatments for Controlling Invasive Curlyleaf Pondweed (Potamogeton crispus) in Minnesota Lakes
James A. Johnson*, Freshwater Scientific Services, LLC; Raymond M. Newman and Ajay Jones, University of Minnesota

Aquatic Invasive Invertebrates
Kellogg II
Moderator:
Scott van Egeren, Wisconsin Department of Natural Resources

10:40am Faucet Snails (Bithynia tentaculata): What They Are and Why We Should Care
Darrin Hoverson, Minnesota Department of Natural Resources

11:05am Preventing Between-Lake Hitchhiking of the Spiny Water Flea (Bythotrephes longimanus)
Donn K. Branstrator*, Lyle J. Shannon, Meghan E. Brown, and Marte T. Kitson, University of Minnesota

11:30am Using Suitability Assessments to Determine the Degree of Zebra Mussel Colonization Potential
Steve McComas* and Jo Stuckert, Blue Water Science

Terrestrial Invasive Plant Management: Forest
Capitol Ballroom
Moderator:
Kelly Kearns, Wisconsin Department of Natural Resources

10:40am Japanese Knotweed (Polygonum cuspidatum/Fallopia japonica) – Biology, Impacts and Control Methods
Brock Woods, Wisconsin Department of Natural Resources and University of Wisconsin - Extension

11:05am A Tale of Two Bittersweets: Ecology, Morphology, Invasion, Hybridization, Control and Conservation

11:30am Garlic Mustard: a Comparison of Management Options
Mark Renz, University of Wisconsin-Madison

12:00pm - 1:20pm Lunch Plenary
Great River Ballroom

1:30 pm - 2:45 pm
Early Detection and Rapid Response 1
State III
Moderator:
Patricia Morton, The Nature Conservancy

1:30pm Terrestrial Invasive Plant Early Detection
Monika A. Chandler*, Minnesota Department of Agriculture; Roger Becker, University of Minnesota; and Laura Van Riper, Minnesota Department of Natural Resources

1:55pm Increasing the Impact of an Early Detection Rapid Response Program
Mindy Wilkinson, University of Wisconsin Extension-Environmental Resource Center and Wisconsin Department of Natural Resources

2:20pm Invasive Forest Pathogens in Wisconsin: Current and Future Concerns
Kyoko Scanlon, Wisconsin Department of Natural Resources

1:30pm Three Year Efficacy of Oak Wilt Treatments in Minnesota
Karrie A. Koch* and Gina L. Quiram, University of Minnesota; Susan Burks, Minnesota Department of Natural Resources; and Robert C. Venette, USDA Forest Service

1:55pm Thousand Cankers Disease of Walnut: What, Where, and Why Should We Care?
Kathryn Kromroy*, Minnesota Department of Agriculture; and Jennifer Juzwik*, Forest Service- Northern Research Station

2:20pm Invasive Forest Pathogens in Wisconsin: Current and Future Concerns
Kyoko Scanlon, Wisconsin Department of Natural Resources
Aquatic Invasive Species Programs and Partnerships
Great River I
Moderator:
Christal Campbell, University of Wisconsin Extension

1:30pm An Overview of Wisconsin's Aquatic Invasive Species Program
Bob Wakeman, Wisconsin Department of Natural Resources

1:55pm Clean Boats, Clean Waters: Citizens and Staff Work Together to Protect Wisconsin's Lakes
Erin McFarlane, University of Wisconsin Extension Lakes - Stevens Point

2:20pm Aquatic Invasive Species Prevention Program Development in Burnett County, Wisconsin: Integrating Education, Outreach, Remote Sensing, and Enforcement
Dave Ferris*, Burnett County, Wisconsin; and Eric Lindberg, Environmental Sentry Protection, LLC

Management of Invasive Aquatic Plants 2
Kellogg II
Moderator:
Darrin Hoverson, Minnesota Department of Natural Resources

1:30pm Regional Collaboration on Invasive Species Management in the Cisco Chain of Lakes
Mark Schimpf* and Lee Hengesch*, Sigurd Olson Environmental Institute

1:55pm Ecology and Management of Flowering Rush in the Detroit Lakes Chain
John Madsen* and Joshua Cheshier, Mississippi State University; Michelle Marko, Concordia College; and Tera Guetter, Pelican River Watershed District

2:20pm Effect of Weevil Stocking on Eurasian Watermilfoil Populations in Two Coastal Lakes
Michelle D. Marko*, Laura Brutscher and Emily Lichte, Concordia College

Cooperative Weed Management Areas 1
Kellogg I
Moderator:
Kate Howe, Midwest Invasive Plant Network

1:30pm Leveraging Time, Materials and Funding, Partnership Examples from Minnesota Cooperative Weed Management Areas
Dan Shaw, Minnesota Board of Water and Soil Resources

1:55pm Cooperative Weed Management Areas
Luan Johnsrud, Pope Soil and Water Conservation District

2:20pm Northwoods Cooperative Weed Management Area
Darienne McNamara, Northwoods Cooperative Weed Management Area

Emerald Ash Borer Workshop 1
Capitol Ballroom
Moderator:
Ken Holman, Minnesota Department of Natural Resources

1:30pm Regulatory Tactics to Prevent Spread of Emerald Ash Borer (Agrilus planipennis)
Teresa McDill*, Mark Abrahamson, and Paul Ahlen, Minnesota Department of Agriculture

1:55pm Reducing the Risk of Invasive Species Introduction on Firewood: Regulation and Certification
Andrea Diss-Torrance, Wisconsin Department of Natural Resources

2:20pm Minnesota Department of Natural Resources Firewood Program, History, Status and Future Directions
Susan Burks, Minnesota Department of Natural Resources

2:45pm - 3:15pm Break
Visit With Exhibitors in Governors Hall

3:15 pm - 4:30 pm
Early Detection and Rapid Response 2
State III
Moderator:
Brendon Panke, University of Wisconsin

3:15pm A National Scale Citizen Science Program for Invasive Species
Alycia W. Crall, Colorado State University and National Institute of Invasive Species Science

3:40pm Early Detection System for the Great Lakes Early Region
Brendon Panke* and Mark Renz, University of Wisconsin; and Carmen Chapin, National Park Service, National Institute of Invasive Species Science, and Midwest Invasive Plant Network

4:05pm Feedback On An Early Detection System For The Great Lakes Early Region
Brendon Panke* and Mark Renz, University of Wisconsin; and Carmen Chapin, National Park Service, National Institute of Invasive Species Science, and Midwest Invasive Plant Network

Biomass & Biofuels
State I
Moderator:
Dennis McDougall, US Forest Service, Northeastern Area

3:15pm Does Woody Biomass Harvest Open Forests to Increased Exotic Plant Invasion?
Michael Rentz, University of Minnesota

3:40pm Exposure of the Upper Midwest to Invasive Terrestrial Plants from Mandated Cellulosic Biofuel Crop Production
David J. Smith, University of Minnesota
Tuesday, November 9

4:05pm Buckthorn to Bioenergy: How Minnesota is Linking Habitat Restoration to Bioenergy and Local Economies
Barb Spears, Minnesota Department of Natural Resources

Aquatic Invasive Species Regulations and Enforcement
Great River I
Moderator:
Lisie Kitchel, Wisconsin Department of Natural Resources

3:15pm New “No Transport” Law in Wisconsin
Bob Wakeman, Wisconsin Department of Natural Resources

3:40pm Law Enforcement Techniques for Aquatic Invasive Species
Phil Meier* and Jason Jensen*, Minnesota Department of Natural Resources

4:05pm Invasive Species Prevention through Minnesota’s Prohibited Invasive Species and Infested Waters Permits
Jay Rendall, Minnesota Department of Natural Resources

Management of Invasive Submersed Plants:
Funding and Economics
Kellogg II
Moderator:
Darrin Hoverson, Minnesota Department of Natural Resources

3:15pm Tried-and-True versus Experimental Methods for Eurasian Watermilfoil Control: An Economic Analysis
Frances R. Horman, University of Minnesota

3:40pm Aquatic Invasive Species Control Funding in Wisconsin
Carroll Schaal, Wisconsin Department of Natural Resources

4:05pm Minnesota DNR Grants for Control and Prevention of Aquatic Invasive Species
Wendy Crowell, Minnesota Department of Natural Resources

Cooperative Weed Management Areas 2
Kellogg I
Moderator:
Dan Shaw, Minnesota Board of Water and Soil Resources

3:15pm Development and Activities of the Hawkeye Cooperative Weed Management Area in East Central Iowa
Chris Henze, MIPN Iowa Representative, Johnson County Secondary Road Department

3:40pm The Indiana Coastal Cooperative Weed Management Area
Maggie Byrne, The Nature Conservancy, Indiana Chapter

4:05pm Aquatic Invasive Species: State, County and Town Coordination in Wisconsin’s Northwoods
Ted Ritter, Vilas County Land & Water Conservation Department

Emerald Ash Borer Workshop 2
Capitol Ballroom
Moderator:
Andrea Diss-Torrance, Wisconsin Department of Natural Resources

3:15pm Wisconsin’s EAB Response Plan – Past, Present and Future
Jennifer Statz, Wisconsin Department of Agriculture

3:40pm County-Level Forecast Of Emerald Ash Borer Presence/Absence in Minnesota and Wisconsin
Dacia M. Meneguzzo*, Susan J. Crocker , and Greg C. Liknes, USDA Forest Service

4:05pm Emerald Ash Borer Community Preparedness in Minnesota
Robert Koch*, Minnesota Department of Agriculture; Ken Holman*, Minnesota Department of Natural Resources; and Rebecca Koetter, University of Minnesota

Extension
University of Wisconsin–Extension has the unique distinction of delivering quality education to the people of Wisconsin where they live and work. County-based educators in all 72 counties develop and conduct research-based educational programs that reflect local needs and concerns. Each educator is part of a statewide network of professionals who focus on either community youth development, family living, agriculture/horticulture, or community/economic development. Collaboration is a key component of our work, as evidenced by our many important partners in government, community organizations and business. In addition to technical expertise in a specific discipline, our educators must be team-oriented, collaborative, support multiculturalism, comfortable in an environment of shared leadership, and passionate about making a difference in people’s lives.
Wisconsin DNR Invasive Species Contact Information

Terrestrial Species

Plants
* Tom Boos, Forestry Invasive Plants Coordinator, thomas.boos@wi.gov, 608-266-9276
* Kelly Kearns, Plant Conservation Program Biologist, kelly.kearns@wi.gov, 608-267-5066
Courtney LeClair, Invasive Plant Early Detection & Education, courtney.leclair@wi.gov, 608-267-7438

Insects and Plant Diseases
* Jane Cummings-Carlson, Forest Health Coordinator, jane.cummingscarlson@wi.gov, 608-275-3273
Andrea Diss-Torrance, Forest Entomologist, andrea.disstorrance@wi.gov, 608-264-9247

Other Animals
Alan Crossley, Wildlife Biologist, alan.crossley@wi.gov, 608-266-5463

Aquatic Species

Plants
Bob Wakeman, Statewide AIS Coordinator, robert.wakeman@wi.gov, 262-574-2149
Erin McFarlane, AIS Volunteer Coordinator, erin.mcfarlane@uwsp.edu, 715-346-4978
Mindy Wilkinson, AIS Outreach Specialist, melinda.wilkinson@wi.gov, 608-261-1092

Fish
* Bill Horns, Great Lakes Fisheries Coordinator, william.horns@wi.gov, 608-266-8782

* indicates contacts for Wisconsin’s Invasive Species Identification, Classification, and Control Rule (NR 40)
## Concurrent Sessions

**Wednesday, November 10**

### 8:30 am - 10:10 am

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>8:30 am</td>
<td><strong>Restoration</strong>&lt;br&gt;Kellogg II&lt;br&gt;Moderator: Erik Anthonisen, Minnesota Department of Natural Resources</td>
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<tr>
<td>8:30 am</td>
<td><strong>Formation of the Southeastern Wisconsin Invasive Species Consortium</strong>&lt;br&gt;James Reinartz*, University of Wisconsin - Milwaukee; Jill Hapner Washington County, Wisconsin - Planning &amp; Parks Department</td>
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<tr>
<td>8:55 am</td>
<td><strong>Effects of Planting Method and Seed Mix Diversity on Tallgrass Prairie Restoration Success</strong>&lt;br&gt;Diane L. Larson*, US Geological Survey, Northern Prairie Wildlife Research Center; Pauline Drobney, Neal Smith National Wildlife Refuge; Sarah Vacek and J.B. Bright, Morris Wetland Management District (WMD); Nick Palaia, Litchfield WMD; Doug Wells, Fergus Falls WMD; and Jennifer Larson, University of Minnesota</td>
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<tr>
<td>9:20 am</td>
<td><strong>Restoring Invasive Plant Species Dominated Areas By Means of Assisted Succession</strong>&lt;br&gt;Jamie Hanson, Saint Cloud State University</td>
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<td>9:45 am</td>
<td><strong>Bird City Wisconsin Addresses Invasives</strong>&lt;br&gt;Noel J. Cutright* and Carl Schwartz, Bird City Wisconsin</td>
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<tr>
<td>8:30 am</td>
<td><strong>Management of Woody Invasives</strong>&lt;br&gt;State III&lt;br&gt;Moderator: Isaiah Messerly, National Park Service</td>
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<tr>
<td>8:30 am</td>
<td><strong>Forestry Mowing: An Economical Solution for Woody Invasive Species Management in Hardwood Forests</strong>&lt;br&gt;Clay Frazer, EC3 Environmental Consulting Group, Inc.</td>
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<tr>
<td>8:55 am</td>
<td><strong>New Control Method for Buckthorn and Other Invasive Tree Species</strong>&lt;br&gt;John K. Lampe, Private Landowner</td>
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<tr>
<td>9:20 am</td>
<td><strong>DIE Buckthorn Scum!!</strong>&lt;br&gt;Terry Helbig*, Minnesota Department of Natural Resources; Jon Alness*, Zumbro Valley Forestry</td>
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<tr>
<td>9:45 am</td>
<td><strong>Post-Buckthorn Removal: What Have We Learned?</strong>&lt;br&gt;Jyneen Thatcher, Washington Conservation District</td>
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<tr>
<td>8:30 am</td>
<td><strong>Minnesota Waters’ Aquatic Invasive Species Position and Recommendations – Quelling the Aquademic</strong>&lt;br&gt;Dick Osgood, Minnesota Waters</td>
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<tr>
<td>8:55 am</td>
<td><strong>Prevent the Spread: Aquatic Invasive Species Training for Lake Service Providers</strong>&lt;br&gt;Clyde Clement, Brainerd Lakes Aquatic Invasive Species Task Force</td>
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<tr>
<td>9:20 am</td>
<td><strong>Citizen Engagement in Aquatic Invasive Species Prevention</strong>&lt;br&gt;Luke Skinner, Minnesota Department of Natural Resources</td>
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<tr>
<td>9:45 am</td>
<td><strong>Empowering Citizens to Address the Sale and Use of Invasive Species</strong>&lt;br&gt;Diane Schauer, Calumet County, Wisconsin</td>
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<td>8:30 am</td>
<td><strong>Management and Ecology of Eurasian Watermilfoil</strong>&lt;br&gt;Kellogg I&lt;br&gt;Moderator: Chip Welling, Minnesota Department of Natural Resources</td>
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<tr>
<td>8:30 am</td>
<td><strong>Shoreline Habitat Requirements of the Native Milfoil Weevil, Euhrychiopsis lecontei, in Portage County, Wisconsin</strong>&lt;br&gt;Amy L. Thorstenson* and Ronald L. Crunkilton, University of Wisconsin; Michael A. Bozek, US Geological Survey Wisconsin Cooperative Fisheries Unit, University of Wisconsin; and Nancy B. Turyk, University of Wisconsin</td>
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<tr>
<td>8:55 am</td>
<td><strong>Contrasting Effects Of Early-Season Harvesting And Chemical Treatment In Lake Monona</strong>&lt;br&gt;Alison Mikulyuk*, Jennifer Hauxwell, Michelle Nault and Scott van Egeren, Wisconsin Department of Natural Resources</td>
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<td>9:20 am</td>
<td><strong>Water Level Fluctuation as a Tool for Eurasian Watermilfoil (Myriophyllum spicatum) Control and Lake Restoration</strong>&lt;br&gt;Scott Provost, Wisconsin Department of Natural Resources</td>
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<td>9:45 am</td>
<td><strong>Eurasian Watermilfoil Impacts To Native Plants In Christmas Lake</strong>&lt;br&gt;Dick Osgood, Osgood Consulting</td>
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<td>8:30 am</td>
<td><strong>Common Carp Management</strong>&lt;br&gt;State I&lt;br&gt;Moderator: Maureen Ziskovsky, Minnesota Department of Natural Resources</td>
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<td>8:30 am</td>
<td><strong>Population Estimates Of Common Carp Demonstrate That Nursery Habitat May Be Limiting</strong>&lt;br&gt;Jake Osborne*, Justin Silbernagel and Peter Sorensen, University of Minnesota</td>
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<tr>
<td>8:55 am</td>
<td><strong>Hormone Implants Induce Potent Pheromonal Attractant Release From Common Carp (Cyprinus carpio)</strong>&lt;br&gt;Hangkyo Lim* and Peter W. Sorensen, University of Minnesota</td>
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<tr>
<td>9:20 am</td>
<td><strong>Egg Predation by Native Sunfish Control Recruitment of Invasive Common Carp</strong>&lt;br&gt;Justin Silbernagel* and Peter Sorensen, University of Minnesota</td>
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</tbody>
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Wednesday, November 10

9:45am Integrated Pest Management of the Common Carp
Przemek Bajer*, Chris Chizinski, Hangkyo Lim, Justin Silbernagel, Jake Osborne and Peter Sorensen,
University of Minnesota

Emerald Ash Borer Workshop 3
Capitol Ballroom
Moderator:
Susan Burks, Minnesota Department of Natural Resources

8:30am Cold Hardiness of Emerald Ash Borer and Its Implications for the Upper Midwest
Robert Venette*, USDA Forest Service - Northern Research Station; and Mark Abrahamson, Minnesota Department of Agriculture

8:55am The Influence of Satellite Populations on Emerald Ash Borer (Agrilus planipennis Fairmaire) Damage in US Communities, 2010-2020
Kent Kovacs*, University of Minnesota; Rodrigo Mercader, Michigan State University; Robert Haight, USDA Forest Service; and Nathan Siegert, Michigan State University

9:20am Identification and Removal of Emerald Ash Borer (Agrilus planipennis) Infested Trees
Mark Abrahamson, Minnesota Department of Agriculture

9:45am SLAM – A Strategy to Slow Ash Mortality in Emerald Ash Borer Outlier Sites
Steven Katovich, USDA- Forest Service

10:10am- 10:40am Break
Visit with Exhibitors in Governors Hall

10:40 am - 11:55 am

Outreach and Prevention 2
Kellogg II
Moderator:
Carmen Chapin, National Park Service

10:40am Right Plant, Right Place, Right Time, Right Now.
Bob Fitch, Minnesota Nursery & Landscape Association

11:05am Development of Non-invasive Plant Alternatives for Use in the Landscape
Benjamin M. Clasen* and Alan G. Smith, University of Minnesota

11:30am Weed Feed: Edible Invasive Species & Community Activism
Peter A. Nause, Dudgeon-Monroe Neighborhood Association Parks Committee

Distribution and Detection
State III
Moderator:
Tina Markeson, Minnesota Department of Transportation

10:40am Buckthorn Detection Using Small Format Aerial Photography
Mike Hoppus, Minnesota Department of Natural Resources

11:05am Using FIA Data to Detect the Invasion Stage of Non-Native Invasive Plants and Quantify the Invasibility of Forested Lands in the Upper Midwest
Zhaofei Fan* and Weiming Yu, Mississippi State University; and W. Keith Moser, USDA Forest Service Northern Research Station

11:30am Extent and Spread of Selected Non-Native Invasive Plants in Upper Midwest Forests
W. Keith Moser*, USDA Forest Service Northern Research Station; Zhaofei Fan and Wieming Yu, Mississippi State University

Aquatic Early Detection and Rapid Response
Great River I
Moderator:
Brittany Hummel, Minnesota Department of Natural Resources

10:40am Citizen Scientists Monitor Wisconsin's Rivers for Invasive Species
Laura MacFarland, River Alliance of Wisconsin

11:05am Aquatic Invasive Species Monitoring Through the Citizen Lake Monitoring Network
Laura Herman, University of Wisconsin Extension-Lakes

11:30am Early Detection Monitoring for Vulnerable Great Lakes Coastal Ecosystems
J. R. Kelly, US Environmental Protection Agency

Restoration of Emergent and Submersed Plants
Kellogg I
Moderator:
Chip Welling, Minnesota Department of Natural Resources

10:40am Initial Attempts to Restore Native Plants After Carp Removal in Lake Susan
Raymond M. Newman*, Josh Knopik and James A. Johnson, University of Minnesota

11:05am Water Quality Issues Associated with Native Macrophyte Reestablishment
William F. James, Engineer Research and Development Center, Eau Galle Aquatic Ecology Laboratory

11:30am Avoiding Reinvasion: Theory, Practice, and Policy
Susan Galatowitsch, University of Minnesota
10:40am Asian Carp and The Great Lakes - What Can We Expect?
Phil Moy, University of Wisconsin Sea Grant Institute

11:05am Control of Invasive Carp Movements Using Non-physical Behavioural Barrier Techniques
Kaveh Someah, Ovivo USA, LLC

11:30am Round Gobies in the Duluth Superior Harbor
Michael Lynch, Elise Cordo and Allen F. Mesinger*, University of Minnesota

10:40am The Risks and Benefits of Biological Control: A Case Study of the Emerald Ash Borer
Juli Gould, USDA-APHIS

11:05am Effects of Emerald Ash Borer on Ash Populations and Forest Plant Communities
Kathleen S. Knight*, USDA Forest Service Northern Research Station; Daniel A. Herm, Kamal J.K. Gandhi, Annemarie Smith, Catherine P. Hems, Wendy Klooster and John Cardina Ohio State University; Robert P. Long, John P. Brown, and Joanne Rebbeck, USDA Forest Service Northern Research Station

11:30am Potential Impact of EAB in Riparian Forests in Wisconsin and Minnesota
Susan J. Crocker* and Dacia M. Meneguzzo, USDA Forest Service, Forest Inventory and Analysis Program

Photo Credit: WI DNR
Common Buckthorn, Rhamnus cathartica

Photo Credit: WI DNR
Emerald Ash Borer, Agrilus planipennis

Creating and Caring for the Outdoor Living Environment
The members of the Minnesota Nursery & Landscape Association salute all attendees at the Minnesota-Wisconsin Invasive Species Conference. Our growers, landscapers and other green industry professionals are proud to work together with you to control invasive species.

www.MNLA.biz  651-633-4987  GardenMinnesota.com
JF New
For more than 20 years, JFNew has been providing sound solutions to challenging environmental issues. Our team of more than 100 professionals provides a broad range of ecological consulting and restoration services across the U.S. With more than 355 available species, JFNew also operates one of the largest native plant nurseries in the nation. Our customized approach takes full advantage of each site's unique attributes, resulting in long-term project success.

EC3
EC3 Environmental Consulting Group, Inc. is located in Madison Wisconsin with satellite offices servicing WI, MN, IL, and IA. EC3 specializes in Environmental Planning, Natural Resources Consulting, and Ecological Restoration Services. We are a highly diverse company staffed with botanists, ecologists, scientists, and dedicated lands stewards who bring to the table more than 50 years of experience relating to; ecology, wetlands, prairie & savanna restoration, wildlife habitat, erosion control and stormwater management. We have worked for every sector of the client spectrum, from private landowners to the government agencies, assisting both the regulators and the regulated. Should you find interest in EC3 please contact us to set up a meeting where we can work together to build a strong working relationship with you or your organization.

Clarke Aquatic Services
Clarke is a global environmental products and services company, focused on helping to make communities around the world more livable, safe and comfortable. Specializing in mosquito control and aquatic services, our mission is to pioneer, develop and deliver the most eco-responsible and advanced products, services and business practices possible.

Compass Tools
CompassTools is the leader is GIS hardware and software, training, service and support. We have been in the GIS and GPS business since 1994 and have assembled the best team anywhere.

US Forest Service - Eastern Region
Islands of green in a sea of people, the Eastern Region is the most geographically, ecologically, and socially diverse area in the United States. Boundaries contain 20 states with over 43% of the nation’s population, making it the most urban. Nine of the top 20 metropolitan areas in the U.S. are within the Region's boundary. National Forest boundaries include 24 million acres of land, although only one of every two acres within these boundaries is National Forest land. Management of the 12 eastern National Forests is thus extremely complex. The Region is rich in water with over 10,000 lakes, 15,000 miles of streams, and 2 million acres of wetlands. The 12 million acres of national forest system lands are among the largest contiguous blocks of public lands harboring areas of very rich biological diversity. Community types include: boreal forests; tall grass prairie; pine barrens; shoreline along three Great Lakes; central hardwood forests; glades; bogs; Appalachian foothills; the White Mountains; some of the most extensive virgin forests in the eastern U.S., and so much more.
Weed Science Society of America
The Weed Science Society of America is a nonprofit scientific society that promotes research, education, and extension outreach activities related to weeds. They provide science-based information to the public and policy makers, as well as foster awareness of weeds and their impacts on managed and natural ecosystems.

Minnesota Wanner Company
Minnesota Wanner Company has decades of experience building top-quality, custom spraying equipment for herbicide applications and prescribed burning. When down time is critical, our large inventory of sprayer parts, nozzles and accessories, knowledgeable staff and same-day shipping make us the first choice of professionals. Visit our conveniently located factory/warehouse in Edina, call us toll free at 1-800-247-4998 or shop after hours at our web store www.mnwanner.com

Truax Company, Inc.
The Truax Company has manufactured grass and grain drills for over 36 years. Our goal is to meter and place seed into the soil envelope wherein it has the best chance to outcompete the invasive species. Whether it is the surface applied seeds of the inter mountain West or cool season varieties of the Midwest the Truax Drills achieve the best soil to seed contact.

Ducks Unlimited
Ducks Unlimited is the world’s largest non-profit wetlands conservation organization. We work cooperatively with landowners and managers, both public and private, to identify and then implement common sense, science-based solutions to environmental problems. A unique component of Ducks Unlimited is the integrated team effort of field biologists and civil engineers, who combine their respective professions to provide environmental services unmatched by any other organization. DU has worked with our conservation partners to protect, restore and enhance more than 475,000 acres of wetlands and associated habitats in Wisconsin and Minnesota.

The Society for Range Management (SRM)
The Society for Range Management (SRM) has dedicated itself to the promotion of the professional development and continuing education of members, the public, and the stewardship of rangeland resources. SRM North Central Stations includes Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, and the Canadian provinces of Quebec and Ontario. Our respect and passion for managing rangelands brings people together to ensure we pass on healthy, productive, and diverse landscapes to our future generations.
Prairie Restorations, Inc.
With six locations across Minnesota, we are a full service restoration company specializing in the installation and management of native plant communities. Management activities include prescribed burning and invasive species control utilizing a variety of mechanical and chemical techniques. We also grow and provide local ecotype seed and plant materials.

Cason & Associates, LLC
Our goal at Cason & Associates, LLC is to provide our clients with effective, environmentally sound and sustainable solutions for aquatic resource management challenges. We provide professional consultants, services and tools for managing lakes, ponds, rivers and wetlands. Our staff includes biologists, limnologists and commercial applicators. Cason & Associates, LLC serves Wisconsin, Upper Michigan and Northern Illinois.

Minnesota Waters
Minnesota Waters provides the training, connections, and support to empower citizens to take action to save our lakes and rivers.

Ovivo USA
Ovivo USA offers a complete range of products serving the power, industrial, municipal, irrigation, pumping station and all other water and wastewater markets. We provide non-physical barriers for guidance and handling systems for protection of native fish and other marine life. In addition, the barriers are used as a deterrent and diversion for invasive fish species. We are a solutions provider for both macro and micro fouling of circulating water systems and heat transfer equipment using in-line, on-line equipment.

Stantec (formerly NRC)
Stantec provides professional consulting services in environmental sciences, planning, engineering, architecture, interior design, landscape architecture, surveying, project management, and project economics for ecological, infrastructure and facilities projects. We support public and private sector clients in a diverse range of markets, at every stage, from initial concept and financial feasibility to project completion and beyond. Our services are offered through over 10,000 employees operating out of more than 150 U.S. and international locations. Stantec is One Team providing Infinite Solutions.
APHIS
The Animal and Plant Health Inspection Service (APHIS) is a multi-faced Agency with a broad mission area that includes protecting and promoting U.S. agricultural health, regulating genetically engineered organisms, administering the Animal Welfare Act and carrying out wildlife damage management activities. These efforts support the overall mission of USDA, which is to protect and promote food, agriculture, natural resources and related issues.

Applied Biochemists
For complete control of water weeds and algae, we have your lake and pond management solution. Our complete line of products includes algaecides, herbicides, colorants and bacterial products. Applied Biochemists will help get your water the way it should be, able to be used for swimming, fishing, watering, drinking or just enjoying the aesthetic beauty in your backyard. Applied Biochemists: Quality Products for Water Quality.

USDA - Forest Service Northern Research Station
The Northern Research Station extends across 20 states, comprising both the most densely populated and most heavily forested portion of the US. We envision a region where trees and natural resources support a high quality of life; wildlife, fish, and plant communities thrive; clean water abound; and people work together to sustain and restore the health of forests. To achieve this vision, the people and communities of the Northeast and Midwest need high quality scientific information. The Northern Research Station is dedicated, organized, and staffed to provide that scientific information in a form that people can use.

Wisconsin Department of Agriculture, Trade and Consumer Protection
The Wisconsin Department of Agriculture, Trade and Consumer Protection works to prevent the introduction and spread of plant pests (insects and diseases) that are harmful to agricultural crops, forests, or urban landscapes.

The Prairie Enthusiasts
The Prairie Enthusiasts (TPE) is a non-profit committed to the preservation, protection, and management of native prairie and savanna of the Upper Midwest. We now have 10 chapters in Illinois, Minnesota, and Wisconsin.
Stop Aquatic Hitchhikers™
Stop Aquatic Hitchhikers™ is a national campaign that helps recreational users prevent the spread of aquatic invasive species. Over 870 partners have joined including public, private and non-profit organizations. Let the campaign work to help your organization protect our valuable waters. Stop by and learn what you can do. Resources produced by campaign partners will be displayed.

Bonestroo
A threat to the health of any eco-system, invasive species can out compete native species, cause water quality issues, reduce native fish and wildlife populations, and cause navigational problems for recreational boaters. Based on your unique situation, Bonestroo staff can determine the most cost-effective invasive species control solution with an ultimate goal of reestablishing native plant communities. Control methods include bio controls, hand removal, and herbicide control, followed with assistance in the reestablishment of native plant communities.

Minnesota Department of Agriculture
The mission of the Minnesota Department of Agriculture’s Plant Protection Division is to prevent, detect, and respond rapidly to invasive or exotic plant pests that threaten Minnesota’s agriculture or the environment. Plant Protection Division also inspects and certifies plant products and commodities as being free of certain pests and pathogens for purposes of trade or export.
Minnesota Department of Natural Resources
The Minnesota Department of Natural Resources Invasive Species Program booth will include information about invasive species prevention and management, samples of aquatic invasive species, a video about invasive species prevention, and informational products for conference participants. DNR invasive species staff will be present to answer questions.

Wisconsin Department of Natural Resources
The Wisconsin Department of Natural Resources’ mission is to protect and enhance our natural resources: our air, land, and water; our wildlife, fish, and forests; and the ecosystems that sustain all life. To provide a healthy, sustainable environment and a full range of outdoor opportunities. To ensure the right of all people to use and enjoy these resources in their work and leisure. To work with people to understand each other’s views and to carry out the public will. And in this partnership consider the future generations to follow.

Dow AgroSciences, LLC
Dow AgroSciences LLC, based in Indianapolis, is a top-tier agricultural company providing innovative agrochemical and biotechnology solutions globally. The company, a wholly owned subsidiary of The Dow Chemical Company, has sales of $4.5 billion. Learn more at www.dowagro.com. Field specialists experienced in invasive species and natural areas restoration can provide product and application recommendations and literature at our booth. Sign up for our email list to receive regular updates on topics of interest to you.

Minnesota Sea Grant
Minnesota Sea Grant funds research and provides public education, in part, on harmful aquatic invasive species (sometimes called “biological pollution”). Our extension, education and communication experts develop tools to help people learn how to prevent and minimize the impacts of aquatic invaders. We provide training, fact sheets, videos, CDs, DVDs, Web and youth education curricula. Established in 1975, we are part of a nationwide network of 30 university-based programs administered through the National Oceanic and Atmospheric Administration.
Wisconsin Sea Grant
Wisconsin Sea Grant is a statewide program of basic and applied research, education, outreach, and technology transfer dedicated to the stewardship and sustainable use of the nation's Great Lakes and ocean resources. Wisconsin Sea Grant annually supports about $1.8 million in Great Lakes research. Our outreach activities are carried out in the Advisory Services and Communication Subprograms via enhancements to teacher training, displays, workshops, conferences for out-of-school adults, publications, distance learning, radio programs, video and other electronic media. In addition to aquatic invasive species, our outreach specialists focus on GIS, coastal engineering, habitat and water quality, and marine safety and education.

The National Park Service
The National Park Service is working to preserve biodiversity by restoring ecosystems, controlling invasive species, practicing integrated pest management, and through other conservation measures. Preserving biodiversity—from the dung beetle to the grizzly bear—allows us to ensure genetic diversity, understand how the pieces of an intact ecosystem fit together, and detect long-term changes in our environment. In preserving biodiversity we also ensure that our future citizens, artists, and explorers of science experience our lands as the founders of the parks did long ago.

The Nature Conservancy
The Nature Conservancy works throughout the United States and in over 30 other countries to protect ecologically important lands and waters for nature and people. The mission of The Nature Conservancy is to preserve the plants, animals and natural communities that represent the diversity of life on Earth by protecting the lands and waters they need to survive. Invasive species are a major threat to natural communities in nearly every habitat including those found in the Upper Midwest. The Conservancy is committed to reducing the impacts of invasive species in order to achieve its mission in Minnesota, Wisconsin, and elsewhere.
StarHill Jawz
Star Hill Jawz (Grabbing Tool), introduced in 2005, is the premier skidsteer style attachment designed specifically for pulling invasive shrubs and trees, including roots, from the ground. This stout tool, patented and manufactured in the U.S., is an essential component in the land manager’s “toolbox” of methods to be employed when facing the challenge of removing larger invasive plants and shrubs such as buckthorn, honeysuckle, black locust, Russian olive and multi-flora rose. We have many satisfied public sector customers, including the: FS, BLM, NWS, NPS, Cimarron National Grassland, Wisconsin Department of Natural Resources, Native American reservations, open space districts, municipalities, parks, and conservation districts. We are a GSA contract holder and look forward to meeting with you at the MNWIISC 2010 conference.

Minnesota Nursery & Landscape Association
The Minnesota Nursery & Landscape Association is the largest green industry trade organization in the north central region. Serving a broad range of nursery and landscape professionals in five states, MNLA is proactively involved on a number of environmental issues including invasive plants and pests, water conservation, stormwater management, and promoting the right plant for the right place. Learn more about MNLA at www.MNLA.biz

The University of Wisconsin Extension
University of Wisconsin-Extension provides statewide access to university resources and research so the people of Wisconsin can learn, grow and succeed at all stages of life. UW - Extension carries out this tradition of the Wisconsin Idea - extending the boundaries of the university to the boundaries of the state - through its four divisions of continuing education, cooperative extension, entrepreneurship and economic development, and broadcast and media innovations.

The University of Minnesota Extension
University of Minnesota Extension - taking University research and education to the people of Minnesota, discovering real-world solutions to real-life problems. Extension is a 100 year old partnership between federal, state and county governments - providing scientific knowledge and expertise to the public. Extension faculty and staff live and work across the state, in regional and county offices as well as University campuses and research and outreach centers creating a network organized to help Minnesotans make better decisions, take positive action and address key issues in their lives and communities.
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Prevention Sponsors $1,000 - $1,200

Visit us after the conference at www.minnesotaswcs.org.
Please remember to fill out an evaluation form and leave it at the registration desk.

Thank you for attending the Minnesota-Wisconsin Invasive Species Conference!