

Plants Out of Place



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President's Notes: Thank You!

Welcome to another IPAW newsletter, "PooP." I don't have much to say for this issue except one topic of great importance to me. I am moving out of state to Montana with my family to pursue a new stage in life. I am, therefore, resigning as President of this great organization. At this point, there is not a successor, but there will be soon and I trust IPAW will continue to surge forward.

It saddens me more than you can imagine leaving IPAW. IPAW has been a part of my life since it began in Eau Claire in 2001 - 13 years; from sitting in board meetings, to being a board member, then treasurer for 3 years and lastly president for 2 years or more. We have changed a lot over the years as presidents and board members come and go, but one thing has remained the same, there are a lot of passionate people who sit on the board and make up our membership. We have accomplished a lot over the 13



"No matter what people tell you, words and ideas can change the world."

Robin Williams - Comedian

President's Notes Continued

years and with our strategic planning we conducted last year, the road is paved for more success.

I thank each one of you and urge you all to keep up the battle to slow the spread. I hope to remain involved with IPAW from afar as much as I am able and needed. I am humbled by all of this and it is far more difficult saying good-bye to IPAW than it is my day job. I know this is awfully mushy, and I am not usually like this, but I can't help it. I want to thank all of you that have supported me and mentored me over the years (you know who are). Keep up the good work and passion and, hopefully, I will see you at UMISC 2014.

Thank you all,



Thomas M. Boos II

June – Invasive Species Awareness Month

“Protect the Places You Play” was the theme for Wisconsin's 10th annual Invasive Species Awareness Month (ISAM). In honor of ISAM several events took place.

The Wisconsin Department of Natural Resources (WDNR) held two successful on-line chats. One was held on June 3rd on terrestrial invasive species and another was held on June 5th on aquatic invasive species.

The Wisconsin Invasive Species Council (WISC) along with the WDNR held its third annual Invasive Species Education Summit on June 10th at Beaver Creek Reserve in Fall Creek, Wisconsin. This year's summit brought together invasive species education and outreach professionals and asked them to share their projects, resources and their ideas.



Congratulations to the 2014 Invader Crusader Award Winners!

The 10th annual Invader Crusader award ceremony was held on June 5th at Olbrich Botanical Gardens in Madison. Besides refreshments and a brief tour of the gardens, awards were presented to individuals and groups from around the state to recognize their efforts in fighting invasive species while taking initiatives to educate others. The recipients are as follows:

Girl Scout Troop #2789, Volunteer Group – Oconomowoc:

Isis Eiserling, Maddy Keefe, Haley Pfister, and Jennifer Schroll

The four young women of Girl Scout Troop #2789 are being honored for their impressive efforts engaging other community members, volunteer groups, and local businesses in a successful purple loosestrife biocontrol project around Lac La Belle. They are continuing their work by teaching other community groups how to replicate the project.

Door County Invasive Species Team, Professional Group – Door County

A collaboration of natural resource professionals and interested public members working to identify, monitor, and control invasive species in Door County, the Door County Invasive Species Team (DCIST) marshals human and financial resources to manage invasive species across Door County. Solid planning enhances DCIST's ability to strategically engage the talents of its

ISAM Continued

members, reach out to key audiences, and engage volunteers efficiently – maximizing the benefits of thousands of hours of volunteer work across the county, on both aquatic and terrestrial species.

Jason Nickels, Professional Individual - Mequon

Jason's crusade against invaders is both intensive and extensive. As Director of Education and Restoration at the Mequon Nature Preserve, Jason implemented an intensive plan to control or eradicate all invasive species in the largest nature preserve in the four-county Milwaukee area. The reach of his success extends to the 7,000 students and 10,000 people that annually visit the facility and learn about invasive species. Students and visitors now marvel at the 190-year old white oak that was "discovered" after buckthorn was removed from a 6-acre woodlot. The preserve's transformation teaches about both the damage that invasive species can do and the incredible restoration that can result when invasives are intensely managed.

Tammy Bieberstein, Volunteer Individual - Madison

Fourteen years ago, Tammy founded the Madison Area Weed Warriors. On a shoestring budget, she leads volunteer work parties each weekend in April and May. Not only have her volunteers put in over 4,600 hours in Madison's eight conservation parks, they use their new invasive species identification and management skills in the places they live, work, and play. Tammy engages the community in all of her efforts to combat invasive species, spreading the word through Madison schools and community groups.

Chrystal Seeley-Schreck, Professional Individual – Madison

A consummate education professional, Chrystal effectively orchestrated a daunting task: educate and engage people about brand new rules regulating Wisconsin's invasive species. Whether her audience was nurseries or pet stores, road crews or gardeners, bicyclists or local governments, Chrystal brought the message home, earned the respect of the regulated community, and, perhaps most importantly, changed behaviors for the better. Ultimately, Chrystal stepped in to lead

DNR's Invasive Species Team.

Greg Karch, Volunteer Individual - Oshkosh

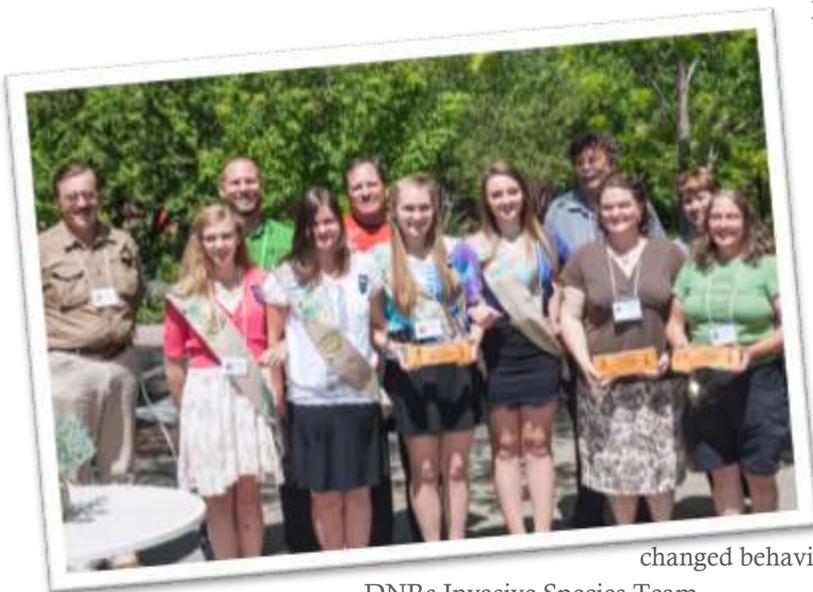
Greg's passion is angler education, with a strong focus on youth. He incorporates Stop Aquatic Hitchhikers! curriculum into the many seminars and clinics that he teaches. This past year, he volunteered over 400 hours in angler education and held his 100th fishing clinic. His "Learn 2 Fish With Us" angler education program has reached 10,000 anglers, most of them youth. Learning how to prevent the spread of invasive species is just as important as learning casting skills and lure selection techniques, and Greg is sure to instill this belief in all of his seminar participants.

Tom Ward, Professional Individual – Manitowoc County

Tom has been going strong for 32 years and has spent his entire career as a conservationist, working to protect natural resources and prevent the spread of invasive species. His record of achievement is extensive, rich with a variety of both aquatic and terrestrial projects, spans eight counties, and focuses on developing sustained volunteer groups that continue improving Wisconsin's lands and waters.

Mike Yanny, Professional Individual – Menomonee Falls

Mike has helped build bridges between the nursery industry, regulators, and the conservation community since work on Wisconsin's invasive species rule began. Owner of JN Plant Selections, LLC and senior horticulturist at Johnson's Nursery,



ISAM Continued

Mike served on teams of experts evaluating species considered for regulation. He goes above and beyond, helping regulators construct good regulations and helping the nursery industry understand the need for, the value of, and how to comply with those regulations. Ultimately, Mike helps to change attitudes so that we all can enjoy healthier natural ecosystems.

Judy Ruch, Volunteer Individual – Presque Isle

“Let the little ones lead” is Judy Ruch’s motto. Inspired by children’s ability to learn safety lessons, Judy developed an hour-long program about stopping the spread of aquatic invasive species that can be adjusted for preschoolers through elementary years. The program was such a success that the Wisconsin DNR worked with her to disseminate it to libraries statewide and through DNR’s website where teachers across the country have found it and brought it home to their students.

UW Sea Grant partnered with the Wisconsin Invasive Species Council to host the “Protect the Places You Play” video contest. Participants were asked to submit a short video showing steps they take to prevent the spread of invasive species. The videos that were submitted then went through a voting process. The winning video – “Protect the Places You Play” came from the Northwoods Cooperative Weed Management Area. The runner up video – “Invasive Species Ninja” came from Todd Matheson.

Congratulations all of the award recipients and to those who were nominated but did not win! Keep up the good work!

Waterfowl Hunters: We need Your Help!

By: Diane Schauer, IPAW Board Member



I’ve never met a waterfowl hunter who didn’t care about protecting and preserving waterfowl hunting habitat in Wisconsin. Not a one would deliberately damage their favorite hunting spot. Unfortunately, some are unknowingly transporting invasive species that threaten not only waterfowl habitat, but also the health of our precious waterfowl.

Most anglers can recite the Aquatic Invasive Species (AIS) prevention steps they often hear about at boat launches about removing vegetation and draining all water. Did you know that these steps apply to waterfowl hunters too? Waterfowl hunters move around between different water bodies and from state to state. Their equipment can easily move invasive species.

Many waterfowl hunters move through wetlands into rivers and streams and hike back out. This is a recipe for moving mud on boots, waders, and decoy bags. Mud is a vector, which moves all sorts of things from one place to another. Mud can contain seeds of invasive plants like Eurasian water milfoil, purple loosestrife or reed canary grass. Mud may contain root fragments of invaders like *Phragmites australis*, which are all that is needed to “plant” it somewhere else. Since this article is for the Invasive Plants Association of Wisconsin, I won’t even mention all the invasive critters like zebra mussels, mystery snails, Asian clams and New Zealand mudsnails that could be in the mud, too.

If you use a boat or a skiff, remember to remove vegetation from all the equipment, including decoy lines. Drain water from your decoys and boat. Clean the mud off your push poles, boots and blinds. Don’t forget to rinse off Fido, dogs can move invasive species too.

A group of AIS coordinators and educators are working to spread the word about preventing the spread of AIS within the waterfowl hunting community. We are asking for your help to develop an effective outreach campaign. Please consider taking a couple minutes to participate in an online survey by visiting <http://tinyurl.com/npkxk8a>

You may even learn a few simple tips to help protect your marshes, rivers and lakes. Thank you for your time.

Deer → Garlic Mustard → Worms

Summary of Cornell Researchers Findings

By: Kelly Kearns, WI DNR; Mark Renz, UW Extension;
and Tom Boos, IPAW President

On May 1, 2014, several DNR staff informally met with Vicki Nuzzo and Bernd Blossey, Cornell researchers that have been working on various projects, including the interactions of deer, garlic mustard, earthworms, Japanese barberry, Japanese stiltgrass, and a range of soil properties. Many of their observations have implications for management of natural areas, forests, ground-nesting birds, amphibians and rare plants. Bernd followed up our discussion with a talk on the UW-Madison campus about some of their specific research efforts related to deer/garlic mustard/earthworms. Here are some take home points from our conversation (note these are comments taken from an informal discussion and results are not yet published:

Asian Crazy Worm – (*Amyntas spp.*)

(Recently found in the Madison area ((UW Arboretum, Maple Bluff)) and suspected in a few other places in Wisconsin)

- *Amyntas* worms are easily identified to genus by several features, including: fast jerky movements when disturbed, brown to dark grey coloration, with a creamy white clitellum (band near one end of a sexually mature earthworm) that goes all the way around the worm. It is usually found near the surface of the soil, just below any mulch.
- Impacts are similar to that of European earthworms, but more extreme and the invasion occurs much faster. They are primarily abundant in forested habitats, but also in urban and disturbed areas. They consume all of the organic material in an area, causing the soil level to drop. Plants can be left with their roots exposed due to the loss of soil depth. This causes the decline and death of many herbaceous plants and prevents seedling regeneration of native herbaceous and woody species. It is possible that rare forest plants could become severely threatened by these worms and that they could dramatically prevent seedling regeneration and cause shifts in forest composition. Unlike the European earthworms that seem to avoid the acid soil conifer forests in northern Wisconsin, *Amyntas* have been found under hemlocks and pine in acidic soils in northeastern states. They have also been found in fly ash heaps. They didn't have information on if they were found in sandy soils.
- These problems are exacerbated and probably driven by deer. Deer exclosures had much lower earthworm populations than areas immediately surrounding them.
- Research in New York has found that replanting of seeds and plants after the initial worm invasion can be successful, but only if deer are excluded.
- Soil and organic matter are replaced with worm castings that are dark and granular.
- Spread is generally by soil movement, especially in nursery stock (especially woody plants from east coast nurseries). Blossey recommends using only bare rootstock when bringing plants in from potentially infested areas. Compost, mulch and leaf piles are likely to harbor large numbers of *Amyntas* if they came from infested sites. Anyone working in infested sites can easily transfer the young and cocoons on their boots or gear. Worms and cocoons can be washed downhill and downstream in rain events.



Rulers of the Earth

by: Michael Yanny,
Johnson's Nursery, Inc.

If squirrels ruled the earth,

- Oak trees would be plentiful.
- Bird feeders would be mandatory in very yard--but no baffles.
- And cars would be outlawed.

If robins ruled the earth,

- Crabapple trees would be plentiful.
- Earthworms would be the national animal.
- And windows would be outlawed.

If bur oaks ruled the earth,

- Squirrels would be plentiful.
- Fires would be a favorite form of entertainment.
- And chainsaws would be outlawed.

If big bluestem grass ruled the earth,

- Buffalo would be plentiful.
- The wind would blow every day.
- And plows would be outlawed.

If mushrooms ruled the earth,

- Life would be plentiful.
- Death would be popular.
- And using fallen trees for firewood would be outlawed.

If aphids ruled the earth,

- All plants would be lush and in active growth.
- Ants would be adoring followers.
- And insecticides would be outlawed.

If bacteria ruled the earth,

- Yougurt would be in everyone's refrigerator.
- Compost piles would be sacred shrines.
- And antibiotics would be outlawed.

If humans ruled the earth, humanely.

- Love would be plentiful.
- Money would be obsolete.
- And destroying the earth would be against the law.

Deer → Garlic Mustard → Worms Continued

- Adding mulch around plants will increase *Amyntas* populations.
- They experimented with many methods to try to keep *Amyntas* contained in some experimental plots and out of others. They failed in every attempt. They can climb smooth surfaces higher than a meter, move across water, turf and asphalt and have been known to have mass migrations of over 1 km. They are generally nocturnal and do most of their movement at night. Once they eat all the organic matter in an area they will move on.
- There are no known methods to control *Amyntas*. A few things can be done with small localized populations:
 - o Iron based slug bait can be used to decrease their populations
 - o Removing all organic matter from the soil surface, down to bare soil, will deplete their food source. But they can just crawl off to find more organic matter. This is a technique that might be useful around newly planted tree seedlings or rare forest plants to try to keep individual plants alive.
 - o Physical collection of worms is possible, as they congregate in the top few inches of soil. Mustard solution can be poured on the surface to extract those further down in the soil.
 - o Peking ducks and chickens have been known to prey heavily on the worms, but may incidentally transport cocoons and will not eliminate a population.
 - o Build deer exclosures
- Populations of *Amyntas* do seem to rise and occasionally fall in local areas. It is possible there are disease outbreaks that kill off the worms in an area, but the area is later repopulated.

Garlic Mustard

- Long term studies in select locations in the east coast suggest uncontrolled Garlic Mustard populations are gradually declining. They suspect, but have not isolated, a soil borne microorganism that reduces Garlic Mustard germination and productivity. It is possible this microorganism is not yet present in populations in the Midwest yet, which might be why we haven't been witnessing declines. Or we may have declines that we have not been noticing. We have data from plots that we have been collecting for about 10 years that we will be providing to them to include in future analyses.
- They suggest that hand pulling, spraying or burning of large populations of Garlic Mustard may be counter-productive in the long run, as it may prevent the microorganisms from expanding and reducing the populations. No field data on this yet, just demographic work.
- They believe that Garlic Mustard is a symptom of other disturbances, primarily earthworms and deer. Deer populations are as high if not higher on the east coast compared to Wisconsin and they have not been able to link impacts of garlic mustard exclusively to native vegetation decline. Other researchers have data in WI that agrees with this.

Deer → Garlic Mustard → Worms Continued

- Blossey has reversed his opinion, and now doesn't want Garlic Mustard biocontrol agents to be released in the Eastern US as he doesn't think they are needed. He believes that populations will be reduced by this soil borne microorganism.

Deer

- They have done a lot of research that all points to deer as being the drivers of ecosystem decline in forests. Native long-lived forbs with low reproductive capacity are significantly affected by deer browse. As little as 15% of a population of *Trillium grandiflorum* being browsed annually will cause the population to be extirpated.
- Deer enclosure research has shown that both earthworm and invasive plant populations (they mentioned garlic mustard and barberry) are lower within deer enclosures. They have not yet figured out exactly why.

They have also worked on impacts of earthworms and invasive plants on amphibian demographics, and we talked to them more about their work on purple loosestrife and phragmites as well. See [Mark Renz](#), [Kelly Kearns](#), [Brock Woods](#), or [Pat Trochlell](#) if you need more details.

White Tipped/Bleached Canada thistle A Good Thing By: Mark Renz, UW Extension Weed Specialist

Wet springs, bring good and bad things from a weed perspective. First the bad: we often see much more Canada thistle in our pastures, row crops, and roadsides in Wisconsin in wet springs. While this weed can tolerate a wide range of habitats and weather patterns, infestations are more common and visible under these conditions. The past two years I have seen populations establish and expand, due to the spring precipitation mixed with the overgrazing and lack of desirable plant regrowth due to previous years' drought. As most know, Canada thistle can be very competitive and reduce crop yield, forage utilization and reduce habitat quality in natural areas.

The good news is that wet springs increase the chances of a disease infecting and injuring Canada thistle. The most common is a disease called *Pseudomonas syringae* pv. *tagetis*, PST for short. This disease is a bacteria that naturally occurs in Wisconsin and infects Canada thistle shoots. While it can also infect many other broadleaf species in the sunflower family, it is most commonly found on Canada thistle in Wisconsin. Symptoms of infection are a distinct bleached or white color of the shoot (see photo above). Infected shoots have slower development and can increase mortality of Canada thistle populations. Effectiveness appears to be dependent on the strain of PST, level of infection/reinfection and likely many other factors. Driving throughout the state the last several weeks I have seen many pastures, fields and roadsides with large-scale infections (see photo below).



Regardless of the level of damage, infected plants are less competitive. In pastures and other grassland settings this is a welcome addition to Canada thistle management plans. To promote the spread of this disease, research suggests land managers mow infected (bleached) shoots when water is present on the leaves. Mowing damages the leaves of uninfected plants and spreads the bacteria throughout the field. The added moisture improves the chances of the bacteria infecting Canada thistle. Once a leaf is infected it rarely survives. While Canada thistle plants require reinfection every year, populations of PST are likely present to reinfect plants every year IF conditions are right. So embrace the white Canada thistle shoots as one more tool to suppress Canada thistle. This year we certainly need all the tools we can get!

Early Registration Discount Ends September 5th!

We invite you to join us at the third biennial multi-state conference on invasive species: the largest gathering of invasive species professionals, managers, researchers, and individuals working to stop the spread of invasive species in the upper Midwest. And make sure to take advantage of your IPAW Member discount.

Click [here](#) to go to the online registration.

See the At a Glance Schedule [here](#).

View concurrent sessions, plenaries, workshops, and field trip offerings [here](#).

Upper Midwest Invasive Species Conference

October 20-22, 2014

Duluth Entertainment and Convention Center
350 Harbor Drive
Duluth, MN 55802

IPAW Board Members

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Newsletter Information:

Plants Out of Place is a periodic newsletter distributed to Invasive Plants Association of Wisconsin members.

Send comments, suggestions, and articles that you think may be of interest to IPAW at

info@ipaw.org

Don't forget to Like
IPAW on [Facebook!](#)

IPAW's Mission:

"To promote better stewardship of the natural resources of Wisconsin by advancing the understanding of invasive plants and encouraging the control of their spread."