



The North Central Chapter

Society of Wetland Scientists

NORTH CENTRAL CHAPTER NEWSLETTER Summer 2016

A NOTE FROM OUR PRESIDENT

Wow, how the summer is disappearing. It seems like just a few days ago I was finishing up my note for the Spring Newsletter and preparing to head to Corpus Christi for the International Conference. I guess the hectic schedule of the all-too-short North Dakota field season will do that to you. Makes me wonder why I even pack away my winter coats at all. But back to Corpus Christi.

Our Chapter Membership Meeting at the International Conference was nicely attended. We had 19 members present at the meeting, representing six of the ten states in our region. In addition, we had three members of the executive board calling in by phone. It was great to see this healthy turnout, as the Chapter meetings at the SWS International Conferences are often not that well attended. I remember one NCC meeting a few years ago where it was just Arnold van der Valk, myself, and one other member visiting at a table. We had a great discussion, but it was nice to see the growth in interest reflected by the larger showing of members. Speaking of Dr. van der Valk, it was exciting to find out that Arnold was elected by the SWS membership as the Society's new "President Elect." Congratulations Arnold!!! Looks like you jumped from one frying pan (President of the North Central Chapter) right into another (President Elect for the entire Society). It's great to have one of our own in this position, and the SWS is very lucky as a whole to be having someone with experience, knowledge, reputation, and dedication taking the helm in the near future. Some of the highlights of the NCC membership meeting in Corpus Christi were the approval of changes to our By Laws and Standing rules to add a Student Representative as a voting member of the executive board (a copy of the revised By Laws and Rules can be found at: http://www.sws.org/images/chapters/North_Central/Bylaws_06_01_2016.pdf); appointment of Casey Judge to officially fill the newly created NCC's Student Representative slot; and presentations of a \$1000 research grant and two travel awards to some very deserving NCC student members.

Turning from the recent meeting in Corpus Christi to the quickly approaching meeting in Ohio, Julie Nieset is still hard at work making arrangements for what I am sure will be a great meeting. The NCC meeting is being held in conjunction with the Ohio Wetland Association's Wetlands Summit and the Cleveland Museum of Natural History's Conservation Symposium. Please look in this newsletter for more information on this meeting. I hope that you will plan to join us in Ohio from September 8th to the 11th.

You will find many other items of interest throughout this Newsletter, so have fun reading, have a great summer (what is left of it), and hope to see you in Ohio.

Dave Mushet, NCC President

SWS-NCC ANNUAL MEETING-SEPTEMBER 8TH-11TH

Register now at: <http://www.ohwetlands.org/wetlands-summit.html>

This year our North Central Chapter will hold our annual meeting concurrently with the Ohio Wetland Association's Wetlands Summit and the Cleveland Museum of Natural History's Conservation Symposium. This unique collaboration includes educational opportunities and field trips throughout Northeast Ohio. See the website above for details and to register.

Submitting Abstracts

The Ohio Wetland Association (OWA) and the Society Wetland Scientists – North Central Chapter (SWS-NCC) invite the submission of abstracts to share research at the joint meeting of the OWA and SWS-NCC held September 8 – September 11, 2016, in Northeast Ohio. There will be oral presentation and poster sessions on Saturday, September 10, 2016. Speakers are allowed 15 minutes for presentation plus 5 minutes for questions. Speakers are expected to present analyzed results and conclusions from their work. Poster presentations may display preliminary research or projects where data have yet to be collected and/or analyzed.

If you wish to submit an abstract for an oral presentation or poster, please email a title, authors, and an abstract (200 words or less) to Julie Nieset (jenieset@illinois.edu). For oral presentation submittals, if there is more than one author, indicate with an asterisk who will be giving the talk. Submittals will receive confirmation email of receipt of abstract. The presenting author will be notified of acceptance.

All presenters are responsible for their own event registration.

For poster presenters, there is also an additional opportunity to present posters as part of the Cleveland Museum of Natural History Conservation Symposium held Friday September 9, 2016, which would include free Symposium registration (September 8th and 9th) and meal (on September 9th) for students.

Travel Awards

SWS student members who submit abstracts, complete an application, and attend the meeting are eligible to compete for a \$200 travel grant. Two grants will be awarded. Contact Karen Mangan, Chair of the NCC Education Committee for more information Karen_Mangan@fws.gov

Housing

A block of rooms have been reserved for \$89.99/night between 9/8 – 9/11 with group code SWS at:
Holiday Inn Express & Suites Cleveland Richfield
5171 Brecksville Road
Richfield, OH 44286

With proximity to the Cuyahoga Valley National Park and Cleveland-Akron metro area, there are numerous camping, hostel, and other hotel options in the area.

SWS WETLAND TREASURES PROGRAM

The Society Wetland Scientists Wetland Treasures Program is officially underway! The Wetland Treasures is a national program with a goal of fostering public awareness and promoting wetland education through an online database and showcase of top-tier wetlands throughout the country. We also hope this database will enhance our ability to increase RAMSAR designations in the United States.

We are currently in the first phase of receiving applications. For this first phase we are looking for nominations of wetlands that are RAMSAR designations and/or on state/federal lists as high-quality wetlands. The deadline for this phase is Labor Day 2016. After this we will have a two-month review process and then officially announce these Wetland Treasures in November, highlighting them on our website, FB, newsletters, email, etc.

The online application is at www.wetlandtreasures.org

When you first go to this page, you will see a map of the United States (you will notice that there is a marking/information for Forrest Woods SNP which was the first Wetland Treasures designation. Submittals during this first phase will be on-line sometime in November). Scroll your mouse to the gray area on the left had side of the screen, click on "Create a new account" and create your account. Then under "Wetland Treasures, click "Add your Treasure" to be taken to the application.

For those who know a site well, have photos and information readily available, it is likely to take not more than an hour of your time. Please consider nominating high quality wetlands from our region! It would be wonderful if our chapter would have a good showing nationally - there are so many exceptional wetlands in our region. If everyone in our chapter nominated just one wetland...we'd be all set!! Thanks for your support!

Contact Julie Nieset jenieset@illinois.edu for questions

HIGHLIGHTED STUDENT BY CASEY JUDGE



Our highlighted student this quarter is Ed Price. He is a 2nd year Master's student in Natural Resources and Environmental Science at University of Illinois, Urbana-Champaign. Ed is working in the Matthews Lab with Dr. Jeff Matthews to complete his Master's degree research. He hopes to be submitting papers for publication within the next couple months, so we'll need to keep an eye out!

WHAT ARE YOUR PRIMARY RESEARCH INTERESTS?

I am interested in biotic homogenization, wetland restoration, and invasive species. Currently, my work focuses on documenting the process of biotic homogenization by reed canary grass in natural wetlands in Illinois, as well as investigating how wetland restorations may be contributing to

homogenization on a regional scale.

HOW DID YOU BECOME INTERESTED IN WETLAND SCIENCE?

After spending a few years teaching high school science, I began to recognize my real passions were with issues of conservation. I made a career change and started working with restoration crews throughout the Midwest. Through this experience I became familiar with how important and dynamic wetland systems are and developed an interest in how invasive species were impacting these communities. I decided to go to graduate school to explore these interests further, and I'm happy to say things have worked out.

WHAT DO YOU LIKE TO DO IN YOUR SPARE TIME?

Hiking, camping, woodworking, and playing music.

DO YOU HAVE A MEMORABLE FIELD OR LAB STORY TO SHARE?

This summer, I've been part of a crew taking data with the National Wetland Condition Assessment. At the end of the first day as we were packing up our gear, I noticed that in spite of the field work we were doing we all somehow managed to stay fairly clean and dry. Over the last few years, I've become comfortable going to dinner soaking wet, caked in mud, reeking of sweat and DEET, and occasionally bleeding from rice cut grass, but this day I was looking forward actually being able to sit down to dinner without feeling like our presence was negatively impacting the dining experience of the people around us. As it happens, some of the data we take requires digging a one meter deep soil pit. I'm typically pretty busy with the vegetation crew, so it's easy to forget where the pit was after it's been filled in. I slung on my pack full of transect tapes, congratulated everyone on their cleanliness, and began walking toward the van. Within three steps I found myself up to my waist in mud and struggling to get my leg out without losing my boot. Since then I've come to terms with the fact that I'll probably never make it to dinner after a day of field work without being completely filthy, but I always make a point to take stock of where the soil pit is being dug.

STUDENT AWARDS COMMITTEE

A total of \$2000 in student awards has been awarded so far in 2016. Below is a breakdown of the individual award recipients thus far, and their research.

2016 Research Award

One recipient, \$1000, May, 2016

Gwendolyn Murphy- Southern Illinois University, Carbondale

Fiddler crab preference takes center stage on 'runway' style enclosures designed to investigate undocumented interactions between fiddler crabs and Gulf coast vegetation

Abstract: Interspecific facilitation can influence tidal marsh ecosystem structure and function by ameliorating stress and thus plays an important role in estuarine food web dynamics. Research in salt marshes dominated by the grass *Spartina alterniflora* indicates that plant characteristics affect fiddler crab burrowing and in turn, crab activity can enhance primary productivity by increasing soil oxygen and nutrient cycling. These crab-plant interactions have not been studied in micro-tidal Gulf Coast marshes where the *S. alterniflora* zone is narrow, the rush *Juncus roemerianus* forms the most



extensive brackish marsh vegetation zone, and a narrow fresh marsh zone at the edge of the forest marsh ecotone. It is unknown how the structure of this dominant vegetation affects density and morphology of crab burrows and how these features may influence primary productivity, a key driver of estuarine food webs. To determine whether fiddler crabs were burrowing in this vegetation, we conducted a pilot study to sample burrow density and morphology in tidal salt marshes at Grand Bay National Estuarine Research Reserve in coastal Mississippi. Preliminary data indicate that crabs do burrow in the *J. roemerianus* vegetation, and at densities similar to those found in Atlantic coast marshes. The maximum depth of the burrows we excavated (n = 5) was 12.2 cm before curving and spanning an additional 15.3 cm. These results are suggestive that fiddler crab-plant interactions are important in Gulf coast ecosystems and warrant additional study. We will conduct comprehensive surveys to compare crab burrows (density and morphology) and determine their influence on primary productivity and nutrient cycling between the salt, brackish, and fresh marsh zones. We will also run a series of “runway trials” to determine crab preference across the three marsh types. This research will fill a critical gap in our understanding of a foundational relationship in Gulf Coast food webs.

**2016 Travel Awards for travel to SWS Annual Meeting in Corpus Christi
Two awards, \$500 each, April, 2016**

Kaira Kamke-University of Wisconsin, Stevens Point

Characterization of macroinvertebrate assemblages in restored and natural wetlands in Central Wisconsin, USA

Abstract: Macroinvertebrates are widely accepted as quality indicators of aquatic environments and are utilized in many studies to evaluate effects on ecosystem health. While they have been used as



indicators in stream riffle habitats, no macroinvertebrate metric has been established for use as an indicator across all wetland types. A study was conducted on four different wetlands around the Stevens Point community in Central Wisconsin to compare environmental quality to sampled invertebrate species. Two sites consisted of recently restored depressional wetlands, one site was a natural unrestored depressional wetland, and one site was a natural floodplain wetland of the Wisconsin River. Samples were taken at each site by sweeping a box net through shallow vegetated locations. The specimens were field picked and then identified taxonomically to the lowest possible level. The sites for each sampling effort were assessed for quality using the wetland habitat rating established by the Wisconsin Department of Natural Resources in their development of biological index and classification of wetlands. A variety of comparative metrics were used to assess and compare each wetland site. These findings, in combination with other preliminary research, can begin to establish an overall index to be used on

multiple wetland types.

Michael Sundberg-Iowa State University, Ames

Linkages among land use, chemical contaminants, invasive fishes, and plant and salamander communities in prairie pothole wetland.

Abstract: Prairie pothole wetlands provide many valuable ecosystem services. However, land use changes in the prairie pothole region (PPR) have increased contaminant loadings and facilitated invasions by fishes, leading to declines in biological diversity and wetland condition. Study objectives were to quantify direct and indirect relationships among land use, herbicides, chloride, invasive fishes, turbidity, the plant community, and tiger salamander *Ambystoma tigrinum* abundance, and to use these linkages to identify a set of wetland condition metrics.

Multiple regression was used to quantify relationships among variables of these attributes in 45 permanently/semipermanently flooded Iowa wetlands.

Results suggested crop land and impervious surface coverage were related to elevated chloride concentration and increased wetland surface area, possibly due to increased surface runoff. While the abundance of fishes, primarily fathead minnow *Pimephales promelas* and black bullhead *Ameiurus melas*, was unrelated to wetland surface area, tiger salamander abundance declined and turbidity increased with increasing fish biomass. Additionally, plant cover declined with increasing turbidity and herbicide concentration. However, herbicide concentration was not related to surrounding land cover. These findings suggest that chloride is indicative of human land use, and turbidity, plant cover, and tiger salamander abundance are indicative of invasive fish abundance. Additionally, our results suggest that efforts to reduce herbicide use and fish abundance in wetlands would likely increase the abundance and diversity of wetland organisms.



NOTES FROM AROUND THE NORTH CENTRAL REGION

MICHIGAN: (State Contact, Kurt Kowalski, kkowalski@usgs.gov)

MDNR declared July 3-9 as Aquatic Invasive Species Awareness Week. Check out this link (<https://content.govdelivery.com/accounts/MIDNR/bulletins/1541f6a>) to learn more and spread the word!

If you get a chance, take the family or a friend to one of the Seven Wetland Wonders of Michigan (http://www.michigan.gov/dnr/0,4570,7-153-10370_62146_62150-283163--,00.html) or maybe the Shiawassee National Wildlife Refuge (<https://www.fws.gov/refuge/shiawassee/>) this summer. There is a lot to see!

INDIANA: (State Contact, Liz Pelloso, pelloso.elizabeth@epa.gov)

Indiana's Eagle Marsh berm blocks Asian Carp

Asian carp have one less pathway to the Great Lakes, thanks to the May 2016 completion of a barrier at the Eagle Marsh Nature Preserve in Fort Wayne, Indiana. The barrier is intended to keep Asian carp from transferring between the watersheds of the Wabash River in Indiana and the Lake Erie watershed in Ohio, through the Maumee River. Asian carp are widely considered to pose a grave threat to the ecological health, stability and value of the Great Lakes. Preventing the introduction and establishment

of Asian carp into the Great Lakes is a national priority.

Eagle Marsh is owned jointly by the Little Rivers Wetlands Project and the Indiana Department of Natural Resources. The U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) holds a Wetland Reserve Program (WRP) easement on the site. The U.S. Army Corps of Engineers (USACE) in its Great Lakes and Mississippi River Inter-basin Study (GLMRIS) identified the wetland as a significant pathway for the potential of Asian carp migration to the Maumee River and from there to Lake Erie. Working closely with the USACE, NRCS designed a berm built at the Eagle Marsh site to restrict Asian carp entry into the Great Lakes. The berm is 1.7 miles long and averages 7.5 feet high. Construction took about three months and cost about \$4.4 million, using WRP funds from NRCS to construct the berm on the easement and Great Lakes Restoration Initiative (GLRI) funds for work outside of the WRP site.

The project required the involvement of many agencies, including Little Rivers Wetland Project, the Indiana Department of Natural Resources, the Indiana Department of Environmental Management, U.S. Department of Agriculture-NRCS, USACE, the U.S. Environmental Protection Agency, the U.S. Geological Survey, and the U.S. Fish and Wildlife Service.

For more information, please visit: www.asiancarp.us.

ILLINOIS: (State Contacts, Jessie Ackerman, jracker@illinois.edu)

Last month, ComEd (Chicago-based energy provider) and Openlands (metropolitan conservation organization) selected their Green Region 2016 grantees to receive \$200,000 in grants for 22 Illinois municipalities. Wetland related projects include:

Buffalo Grove Park District: restoration of wetlands, woodlands, and streambanks along the Willow Stream corridor

Grayslake Community Park District: replacing a wetland boardwalk

Libertyville Township Open Space District: restoring 113 acres of farmland into native habitat to connect three Illinois Nature Preserves

Park District of Highland Park: improving regional connectivity and protection of the Skokie River Woods wetland ecosystem

Prospect Heights Park District: replacing the turf grass around the Slough wetland

Wheaton Park District: creation of a natural play area within the Lincoln Marsh Natural Area

<http://www.businesswire.com/news/home/20160707005936/en/200000-Grants-Fund-22-Environmental-Initiatives-Northern>

If you are part of an Chicago-area IL municipality and are interested in applying for one of their 2017 grant opportunities, Openlands recommends signing up for their email newsletter to watch for the next grant announcement: <http://www.openlands.org/> Sign-up is at the bottom of webpage.

WISCONSIN: (State Contact, Laura A.B. Giese, lgiese@trcsolutions.com)

Next Wisconsin Wetland Association Conference (WWA) – Field season is flying by, and before you know it, leaves will turn colors, snow will fall, and it will be time for the next WWA conference (<http://conference.wisconsinwetlands.org/>). Save the Date for February 28 – March 2, 2017. WWA is seeking proposals for half-day or full day symposia. Also consider submitting an abstract to give a presentation or poster.

Wisconsin DNR Wild Rice Management Plan - the DNR is accepting comments on what topics and information sources should be considered in their management plan. You can review their draft topics here: <http://dnr.wi.gov/topic/EIA/WRMSA.html>

Horicon Marsh is an amazing wetland complex, Ramsar wetland of international importance, and daily teems with waterfowl. Check out their event calendar for endless outdoor fun and entertainment. <http://www.horiconmarsh.org/events.aspx>

NORTH DAKOTA: (State Contact, VACANT)

If you are interested in serving as state contact for North Dakota, please contact Dave Mushet, dmushet@usgs.gov.

IOWA: (State Contact, Melinda Coogan, coogan@bvu.edu)

OHIO: (State Contact, Hugh Crowell, hcrowell@hullinc.com)

MINNESOTA: (State Contact, Elizabeth Markhart, bmarkhart@comcast.net)

NEBRASKA: (State Contact, Ted LaGrange, ted.lagrange@nebraska.gov)

SOUTH DAKOTA: (State Contact, Carol Johnston, Carol.Johnston@sdstate.edu)

If you have an item for a future issue of the NCC newsletter or correction, please send an email with *newsletter* in the subject line to the Editor: Jennifer Boyer (jen.boyer@dupageco.org)

NCC-SWS OFFICERS

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WEBSITE <http://www.sws.org/North-Central-Chapter>