



Strengthening Natural Resources through Collaboration

78th Midwest Fish and Wildlife Conference Milwaukee, Wisconsin | January 28-31, 2018

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**Join the
Conversation!**

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 [#midwestFW](https://twitter.com/midwestFW)

Welcome to Wisconsin!

The Wisconsin Department of Natural Resources, the Wisconsin Chapter of The American Fisheries Society and the Wisconsin Chapter of The Wildlife Society welcome you to the 78th Midwest Fish and Wildlife Conference. Our conference theme, *Strengthening Natural Resources Through Collaboration*, highlights the 21st century approach needed for successful fish and wildlife conservation. We are confident that this year's conference will highlight wonderful success stories of conservation through collaboration. We also fully expect that you will be stimulated and energized by the presentations and the impressive work of your peers and colleagues at this conference, and that you will depart ready to explore new ways to manage and conserve fish and wildlife resources in our ever-changing and challenging environment.

Thought-provoking Plenary and Ignite sessions have been developed that we believe will stir conversation for the rest of the conference and beyond. We have over 500 papers and posters on the latest and greatest fish and wildlife conservation, management and research that will generate discussion, ideas and excitement about the current state and future of fish and wildlife management. Be sure to meet up with your friends and colleagues during the evening social activities to fully enjoy all that this conference has to offer.

We are very happy you have chosen to be part of the 78th Midwest Fish and Wildlife Conference. Welcome to Milwaukee, Wisconsin!

Conference Co-Chairs

Stephen Gilbert

Woodruff Area Fisheries Supervisor
Fisheries Management Bureau
Wisconsin Department of Natural Resources

Justine Hasz

Director
Fisheries Management Bureau
Wisconsin Department of Natural Resources

Scott Hull

Director
Office of Applied Science
Wisconsin Department of Natural Resources

Tami Ryan

Chief – Wildlife Health Program
Bureau of Wildlife Management
Wisconsin Department of Natural Resources



**Strengthening
Natural
Resources
through
Collaboration**

Acknowledgments

STEERING COMMITTEE	
<p>Stephen Gilbert Wisconsin Department of Natural Resources</p>	<p>Justine Hasz Wisconsin Department of Natural Resources</p>
<p>Scott Hull Wisconsin Department of Natural Resources</p>	<p>Tami Ryan Wisconsin Department of Natural Resources</p>
PROGRAM COMMITTEES	
<p>FISHERIES PROGRAM Dan Isermann, USGS Wisconsin Cooperative Fisheries Research Unit; Greg Sass, Wisconsin Department of Natural Resources; Justin VanDeHey, College of Natural Resources, UW-Stevens Point</p>	<p>WILDLIFE PROGRAM Jess Carstens, Wisconsin Department of Natural Resources; Scott Hygnstrom, College of Natural Resources, UW-Stevens Point; Scott Hull, Wisconsin Department of Natural Resources; Tami Ryan, Wisconsin Department of Natural Resources; Missy Sparrow, Wisconsin Department of Natural Resources</p>
<p>SYMPOSIA Scott Hull, Wisconsin Department of Natural Resources; Greg Sass, Wisconsin Department of Natural Resources</p>	<p>POSTER SESSION Lesia Kardash, Wisconsin Department of Natural Resources; Jason Riddle, College of Natural Resources, UW-Stevens Point; Mike Seider, U.S. Fish & Wildlife Service</p>
<p>PLENARY SESSION David Drake, Forest and Wildlife Ecology Dept., UW-Madison; Bob Holsman, Wisconsin Department of Natural Resources; Jeremy Holtz, Wisconsin Department of Natural Resources</p>	<p>IGNITE SESSION Christina Locke, Wisconsin Department of Natural Resources; Jennifer Stenglein, Wisconsin Department of Natural Resources; Lori Tate, Wisconsin Department of Natural Resources</p>
WORKSHOPS	
<p>Jamie Nack, Forest and Wildlife Ecology Department, UW-Madison</p>	
LOCAL ARRANGEMENTS	
<p>REGISTRATION Jason Cotter, Wisconsin Department of Natural Resources; Tammie Paoli, Wisconsin Department of Natural Resources; Angie Rusch, Wisconsin Department of Natural Resources; Kelly Van Beek, U.S. Fish & Wildlife Service</p>	<p>AWARDS Ben Heussner, Wisconsin Department of Natural Resources; Tim Van Deelen, Forest and Wildlife Ecology Department, UW-Madison</p>
<p>BUDGET & FINANCE Stephen Gilbert, Wisconsin Department of Natural Resources; Ollie Torgerson, MAFWA</p>	<p>HOSPITALITY Tom Burzynski, Wisconsin Department of Natural Resources; Brenda Kelly, Wisconsin Department of Natural Resources; Cheryl Masterson, Wisconsin Department of Natural Resources</p>
<p>DONATIONS & SPONSORS Kay Brockman-Mederas, Wisconsin Department of Natural Resources; Jordan Weeks, Wisconsin Department of Natural Resources</p>	<p>RAFFLE & REVENUE Ryan Brathl, Wisconsin Department of Natural Resources; Derek Johnson, Wisconsin Department of Natural Resources; Dave Rowe, Wisconsin Department of Natural Resources</p>
<p>AUDIO-VISUAL Brad Eggold, Wisconsin Department of Natural Resources</p>	<p>MEDIA & MARKETING Karl Scheidegger, Wisconsin Department of Natural Resources; Lori Tate, Wisconsin Department of Natural Resources</p>
<p>TRADESHOW Sara Kehrl, Wisconsin Department of Natural Resources; Max Wolter, Wisconsin Department of Natural Resources</p>	<p>STUDENT EVENTS Hadley Boehm, Wisconsin Department of Natural Resources; Evan Boone, U.S. Fish & Wildlife Service; Dianne Robinson, Wisconsin Department of Natural Resources; Caroline Ward, Wisconsin Department of Natural Resources</p>
VOLUNTEER & AT-LARGE	
<p>Ryan Haffe, Wisconsin Department of Natural Resources</p>	

General Conference Information

REGISTRATION & INFORMATION DESK

The Conference Registration Desk is located on the ground floor of the Wisconsin Center in the Ballroom Foyer and is your main source of conference information. Stop here for conference materials, check out the Message/Job Board for posted messages, schedule changes and job postings; and get information or assistance with conference functions. Hours of operation: Sunday 7:00 a.m. - 7:00 p.m., Monday 7:00 a.m. - 6:00 p.m., Tuesday 7:00 a.m. - 6:00 p.m., Wednesday 7:00 a.m. - 11:00 a.m.

EXHIBITORS

Exhibits will be on display in Ballroom C and Foyer on the ground floor of the Wisconsin Center. Exhibit Hall Hours: Sunday 6:00 p.m. - 8:30 p.m. (Welcome Social), Monday 7:00 a.m. - 5:00 p.m., Tuesday 7:00 a.m. - 9:00 p.m. (Tradeshow & Poster Social), Wednesday 7:00 a.m. - 10:20 a.m.

MEETING SPACE

Meetings and events affiliated with the Conference will be held at the Hilton Milwaukee City Center and the Wisconsin Center. The two buildings are located across the street from each other, connected by an airwalk. Refer to the schedule at-a-glance to see where your meetings and sessions are being held.

WI-FI

FREE “light-use” wi-fi is available throughout the entire convention center. This free internet is suitable for checking email and light web-surfing.

SPEAKER PREPARATION/PRESENTATION LOADING ROOM

LOCATION: Wisconsin Center, 101 C
ATTENTION PRESENTERS! All presenters **MUST** arrive and check-in here to upload their presentation at least 24 hours before scheduled presentation time. You can also use this room to review your presentation. Refer to Conference Schedule for hours of operation.

STUDENT RIBBON

In their registration packets, students will receive a colored ribbon to attach to their name tag. All meeting registrants are encouraged to engage students in conversations and professional activities in order to facilitate the networking process.

CELL PHONE ETIQUETTE

Please be considerate of presenters and turn your phones to vibrate or “do not disturb” mode while in sessions. THANK YOU!

PASSPORT VENTURE & BEST OF SHOW

Visit participating Venture Booths and get your Passport Venture Card stamped. Be sure to cast your vote for the “Best of Show” Exhibitor Contest. Select your favorite booth based on the following: overall visual appearance, products, effective messaging, and staff interaction/customer service. Drop your stamped Passport Venture Card off at the conference registration desk by 3:30 PM on Tuesday. Enter to win prizes! The drawings will take place at Tuesday evening’s Trade Show & Poster Social.

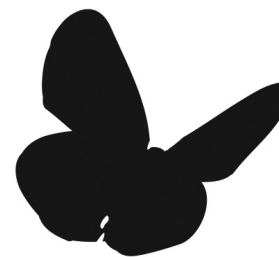
REFRESHMENTS & MEALS

The Full Conference Registration and Student Registration fee includes access to the following social events and breaks: Welcome Social on Sunday night; Student/Professional Networking Mixer on Monday night; Trade Show & Poster Social on Tuesday night; Continental Breakfast Monday, Tuesday and Wednesday; and refreshment breaks daily. Lunches and Monday dinner will be on your own. A list of nearby food options is available at a local information kiosk in the Wisconsin Center.


LOCAL PARKING & TRANSPORTATION

On-site, covered parking is available at the Hilton Milwaukee, and at the Wisconsin Center. Pricing is \$15/day, with unlimited in and out privileges. Should these lots be at full capacity upon your arrival, there are numerous surface lots and street parking opportunities nearby. Additional information can be found here: <http://www.parkmilwaukee.com/facilities/29-wisconsin-center-district>.

The General Mitchell International Airport (MKE) is approximately a 15-minute drive from the Hilton Milwaukee City Center. For those without a vehicle, there are a number of local transportation options. Visit the General Mitchell International Airport website for ground transportation options in Milwaukee.



Schedule At-A-Glance

SUNDAY, JANUARY 28		
7:00 a.m. - 7:00 p.m.	Conference Registration Desk Open	<i>Ballroom A Foyer</i>
8:00 a.m. - 4:30 p.m.	Workshop: Beginning Your Professional Journey <i>(For Students Only)</i>	<i>103 D</i>
8:00 a.m. - 5:00 p.m.	Workshop: Introductory Fisheries Analyses with R	<i>101 A</i>
9:00 a.m. - 4:00 p.m.	Workshop: Midwest Leadership Series	<i>102 A</i>
9:00 a.m. - 4:30 p.m.	Workshop: Conflict Resolution in Fish and Wildlife Management	<i>102 D</i>
9:00 a.m. - 4:30 p.m.	Workshop: Wildlife Data Analysis Using Program R	<i>102 E</i>
12:00 p.m. - 6:00 p.m.	Exhibitor Set-Up	<i>Ballroom C and Foyer</i>
12:00 p.m. - 6:00 p.m.	Speaker Ready Room	<i>101 C</i>
1:00 p.m. - 2:30 p.m.	AFS NCD Reservoir Technical Committee Meeting	<i>Hilton: Wright Ballroom A</i>
1:00 p.m. - 5:00 p.m.	Workshop: Healthy Lakes Initiative with an Emphasis on Habitat Restoration Best Practices	<i>102 B</i>
1:00 p.m. - 5:00 p.m.	Workshop: Managing, Sharing, and Using Avian Data for Conservation, Management and Research	<i>103 B</i>
2:30 p.m. - 4:30 p.m.	AFS NCD Walleye, Centrarchid, and Esocid Technical Committee Meeting	<i>Hilton: Wright Ballroom A</i>
4:30 p.m. - 5:30 p.m.	AFS NCD Executive Meeting	<i>Hilton: Wright Ballroom B</i>
6:00 p.m. - 8:30 p.m.	 Featured Event! Welcome to Wisconsin Social <i>Join colleagues at this fun-filled evening to kick off a week of networking, presentations, workshops, social events & more! Light hors d'oeuvres and keg beer (while supplies last); cash bar also available.</i>	<i>Ballroom C and Foyer</i>
MONDAY, JANUARY 29		
7:00 a.m. - 8:00 a.m.	Continental Breakfast with Exhibitors	<i>Ballroom C and Foyer</i>
7:00 a.m. - 6:00 p.m.	Conference Registration Desk Open	<i>Ballroom A Foyer</i>
7:00 a.m. - 6:00 p.m.	Speaker Ready Room	<i>101 C</i>
8:00 a.m. - 12:00 p.m.	Plenary Session, Awards Presentation & Ignite Session	<i>Ballroom A/B</i>
10:00 a.m. - 10:20 a.m.	 Refreshment Break with Exhibitors	<i>Ballroom C and Foyer</i>





= Refreshment Breaks





= Social Event

 = Invitation Only

Schedule At-A-Glance

MONDAY, JANUARY 29 (CONTINUED)		
12:00 p.m. - 1:00 p.m.	AFS-NCD Past-Presidents Luncheon ✉	<i>Offsite</i>
12:00 p.m. - 1:20 p.m.	Lunch Break on Own	
1:00 p.m. - 4:30 p.m.	Wild Jobs Café <i>Stop by on Monday and Tuesday during posted hours for the opportunity to interact with potential employers, meet students and professionals in your area of interest, and get expert advice to help advance your career. See details on page 9.</i>	<i>Hilton: Wright Ballroom A/B</i>
1:00 p.m. - 5:00 p.m.	Poster Set-Up	<i>Ballroom C and Foyer</i>
1:00 p.m. - 5:00 p.m.	Midwest Association of Fish and Wildlife Agencies R3 Committee (Part One)	<i>Hilton: Empire Ballroom</i>
1:20 p.m. - 3:00 p.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
3:00 p.m. - 3:20 p.m.	 Refreshment Break with Exhibitors	<i>Ballroom C and Foyer</i>
3:20 p.m. - 5:00 p.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
5:00 p.m. - 6:30 p.m.	AFS NCD Business Meeting	<i>101 B</i>
5:00 p.m. - 7:30 p.m.	 Student/Professional Networking Mixer <i>Come join us for light hors d'oeuvres and conversation! This casual event will provide a unique opportunity for students to meet, ask questions, and network with fish and wildlife professionals from around the region.</i>	<i>Hilton: Crystal Ballroom</i>
6:30 p.m. - 8:00 p.m.	Purdue Department of Forestry & Natural Resources Reception	<i>Hilton: Oak</i>
7:30 p.m. - 9:00 p.m.	UW-Madison and UW-Stevens Point Alumni & Friends Combined Reception	<i>Ballroom A/B</i>
Evening	Time on Own <i>Explore downtown Milwaukee! A list of nearby food options is available at a local information kiosk in the Wisconsin Center.</i>	

Schedule At-A-Glance

TUESDAY, JANUARY 30		
7:00 a.m. - 8:00 a.m.	Continental Breakfast with Exhibitors	<i>Ballroom C and Foyer</i>
7:00 a.m. - 6:00 p.m.	Conference Registration Desk Open	<i>Ballroom A Foyer</i>
7:00 a.m. - 6:00 p.m.	Speaker Ready Room	<i>101 C</i>
8:00 a.m. - 10:00 a.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
9:00 a.m. - 4:30 p.m.	Midwest Association of Fish and Wildlife Agencies R3 Committee (Part Two)	<i>Hilton: Empire Ballroom</i>
10:00 a.m. - 10:20 a.m.	 Refreshment Break with Exhibitors	<i>Ballroom C and Foyer</i>
10:00 a.m. - 3:30 p.m.	Wild Jobs Café	<i>Hilton: Wright Ballroom A/B</i>
10:20 a.m. - 12:00 p.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
12:00 p.m. - 1:20 p.m.	Lunch Break on Own	
1:20 p.m. - 3:00 p.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
3:00 p.m. - 3:20 p.m.	 Refreshment Break with Exhibitors	<i>Ballroom C and Foyer</i>
3:20 p.m. - 5:00 p.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
4:00 p.m. - 6:00 p.m.	TWS North Central Section Annual Member & Executive Board Meeting	<i>Hilton: Regency Ballroom</i>
5:00 p.m. - 6:00 p.m.	American Fisheries Society Wisconsin Chapter Business Meeting	<i>102 B</i>
5:00 p.m. - 6:00 p.m.	North Central Division Ictalurid Technical Committee Meeting	<i>Hilton: Empire Ballroom</i>
5:00 p.m. - 6:00 p.m.	Wildlife Acoustics: Passive Acoustic Monitoring Workshop <i>Acoustic recorders provide a non-invasive and cost-effective technique to assess species biodiversity within a region. This will be a hands-on workshop based on the Song Meter SM4 family to learn how to monitor for bats, birds, frogs, etc. Participants will learn how to set up the SM4 recorder as well as helpful deployment tips. Pre-registration required; visit the Wildlife Acoustics booth for more information.</i>	<i>Hilton: Walker</i>

Schedule At-A-Glance

TUESDAY, JANUARY 30 (CONTINUED)		
5:00 p.m. - 7:00 p.m.	Wisconsin Chapter of The Wildlife Society Annual Business Meeting & Awards Ceremony	<i>Hilton: Juneau</i>
5:30 p.m. - 7:00 p.m.	Michigan State University Fisheries & Wildlife Alumni and Friends Social	<i>Hilton: Oak</i>
6:00 p.m. - 9:00 p.m.	* Trade Show & Poster Social and Student Research-in-Progress Posters <i>Visit with exhibitors and authors of contributed posters. Light hors d'oeuvres and keg beer (while supplies last), and cash bar.</i>	<i>Ballroom C and Foyer</i>
WEDNESDAY, JANUARY 31		
7:00 a.m. - 8:00 a.m.	Continental Breakfast with Exhibitors	<i>Ballroom C and Foyer</i>
7:00 a.m. - 9:00 a.m.	Speaker Ready Room	<i>101 C</i>
7:00 a.m. - 11:00 a.m.	Conference Registration Desk Open	<i>Ballroom A Foyer</i>
8:00 a.m. - 10:00 a.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
10:00 a.m. - 10:20 a.m.	☕ Refreshment Break with Exhibitors	<i>Ballroom C and Foyer</i>
10:20 a.m. - 12:00 p.m.	Concurrent Technical Sessions & Symposia	<i>101 B /102 A-E / 103 A-E</i>
10:20 a.m. - 1:00 p.m.	Exhibitor Tear-Down	<i>Ballroom C and Foyer</i>
12:00 p.m.	Conference Adjourns	

ONLINE SCHEDULE: *The conference schedule is hosted online using web-based **Sched.com**. This allows you to search within the schedule, and filter the schedule to show sessions occurring on a certain date or within a track. You can also build your own schedule by creating a free account with Sched. Since this is a web-based app, there is nothing to download. For easy access to the online schedule visit <https://midwestfishwildlifeconferen2018.sched.com>.*



Student Activities

The Conference Planning Committee has developed some special student-focused events to help you make the most of your experience at the 2018 Midwest Fish and Wildlife Conference! Check out these featured events:



Wild Jobs Café:

Be sure to stop by the Wild Jobs Café in the Hilton's Wright Ballroom (4th floor) during the concurrent sessions on Monday and Tuesday to interact with potential employers, meet students and professionals in your area of interest, and get expert advice to help advance your career. Drop in during the Job and Grad School panels to ask questions and gain information about seeking employment and graduate opportunities. Sign up for a time to participate in the interview skills and resume writing workshops at the registration table. Sign-up is first-come, first-served, so sign-up early to ensure you get a spot. Students who sign up early will receive an extra ticket toward the big prize to be raffled at the end of the Student/Professional Networking Mixer on Monday night.

The Wild Jobs Café schedule is as follows:

Monday 1:00 PM – 2:30 PM

Job Panel: Wondering where you can work and what you can do with a fisheries or wildlife degree? Attend the Job Panel, where you'll hear from a variety of state, federal, and non-governmental professionals about how they got into their careers, why they chose to work for their particular agency, and how you can work for them!

Monday 3:00 PM – 4:30 PM

Resume Writing: Want a professional opinion on what makes a strong resume? Sign up for a 15-minute time slot to have a professional critique your resume. NOTE: Please bring at least one hard copy resume no longer than 2 pages (front/back). References not needed. Spaces may be limited so sign up early at the registration desk.

Tuesday 10:00 AM – 11:30 AM

Grad School Panel: Curious whether graduate school is right for you, or already in grad school and looking for some pointers? Learn what it takes to get into graduate school, how to get the most out of your grad experience, and how an advanced degree can help your career. Panelists will consist of both graduate students and advisors.

Tuesday 1:30 PM – 3:30 PM

Interview Skills: Looking to apply for a position but worried about the interview? Sign up to have a professional critique your interview skills and give you tips on how to improve! Mock interviews will be 15-minutes long and consist of 1-2 questions followed by a critique, so please come prepared to talk. Spaces may be limited so sign up early at the registration desk.

Job and Graduate Appointment Board Posting:

Professionals or advisors with open or anticipated positions can post those opportunities on the jobs and graduate appointment board at any time during the Wild Jobs Café. General information about job searching, desired skills, and application processes from prospective employers is also welcome. This will be a bulletin board and table for posting information, so please bring a hard copy of position description(s) with contact information and/or business cards.

Student/Professional Networking Mixer:

Come join us on Monday from 5:00 p.m. - 7:30 p.m. in the Hilton's Crystal Ballroom (5th floor) for light hors d'oeuvres, drinks, and conversation! This casual event will provide a unique opportunity for students to meet, ask questions, and network with fish and wildlife professionals from around the region. For the first hour of the mixer, professionals will be grouped by interest where students can speak to multiple mentors in a roundtable-type rotation. Door prizes will be intermittently drawn for those present. Raffle tickets will also be given to students interacting with professionals, so the more questions you ask, the better chance you have of winning the final big prize!

Workshops

We're pleased to offer the following high-quality workshops on Sunday, January 28th in conjunction with the conference. Thank you to the workshop organizers and presenters for their efforts to provide these additional educational opportunities with emphasis on a specific skill, technique, or process. Pre-registration and additional fees are required for participation in all workshops.

FULL-DAY WORKSHOPS

The full-day workshops will include a buffet lunch for pre-registered workshop participants.

Beginning Your Professional Journey (For Students Only)

Organizers: Jim Schneider and John Loegering, Michigan State University; University of Minnesota

Time: 8:00 a.m. - 4:30 p.m. // Fee: \$25

Intended Audience: early career students; early graduate students; and undergraduate students

Introductory Fisheries Analyses with R

Organizer: Derek Ogle, Northland College

Time: 8:00 a.m. - 5:00 p.m. // Fee: \$25 professionals; \$10 students

Intended Audience: Students or Professionals; Intermediate-level

Midwest Leadership Workshop Series

Organizer: Pat Lederle, North Central Section of the Wildlife Society, MAFWA

Time: 9:00 a.m. - 4:00 p.m. // Fee: \$50 for TWS Members; \$80 for non-members

Intended Audience: All Invited

Conflict Resolution in Fish and Wildlife Management

Sponsored by the Wisconsin Chapter of The Wildlife Society

Organizer: Scott Hygnstrom, Wisconsin Chapter of The Wildlife Society

Time: 9:00 a.m. - 4:30 p.m. // Fee: \$25 Wisconsin Chapter of TWS Member (professionals); \$10 Wisconsin Chapter of TWS Member (students); \$50 professionals (non-member); \$10 students (non-member)

Intended Audience: students and professionals

Wildlife Data Analysis Using Program R

Sponsored by the Wisconsin Chapter of The Wildlife Society

Organizer: Scott Hygnstrom, Wisconsin Chapter of the Wildlife Society

Time: 9:00 a.m. - 4:30 p.m. // Fee: \$25 Wisconsin Chapter of TWS Member (professionals); \$10 Wisconsin Chapter of TWS Member (students); \$50 professionals (non-member); \$10 students (non-member)

Intended Audience: Beginning through advanced students and professionals

HALF-DAY WORKSHOPS

The half-day workshops will be offered from 1:00 p.m. - 5:00 p.m.

Managing, Sharing, and Using Avian Data for Conservation, Management, and Research

Organizer: Katie Koch, U.S. Fish & Wildlife Service

Time: 1:00 p.m. - 5:00 p.m. // Fee: \$25

Intended Audience: Applicable to students and professionals; use of a personal laptop desired

Healthy Lakes Initiative with an Emphasis on Habitat Restoration Best Practices

Organizer: Pamela Toshner, Wisconsin Department of Natural Resources

Time: 1:00 p.m. - 5:00 p.m. // Fee: \$25

Intended Audience: All Invited

Plenary Session

STRENGTHENING NATURAL RESOURCES THROUGH COLLABORATION

Monday, January 29 • 8:00 a.m. - 12:00 p.m. • Ballroom A/B

Emcee: *Jeremy Holtz, Wisconsin Department of Natural Resources*

8:00 a.m.	Welcome & Opening Remarks <i>Justine Hasz, Wisconsin Department of Natural Resources and Dan Meyer, Secretary, Wisconsin Department of Natural Resources</i>
8:15 a.m.	Equity & Inclusion in the Environmental Field (Four Reasons Your Environmental Organization is Still Predominantly White) <i>August M. Ball, Founder, Cream City Conservation</i>
8:50 a.m.	The Psychological Importance of Exposing “Digital Natives” to the Natural World <i>Casey A. Holtz, Ph.D., Associate Professor of Psychology, Wisconsin Lutheran College</i>
9:25 a.m.	Smartphone Jiu Jitsu – Connecting People to Nature in the Digital Age <i>Evan Hirsche, Co-Founder, Discover Nature Apps</i>
10:00 a.m.	Refreshment Break with Exhibitors
10:20 a.m.	Awards Presentation
11:00 a.m.	Ignite Session

EQUITY & INCLUSION IN THE ENVIRONMENTAL FIELD (FOUR REASONS YOUR ENVIRONMENTAL ORGANIZATION IS STILL PREDOMINANTLY WHITE)

August M. Ball, Founder, Cream City Conservation

August M. Ball is the founder of Cream City Conservation. Her two-prong social enterprise helps organizations attract diverse candidate pools and institute strategies that attain and retain top talent, making their workforce stronger and smarter and their programs more sustainable and relevant. Simultaneously, Cream City Conservation Corps cultivates the next generation of land stewards by introducing and training traditionally underrepresented teens and young adults in ecological careers. August has connected thousands of youth and young adults to hands-on service to public lands, outdoor recreation and first-time employment experiences, during her 14 years of youth program management experience and 9 years of helping local and national organizations, such as the Student Conservation Association, US Forest Service and Milwaukee County Parks develop outdoor programs that are culturally relevant and inclusive.



THE PSYCHOLOGICAL IMPORTANCE OF EXPOSING “DIGITAL NATIVES” TO THE NATURAL WORLD

Casey A. Holtz, Ph.D., Associate Professor of Psychology, Wisconsin Lutheran College; Licensed Psychologist

Casey A. Holtz, Ph.D. is an Associate Professor of Psychology at Wisconsin Lutheran College and he has a private clinical psychology practice. He obtained his Ph.D. in Counseling Psychology from Marquette University. Dr. Holtz teaches a variety of classes related to child abnormal psychology, human development, counseling, and learning and memory. His private practice focuses on supporting families through divorce as a child specialist/therapist, parent coach, or family therapist. He also conducts psychological testing for school and legal related purposes and provides therapy for children and adolescents. Dr. Holtz publishes frequently with the majority of his research in the area of early childhood assessment.



SMARTPHONE JIU JITSU - CONNECTING PEOPLE TO NATURE IN THE DIGITAL AGE

Evan Hirsche, Co-Founder, Discover Nature Apps

Evan Hirsche is Co-Founder of Discover Nature Apps. He is a 27-year veteran in the wildlife conservation field. Prior to Discover Nature, he served for 12 years as President of the National Wildlife Refuge Association, and before that as National Policy Office Director for National Audubon Society. He began his career at Defenders of Wildlife in Washington, DC, where he acted as a wildlife policy and appropriations lobbyist and program manager. In 5th grade he won the Stonington, CT, Anglers Association junior trophy for landing a 31lb striped bass. He continues to enjoy fishing, but spends more time behind a lens as he explores the great outdoors.



Awards Presentation

THE WILDLIFE SOCIETY AWARDS

Presented by: Katy Reeder, Iowa Department of Natural Resources

- **Outstanding Wildlife Student Awards**
One undergraduate and one graduate student recognized for academic achievement, professional experience, and activities in The Wildlife Society.
- **Student Chapter of the Year Award**
An exemplary student chapter recognized for its contributions to The Wildlife Society's mission and goals.
- **Professional Award of Merit**
The North Central Section's most prestigious award. Recognizing outstanding professional accomplishments in wildlife conservation and leadership over a period of years in any area of wildlife work.

NORTH CENTRAL DIVISION - AMERICAN FISHERIES SOCIETY AWARDS

Presented by: Mark Pyron, North Central Division of the American Fisheries Society

- **Best Chapter Communications:** One award will be given to the chapter that has developed the most efficient, useful, and attractive newsletter and website to disseminate information to its members.
- **Most Active Student Subunit:** One award will be given to the North Central Division student subunit that has carried out the most active program in developing interest among undergraduate and graduate students in fisheries science and fulfilling the mission of the American Fisheries Society.
- **Most Active Chapter (Small & Large):** Two awards (small chapter, large chapter) will be given to the chapters that have carried out the most active programs of enhancing professionalism and fisheries science.
- **Fisheries Excellence:** This award will be given to a North Central Division member who has made an outstanding contribution to the fisheries profession. This contribution may be a single activity or a collection of achievements over the individual's career.

JANICE LEE FENSKE MEMORIAL AWARD

Presented by: Jessica Mistak, Michigan Department of Natural Resources

The Janice Lee Fenske Memorial Award was created in 2005 to recognize undergraduate and graduate students for their achievements in the field of fisheries or wildlife management. Each year, up to 25 Fenske Memorial Award finalists are selected based on their enthusiasm to protect fisheries and wildlife resources through management activities, selflessness and motivation to teach others, interest in professional involvement, integrity, positive attitude, and compassion. The outstanding students will be announced during this award ceremony.

Ignite Session

Back by popular demand! The Midwest Fish and Wildlife Conference is proud to present the 3rd Annual Ignite Session. Using 5-minute presentations with no more than 20 timed slides, our speakers will engage the audience on issues regarding the future of fisheries and wildlife conservation in the Midwest. We have selected speakers who can speak to personal, political, economic, policy, agency, and private landowner perspectives. Come join the conversation! Experience the passion of our speakers!

IGNITE SPEAKERS

Emily Latch, Associate Professor, Biological Sciences, University of Wisconsin - Milwaukee
“Badgers Are Worth Digging Into”

Emily is an Associate Professor at the University of Wisconsin-Milwaukee. Research in her lab focuses on using molecular methods to inform conservation and management of North American wildlife and to improve captive population management. Emily is President of the TWS Molecular Ecology Working Group and a member of the IUCN Conservation Genetics Specialist Group.

Ken Leinbach, Executive Director, Urban Ecology Center (Milwaukee)
“It’s Kind of Fun to Do the Impossible: The Story of Milwaukee’s Urban Ecology Center”

Ken is a nationally recognized educator and leader in community-based environmental education. He is the Executive Director of the Urban Ecology Center, and a recently published author. Ken speaks on a variety of topics including urban education, community organizing, storytelling, and green living. Ken holds a Bachelor of Science degree from Antioch College in Ohio, a Master’s degree in Environmental Education from Prescott College in Arizona and received an honorary Doctorate of Fine Arts from the Milwaukee Institute of Art and Design.

Eva Lewandowski, Citizen Based Monitoring Coordinator, Wisconsin Department of Natural Resources
“Citizen Science: Expanding Conservation Through Partnerships”

Eva Lewandowski is the Citizen-based Monitoring Coordinator at the Wisconsin DNR, where she coordinates the Wisconsin Citizen-based Monitoring Network and facilitates many of the DNR’s rare species monitoring projects. She is active in the national and international citizen science community and enjoys volunteering for several citizen science projects in her spare time. She received her Ph.D. in Conservation Biology from the University of Minnesota.

Curt Meine, Senior Fellow, Aldo Leopold Foundation
“Making Common Cause: Wisconsin’s Legacy of Collaborative Conservation”

Curt is a conservation biologist, historian, and writer. He has a wide range of interests involving land conservation and wildlife, and is a preeminent scholar of Aldo Leopold. He is a Senior Fellow at the Aldo Leopold Foundation and the Center for Humans & Nature and an adjunct professor at the University of Wisconsin-Madison. Curt received his bachelor’s degree in English and History from DePaul University in Chicago and his graduate degrees from the Nelson Institute for Environmental Studies at UW-Madison.

Jeremy Pyatskowitz, Director of Environmental Services, The Menominee Indian Tribe of Wisconsin
“Menominee Lake Sturgeon Restoration-Past to Present”

Jeremy is the Director of Environmental Services for the Menominee Indian Tribe of Wisconsin. His role involves performing lake and stream studies for fisheries, water quality monitoring, and habitat restoration.

Jennifer Sereno, Communications Manager, Madison Metropolitan Sewerage District
“From Flush to Fish: Managing the Wastewater Flow”

Jennifer Sereno currently serves as communications manager for Madison Metropolitan Sewerage District with previous experience as strategic communications manager for the Wisconsin Department of Natural Resources and business editor of the Wisconsin State Journal. She’s produced stories for The New York Times, Dow Jones, Reuters and Wisconsin Trails, among others. In her free time, she enjoys fishing, open water swimming and winter training for the American Birkebeiner.

Technical Sessions & Symposia Grid

MONDAY 1:20 PM - 5:00 PM

101 B	102 A	102 C	102 B	102 D&E	103 D	103 C	103 B	103 A	103 E
S01: Citizen Science: Collaboration with the Public For Natural Resource Management and Conservation	S02: Cooperative Ecosystem Study Units: Working Together to Support Informed Public Trust Resource Stewardship	S03: CWD Management: Facilitating Agency Collaboration	S04: Ducks to Dickcissels: Collaboration for the Conservation of Multiple Species in Grasslands	S05: Managing Habitat and Fisheries Affected by Habitat in Inland Glacial Lakes	T01: Asian Carp	T02: Carnivores	T03: Tools & Technology: Wildlife Habitat	T04: Walleye	T05: Salmonids

TUESDAY 8:00 AM - 12:00 PM

101 B	102 A	102 B	102 C	102 D&E	103 A	103 B	103 C	103 D	103 E
S06: Advances and Challenges in Amphibian and Reptile Conservation and Management	S07: Development, Validation, and Application of Standardized Pop. Assessments in Inland Waters	S08: Waterbird Use and Monitoring of Wetland Protection, Restoration and Enhancement Projects	S09: Back to the Future: Fish and Wildlife Research in an Era of Rapid Change	T06: Asian Carp and Other Aquatic Invasives	S10: Collaborating for Fisheries Management	T07: Upland Game Birds & Pollinators	T08: Ungulates	T09: Walleye and Perch	T10: Rivers and Oxbows

TUESDAY 1:20 PM - 5:00 PM

101 B	102 A	102 B	102 C	102 D&E	103 A	103 B	103 C	103 D	103 E
S06: Continued	S07: Continued	S08: Continued	S11: Two Worlds, One Goal: Importance of Fisheries and Toxicology Collaboration	T06: Asian Carp and Other Aquatic Invasives	S12: Coordinating Successful Wildlife Disease Responses	T11: Small Mammals	T12: Forest and Grassland Songbirds	T13: Sturgeon, Esocids, and Coregonids	T10: Rivers and Oxbows

WEDNESDAY 8:00 AM - 12:00 PM

101 B	102 A	102 B	102 C	102 D&E	103 A	103 B	103 C	103 D	103 E
S13: Extension and Outreach for Anglers and Hunters	S14: Managing Aquatic Invasive Species Through Collaboration	T14: Waterfowl	T15: Streams, Dams, and Reservoirs	T16: Conservation Collaboration & General Wildlife	T17: Fish Habitat and Genetics	T18: Fish Physiology and Behavior	T19: Human Dimensions & Fisheries	T20: General Fisheries & Wildlife	
S15: Community-Based Research and Restoration in Milwaukee County, WI							T21: Lightning Session		

The full schedule of Technical Sessions follows on pages 15-43. Sessions are organized by day and time. The presenting author is the first name listed or is indicated with an asterisk*. Full abstracts are located on the conference website. Check the conference registration desk onsite for last minute cancellations and changes to the technical schedule or visit www.midwestfv.org. REMINDER: The conference schedule is available on sched.org which allows you to search within the schedule.

MONDAY TECHNICAL SESSIONS

1:20 PM - 5:00 PM

S01: CITIZEN SCIENCE: COLLABORATION WITH THE PUBLIC FOR NATURAL RESOURCE MANAGEMENT AND CONSERVATION

101 B Room

Moderator: Susan Frett, Wisconsin DNR

- 1:20 PM **Resources and Tools for Creating and Managing a Citizen Science Project**
Eva Lewandowski, Wisconsin Department of Natural Resources
- 1:40 PM **Recruiting and Training Volunteers to Conduct Snow Track Surveys**
Jane Wiedenhoef, Wisconsin Department of Natural Resources
- 2:00 PM **Recruitment, Training, and Retention of Stream Monitoring Volunteers**
Ilana Haimes, Wisconsin Department of Natural Resources
- 2:20 PM **Designing Effective Protocols for Large-Scale Citizen Science Projects**
Christina Locke, Wisconsin Department of Natural Resources
- 2:40 PM **Making Sense of 5 Million Observations: Data Management and Quality Control for Wisconsin Breeding Bird Atlas II**
Nicholas M. Anich, Wisconsin Department of Natural Resources; Ryan S. Brady, Wisconsin Department of Natural Resources; Thomas G. Prestby, GEI Consultants; Ian J. Davies, Cornell Lab of Ornithology
- 3:00 PM **Break**
- 3:20 PM **Monarch Eggs and Caterpillars, Data, Data Management, and Data Quality: A Case Study**
Karen Oberhauser, University of Wisconsin-Madison
- 3:40 PM **Tales from the Zooniverse: Resources and Tools for Project Leads and Volunteers**
Laura Trouille, Zooniverse
- 4:00 PM **Evaluating Citizen Science Programs: Strategies, Tools, and Resources**
Christine Anhalt-Depies, Mark Rickenbach, Adena Rissman—University of Wisconsin-Madison
- 4:20 PM **Panel Discussion and Q&A**

S02: COOPERATIVE ECOSYSTEM STUDY UNITS: WORKING TOGETHER TO SUPPORT INFORMED PUBLIC TRUST RESOURCE STEWARDSHIP

102 A Room

Moderator: Nicole Athearn, Great Rivers CESU

- 1:20 PM **Cooperative Ecosystem Studies Unit Roles in Midwest Conservation Science**
Nicole Athearn, Great Rivers CESU; Erin Williams, Great Lakes-Northern Forest CESU
- 1:40 PM **Collaborative Approach to Assess the Current Condition of Priority Natural Resources in Two National Parks**
Joanna Whittier, University of Missouri; Phil Hays, USGS Lower Mississippi Gulf Water Science Center; Brittani Alexander, University of Missouri; Shelley Todd, Hot Springs National Park; Charles Bitting, Buffalo National River; Shawn Hodges, Buffalo National River; Brian Kenner, Midwest Regional Office, National Park Service; Nicole Athearn, Great Rivers CESU
- 2:00 PM **Pollinators in Our Parks – How Is Invasive Plant Management Impacting Native Bees in National Parks?**
Kiley Friedrich, Dr. Dan Cariveau—University of Minnesota Bee Lab
- 2:20 PM **The Importance and Application of Social Science Research in Protected Area Management**
Dr. Ryan L. Sharp, Kansas State University
- 2:40 PM **Collaborative Studies on Wolf Ecology in the Greater Voyageurs National Park Ecosystem**
Joseph K. Bump, Thomas Gable, Jordan Pruszenski—University of Minnesota; Steven Windels, Voyageurs National Park
- 3:00 PM **Break**
- 3:20 PM **Escapement and Seasonal Movement of Muskellunge and Walleye in Two Central Iowa Reservoirs**
Robert E. Weber III, Iowa State University; Ben Dodd, Iowa Department of Natural Resources; Andy Otting, Iowa Department of Natural Resources; Michael J. Weber, Iowa State University
- 3:40 PM **Assessing Vernal Pools for Informed Decision Making in Resource Management**
Némesis Ortiz-Declat, University of Wisconsin-Madison; Desiree Robertson-Thompson, Great Lakes Research & Education Center, National Park Service
- 4:00 PM **Agency and University Partnerships to Increase Diversity in Natural Resource Management**
Mae Davenport, University of Minnesota; Erin Williams*, National Park Service
- 4:20 PM **Panel Discussion and Q&A**

S03: CWD MANAGEMENT: FACILITATING AGENCY COLLABORATION*102 C Room**Moderators: Bob Nack, Tami Ryan—Wisconsin DNR*

- 1:20 PM **Five Decades (or More) of Chronic Wasting Disease: Lessons Learned**
John R. Fischer, Southeastern Cooperative Wildlife Disease Study; Michael W. Miller, Colorado Division of Parks and Wildlife
- 1:40 PM **Transmission of Infectious Prions in Plant Tissue**
Jay R. Schneider, US Geological Survey, National Wildlife Health Center
- 2:00 PM **CWD Management and Response in Wisconsin: Lessons Learned and New Beginnings**
Tami Ryan, Wisconsin Department of Natural Resources
- 2:20 PM **Chronic Wasting Disease (CWD) Surveillance and Management in Missouri**
Jasmine Batten, Missouri Department of Conservation; Sherri Russell, Missouri Department of Conservation
- 2:40 PM **Responding to a Recent Outbreak of Chronic Wasting Disease in Wild Deer in Minnesota**
Michelle Carstensen, Erik Hildebrand, Lou Cornicelli, Christopher Jennelle, Margaret Dexter, Patrick Hagen—Minnesota Department of Natural Resources
- 3:00 PM **Break**
- 3:20 PM **Chronic Wasting Disease Management and Surveillance: A Michigan Perspective**
Chad M. Stewart, Kelly A. Straka, DVM MPH—Michigan Department of Natural Resources
- 3:40 PM **CWD and the Threat to Waawaashkeshi (White-Tailed Deer) in the Ceded Territories**
Travis Bartnick, Great Lakes Indian Fish & Wildlife Commission
- 4:00 PM **Iowa CWD Issues and Management: Deer and People**
Terry Haindfield, Iowa Department of Natural Resources
- 4:20 PM **Agency Trust and Perceived Risk Toward Chronic Wasting Disease in Illinois**
Craig A. Miller, Illinois Natural History Survey; Jerry J. Vaske, Colorado State University
- 4:40 PM **Panel Discussion on Opportunities for CWD Collaboration**

S04: DUCKS TO DICKCISSELS: COLLABORATION FOR THE CONSERVATION OF MULTIPLE SPECIES IN GRASSLANDS*102 B Room**Moderator: Kelly VanBeek, USFWS*

- 1:20 PM **Birds, Grasslands, and the Need for Collaboration**
Kelly R. VanBeek, U.S. Fish & Wildlife Service
- 1:40 PM **Using Grazing to Manage Grasslands for Waterfowl and Migratory Bird Production Goals on a 53,000-acre Wetland Management District**
J.B. Bright, U.S. Fish & Wildlife Service, Morris Wetland Management District
- 2:00 PM **Collaboration Turns Pine Plantations into Pine/Oak Barrens in a Critical Landscape for Birds**
Nancy Christel, Wisconsin Department of Natural Resources
- 2:20 PM **Strategic Prioritization of Grassland Habitat Types in Wisconsin**
Matt Zine, Ryan O'Connor, Armund Bartz, Andy Paulios, Bill Hogseth, Sara Kehrl, Craig Anderson—Wisconsin Department of Natural Resources; Kelly Van Beek, U.S. Fish & Wildlife Service
- 2:40 PM **Prairie Contour Buffer Strips Serve as Bird Nesting Habitat in Midwestern Agricultural Landscapes**
Matthew D. Stephenson, Lisa A. Schulte—Iowa State University Department of Natural Resource Ecology and Management; Robert W. Klaver, U.S. Geological Survey, Iowa Cooperative Fish and Wildlife Research Unit
- 3:00 PM **Break**
- 3:20 PM **Beyond Wetlands: The Importance of Grassland Habitat for Breeding Waterfowl in an Agricultural Landscape**
Tyler M. Harms, Iowa Department of Natural Resources and Iowa State University; Orrin E. Jones III, Rex R. Johnson—Iowa Department of Natural Resources; Stephen J. Dinsmore, Iowa State University
- 3:40 PM **The Bird-Friendliness Index: A Novel Metric for Quantifying the Success of Conservation Programs**
Chad Wilsey, Nicole Michel, Curtis Burkhalter, Brian Trusty, Gary Langham—National Audubon Society

4:00 PM **Integrating Grassland Birds into Conservation Planning in the U.S. Prairie Pothole Region**
 Rocky Pritchert, Neal D. Niemuth, Mike E. Estey, Brian Wangler, Adam J. Ryba, Ned Wright, Chuck R. Loesch, Dan R. Hertel, S. P. Fields—U.S. Fish & Wildlife Service; Terry L. Shaffer, US Geological Survey

4:20 PM **Integrated Bird Conservation Delivery in the U.S. Prairie Pothole Region**
 Sean P. Fields, Neal D. Niemuth—U.S. Fish & Wildlife Service

S05: MANAGING FISH HABITAT AND FISHERIES AFFECTED BY HABITAT AND INLAND GLACIAL LAKES

102 D&E Room

Moderator: Joe Nohner, Michigan DNR

1:20 PM **Using Aquatic Landscape Ecology to Inform Lake Habitat Management at Multiple Scales**
 Kevin Wehrly, Michigan Department of Natural Resources; Joe Nohner, Michigan Department of Natural Resources; James Breck, University of Michigan; Tim Cross, Minnesota Department of Natural Resources; Peter Jacobson, Minnesota Department of Natural Resources; Gretchen Hansen, Minnesota Department of Natural Resources

1:40 PM **A Herculean Task: Reversing Lake Eutrophication**
 Catherine L. Hein, Wisconsin Department of Natural Resources

2:00 PM **Adapting to Climate Change: Tools for Managers of Inland Glacial Lakes**
 Ralph W. Tingley III, Missouri Cooperative Fish and Wildlife Research Unit; Craig P. Paukert, U.S. Geological Survey, Missouri Cooperative Fish and Wildlife Research Unit; Peter C. Jacobson, Minnesota Department of Natural Resources; Gretchen Hansen, Minnesota Department of Natural Resources; Greg Sass, Wisconsin Department of Natural Resources

2:20 PM **Investigating Fish Kills to Identify Emerging Threats and Long-term Stress**
 Nick Phelps, University of Minnesota

2:40 PM **The Influence of Lake Habitat and Landscape Context on Bluegill Growth and Population Size Structure in Midwest Glacial Lakes**
 Jim Breck, School for Sustainability and Environment, University of Michigan; Kevin Wehrly, Institute for Fisheries Research

3:00 PM **Break**

3:20 PM **Walleye Habitat: Considerations for Successful Natural Reproduction and Stocking**
 Joshua Raabe, University of Wisconsin-Stevens Point; Justin VanDeHey, University of Wisconsin-Stevens Point, Douglas Zentner, University of Arkansas-Pine Bluff; Timothy Cross, Minnesota Department of Natural Resources

3:40 PM **Large Woody Debris and Fish Habitat Structure Additions: Picking the Right Lakes, Setting Expectations, and How to Best Implement**
 Greg G. Sass, Wisconsin Department of Natural Resources; Stephanie L. Shaw, Wisconsin Department of Natural Resources; Andrew L. Rypel, University of California-Davis; Joshua K. Raabe, University of Wisconsin-Stevens Point; Scott Toshner, Wisconsin Department of Natural Resources; Pamela Toshner, Wisconsin Department of Natural Resources

4:00 PM **Advancing Aquatic Vegetation Management for Fish**
 Paul Radomski, Minnesota Department of Natural Resources

4:20 PM **Nuisance “Weeds” or Critical Fish Habitat: Balancing Trade Offs with Minnesota’s Aquatic Plant Management Program**
 Jon Hansen, Minnesota Department of Natural Resources

4:40 PM **Wisconsin’s Healthy Lakes Initiative: Working with Lakefront Property Owners to Apply Best Management Practices**
 Patrick Goggin, Wisconsin Lakes Partnership/UW-Extension Lakes, University of Wisconsin-Stevens Point; Pamela Toshner, Wisconsin Department of Natural Resources

T01: ASIAN CARP

103 D Room

Moderator: Jeremy Hammen, USFWS

1:20 PM **Validating Aging Structures in Asian Carp from the LaGrange Reach of the Illinois River to Known-Age Asian Carp from China**
 Charmayne Anderson, Jim Lamer—Western Illinois University; Brent Knights, Upper Midwest Environmental Sciences Center, US Geological Survey; Jun Wang, Shanghai Ocean University; Levi Solomon, Andy Casper—Illinois River Biological Station, Illinois Natural History Survey

1:40 PM **Habitat Use and Movement of Juvenile Asian Carp in the Illinois River**
 Cory Anderson, U.S. Fish & Wildlife Service; Kjetil Henderson, U.S. Army Corps of Engineers; Rebecca Neeley, U.S. Fish & Wildlife Service

- 2:00 PM **Satellite GPS Telemetry of Asian Carp in the Upper Illinois River Waterway**
Chelsea Center, James T. Lamer, Andrew T. Mathis—Western Illinois University; Brent Knights, United States Geological Survey; Kevin Irons, Illinois Department of Natural Resources
- 2:20 PM **Age and Growth Demographics of Asian Carp in the Upper Mississippi River**
Cortney Cox, James Lamer, Allison Lenaerts—Western Illinois University; Brent Knights, US Geological Survey; Kevin Irons, Illinois Department of Natural Resources
- 2:40 PM **Reproductive Potential of Silver and Bighead Carp in the Upper Mississippi River**
Allison Lenaerts, James Lamer, Cortney Cox, Boone La Hood—Western Illinois University; Kevin Irons, Illinois Department of Natural Resources
- 3:00 PM **Break**
- 3:20 PM **Using Microchemistry and Stable Isotopes to Determine Natal Origin and Movement of Asian Carp in Pools 16-19 of the Mississippi River**
Charmayne Anderson, Jim Lamer, Cortney Cox—Department of Biological Sciences, Western Illinois University; Greg Whitledge, Neil Rude—Department of Zoology, Southern Illinois University; Brent Knights, Upper Midwest Environmental Sciences Center, US Geological Survey
- 3:40 PM **Juvenile Asian Carp as Forage for Predatory Fish in the LaGrange Reach of the Illinois River**
Cory Anderson, Neil Gillespie—U.S. Fish and Wildlife Service; Rebekah Anderson, Andrew Casper, Levi Solomon—Illinois Natural History Survey; James Lamer, Eli Lampo—Western Illinois University; James Larson, Brent Knights, Jon Vallazza—U.S. Geological Survey; Rich Pendleton, New York State Department of Environmental Conservation; Nerissa McClelland, Illinois Department of Natural Resources; Jun Wang, Shanghai Ocean University
- 4:00 PM **Linking Aquatic-Terrestrial Habitats Through Resource and Process Subsidies: Insights from Too Few Salmon and Too Many Carp**
Scott F. Collins, David H. Wahl—Illinois Natural History Survey

- 4:20 PM **Advancements in Assessing Silver Carp Populations in the Illinois River, Illinois: A Comparison Between Standard Electrofishing and Novel Trawling Techniques**
Jeremy Hammen, U.S. Fish & Wildlife Service, Columbia Fish & Wildlife Conservation Office; Emily Pherigo, U.S. Fish & Wildlife Service, Columbia Fish & Wildlife Conservation Office; Jason Breeggemann, U.S. Fish & Wildlife Service, Green Bay Fish & Wildlife Conservation Office; Pablo Oleiro, Missouri Department of Conservation; Jeena Credico, U.S. Fish & Wildlife Service, La Crosse Fish & Wildlife Conservation Office; Jason Goeckler, U.S. Fish & Wildlife Service, Columbia Fish & Wildlife Conservation Office; Wyatt Doyle, U.S. Fish & Wildlife Service, Columbia Fish & Wildlife Conservation Office
- 4:40 PM **Electrotrawling as a Method to Mass Remove Invasive Carp**
Josey Ridgway, Emily Pherigo, Wyatt Doyle, Jason Goeckler, Kevin Drews, Ryan Long—U.S. Fish & Wildlife Service

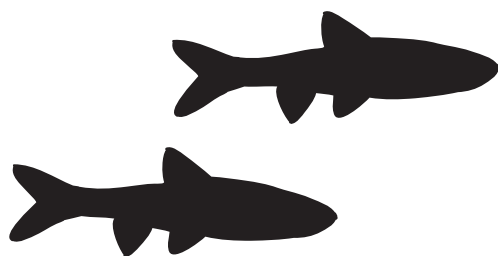
T02: CARNIVORES

103 C Room

Moderator: Jenna Kosnicki, Wisconsin DNR

- 1:20 PM **Where Wolves Kill White-Tailed Deer Fawns**
Austin T. Homkes, Northern Michigan University; Steve K. Windels, Voyageurs National Park; John G. Bruggink, Northern Michigan University; Thomas D. Gable, University of Minnesota
- 1:40 PM **Do Wolves Ambush Beavers from Downwind Hunting Beds?**
Thomas Gable, University of Minnesota; Steve K. Windels, Voyageurs National Park; Austin T. Homkes, Northern Michigan University; Joseph K. Bump, University of Minnesota
- 2:00 PM **Determining Coyote-Wolf Hybridization in Minnesota and Wisconsin by Using Mitochondrial DNA**
Taylor Soto, Dr. Kevyn Juneau—University of Wisconsin-River Falls
- 2:20 PM **Recommendations for the Update of the Bad River Band Ma'iingan Plan**
Abigail Fergus, Alma College
- 2:40 PM **How Do Domestic Dogs Influence Intraguild Interactions Among Native Canids?**
Dana J. Morin, Cooperative Wildlife Research Laboratory, Southern Illinois University; Damon B. Lesmeister, Pacific Northwest Research Station, US Forest Service; Clayton K. Nielsen, Cooperative Wildlife Research Laboratory, Southern Illinois University; Eric M. Schaubert*, Cooperative Wildlife Research Laboratory, Southern Illinois University
- 3:00 PM **Break**

- 3:20 PM **The American Black Bear and Baited Hair-Snares: A Quantitative Ethogram and Behavioral Analysis**
Steven Gurney, Jennifer B. Smith, David M. Williams–Boone and Crockett Quantitative Wildlife Center, Michigan State University; Dwayne R. Etter, Michigan Department of Natural Resources
- 3:40 PM **Public Preferences for Management Actions in Response to Various Black Bear–Human Interactions**
Jordan Petchenik, Robert H. Holsman, Lauren Bradshaw, David MacFarland–Wisconsin Department of Natural Resources
- 4:00 PM **Bobcat Home Range Size, Home Range Overlap, and Habitat Utilization in Northern Wisconsin**
Catherine C. Dennison, Wisconsin Department of Natural Resources; Maximilian L. Allen, Wisconsin Department of Natural Resources and University of Wisconsin; Nicholas Forman, Wisconsin Department of Natural Resources; Nathan M. Roberts, Ph.D., Wisconsin Department of Natural Resources
- 4:20 PM **Estimating Density of Bobcats in Midwestern Landscapes Using Spatial Capture-Recapture Models**
Edward D. Davis, Western Illinois University; Tim C. Swearingen, Western Illinois University; Christopher N. Jacques, Western Illinois University; Robert W. Klaver, US Geological Survey; Chuck R. Anderson, Colorado Parks and Wildlife; Jonathan A. Jenks, South Dakota State University; Christopher S. DePerno, North Carolina State University; Robert D. Bluett, Illinois Department of Natural Resources
- 4:40 PM **Comparisons of Large Carnivore Spoor Density in the Ngamiland and Mababe Regions of Botswana from 2016 to 2017**
Heather Foster, Madeline Abbatacola, Scott Hynstrom–Wisconsin Center for Wildlife, University of Wisconsin-Stevens Point; Christiaan Winterbach, Tau Consultants



T03: TOOLS & TECHNOLOGY: WILDLIFE HABITAT

103 B Room

Moderator: *Jeremy Holtz, Wisconsin DNR*

- 1:20 PM **Influence of Spatial Alignment on Photographic Detection Rates at Remotely Triggered Camera Stations**
Edward D. Davis, Tim C. Swearingen, Christopher N. Jacques–Western Illinois University; Jonathan L. Fusaro, California Department of Fish and Wildlife; Robert W. Klaver, US Geological Survey; Chuck R. Anderson, Colorado Parks and Wildlife; Jonathan A. Jenks, South Dakota State University; Christopher S. DePerno, North Carolina State University; Robert D. Bluett, Illinois Department of Natural Resources
- 1:40 PM **Telemetry Drones and GPS Collars: What Your Engineering Department Can Do for You**
Paul Keenlance, Grand Valley State University Biology Department; Bruce Dunne, Grand Valley State University School of Engineering; Jeffrey Ward, Grand Valley State University School of Engineering
- 2:00 PM **Using GIS to Predict the Impacts of Woody Biomass Harvesting on Forest Biodiversity: Case Studies in Northeast USA**
Heather Stricker, University of Wisconsin-Stevens Point; Deahn Donner, US Forest Service Institute for Applied Ecosystem Studies; T. Bently Wigley, National Council for Air and Stream Improvement, Inc; Darren Miller, Weyerhaeuser Company
- 2:20 PM **Using Circuit Theory to Map Connectivity of the U.S. Great Lakes Coastline**
Lindsay E. F. Hunt, Dr. Ralph Grundel, Dr. Noel Pavlovic–U.S. Geological Survey
- 2:40 PM **OPEN**
- 3:00 PM **Break**
- 3:20 PM **The Effects of Large-Scale Wetland Loss on Network Connectivity of the Rainwater Basin, Nebraska**
Bram H. F. Verheijen, Kansas Cooperative Fish and Wildlife Unit, Kansas State University; Dana M. Varner, Rainwater Basin Joint Venture, U.S. Geological Survey, Nebraska Cooperative Fish and Wildlife Research Unit, University of Nebraska-Lincoln; David A. Haukos, U.S. Geological Survey, Kansas Cooperative Fish and Wildlife Research Unit, Kansas State University

- 3:40 PM **Impacts of Prescribed Fire Intensity and Seasonality on Woody Vegetation**
Nathan Holoubek, Jed Meunier–Wisconsin Department on Natural Resources
- 4:00 PM **Songbird Responses to Drought Conditions with Temporal Scale Considerations**
Samantha Cady, Tim O’Connell–Oklahoma State University
- 4:20 PM **Effects of Land Management Type on American Kestrel (*Falco sparverius*) Occupancy and Recruitment**
Allie K. Kohler, Mary R. Sellars, Charlotte R. Catalano–Northland College; Thomas C. Doolittle, US Forest Service; Erik R. Olson, Northland College
- 4:40 PM **Response of Early Successional Avifauna to Pipeline Right-of-Way Vegetation Management in Eastern Ohio**
Lewis Lolya, Gabriel Karns, Stephen Matthews–The Ohio State University

T04: WALLEYE*103 A Room**Moderator: Stephanie Shaw, Wisconsin DNR*

- 1:20 PM **Biological and Social Responses to Walleye Recruitment Failure on Minocqua Chain, Wisconsin**
John Kubisiak, Wisconsin Department of Natural Resources
- 1:40 PM **Recovery and Management of the Saginaw Bay Walleye Population**
David G. Fielder, James P. Baker–Michigan Department of Natural Resources
- 2:00 PM **Ecosystem Changes and Effects on Walleye Sustainable Harvest in Lake Mille Lacs, Minnesota**
Gretchen J.A. Hansen, Minnesota Department of Natural Resources; Jordan S. Read, US Geological Survey; Luke A. Winslow, Rensselaer Polytechnic Institute; Melissa Treml, Minnesota Department of Natural Resources; Patrick J. Schmalz, Minnesota Department of Natural Resources; Stephen R. Carpenter, University of Wisconsin–Madison
- 2:20 PM **Identifying Recruitment Bottlenecks for Age-0 Walleye in Northern Wisconsin Lakes**
Daniel Isermann, USGS-Wisconsin Cooperative Fishery Research Unit; Jason Gostiaux, Fisheries Analysis Center, University of Wisconsin-Stevens Point, Hadley Boehm, Wisconsin Department of Natural Resources, Joseph Hennessy, Wisconsin Department of Natural Resources, Gretchen Hansen, Minnesota Department of Natural Resources
- 2:40 PM **Lac Vieux Desert: Management Challenges and a Cooperative Plan to Restore a Naturally-Reproducing Walleye (*Sander vitreus*) Population in a Northern Wisconsin Lake**
Hadley Boehm, Wisconsin Department of Natural Resources; Stephen Gilbert, Wisconsin Department of Natural Resources
- 3:00 PM **Break**
- 3:20 PM **Potential for Reducing Largemouth Bass Abundance in Wisconsin Lakes Using Angler Harvest**
Christopher J. Sullivan, University of Wisconsin-Stevens Point; Kaitlin Schnell, University of Wisconsin-Stevens Point, Current address: Army Corps of Engineers, Seattle District; Jonathan Hansen, Wisconsin Department of Natural Resources, Current address: Minnesota Department of Natural Resources; Daniel A. Isermann, U.S. Geological Survey, University of Wisconsin-Stevens Point
- 3:40 PM **Quantifying the Costs of Climate Adaptation to Agencies and Anglers: A Case Study of Wisconsin’s Inland Lake Walleye Fishery**
Ralph Tingley, Missouri Cooperative Fish and Wildlife Research Unit; Craig Paukert, U.S. Geological Survey, Missouri Cooperative Fish and Wildlife Research Unit; Gretchen Hansen, Minnesota Department of Natural Resources; Greg Sass, Wisconsin Department of Natural Resources; Abigail Lynch, U.S. Geological Survey, National Climate Change and Wildlife Science Center
- 4:00 PM **Walleye Management in the Red Lakes, Minnesota: Collapse, Recovery, and Cooperative Management**
Anthony J. Kennedy, Minnesota Department of Natural Resources; Gary C. Barnard, Minnesota Department of Natural Resources; William P. Brown, Red Lake Department of Natural Resources; Donald L. Pereira, Minnesota Department of Natural Resources
- 4:20 PM **Assessing the Dispersal of Stocked Walleye Fry in a Northern Minnesota Chain of Lakes**
Heather Marjamaa, Bemidji State University; Dr. Andrew Hafz, Bemidji State University; Tony Kennedy, Minnesota Department of Natural Resources
- 4:40 PM **Differential Effects of Algal and Sedimentary Turbidity on the Visual Systems of Walleye (*Sander vitreus*) and Their Prey**
Chelsey Nieman, Andy Oppliger, Caroline McElwain, Suzanne M. Gray–The Ohio State University

T05: SALMONIDS

103 E Room

Moderator: Dave Seibel, Wisconsin DNR

- 1:20 PM **Inland Lake Trout (*Salvelinus namaycush*) Management in Northern Wisconsin**
Tim Tobias, Hadley Boehm, Stephen Gilbert—Wisconsin Department of Natural Resources
- 1:40 PM **Resilient Trout Management in a Changing Climate: Integrating Stream Temperature Modeling and Decision-support**
Andrew K. Carlson, Michigan State University; William W. Taylor, Michigan State University; Zeenatul Basher, US Geological Survey; T. Douglas Beard, Jr., US Geological Survey; Dana M. Infante, Michigan State University
- 2:00 PM **Shifts in Lake Trout (*Salvelinus namaycush*) Diets in Lake Michigan: An Annual and 5-year Assessment**
Miles Luo, University of Michigan, School for Environment & Sustainability; Charles Madenjian, US Geological Survey, Great Lakes Science Center; Jim Diana, University of Michigan, School for Environment & Sustainability; Matthew Kornis, U.S. Fish & Wildlife Service, Green Bay Fish and Wildlife Conservation Office; Charles Bronte, U.S. Fish & Wildlife Service, Green Bay Fish and Wildlife Conservation Office
- 2:20 PM **Occurrence of *Salmincola sp.* on Brook Trout *Salvelinus fontinalis* in Tobin Harbor, Isle Royale National Park**
Evan Boone, Henry Quinlan—U.S. Fish & Wildlife Service
- 2:40 PM **Brook Trout Movements in the West Branch of the Wolf River, Wisconsin**
Emma Easterly, Wisconsin Cooperative Fishery Research Unit; Daniel Isermann, US Geological Survey; Joshua Pyatskowitz, Menominee Indian Tribe of Wisconsin; Joshua Raabe, University of Wisconsin-Stevens Point
- 3:00 PM **Break**
- 3:20 PM **Effect of Beaver on Brook Trout Habitat in North Shore, Lake Superior Streams**
Kathryn Renik, Andrew Hafs—Bemidji State University
- 3:40 PM **Temporal and Trophic Overlap of YOY Steelhead Trout with Native Species in Lake Erie Coolwater Tributaries**
Christopher M. Kemp, Dillon Weik, Jeff Miner—Bowling Green State University

- 4:00 PM **Diet Complexity and Specialization of Lake Michigan Salmonids: Contrasting Trophic Indicators**
Benjamin Leonhardt, Purdue University; Harvey A. Bootsma, University of Wisconsin-Milwaukee; Benjamin A. Turschak, Michigan Department of Natural Resources; Serguisz Czesny, Illinois Natural History Survey; Austin Happel, University of Illinois; Matthew S. Kornis, U.S. Fish and Wildlife Service; Charles R. Bronte, U.S. Fish & Wildlife Service; Jacques Rinchar, SUNY-Brockport; Tomas O. Höök, Purdue University
- 4:20 PM **Brown Trout Movement in Response to Large Scale Population Reduction**
Travis R. Rehm, South Dakota State University; Steve R. Chipps, U.S Geological Survey; Kelsen L. Young, Jacob L. Davis, Greg Simpson - South Dakota Department of Game Fish and Parks
- 4:40 PM **Using Stable C and N Isotopes to Assess Diets of Lake Michigan Salmonines: Implications for Ongoing Management**
Benjamin A. Turschak, Michigan Department of Natural Resources; Charles R. Bronte, U.S. Fish & Wildlife Service; Sergiusz Czesny, Illinois Natural History Survey; Tomas O. Höök, Purdue University; Matthew S. Kornis, U.S. Fish & Wildlife Service; Benjamin Leonhardt, Purdue University; Harvey A. Bootsma, University of Wisconsin-Milwaukee
- 5:00 PM **Implications of Atlantic Salmon Stocking for Great Lakes Food Webs and Contaminant Exposure**
Brandon S. Gerig, Northern Michigan University; Sean Cullen, University of Notre Dame; Dominic T. Chaloner, University of Notre Dame; Roger Greil, Lake Superior State University; Ashley H. Moerke, Lake Superior State University; Gary A. Lamberti, University of Notre Dame



Photo by: Greg Sass

TUESDAY TECHNICAL SESSIONS

8:00 AM - 12:00 PM

S06: ADVANCES AND CHALLENGES IN AMPHIBIAN AND REPTILE CONSERVATION AND MANAGEMENT

101 B Room

Moderators: Jennifer Moore, Grand Valley State University & Sarah Jean Baker, University of Illinois

8:00 AM **Initial Description of Dermocystid Infections in Silvery Salamanders (*Ambystoma platineum*) from Vermilion County, Illinois**

Laura Adamovicz, DVM, Wildlife Epidemiology Laboratory, University of Illinois College of Veterinary Medicine; Chris Phillips, PhD, Prairie Research Institute, Illinois Natural History Survey, University of Illinois; Matthew Allender, DVM, MS, PhD, Dipl ACZM, Wildlife Epidemiology Laboratory, University of Illinois College of Veterinary Medicine

8:20 AM **A Ranavirus-Associated Mass Mortality Event in an Illinois Amphibian Community**

Kelsey M. Low, Illinois Natural History Survey; Christopher A. Phillips, Illinois Natural History Survey; Steven J. Kimble, Towson University; Matthew C. Allender DVM, College of Veterinary Medicine, University of Illinois

8:40 AM **Impact of Snake Fungal Disease on Population Viability**

Sarah Baker, Michael Dreslik, Christopher Phillips—Illinois Natural History Survey; Matthew Allender, University of Illinois College of Veterinary Medicine

9:00 AM **Can Turtles Serve as Bio-Indicators of Environmental Health? Applications of Conservation Physiology in Midwestern Herpetology**

Jeanine Refsnider, University of Toledo

9:20 AM **Urban Wildlife: An Important Focus for Conservation**

Alaini C. Schneider, Bradley J. Swanson—Central Michigan University

9:40 AM **Landscape Genetics Reveal Possible Drought and Glacial Refugia Are Driving Population Structure of Northern Leopard Frog in North Dakota**

Justin Waraniak, Justin Fischer, Kevin Purcell, Craig Stockwell—North Dakota State University; David Mushet, US Geological Survey

10:00 AM **Break**

10:20 AM **Using eDNA Surveys to Detect a Fossorial Species of Conservation Concern, the Kirtland Snake (*Clonophis kirtlandii*) in Northwest Ohio**

Hannah Olenik, Bowling Green State University; Matt Cross, Toledo Zoo; Andrew Gregory, Bowling Green State University

10:40 AM **Quantifying Home Ranges and Hibernacula Characteristics of Captive-Reared, Recently-Released Juvenile Blanding's Turtles (*Emydoidea blandingii*)**

Armand A. Cann, Loyola University of Chicago; Andrés G. Muñoz, Loyola University of Chicago; Leigh Anne Harden, Benedictine University; Joseph R. Milanovich, Loyola University of Chicago

11:00 AM **Soft-Release May Not Enhance Translocation Efforts for Massasaugas (*Sistrurus catenatus*)**

Jillian Josimovich, Indiana University-Purdue University Fort Wayne; Monica Matthews, Indiana University-Purdue University Fort Wayne; Michael Ravesi, Michigan Department of Military and Veterans Affairs; Sasha Tetzlaff, University of Illinois Urbana-Champaign; Brett DeGregorio, U.S. Army Corps of Engineers, ERDC-CERL; Bruce Kingsbury, Indiana University-Purdue University Fort Wayne

11:20 AM **The Chambana Box Turtle Project: A Collaborative Effort Using Environmental Enrichment to Inform Reintroduction Techniques for *Terrapene carolina***

Sasha J. Tetzlaff, University of Illinois Urbana-Champaign; Brett A. DeGregorio, US Army Corps of Engineers: ERDC-CERL; Jinelle H. Sperry, US Army Corps of Engineers: ERDC-CERL

11:40 AM **Community Health, and Stress Response of Reintroduced and Resident Amphibians to Oak Woodland Restoration**

Allison Sacerdote-Velat; Mary Beth Manjerovic; Rachel Santymire

Tuesday 8:00 AM - 12:00 PM



S07: DEVELOPMENT, VALIDATION, AND APPLICATION OF STANDARDIZED POPULATION ASSESSMENTS IN INLAND WATERS

102 A Room

Moderators: Jeremy Pritt & Joseph Conroy, Ohio DNR

- 8:00 AM **An Overview of North American AFS Freshwater Fish Sampling Standardization**
(Extended Session) Scott A. Bonar, U.S. Geological Survey Arizona Cooperative Fish and Wildlife Research Unit; Norman Mercado-Silva, Universidad Autonoma del Estado de Morelos; Kevin L. Pope, U.S. Geological Survey Nebraska Cooperative Fish and Wildlife Research Unit
- 8:40 AM **Placing Gear Standardization in a Broader Context That Advances Science-Based Fisheries Research and Management**
Martha E. Mather, U. S. Geological Survey, Kansas Cooperative Fish and Wildlife Research Unit, Division of Biology, Kansas State University; Dan Shoup, Department of Natural Resource Ecology & Management, Oklahoma State University; Quinton Phelps, Davis College of Agriculture, Natural Resources & Design, West Virginia University
- 9:00 AM **Evaluation of Standard Sampling in Kansas Reservoirs**
Jeff Koch, Ben Neely—Kansas Department of Wildlife, Parks, and Tourism; Michael Colvin, Mississippi State University
- 9:20 AM **An Overview of Indiana's New Reservoir Status and Trends Monitoring Program**
Sandra J. Clark-Kolaks, Indiana Department of Natural Resources; Andrew Buelmann, Indiana Department of Natural Resources
- 9:40 AM **Electrofishing Equipment and Safety Standardization in Missouri**
Jake Allman, Zach Ford, Dave Woods, Andy Turner—Missouri Department of Conservation
- 10:00 AM **Break**
- 10:20 AM **Standardization of Fish Sampling Gears in South Dakota**
Brian G. Blackwell, South Dakota Department of Game Fish and Parks; Bradley J. Smith, U.S. Fish & Wildlife Service
- 10:40 AM **Developing, Validating, and Applying Standard Methods to Improve Fisheries Management and Research**
Joseph D. Conroy, Jeremy J. Pritt, Stephen M. Tyszko, Chris G. French, Richard D. Zweifel—Ohio Department of Natural Resources, Division of Wildlife

- 11:00 AM **Validating the Use of Baited, Tandem Hoop Nets to Index Ohio Reservoir Channel Catfish Density**
Stephen M. Tyszko, Jeremy J. Pritt, Joseph D. Conroy, Kevin S. Page, Richard R. Budni—Ohio Department of Natural Resources, Division of Wildlife

- 11:20 AM **Evaluating Electrofishing Techniques: A Critical Step in Developing Standardized Sampling Methods for Smallmouth Bass**
Zach Morris, University of Missouri; Craig Paukert, U.S. Geological Survey, Missouri Cooperative Fish & Wildlife Research Unit; Zach Ford, Missouri Department of Conservation; Andy Turner, Missouri Department of Conservation; Jan Dean, Dean Electrofishing, LLC

- 11:40 AM **Spatial and Temporal Distribution Affects Standardized Sampling Results of Two Sportfish Species in a Midwestern Reservoir**
Benjamin J. Schall, South Dakota Game, Fish and Parks / University of Nebraska Kearney; Keith D. Koupal, Nebraska Game and Parks Commission; Casey W. Schoenebeck, Minnesota Department of Natural Resources / University of Nebraska Kearney

S08: WATERBIRD USE AND MONITORING OF WETLAND PROTECTION, RESTORATION AND ENHANCEMENT PROJECTS

102 B Room

Moderators: Jake Straub & Kali Rush, UW-Stevens Point

- 8:00 AM **Minnesota Statewide Marshbird Survey: A Framework to Help Prioritize Wetlands for Conservation Actions**
Kristin A. L. Hall, Audubon Minnesota
- 8:20 AM **Waterbird Use at the Man-Made North Ottawa Flood Damage Reduction Impoundment in West Central Minnesota**
Christine Herwig, Kevin Kotts, Bruce Lenning—Minnesota Department of Natural Resources
- 8:40 AM **Secretive Marshbird Response to Fire and Grazing in Wetlands of Western Minnesota**
Nina Hill, University of Minnesota; David E. Anderson, US Geological Survey Minnesota Cooperative Fish & Wildlife Research Unit; Douglas H. Johnson, US Geological Survey; Tom Cooper, US Fish and Wildlife Service

Tuesday 8:00 AM - 12:00 PM

9:00 AM **Spectacular Response of Waterbirds to Restoration of Cat Island Chain in Lower Green Bay, Wisconsin**

Robert Howe, Thomas Prestby, Amy Wolf, Erin Giese—University of Wisconsin-Green Bay; Gary Van Vreede, U.S. Fish & Wildlife Service; Reena Bowman, U.S. Fish & Wildlife Service; Brian Glenzinski, Ducks Unlimited

9:20 AM **Marsh Bird Occupancy of Wetlands in the Glacial Habitat Restoration Area of Wisconsin**

Rachel Schultz, University of Wisconsin-Stevens Point; Jacob Straub, University of Wisconsin-Stevens Point; Jason Fleener, Wisconsin Department of Natural Resources; Brian Glenzinski, Ducks Unlimited Inc.; Scott Hygnstrom, University of Wisconsin-Stevens Point; Greg Kidd, USDA Natural Resources Conservation Service; Kurt Waterstradt—U.S. Fish & Wildlife Service

9:40 AM **Waterfowl Use of Restored Wetlands in the Glacial Habitat Restoration Area of Wisconsin**

Jacob Straub, University of Wisconsin-Stevens Point; Rachel Schultz, University of Wisconsin-Stevens Point; Jason Fleener, Wisconsin Department of Natural Resources; Brian Glenzinski, Ducks Unlimited Inc.; Scott Hygnstrom, University of Wisconsin-Stevens Point; Greg Kidd, USDA Natural Resource Conservation Service; Kurt Waterstradt, U.S. Fish and Wildlife Service

10:00 AM **Break**

10:20 AM **Guiding Wetland Restoration in the Calumet Region of Illinois and Indiana Through Monitoring Breeding Marsh Birds**

Stephanie Beilke, Nat Miller, Walter Marcisz—Audubon Great Lakes

10:40 AM **Wetland Quality for Waterbirds in Illinois**

Abigail Blake-Bradshaw, University of Illinois at Urbana-Champaign; Heath M. Hagy, U.S. Fish & Wildlife Service; Jeffrey W. Matthews, University of Illinois at Urbana-Champaign; John R. O'Connell, Southern Illinois University; Mike Eichholz, Southern Illinois University

11:00 AM **Marsh Bird Use of Wetlands Managed for Waterfowl in Illinois**

Therin Bradshaw, Western Illinois University/ Illinois Natural History Survey; Heath Hagy, U.S. Fish & Wildlife Service; Christopher Jacques, Western Illinois University

11:20 AM **Waterbird and Vegetation Responses to 10 Years of Restoration at an Illinois River Floodplain Wetland Complex**

Christopher S. Hine, Illinois Natural History Survey; Heath M. Hagy, U.S. Fish & Wildlife Service; Aaron P. Yetter, Illinois Natural History Survey; Michelle M. Horath, Illinois Natural History Survey; Joshua M. Osborn, Auburn University; Randolph V. Smith, Illinois Department of Natural Resources; Joshua D. Stafford, U.S. Geological Survey

11:40 AM **Breeding Bird Use of Restored Shallow Lakes in Iowa**

Rachel A. Vanausdall, Tyler M. Harms, Stephen J. Dinsmore - Iowa State University

S09: BACK TO THE FUTURE: FISH AND WILDLIFE RESEARCH IN AN ERA OF RAPID CHANGE

102 C Room

Moderator: Olivia Ledee, USGS

8:00 AM **Modeling Oxythermal Stress of Cisco Across Midwest Lakes to Aid Management of Cold-Water Fish Habitat**

Madeline Magee, University of Wisconsin-Madison, Center for Limnology; Andrew Rypel, Wisconsin Department of Natural Resources, University of California-Davis, Department of Wildlife, Fish, & Conservation Biology; Jordan Read, US Geological Survey, Water Science Center; Peter McIntyre, University of Wisconsin-Madison, Center for Limnology

8:20 AM **Ecological Niche Modeling to Disentangle the Effects of Climate and Eutrophication on Minnesota Lakes**

Peter C. Jacobson, Gretchen J.A. Hansen, Bethany J. Bethke, Tim K. Cross - Minnesota Department of Natural Resources

8:40 AM **Digital Media as a Source of Contemporary and Novel Fisheries Data**

Paul Venturelli, Ball State University

9:00 AM **Monarchs: Climate and Implications for Preservation of an Endangered Phenomenon**

Karen Oberhauser, University of Wisconsin-Madison

9:20 AM **Assessing Climate Change Vulnerability for Wildlife**

Benjamin Zuckerberg, Department of Forest and Wildlife Ecology, University of Wisconsin-Madison; Ilona Naujokaitis-Lewis, National Wildlife Research Centre, Carleton University, Environment and Climate Change Canada; Lars Pomara, Southern Research Station, USDA Forest Service

- 9:40 AM **Uncovering the Effects of Climate Change on U.S. Bird Species Using Structured Citizen Science: Audubon's Climate Watch Program**
Brooke Bateman, Nicole Michel, Kathy Dale, Zach Slavin, Geoff LeBaron, John Rowden, Chad Wilsey, Gregg Verutes, Lotem Taylor, Gary Langham - National Audubon Society
- 10:00 AM **Break**
- 10:20 AM **Bet Hedging in an Era of Rapid Change: Protecting Wildlife by "Conserving Nature's Stage"**
Kimberly R. Hall, The Nature Conservancy
- 10:40 AM **Manager's Perspectives on Climate Adaptation on Public Lands in the Upper Midwest: Implications for Monitoring and Tracking Progress**
Christine Anhalt-Depies, University of Wisconsin-Madison
- 11:00 AM **An Uncertain Climate for Deer Wintering Complexes: Scenario Planning for Complex Adaptive Systems**
Christopher L. Hoving, Michigan DNR and Michigan State University; William F. Porter, Michigan State University; Pat Lederle, Michigan Department of Natural Resources
- 11:20 AM **Panel Discussion and Q&A**

T06: ASIAN CARP AND OTHER AQUATIC INVASIVES

102 D&E Room

Moderator: Jim Lamer, Western Illinois University

- 8:00 AM **Recruitment Sources of Silver Carp in the Ohio River Basin Using Otolith Microchemistry**
Aaron Schiller, Greg Whitley—Center for Fisheries, Aquaculture, and Aquatic Sciences, Southern Illinois University; Brent Knights, USGS Upper Midwest Environmental Sciences Center
- 8:20 AM **Otolith Microstructure and Trace Elemental Analyses of Juvenile Asian Carp in the Upper Mississippi River**
Jesse A. Williams, Western Illinois University; Jim T. Lamer, Western Illinois University; Gregory W. Whitley, Southern Illinois University-Carbondale; Brent Knights, Upper Midwest Environmental Sciences Center-United States Geological Survey; Nick Bloomfield, United States Fish and Wildlife Service-La Crosse
- 8:40 AM **The Dynamic Response Behaviors of Naïve Juvenile Asian Carp Following Exposure to Predator Kairomones in Mixed-Species Groups**
Jared Wilson, University of Illinois, Illinois Natural History Survey; David H. Wahl, Illinois Natural History Survey

- 9:00 AM **Diet Analysis of Predatory Fish in Pools 19 and 20 of the Upper Mississippi River with Contrasting Habitats and Asian Carp Abundance**
Rebekah L. Anderson, Illinois Natural History Survey; Cory A. Anderson, U.S. Fish & Wildlife Service; Brent Knights, Jon Vallazza, James H. Larson—Upper Midwest Environmental Sciences Center, US Geological Survey; James T. Lamer, Department of Biological Sciences, Western Illinois University
- 9:20 AM **Inclusion of New Zealand Mud Snails in the Diet of Benthic Foragers**
James Beaubien, Jerrod Lepper, Mitchell Nisbet, Samantha Stanton, Daniel Hayes—Michigan State University Department of Fisheries and Wildlife
- 9:40 AM **Development and Implementation of an Adaptive Management Approach for Monitoring Non-Indigenous Fishes in Lower Green Bay, Lake Michigan**
Brandon Harris, Bradley Smith, Cari-Ann Hayer—U.S. Fish & Wildlife Service, Green Bay Fish and Wildlife Conservation Office
- 10:00 AM **Break**
- 10:20 AM **Grass Carp Spawning in Lake Erie Tributaries; When and Where?**
Nicole King, University of Toledo Department of Environmental Sciences and Lake Erie Center; Patrick M. Kocovsky, U.S. Geological Survey, Lake Erie Biological Station; Christine Mayer, University of Toledo Department of Environmental Sciences and Lake Erie Center; Song Qian, University of Toledo Department of Environmental Sciences and Lake Erie Center
- 10:40 AM **Habitat Quality Explains Population Collapse of Invasive Rusty Crayfish in Northern Wisconsin Lakes**
Eric R. Larson, University of Illinois at Urbana-Champaign; Timothy A. Kreps, Bridgewater College; Brett W. Peters, University of Notre Dame; Jody A. Peters, University of Notre Dame; David M. Lodge, Cornell University
- 11:00 AM **Detecting Round Goby in the Field Using a Portable eDNA Detection Kit**
Christopher M. Merkes, Matthew Hoogland, Theresa Schreier, Jon J. Amberg—U.S. Geological Survey

11:20 AM **Battle of the Claws: Competition Between Two Non-native Crayfish Species in the Chicago Region and Potential Spread of Red Swamp Crayfish Throughout the Great Lakes Region**

Erin O'Shaughnessey, Dr. Reuben Keller—Loyola University Chicago

11:40 AM **Spatiotemporal Patterns from Electrofishing Catches at Lake Michigan Invasive Species Hotspot Locations**

Matt Petasek, Tony Rieth, Cari-Ann Hayer—U.S. Fish & Wildlife Service; Jacob Richter

S10: COLLABORATING FOR FISHERIES MANAGEMENT: OPPORTUNITIES AND CHALLENGES FROM INTERACTIONS OF LOCAL LAKE ORGANIZATIONS WITH STATE AGENCIES

103 A Room

Moderator: Stuart James, University of Notre Dame

8:00 AM **Opportunities and Challenges in Local Management of Recreational Fisheries Landscapes: Theory and Practice**

Chris Solomon, Cary Institute of Ecosystem Studies; Marco Janssen, Arizona State University; Sunny Jardine, University of Washington; Olaf Jensen, Rutgers University; Stuart Jones, University of Notre Dame; Brett van Poorten, British Columbia Ministry of the Environment

8:20 AM **The Evolving Roles of Wisconsin Lake Organizations in Caring for Public Trust Resources**

Eric Olson, University of Wisconsin-Extension Lakes

8:40 AM **Demographics, Activities, and Concerns of Minnesota Lake Associations**

Michelle Marko, Concordia College; Mona Ibrahim, Concordia College; Jeff Forester, MN Lakes and Rivers Advocates; Benjamin Bjertness, Concordia College; Matthew Zabel, Concordia College

9:00 AM **Partnerships for Managing Wisconsin Trout Streams: Engagement, Trust and a Better Managed Resource**

Matthew Mitro, Wisconsin DNR Fisheries Research; Jeff Hastings, Trout Unlimited Driftless Area Restoration Effort; Kent Johnson, Trout Unlimited Kiap-TU-Wish Chapter; Heidi Keuler, Fishers & Farmers Partnership Coordinator, U.S. Fish & Wildlife Service; John Lyons, University of Wisconsin-Madison; Nancy North, Watershed Leaders Network Lead & Principal, NewGround, Inc.; Rod Ofte, Wallace Center Pasture Project; Kirk Olson, Wisconsin DNR Fisheries Management; Jana Stewart, U.S. Geological Survey; Jordan Weeks, Wisconsin DNR Fisheries Management

9:20 AM **Leveraging Local Passion to Improve Outcomes: Civic Organizing as a Best Management Practice**

Jeff Forester, Minnesota Lakes and Rivers Advocates

9:40 AM **Fish Sticks: Building Local Capacity to Implement Fish Sticks Projects**

Scott Toshner, Wisconsin Department of Natural Resources

10:00 AM **Break**

10:20 AM **Encouraging Civic Engagement in Fisheries Management**

Carl Pedersen, Minnesota Department of Natural Resources

10:40 AM **City Staff Using DNR Methods to Survey Local Fisheries**

Jessie Koehle, Eric Macbeth - City of Eagan; Tim Ohmann, Jim Levitt, T.J. DeBates—Minnesota Department of Natural Resources

11:00 AM **Optimization of Oxbow Restoration Benefits for Both the Farmer and the Conservationist**

Christopher S. Jones, University of Iowa; Keith E. Schilling, Iowa Geological Survey

11:20 AM **The Little Rapids Restoration Project: A Local, State and Federal Partnership to Improve Habitat and Remove Beneficial Use Impairments from the St. Marys River Area of Concern**

Eric Ellis, Great Lakes Commission

11:40 AM **Panel Discussion and Q&A**

T07: UPLAND GAME BIRDS & POLLINATORS

103 B Room

Moderator: *Chris Pollentier, Wisconsin DNR*

- 8:00 AM **Predicting the Effects of Grassland Conservation Reserve Program Enrollments and Expirations on Greater Prairie-Chickens in Northwestern Minnesota**
Kalysta Adkins, University of Minnesota; Charlotte Roy*, Minnesota Department of Natural Resources; David Andersen, University of Minnesota; Robert Wright, Minnesota Department of Natural Resources
- 8:20 AM **Genetic Analysis of Sharp-Tailed Grouse in East-Central Minnesota Indicates High Genetic Diversity Remains After a Recent Population Bottleneck**
A.J. Gregory*, Bowling Green State University; C. Roy, Minnesota Department of Natural Resources; E. Nelson, Minnesota Department of Natural Resources
- 8:40 AM **OPEN**
- 9:00 AM **Does Diversity Matter? Ring-Necked Pheasant Nest Site Selection and Nest Survival in Grassland Reconstructions**
Nicole M. Davros, Lindsey N. Messinger–Farmland Wildlife Populations & Research Group, Minnesota Department of Natural Resources
- 9:20 AM **Do Pheasants Use Spring Cover Crops?**
Alixandra Godar, Adela Annis–Kansas State University/Kansas Cooperative Fish and Wildlife Research Unit; David Haukos, U.S. Geological Survey, Kansas Cooperative Fish and Wildlife Research Unit; Jeff Prendergast, Kansas Department of Wildlife, Parks and Tourism
- 9:40 AM **Space, Habitat and Abundance: Hotspot Analysis of Distribution of Ring-Necked Pheasants in Eastern South Dakota**
Sprih Harsh, South Dakota State University; Dr. Andrew J. Gregory, Bowling Green State University
- 10:00 AM **Break**



Photo by: *Caitlin Henning*

- 10:20 AM **Disentangling Effects of Fire, Habitat, and Climate on an Endangered Prairie-Specialist Butterfly**
Nathan Holoubek, Rich Henderson, Jed Meunier – Wisconsin Department of Natural Resources
- 10:40 AM **Modeling Pollinator Conservation Targets Within Rights-of-Way**
Dan Salas, Cardno; Johanna Sievwright, American Transmission Company
- 11:00 AM **Comparing Bee and Grasshopper Communities in Missouri's Reconstructed and Remnant Prairies**
Joseph LaRose, University of Missouri; Lisa Webb, USGS Missouri Cooperative Fish and Wildlife Unit, University of Missouri; Deborah Finke, Division of Plant Sciences, University of Missouri
- 11:20 AM **Planting for Pollinators: Evaluation of Four Prairie Seed Mixes**
Madison R. Rancour; Natasha J. Blomberg; Margaret A. Kuchenreuther, University of Minnesota, Morris
- 11:40 AM **Impacts of Neonicotinoid Seed-Treatment Use on Native Pollinator Abundance and Diversity in Missouri Agroecosystems**
Anson R. Main, School of Natural Resources–University of Missouri; Elisabeth B. Webb, U.S. Geological Survey, Missouri Cooperative Fish and Wildlife Research Unit; Keith W. Goyne, School of Natural Resources–University of Missouri; Doreen Mengel, Missouri Department of Conservation

T08: UNGULATES

103 C Room

Moderator: *Tim VanDeelen, University of Wisconsin-Madison*

- 8:00 AM **Elk Monitoring in Wisconsin: Trail Cameras and Citizen Science**
Joe Dittrich, Dan Storm, Jennifer Stenglein, Susan Frett - Wisconsin Department of Natural Resources
- 8:20 AM **Annual and Seasonal Home Ranges of Female Elk in Northwestern Minnesota**
Alicia E. Freeman, Minnesota State University-Mankato; Gino J. D'Angelo, University of Georgia-Athens, Warnell School of Forestry and Natural Resources; Véronique St-Louis, Minnesota Department of Natural Resources; Louis Cornicelli, Minnesota Department of Natural Resources; John D. Krenz, Minnesota State University-Mankato

Tuesday 8:00 AM - 12:00 PM

- 8:40 AM **Deer Recruitment in Wisconsin: New Survey Methods**
Beth Wojcik, University of Wisconsin-Madison; Daniel J. Storm, Wisconsin Department of Natural Resources; Timothy R. Van Deelen, University of Wisconsin - Madison
- 9:00 AM **Pregnancy Rates and Body Condition of White-Tailed Deer in Wisconsin**
Amanda McGraw, Joe Dittrich, Dan Storm—Wisconsin Department of Natural Resources
- 9:20 AM **Increased Overwinter Mortalities of White-Tailed Deer (*Odocoileus virginianus*) Fawns During a Drought Year**
Marie I. Tosa, Matthew T. Springer, Eric M. Schauber, Clayton K. Nielsen—Southern Illinois University
- 9:40 AM **Evaluating the Effectiveness of Antler Point Restrictions to Achieve Various White-tailed Deer Management Goals**
Rebecca L. Cain, Michigan State University; Brent A. Rudolph, Ruffed Grouse Society; David M. Williams, Michigan State University; William F. Porter, Michigan State University
- 10:00 AM **Break**
- 10:20 AM **The Wisconsin Deer Management Assistance Program: Improving Relationships One Landowner at a Time**
Robert Holsman, Ben Beardmore, Robert Nack—Wisconsin Department of Natural Resource
- 10:40 AM **Retention of Youth Deer Hunters in Nebraska**
Nathaniel B. Price, University of Nebraska; Christopher J. Chizinski, University of Nebraska; Kevin L. Pope, Nebraska Cooperative Fish and Wildlife Research Unit, and University of Nebraska; Joseph J. Fontaine, U.S. Geological Survey and University of Nebraska
- 11:00 AM **Do City Deer Really Live Differently Than Rural Deer?**
Jonathan K. Trudeau, Michigan State University; Garrett B. Clevinger, Ball State University; Timothy C. Carter, Ball State University
- 11:20 AM **Pilot Testing a Program to Allow Hunters to Sample Their Own Deer for CWD**
Ben Beardmore, Julie Widholm—Wisconsin Department of Natural Resources
- 11:40 AM **Long-term Collaborative Chronic Wasting Disease (CWD) Management, Using Focused Rewards Guided by Prevalence Distributions: a Proposal**
Michael Foy, Retired

T09: WALLEYE AND PERCH

103 D Room

Moderator: Dan Dembkowski, Wisconsin Cooperative Fishery Research Unit

- 8:00 AM **The “Tails” That Walleye Tell: The History of Walleye Management in Nebraska Reservoirs**
Melissa Wuellner, University of Nebraska-Kearney; Keith Koupal, Nebraska Game and Parks Commission; Brett Miller, Nebraska Game and Parks Commission
- 8:20 AM **Population Dynamics, Sport and Commercial Harvest and Management of St. Louis River Walleye (1981-2015)**
Kirk Olson, Wisconsin Department of Natural Resources; Paul Piszczek, Wisconsin Department of Natural Resources; Joel Hoffman, US Environmental Protection Agency; Deserae Hendrickson, Minnesota Department of Natural Resources; Terry Margenau, Wisconsin Department of Natural Resources
- 8:40 AM **Assessment of Walleye Reproduction Success in the Tamarac River, MN**
Phillip Oswald, Bemidji State University; Dr. Andrew Hafs, Bemidji State University; Tony Kennedy, MNDNR; Jake Graham, Boise State University
- 9:00 AM **A Multi-scale Approach to Identifying and Addressing the Causes of Minnesota’s Declining Yellow Perch Populations**
Jeffrey Reed, Bethany Bethke, Michael McInerny, David Staples—Minnesota Department of Natural Resources
- 9:20 AM **Habitat Use, Diet and Growth Rate Analysis of Walleye and Yellow Perch in Green Bay Coastal Wetlands, Lake Michigan**
Jeremiah Shrovnal, Patrick Forsythe, PhD, Christopher Houghton, PhD, Collin Moratz—UW-Green Bay
- 9:40 AM **Alberta Walleye Lottery: The Success of an Obvious Solution to a Wicked Problem**
Michael G. Sullivan, Alberta Environment and Parks
- 10:00 AM **Break**
- 10:20 AM **Forecasting the Impacts of Climate and Land-Use Change on Percid Recruitment in Lake Erie**
David A. Dippold, Noel Aloysius, Mike Fraker, Hay Martin, Stuart A. Ludsin—The Ohio State University; Haw Yen, Prasad Daggupati—Texas A&M University; S. Conor Keitzer, Tusculum College; Jeff G. Arnold, Mike J. White—USDA-ARS; Charles A. Rewa, USDA-NRCS; Dale M. Robertson, USGS; Anthony M. Sasson, Scott P. Sowa—The Nature Conservancy; Mari-Vaughn V. Johnson, USDA-NRCS

- 10:40 AM **Changes in Yellow Perch Recruitment in Relation to Walleye Abundance in Green Bay**
Iyob Tsehaye, Wisconsin Department of Natural Resources
- 11:00 AM **Walleye Movements in Green Bay: Testing Assumptions of the Current Conceptual Model for Management**
Daniel J. Dembkowski, Wisconsin Cooperative Fishery Research Unit; Daniel A. Isermann, USGS, Wisconsin Cooperative Fishery Research Unit; Steven R. Hogler, Wisconsin Department of Natural Resources; Keith N. Turnquist; Wisconsin Cooperative Fishery Research Unit; Wesley A. Larson; USGS, Wisconsin Cooperative Fishery Research Unit
- 11:20 AM **Variability in Spatial Distribution of Larval Yellow Perch in a Northern Lake Ecosystem**
Steve Hauschildt, Bemidji State University; Dr. Andrew W. Hafs, Bemidji State University
- 11:40 AM **A Proposal to Implement a 21-Inch Minimum Length Limit on Walleye Harvest at Cedar Bluff Reservoir, Kansas**
Dave Spalsbury, Susan Steffen—Kansas Department of Wildlife, Parks, and Tourism

T10: RIVERS AND OXBOWS

103 E Room

Moderator: Jeff Janvrin, Wisconsin DNR

- 8:00 AM **Influential *Macrhybopsis* spp. Life History Traits in Modeled Lower Missouri River Populations**
Janice L. Albers, Mark L. Wildhaber, Nicholas S. Green—US Geological Survey
- 8:20 AM **Evaluating Potential Consequences of Hydrologic Separation at Brandon Road Lock and Dam on Native Fishes and Mussels in the Illinois River Waterway**
Matthew Altenritter, Andrew Casper—Illinois River Biological Station
- 8:40 AM **A Diel Comparison of Pulsed DC Electrofishing Methods in the Lower Wabash River**
Eric C. Hine, Cassi Moody-Carpenter, Scott Meiners—Eastern Illinois University; Zachary Mitchell, Texas State University; Robert E. Colombo, Eastern Illinois University
- 9:00 AM **Backwater Fish Community Response to Habitat Restoration on the Upper Mississippi River: 30 Years of Successful Projects**
Jeff Janvrin, Wisconsin Department of Natural Resources; Kirk Hansen, Iowa Department of Natural Resources
- 9:20 AM **Capture Efficiency of a Fine-Mesh Seine in a Large River: Implications for Abundance, Richness, and Diversity Analyses**
Kevin Kapuscinski, Lake Superior State University; Derek Crane, Coastal Carolina University
- 9:40 AM **Spatial and Temporal Variability of Ichthyoplankton in the St. Clair-Detroit River System: Community Changes Between the 1970s and 2000s**
Taaja R. Tucker, University of Toledo; Edward F. Roseman, US Geological Survey; Robin L. DeBruyne, University of Toledo; Jeremy J. Pritt, Ohio Department of Natural Resources-Division of Wildlife; David H. Bennion, US Geological Survey; Darryl W. Hondorp, US Geological Survey; James C. Boase, U.S. Fish & Wildlife Service
- 10:00 AM **Break**
- 10:20 AM **Fish Community Composition at the Emiquon Nature Preserve Water Management Structure**
Andrya L. Whitten, Olivea M. Mendenhall; Andrew F. Casper—Illinois Natural History Survey
- 10:40 AM **Larval Fish Community Survey of Pools 19, 18, and 17 of the Upper Mississippi River**
Boone M. La Hood, James T. Lamer, Allison W. Lenaerts—Kibbe Field Station-Western Illinois University; Kevin S. Irons, Division of Fisheries, Illinois Department of Natural Resources
- 11:00 AM **A Comparison of Fish Communities in Contiguous Backwater and Vegetated Impounded Areas of Pool 19, Upper Mississippi River**
Eli G. Lampo, Western Illinois University, Department of Biological Sciences; Brent Knights, Jon Vallazza, James Larson—Upper Midwest Environmental Sciences Center, U.S. Geological Survey; Tad Locher, James T. Lamer—Western Illinois University, Department of Biological Sciences
- 11:20 AM **Effects of Valley Shape and Non-Native Species on Fish Assemblages of U.S. and Mongolian Rivers**
Robert Shields, Mark Pyron, Mario Minder, Caleb Artz—Ball State University; Emily Arsenaault, Greg Mathews—University of Kansas
- 11:40 AM **Trophic Alterations in the Ohio River Fish Assemblages**
Mark Pyron, Mario Minder, Robert Shields, Nicole Chodkowski, Zach Laughlin - Ball State University

TUESDAY TECHNICAL SESSIONS

1:20 PM - 5:00 PM

S06: ADVANCES AND CHALLENGES IN AMPHIBIAN AND REPTILE CONSERVATION AND MANAGEMENT (CONTINUED)

101 B Room

Moderators: Jennifer Moore, Grand Valley State University & Sarah Jean Baker, University of Illinois

- 1:20 PM **Weather Patterns and Habitat Usage of Adult Eastern Tiger Salamanders in the Prairie Pothole Region of West-Central Minnesota**
Katherine Novak, Heather Waye—University of Minnesota Morris
- 1:40 PM **The Influence of Landscape Factors and Prescribed Fire on the Occupancy Dynamics of Blue-Spotted Salamanders**
John P. Vanek, Richard B. King—Department of Biological Sciences, Northern Illinois University; Gary A. Glowacki, Natural Resource Division, Lake County Forest Preserve District
- 2:00 PM **Autumn Habitat Selection of Eastern Red-backed Salamanders (*Plethodon cinereus*) in Delaware County, Indiana**
Zachary Laughlin, Kamal Islam—Ball State University
- 2:20 PM **Home Range and Movements of Spiny Softshell Turtles (*Apalone spinifera*), Painted Turtles (*Chrysemys picta*), and Snapping Turtles (*Chelydra serpentina*) in an Urban Minnesota Lake**
Kirsten D. Hunt, Central Michigan University; Alaini C. Schneider, Central Michigan University; John J. Moriarty, Three Rivers Park District; Timothy L. Lewis, University of St. Thomas; Jennifer T. McGuire, University of St. Thomas; Bradley J. Swanson, Central Michigan University
- 2:40 PM **Preliminary Habitat Modeling of Spotted Turtles (*Clemmys guttata*) and Blanding's Turtles (*Emydoidea blandingii*) in Indiana**
Jessica Hinson, Mark Jordan, Bruce Kingsbury—Indiana University-Purdue University Fort Wayne
- 3:00 PM **Break**
- 3:20 PM **Snake Occupancy and Abundance in Restored Grasslands**
Richard B. King, Northern Illinois University; John Vanek, Northern Illinois University
- 3:40 PM **Plant Traits in the Aquatic Environment Have Lasting Effects on Larval and Post-metamorphic Anurans**
Joseph R. Milanovich, Daniella DeRose, Sarah Crites, Andrés Muñoz—Loyola University Chicago

- 4:00 PM **Tiger Salamander Larval Size, Density, and Diet in the Prairie Potholes of West-Central Minnesota**
Heather Waye, University of Minnesota Morris; Zach Smith, National Ecological Observatory Network

- 4:20 PM **Trade-offs Between Temperature, Predation Risk, and Nest Survival in the Blanding's Turtle**
Nathan W. Byer, University of Wisconsin-Madison; Brendan N. Reid, American Museum of Natural History; M. Z. Peery, University of Wisconsin - Madison

S07: DEVELOPMENT, VALIDATION, AND APPLICATION OF STANDARDIZED POPULATION ASSESSMENTS IN INLAND WATERS (CONTINUED)

102 A Room

Moderators: Jeremy Pritt & Joseph Conroy, Ohio DNR

- 1:20 PM **Using Statewide Survey Data to Support Local-Scale Management in Michigan Streams**
Troy Zorn, Todd Wills, Jan-Michael Hessenauer, Danielle Forsyth Kilijanczyk—Michigan Department of Natural Resources Fisheries Division; Joel Lenz, Michigan State University; Ed Bissell, Michigan State University; Ashley DePottey, Esri; Anila Francis, Michigan Department of Technology, Management, and Budget; Henry Quinlan, U.S. Fish & Wildlife Service; Brett Fessell, Natural Resources Department of Grand Traverse Band of Ottawa and Chippewa Indians
- 1:40 PM **Simultaneously Assessing Channel Catfish and Flathead Catfish Populations with Unbaited Hoop Nets in the Minnesota River**
Anthony R. Sindt, Minnesota Department of Natural Resources
- 2:00 PM **Assessment and Classification of Brown Trout Natural Recruitment and Reproduction in Mill Creek, Richland County, Wisconsin**
David Rowe, Daniel Oele, Joanna Griffin—Wisconsin Department of Natural Resources
- 2:20 PM **Status and Trends of Smallmouth Buffalo in the Upper Mississippi River System: Application and Use of UMRR-LTRM Data**
Kristopher Maxson, University of Illinois; Levi Solomon, University of Illinois; Rob Maher, Illinois Department of Natural Resources; Andy Casper, University of Illinois
- 2:40 PM **Long-Term Monitoring Shows How Highly Modified Rivers Respond to Additional Drivers of Change**
Jason DeBoer, Illinois Natural History Survey; Martin Thoms, University of New England, Australia; Andrew Casper, John G. Shedd Aquarium

Tuesday 1:20 PM - 5:00 PM

- 3:00 PM **Break**
- 3:20 PM **Evaluation of Four Modified Fyke Net Designs for Standard Fish Sampling**
Rebecca M. Krogman, Iowa Department of Natural Resources
- 3:40 PM **Using Variation in Lake Sturgeon Microsatellite Loci to Assess Artificial Spawning Reefs and Sampling Methods in a Large River System**
Robert D. Hunter, Kim T. Scribner—Michigan State University; Edward F. Roseman, Robin DeBruyne—US Geological Survey, Great Lakes Science Center
- 4:00 PM **Hydroacoustic Estimates of Prey-Fish Abundance Change with Various Analytical Decisions**
Rebecca A. Dillon, The Ohio State University; Joseph D. Conroy, Ohio Department of Natural Resources, Division of Wildlife; Stuart A. Ludsin, The Ohio State University
- 4:20 PM **Patterns and Trends in the Fish Assemblage of a Floodplain Lake, Ten Years of Restoration**
Olivea M. Mendenhall; Daniel K. Gibson-Reinemer—Illinois River Biological Station, Illinois Natural History Survey; Andrew F. Casper, Daniel P. Haerther—Center for Conservation and Research, John G. Shedd Aquarium
- 4:40 PM **Standardized Assessments Reveal Context-Dependent Responses of Crappie Populations to a Length-Based Regulation in Ohio Reservoirs**
Jeremy J. Pritt, Kevin S. Page, Joseph D. Conroy, Stephen M. Tyszko, Richard D. Zweifel—Ohio Department of Natural Resources

S08: WATERBIRD USE AND MONITORING OF WETLAND PROTECTION, RESTORATION AND ENHANCEMENT PROJECTS (CONTINUED)

102 B Room

Moderators: Jake Straub & Kali Rush, UW-Stevens Point

- 1:20 PM **Survey Methodology, Movement Ecology, and Vital Rates of the Virginia Rail and Sora in the Lake Erie Coastal Marshes of Northern Ohio**
James Hansen, The Ohio State University; Nicole Hengst, The Ohio State University; Brendan Shirkey, Winous Point Marsh Conservancy; John Simpson, Winous Point Marsh Conservancy; Robert Gates, The Ohio State University

- 1:40 PM **King Rail Trapping and Telemetry at the Winous Point Marsh Conservancy**
Brendan Shirkey, John Simpson, Mike Picciuto—Winous Point Marsh Conservancy; Tom Kashmer, Sandusky County Parks District
- 2:00 PM **Michigan Black Tern Conservation Initiative: Collaborative Conservation of Coastal Wetlands**
Caleb G. Putnam, Audubon Great Lakes and Michigan Department of Natural Resources; Stephanie Beilke, Audubon Great Lakes
- 2:20 PM **Mallard Use of Incentivized Conservation Program Wetlands During Winter in Mississippi**
Joseph D. Lancaster, Illinois Natural History Survey, Forbes Biological Station, Bellrose Waterfowl Research Center, University of Illinois at Urbana-Champaign; J. Brian Davis, Department of Wildlife, Fisheries, and Aquaculture, Mississippi State University; Richard M. Kaminski, James C. Kennedy Waterfowl & Wetlands Conservation Center, Belle W. Baruch Institute of Coastal Ecology and Forest Science, Clemson University
- 2:40 PM **Challenges of Wetland Restoration Monitoring—If You Build It Will They Come, If They Come Will You Know It?**
Robert J. Gates, Ohio State University; Jacob Straub, University of Wisconsin Stevens Point; Michael Brasher, Ducks Unlimited, Inc.; John Coluccy, Ducks Unlimited, Inc.
- 3:00 PM **Break**
- 3:20 PM **Evaluation of Integrated Waterbird Management and Monitoring Program Survey Techniques to Assess Waterbird Abundance**
Heath Hagy, U.S. Fish and Wildlife Service; Brian Loges, U.S. Fish and Wildlife Service; Aaron Yetter, Illinois Natural History Survey, Forbes Biological Station at the University of Illinois, Urbana-Champaign; Andrew Gilbert, Illinois Natural History Survey, Forbes Biological Station at the University of Illinois, Urbana-Champaign
- 3:40 PM **An Integrated Approach to Mapping Priority Areas for Marsh Bird Conservation**
Chad Wilsey, National Audubon Society; Bradley Pickens, National Audubon Society; Nathaniel Miller, Audubon Great Lakes; Gerald Niemi, University of Minnesota; Douglas Tozer, Bird Studies Canada
- 4:00 PM **Panel Discussion and Q&A**

Tuesday 1:20 PM - 5:00 PM

S11: TWO WORLDS, ONE GOAL: IMPORTANCE OF FISHERIES AND TOXICOLOGY COLLABORATION

102 C Room

*Moderators: Les Warren & Lina Wang, St. Cloud
State University*

- 1:20 PM **Aquatic Tox in Amphibians--Perfluorinated
Substances Are Chemicals of Emerging
Concern**
Samuel Guffey, Gary Hoover, Sarah Abercrombie,
Jason Hoverman, Linda Lee, Marisol Sepulveda--
Purdue University
- 1:40 PM **Reproductive Health of Catostomid Species in
Two Midwestern Rivers**
Bethany Hoster, Anabela Maia, Eric Bollinger,
Robert Colombo--Eastern Illinois University
- 2:00 PM **Pollutant Stress in the Maumee River: Impacted
Physiology and Reproduction in Fathead
Minnows (*Pimephales promelas*) and Sunfish
(*Lepomis spp.*)**
Nicholas Cipoletti, Heiko L. Schoenfuss--St.
Cloud State University
- 2:20 PM **Contaminants of Emerging Concern and
Fisheries: Considerations for Data Collection
and Leveraging of Existing Data**
Ryan Holem, GEI Consultants; John Gondek,
GEI Consultants
- 2:40 PM **Effects of an Environmental Estrogen on
Predator-Prey Interactions in Freshwater
Fish**
Jessica Ward, Ball State University; Victoria Korn,
St Cloud State University; Heiko Schoenfuss, St
Cloud State University
- 3:00 PM **Break**
- 3:20 PM **Modeling Effects of Contaminants of
Emerging Concern (CECs) Exposures on Fish
Populations**
Maxime Vaugeois, University of Minnesota; Valery
Forbes, University of Minnesota; Paul Venturelli,
Ball State University
- 3:40 PM **From Simple to Complex: Behavioral Changes
in Fish Exposed to Contaminants of Emerging
Concern Singly and in Mixture**
Utku Hasbay, Heiko L. Schoenfuss--Aquatic
Toxicology Laboratory, St. Cloud State University
- 4:00 PM **Environmentally Derived Urban Mixtures of
Contaminants of Emerging Concern Alter
Reproduction in Fathead Minnows over Three
Generations**
Lina C. Wang, Utku Hasaby, Josh T. Robinson,
Jessica L. Ward, Heiko L. Schoenfuss

- 4:20 PM **Biological Effects of Septic Seepage on Resident
Fish Species in Minnesota Lakes**
Les D. Warren, St. Cloud State University;
Meaghan Guyader, Colorado School of Mines;
Christopher Higgins, Colorado School of Mines;
Heiko Schoenfuss, St. Cloud State University

- 4:40 PM **Panel Discussion and Q&A**

T06: ASIAN CARP AND OTHER AQUATIC INVASIVE SPECIES (CONTINUED)

102 D&E Room

Moderator: Greg Sass, Wisconsin DNR

- 1:20 PM **Combining Invasive Species Risk Assessments
with Climate Change Scenarios to Predict
Future Invaders in the Great Lakes**
Victoria A. Prescott, Loyola University Chicago;
Reuben P. Keller, Loyola University Chicago
- 1:40 PM **Effects of 2, 4-D Herbicide Treatments Used
to Control Eurasian Watermilfoil on Fish and
Zooplankton in Northern Wisconsin Lakes**
Nicholas Rydell, Wisconsin Cooperative Fishery
Research Unit, University of Wisconsin-Stevens
Point; Daniel Isermann, U.S. Geological Survey;
Justin VanDeHey, College of Natural Resources;
John Kubisiak, Wisconsin Department of
Natural Resources; Kevin Gauthier, Wisconsin
Department of Natural Resources; Scott Van
Egeren, Wisconsin Department of Natural
Resources
- 2:00 PM **From Water Chemistry to Fish: The Impacts
of Zebra Mussels Across Multiple Trophic
Levels**
Casey W. Schoenebeck, Minnesota Department
of Natural Resources; Lee Engel, Minnesota
Pollution Control Agency; Heidi Rantala,
Minnesota Department of Natural Resources;
Jodie Hirsch, Minnesota Department of Natural
Resources; Gary Montz, Minnesota Department
of Natural Resources; Gretchen Hansen,
Minnesota Department of Natural Resources;
Brian R. Herwig, Minnesota Department of
Natural Resources
- 2:20 PM **Implementation of an Aquatic Invasive Species
Early Detection Program on Lake Superior**
Michael Seider, Jared Myers--U.S. Fish & Wildlife
Service
- 2:40 PM **A Lakewide Survey of Asian Clam (*Corbicula
fluminea*) Distribution at Warmwater
Discharges in Lake Michigan**
Bradley J. Smith, Brandon S. Harris, Tyler J.
Harris, Lisa A. LaBudde, Cari-Ann Hayer--U.S.
Fish & Wildlife Service
- 3:00 PM **Break**

Tuesday 1:20 PM - 5:00 PM

- 3:20 PM **Beam Me Up, Scotty! Using a Beam Trawl to Assess the Relative Abundance of Round Gobies Across a Variety of Habitat Types in Thunder Bay, Lake Huron**
Todd Wills, Michigan Department of Natural Resources; Darryl Hondorp, US Geological Survey
- 3:40 PM **Alternative Sea Lamprey Barrier Technologies: History as a Control Tool**
Daniel Zielinski, Great Lakes Fishery Commission; Rob McLaughlin, University of Guelph; Ted Castro-Santos, U.S. Geological Survey; Bhuwani Paudel, Fisheries and Oceans Canada; Pete Hrodey, U.S. Fish & Wildlife Service
- 4:00 PM **Stable Isotopes Indicate Zebra Mussels (*Dreissena polymorpha*) Increase Dependence of Lake Food Webs on Littoral Energy Sources**
Brian R. Herwig, Minnesota Department of Natural Resources; Margaret C. Thompson, Kyle D. Zimmer, Ryan S. Trapp, Claire E. Herzog, Catherine E. Hegedus—University of Saint Thomas
- 4:20 PM **Early Detection Monitoring of New Zealand Mudsnails Using Qualitative and eDNA Surveys**
Samantha Stanton, Michigan State University; Seth Herbst, Michigan Department of Natural Resources; William Keiper, Michigan Department of Environmental Quality; Daniel Hayes, Michigan State University
- 4:40 PM **Collaboratively Managing Lake Erie Grass Carp Through a Structured Decision Making Process**
Mark DuFour, Kelly Robinson, Michael Jones—Michigan State University; Seth Herbst, Tammy Newcomb—Michigan Department of Natural Resources
- 5:00 PM **Selective, Safe and Low Cost Carp Pesticide**
Maurice Sadowsky, MJSTI Corp.

S12: COORDINATING SUCCESSFUL WILDLIFE DISEASE RESPONSES

103 A Room

Moderator: *Lindsey Long, Wisconsin DNR*

- 1:20 PM **USGS National Wildlife Health Center Collaborations with Partners on Wildlife Disease Response**
Barbara Bodenstein, US Geological Survey, National Wildlife Health Center
- 1:40 PM **An Outbreak of Highly Pathogenic Influenza in Minnesota: Lessons Learned**
Michelle Carstensen, Christopher Jennelle, Erik Hildebrand—Minnesota Department of Natural Resources; Paul Wolf, USDA-Wildlife Services; Hon Ip, USGS-National Wildlife Health Center

- 2:00 PM **A Cooperative Management Approach Toward the Elimination of Raccoon Rabies from the U.S.**

Richard B. Chipman, Kathleen M. Nelson, Ashlee D. Martin—USDA, APHIS, Wildlife Services, National Rabies Management Program

- 2:20 PM **Coordinating White-Nose Syndrome: Readiness, Response, Recuperation**

Richard Geboy, Jeremy T. H. Coleman, Jonathan Reichard, Catherine Hibbard, Christina Kocer, Pete Pattavina—U.S. Fish & Wildlife Service: Bloomington, IN; Hadley, MA; Hadley, MA; Hadley, MA; Hadley, MA; Athens, GA

- 2:40 PM **The Wisconsin Bald Eagle Bio-Sentinel Program: Using Bald Eagles as Indicators of Ecosystem Health**

Sean M. Strom, Wisconsin Department of Natural Resources; Mike W. Meyer, NOVA Ecological Services

- 3:00 PM **Break**

- 3:20 PM **Coordination of Wildlife Disease Response with Tribal Governments**

Travis D. Bartnick, Great Lakes Indian Fish & Wildlife Commission; Mike Schrage, Fond du Lac Resource Management

- 3:40 PM **Insights Relative to Black Bear Physiology and Potential Implications for Human Medicine**

Paul A. Iaizzo, PhD, FHRS, University of Minnesota, Department of Surgery

- 4:00 PM **Collaborative Efforts to Identify New Pathogens Using Metagenomic Methods: Opening Pandora's Box and Closing It Again**

Tony L. Goldberg, University of Wisconsin-Madison

- 4:20 PM **One Health and the Ecosystem Health Perspective**

C. LeAnn White, USGS-National Wildlife Health Center

- 4:40 PM **Panel Discussion and Q&A**



Tuesday 1:20 PM - 5:00 PM

T11: SMALL MAMMALS

103 B Room

Moderator: *Brian Dhuey, Wisconsin DNR*

- 1:20 PM **Effects of Age, Sex, and Population Dynamics on Dispersal of American Martens**
Michael Joyce, University of Minnesota Duluth; John Erb, Pam Coy, Barry Sampson—Minnesota Department of Natural Resources; Ron Moen, University of Minnesota Duluth
- 1:40 PM **Movement Ecology of Marten (*Martes americana*) in the Eastern Upper Peninsula, Michigan**
Bradford Silet, Gary J. Roloff—Michigan State University; Eric Clark, Joseph Lautenbach, Russell Aikens, Aimee Baier, John Powell—Sault Ste Marie Tribe of Chippewa Indians; Steve Sjoren, Hiawatha National Forest
- 2:00 PM **American Marten Habitat Use: A Resource Selection Function for Michigan's Northern Lower Peninsula**
Angela Kujawa, Paul Keenlance, Alexandra Locher—Grand Valley State University; Robert Sanders, Little River Band of Ottawa Indians; Joseph Jacquot, Grand Valley State University
- 2:20 PM **Nest Tree Use by Southern Flying Squirrels in Fragmented Midwestern Landscapes**
Christopher N. Jacques, Western Illinois University; Robert W. Klaver, U.S. Geological Survey; James S. Zweep, Western Illinois University; Shelli A. Dubay, University of Wisconsin-Stevens Point
- 2:40 PM **Sex Biased Effects on Prevalence of Parasites in Southern Flying Squirrels**
Christopher N. Jacques, Western Illinois University; Shelli A. Dubay, University of Wisconsin-Stevens Point; Bridget M. Walker, University of Wisconsin-Stevens Point; Robert W. Klaver, US Geological Survey
- 3:00 PM **Break**
- 3:20 PM **Survival of Gray and Fox Squirrels in Minnesota: A Case Study of the Effects of Hunting**
Ryan G. Tebo, Farmland Wildlife Populations and Research Group, Minnesota Department of Natural Resources; Andrew S. Norton, Farmland Wildlife Populations and Research Group, Minnesota Department of Natural Resources
- 3:40 PM **Modeling the Effects of White-Nose Syndrome on the Bat Community of Wisconsin**
Jordan J. Meyer, University of Wisconsin-Stevens Point; Robin E. Russell, USGS National Wildlife Health Center; Scott E. Hygnstrom, Jason D. Riddle, Christopher J. Yahnke—University of Wisconsin - Stevens Point

- 4:00 PM **Testing the Efficacy of Chitosan as a Potential Treatment for White-Nose Syndrome**
Maarten J. Vonhof, Western Michigan University; Timothy C. Carter, Ball State University; Sudha Chaturvedi, NY State Department of Health; Charles D. Mackenzie, Michigan State University; Amanpreet Singh, NY State Department of Health; Rob R. Eversole, Western Michigan University
- 4:20 PM **Understanding the Ecological Impacts of Timber Harvesting Techniques on the Bat Community in a Midwestern Hardwood Forest**
Keifer Titus, Timothy Carter - Ball State University Department of Biology; Scott Haulton, Indiana Department of Natural Resources Division of Forestry
- 4:40 PM **Utilizing Non-Invasive Techniques to Determine Genetic Variation and Demographics of Snowshoe Hare in Michigan**
Genelle Uhrig, University of Wisconsin-Milwaukee; Eric Clark, Sault Ste. Marie Tribe of Chippewa Indians Inland Fish and Wildlife Department; Emily Latch, University of Wisconsin-Milwaukee

T12: FOREST AND GRASSLAND SONGBIRDS

103 C Room

Moderator: *Nick Anich, Wisconsin DNR*

- 1:20 PM **Geographic Variation in Songs of the Cerulean Warbler (*Setophaga cerulea*)**
Garrett J. MacDonald, Kamal Islam—Ball State University
- 1:40 PM **Seasonal Habitat Use by Fledgling Cerulean Warblers (*Setophaga cerulea*)**
Clayton D. Delancey, Garrett MacDonald, Claire Nemes, Kamal Islam—Ball State University
- 2:00 PM **Managing Breeding and Wintering Habitat for the Conservation of the Endangered Kirtland's Warbler in a Changing Climate**
Deahn Donner, US Forest Service; Christine Ribic, US Geological Survey; Donald Brown, West Virginia University; Daniel Wolcott, US Geological Survey; Carol Bocetti, California University of Pennsylvania; Tim Greco, Michigan Department of Natural Resources; Mark Nelson, US Forest Service

2:20 PM **Range-Wide Patterns of Migratory Connectivity and Nonbreeding Distribution of Vermivora Warblers**

Gunnar Kramer, University of Toledo; David Andersen, US Geological Survey, MN Cooperative Fish and Wildlife Research Unit, University of Minnesota; David Buehler, University of Tennessee; Petra Wood, US Geological Survey, WV Cooperative Fish and Wildlife Research Unit, West Virginia University; Sean Peterson, University of California - Berkeley; Kyle Aldinger, WV Cooperative Fish and Wildlife Research Unit, West Virginia University; Lesley Bulluck, Virginia Commonwealth University; Brandon Gray, University of Ohio; Sergio Harding, Virginia Department of Game and Inland Fisheries; John Jones, Tulane University; David King, US Forest Service Northern Research Station, University of Massachusetts Amherst; John Loegering, University of Minnesota; Donald Miles, Ohio University; Curtis Smalling, Audubon North Carolina; Rachel Vallender, Canadian Wildlife Service, Environment and Climate Change Canada; Henry Streby, University of Toledo

2:40 PM **Response of Larval Lepidoptera and Their Avian Predators to Experimental Ice Storms in a Northeastern Forest**

Wendy Leuenberger, State University of New York College of Environmental Science and Forestry; Jonathan Cohen, State University of New York College of Environmental Science and Forestry; Lindsey Rustad, U.S. Forest Service; Kimberly Wallin, University of Vermont and U.S. Forest Service; Dylan Parry, State University of New York College of Environmental Science and Forestry

3:00 PM **Break**

3:20 PM **Global Reduction in Greenhouse Gas Emissions Diminishes Climate Change Vulnerability of Grassland Birds in North America**

Chad Wilsey, National Audubon Society; Lotem Taylor, National Audubon Society; Arvind Pinjabi, Bird Conservancy of the Rockies; Gary M Langham, National Audubon Society

3:40 PM **Landscape Genetic Analysis of a Planned Prairie Corridor Through a Midwestern Agricultural Landscape Using the Greater Prairie-Chicken (*Tympanuchus cupido*) as an Indicator**

Charlotte L. Roy, Minnesota Department of Natural Resources; Andrew J. Gregory, Bowling Green State University; Eric Nelson, Minnesota Department of Natural Resources

4:00 PM **If We Build It THEY Will Come: Restored Prairies and Grassland Birds**

Rob Keys, Michael Hindy, Travis Mangione—Cornerstone University

4:20 PM **Patch Size Dynamics of Birds in Mixed-Grass Prairies: Why Might the Influence of Patch Size Vary**

Mike Eichholz, Southern Illinois University Carbondale

4:40 PM **Effects of Anthropogenic Structures on the Long-Distance Movements of Lesser Prairie-Chickens**

Jacob Peterson, Oklahoma State University; Julia Earl, Louisiana Tech University; Sam Fuhlendorf, Oklahoma State University; Dwayne Elmore, Oklahoma State University; David Haukos, U.S. Geological Survey, Kansas Cooperative Fish and Wildlife Research Unit, Kansas State University; Ashley M. Tanner, Oklahoma State University; Scott Carleton, U.S. Geological Survey, New Mexico Cooperative Fish and Wildlife Research Unit, New Mexico State University

T13: STURGEON, ESOCIDS, AND COREGONIDS

103 D Room

Moderator: Dan Isermann, Wisconsin Cooperative Fishery Research Unit

1:20 PM **Genetic Origins and Movement of Lake Sturgeon in the St. Louis River and Western Lake Superior**

Kayden Estep, Dr. Justin VanDeHey, Dr. Joshua Rabbe - University of Wisconsin-Stevens Point; Patrick Schmalz, Deserae Hendrickson, Dan Wilfond - Duluth Field Office-Minnesota Department of Natural Resources; Andrew Carlson, Fisheries Research Unit-Minnesota Department of Natural Resources; Paul Piszczek, Lake Superior Fisheries Unit-Wisconsin Department of Natural Resources; Brian Borkholder, Fond Du Lac Band of Lake Superior Chippewa

1:40 PM **Summer Tributary Use and Movement of Lake Sturgeon at Its Southern Range Margin**

Michael Moore, Craig Paukert—University of Missouri Cooperative Fish and Wildlife Research Unit



Photo by: Scott Hull

Tuesday 1:20 PM - 5:00 PM

- 2:00 PM **Examining Movement and Maximizing Capture of Lake Sturgeon in the Fish Elevator on the Menominee River**
 Nicholas Porter, University of Wisconsin-Stevens Point; Dr. Joshua Raabe, University of Wisconsin-Stevens Point; Dr. Daniel Isermann, U.S. Geological Survey, Wisconsin Cooperative Fishery Research Unit, Fisheries Analysis Center, College of Natural Resources, University of Wisconsin-Stevens Point; Darren Kramer, Northern Lake Michigan Unit Manager, Escanaba Field Office-Michigan DNR; Michael Donofrio, NR Region Team Supervisor, Wisconsin Department of Natural Resources; Robert Elliott, U.S. Fish & Wildlife Service
- 2:20 PM **Shifting Population Dynamics of the Commercially Exploited Shovelnose Sturgeon (*Scaphirhynchus platyrhynchus*) in the Wabash River**
 Jessica L. Thornton, Eastern Illinois University; Leslie D. Frankland, Illinois Department of Natural Resources; Craig Jansen, Indiana Department of Natural Resources; Jana Hirst, Illinois Department of Natural Resources; Vaskar Nepal KC, Virginia Institute of Marine Science; Rob Colombo, Eastern Illinois University
- 2:40 PM **Use of Fin Rays for Estimating Age of Muskellunge**
 Derek P. Crane, Marinda Cornett, Cory Bauerlien, Michael L. Hawkins—Coastal Carolina University; Jeff L. Hansbarger, West Virginia Division of Natural Resources; Daniel A. Isermann, U.S. Geological Survey, Wisconsin Cooperative Fishery Research Unit; Jeffrey M. Kampa, Timothy D. Simonson, and Michael P. Rennie, Wisconsin Department of Natural Resources; Kevin L. Kapuscinski, Lake Superior State University; Jonathan R. Meerbeek, Iowa Department of Natural Resources
- 3:00 PM **Break**
- 3:20 PM **Muskellunge Population Responses to Angler Catch-and-Release Practices in Escanaba Lake, Wisconsin, 1987-2014**
 Lawrence D. Eslinger, Greg G. Sass, Stephanie L. Shaw, Steven P. Newman (Retired)—Wisconsin Department of Natural Resources
- 3:40 PM **Broad Scale Movement of Muskellunge in the St. Clair-Detroit River System: Implications for Interjurisdictional Management**
 Jan-Michael Hessenauer, Michigan Department of Natural Resources; Cleo Harris, Michigan Department of Natural Resources; Matthew Faust, Ohio Department of Natural Resources; Stephen Marklevitz, Ontario Ministry of Natural Resources and Forestry; Darryl Hondrop, US Geological Survey

- 4:00 PM **Adult Muskellunge Growth and Annual Survival in Escanaba Lake, WI 1956-2015**
 Stephanie L. Shaw, Greg G. Sass—Office of Applied Science, Wisconsin Department of Natural Resources; Lawrence D. Eslinger, Bureau of Fisheries Management, Wisconsin Dept. of Natural Resources
- 4:20 PM **A Tool for Evaluating the Growth Potential Status of Muskellunge in Wisconsin Lakes**
 Timothy Parks, Timothy Simonson, Aaron Cole—Wisconsin Department of Natural Resources
- 4:40 PM **Natal Origin and Growth Rate of Lake Whitefish (*Coregonus clupeaformis*) Larvae in the Lower Waters of Green Bay and Lake Michigan**
 Lydia Doerr, Patrick Forsythe, Christopher Houghton—University of Wisconsin-Green Bay; Scott Hansen, Wisconsin Department of Natural Resources; Kevin Pangle, Central Michigan University
- 5:00 PM **Larval Lake Whitefish Dynamics in Connected and Open Waters of Green Bay, Wisconsin**
 Andrew Ransom, Patrick Forsythe, Christopher Houghton—University of Wisconsin-Green Bay; Scott Hansen, Wisconsin Department of Natural Resources; Dale Hanson, U.S. Fish & Wildlife Service

T10: RIVERS AND OXBOWS (CONTINUED)

103 E Room

Moderator: Glenn Miller, USFWS

- 1:20 PM **Origins, Current Status, and Potential Roles of Oxbows for Conservation and Nutrient Reduction in Agricultural Landscapes: Introduction to the Oxbow Session**
 Clay L. Pierce, U.S. Geological Survey; Keith E. Schilling, Iowa Geological Survey
- 1:40 PM **Oxbow Restorations in Iowa: A Compilation of Data and Lessons Learned Over the Past 17 Years**
 Aleshia Kenney, U.S. Fish & Wildlife Service
- 2:00 PM **Occurrence, Abundance, and Habitat Use of Topeka Shiners in Restored and Unrestored Oxbows in Iowa and Minnesota**
 Nicholas T. Simpson, Alexander P. Bybel, Michael J. Weber—Iowa State University; Clay L. Pierce, Iowa Cooperative Fish and Wildlife Research Unit; Kevin J. Roe, Iowa State University
- 2:20 PM **Oxbows as Battery Packs: Giving a Much Needed Boost to the Endangered Topeka Shiner**
 Nick Utrup, Scott Ralston, Kim Emerson—U.S. Fish & Wildlife Service

- 2:40 PM **Integrating Reconstructed Oxbows in Watershed Planning to Achieve Habitat and Water Quality Goals**
Keegan Kult, Iowa Soybean Association; Karen Wilke, The Nature Conservancy; Christopher S. Jones, University of Iowa; Keith E. Schilling, Iowa Geological Survey
- 3:00 PM **Break**
- 3:20 PM **Oxbow Restoration and Monitoring in Prairie Streams for Topeka Shiner Recovery**
Scott Ralston, Nick Utrup, Kim Emerson—U.S. Fish & Wildlife Service
- 3:40 PM **Integrating LiDAR Landscape Analysis and Species Distribution Models to Prioritize Areas for Oxbow Restoration**
Courtney L. Zambory, Iowa State University; Harvest Ellis, Iowa Flood Center; Clay L. Pierce, U.S. Geological Survey Iowa Cooperative Fish and Wildlife Research Unit; Kevin J. Roe, Iowa State University; Michael J. Weber, Iowa State University; Nathan Young, Iowa Flood Center; Keith Schilling, Iowa Geological Survey
- 4:00 PM **Exit Here: Strategies and Considerations for Dealing with Aging Dams**
Henry Hansen, University of Nebraska-Lincoln; Mark Pegg, University of Nebraska-Lincoln; Kevin Pope, U.S. Geological Survey, Nebraska Cooperative Fish and Wildlife Research Unit, and School of Natural Resources, University of Nebraska-Lincoln
- 4:20 PM **Prioritizing Fish Passage Restoration in the Lake Superior Basin: A Project Evaluation Approach Utilizing Multi-Agency Efforts and Publicly Available Tools to Address Aquatic Connectivity**
Andrew Stevens, Jason Ross, Henry Quinlan, Ted Koehler, Mark Brouder—U.S. Fish & Wildlife Service
- 4:40 PM **The Importance of Field Assessments in Modeling Fish Passage of Barriers in Great Lakes Tributaries**
John Rodstrom, Austin Milt, Allison Moody – University of Wisconsin-Madison Center for Limnology; Matt Diebel, Wisconsin Department of Natural Resources; Ellen Hamann, University of Wisconsin-Madison Center for Limnology; Peter B. McIntyre, University of Wisconsin-Madison Center for Limnology

WEDNESDAY TECHNICAL SESSIONS

8:00 AM - 12:00 PM

S13: EXTENSION AND OUTREACH FOR ANGLERS AND HUNTERS: CHALLENGES, INNOVATION AND COLLABORATION

101 B Room

Moderator: Mitch Zischke, Purdue University

- 8:00 AM **Fisheries Extension in Southern Lake Michigan**
Mitchell Zischke, Tomas Höök—Purdue University and Illinois-Indiana Sea Grant; Benjamin Dickinson, Indiana Department of Natural Resources; Bradley Eggold, Wisconsin Department of Natural Resources; Steve Robillard, Illinois Department of Natural Resources; Charles Roswell, Illinois Natural History Survey; Donna Wesander, Michigan Department of Natural Resources
- 8:20 AM **Reducing User Conflict Between Recreational and Commercial Fishers in Lake Michigan Through Effective Outreach**
Titus Seilheimer, Wisconsin Sea Grant
- 8:40 AM **Needs Assessment of Extension Educators Related to Pond and Land Management in Indiana**
Jarred Brooke, Purdue University; Mitchell Zischke, Purdue University
- 9:00 AM **Adapting Existing Methods to Reach Waterfowl Hunters with the Stop Aquatic Hitchhikers! Message**
Tim Campbell, University of Wisconsin Extension, Wisconsin DNR, Wisconsin Sea Grant; Jeanne Scherer, Jenny Seifert—UWEX, WDNR
- 9:20 AM **Furbearer Trappers: Invasive Species Outreach and Detection Opportunities**
Chris Hamerla, Golden Sands Resource Conservation & Development Council, Inc
- 9:40 AM **Learning to Hunt: Adult-Focused Hunter Recruitment and Retention in Michigan and Wisconsin**
Johanna Dart, Michigan State University; Keith Warnke, Wisconsin Department of Natural Resources; Jordan Burroughs, Michigan State University
- 10:00 AM **Break**

Wednesday 8:00 AM - 12:00 PM

S15: COMMUNITY-BASED RESEARCH AND RESTORATION IN MILWAUKEE COUNTY, WISCONSIN

101 B Room

Moderator: Julia Robson, Milwaukee County

- 10:40 AM **Creating a Culture of Inclusivity & Equity in Your Community Science Programs**
August M. Ball, Cream City Conservation & Milwaukee County Parks
- 11:00 AM **Engaging Community in the Revitalization of the Kinnickinnic River Corridor**
Elizabeth De Leon, Amanda Milford, Kelly Moore Brands—Sixteenth Street Community Health Centers
- 11:20 AM **Citizen Science Based Water Quality Monitoring in the Milwaukee River Basin**
Zac Driscoll, Cheryl Nenn—Milwaukee Riverkeeper
- 11:40 AM **Community and Conservation: Studying Urban Wetland Biodiversity in Milwaukee County, Wisconsin**
Julia Robson, Milwaukee County

S14: MANAGING AQUATIC INVASIVE SPECIES THROUGH COLLABORATION

102 A Room

Moderator: Jason Deboer, University of Illinois

- 8:00 AM **A Multi-Jurisdictional Approach to Asian Carp in the Upper Illinois River and Chicago Area Waterway System**
Kevin Irons, Aquaculture and Aquatic Nuisance Species Program Manager, Illinois Department of Natural Resources
- 8:20 AM **Collaborative Efforts to Prevent and Control Aquatic Invasive Species in the Great Lakes Region**
Erika Jensen, Great Lakes Commission
- 8:40 AM **A Collaborative Approach to Managing Aquatic Invasive Species in the Ontario and Beyond**
Tracey Cooke, Deb Sparks*, David Nisbet—Invasive Species Centre
- 9:00 AM **Collaborating Across Quality of Life to Achieve Measurable Outcomes for Invasive Species Management**
Tammy J. Newcomb, Michigan Department of Natural Resources
- 9:20 AM **Addressing the Threat of Organisms in Trade in the Great Lakes Region: Science-Based Risk Assessment and Outreach**
Patrice M. Charlebois, Illinois-Indiana Sea Grant/ Illinois Natural History Survey; Reuben P. Keller, Institute of Environmental Sustainability, Loyola University Chicago

- 9:40 AM **Collaborative Multi-Jurisdictional Aquatic Invasive Species Control**
Dale Burkett, Great Lakes Fishery Commission
- 10:00 AM **Break**
- 10:20 AM **Developing a Framework for the Management and Control of Asian Carp in the Missouri River Basin**
Jason Goeckler, Emily Pherigo—U.S. Fish & Wildlife Service, Columbia Fish & Wildlife Conservation Office
- 10:40 AM **Asian Carp Contracted Harvest in the Upper Mississippi River**
James Lamer, Western Illinois University; Kevin Irons, IL Department of Natural Resources; Brent Knights, US Geological Survey-Upper Midwest Environmental Science Center; Kyle Mosel, Fish and Wildlife Service-La Crosse; Ann Runstrom, Fish and Wildlife Service-La Crosse
- 11:00 AM **The Aggressive Invader Crawling in Your Backyard: Responding to Red Swamp Crayfish Infestations in Michigan**
Seth J. Herbst, Nicholas Popoff, Sara Thomas—Michigan Department of Natural Resources-Fisheries Division; Brian Roth, Kim Scribner, Dan Hayes, Kelley Smith, Greg Byford—Michigan State University Department of Fisheries and Wildlife
- 11:20 AM **Collaborative Efforts by USFWS Green Bay Leads to Better Management of AIS in Lake Michigan**
Marian Shaffer, Brandon Harris, Bradley Smith, Cari-Ann Hayer* – U.S. Fish & Wildlife Service
- 11:40 AM **Revisiting a Forgotten Invader: Discovery of a Third Corbicula in Illinois**
Jeremy S. Tiemann, Sarah A. Douglass, Mark A. Davis, Kevin S. Cummings—Illinois Natural History Survey; Amanda E. Haponski, University of Michigan Museum of Zoology; Taehwan Lee, Diarmaid Ó Foighil—University of Michigan Museum of Zoology;

T14: WATERFOWL

102 B Room

Moderator: Brenda Kelly, Wisconsin DNR

- 8:00 AM **Visibility Bias and Disturbance of Waterfowl During Aerial Surveys**
Andrew D. Gilbert, Aaron P. Yetter—Illinois Natural History Survey; Heath M. Hagy, U.S. Fish & Wildlife Service; Christopher N. Jacques, Western Illinois University

- 8:20 AM **True Metabolizable Energy of Submersed Aquatic Vegetation for Ducks**
Margaret Gross, INHS Forbes Biological Station–Western Illinois University; Christopher Jacques, Western Illinois University; Heath Hagy, U.S. Fish & Wildlife Service; Sarah McClain, INHS-Forbes Biological Station; Aaron Yetter, INHS-Forbes Biological Station
- 8:40 AM **Developing a Plasma Lipid Metabolite Index for Canvasbacks**
Andrew F. Bouton, Eric J. Smith, Christopher N. Jacques–Western Illinois University; Heath M. Hagy, U.S. Fish & Wildlife Service; Michael J. Anteau, US Geological Survey; Randy V. Smith, Illinois Department of Natural Resources
- 9:00 AM **Intersexual Differences in Plasma-Lipid Metabolite Concentrations in Lesser Scaup (*Aythya affinis*)**
Eric J. Smith, Western Illinois University; Christopher N. Jacques, Western Illinois University; Heath M. Hagy, US Fish & Wildlife Service; Michael J. Anteau, United States Geological Survey
- 9:20 AM **Analysis of Canada Goose Movements in Relation to Midway International Airport Operations Using Satellite Telemetry**
Ryan J. Askren, Illinois Natural History Survey; Brett E. Dorak, Montana Fish, Wildlife, and Parks, Heath M. Hagy, U.S. Fish & Wildlife Service, Mike P. Ward, Illinois Natural History Survey, Brian E. Washburn, USDA-Wildlife Services, Michael Eichholz, Southern Illinois University
- 9:40 AM **Response of Wetland Food Webs to Neonicotinoid Insecticide Contamination**
Kyle Kuechle, Missouri Cooperative Fish and Wildlife Research Unit, School of Natural Resources, University of Missouri; Elisabeth B. Webb, U.S. Geological Survey, Missouri Cooperative Fish and Wildlife Research Unit; Doreen Mengel, Missouri Department of Conservation, Resource Science Division; Anson Main, Missouri Cooperative Fish and Wildlife Research Unit, School of Natural Resources, University of Missouri
- 10:00 AM **Break**
- 10:20 AM **Nebraska Waterfowl Hunters: Where Do They Go?**
Matthew Hinrichs, Katherine Graham, Nathaniel Price, Christopher J. Chizinski–University of Nebraska-Lincoln; Mark P. Vrtiska, Nebraska Game and Parks Commission
- 10:40 AM **Waterfowl Hunter Satisfaction Over the Years**
Lauren Bradshaw, Jordan Petchenik, Kent Van Horn, Robert H. Holsman–Wisconsin Department of Natural Resources

- 11:00 AM **Response of Common Terns (*Sterna hirundo*) in Ohio to Shifts in Location of Colonies Composed of Artificial Nesting Platforms**
Laura Kearns, Anna Crouser, Emily Scott–Ohio Division of Wildlife
- 11:20 AM **Status Update on Cranes and Crop Damage in the Upper Midwest**
Anne Lacy, Andy Gossens–International Crane Foundation
- 11:40 AM **Saving an American Icon: The Challenge and Successes of Reintroducing Whooping Cranes**
Anne Lacy, International Crane Foundation; Davin Lopez, Wisconsin Department of Natural Resources; Hillary Thompson, International Crane Foundation

T15: STREAMS, DAMS, AND RESERVOIRS

102 C Room

Moderator: *Rebecca Krogram, Iowa DNR*

- 8:00 AM **Growth Rate Potential of Three Important Fishes in Reservoirs Spanning a Productivity Gradient**
Richard R. Budnik, Inland Fisheries Research Unit, Ohio Department of Natural Resources, and The Ohio State University; Geoffrey B. Steinhart, Ohio Department of Natural Resources; Joseph D. Conroy, Inland Fisheries Research Unit, Ohio Department of Natural Resources; Richard D. Zweifel, Inland Fisheries Research Unit, Ohio Department of Natural Resources; Stuart A. Ludsin, Aquatic Ecology Laboratory, The Ohio State University
- 8:20 AM **A Holistic Approach of Characterizing Age and Growth of Bluegill and Redear Sunfish in Small Impoundments**
Connor J. Chance-Ossowski, Ben C. Neely, Jeff D. Koch – Kansas Department of Wildlife, Parks, and Tourism
- 8:40 AM **Evaluation of Gill Net Design to Sample Fishes in Kansas Impoundments**
Nick Kramer, Kansas Department Wildlife, Parks, and Tourism
- 9:00 AM **Population Dynamics and Demographics of Smallmouth Bass in the Snake River, Idaho**
Conor McClure, University of Idaho; Michael C. Quist, US Geological Survey; Joseph R. Kozfkay, Idaho Department of Fish and Game; Mike P. Peterson, Idaho Department of Fish and Game
- 9:20 AM **Fine-scale Spatial Distribution of Resident Fish Species in Lower-order Tributaries of the Great Lakes**
Cynthia Nau, Dr. Patrick Forsythe, Dr. Karen Stahlheber–University of Wisconsin- Green Bay; Dr. Cari-Ann Hayer, U.S. Fish & Wildlife Service

Wednesday 8:00 AM - 12:00 PM

- 9:40 AM **Smallmouth Bass (*Micropterus dolomieu*) Movement and Habitat-Use in River Fragmented by Lowhead Dams**
Collin Huffine, Central Michigan University; Kevin Pangle, Central Michigan University; Jerry Sweeten, Manchester University
- 10:00 AM **Break**
- 10:20 AM **Parameterization of Spatial Conservation Prioritization: Impacts on Stream Conservation Priorities**
Nicholas Sievert, Missouri Cooperative Fish and Wildlife Research Unit; Joanna Whittier, University of Missouri; Craig Paukert, Missouri Cooperative Fish and Wildlife Research Unit
- 10:40 AM **Seasonal Food Habits, Prey Taxa and Size Selectivity, and Diet Overlap of Age-0 White Bass and Walleye**
Brett Miller, University of Nebraska at Kearney; Keith Koupal, Nebraska Game and Parks; Casey Schoenebeck, University of Nebraska and Minnesota Department of Natural Resources
- 11:00 AM **Go with the Flow? Strengths and Weaknesses of FlowCAM® for Characterizing Zooplankton Communities**
Kyle Broadway, Thomas Detmer, Cal Potter, Scott Collins, Joseph Parkos III, David Wahl—Illinois Natural History Survey
- 11:20 AM **Fisheries Data at Your Fingertips: Using ‘Shiny’ to Analyze and Share Wisconsin Fisheries Data with Managers and Stakeholders**
Alexander Latzka, Lori Tate—Wisconsin Department of Natural Resources
- 11:40 AM **Dietary Comparison of Trouts in the Western Great Basin and Wyoming Mountain Steppe**
Mario Minder, Mark Pyron, Robert Shields—Ball State University; Emily Arsenaault, University of Kansas

T16: CONSERVATION COLLABORATION & GENERAL WILDLIFE

102 D&E Room

Moderator: Jeff Pritzl, Wisconsin DNR

- 8:00 AM **Evaluating Indices of Full-Season Productivity for American Woodcock**
Kyle O. Daly, U.S. Fish & Wildlife Service; David E. Andersen, Minnesota Cooperative Fish & Wildlife Research Unit; Wayne L. Brininger, U.S. Fish & Wildlife Service; Thomas R. Cooper, U.S. Fish & Wildlife Service
- 8:20 AM **Motivations and Characteristics of Participants in a Tournament Grouse Hunt**
Alisha S. Grams, University of Nebraska; Christopher J. Chizinski, University of Nebraska

- 8:40 AM **Reducing Lead Exposure in Bald Eagles in the Upper Midwest**
Ed Britton, U.S. Fish & Wildlife Service
- 9:00 AM **Development of a Standardized Monitoring Program for Bald Eagles in the Southwest Alaska Network of National Parks**
Rebecca Kolstrom, South Dakota State University; Tammy Wilson, National Park Service, South Dakota State University; Larry Gigliotti, South Dakota State University
- 9:20 AM **The Urban-Rural Divide in Fish & Wildlife Conservation Funding**
Kofi Nkansah, Wisconsin Department of Natural Resources
- 9:40 AM **OPEN**
- 10:00 AM **Break**
- 10:20 AM **The Wildlife and Sport Fish Restoration Program: 80 Years of Conservation Success**
Hanna Kruckman, Kyle Daly, Craig Kelling, Jessica Piispanen, Fabian Romero, Ann Schneider, Abbey Kucera—U.S. Fish & Wildlife Service
- 10:40 AM **A Bird in the Hand: Shotguns, Deadly Oil Pits, Cute Kittens, and the Migratory Bird Treaty Act**
Samuel Panarella, University of Montana School of Law
- 11:00 AM **Collaboration to Improve Fire Management Outcomes: Increasing the Application of Research to Prescribed Fire in the Tallgrass Prairie and Oak Savanna Ecoregion**
Craig Maier, Tallgrass Prairie and Oak Savanna Fire Science Consortium; Paul Charland, U.S. Fish & Wildlife Service; John Harrington, University of Wisconsin-Madison; Hannah Spaul, The Nature Conservancy; Paul Zedler, University of Wisconsin-Madison
- 11:20 AM **Social Behavior and Ecology May Interact to Shape the Gut Microbiome in Feral Horses (*Equus caballus*)**
Cassandra M.V. Nuñez, James S. Adelman, Haley A. Carr, Maggie M. Jones—Iowa State University
- 11:40 AM **OPEN**



Photo by: Snapshot Wisconsin

T17: FISH HABITAT AND GENETICS

103 A Room

Moderator: *Wes Larson, University of Wisconsin-Stevens Point*

- 8:00 AM **Effectiveness of Shallow Water Habitat Restoration in the St. Clair River**
Jason Fischer, Christine Mayer, Song Qian, Robin DeBruyne—University of Toledo; Ed Roseman, Stacey Ireland, Greg Kennedy—US Geological Survey, Great Lakes Science Center; David Mifsud, Herpetological Resource Management; Melanie Foose, Department of Environmental Quality, Office of the Great Lakes; Rosanne Ellison, U.S. Environmental Protection Agency, Great Lakes National Program Office
- 8:20 AM **A Comparative Analysis of Small Tributaries of Green Bay, Wisconsin: The Intersection of Water Quality, Biotic Communities, and Stream Metabolism**
Amelia McReynolds, University of Wisconsin-Green Bay; Patrick Forsythe, University of Wisconsin-Green Bay; Gary Lamberti, University of Notre Dame; Tammie Paoli, Wisconsin Department of Natural Resources; Robert Howe, University of Wisconsin-Green Bay
- 8:40 AM **Using GIS to Predict Habitat in Lakes: An Example Using Nearshore Substrate Categories**
Douglas Zentner, University of Arkansas-Pine Bluff; Joshua Raabe, University of Wisconsin-Stevens Point, Timothy Cross, Minnesota Department of Natural Resources; Peter Jacobson, Minnesota Department of Natural Resources; Benjamin Schall, South Dakota State University
- 9:00 AM **Employing Aeration as an Effective Lake Management Tool**
Bob Robinson, Kasco Marine
- 9:20 AM **Developing a Science and Monitoring Strategy to Assess Recovery of Fisheries Habitats and Populations in the St. Clair-Detroit River System**
Edward F. Roseman, USGS Great Lakes Science Center; James Boase, U.S. Fish & Wildlife Service; Justin A. Chiotti, U.S. Fish & Wildlife Service; Robin DeBruyne, University of Toledo; Richard Drouin, Ontario Ministry of Natural Resources and Forestry; Todd Wills, Michigan Department of Natural Resources
- 9:40 AM **Habitat Associations of Blacknose Dace in the Upper Manistee Watershed, Michigan, USA**
Ridge Sliger, Lee University; Brandan Ward, Point Loma Nazarene University; Cameron Goble, Michigan Technological University; Nancy Auer, Michigan Technological University; Troy Zorn, Michigan Department of Natural Resources; Fred Van Dyke, Au Sable Institute; Marty Holtgren, Encompass Socio-ecological Consulting

10:00 AM **Break**

10:20 AM **Genetic Analysis of Topeka Shiner Utilization of Oxbows in Iowa and Minnesota**

Alexander P. Bybel, Nicholas T. Simpson—Iowa State University, Department of Natural Resource Ecology and Management; Clay L. Pierce, U.S. Geological Survey, Iowa Cooperative Fish and Wildlife Research Unit, Iowa State University; Michael J. Weber, Kevin J. Roe—Iowa State University, Department of Natural Resource Ecology and Management

10:40 AM **Using Genetic Tools to Inform Conservation of Wisconsin's Native Brook Trout**

Wes Larson, U.S. Geological Survey Wisconsin Cooperative Fishery Research Unit; Keith Turnquist, Wisconsin Cooperative Fishery Research Unit; Brad Erdman, University of Maine, School of Biology and Ecology; Matt Mitro, Wisconsin Department of Natural Resources; Joanna Griffin, Wisconsin Department of Natural Resources

11:00 AM **Genetic Connectivity of Seven Fish Species Sampled Above and Below the Prairie Du Sac Dam on the Lower Wisconsin River**

Jenna Ruzich, Wisconsin Cooperative Fishery Research Unit—University of Wisconsin Stevens Point; Keith Turnquist, Wisconsin Cooperative Fishery Research Unit—University of Wisconsin Stevens Point; Nathan Nye, Wisconsin Department of Natural Resources; David Rowe, Wisconsin Department of Natural Resources; Wes Larson, U.S. Geological Survey—Wisconsin Cooperative Fishery Research Unit

11:20 AM **Biological Assessment of Lionfish (*Pterois volitans*) Control via CRISPR/Cas9 Gene Drive Technology**

Kirsten Vacura, Ball State University; Michael Smanski, Kyle Cheeseman, Camden Droppo, Lucas Lagoon - University of Minnesota- Twin Cities; Paul Venturelli, Ball State University

11:40 AM **Bigheaded Carp Environmental DNA Detection in the Upper Mississippi River: A Comparison of Quantitative PCR and Digital PCR**

Craig Jackson, Jon Amberg, Chris Merkes, Stacey Kageyama—Upper Midwest Environmental Sciences Center

T18: FISH PHYSIOLOGY AND BEHAVIOR

103 B Room

Moderator: *Justin VanDeHey, UWSP*

8:00 AM **Effects of 17- β Estradiol in the Metabolism and Morphology of Bluegill Sunfish**

Anabela Maia, Neeta Parajulee-Karki, Robert Colombo—Eastern Illinois University; Karen Gaines, Embry-Riddle Aeronautical University

Wednesday 8:00 AM - 12:00 PM

- 8:20 AM **Temperature Effects on Bluegill Sunfish and Largemouth Bass Metabolism**
Israt Jahan, Robert Colombo, Anabela Maia—Eastern Illinois University
- 8:40 AM **Effects of Density and Species Richness on the Thermal Tolerance of Freshwater Mussels in the Great Lakes Region**
Megan C. Malish, Daelyn A. Woolnough—Central Michigan University Department of Biology and Institute for Great Lakes Research
- 9:00 AM **On-Site Evaluation of Toxicity and Estrogenicity of Wastewater Effluents to Endangered Rio Grande Silvery Minnow**
Kevin Buhl, Diana Papoulias, Mandi Annis, David Alvarez, Travis Schaeffer—US Geological Survey
- 9:20 AM **Why Do Some Fish Strike Fishing Lures? Physiological and Behavioral Mechanisms**
Michael Louison, Jeffrey Stein, Cory Suski
- 9:40 AM **Foraging Mechanisms of Siscowet Lake Trout (*Salvelinus namaycush siscowet*) on the Benthic Deepwater Sculpin (*Myoxocephalus thompsonii*): Effect of Light Intensity and Substrate Composition on Native Predator-Prey Interaction**
Trevor D. Keyler, Thomas R. Hrabik, Loranzie Rogers—University of Minnesota Duluth; Owen Gorman, US Geological Survey
- 10:00 AM **Break**
- 10:20 AM **Migration of Fishes in a Coastal Lake Erie Wetland**
Nate Stott, Geoffrey Steinhart, Jeffrey G. Miner—Bowling Green State University
- 10:40 AM **Gape Width of White Bass (*Morone chrysops*) in Lake McConaughy, Nebraska, with Implications on the Predation on Alewife**
Garrett Rowles, Melissa Wuellner—University of Nebraska Kearney; Keith Koupal, University of Nebraska Kearney, Nebraska Game and Parks Commission
- 11:00 AM **Largemouth Bass Fingerling Production in Kansas: Where We've Been and Where We're Going**
Josh Jagels, Kansas Department of Wildlife, Parks, and Tourism
- 11:20 AM **Evaluating the Effects of Sampling Rate on Growth of Freshwater Mussels in Aquaria**
Lindsay Ohlman, Dr. Mark Pegg, Dr. Jamilynn Poletto—University of Nebraska-Lincoln
- 11:40 AM **OPEN**

T19: HUMAN DIMENSIONS

103 C Room

Moderator: Bob Holsman, Wisconsin DNR

- 8:00 AM **Wisconsin's Lakes Partnership**
Bob Wakeman, Wisconsin Department of Natural Resources
- 8:20 AM **What's in a Name? The Case for Discontinuing the Term Asian Carp**
Patrick M. Kocovsky, Duane C. Chapman—US Geological Survey; Song Qian, University of Toledo
- 8:40 AM **Bridging the Social-Ecological Gap with Anglersheds**
Christine N. Ruskamp, Mark A. Kaemingk—Nebraska Cooperative Fish and Wildlife Research Unit, and School of Natural Resources, University of Nebraska-Lincoln; Christopher J. Chizinski, School of Natural Resources, University of Nebraska-Lincoln; Kevin L. Pope, USGS-Nebraska Cooperative Fish and Wildlife Research Unit, and School of Natural Resources, University of Nebraska-Lincoln
- 9:00 AM **Economic and Spatial Assessments of Angling at Small South Dakota Lakes**
Aaron Sundmark, South Dakota State University; Larry Gigliotti, South Dakota Cooperative Fish And Wildlife Research Unit
- 9:20 AM **Beaver vs. Trout: Untangling a Controversy in the Western Great Lakes (U.S.) Region**
Sean Johnson-Bice, Steve Windels—University of Minnesota Duluth; Kathryn Renik, Bemidji State University; Andrew Hafs—Bemidji State University
- 9:40 AM **Fishing for Answers: A Binational Analysis of Creel Survey Data in the St. Clair-Detroit River System (SCDRS)**
Dana K. Castle, Tracy L. Galarowicz—Central Michigan University; Edward F. Roseman, U. S. Geological Survey Great Lakes Science Center; Tracy Kolb, Michigan Department of Natural Resources; Richard Drouin, Ontario Ministry of Natural Resources and Forestry
- 10:00 AM **Break**
- 10:20 AM **Angler Opposition to an Increase in the Minimum Length Limit for Walleye at Cedar Bluff Reservoir, Kansas**
Susan Steffen, David Spalsbury-Kansas Department of Wildlife, Parks and Tourism
- 10:40 AM **Fishes of Hickory Creek Basin, Des Plaines River Drainage, Illinois: History, Politics, Climate, and the Need for Voucher Specimens**
John C. Bruner, University of Alberta; Alan Resetar, Field Museum of Natural History

T21: LIGHTNING SESSION

103 C Room

- 11:00 AM **Insecticide Exposure Risk for Grassland Wildlife on Public Land in Southwestern Minnesota**
Katelin M. Goebel, Minnesota Cooperative Fish and Wildlife Research Unit, University of Minnesota; Nicole M. Davros, Farmland Wildlife Populations and Research Group, Minnesota Department of Natural Resources; David E. Andersen, U.S. Geological Survey, Minnesota Cooperative Fish and Wildlife Research Unit, University of Minnesota
- 11:10 AM **Understanding Attitudes Towards Controversial Subjects in Wildlife Management: How Students View Regulated Commercial Harvest**
Cady Sartini, Janel Sharhag, Sara Fischer—University of Wisconsin-Stevens Point
- 11:20 AM **Walleye Age Estimation Using Otoliths and Dorsal Spines: Insights on Precision at a Statewide Level**
Daniel J. Dembkowski, Wisconsin Cooperative Fishery Research Unit; Daniel A. Isermann, USGS, Wisconsin Cooperative Fishery Research Unit; Ryan P. Koenigs, Wisconsin Department of Natural Resources
- 11:30 AM **The Effect of Season of Prescribed Burning on Avian Communities in Minnesota Lowland Brushland**
Annie Hawkinson, Rebecca Montgomery, Lee Frelich—University of Minnesota; Charlotte Roy, Lindsey Shartell—Minnesota Department of Natural Resources
- 11:40 AM **Effect of Riparian Alteration on Brook Trout Populations, Invertebrate Communities, and Stream Morphology**
Ryan Brown, William Fisher, Joshua Raabe, Kyle Herrman—University of Wisconsin-Stevens Point
- 11:50 AM **Trout Transfers: A Case for Increasing Size Structure in High Density Trout Streams**
Joseph Gerbyshak, Wisconsin Department of Natural Resources

T20: GENERAL FISHERIES & WILDLIFE

103 D Room

Moderator: Willie Fetzer, Wisconsin DNR

- 8:00 AM **Comparing Substrate Composition Changes Above Two Lowhead Dams from 2012 to 2017 Using Side Scan Sonar**
Drew Holloway, Muncie Sanitary District Bureau of Water Quality; Jason Doll, Post-Doctoral Research Associate Quantitative Fisheries Center Michigan State University; Luke Etchison, North Carolina Wildlife Resources Commission

- 8:20 AM **Nitrate-Nitrogen Reductions Measured in Newly Reconstructed Iowa Oxbows Located on and off the Des Moines Lobe: Different Hydrology, Similar Benefits**
Keith Schilling, Iowa Geological Survey; Chris Jones, IIHR-Hydroscience and Engineering, University of Iowa; Bryce Haines, University of Iowa; Keegan Kult, Iowa Soybean Association; Karen Wilke, The Nature Conservancy

8:40 AM **OPEN**

- 9:00 AM **Developing “Manager’s Models”: Teaching Graduate Students to Communicate How Science Informs Management and Policy**
William W. Fetzer, Wisconsin Department of Natural Resources

- 9:20 AM **Managing Phragmites with Science on Your Side**
Karen Alexander, Great Lakes Commission; Abram Dasilva, Kurt Kowalski, Christine Dumoulin—USGS Great Lakes Science Center; Dr. Clint Moore, PhD. University of Georgia; Heather Braun, Great Lakes Commission

- 9:40 AM **Hunter Preference of Harvest Reporting Methods on Public Lands in Illinois**
Ryan J. Conat, Craig A. Miller—Illinois Natural History Survey, University of Illinois

10:00 AM **Break**

- 10:20 AM **The Wisconsin Lake Leaders Institute: Building Future Lake Champions Through Education and Engagement**
Patrick Goggin, Eric Olson, Kim Becken—Wisconsin Lakes Partnership/UW-Extension Lakes, University of Wisconsin-Stevens Point

- 10:40 AM **Wrestling with Recruitment**
Matt Burlingame, Indiana Division of Fish & Wildlife

- 11:00 AM **Developing and Sustaining a Lakeshore Habitat Restoration Training for Professionals in Wisconsin, USA**
Patrick Goggin, Wisconsin Lakes Partnership/UW-Extension Lakes, University of Wisconsin-Stevens Point

- 11:20 AM **Wrestling with Recruitment**
Matt Burlingame, Indiana Division of Fish & Wildlife

11:40 AM **OPEN**

Wednesday 8:00 AM - 12:00 PM

Posters

CAMERA METHODS	
P-01	Utilizing Citizen Science Technology to Assist in Giraffe Conservation in Botswana Madeline Abbatacola, Kara White - Wisconsin Center for Wildlife, University of Wisconsin- Stevens Point; Christiaan Winterbach, Tau Consultants; Scott Hygnstrom, Wisconsin Center for Wildlife, University of Wisconsin- Stevens Point
P-02	Diversity and Abundance of Terrestrial Wildlife in Piedras Blancas National Park, Costa Rica Max Beal, Northland College; Brooke Niermann, Northland College; Parker Matzinger†, Northland College; Guido S. Rodriguez, Sistema Nacional de Areas de Conservacion; Dr. Erik R. Olson, Northland College
P-03	Wildlife Species Usage of Man-Made Watering Holes in the Manistee National Forest Anna Bush, Lake Superior State University
P-04	Estimating Angling Effort on Four of Minnesota's Fishing in the Neighborhood Lakes via Time Lapse Cameras Jon Hansen, Jim Levitt, Tim Ohmann - Minnesota Department of Natural Resources
P-05	Evaluating Potential Effects of Camera Density on Capture and Recapture Rates of Bobcats Christopher N. Jacques, Tim C. Swearingen, Edward D. Davis - Western Illinois University; Robert W. Klaver, US Geological Survey; Chuck R. Anderson, Colorado Parks and Wildlife; Jonathan A. Jenks, South Dakota State University; Christopher S. DePerno, North Carolina State University; Robert D. Bluett, Illinois Department of Natural Resources
P-06	Arboreal Camera Trapping Reveals Arboreal Behavior of <i>Hyla versicolor</i>, <i>Peromyscus leucopus</i> and <i>Peromyscus maniculatus</i> in Northern Wisconsin Madison M. Laughlin, Jonathan G. Martin, Erik R. Olson - Northland College
P-07	Distribution and Body Condition Scores in Wild Baird's Tapir (<i>Tapirus bairdii</i>) of Corcovado National Park, Costa Rica Brooke A. Niermann, Northland College; Parker J. Matzinger (deceased), Northland College; Guido S. Rodriguez, Sistema Nacional de Areas de Conservacion; Erik R. Olson, Northland College
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P-109	Herpetofauna Surveys on Three Public Properties in Chickasaw County, Iowa KC Cantin, PDB Skrade, Ph.D., Upper Iowa University
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P-111	Herpetofauna Community Response to Bison (<i>Bison bison</i>) Grazing in Tallgrass Prairie Remnants Jeremy French, William Penn University; Peter Eyheralde, William Penn University
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P-115	Evolutionary Consequences of Fragmentation on Plant Communities in Northwest Ohio Misty Peavler, Ashlee Nichter, Dr. Andrew Gregory - Bowling Green State University
P-116	Differential Microhabitat Use Between Snowshoe Hare (<i>Lepus americanus</i>) and Eastern Cottontail (<i>Sylvilagus floridanus</i>) in Northern Wisconsin Taylor Pichler, Jennifer Franke, Cassandra Arts, Dr. Erik R. Olson - Northland College Natural Resources
P-117	The Effect of Prescribed Fire and Deer Exclusion on an Oak-Hickory Woodland of West-Central Illinois Will T. Rechkemmer, Department of Biological Sciences, Western Illinois University; Mary E. Gilliam, Illinois Natural History Survey, Prairie Research Institute; Jeffery P. Woodyatt, Department of Biological Sciences, Western Illinois University; James T. Lamer, Department of Biological Sciences, Western Illinois University; Ben R. Wodika, Department of Biological Sciences, Truman State University; Sean E. Jenkins, Department of Biological Sciences, Western Illinois University

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P-118	<p>The Effect of Prescribed Fire, Landscape Position, and Deer Browsing on Spring Ephemerals in an Oak-Hickory Woodland of West-Central Illinois</p> <p>Will T. Rechkemmer, Department of Biological Sciences, Western Illinois University; Mary E. Gilliam, Illinois Natural History Survey, Prairie Research Institute; Ben R. Wodika, Department of Biological Sciences, Truman State University; James T. Lamer, Department of Biological Sciences, Western Illinois University; Sean E. Jenkins, Department of Biological Sciences, Western Illinois University</p>
P-119	<p>Filling in the Gaps: <i>Clonophis Kirtlandii</i> in Illinois</p> <p>Tristan D. Schramer, University of Illinois at Urbana-Champaign; Taylor R. West, Illinois Natural History Survey</p>
P-120	<p>Movements and Habitat Use of Muskellunge in Green Bay, Lake Michigan</p> <p>Robert Sheffer, Daniel Dembkowski - Wisconsin Cooperative Fishery Research Unit, Fishery Analysis Center, University of Wisconsin-Stevens Point; Steven Hogler, Wisconsin Department of Natural Resources; Daniel Isermann, U.S. Geological Survey, Wisconsin Cooperative Fishery Research Unit, Fisheries Analysis Center, University of Wisconsin-Stevens Point</p>
P-121	<p>Change in the Fish Community After Restoration of the Little Rapids, St Marys River</p> <p>Katherine Skubik, Dr. Ashley Moerke - Lake Superior State University</p>
P-122	<p>American Marten (<i>Martes Americana</i>) Microhabitat Characteristics in Mixed Deciduous/Coniferous Laurentian Forests</p> <p>Heather Stricker, University of Wisconsin - Stevens Point; Lisa Zoromski, University of Wisconsin - Stevens Point; Jason Wogsland, University of Wisconsin - Stevens Point, Deahn Donner, US Forest Service - Northern Research Station; Jonathon Gilbert, Great Lakes Indian Fish and Wildlife Commission</p>
P-123	<p>Measuring Ruffed Grouse Drumming Log Characteristics</p> <p>Benjamin Tjepkes, University of Wisconsin - Stevens Point; Jeffrey Williams, University of Wisconsin - Stevens Point; Heidi Putnam, University of Wisconsin - Stevens Point; Joseph Quehl, University of Wisconsin - Stevens Point; Dr. Jason Riddle, University of Wisconsin - Stevens Point</p>
P-124	<p>Amphibians and Reptiles of the Green River Conservation Opportunity Area</p> <p>Jay Vecchiet, Department of Biology Northern Illinois University; Tristan Schramer, University of Illinois; Richard B. King, Department of Biology, Northern Illinois University</p>
P-125	<p>Evaluating Potential Effects of Proximity to Roadways in a Road-Naïve Population of Turtles</p> <p>Marcel Weigand, Christopher Tonra, Ryan Wagner, Viorel Popescu - Ohio University</p>
P-126	<p>Snowshoe Hare in Lower Michigan: The Shifting Range of a Climate-Sensitive Species</p> <p>Spencer West, Grand Valley State University; Paul Keenlance, Grand Valley State University; Robert Sanders, Little River Band of Ottawa Indians; Joseph Jacquot, Grand Valley State University</p>
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P-127	<p>Is It Time for an Additional Approach to Wildlife Education: Better Preparing Graduates by Including the Professional Science Master's in Our Educational Repertoire</p> <p>Mike Eichholz, Cooperative Wildlife Research Lab. and Center for Ecology, Dept. of Zoology, Southern Illinois University Carbondale</p>
P-128	<p>Nebraska Elk Hunting Constraints: Perceived and Realized</p> <p>Matthew P. Gruntorad, Christopher J. Chizinski - School of Natural Resources, University of Nebraska</p>
P-129	<p>A Look into the Future: The Aquatic Research Laboratory of the Great Lakes Science Center</p> <p>Kevin Keeler, Peter Esselman, Greg Kennedy, Chuck Madenjjan, Ed Roseman, Wendy Stott - U.S. Geological Survey, Great Lakes Science Center; Ted Lawrence, Great Lakes Fishery Commission; Kurt Newman, U.S. Geological Survey, Great Lakes Science Center</p>
P-130	<p>Relationship of Snow Goose Hunting Methods on Harvest</p> <p>Daniel T. Sears, Illinois Natural History Survey; Craig A. Miller, Illinois Natural History Survey</p>
P-131	<p>Divergent Responsiveness of Two Isoforms of the Estrogen Receptor to Mixtures of Contaminants of Emerging Concern in Fathead Minnow and Bluegill Sunfish</p> <p>Satomi Kohno, St. Cloud State University; Yoshinao Katsu, Hokkaido University; Nicholas Cipoletti*, Lina C. Wang, Zachary G. Jorgenson, Heiko L. Schoenfuss - St. Cloud State University; Shinichi Miyagawa, Wakayama Medical University</p>

Posters

STUDENT RESEARCH-IN-PROGRESS POSTERS

A student research-in-progress poster session will be held in conjunction with the poster social and will feature submissions from undergraduate, M.S., and P.h.D. students including: research that is in progress, or is a proposed research project (with a focus on study design), results from completed undergraduate research projects, or student chapter class or group research project. Attendees are strongly encouraged to visit with these students and provide feedback on their research.

P-01	Microhabitat Use of Migrating Northern Saw-Whet Owls (<i>Aegolius acadicus</i>) Ian Bierke, University of Wisconsin- Stevens Point
P-02	I Once Caught a Fish "THIS BIG": Using Participatory Photovoice to Understand Michigan's Great Lakes Anglers Erin Burkett, Michigan Technological University
P-03	Non-Target Species Occurrence at Bear Bait Sites Ellen Candler, University of Minnesota
P-04	Spatial and Temporal Effects of Fragmentation on Marsh Bird Communities Within Saginaw Bay, Michigan Ryan Dinehart, Central Michigan University
P-05	Evaluating Predator Communities and Duck Nest Survival in Eastern South Dakota Samantha Fino, South Dakota State University
P-06	The Evaluation of Cover Crops for Grassland Nesting Waterfowl in Eastern South Dakota Will Gallman, South Dakota State University
P-07	Waterfowl Hunter Recruitment, Retention, and Participation Trends Katherine Graham, University of Nebraska - Lincoln
P-08	Genetic Diversity of the Eastern Massasauga (<i>Sistrurus catenatus</i>) in Berrien and Van Buren Counties, Southwest Michigan Roshelle Hall, Andrews University
P-09	Impacts and Influence of Deer Density on Corn and Soybean Yields in Western Kentucky Jonathan Matthews, University of Kentucky
P-10	Calibrating an Index to Predict Vole Activity and Damage in Cover-Cropped Soybean Fields Abby-Gayle Prieur, Purdue University
P-11	Recording Flying Squirrel Responses Katherine Rexroad, University of Wisconsin-Stevens Point
P-12	Habitat Modeling for River Otters in Wisconsin Janelle Taylor, University of Wisconsin-Stevens Point
P-13	Reproductive Ecology of Shovelnose Sturgeon (<i>Scaphirhynchus platorynchus</i>) in the Wabash River Jessica Thornton, Eastern Illinois University
P-14	Reproductive Potential of Asian Carp in Illinois Emily Tucker, University of Illinois at Urbana-Champaign
P-15	Diet of a Reintroduced River Otter Population in the Upper Rio Grande, New Mexico Gabriela Wolf-Gonzalez, University of Kentucky

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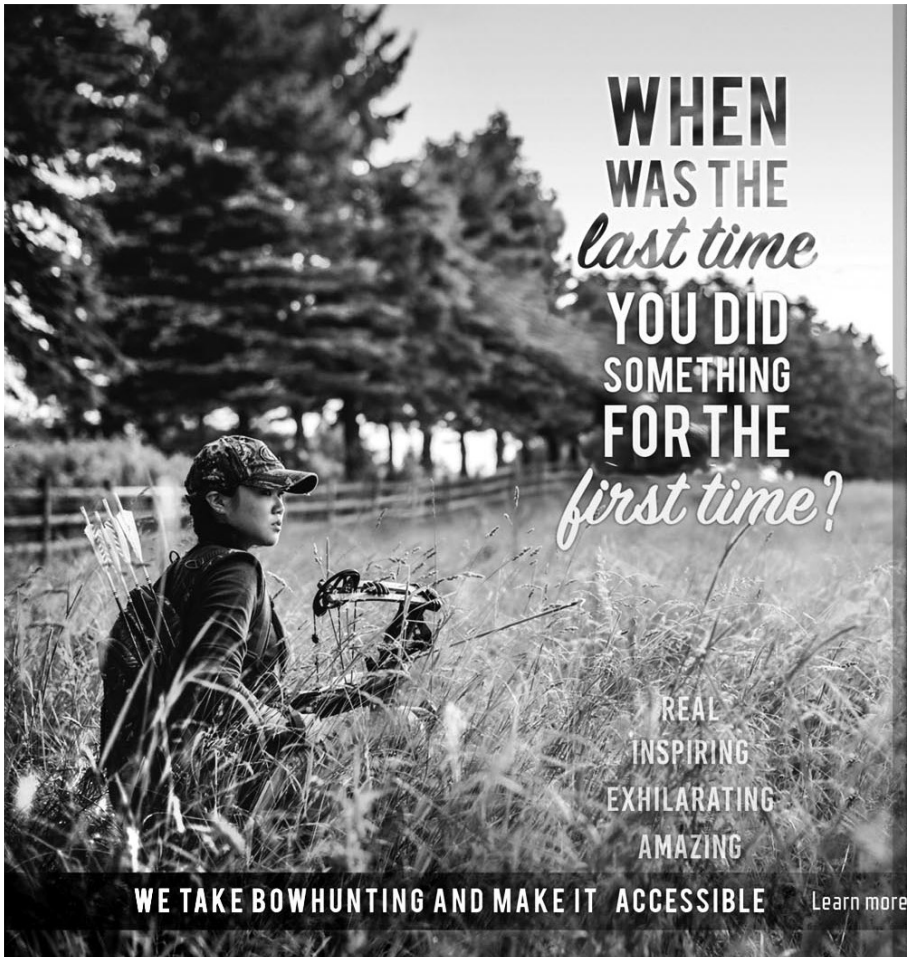
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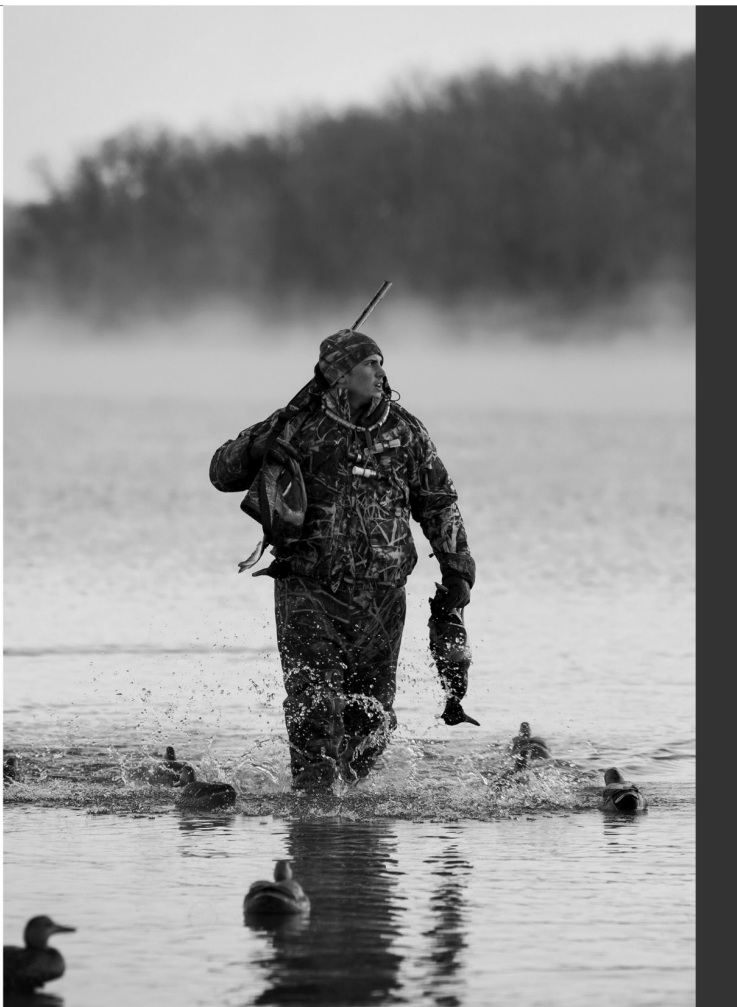
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This simple message helps educate and remind all firearm owners how to keep themselves and their families safe. Since the campaign's launch in June 2014, more than 3,500 industry companies, media outlets, conservation organizations, retailers, shooting ranges and supporters are participating in the effort by using the Own It? Respect It. Secure It. logo and optional tagline: "Store your firearms responsibly."

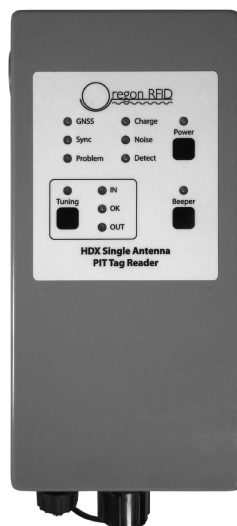
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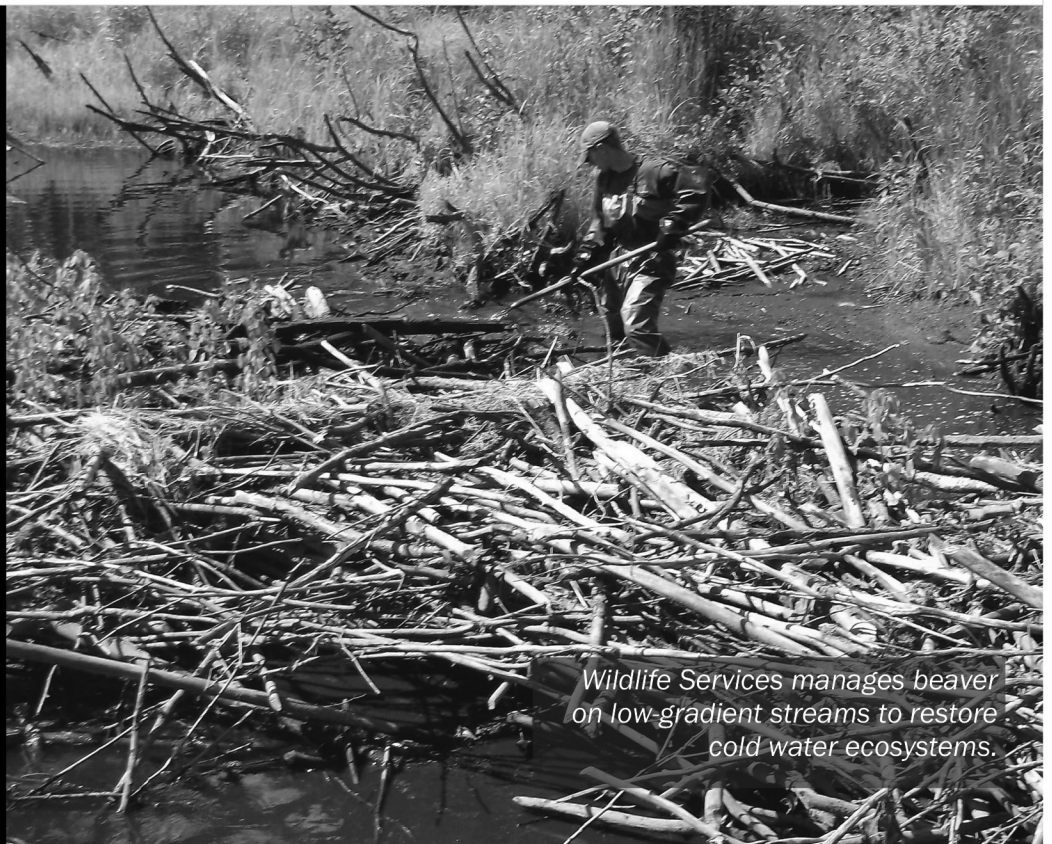
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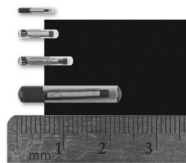


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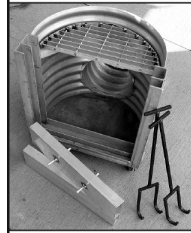


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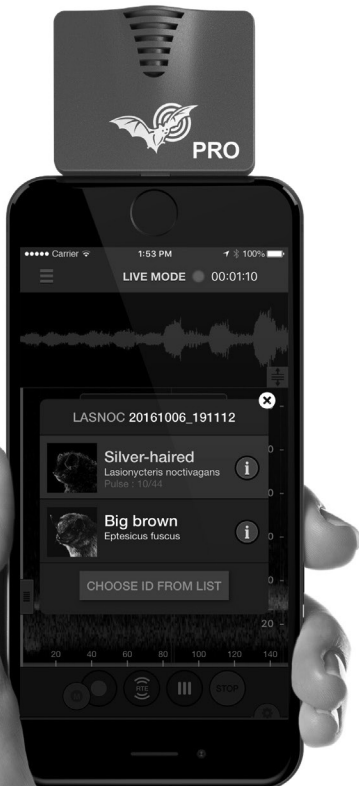
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