

81ST ANNUAL MIDWEST FISH & WILDLIFE CONFERENCE



February 1-4, 2021

Program Overview

Plenary Sessions

The theme of the 2021 Midwest Fish and Wildlife Conference was “Fostering Diversity”. In addition to the work natural resource professionals do to encourage species diversity in the habitats they manage, it is critical that we also foster diversity in participation in the outdoors among the people we serve and who work in our professional ranks.

PLENARY SESSION I:

Monday, February 1, 8:00 AM – 10:30 AM

Emcee: Sarah Strommen, Commissioner, Minnesota Department of Natural Resources

Featured Speaker: Carolyn Finney, author of *Black Faces, White Spaces*, a seminal work on the roots of gaps in outdoor participation between white people and other ethnicities. Carolyn Finney, PhD is a storyteller, author and a cultural geographer. She is deeply interested in issues related to identity, difference, creativity, and resilience.

PLENARY SESSION II:

Tuesday, February 2, 8:00 AM – 10:30 AM

Emcee: Erika Rivers, Director, Minnesota State Parks and Trails

The theme of this plenary focused on programs being used to close some of those gaps both among different ethnicities and genders.

FEATURED PANELISTS:

- **Michael J. Isham, Jr.** Executive Administrator for the Great Lakes Indian Fish & Wildlife Commission.
- **Christine Thomas, Ph.D.** is a professor emeritus at the University of Wisconsin-Stevens Point.
- **Linda Bylander**, Minnesota DNR coordinator for the Becoming an Outdoors women program.
- **Alora Jones**, The Nature Conservancy's MN-ND-SD chapter
- **Jeff Pagels**, USA's most decorated cross-country skier with 5 Paralympic medals; retired from the Wisconsin DNR in 2004.
- **Ray Ruiz**, a Fishing and Hunting Skills Liaison for the Minnesota Department of Natural Resources. Minnesota.

2021 Organized Symposia

SYMPOSIUM 1: Coregonids in the Great Lakes Region: Resiliency, Rehabilitation, and Range Reduction

Contact: Donald Schreiner, Fisheries Specialist, Minnesota Sea Grant

Co-Organizers: Randy Eshenroder - Great Lakes Fishery Commission (randye@glfc.org); Peter Jacobson - Minnesota Department of Natural Resources (Retired) (pejacobs58@gmail.com); Owen Gorman - U.S. Geological Survey, Lake Superior Biological Station (otgorman@usgs.gov)

SYMPOSIUM 2: Effects of System Change on North American Percid Populations

Contact: Dale Logsdon, Fisheries Research Scientist, Minnesota DNR, dale.logsdon@state.mn.us

Co-Organizers: Walleye Technical Committee (WTC) - North Central Division of the American Fisheries Society; Contacts: BLawrence Eslinger (WTC Chair), lawrence.eslinger@wisconsin.gov

SYMPOSIUM 3: Local Government Engagement around Public Land Ownership

Contact: Jennifer Olson, Initial Development Coordinator, Minnesota DNR - Division of Fish & Wildlife

Co-Organizers: Dave Trauba - Regional Wildlife Manager, MN DNR; Annalee Garletz – Government Relations Unit Supervisor, MN DNR

SYMPOSIUM 4: Using Section 10 of the Endangered Species Act to Conserve Species and Avoid Future Listings

Contact: Rebecca Sloan, Senior Conservation Biologist, ICF

SYMPOSIUM 5: Wildlife Conservation in the Decade on Ecosystem Restoration

Contact: John Vanek, Postdoctoral Fellow, Northern Illinois University

Co-Organizers: Erin Rowland, PhD Student, Northern Illinois University; Tony Del Valle, MS Student, Northern Illinois University

SYMPOSIUM 6: Changing the Agricultural Landscape with Cover Crops

Contact: Alixandra Godar, PhD Student, Kansas State University/U.S. Geological Survey Kansas Cooperative Fish and Wildlife Research Unit

Co-Organizers: David Haukos, U.S. Geological Survey Kansas Cooperative Fish and Wildlife Research Unit, dhaukos@ksu.edu

SYMPOSIUM 7: Forestry and Wildlife Intertwined

Contact: Melissa Starking, PhD Candidate, Michigan State University

Co-Organizers: Dr. Gary Roloff, Department of Fisheries and Wildlife, Michigan State University

SYMPOSIUM 8: Modelling, Spatial Prioritization, and Decision Support Tools for Coldwater Fish Management in the Midwest

Contact: Lisa Elliott, Postdoctoral Associate, University of Minnesota

Co-Organizers: Patrick Landisch, University of Minnesota, land0397@umn.edu; William Severud, University of Minnesota, seve0135@umn.edu; Mark Nelson, U.S. Forest Service, mark.d.nelson@usda.gov

SYMPOSIUM 9: Neonicotinoid Insecticides: Evaluating Impacts to Non-target Taxa and Management Practices to Limit Effects

Contact: Elisabeth Webb, Research Ecologist, USGS Missouri Cooperative Fish and Wildlife Research Unit

Co-Organizers: Charlotte Roy, Minnesota Department of Natural Resources, charlotte.roy@state.mn.us

SYMPOSIUM 10: The Future of Aquaculture in the Midwest Region: Barriers and Opportunities

Contact: Amy Schrank, Assistant Extension Professor - Fisheries and Aquaculture Extension Educator, University of Minnesota Sea Grant

Co-Organizers: Don Schreiner

SYMPOSIUM 11: Upper Mississippi River Bottomland Forests: Birds and Habitats

Contact: Tara Hohman, Conservation Science Associate, Audubon Upper Mississippi River

Co-Organizers: Andrew Beebe, Forester, Audubon Upper Mississippi River

(andrew.beebe@audubon.org); Nicole Michel, Quantitative Ecologist, Audubon

(nicole.michel@audubon.org)

SYMPOSIUM 12: Urban and Community Fishing Programs: Working to Create Opportunities Close to Home

Contact: Tyler Stubbs, Community Fishing Biologist, Iowa Department of Natural Resources

Theme: Urban/Community Fishing Programs, Urban Anglers, Urban Fish Populations

Contributed Oral Presentations (On Demand)

Presentation abstracts in the General Contributed tracks (Fisheries, Wildlife, and Human Dimensions) were available “On Demand” as 15-minute pre-recorded presentations. A total of 98 presentations.

PRESENTATION TITLE	PRIMARY/PRESENTING AUTHOR
General Fisheries: Aquatic Invasive Species	
A Size-based Stock Assessment Model for Monitoring Invasive Blue Catfish in a Chesapeake Bay Subestuary	<i>Corbin Hilling, US Fish and Wildlife Service Maine Field Office; hillingc5@gmail.com</i>
Comparing Factors Affecting Bigheaded Carp Reproduction in Illinois and Wabash River Tributaries	<i>David Yff, Eastern Illinois University; David.yff@gmail.com</i>
Do You Hear What I Hear: The Hearing Sensitivity of Native Freshwater Fishes of the Upper Mississippi River in Comparison to Invasive Bigheaded Carp	<i>Rosalyn Putland, Centre for Environment, Fisheries and Aquaculture Sciences, UK; rputland@d.umn.edu</i>
Effectiveness of Electric Barriers in Preventing Spread of Invasive Invertebrates Apocorophium lacustre and Procambarus clarkii	<i>Zalia Cook, Loyola University Chicago; zcook1@luc.edu</i>
Impacts of Zebra Mussels (Dreissena polymorpha) on Niche Size and Niche Overlap Among Fish Species in a Mesotrophic Lake	<i>Alexandra Morrison, University of St. Thomas; morr9903@stthomas.edu</i>
Use of Depth-Sensitive Transmitters and Fish Translocation to Study Asian Carp Behavior at a Mississippi River High-head Dam	<i>Andrea Fritts, U.S. Geological Survey; afritts@usgs.gov</i>
Why the Stall? Understanding the Lack of Upstream Movement in Bigheaded Carp in the Illinois River	<i>Jocelyn Curtis-Quick, University of Illinois at Urbana-Champaign; jcq@illinois.edu</i>
General Fisheries: Fish Biology	
Carbon-nitrogen Ratios, Lipid Content, and the Allometric Stoichiometry of Body Composition in Fish	<i>James Breck, University of Michigan; breck@umich.edu</i>
Comparing Native and Invasive Predator Avoidance Behaviors Under Varied Light and Predatory Conditions	<i>Noland Michels, University of Minnesota Duluth; miche498@d.umn.edu</i>
Creek Chub (Semotilus atromaculatus) Distribution, Abundance, and Age Structure in an Urban Missouri Stream	<i>Mark Mills, Missouri Western State University; mmills3@missouriwestern.edu</i>
Diel Migrations of Burbot During Winter Spawning Periods	<i>Tyler Robinson, Bemidji State University; Tyler.Robinson@live.bemidjistate.edu</i>
Differences in Growth and Bioenergetics Between Centrarchid Fishes in a Midwestern Power Plant Lake	<i>Kyle Rempe, Eastern Illinois University; kjrempe@eiu.edu</i>
Effects of Boat Motor Sound on Bluegill Sunfish (Lepomis macrochirus) Nesting Behavior	<i>Lily Hall, University of Minnesota-Duluth; hall1722@d.umn.edu</i>
Effects of Climate-Induced Shifts in Hatch Timing on Early Life History of Largemouth Bass in Wisconsin	<i>Daniel Isermann, USGS-Wisconsin Cooperative Fishery Research Unit; dan.isermann@uwsp.edu</i>
Embryonic Environmental Cues Alter Behavioral Responsiveness but Not Performance in Larval Fathead Minnow (Pimephales promelas)	<i>Christopher Crowder, Ball State University; cjcrowder@bsu.edu</i>
Investigating the Changes in Fish Behavior in Response to Anthropogenic Sound	<i>Emily Fleissner, University of Minnesota Duluth; fleis133@d.umn.edu</i>
Investigation of the Northern Madtom (Noturus stigmosus) in the St. Clair River	<i>Brad Utrup, Michigan DNR; utrupb@michigan.gov</i>
Nearshore Food Web Dynamics of the Lake Erie Central Basin	<i>Joshua Tellier, Purdue University; jtellier@purdue.edu</i>
Quantification and Comparison of Muskellunge and Other Piscivore Diets	<i>Kamden Glade, Bemidji State University; kamden.glade@live.bemidjistate.edu</i>
Trophic Overlap and Growth of Lean and Siscowet Lake Trout Morphotypes Across Their Trophic Ontogeny: Does Overlap Matter?	<i>Will Otte, Northern Michigan University; wotte@nmu.edu</i>
Zooplankton Community Dynamics in the Central Basin of Lake Erie	<i>Lauren Eaton, University of Toledo; leaton@contractor.usgs.gov</i>

General Fisheries: Fisheries Habitat	
Coarse Woody Habitat Effects on Sport Fish Behavior	<i>Quinnlan Smith, University of Minnesota Duluth; smit7974@d.umn.edu</i>
Egg Mat Efficiency in Simulated River Conditions	<i>Madeline Tomczak, U.S Geological Survey; mtomczak@contractor.usgs.gov</i>
Fish Community Changes Following Fall Drawdown in a Canal and Its Tributary Stream	<i>Melissa Wuellner, University of Nebraska at Kearney; WUELLNERMR@UNK.EDU</i>
Location and Timing of Spawning Brook Trout in the Little Plover River, WI	<i>Natalie Coash, UWSP-American Fisheries Society college subunit; ncoas676@uwsp.edu</i>
Mapping Forest Height Structure in Minnesota and Michigan with Lidar to Support Coldwater Fish Distribution Modeling	<i>Patrick Landisch, University of Minnesota; land0397@umn.edu</i>
Side-scan Sonar and Underwater Video Observations of Potential Lake Trout Spawning Substrate at Two Previously Un-described Offshore Reefs in Southwest Lake Michigan	<i>William Stacy-Duffy, Illinois Natural History Survey; wstacy2@illinois.edu</i>
General Fisheries: Fisheries Management - Strategies and Techniques	
A Management Plan for Lake Sturgeon in Yellow Lake, WI	<i>Craig Roberts, Wisconsin Department of Natural Resources; craig.roberts@wisconsin.gov</i>
Assessing the Dispersal and Contribution of Stocked Walleye Fry in a Northern Minnesota Chain of Lakes	<i>Joseph Amundson, Bemidji State University; joseph.amundson@me.com</i>
Assessment of Catfish Population Dynamics in Four Illinois Power Plant Lakes	<i>Tyler Murray, Eastern Illinois University; tm159357@gmail.com</i>
Developing a Coordinated Long-term Fisheries Monitoring Program in the St. Clair-Detroit River System: How Well Do Existing Surveys Track Management Objectives?	<i>Corbin Hilling, US Fish and Wildlife Service Maine Field Office; hillingc5@gmail.com</i>
Electrofishing Boat Cathodes: Clean or Dirty Does It Make a Difference?	<i>Lewis Bruce, Iowa Department of Natural Resources; lewis.bruce@dnr.iowa.gov</i>
Environmental Influences on Walleye (<i>Sander vitreus</i>) and Muskellunge (<i>Esox masquinongy</i>) Trip Success and Total Catch on Escanaba Lake, Wisconsin 2003 – 2015	<i>Stephanie Shaw, Wisconsin Department of Natural Resources / Office of Applied Science; stephanie.shaw@wisconsin.gov</i>
Estimating Mortality of Lake Sturgeon in the Lake Winnebago System Using Traditional Age-Based Approaches and Capture-Recapture Models	<i>Jeremiah Shrovnal, Wisconsin Cooperative Fishery Research Unit, Fisheries Analysis Center, College of Natural Resources, University of Wisconsin-Stevens Point; jshro295@uwsp.edu</i>
Post-release Movement of Hatchery Reared Lake Trout in Lake Michigan	<i>Matthew Kornis, US Fish and Wildlife Service; matthew_kornis@fws.gov</i>
Preliminary Results of a Project Evaluating the Survival and Dispersal of Stocked Striped Bass in Bull Shoals Lake	<i>Hadley Boehm, University of Missouri; hibhr5@mail.missouri.edu</i>
General Wildlife: Avian Conservation & Ecology - Gamebirds	
Effect of Black Flies on Wild Turkey Nest Success	<i>Morgan Meador, University of Illinois Urbana-Champaign / Illinois Natural History Survey; mwomack@illinois.edu</i>
Greater Prairie-Chicken Habitat Selection in Response to Fire and Anthropogenic Structures on Fort Riley Military Reservation	<i>Jacquelyn Gehrt, Kansas State University, Kansas Cooperative Fish and Wildlife Research Unit; gehrt@ksu.edu</i>
Habitat Space Use of Translocated Lesser Prairie-Chickens to the Sand Sagebrush Prairie Ecoregion	<i>Elisabeth Teige, Kansas State University; teigeel@ksu.edu</i>
Is Grassland Always Grassland? Spatiotemporal Variation in Grassland Patch Selection by Lesser Prairie-chickens	<i>Bram Verheijen, Kansas Cooperative Fish and Wildlife Research Unit, Kansas State University; bramverheijen@ksu.edu</i>
Lek Attendance and Disturbance at Viewing Blinds in a Small, Declining Sharp-tailed Grouse Population	<i>Charlotte Roy, Minnesota Department of Natural Resources; charlotte.roy@state.mn.us</i>
Lesser Prairie-Chicken Habitat Use and Selection Following a Megafire in the Mixed-Grass Prairie	<i>Nicholas Parker, Kansas State University; njparker14@ksu.edu</i>
Quantifying Population Drivers Using Historical Prairie Grouse	<i>Danielle Berger, Utah State University;</i>

Monitoring Data	<i>danielle.j.berger@gmail.com</i>
Translocated Lesser Prairie-Chicken Lek Dynamics and Female Space Use	<i>Carly Aulicky, Kansas Cooperative Fish and Wildlife Research Unit; caulicky@ksu.edu</i>
General Wildlife: Avian Conservation & Ecology - Non-Gamebirds	
Conservation of Golden-winged Warblers in the Western Great Lakes Region Based on Regionally Derived Information	<i>Gunnar Kramer, University of Toledo; gunnarrkramer@gmail.com</i>
Differential Timing of Migrating Northern Saw-Whet Owls (<i>Aegolius acadicus</i>) Based on Age Categories	<i>Carter Freymiller, University of Wisconsin - Stevens Point; carter.freymiller@gmail.com</i>
Intrinsic and Extrinsic Mechanisms of Golden-Cheeked Warbler Reproductive Success	<i>Gabriella Jukkala, University of Illinois Urbana-Champaign; gjukkala@illinois.edu</i>
Reproductive Success of Greater Sandhill Cranes in Horicon Marsh, WI	<i>Sabine Berzins, University of Wisconsin - Stevens Point; sberzins@uwp.edu</i>
General Wildlife: Avian Conservation & Ecology - Waterfowl	
A Range-Wide Assessment of Interior Population Trumpeter Swan Migration Patterns	<i>David Wolfson, University of Minnesota / Minnesota Cooperative Fish and Wildlife Research Unit; wolfs064@umn.edu</i>
Evaluating the Physiological Response of Sub-lethal Infections of <i>Sphaeridiotrema</i> spp. and <i>Cyathocotyle bushiensis</i> trematodes in Captive Lesser Scaup (<i>Aythya affinis</i>)	<i>Cheyenne Beach, Western Illinois University; cr-beach@wiu.edu</i>
Postbreeding Ecology of Wood Ducks in the Illinois River Valley	<i>Andrew Gilbert, Illinois Natural History Survey; agilb849@illinois.edu</i>
Using Climate Data to Understand Shifts in the Autumn Migration Phenology of Dabbling and Diving Ducks in the Illinois River Valley	<i>Chelsea Kross, Prairie Research Institute Illinois Natural History Survey Forbes Biological Station; ckross@illinois.edu</i>
General Wildlife: Disease - Mammals	
Examining the Immunocompetence Handicap Hypothesis Through Southern Flying Squirrels	<i>Katherine Rexroad, Western Illinois University; ka-rexroad@wiu.edu</i>
Movement Dynamics of Wild White-tailed Deer in Southeastern Minnesota and Potential Spread of Chronic Wasting Disease	<i>Christopher Jennelle, Minnesota Department of Natural Resources; christopher.jennelle@state.mn.us</i>
Removal of <i>Mycoplasma ovipneumoniae</i> Carriers Increases Lamb Recruitment in Rapid City, SD Bighorn Sheep Herd	<i>Amanda Ensrud, South Dakota State University; amanda.ensrud@sdstate.edu</i>
The Efficacy of Mobile PCR to Detect <i>Mycoplasma ovipneumoniae</i> in Bighorn Sheep	<i>Katelin Frerichs, South Dakota State University Department of Natural Resource Management; katelin.frerichs@sdstate.edu</i>
General Wildlife: Human Dimensions - Citizen Science	
Connecting Citizen Scientists to Their Data: How Snapshot Wisconsin Uses R and Shiny to Present Trail Camera Metadata in a Visual, Interactive, and Accessible Manner	<i>Ryan Bemowski, Wisconsin Department of Natural Resources; ryan.bemowski@wisconsin.gov</i>
Creating Public GIS Web Applications for Wildlife Data Collection and Reporting in Minnesota	<i>Bruce Anderson, Minnesota IT Services Partnering with Department of Natural Resources; Bruce.J.Anderson@state.mn.us</i>
Hunter Diary During 2019 and 2020 Deer Seasons	<i>Meghan Pluemer, Wisconsin Department of Natural Resources; meghan.pluemer@wisconsin.gov</i>
Untrapped Potential: Do Bear Hunter Cameras Accurately Index Non-target Species at Bait?	<i>Ellen Candler, University of Minnesota; belle130@umn.edu</i>
General Wildlife: Human Dimensions - CWD	
Assessing Deer Carcass Transportation, Processing, and Disposal Habits Among Minnesota Hunters Statewide and Within Disease Management Areas	<i>Kyle Smith, Minnesota Cooperative Fish and Wildlife Research Unit; smi01220@umn.edu</i>
Deer Hunter Ambivalence Toward CWD	<i>Robert Holsman, Wisconsin Department of Natural</i>

	<i>Resources; robert.holsman@wisconsin.gov</i>
General Wildlife: Human Dimensions - General	
An Assessment of the New Employee Experience for Permanent USFWS Employees Hired Through a Diversity Recruitment Program	<i>Veronica Reed, US Fish and Wildlife Service; veronica_reed@fws.gov</i>
Attitudes Towards Uses of Wildlife by Conservation Professionals	<i>Rachel Menale, Michigan State University; menalera@msu.edu</i>
How to Measure the ROI of Your Marketing Strategies	<i>Peter Ross, 829 Studios; megan@829llc.com</i>
Motivations and Support for Turkey Hunting Regulations in Illinois	<i>Eric Walberg, Illinois Natural History Survey; ewalberg@illinois.edu</i>
Perceptions vs. Reality: Assisting the Decision-Making Process for an Urban Archery Hunting Program	<i>Laura Brown (Graber), ODNR- Ohio Division of Wildlife; laura.brown@dnr.ohio.gov</i>
Support for Conservation Among Nature-based Recreationists in Michigan	<i>Chris Henderson, Michigan State University; hende410@msu.edu</i>
General Wildlife: Human Dimensions -COVID Impacts	
2020: A Banner Year for First-time Fishing License Sales in Wisconsin	<i>Ben Beardmore, Wisconsin Dept. of Natural Resources; alan.beardmore@wisconsin.gov</i>
Examining Shifts in Wildlife Activity During the COVID-19 Pandemic Using Wisconsin Trail Camera Data	<i>Christine Anhalt-Depies, Wisconsin Department of Natural Resources; christine.anhaltdepies@wisconsin.gov</i>
Influence of the COVID-19 Pandemic on Hunter Perceptions About the Nebraska Spring Turkey Season	<i>Matthew Gruntorad, University of Nebraska-Lincoln; mgruntorad2@unl.edu</i>
More Beer Cans and Less Gear: How Kansas Anglers Were Impacted by the COVID-19 Pandemic	<i>Susan Steffen, Kansas Department of Wildlife, Parks and Tourism; susan.steffen@ks.gov</i>
General Wildlife: Mammal Conservation & Ecology - Furbearers	
Efficacy and Decay of Lures for Increasing Detections of Carnivores at Camera Traps	<i>Alexandra Avrin, University of Illinois Urbana-Champaign; alex.avrin@gmail.com</i>
Influence of Habitat on Potential Presence of Striped Skunks in Southern Illinois	<i>Katelyn Amspacher, Southern Illinois University Carbondale; katelyn.amsbacher@siu.edu</i>
Landscape-scale Resource Selection and Occupancy Modeling for American Badgers (<i>Taxidea taxus</i>) in the Midwest, USA	<i>Dan Kaminski, Iowa Department of Natural Resources; dan.kaminski@dnr.iowa.gov</i>
Spatiotemporal Shifts in the Age of Primiparity of American Black Bears in Minnesota Over 6 Decades: Effects of Food but Not Density	<i>Andrew Tri, Minnesota Department of Natural Resources; andrew.tri@state.mn.us</i>
General Wildlife: Mammal Conservation & Ecology - General	
Hydrogeomorphology Influences Swamp Rabbit Habitat Selection in Bottomland Hardwood Forests	<i>Liz Hillard, Wildlands Network; liz@wildlandsnetwork.org</i>
Spatio-temporal Interactions of Wildcats with Cattle, Feral Pigs and Mushroom Hunters	<i>Stefano Anile, Southern Illinois University; stefano.anile@siu.edu</i>
The Benefits of Immigrants: Long-term Effects of a Population Augmentation	<i>Tiffanie Atherton, Southern Illinois University Carbondale; tiffanie.atherton@siu.edu</i>
General Wildlife: Mammal Conservation & Ecology - Tools and Technology	
Evaluation of Summer Roadside Surveys for Recruitment of White-tailed Deer in Wisconsin	<i>Beth Wojcik, Wisconsin Department of Natural Resources; beth.wojcik@wisconsin.gov</i>
Modernizing Wisconsin's Sex-Age-Kill Model to Improve Deer Population Estimates	<i>Jennifer Stenglein, Wisconsin Department of Natural Resources; jennifer.stenglein@wisconsin.gov</i>
General Wildlife: Tools and Technology - General	
Assessing Collaborative Capacity in a State Wildlife Agency and Partners	<i>Megan Cross, Michigan State University; cross.megan@gmail.com</i>
Assessing the Potential of ArcGIS Field Maps Mobile Application for Aerial- and Ground-Based Surveys of Wildlife	<i>Bob Wright, Minnesota IT Services; robert.wright@state.mn.us</i>

Assessing Use of Drones with Thermal Infrared to Locate and Capture White-tailed Deer Neonates	<i>Tyler Obermoller, Minnesota Department of Natural Resources; Tyler.Obermoller@state.mn.us</i>
Examining the Valuation of Federal Metal Bird Bands Among Waterfowl Hunters: Implications and Challenges for Waterfowl Data Management	<i>Olivia Wolford, University of Maryland; owolford@umd.edu</i>
Going "All Digital" for Chronic Wasting Disease Sampling Efforts in Minnesota	<i>Bob Wright, Minnesota IT Services; robert.wright@state.mn.us</i>
Making Career Development More Inclusive Through Course-Based Undergraduate Research Experiences (CUREs)	<i>Elizabeth Flaherty, Purdue University; eflaher@purdue.edu</i>
The Phragmites Adaptive Management Framework: Invasive Species Management Through Collective Learning	<i>Taaja Tucker, US Geological Survey Great Lakes Science Center; trtucker@usgs.gov</i>
Using Citizen Science Data to Validate Habitat Suitability Assumptions in Waterfowl Conservation Planning	<i>Drew Fowler, Wisconsin Department of Natural Resources; drew.fowler@wisconsin.gov</i>
Video Behavior Analysis of Two Wintering Populations of Whooping Crane	<i>Virginia van Vianen, University of Wisconsin-Madison; vanvianen@wisc.edu</i>
General Wildlife: Wetland Ecology - Avian Conservation & Ecology	
Energetic Carrying Capacity of Submersed Aquatic Vegetation in Semi-permanent Wetlands Important to Waterfowl in the Upper Midwest	<i>Margaret Gross, Minnesota Department of Natural Resources; margaret.gross@state.mn.us</i>
Evaluating Assumptions of the North American Marsh Bird Monitoring Protocol	<i>Auriel Fournier, Illinois Natural History Survey; auriel@illinois.edu</i>
Evaluating Dynamics of Food Availability for Lesser Scaup at Pools 13 and 19 of the Mississippi River	<i>Lauren Larson, Western Illinois University; l-larson@wiu.edu</i>
Interrelated Impacts of Climate and Land-use Change on a Widespread Waterbird	<i>Sarah Saunders, National Audubon Society; sarah.saunders@audubon.org</i>
General Wildlife: Wetland Ecology - General	
Analyzing the Impact of Environmental Variables on Breeding Pond Occupancy of <i>Ambystoma</i> Salamanders	<i>Meghan Ward, Laurentian University; meghanward@trentu.ca</i>
Developing Climate Change Adaptation Thinking Strategies with the U.S. Fish and Wildlife Service in the Midwest	<i>John Delaney, United States Geological Survey; jdelaney@usgs.gov</i>
Deviations from Philopatry and Fidelity in Spatially and Temporally Heterogeneous Environments	<i>Nathan Byer, University of Nevada - Reno; nbyer@unr.edu</i>
Effects of Lake Erie Harmful Algal Blooms on Stress Levels and Immune Functioning in Wetland-associated Songbirds and Reptiles	<i>Jeanine Refsnider, University of Toledo; jeanine.refsnider@utoledo.edu</i>

Poster Presentations

#	Track Name	Presentation Title	Poster Presenter/ Primary Author
1	General Fisheries	Diet of Lake St. Clair Yellow Perch (<i>Perca flavescens</i>): Variation over Time and among Great Lakes Sites	<i>Travis Taylor, Central Michigan University; taylo14t@cmich.edu</i>
2	General Fisheries	Emergence and Drift Strategies of Larval Fish in Vicinity of the St. Marys Rapids	<i>Faith VanDrunen, Northern Michigan University; fvandrun@nmu.edu</i>
3	General Fisheries	Exploring Invasive Carp Reproduction in Tributaries of Illinois Rivers	<i>Adam Landry, Eastern Illinois University; ajlandry@eiu.edu</i>
4	General Fisheries	Fishtracks: Asian Carp Related Telemetry Tools and Data Management	<i>Travis Harrison, USGS; tharrison@usgs.gov</i>
5	General Fisheries	Habitat Use by Lake Sturgeon (<i>Acipenser fulvescens</i>) Using Acoustics and Stable Isotopes	<i>Morgann Gordon, ORAU/EPA; gordon.morgann@epa.gov</i>
6	General Fisheries	Impacts of Dam Removal on the Spread of Invasive Silver Carp in the Vermillion River	<i>Adam Jones, Eastern Illinois University; ajones2@eiu.edu</i>
7	General Fisheries	Life History Characteristics of Goldeye (<i>Hiodon alosoides</i>) in Milford Reservoir, Kansas	<i>Brett Miller, Kansas Department of Wildlife, Parks and Tourism; brett.miller@ks.gov</i>
8	General Fisheries	Natural Reproduction of Walleye Populations in Southern Minnesota Lakes	<i>Askhan Shametov, University of Minnesota Twin Cities; shame012@umn.edu</i>
9	General Fisheries	Validation of Daily Ring Formation in Otoliths of Known-Age Age-0 Shoal Bass <i>Micropterus Cataractae</i>	<i>AnaSara Gillem, University of Wisconsin- Stevens Point; alk0037@auburn.edu</i>
10	General Wildlife	A Comparison of During- and Post-flood Nutrient Composition and Periphyton Abundance in the Niobrara River	<i>Matthew Chen, University of Nebraska-Lincoln; mchen1511@gmail.com</i>
11	General Wildlife	American Kestrel, but Not Red-tailed Hawk, Observations Indicate a Bias Toward the Roadway	<i>Thomas Freeman, University of Nebraska at Kearney; freemantl@unk.edu</i>
12	General Wildlife	Application of an eDNA Technology for Improving the Monitoring Efficacy of a Freshwater Mussel, <i>Lampsilis siliquoidea</i> (fatmucket), in a Mussel Restoration Program at Indiana Dunes National Park	<i>Meredith Nevers, U.S. Geological Survey; mnevers@usgs.gov</i>
13	General Wildlife	Available or Preferred? Bumble Bee Floral Resource Selection Relative to Floral Resource Availability in Northern Illinois Prairies	<i>Alma Schrage, Illinois Natural History Survey; schrage3@illinois.edu</i>
14	General Wildlife	Behavior of Rehabilitated Sloths in a Soft-Release Enclosure	<i>Chelsea Morton, Forestry Program, Cooperative Wildlife Research Laboratory of Southern Illinois University; Chelsea.morton@siu.edu</i>
15	General Wildlife	Cannibalism in Bears: A Review and Meta-Analyses	<i>Emmarie Alexander, University of Illinois at Urbana-Champaign; emmarie2@illinois.edu</i>
16	General Wildlife	Determination of Male and Female Eastern Wild Turkey Activity Levels with Trail Cameras in Wisconsin	<i>Shelby Truckenbrod, University of Wisconsin - Stevens Point; struc634@uwsp.edu</i>

17	General Wildlife	Determining Adult Wild Turkey Sex Ratios in Wisconsin Using Snapshot Wisconsin Trail Camera Images	<i>Hannah Butkiewicz, University of Wisconsin- Stevens Point; hbutkiew@uwsp.edu</i>
18	General Wildlife	Differential Timing of Migrating Northern Saw-Whet Owls (<i>Aegolius acadicus</i>) Based on Age Categories	<i>Carter Freymiller, University of Wisconsin - Stevens Point; carter.freymiller@gmail.com</i>
19	General Wildlife	Evaluation of Direct and Contaminant-associated Effects of Microplastic Exposure on the Competitive Behavior of Fish	<i>Ally Swank, Ball State University; arswank@bsu.edu</i>
20	General Wildlife	Genetic Introgression and Ancestry of Wild and Farm-Bred Red Foxes in North America and Eurasia	<i>Emmarie Alexander, University of Illinois at Urbana-Champaign; emmarie2@illinois.edu</i>
21	General Wildlife	Hierarchical Modeling of Habitat Influences on Species Richness and Occupancy of Forest Wildlife	<i>Justin Remmers, Southern Illinois University; jremmers@antioch.edu</i>
22	General Wildlife	Influence of Hard Mast Abundance on Wisconsin's Black Bear Harvest	<i>Nathan Kluge, University of Wisconsin - Stevens Point; nklug261@uwsp.edu</i>
23	General Wildlife	Influence of Hard Mast Production on Bait Site Visitation Frequency of <i>Ursus americanus</i>	<i>Arthur Young, University of Wisconsin Stevens Point; ayoun185@uwsp.edu</i>
24	General Wildlife	Intoxication Cases in Passerines and Near-passerines Through Eight Years of Avian Rehabilitation in Northern Wisconsin	<i>Melinda Houtman, University of Wisconsin - Stevens Point; mhout049@uwsp.edu</i>
25	General Wildlife	Investigating Camera Trap Analysis Methods to Assess Ecological Influence on Species Activity at an Active Beaver Lodge in the Great Lakes Region	<i>Camryn Arnstein, NOAA Ernest F. Hollings Undergraduate Scholarship Program/University of South Carolina; camryn.arnstein@noaa.gov</i>
26	General Wildlife	Least Bittern Juvenile Movements and Habitat Use at Emiquon Preserve	<i>Stephanie Schmidt, University of Illinois at Urbana-Champaign, Illinois Natural History Survey; sms11@illinois.edu</i>
27	General Wildlife	Long Term Home Range Analysis of a Hairy Woodpecker in Central Wisconsin	<i>Mackenzie Whitney, Student; mwhit711@uwsp.edu</i>
28	General Wildlife	Mammal Abundance in Urbana, Illinois Differs from Ecologically Similar Areas	<i>Laura Whipple, University of Illinois at Urbana-Champaign; laurasw2@illinois.edu</i>
29	General Wildlife	Mammalian Species Richness, Activity Patterns, and Temporal Segregation in a Northern Conifer Forest	<i>Ashley Harris, Bemidji State University; ashley.harris@live.bemidjistate.edu</i>
30	General Wildlife	Preliminary Study into How Adjacent Cover Type Affects Drumming Patterns in Ruffed Grouse in Northern Wisconsin	<i>Brady Roberts, University of Wisconsin-Stevens Point; ruffedgrouse.uwsp@gmail.com</i>
31	General Wildlife	Relationships Between Biodiversity and Physicochemistry of Nine Urban Campus Ponds	<i>Macioe Firsching, Missouri Western State University; mfirsching@missouriwestern.edu</i>
32	General Wildlife	Seasonal Movements of Mule Deer Across the Navajo Nation	<i>Hannah Manninen, Southern Illinois University; hannah.manninen@siu.edu</i>
33	General Wildlife	Selection of Nest Boxes by Cavity Nesting Waterfowl Based on Diameter at Breast Height in Mead Wildlife Area	<i>Elianne Heilhecker, University Wisconsin Stevens Point; eheil959@uwsp.edu</i>
34	General Wildlife	Sex and Age Ratios of Savannah Elephants in Northern Botswana Using Digital Photogrammetry	<i>Nate Weisenbeck, University of Wisconsin - Stevens Point; nweis242@uwsp.edu</i>
35	General Wildlife	True Metabolizable Energy of Targeted and Unfavorable Moist-Soil Seeds in Waterfowl	<i>Matthew Williams, Illinois Natural History Survey / Western Illinois University; mr-williams3@wiu.edu</i>
36	General Wildlife	Urban Wildlife Management Success: Seven Years of Canada Goose Population Management on Missouri Western State University Campus	<i>Cary Chevalier, Missouri Western State University; cchev@missouriwestern.edu</i>
37	General Wildlife	Use of Remote Passive Integrated Transponder Tag Reader to Monitor Wolf Pup Survival in Minnesota	<i>Carolin Humpal, Minnesota Department of Natural Resources; carolin.humpal@state.mn.us</i>

38	General Wildlife	Validating the Use of a Handheld Meter for Measuring a Plasma Metabolite, Triglyceride, in the Field	<i>Christopher Roelandt, University of Michigan-Flint; croeland@umich.edu</i>
39	General Wildlife	Water Drawdowns and Survival of Marsh Bird Nests at Emiquon Preserve	<i>Stephanie Schmidt, Univeristy of Illinois at Urbana-Champaign, Illinois Natural History Survey; sms11@illinois.edu</i>
40	General Wildlife	Wetland Bird Response to Habitat Variables Associated with Wetland Restoration: An Evaluation of Wetland Reserve Program Easements in Western Kentucky and Tennessee	<i>David Hicks, University of Missouri; dphzn6@mail.missouri.edu</i>
41	General Wildlife	Wolf Movements in Relation to Bear Hunter Bait in Northern Minnesota	<i>Ellen Candler, University of Minnesota; belle130@umn.edu</i>
42	General Wildlife	Young Bucks Stay Home? Age-Specific Distance Between White-Tailed Deer Cast Antler Match Sets	<i>Casey Schoenebeck, Minnesota Department of Natural Resources; casey.schoenebeck@state.mn.us</i>
43	Human Dimensions/ Outreach/ Public Engagement	Natural Flood Management - Planning and Priorities for the Lake Superior's South Shore Watersheds	<i>Tom Hollenhorst, EPA Great Lakes Toxicology and Ecology Division; hollenhorst.tom@epa.gov</i>
44	Human Dimensions/ Outreach/ Public Engagement	Tallgrass Prairie Restoration on the Campus of Missouri Western State University, St. Joseph, MO	<i>Mark Mills, Missouri Western State University; mmills3@missouriwestern.edu</i>

Schedule at-a-Glance

MONDAY, FEBRUARY 1, 2021	
8:00 AM – 10:30 AM	Plenary Session I
10:30 AM – 12:30 PM	AFS-Minnesota Chapter Business Meeting (Invite Only) Committee Chair: Keith A. Reeves, Fisheries Biologist, Minnesota DNR-Fisheries, Duluth, MN
10:45 AM – 12:30 PM	Joint Winter Business Meeting of the Centrarchid, Esocid, and Walleye Tech Committees Moderator: Lawrence Eslinger, Treaty Fisheries Biologist, Wisconsin Department of Natural Resources
12:30 PM – 4:30 PM	Concurrent Organized Symposia <ul style="list-style-type: none"> • S-01: Coregonids in the Great Lakes Region: Resiliency, Rehabilitation, and Range Reduction (Part 1) • S-02: Effects of System Change on North American Percid Populations (Part 1) • S-03: Local Government Engagement around Public Land Ownership • S-04: Using Section 10 of the Endangered Species Act to Conserve Species and Avoid Future Listings • S-05: Wildlife Conservation in the Decade on Ecosystem Restoration (Part 1)
5:00 PM – 7:00 PM	Poster Gallery & Trade Show Networking Social Dedicated time to visit with our sponsors and poster authors in their "Video Chat Rooms"
TUESDAY, FEBRUARY 2, 2021	
8:00 AM – 10:30 AM	Plenary Session II
10:45 AM – 12:00 PM	North Central Division of the American Fisheries Society Annual Business Meeting Committee Chair: Joseph Conroy, Fisheries Biology Supervisor Ohio Department of Natural Resources, Division of Wildlife
10:45 AM – 12:00 PM	Minnesota Chapter of TWS Business Meeting & Get Together Committee Chair: Brian Hiller
12:30 PM – 4:30 PM	Concurrent Organized Symposia <ul style="list-style-type: none"> • S-01: Coregonids in the Great Lakes Region: Resiliency, Rehabilitation, and Range Reduction (Part 2) • S-02: Effects of System Change on North American Percid Populations (Part 2) • S-05: Wildlife Conservation in the Decade on Ecosystem Restoration (Part 2) • S-06: Changing the Agricultural Landscape with Cover Crops • S-07: Forestry and Wildlife Intertwined
6:00 PM – 8:00 PM	Student & Professional Networking Event <i>This unique networking event will feature opportunities for small group interaction among students and professionals in common area(s) of interest, not to mention zoom bingo! A fun and beneficial event for students to advance their professional/career development!</i>

WEDNESDAY, FEBRUARY 3, 2021

8:00 AM – 12:00 PM	<p>Concurrent Organized Symposia</p> <ul style="list-style-type: none"> • S-08: Modelling, Spatial Prioritization, and Decision Support Tools for Coldwater Fish Management in the Midwest • S-02: Effects of System Change on North American Percid Populations (Part 3) • S-09: Neonicotinoid Insecticides: Evaluating Impacts to Non-target Taxa and Management Practices to Limit Effects (Part 1) • S-10: The Future of Aquaculture in the Midwest Region: Barriers and Opportunities (Part 1)
9:00 AM – 12:00 PM	<p>MAFWA R3 Committee Meeting (Part 1) Committee Chair: Megan Wisecup, Hunter Education Administrator, Iowa Department of Natural Resources Intended Audiences: Agency, Industry, and NGO professionals with recruitment, retention, and reactivation (R3) related job duties. Natural Resource Students interested in pursuing a career working in education, outreach, marketing, and human dimensions related work.</p>
10:00 AM – 11:00 AM	<p>Urban and Community Fishing Technical Committee Committee Chair: Tyler Stubbs, Community Fishing Biologist, Iowa Department of Natural Resources <i>This is the first meeting of the newly formed Urban and Community Fishing Technical Committee. Ideas will be discussed regarding the future of this group and its goals. This meeting will be used to introduce current and potential members to each other to network and gain knowledge of state agency urban programs.</i></p>
12:30 PM – 4:30 PM	<p>Concurrent Organized Symposia</p> <ul style="list-style-type: none"> • S-01: Coregonids in the Great Lakes Region: Resiliency, Rehabilitation, and Range Reduction (Part 3) • S-11: Upper Mississippi River Bottomland Forests: Birds and Habitats • S-09: Neonicotinoid Insecticides: Evaluating Impacts to Non-target Taxa and Management Practices to Limit Effects (Part 2) • S-12: Urban and Community Fishing Programs: Working to Create Opportunities Close to Home • S-10: The Future of Aquaculture in the Midwest Region: Barriers and Opportunities (Part 2)
4:00 PM - 5:00 PM	<p>Past Presidents Social (Invite Only) Chair: Mark Finsel, Biologist, South Dakota Game, Fish and Parks <i>Venue for NCD past presidents to share thoughts, opinions, and experiences to current NCD governance.</i></p>
4:30 PM - 5:00 PM	<p>Use of Copper Bullets for Deer Hunting: Video Demonstration and Discussion Cosponsored by MNTWS & Wildlife Toxicology Working Group</p>
5:00 PM - 6:00 PM	<p>Awards Celebration Emcee: Brian Nerbonne, Region 3 Fisheries Manager, Fish and Wildlife Minnesota Department of Natural Resources</p>
6:00 PM - 8:00 PM	<p>AFS/TWS Joint Out in the Field GLBTQ+ event <i>This event is to foster support and community to GLBTQ+ wildlife and fisheries students and professionals.</i></p>
6:30 PM - 7:30 PM	<p>Trivia Night!</p>

THURSDAY, FEBRUARY 4, 2021

8:00 AM – 12:00 PM	Concurrent Workshops
9:00 AM – 12:00 PM	MAFWA R3 Technical Working Committee Meeting (Part 2; Continued from Feb. 3)
1:00 PM – 4:00 PM	Concurrent Workshops

Workshops

The following workshops were offered on Thursday, February 4, 2021. There was no additional fee to attend, but pre-registration was required for participation in all workshops. Sign up was available on a first-come, first-serve basis via the online registration form.

W01: STUDENT WORKSHOP

What's Next? Steps on the Pathway to Finding the Right Graduate Position or Job

Contact: Jason D. Riddle, Gerald and Helen Stephens Professor of Wildlife, North Central Section TWS and University of Wisconsin – Stevens Point; Phone: 715-346-3224; Jason.Riddle@uwsp.edu

Intended Audience: This is targeted primarily to undergraduates.

W02: LAYERING AND ANIMATIONS IN GGLOT (offered twice)

Presenter: Charlie Belinsky, Curriculum Developer, Quantitative Fisheries Center, Department of Fisheries and Wildlife, Michigan State University; belinsky@msu.edu; 989-272-2623

W03: SELF-CARE FOR CONSERVATIONISTS

Presenter: Michelle Doerr, Anavah Consulting LLC (former wildlife biologist and current TWS member)

Intended Audience: Early professional through all levels of leadership and authority - for anyone struggling with self-care during these uncertain times.

W04: BUILD CROSS-CULTURAL RELATIONSHIPS

Presenters: Rowzat Shipchandler, Diversity Coordinator, Minnesota Department of Natural Resources; Rowzat.Shipchandler@state.mn.us; Ray Ruiz, Hunting and Fishing Skills Liaison, Minnesota Department of Natural Resources; ray.ruiz@state.mn.us

W05: NAVIGATING THROUGH CONFLICT

Presenter: Steven Reuter, Organizational Health Consultant | OH-EAP

W06: THE UTILITY OF INTEGRATED POPULATION MODELS FOR NOVEL INSIGHTS ABOUT WILDLIFE DEMOGRAPHY

Presenters: Todd W. Arnold, University of Minnesota, arnol065@umn.edu; Mitch D. Weegman, University of Missouri, weegmanm@missouri.edu

Intended Audience: Students and professionals will benefit from attending this workshop. In particular, we hope attendees with sparse monitoring and/or demographic data will find our workshop helpful to overcome common limitations with single data sets. We anticipate attendees will have some familiarity with survival models (e.g., capture-recapture, dead recovery), population growth models and Program R. This workshop is focused at the intermediate level.

Student Events & Information

The student/professional networking events are popular every year at the Midwest Fish and Wildlife Conference. These are great opportunities for students to make connections with professionals, which can have a positive impact on a student's career.

Student & Professional Networking Event

Tuesday, February 2nd, 6:00 pm – 8:00 pm CST

This unique networking event will feature opportunities for small group interaction among students and professionals in common area(s) of interest, not to mention zoom bingo! A fun and beneficial event for students to advance their professional/career development!

Students: we encourage you to come prepared to ask questions. Professionals: be ready to discuss a variety of topics, for example: career development, transitioning from school, qualifications needed for various professions, and the realities of working in the natural resources field. After the initial introductions, there will be breakout rooms, identified by topics of interest, as indicated on your registration form (Fisheries or Wildlife), and will include State/Provincial Agency Employment, Federal Agency Employment, Academia & Research Institutions/Graduate School, and Non-Government Organizations & Private Sector (e.g. consulting, industry).

Resources:

Job Board – numerous links and job postings were listing on a special section of the website.

Conference Mentoring

Mentorship in the natural resources field is a relationship in which a more experienced or more knowledgeable person helps to guide a less experienced or less knowledgeable person. Both mentor and mentee share responsibility in building a positive relationship that is focused on assisting the mentee navigate the natural resources profession and grow professionally. This can include, although not solely limited to: a mentor assisting a mentee with networking opportunities, offering career advice, providing constructive criticism on mentee work products (e.g. talks and poster presentation, resumes, cover letters), communicating resume building opportunities (e.g. prescribed fire and/or wildlife monitoring training opportunities), and encouragement of professional development (e.g. attending and presenting at meetings and seeking further work experience). Equally a mentee shares responsibility in engaging with their mentor by asking questions, taking advantage of opportunities facilitated by the mentor and more.

We will pair interested students with professionals of similar interests to provide an opportunity to interact personally with each other. Prior to the conference, we will forward contact information to mentors (professionals) and mentees (students).

Student Mentee Responsibilities:

- Contact your mentor before the meeting to determine how and when you communicate with each other throughout the conference.
- Come prepared with some questions to discuss with your mentor.
- Be prepared to share some things about yourself and where you'd like to take your career in fish or wildlife management.

Professional Mentor Responsibilities:

- Contact your mentee before the meeting to determine how and when you will meet.
- Engage your mentee during sessions, meetings, social events and at other times to discuss what being a professional means to you and in your field.
- Be prepared to share your experiences and professional journey.
- Leverage your contact network and introduce your mentee to other professionals who they may be interested in speaking with.

Awards

These prestigious awards were presented during the evening Awards Celebration Social. Congratulations to all the winners!

★ THE NORTH CENTRAL SECTION OF THE WILDLIFE SOCIETY AWARDS

Presented By: Olivia LeDee, President

North Central Section Outstanding Undergraduate Student

An undergraduate student recognized for academic achievement, professional experience, and activities in TWS.

Winner: *Amanda Heltzel, Purdue University*

North Central Section Outstanding Graduate Student

A graduate student recognized for academic achievement, professional experience, and activities in TWS.

Winner: *Gunnar Kramer, University of Toledo*

North Central Section Student Chapter of the Year

An exemplary student chapter recognized for its contributions to The Wildlife Society's mission and goals.

Winner: *Missouri Western State University*

★ THE NORTH CENTRAL DIVISION OF AMERICAN FISHERIES SOCIETY

Presented By: Joe Conroy, President

North Central Division - Most Active Student Subunit Award

For 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 AFS.

Winner: *University of Wisconsin-Stevens Point Subunit (Natalie Coash, President)*

North Central Division - Most Active Chapter Award - Large Chapter

For a large chapter that has carried out the most active programs of enhancing professionalism and fisheries science.

Winner: *Ohio Chapter AFS (Bryan Kinter, President)*

North Central Division - Best Chapter Communications Award

For the chapter that has developed the most efficient, useful, and attractive newsletter and website to disseminate information to its members.

Winner: *Minnesota Chapter AFS (Craig Kelling, President)*

North Central Division - Fisheries Excellence Award

For a NCD member who has made outstanding contributions to the fisheries profession. This contribution may be a single activity or a collection of achievements over the individual's career.

Winner: *Mary Scott, Missouri Department of Conservation, MO-AFS*

North Central Division - Meritorious Service Award

For an individual NCD member for their loyalty, dedication, and meritorious service to the Society over a long period of time and for exceptional commitment to the program, objectives, and long-term goals of the Society.

Winner: *Brian Borkholder, Fond du Lac Band of Lake Superior Chippewa*

★ JANICE LEE FENSKE MEMORIAL AWARD (for Outstanding Students)

Presented by: Jessica Mistak, Michigan DNR, Fenske Award Committee Chair

This 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.

Winners: *Paul Bzonek, University of Toronto (Fisheries) and Danielle Berger, Utah State University (Wildlife)*