

# GLOBAL WARMING: Carbon Solutions for a Warming World



*2015 Joint Annual Meeting:*  
**Minnesota & Wisconsin State Chapters  
of The Wildlife Society**

*February 17th-19th, 2015*  
*Duluth, Minnesota*

*R. Miller*

## *Presidents' Welcome*

### **Welcome to the 2015 Joint Annual Conference of the Minnesota and Wisconsin Chapters of The Wildlife Society!**

We are pleased that you made the trip to Duluth to attend this year's conference. We hope you will enjoy and benefit from the wide array of paper presentations, posters, special sessions, and the thought-provoking Plenary Session. We also hope that you enjoy your stay in beautiful downtown Duluth. This is a vibrant city with a growing reputation for great food, great craft beers, and great live music.

There will also be many special events, including the Tuesday night Welcome Mixer and Fundraiser, the Wednesday night Awards Banquet, and the student Quiz Bowl. Also, please attend your chapter's business meeting on Wednesday afternoon. Each chapter has some important activities to discuss and engagement and support from the membership is essential. Lastly, for officers in official Student Chapters, we look forward to interacting with you during the Student Leader's Breakfast on Thursday morning.

Finally, we hope you will renew old friendships, reconnect with professional colleagues, and make some new friends and colleagues along the way. Thanks again for being here, and enjoy!

*Scott Craven*

*President, Wisconsin Chapter*

*Steve Windels*

*President, Minnesota Chapter*

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**Abstracts are available for viewing online at:**

<http://drupal.wildlife.org/minnesota/meeting>

<http://drupal.wildlife.org/wisconsin>

**After the meeting, please take a moment to fill out a brief survey about your experiences, available at:**

<https://www.surveymonkey.com/s/P5K9SPM>

## Schedule At-a-Glance: Tuesday

### Tuesday, February 17th, 2015

8:00 a.m. - 12:00 p.m.	MNDNR / USFWS Coordination Meeting <i>Holiday Inn - Lake Superior / Lake Michigan Rooms</i>
8:00 a.m. - 12:00 p.m.	Conference Registration <i>Holiday Inn - Great Lakes Lobby</i>
9:00 a.m. - 12:00 p.m.	MN TWS Board Meeting <i>Holiday Inn - Lake Huron Room</i>
12:00 - 1:00 p.m.	Lunch ( <i>on your own</i> )
12:30 - 2:30 p.m.	Conference Registration <i>DECC - Harborside Ballroom</i>
1:00 - 5:00 p.m.	Plenary Session <i>DECC - Harborside Ballroom</i>
5:00 - 7:00 p.m.	Conference Registration <i>Holiday Inn - Great Lakes Lobby</i>
6:00 - 7:00 p.m.	Student / Professional Mixer & Poster Viewing <i>Holiday Inn - Great Lakes Ballroom</i>
7:00 - 9:30 p.m.	Welcome Reception & Fundraiser <i>Holiday Inn - Great Lakes Ballroom</i>
	Book signing with Judith Schwartz, 7:00 - 9:00 p.m.

## Schedule At-a-Glance: Wednesday

### Wednesday, February 18th, 2015

7:00 a.m. - 12:00 p.m.	Conference Registration <i>Holiday Inn - Great Lakes Lobby</i>
8:00 - 10:00 a.m.	Special Sessions <i>See detailed schedule, page 17</i>
10:00 - 10:20 a.m.	BREAK
10:20 a.m. - 12:00 p.m.	General Sessions <i>See detailed schedule, page 20</i>
12:00 - 1:00 p.m.	Lunch ( <i>on your own</i> )
1:00 - 3:30 p.m.	WI State Chapter Business Meeting <i>Lyric Conference Center, Level Two</i>
	MN State Chapter Business Meeting <i>Holiday Inn - Lake Huron Room</i>
3:30 - 5:30 p.m.	Student Quiz Bowl <i>Holiday Inn - Lake Superior / Lake Michigan Rooms</i>
5:30 - 7:00 p.m.	Pre-banquet Mixer <i>DECC - Harborside Ballroom</i>
7:00 - 10:00 p.m.	Banquet & Awards Ceremony <i>DECC - Harborside Ballroom</i>
All Day	Poster & Exhibitor / Vendor viewing <i>Holiday Inn - Lake Ontario / Lake Erie Rooms</i>

## *Schedule At-a-Glance: Thursday*

### **Thursday, February 19th, 2015**

6:30 - 8:00 a.m.	Student Chapter Leaders Breakfast <i>Holiday Inn - Minnesota Room, Level Two</i>
7:00 - 9:00 a.m.	Conference Registration <i>Holiday Inn - Great Lakes Lobby</i>
8:00 a.m. - 12:00 p.m.	Poster & Exhibitor/Vendor viewing <i>Holiday Inn - Lake Ontario / Lake Erie Rooms</i>
8:10 - 9:50 a.m.	General Sessions <i>See detailed schedule, page 25</i>
9:50 - 10:20 a.m.	BREAK
10:20 a.m. - 12:00 p.m.	General Sessions <i>See detailed schedule, page 29</i>
12:10 - 12:20 p.m.	Student Award Presentations <i>Holiday Inn - Lake Superior Room</i>
12:20 - 1:00 p.m.	Lunch ( <i>on your own</i> )
1:00 - 3:30 p.m.	[Workshop] Telemetry 101: Tools and Techniques for Wildlife Research and Monitoring <i>Holiday Inn - Lake Superior Room</i>
3:30 p.m.	ADJOURN

## *Conference Planning Committee*

**Chair** - Scott Craven, Mark Pfof, Richard Olsen

**Plenary Session** - Richard Olsen

**Conference Agenda** - Scott Craven, Richard Olsen, Mark Pfof

**Conference Program** - Krista McGinley, David Drake

**Registration & Treasurer** - Lindsey Shartell, Travis Anderson

**Fundraising** - Ann Geisen, Sheldon Myerchin, Norm Moody,  
Dawn Plattner, Lindsey Shartell

**Sponsorships** - Lindsey Shartell, Steve Windels, Brian Heeringa,  
Richard Olsen

**Student/Professional Mixer** - Ann Geisen

**Scholarships** - Lesa Kardash

**Awards & Awards Program** - Thom Soule, Kris Johansen

**Student Paper & Poster Awards** - Emily Hutchins, Tami Ryan

**Student Quiz Bowl** - Brian Hiller, Amanda Kamps, Elizabeth Rave

**Webmaster** - Lindsey Shartell, Jamie Nack

**Audiovisual Support & Expertise** - Lori Schmidt, Vermilion  
Community College

Special thanks to all student chapter volunteers for their invaluable help with registration, fundraising, AV programs, and other important tasks that helped make this conference a success.

We thank all attendees for making this conference memorable and successful!

## *Sponsor Recognition*

We sincerely thank all our sponsors for their generous contributions to help make this event possible.

*- Gold Sponsors -*

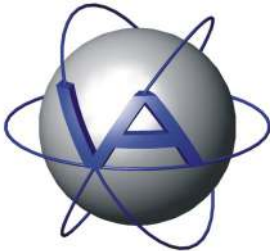
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Fire Science Consortium**



  
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# Natural Resources Research Institute

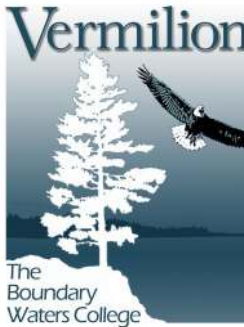
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**Tomahawk Live Trap** llc

**- Bronze Sponsors -**



Chequamegon Audubon Society



***Vendors - Lake Erie / Lake Ontario Rooms***

The following vendors will have display booths in the room where coffee breaks are served, and where posters are displayed. Vendors will be available during conference activities at the Holiday Inn. Feel free to stop by and introduce yourself!

**Vectronic**

**Tomahawk Live Trap**

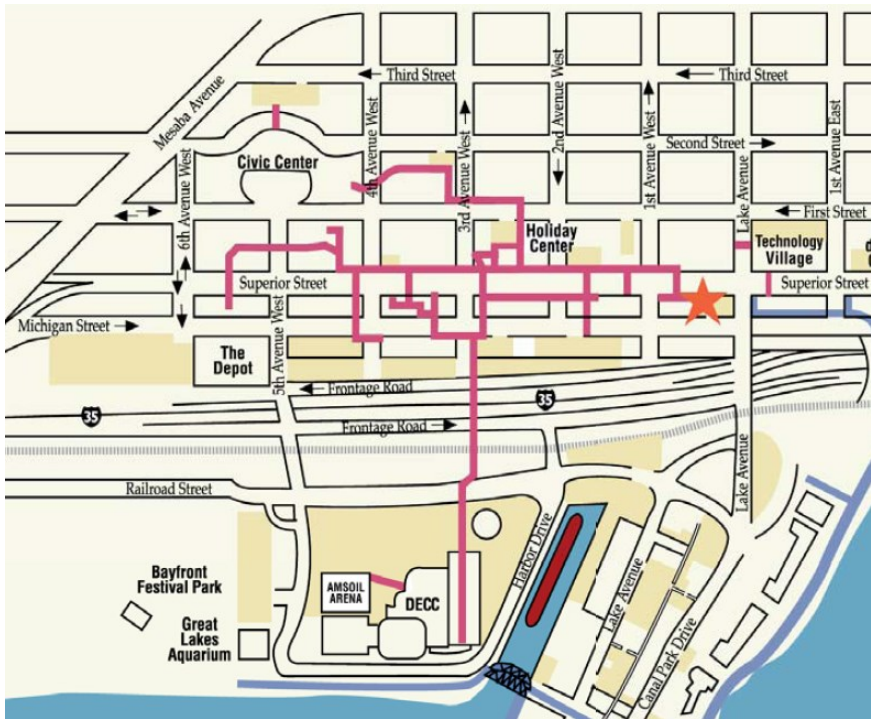
**Reconyx**








**ATS**

Our sincere thanks to **Ross Hier** for providing the beautiful artwork used throughout the program!

# Map of Downtown Duluth

Conference attendees can use Duluth's Skywalk System (shown in pink in the map below) to travel between the Duluth Entertainment & Convention Center (DECC) and the Holiday Center, where the Holiday Inn is located.



- |   |   |
|---|---|
|  Public Parking  |  Lakewalk        |
|  Visitor Information Centers   |  Skywalk System  |
|  Trolley Stops (see Downtown/Canal Park map)                                   |  One-Way Streets |
|  <b>VISIT DULUTH</b> WORLD-WIDE HEADQUARTERS<br>21 West Superior St, Suite 100 |   |

*Tuesday, February 17th, 2015*

*Plenary Session:*  
**“Global Warming:  
Carbon Solutions for a Warming World”**

1:00 - 5:00 p.m.

*Duluth Entertainment & Convention Ctr., Harborside Ballroom*

*Moderator: Olivia LeDee*

Scientific evidence for warming of the climate system is unequivocal (Intergovernmental Panel on Climate Change). Compelling evidence includes sea level rise, global temperature rise, warming oceans, declining arctic sea ice, extreme weather events... and the list goes on. Of course there are those who deny that our globe is warming, and if so it is due to increased solar flares and activity, weather variability, long term (eons) warming trends... and the list goes on.

However, for 99% of the population, global warming is not a far-off problem, nor is it a seasonal event. It is happening now and is and will be having very real consequences for life and our environments. Global warming may be the greatest threat to humanity, yet it is an accelerating change of our own making. The change is so slow and our memories so short. Change is here whether you believe it or not.

The public is taking interest and beginning to demand action as evident by the more than 300,000 people marching through the streets of NYC in September 2014 as part of the Climate Change Summit in what may have been the largest climate change demonstration ever.

When the Climate Change Summit comes to Minneapolis, MN in October 2015, will we be ready to implement change and reduce and sequester the greenhouse-gas emissions that contribute to global warming?

Our plenary session will address one practical solution to a warming world – a carbon solution. This plenary will ultimately dig deep down to the root of the issue: our abused, neglected, and overlooked soil. Our speakers will focus on the ecological effects of global warming and changing climate, understanding the carbon cycle and how carbon in the atmosphere can be returned to the soil where it belongs while providing other benefits to the environment. We will shift the conversation from addressing technical solutions and political banter and instead cultivate creative biological solutions. Whether you believe that this is the cause or the solution, undertaking these initiatives will undoubtedly lead to a healthier, cleaner, productive, and socially stable environment and revitalize or regenerate many of our rural landscapes and communities. Please share the passion and hope of our speakers as they set the stage and challenge the way we look at and address the defining issue of our day.



## Plenary Session - Featured Speakers

### **Benjamin Zuckerberg**

*Assistant Professor, UW-Madison Dept. of Forest & Wildlife Ecology*

Dr. Zuckerberg's lab focuses on advancing the field of climate change ecology by studying how forces of climate and land use change impact wildlife populations from local to national scales. The evidence that wildlife populations are responding to modern climate change is now overwhelming. Climate change transcends political and jurisdictional boundaries and adds significant uncertainty to the conservation and management of our national resources. Dr. Zuckerberg will discuss the observed and predicted trends in climate within an ecological context, identify the ecological and evolutionary impacts of climate change on wildlife populations and communities, and present research on how climate change vulnerability assessment is an increasingly important tool for modern conservation.

### **Judith D. Schwartz**

*Freelance Writer*

A longtime freelance writer from southern Vermont, Judith's work has appeared in various venues across the publishing spectrum. She is the author of several books, including *Cows Save the Planet and Other Improbable Ways of Restoring Soil to Heal the Earth*. Drawing on the work of thinkers and doers, renegade scientists, and institutional whistleblowers from around the world, Judith will challenge conventional thinking about global warming during her talk. Much of the carbon dioxide that burdens the atmosphere is not the result of fuel emissions, but from agriculture; returning carbon to the soil not only reduces carbon levels but also enhances soil fertility. The solution to our carbon and global warming issues lies beneath the ground we walk on, and the proper management of soil could solve a long list of environmental problems.

**Peter Donovan**

*Co-founder, Soil Carbon Coalition*

The Soil Carbon Coalition's goal is to advance the practice and spread awareness of the opportunity to turn atmospheric carbon into soil organic material. His principal project is the Soil Carbon Challenge, which measures how fast land managers can turn atmospheric carbon into water-holding, fertility-enhancing soil organic material. He will explain the carbon cycle - why it is the mother of all ecosystem services, why and how water follows carbon, and how our management, policy, and decisions are influential elements of this most powerful and creative planetary force. Peter's presentation will be phenomenally interesting, thought-provoking, challenging, and deeply inspiring.

**W. Richard Teague, Ph.D.**

*Associate Resident Director & Prof., Texas A&M AgriLife Research*

Dr. Teague's primary focus is to conduct a ranch-scale, multi-county assessment that addresses three related objectives in the context of the Climate Change Mitigation and Adaptation: (1) Determine the extent that grazing strategies influence key ecosystem services (especially soil and vegetation carbon sequestration), soil fertility and stability, water quality, net primary and secondary production, and the economic viability of working ranches that contribute to the retention of open space and rural community health in the Southern Plains of the USA, (2) Determine the extent that different grazing management strategies can be used by livestock producers to mitigate and adapt to alternative climate change scenarios, and (3) Evaluate the long-term economic consequences of using alternative-grazing management strategies to achieve rangeland restoration and production goals. Dr. Teague will cover how ranchers successfully managed their predominantly livestock-based businesses to facilitate wildlife habitat and management in addition to soil carbon and biodiversity consequences of using different livestock grazing strategies.

*Tuesday, February 17th, 2015*

**Student / Professional Mixer**

*6:00 - 7:00 p.m. – Holiday Inn, Great Lakes Ballroom*

Interested in a job with the state DNR or with the U.S. Fish & Wildlife Service or another agency? This is an excellent opportunity for students to meet and ask questions of those who have been there and done that. Likewise, this is also a good opportunity for professionals to begin to seek out seasonal help. Our goal is to keep this event casual and fun.

**Welcome Reception and Fundraiser**

*7:00 - 9:30 p.m. – Holiday Inn, Great Lakes Ballroom*

Join us at the Welcome Reception to catch up with old friends and make new ones. Our plenary speakers will also be attending and available for amicable discussion. An appetizer bar is available for \$15 as well as several kegs of locally brewed beer; tickets must be purchased at time of registration. A silent auction and fun raffles will offer chances to bid on or win wildlife art, homemade crafts, hunting and fishing gear, and other great items. A cash bar is also provided.



*Wednesday, February 18th, 2015  
Special Session: Elk Restoration &  
Management in the Midwest  
Lake Superior / Lake Michigan Rooms*

*Moderator: John Hart*

Time	Title	Speaker
8:00	Potential for elk restoration in the 1854 and 1837 Ceded Territories of Minnesota	Mike Schrage
8:20	History, status, and management of elk in northwest Minnesota	Joel Huener
8:45	History and current management of elk in Michigan	Pat Lederle
9:10	Elk restoration and management in Ontario, Canada	Art Rodgers
9:35	Try, try again! The Wisconsin experience in elk reintroduction.	Kevin Wallenfang

*Special Session Sponsors:*



*Wednesday, February 18th, 2015  
Special Session: Wild Rice  
Management in Minnesota &  
Wisconsin  
Lake Huron Room*

*Moderator: Ann Geisen*

Time	Title	Speaker
8:00	Lessons learned: 40 years of wild rice management in the Brainerd Lakes area	Mike Loss
8:20	Inching towards ecological and cultural recovery: lessons in Manoomin restoration from Lac Vieux Desert	Peter David
8:40	Identifying mechanisms of change within a northeastern Minnesota wild rice lake: Applied management techniques, trials, and triumphs	Melissa Thompson
9:00	Restoring wild rice on Clam Lake through common carp management	Tony Havranek
9:20	Twin Lakes: Monitoring mining impacts to wild rice	Darren Vogt
9:40	Wild rice potpourri: Questions, answers, and discussions on wild rice management	Moderated discussion



*Wednesday, February 18th, 2015*  
*Special Session: Applying LiDAR*  
*Technology to Wildlife Management*  
*and Research*  
*Lyric Conference Center, Level 1*

*Moderator: Bob Wright*

Time	Title	Speaker
8:00	Measuring vegetation structure via LiDAR data: LiDAR basics, data availability, and applications in forest and wildlife management	Mike Falkowski
8:20	Applications of LiDAR data to wildlife habitat modeling	Michael Joyce
8:40	LiDAR and hierarchical statistics improve abundance estimates of Karner blue butterflies	Bradley Strobel
9:00	Use of LiDAR data to quantify forest structure for American marten habitat assessment in Minnesota	Barry Sampson
9:20	Using LiDAR in wetland restoration and management	Brandon Braden
9:40	Using LiDAR data to interpret behavior-specific habitat use of moose	Ron Moen



*Wednesday, February 18th, 2015*  
*Wetland Birds Session, 10:20 - 11:40 a.m.*  
*Lake Superior Room*

*Moderator: Tom Cooper*

Time	Title	Speaker
10:20	Expanded wood duck banding effort in Minnesota	Bruce Davis
10:40	Distribution, migration chronology, and survival rates of eastern population sandhill cranes	David Fronczak
11:00	Aerial surveys of breeding sandhill cranes in Minnesota	Jeff Lawrence
11:20	Spatial ecology of sandhill crane populations in Minnesota	David Wolfson

*Wednesday, February 18th, 2015*  
*Predators Session, 10:20 a.m. - 12:00 p.m.*  
*Lake Huron Room*

*Moderator: William "Bill" Faber*

Time	Title	Speaker
10:20	Enhanced competition limits recovery of American martens in Wisconsin	Phillip Manlick
10:40	The role of risk perceptions in public tolerance of grey wolves in Wisconsin	Natalie Kaner
11:00	Using satellite collar data to determine wolf den location and attendance in northern Minnesota	Carolyn Humpal
11:20	Losing the predator-prey space race leads to extirpation of woodland caribou from Pukaskwa National Park	Brian McLaren
11:40	Beaver lodge site selection in large lake environments	Steve Windels

**Wednesday, February 18th, 2015**  
**Loss of Habitat & Wildlife Session, 10:20 - 11:40 a.m.**  
*Lake Michigan Room*

**Moderator: Scott Craven**

Time	Title	Speaker
10:20	The loss of wildlands at the national and Minnesota scales since European settlement	Bruce D. Anderson
10:40	Mercury levels in birds of prey captured at Hawk Ridge, Minnesota	Edward Keyel
11:00	Waterfowl die-offs to trematodiasis in Minnesota: Understanding the distribution, abundance, and parasite prevalence of the invasive faucet snail host and their parasites	Charlotte Roy
11:20	The influence of hunting season and snowfall on lead exposure of wild bald eagles ( <i>Haliaeetus leucocephalus</i> ) in the Upper Mississippi River Valley	Ronald Lindblom

***Wednesday, February 18th, 2015***  
***Policy & Initiatives Session, 10:20 a.m. - 12:00 p.m.***  
***Lyric Conference Center, Level 1***

**Moderator: Patrick Lederle**

Time	Title	Speaker
10:20	The new Wisconsin Institute for Wildlife at UW-Stevens Point	Scott Hygnstrom
10:40	Conservation Partners Legacy Grant Program	Jessica Lee
11:00	An information exchange on wildlife in fire-dependent ecosystems of the northern lake states	Shelby Weiss
11:20	Changing the culture of hunter recruitment & retention: Can we become effective?	Kelly Maynard
11:40	Minnesota & Wisconsin's vanishing prairie butterflies: recent federal listing and efforts to save them	Cale Nordmeyer

*Wednesday, February 18th, 2015*

**Banquet and Awards Ceremony**

*7:00 - 10:00 p.m. – DECC, Harborside Ballroom*

The Duluth Entertainment & Convention Center is our venue for our annual banquet and awards ceremony. This is a time of the year where we have the chance to celebrate and recognize accomplishments from the past year. This year is exceptionally special because the Minnesota and Wisconsin chapters have combined efforts for special recognition.





**Thursday, February 19th, 2015**  
**Ecology & Management of Mammals Session, 8:10 - 9:50 a.m.**  
*Lake Superior Room*

**Moderator: Kyle Arola**

Time	Title	Speaker
8:10	Wisconsin's Deer Management Assistance Program	Lesa Kardash
8:30	Annual winter variation and condition-dependent dispersal of yearling male white-tailed deer in Wisconsin	Brittany Peterson
8:50	Trends in overwinter survival of white-tailed deer in Wisconsin	Andrew Norton
9:10	Using genetics to evaluate the conservation status of the American badger in Wisconsin	Emily Latch
9:30	Use of human-derived foods by northern Wisconsin black bears	Becky Kirby

***Thursday, February 19th, 2015***  
***Wetland Conservation & Management Session, 8:10 - 9:50 a.m.***  
***Lake Huron Room***

***Moderator: Shawn Crimmins***

Time	Title	Speaker
8:10	Managing wetlands in the Anthropocene - The Age of Man	Ray Norrgard
8:30	Managing prairie wetlands in a climate change future	Doug Norris
8:50	Assessing the value of sediment removal in wetland restoration	Shawn Papon
9:10	A tale of three turtles: conservation and genetics of wetland chelonians in the Upper Midwest	Brendan Reid
9:30	Testing multiple methods for wildlife habitat restoration on inland lakeshores: The Crystal Lakeshore Restoration Project	Daniel Haskel

***Thursday, February 19th, 2015***  
***Ecology & Management of Birds & Butterflies Session, 8:10 - 9:50 a.m.***  
***Lake Michigan Room***

***Moderator: Mike Larson***

Time	Title	Speaker
8:10	Recovery of a native pollinator in a disturbance-based landscape: The Karner Blue in Wisconsin	Anna Hess
8:30	Recent declines in gray jays on Christmas Bird Counts in Northern Wisconsin	Ryan Menebroeker
8:50	Population viability analyses to evaluate post-delisting management of the Kirtland's warbler	Donald Brown
9:10	Patterns in diurnal airspace use by migratory landbirds along an ecological barrier	Anna Peterson
9:30	There and back again: Migratory behaviors of golden-winged warblers discovered using geolocators	Gunnar Kramer

*Thursday, February 19th, 2015  
Grassland Birds Session, 8:10 - 9:50 a.m.  
Lyric Conference Center, Level 1*

**Moderator: Wayne Brininger**

Time	Title	Speaker
8:10	Factors affecting avian nest detection probability and guidance for future nest study design	Molly O'Grady
8:30	Sharp-tailed grouse occupancy-habitat relationships differ at multiple spatial scales	Michael Hardy
8:50	Assessing visual obstruction estimates in a controlled setting: Similarities and differences between observers and photo processing software	Molly O'Grady
9:10	Factors affecting greater prairie-chicken nest daily survival rates on two wildlife areas: preliminary results	Matthew Broadway
9:30	Modeling detectability in bird surveys: a new, extensive simulation	Elizabeth Rigby

***Thursday, February 19th, 2015***  
***Climate Change Session, 10:20 a.m. - 12:00 p.m.***  
***Lake Superior Room***

***Moderator: Stephen Winter***

Time	Title	Speaker
10:20	Assessing climate change vulnerability throughout the annual cycle for migratory birds of the Upper Midwest and Great Lakes Region	Tom Will
10:40	Birds and climate change	Kristin Hall
11:00	Climate change surpasses land use change in the contracting range boundary of snowshoe hares	Sean Sultaire
11:20	Too little, too late: Human overpopulation and climate disruption	David Trauger
11:40	Potential climate-driven shifts in mammalian species composition in Great Lakes National Parks	Morgan Swingen

**Thursday, February 19th, 2015**  
**Ecology & Management of Large Mammals Session, 10:40 a.m. - 12 p.m.**  
**Lake Huron Room**

**Moderator: David Drake**

Time	Title	Speaker
10:20	Monitoring the distribution and seasonal movements of reintroduced elk ( <i>Cervus elaphus</i> ) in habitats created by clear cutting in boreal forest	Endre Lukacs
10:40	Calving characteristics of the reintroduced Clam Lake, WI elk herd	Christine Priest
11:00	Cause-specific mortality of moose calves in northeastern Minnesota, 2013 and 2014	William Severud
11:20	Moose habitat restoration techniques in northeastern Minnesota	Christina Maley
11:40	Determining an effective approach for capturing moose neonates and minimizing capture-related abandonment in northeastern Minnesota	Glenn DeGiudice

***Thursday, February 19th, 2015***  
***Restoration Management Session, 10:20 a.m. - 12:00 p.m.***  
***Lake Michigan Room***

***Moderator: Mark Pfost***

Time	Title	Speaker
10:20	"Surrogate" species: Wrong word, bad idea?	Douglas Johnson
10:40	Upland sandpiper: A flagship for jack pine barrens restoration in the Lake States?	Gregory Corace
11:00	Home is where the estimation is	Roger Powell
11:20	Evaluating grazing effects on a native prairie: The Bjornson WMA grazing experiment	Dave Rave
11:40	Grassland birds demonstrate delayed response to large-scale, experimental tree removal	Sara Vacek

***Thursday, February 19th, 2015***  
***Habitat Initiatives Session, 10:20 a.m. - 12:00 p.m.***  
***Lyric Conference Center, Level 1***

**Moderator: Lesa Kardash**

Time	Title	Speaker
10:20	Snapshot Wisconsin: A statewide trail camera project to monitor wildlife	Jennifer Stenglein
10:40	The State of Minnesota and Wisconsin forest habitats: a strategic summary from the Forest Inventory and Analysis (FIA) program	Mark Nelson
11:00	The Wisconsin young forest partnership: Establishing a landscape-scale young forest habitat conservation approach across Wisconsin's forest ownerships	Jeremy Holtz
11:20	Prairie conservation and the Prairie Plan 2015: How are we doing so far?	Greg Hoch
11:40	Building a Midwest grassland network to support implementation of state and regional conservation plans	Tom Will



*Thursday, February 19th, 2015*

**Student Chapter Leaders Breakfast**

*6:30 - 8:00 a.m. – Holiday Inn, Minnesota Room, Level 2*

The Minnesota and Wisconsin Chapters are hosting a breakfast for student chapter leaders and faculty advisors to meet with members of the Chapter boards. This is an RSVP event, and costs are covered by the Pioneer Heritage Conservation Trust, MN TWS, and WI TWS.

**Best Student Paper and Best Student Poster Awards**

*12:10 p.m. – Holiday Inn, Lake Superior Room*

Papers and posters submitted by current students will be entered in a contest for best paper and best poster. Winners will be announced after the last oral presentation.

**Workshop - Telemetry 101: Tools & Techniques for Wildlife Research & Monitoring**

*1:00 - 3:30 p.m. – Holiday Inn, Lake Superior Room*

Representatives from Advanced Telemetry Systems (Isanti, MN) are sponsoring a telemetry workshop. This workshop will include 1 hour of lecture and discussion, 30 minutes of “hands on” exercises, and 30 minutes of Q&A. This workshop is geared to students and professional who want to better understand the basics of telemetry or keep abreast of “what’s new” in the world of telemetry and wildlife monitoring. This workshop is open to any conference registrants as part of their registration fee.

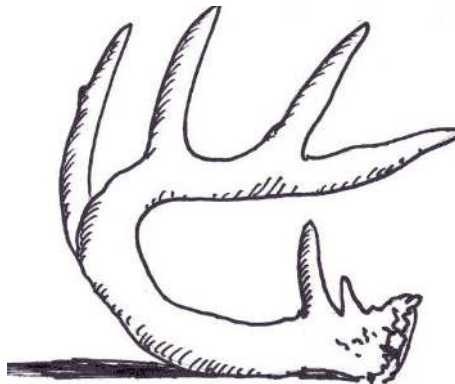
# *Student\* & Professional Posters*

## *Lake Ontario & Lake Erie Rooms*

Name	Poster Topic
<b>Jesse Alston</b>	LiDAR analysis of snowshoe hare habitat in northeastern Minnesota
<b>Jacqueline Amor*</b>	Using LiDAR to understand water conveyances more accurately within SLICE lake watersheds in Minnesota
<b>Nicholas Anich</b>	Wisconsin Breeding Bird Atlas II: Beginning 2015
<b>Kristen Beattie*</b>	Determinants of livestock depredation events in Manyara Ranch Conservancy, northern Tanzania
<b>Josh Bednar*</b>	Breeding bird-habitat associations of the Red Lake Peatlands, Minnesota, USA
<b>Kayla Bieser</b>	Exogenous 17 $\beta$ -Estradiol disrupts gonadal differentiation in freshwater turtles exhibiting temperature-dependent sex determination
<b>Scott Buchholz*</b>	Variation in turtle capture rates over summer months in Clay County, Minnesota
<b>Ashley Eder*</b>	Effects of mown paths on small mammal movements in Clay County, Minnesota
<b>Bryn Evans*</b>	Semi-aquatic mammal populations in the St. Louis EPA designated area of concern
<b>Luke Fara</b>	Pilot study: Migration patterns, habitat use, food habits, and harvest characteristics of long-tailed ducks wintering on Lake Michigan
<b>Carissa Freeh*</b>	Diet and body condition of fisher in northern Wisconsin
<b>Thomas Gable*</b>	Refining the beaver tooth aging method
<b>Holly Kalbus</b>	Ring-necked pheasants latency to cover and vigilance in response to predator call

Name	Poster Topic
<b>Rebecca Kelble*</b>	Seasonal food habits of bobcat ( <i>Lynx rufus</i> ) in central Wisconsin
<b>Linda LaFond*</b>	Effects of three land management regimes on small mammal abundance at Grand Forks Air Base, North Dakota
<b>Ronald Lindblom</b>	The influence of hunting season and snowfall on lead exposure of wild bald eagles ( <i>Haliaeetus leucocephalus</i> ) in the Upper Mississippi River Valley
<b>Timothy Mateer*</b>	Nitrate pollution of groundwater in the State of Wisconsin: Analyzing land use contributions of modeling distribution via indicator Kriging
<b>Joshua Miller*</b>	Population structure of painted turtles captured at different traps within and between three sloughs in Clay County, Minnesota
<b>Sarah Moodie*</b>	Determining the current abundance of Franklin's ground squirrel in northern Wisconsin
<b>Gerald Niemi</b>	An alternative design to sample breeding birds for a state atlas
<b>Michael North</b>	Are ruffed grouse in southeast Minnesota and northern Iowa an isolated population?
<b>Bryce Olson</b>	Moose modify bedsites in response to high temperature
<b>Laura Paine</b>	Brokering relationships between non-farming landowners and livestock producers to increase grasslands in the Upper Midwest
<b>Hannah Panci</b>	Habitats and landscapes associated with bird species in lowland conifer forests of northern Minnesota
<b>Jessica Rick*</b>	Population genetic structure of wolves ( <i>Canis lupus</i> ) in Minnesota
<b>Alex Ritz</b>	Comparing unmanned aerial vehicles (UAVs) and manned helicopter surveys for moose ( <i>Alces alces</i> ) in the boreal forest of the Lake Superior watershed

Name	Poster Topic
<b>Elisabeth Teige*</b>	Urban turkeys: use of a random, stratified survey of homeowners in the Fargo (ND)-Moorhead (MN) area to estimate turkey distributions and numbers, human-turkey interactions, and public opinion on turkeys
<b>Tessa Tjepkes*</b>	Population genetics of moose in northeastern Minnesota
<b>J. Trevor Vannatta*</b>	Factors determining giant liver fluke infection in white-tailed deer and moose
<b>Julie Van Stappen</b>	Protecting rare plant communities through deer management at Apostle Islands National Lakeshore
<b>Skyler Vold*</b>	Using automated acoustic recording devices in avian research: An assessment of the Wildlife Acoustics, Inc. Song Meter
<b>Liza Walleser</b>	Evaluating snow-track surveys for monitoring co-occurring furbearers in Wisconsin
<b>Bryn Webber*</b>	Estimates of ruffed grouse detection probability from point counts
<b>Edmund Zlonis</b>	Breeding bird trends in Minnesota National Forests, 1995-2014



## Contact Hours

Attendance at the 2015 WCTWS Winter Meeting can count toward TWS's Professional Development Certificate and/or the Certified Wildlife Biologist Renewal Program.

The following contact hours have been calculated/approved by TWS:

### Tuesday

Plenary Session 4 hours

### Wednesday:

Special sessions: 2 hours

General sessions: 1.5 hours

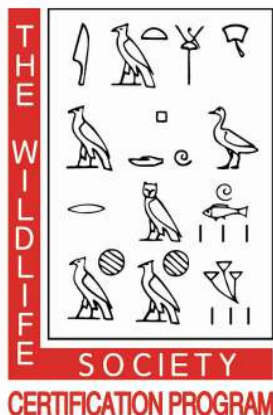
Business meeting: 2.5 hours

### Thursday:

General sessions: 3.5 hours

Workshop: 2.5 hours

**Maximum total hours for both days: 16 hours**



## *Downtown Duluth Dining Guide*

### **Located within the Holiday Inn:**

- Sneakers Sports Bar & Grille (2nd level)
- The Greenery Bakery & Café (1st level)
- Porter's Restaurant (1st level)

### **Other options:**

- Subway (Skywalk, 2nd level)
- Zen House Japanese Restaurant (Skywalk, 2nd level)
- How Sweet It Is (1 block from hotel)
- Farley's Family Restaurant (1 block from hotel)
- Sammy's Pizza (1 block from hotel)
- Duhb Linn Irish Pub (1 block away from hotel in Skywalk)
- 7 West Taphouse (2 blocks from hotel)
- Hanabi Japanese Cuisine (2 blocks from hotel)
- Pizza Lucé (3 blocks from hotel)
- Tycoons Alehouse & Eatery (4 blocks from hotel)

### **In Canal Park:**

- Endion Station Public House
- Canal Park Brewery
- Grizzly's Wood-Fire Grill
- Old Chicago
- Green Mill
- Cloud 9 Asian Bistro
- Grandma's Restaurant & Saloon
- Grandma's Sports Garden
- Bellisio's Italian Restaurant & Wine Bar
- Little Angie's Cantina & Grill

## *Notes*

