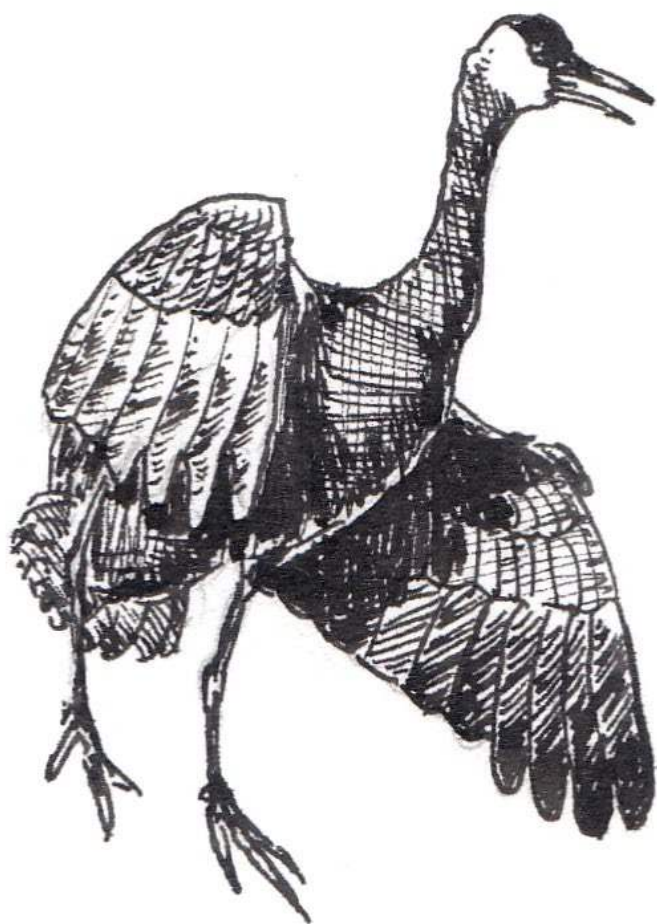


**Minnesota Chapter of  
The Wildlife Society**  
**Annual Meeting**  
February 27-29, 2024  
Bemidji, Minnesota



*Passing the torch; preparing our future wildlife  
leaders for the challenges ahead*



# Thanks to our meeting volunteers!

**Program Cover Art/Sketches:** Courtesy of Ross Hier

**Chairs:** Jake Haus, Nicole Bernd, and Bruce Anderson

**Awards and Awards Program:** Steve Windels and Awards Committee

**Conference Program:** Jake Haus and Cat Berrick

**Governing Board and Membership Meetings:** Nicole Bernd, Jake Haus, Bruce Anderson, Reid Plumb, Kat Dickerson, Molly Tranel Nelson, Melissa Gabrielson, Cat Berrick

**Moderators:** Andrew Tri, Brian Hiller, Raena Kemna, & Bruce Anderson

**Oral and Poster Judging and Awards:** Kat Dickerson, Nicole Davros, Melissa Gabrielson

**Registration:** Reid Plumb

**Sponsorships and Vendors:** Nicole Bernd, Jake Haus, & Bruce Anderson

**Student Engagement and Activities:** DEI Committee

**Student Quiz Bowl:** John Loegering and Mags Rheude

**Fund Raising:** Dawn Plattner & John Riens

**Membership:** Jessica Piispanen and John Loegering



**Thank you to all of our sponsors for  
helping make this event possible!**

## **Gold Sponsors**



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# President's Welcome

**Welcome to the 2024 Minnesota Chapter of The Wildlife Society Annual Meeting!**

*Our theme this year is "Passing the torch, preparing our future wildlife leaders for the challenges ahead."*

*"Passing the torch". This can be envisioned in several ways. One, an object that contains great recognition, meaning and importance or two, an act of one handing off the role of leadership. Though the object may seem more appealing, the act carries responsibility, accountability, and trust. As our current and future wildlife leaders, it is essential that you continue wildlife management and conservation efforts and managing the way people and natural resources interact. You are important.*

*Now, here are some meeting highlights:*

*On Tuesday night we'll have the Newcomer Welcome, Student Professional Mixer, and the Welcome Reception and Fundraiser. If you are a student, the Student Professional Mixer offers an excellent opportunity to network with professionals and learn about different career paths and receive application and interview advice.*

*On Wednesday we will have a Student Leaders Breakfast and Chapter's Business meeting in the afternoon. We encourage all to attend the business meeting to get an update on the hard work the membership has done on behalf of the Chapter. Please bring your thinking caps for the Student Quiz Bowl and end the day with food and laughter at the Awards Banquet.*

*It's shaping up to be an excellent Workshop. We hope you all will have time to renew old friendships, reconnect with professional colleagues, and make some new friends and colleagues.*

*Please remember, our Chapter is committed to respect and integrity. Be courteous and respectful to one another while attending the meeting. The Wildlife Society should be a place to foster diversity and inclusion in our leadership, membership, programs, and activities. Each person has their own views and opinions that should be respected.*

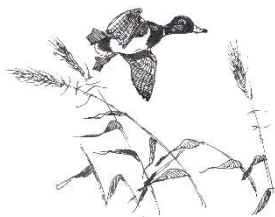
*On behalf of the MNTWS Board of Directors and the MNTWS Annual Meeting planners, thank you for being here. Your time, effort, and commitment to attend the Annual Meeting does not go unnoticed. So, relax, enjoy, and thank you for your valuable work in wildlife management and conservation.*

*Sincerely,  
Nicole Bernd  
President, MN Chapter of The Wildlife Society*



# Schedule at a Glance

Tuesday February 27th, 2024	
All Day	Registration – Lobby Registration Desk
All Day	Lactation Room – First room to the right when facing restrooms
9:00 AM – 6:00 PM	Vendor/Exhibitor Display setup
9:00 AM – 5:00 PM	Poster setup
12:00 PM – 1:00 PM	Executive Board Meeting – Lakeview 4 and 5
1:30 PM – 2:00 PM	<b>Welcome – Ballroom</b>
2:00 PM – 2:45 PM	<b>Plenary Speaker – Carrie Ruud</b>
2:45 PM - 3:00 PM	Break
3:00 PM - 4:00 PM	<b>Mini-Workshop – “More than Burnout”</b>
4:00 PM - 5:00 PM	Break
5:00 PM - 5:30 PM	<b>Newcomer Welcome – Lakeview 4 and 5</b>
5:30 PM – 7:00 PM	<b>Student Professional Mixer – Ballroom</b>
7:00 PM - 10:00 PM	<b>Welcome Reception &amp; Fundraiser – Ballroom</b>





# Schedule at a Glance

## Wednesday February 28th, 2024

6:30 AM – 7:50 AM	Awards Committee Breakfast
6:30 AM – 7:50 AM	Student Leaders Breakfast – by invitation
8:00 am – 12:00 pm	Registration – Lobby Registration Desk
8:00 am – 8:45 am	<b>Plenary Speaker – Dr. James Forester</b>
9:00 am – 10:00 am	<b>Poster Session – Main Hallway</b>
10:00 am – 12:30 pm	<b>Concurrent Session 1 – Lakeview 4 and 5</b>
10:00 am – 12:30 pm	<b>Concurrent Session 2 – Lakeview 6 and 7</b>
12:30 pm – 2:00 pm	Lunch Break on Your Own
2:00 pm – 3:45 pm	<b>MNTWS Member Business Meeting – Lakeview 4 and 5</b>
4:00 pm – 6:00 pm	<b>Student Quiz Bowl – Lakeview 6 and 7</b>
7:00 pm – 9:30 pm	<b>Award Banquet – Ballroom</b>

## Thursday February 29th, 2024

8:00 am – 10:00 am	Registration – Lobby Registration Desk
8:00 am – 12:45 pm	Vendor/Exhibitor Displays – Entryway
8:00 am – 8:45 am	<b>Plenary Speaker – Dr. Alexis Grinde</b>
10:00 am – 12:45 pm	<b>Concurrent Session 3 – Lakeview 4 and 5</b>
10:00 am – 12:45 pm	<b>Concurrent Session 4 – Lakeview 6 and 7</b>
12:45 pm	Adjourn

# Speaker Biographies



## Carrie Ruud

*The role of Wildlife Professionals in the Legislature.*

Bio: Minnesota born and raised. Served in the Minnesota Senate 2002-2006 and 2012-2022. Chair of the Environment and Natural Resources Policy and Legacy Finance Committee, Vice Chair Environment and Natural Resources Finance Committee 2016-2022. Avid outdoorswoman - snowshoer, skier, hiker, runner, kayaker, rockhound, birder; virtually anything that will get me outside!! Always up for an adventure.

## Dr. James Forester

*To build a fire: Creating community, developing skills, and applying research in wildlife management*

Bio: James Forester received his Ph.D. in Zoology from the University of Wisconsin—Madison in 2005. He has a broad background in field ecology, having worked on projects related to intertidal community dynamics, terrestrial plant community composition, amphibian behavior, and the movement ecology of large mammals. James is most interested in using quantitative and computational methods to address applied questions related to natural resource management. Although his research covers a range of spatial and temporal scales, his current work is focused on how changing landscapes affect the distribution, abundance, and disease dynamics of wildlife populations.





## Dr. Alexis Grinde

*From statistical significance to making a difference: The need for facts, acts, and pacts in a changing world*



Bio: Alexis leads the Avian Ecology Lab at the Natural Resources Research Institute, University of Minnesota Duluth. The Avian Ecology Lab is an applied research program that studies the direct impacts of environmental change on wildlife, biodiversity, habitats, and ecosystem function. Her research focuses on using birds as environmental indicators to learn about ecosystem function and implications of natural resource use and climate change. She focuses on conducting research that contributes to knowledge of avian conservation and ecology including assessment of diet, behavior, and habitat needs during breeding, post-breeding and migration. These data help us understand impacts of invasive species, management, restoration, and climate on ecosystem function in a rapidly changing world.

## ***Mini-Workshop***

### **More than Burnout**

Tuesday 3:00 – 4:00 PM

**Michelle Doerr** – Anavah Consulting

Join us for an exploration into 'More Than Burnout.' In this session, we will delve beyond burnout, addressing Covid overwhelm, eco-emotions, hopelessness, toxic culture, and other factors affecting workplace wellbeing. Let's shift the narrative to healing-centered approaches and envision a culture that promotes collective thriving. We will be using an online polling system that requires only a mobile device. A code will be provided.

# Concurrent Presentations

## Wednesday February 28th, 2024

### Concurrent Oral Presentation Session 1 10:00 am – 12:30 pm Location-Lakeview Rooms 4 and 5 Moderator- Brian Hiller

[Abstracts Website Link](#)

Time	Presenter	Presentation Title
10:00–10:30	David Trauba	Industrial scale wind development: implications for land protection and avian and bat conservation in Minnesota
10:30–11:00	Steve Windels	Invasive cattail removal in boreal lake systems as a means of improving wildlife habitat
11:00 –11:30	Charlotte Roy	Spatial use, habitat selection, and survival of spruce grouse in response to timber harvest in northern Minnesota
11:30– 12:00	Charlotte Roy	Forest structure mediates occupancy and extinction of boreal forest prey on the trailing edge of the boreal forest
12:00–12:30	Jamie Horton *	Greater prairie-chicken nest success and vegetation response to conservation grazing in northwestern Minnesota
12:30 – 2:00	Adjourn for Lunch	

\* Student presenter



# Concurrent Presentations

## Wednesday February 28th, 2024

**Concurrent Oral Presentation**  
**Session 2**  
**10:00 am – 12:30 pm**  
**Location-Lakeview Rooms 6 and 7**  
Moderator- Andrew Tri

[Abstracts Website Link](#)

Time	Presenter	Presentation Title
10:00–10:30	Nicole Davros	Navigating <i>Your</i> Future: A 20-minute guide for students on the diverse pathways to professional happiness
10:30–11:00	Rob Baden	MN DNR Wildlife, an overview and what a career in wildlife management entails
11:00 –11:30	Joshua Koelsch	Sandstone Wildlife Management Area pine and oak woodland restoration project
11:30– 12:00	Joshua Koelsch	Passing the drip torch: Leading and collaborating in a smokey future
12:00–12:30	Panel	Panel Discussion - Passing the drip torch: Leading and collaborating in a smokey future
12:30 – 2:00	Adjourn for Lunch	



# Concurrent Presentations

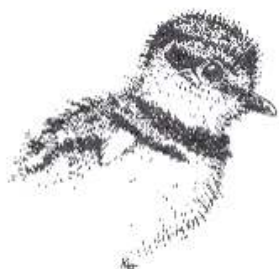
## Thursday February 29th, 2024

### Concurrent Oral Presentation Session 3 10:00 am – 12:45 pm Location-Lakeview Rooms 4 and 5 Moderator- Bruce Anderson

[Abstracts Website Link](#)

Time	Presenter	Presentation Title
10:00 AM– 10:30 AM	<b>Kara Snow</b>	The breeding ecology of Boreal Chickadees in the Red Lake Wildlife Management area in northern Minnesota
10:30 AM – 11:00	<b>Josh Bednar</b>	Habitat use and management strategies of the Connecticut Warbler during the nesting and post-fledging period
11:00 AM– 11:30 AM	<b>Brett Howland *</b>	Influence of habitat type on nest success, fledgling survival, and habitat-use of the Golden-winged Warbler
<b>11:30 AM - 11:45 AM</b>	<b>Break</b>	
11:45 AM - 12:15 PM	<b>Steve Kolbe</b>	Habitat use and movements of Boreal Chickadees during the post-fledging period
12:15 PM – 12:45 PM	<b>Jayden Jech</b>	Restoration of common loons ( <i>Gavia immer</i> ) in Minnesota
12:45 PM	<b>Adjourn</b>	

\* Student presenter



# Concurrent Presentations

## Thursday February 29th, 2024

### Concurrent Oral Presentation

#### Session 4

#### 10:00 am – 12:45 pm

#### Location-Lakeview Rooms 6 and 7

Moderator- Raena Kemna

[Abstracts Website Link](#)

Time	Presenter	Presentation Title
10:00 AM– 10:30 AM	<b>Joseph Bump</b>	Hunting wolves won't save Bambi: the life of a deer fawn is perilous — with or without predators
10:30 AM – 11:00	<b>Michelle Carstensen</b>	Exploring the relationship between ambient temperature and heat stress in wild Minnesota moose
11:00 AM– 11:30 AM	<b>Megan Eiting</b>	Collaborative planning to identify and overcome challenges facing large-scale moose habitat restoration in northeastern Minnesota.
<b>11:30 AM - 11:45 AM</b>	<b>Break</b>	
11:45 AM - 12:15 PM	<b>Michael Joyce</b>	Carnivore-mediated secondary dispersal of mycorrhizal fungi
12:15 PM – 12:45 PM	<b>Alyssa Roberts *</b>	Using environmental DNA methods to detect the four-toed salamander ( <i>Hemidactylium scutatum</i> ) in Minnesota
<b>12:45 PM</b>	<b>Adjourn</b>	

\* Student presenter





# Poster Presentations

## Wednesday 9:00am – 10:00am

### Location-Main Hallway

Poster #	Presenter (* Student)	Presentation Title
<a href="#">Abstracts Website Link</a>		
1	<b>Alyssa Sheffield</b>	Black-backed woodpecker ( <i>Picoides arcticus</i> ) monitoring on the Leech Lake Reservation
2	<b>Michael McMahon *</b>	Bobcat and fisher population trends in response to forest disturbance
3	<b>Kellie Suelter *</b>	A dangerous dinner? Scavenger communities and the risk of lead exposure at hunter-provided gut piles
4	<b>Reid Siebers</b>	Chippewa National Forest hunter walking trail project
5	<b>Adam Mortensen *</b>	Ecological parameters of fishers ( <i>Pekania pennanti</i> ) in an area of range expansion
6	<b>Kaysie Maleski *</b>	Habitat selection and detectability of nests among woodpeckers at the Red Lake WMA and Beltrami Island State Forest
7	<b>Katie Pfaff *</b>	Northern and southern flying squirrel home range and nest site selection in northern Minnesota
8	<b>Anna Peterson *</b>	Using acoustic detectors to map distributions of flying squirrels in Minnesota
9	<b>Raena Kemna *</b>	White-tailed deer spatial response to a controlled city archery hunt
10	<b>Maia Lieske *</b>	Characterizing nesting and foraging locations of eastern gray squirrels ( <i>Sciurus carolinensis</i> ) and American red squirrels ( <i>Tamiasciurus hudsonicus</i> ) in an urban environment
11	<b>Amber Sullivan *</b>	Advancing ocean literacy using an oceanarium located in the prairies
12	<b>Carson Dahlke *</b>	A field test of individual response to Black-capped Chickadee ( <i>Parus atricapillus</i> ) dominance



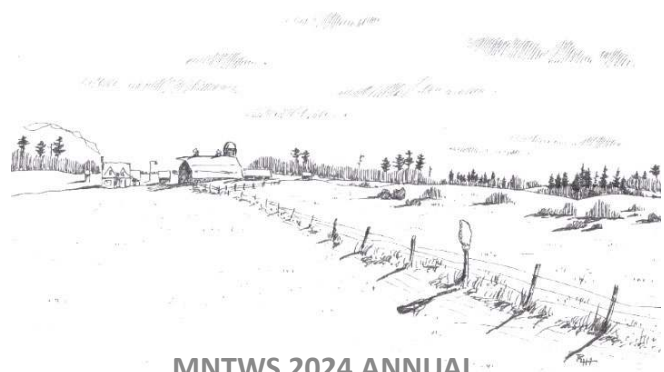
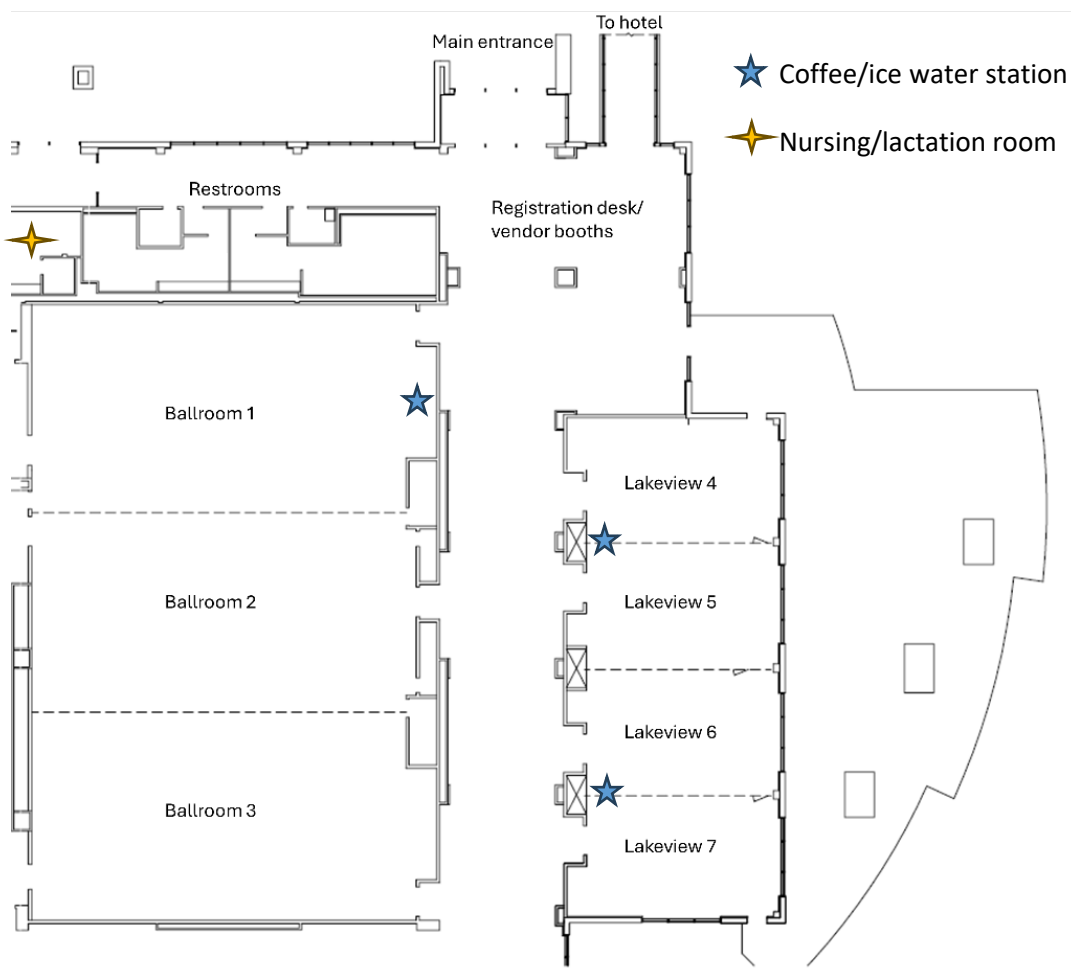
# Poster Presentations

Wednesday 9:00am – 10:00am  
Location-Main Hallway

Poster #	Presenter (* Student)	Presentation Title
<a href="#">Abstracts Website Link</a>		
13	<b>Adrian Renton * &amp; Calder Karger *</b>	Correlation between Merlin ( <i>Falco columbarius</i> ) and Crow ( <i>Corvus brachyrhynchos</i> ) populations in Moorhead, MN
14	<b>Jennifer Lamb</b>	Collaborative conservation: Swabbing amphibians for disease and student learning
15	<b>Alexander Doeblar *</b>	Ecological replacement of <i>Glaucomys sabrinus</i> across much of the range by <i>G.volans</i> , an ongoing study of flying squirrel habitat use in Itasca State Park
16	<b>Sophie Schaumann *</b>	Wild Rice monitoring near Tamarac National Wildlife Refuge
17	<b>Therese Byankuba *</b>	Comparative analysis of microlitter abundance in the proventriculus, gizzard, and intestines of North American waterfowl
18	<b>Hailey Olson *</b>	Habitat use of snowshoe hares on the Leech Lake Reservation



# Sanford Center Facility Map



# Notes



MNTWS 2024 ANNUAL  
MEETING



# **Guidelines for Professional Behavior at The Minnesota Chapter of The Wildlife Society**

## **Annual Meeting**

The Minnesota Chapter of The Wildlife Society (MNTWS) annual meeting provides an important opportunity for education, exchange of ideas, mentoring young conservationists, networking with fellow wildlife professionals, and engagement with colleagues in a variety of ways. Our hope is that each attendee will benefit from their participation during the conference. Even as we recognize the importance of and strive for diversity in our natural world, we acknowledge the contribution of individual diversity to our profession. As stated in our long-standing Position Statement on Workforce Diversity in the Wildlife Profession, “The Wildlife Society recognizes the value of including the richness of human diversity in our efforts to discover, educate, inform policy, and involve the public in wildlife science and management.”

**In this light and with the goal of ensuring that the annual conference is welcoming and inclusive for all, we put forward the following guidelines for professional behavior during the annual conference:**

- All participants should be treated with respect and consideration, valuing the diversity of views and opinions that may be different than those you hold
- Communicate with respect for others; critique ideas rather than individuals
- Avoid personal attacks directed towards conference participants
- Be mindful of your colleagues and your surroundings
- Professionalism should be exercised at all time

**The following are examples of behavior that will not be tolerated at the annual conference, including oral and poster sessions and other organized meetings whether at the conference center or off-site:**

- Harassment, threats, intimidation, or discrimination of any kind or in any form
- Physical or verbal abuse
- Verbal comments related to gender, sexual orientation, disability, physical appearance, race, religion, political affiliation, or national origin which may reasonably be interpreted as offensive, insulting, or obscene or engaging in any conduct of a stalking or threatening nature directed to any conference participant or attendee
- Behavior deemed to be excessively loud and/or disruptive of a meeting or any other event taking place during the annual conference
- Unlawful conduct or activity of any kind

### **Reporting of Inappropriate Behavior:**

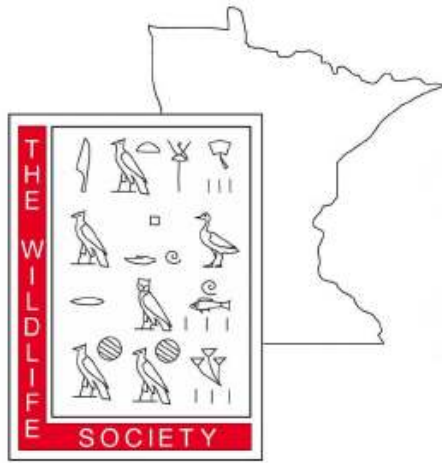
- If you are the subject of or witness conduct in violation of these guidelines at the annual conference, please notify a MNTWS Governing Board member or a member of the MNTWS DEI Committee.
- TWS will use reasonable efforts to respond and attempt to resolve the matter in a timely manner respectful of the parties and necessary to ensure the continued integrity and quality of the meeting.
- Anyone experiencing or witnessing behavior that constitutes an immediate or serious threat to public safety at our annual meeting in the convention center or hotel is advised to locate a house phone and ask for security or dial 911.

TWS at all times reserves the right, in its sole and reasonable discretion, to have individuals acting in an unprofessional manner or contrary to these guidelines removed from the meeting or event taking place at the conference and the right to prohibit attendance at any future meeting. Attendance at the Minnesota Chapter of TWS annual meeting is a privilege, not a right.

**We appreciate your attention to these guidelines and wish you a productive and meaningful annual meeting.**

# THANK YOU!

We hope you have enjoyed the 2024 annual meeting of the Minnesota Chapter of The Wildlife Society. We hope to see you at our events over the next year.



## **The Wildlife Society Vision**

The Wildlife Society is a strong and effective voice in representing wildlife conservation and management and ensuring sustainable wildlife populations in healthy ecosystems.

## **The Wildlife Society Mission**

To inspire, empower, and enable wildlife professionals to sustain wildlife populations and habitats through science-based management and conservation.