

Minnesota Chapter of The Wildlife Society

Volume 44, Issue 3

December 2016

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President's Message

The Board of Directors for the Minnesota Chapter of The Wildlife Society was recently informed that chapter members have experienced sexual harassment at previous chapter annual meetings. It was disheartening to learn that chapter members have been subjected to this but the Board immediately responded in a manner that was quite encouraging. First, the Board is adamant that anyone who is subjected to harassment or discrimination deserves support and we are working hard to ensure that anyone attending future chapter events will feel safe, respected, and appreciated for their unique contribution to the important conservation work we're all engaged in. The Board feels strongly that MN TWS members and non-members should never be subjected to discrimination or harassment, sexual or otherwise, at any chapter event or in any other aspect of their lives.

We've engaged the TWS parent organization with regards to this issue and we've learned that efforts to address this issue have begun at that level as well. We've also learned that other scientific/professional organizations have already started addressing this and related issues. Follow these links to see what has been done by others and can help guide the MN TWS in efforts we undertake:

- Favaro et al. 2016. Your science conference should have a code of conduct. *Frontiers in Marine Sci-*

ence. 3:103 doi: [10.3389/fmars.2016.00103](https://doi.org/10.3389/fmars.2016.00103)

- [Society for Conservation Biology Code of Conduct for SCB Meetings](#)
- [American Ornithological Society Code of Professional Conduct](#)

One of the parent organization's working groups is already working on a Code of Conduct and our chapter would be well-served to adopt it when it is finalized. We would also be well-served if we amended our bylaws to refer to such a Code of Conduct so safety, respect, and appreciation of everyone becomes embedded in our chapter's culture and identity. Additionally, we are planning to highlight this issue in several ways at our chapter's 2017 annual meeting (February 14–16; Maplelag Resort near Detroit Lakes).

As always, our chapter's Board of Directors appreciates feedback from the membership - please feel free to share with me or any other board member your concerns or thoughts about this or any other issue that deserves attention.

Stephen Winter, PhD
President, Minnesota Chapter of The Wildlife Society
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Winona, MN 55987
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stephen.winter@okstate.edu
wintersl8944@gmail.com



2017 Annual Meeting
Monitoring Minnesota's Wildlife Resources:
Defining Success in a Changing Landscape
February 14-16, 2017
Maplelag Resort – Callaway, MN

Plan to Attend. The Annual Meeting of the MN Chapter of TWS will be held at Maplelag Resort (<http://www.maplelag.com>) near Callaway, Minnesota, February 14–16, 2017. The event is expected to bring together more than 200 wildlife professionals, educators, students, and conservationists from state, federal, non-profit, academic, and tribal organizations within Minnesota and the Midwest. Highlights will include a plenary session and special technical session on the nexus between monitoring and management. With more than 50 technical talks, poster displays, networking opportunities, student events, and an awards banquet, there will be many opportunities to learn and reconnect with colleagues.

Registration. Registration is now open by mail and details are available on the meeting registration form. Registration is due by January 20th; registration after this date and on-site will incur a \$10 late fee. Meals and Special Events are included with lodging at Maplelag. Tickets for Special Events for those not staying at Maplelag are available, however availability is not guaranteed for late and on-site registrants.

Accommodations. Our host, Maplelag Resort, is offering participants a room rate of \$105 per night plus tax, this includes 3 meals per day and lodging. If you stay at Maplelag, this also includes both the Welcome Reception & Fundraiser and the Awards Banquet. Contact Maplelag either by Phone at 218-375-4466 or 1-800-654-7711 or E-Mail at maplelag@tvutel.com. Lodging at Maplelag consists of a variety of room types from private rooms to shared bunkhouses, room selection will take place upon arrival. If you would like to stay off-site, we have reserved a block of rooms under MNTWS at the Holiday Inn, 218-847-2121, in Detroit Lakes, approximately 20 miles from Maplelag. The Holiday Inn room rate is \$91.00 per night plus tax, no meals included.

Special Events. The annual meeting will start Tuesday at Maplelag Resort with a **Plenary Session** focused on habitat and wildlife monitoring, and management decisions. In addition, we will have Keith Norris with us from the parent organization on Wednesday as part of a **Conservation Affairs Network Special Session** to update our members on what TWS, MCF, and MN TWS are doing in the conservation arena, especially related to policy, and discuss ideas, priorities, and future direction.

Tuesday evening's **Welcome Reception & Fundraiser** will be the perfect time to catch up with colleagues and friends while enjoying a full dinner buffet. A silent auction and raffle will offer the chance to bid on or win wildlife art, homemade crafts, and other great items. Tickets are free for those staying at Maplelag and cost only \$15 for others.

Wednesday evening will feature our annual **Awards Banquet**. The banquet will feature a dinner buffet and will be followed by the opportunity to honor and celebrate the accomplishments of our award winners during a special ceremony. Tickets are included with your stay at Maplelag and cost \$25 for others.

Students will enjoy a number of special events geared towards their professional development, including a Student Professional Mixer, Student Leaders' Breakfast, Quiz Bowl, and a Paper and Poster Competition.

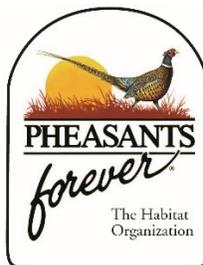
Annual Meeting (continued)

Tentative Schedule at a Glance	
Tuesday, 14 February 2017	
9:00a-12:00p	DNR-USFWS Coordination Meeting
1:00p-5:00p	Plenary Session on Monitoring and Management
5:00p-6:30p	Student Professional Mixer
6:30p-9:30p	Welcome Reception & Fundraiser
Wednesday, 15 February 2017	
6:30a-8:00a	Student Leaders Breakfast
8:00a-12:00p	Concurrent Paper Sessions
8:00a-12:00p	Special Session on Conservation Affairs Network and TWS Opportunities
1:00p-3:30p	MN TWS Chapter Membership Meeting
3:30p-5:30p	Student Quiz Bowl
5:30p-7:00p	Social Mixer and Poster Session
7:00p-10:00p	Awards Banquet
Thursday, 16 February 2017	
8:00a-12:00p	Concurrent Paper Sessions
12:00p	Meeting Wrap-Up

Sponsors of the 2017 MN TWS Annual Meeting Include



Tomahawk Live Trap llc





2017 Annual Meeting
Monitoring Minnesota's Wildlife Resources:
Defining Success in a Changing Landscape
 February 14-16, 2017
 Maplelag Resort – Callaway, MN

MEETING REGISTRATION (DUE BY JAN. 20, 2017)

Name: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____
 E-mail: _____
 Organization: _____
 Title: _____

Annual Meeting:	Amount
Registration – Regular/Retiree.....	\$40
Late Registration (if post-marked after Jan 20).....	\$50
Registration – Student.....	FREE

Lodging at Maplelag includes all meals and special events.
 Call Maplelag at 218-375-4466 or E-Mail maplelag@tvutel.com for reservations.
 For planning, please indicate lodging nights at Maplelag: Monday Tuesday Wednesday

Special Events without lodging at Maplelag:

Tuesday Welcome Reception & Fundraiser.....	\$15	_____
Wednesday Awards Banquet.....	\$25	_____

MN TWS Membership:

Regular Membership.....	\$25/year	_____
Student Membership.....	\$10/year	_____
Retiree Membership.....	\$15/year	_____
Life Membership.....	\$400	_____

(Cash or Checks Only Payable to MN TWS) check # _____ **Total Due:** _____

Send form & payment to: Kyle Daly, 4105 France Ave South, Minneapolis, MN 55416 , kyle.okeefe.daly@gmail.com

MN TWS is committed to fostering a community of respect and non-discrimination; MN TWS members and non-members should never be subjected to discrimination or harassment, sexual or otherwise, at any chapter event or in any other aspect of their lives. Please help us ensure that anyone attending chapter events will feel safe, respected, and appreciated for their unique contribution to the important conservation work we're all engaged in.

Chapter Awards

Award Nominations Requested The Butterfly Effect of Recognition

Pollinators, aka small charismatic micro-fauna, many would argue, are finally getting their due. Honey bees and monarch butterflies have for some time been at the forefront of the justifiable concern over declining populations of insects that support life on earth.

I think I was in high school when I learned about monarchs and their mimic the viceroy.

Today I spend many hours walking through the native grass and restored native grass that I care for to see what plants and animals are there and what has changed since I last walked. Although I see monarchs, usually in the fall, there have not been many. However, to my great surprise and delight thousands of Monarchs have roosted in in the trees north of the house in the fall of 2011 and 2014. It was several years ago, in my continuing quest to understand the relationship of human behavior to values and motivations and the role and importance of recognition that I first learned of the *Butterfly Effect*.

The *Butterfly Effect* refers to a concept that small causes can have large effects. Initially, it was used with weather prediction but later the term became a metaphor used in and out of science. It is similar to the popularized “*pay it forward effect*” that you may know of.

The *Butterfly Effect* is a thought provoking notion from Chaos Theory that has some eye-opening implications for organizational development and change management.

In 1979, a meteorological researcher Edward Lorenz suggested that the flap of a butterfly’s tiny wings somewhere in South America could set off a tornado in Texas a month from now. He was using the example to illustrate the idea that one tiny change can result in a huge impact on a large complex system—like weather patterns, or like organizations.

Haven’t we all experienced the “chaos” of the small day-to-day activities of coworkers, family members and friends, or in our case Professional Societies, that often results in the most far-reaching and unpredictable effects, positive or negative?

We all know nature is marvelous, mysterious and highly complex. The only prediction you can make is that she is unpredictable. This amazing unpredictability is what Chaos Theory looks at. Why? Because Chaos Theory has managed to somewhat capture the beauty of the unpredictable and display it in the most awesome patterns.

Technically, Chaos theory is the study of nonlinear dynamics, in which seemingly random events are actually predictable from simple deterministic equations. In a scientific context, the word chaos has a slightly different meaning than it does in its general usage as a state of confusion, lacking any order. Here are a few things about complex, nonlinear systems that we can take from Chaos Theory:

- Systems are very sensitive to **initial conditions**, which set the stage for the ultimate behavior.
- Systems tend to cluster their activity around and **iterate on** a typical behavior, called an at-

tractor.

- Systems tend to be dissipative, meaning without a **continued driving force** they cease to move.

These three ideas are important as we look at how organizations behave and as we seek to create a respected, productive, engaged membership. Because it is such a tiny, singular event *The Butterfly Effect* itself is not predictable in its outcome. But what if you multiplied those events exponentially, as you can do with organizations? Wouldn't you then begin to see these many little events that have a strong, iterative and ongoing effect on your outcomes, consistently driving a controlled change for the better?

I probably don't even need to say that member recognition can be this kind of *Butterfly Effect*, but I will:

- Recognition is an ideal **initial event** to create change in a complex system, because it is organic and inspired, and because it is self-propagating.
- The **iterative** (repeating and growing) nature of public recognition means recognition-worthy behavior is constantly being reinforced and replicating itself, but because it is guided by your stated values, it stays close to the attractor you have designated.
- Recognition begets recognition. A healthy, well-designed recognition program becomes a **constant driving force** to keep the organization moving forward.

Recognition is an effective change management tool because it flourishes within parameters set for the chapter: the values and goals that form the award criteria. This essentially harnesses the chaos of day-to-day activity and directs it into the advancement of our chapter objectives.

Chapter Award nominations are due by January 6 2017. Please flap your wings!

A nomination form is included with this newsletter and can also be found on the Chapter website <http://www.mntws.org/mn/awards.html>. You may find it helpful to look over the list of previous recipients and their history. Both are also available on the Chapter website

The nomination process is easy: Send me an e-mail (souletp@bektel.com) with the nomination form explaining why the person or organization you are nominating should receive the Award. Include their name, address, phone number, e-mail address, and the name of their hometown newspaper (if known), so we can publicly recognize the recipients. If needed add more pages of background information and/or supporting information to help the Awards Committee understand why your nominee is deserving of the award. Letters of support from friends and colleagues are encouraged.

Other Awards/Recognitions

If you know of MN TWS members who received an award during the past year from another organization, please let me know. We will also recognize these individuals during the awards ceremony at the annual meeting.



The Minnesota Chapter of The Wildlife Society has seven annual awards that are presented at its Annual Meeting.

- * *Minnesota Award:* This award is presented to an individual who has made outstanding contributions to Minnesota's wildlife and natural resources.
- * *Conservation Award:* This award is presented to an individual or organization that has shown an outstanding commitment to Minnesota's wildlife resources.
- * *Student Conservationist Award:* This award is given to a wildlife major at a Minnesota college who has shown a commitment to wildlife and promise as a future wildlife professional.
- * *Law Enforcement Award:* This award is given to a Minnesota Conservation Officer who has shown an outstanding commitment to the protection of Minnesota's resources.
- * *Bob Fedeler Memorial Award:* This award is presented to one undergraduate and one graduate student who have a 3.0 or better GPA, a strong interest in a career in wildlife biology, be active in extracurricular activities, have a strong sense of public service and have demonstrated good communication skills.
- * *Dr. Janet S. Boe Memorial Award:* This award is presented to a professional woman or outstanding female graduate or undergraduate student who exemplifies the consummate natural resource scientist.
- * *Service to Chapter Awards:* This award is given for exceptional service and commitment to the Minnesota chapter during the past year.

MNTWS 2016 Bob Fedeler Memorial Award

The Minnesota Chapter of The Wildlife Society (TWS) has established this Award in honor of Bob Fedeler. Bob was a popular and longtime biology and natural resources instructor at Staples Technical College and in the Natural Resources Department at Central Lakes College in Brainerd, MN. He served as Chapter President in 1997 and Membership Chair in 1998. Bob died of cancer in March 1999 after teaching for nearly two decades.

This Award consists of two full memberships (one undergraduate student, one graduate student) in The Wildlife Society (TWS) including all publications. The Fedeler Awards will help beginning wildlife professionals get started with membership in TWS providing them with high quality peer reviewed research, issues and discussions through the Society's various publications and access to TWS's regional and local networks of professional wildlife managers, researchers, conservation practitioners, policy makers, academics, other students and opportunities to participate or attend Conferences and Meetings

Students applying for the Fedeler Awards should be undergraduates in their junior or senior year or graduate students in a masters or doctorate program at a Minnesota college or university.

Applicants should:

- Have a 3.0 or better GPA.
- Have a strong interest in a career in wildlife biology.
- Be active in extracurricular activities.
- Have a strong sense of public service.
- Have demonstrated good communication skills.

How to apply:

1. Send a letter of interest by **January 6, 2017** to the MNTWS Awards Committee indicating interest and explain how you meet the requirements. Include your address, phone number, and email address, and the name of your academic advisor.
2. Ask your academic or research advisor to send a letter of recommendation to the MNTWS Awards Committee.

Recipients will be notified prior to the Annual Meeting which will be held February 14-16, 2017 in Callaway, MN.

Submit Applications to:
Thom Soule, Chair MNTWS Awards Committee
14351 40th St NE
Driscoll, ND 58532
(701) 387-4420
souletp@bektel.com





2016 MNTWS AWARD NOMINATION

Date: _____

Award: (Circle or underline one):

- 1) Minnesota Award. 2) Conservation Award. 3) Student Conservationist Award. 4) Law Enforcement Award.
5) Dr. Janet S. Boe Memorial Award. 6) Bob Fedeler Memorial Award. 7) Service to Chapter Award

Nominee information:

Name: _____
 Address: _____
 City _____ State _____ Zip _____
 Phone number: _____ Email address: _____
 Affiliation: _____
 Hometown newspaper: _____

Nominator information:

Name: _____
 Affiliation: _____
 Phone: _____ Email address: _____

Please explain why you are nominating this person for a MNTWS award in a short biography and brief write up his/her character, qualities, and accomplishments. (Attach extra sheets if necessary.)

Return this nomination by January 6, 2017 to:

Thomson P. Soule,
 14352 405th St. NE
 Driscoll, ND 58532
 (701)387-4420
 souletp@bektel.com
 MN TWS Award Nomination Form 2016

Nominations for MN TWS Board

President-Elect

Kyle Arola

Education

B.S. Ecology and Field Biology (Wildlife Emphasis) and GIS minor, St. Cloud State University; M.S. Ecology and Natural Resources, St. Cloud State University.

Present Position

Assistant Wildlife Area Manager - Thief Lake WMA

MNTWS Chapter Activities

Region I Representative (2014 -present); Parent TWS Chapter member; MN TWS member since 2009

Professional/Personal Interests

Working at Thief Lake WMA has allowed me to become immersed in both waterfowl and elk management. I enjoy all aspects of my current position, especially coordinating with various organizations and divisions to manage habitat for wildlife. In my free time I enjoy hunting, spearing northern pike, winter camping, and woodworking.

Personal Statement

Since becoming a member of the Minnesota Chapter of The Wildlife Society I have had the opportunity to coordinate at both the university and professional level. I believe that working with people from a variety of backgrounds and experiences greatly facilitates achieving a common goal. I have always been intrigued by the natural world and am fortunate to be part of an organization that is concerned with protecting and enhancing it. As President, I would continue to support professional development for members, increase student participation with the



board and provide them with additional leadership opportunities, and further enhance communication with MNTWS membership.

Nominations (continued)

Treasurer

Kyle Daly

Education

B.A. Biology, 2009, Capital University
M.S. Natural Resources Science and Management – Wildlife Ecology and Management, 2014, University of Minnesota – Twin Cities

Present Position

Fish and Wildlife Biologist, USFWS, Wildlife and Sport Fish Restoration Program, Bloomington, MN (2013 – present)

MNTWS Chapter Activities

Member since 2011

Professional/Personal Interests

My past professional focus was on migratory bird conservation and landscape scale habitat management. More specifically, how habitat management affects survival and reproductive success, and assessments of wildlife survey methods. Most of my professional interests are wildlife research related, however, recently these interests have expanded to varying aspects of wildlife conservation, including large scale wildlife habitat restoration and management, conservation focused government regulations, and public perceptions of wildlife. I spend much of my personal time outdoors hunting, fishing, hiking, and doing my best to train a young hunting dog. I also am a volunteer hunter education instructor in Minnesota.

Personal Statement

The Minnesota Chapter of TWS has offered me a professional and personal outlet that was difficult to find elsewhere. We are a group of deeply caring and highly motivated students and pro-



fessionals that use our diverse talents to better wildlife conservation throughout the state and beyond. My experiences have revealed the need for strong partnerships, and diversity of knowledge and talents in successful wildlife conservation. I believe we all do our part to make this group successful and I would be proud to serve the Minnesota Chapter as Treasurer this upcoming year.

Nominations (continued)

Board Member At Large

Bruce Anderson

Education

B.S. in Botany/Range Management. Minor. Wildlife Management. U of M Crookston and NDSU. 1976.

Present Position

Whitewater WMA Planning Consultant Bruce Anderson is currently Project Planner for re-writing the Whitewater WMA Management Plan. Prior to that he spent close to three years as Cloquet WL Area Assistant Manager. Previous to his DNR career he had a 35 year career with the US Forest Service where he worked in North and South Dakota, Montana, Idaho and most recently on the Superior National Forest in Duluth.

MNTWS Chapter Activities

Region 2 BOD. Sub-committee to organize 2016 Summer Workshop

Professional/Personal Interests

Retirement planning, hiking, hunting, natural history and hanging out with my grandchildren.

Personal Statement

During the past 40 years I've witnessed the remarkable loss of wildlands from the PNW to northern MN from a variety of factors. To the extent I can I want to do my part to influence this rate of loss through involvement with the MN Chapter of TWS.



Nominations (continued)

Board Member At Large

Phil Doll

Education

B.S. Natural Resources Management;
2005; University of MN, Crookston

Present Position

Local Technical Team Support Specialist;
MN DNR; Detroit Lakes, MN;
March, 2016 - present

MNTWS Chapter Activities

Past member

Professional/Personal Interests

I've spent the bulk of my career working with private landowners to restore and protect wetlands and prairies in West Central and Northwestern Minnesota. Past experiences include working for USFWS and their Partners for Fish & Wildlife Program, and then nearly 10 years working on RIM-WRP easements with the NRCS, MN BWSR, and local SWCD's while employed by the MN Waterfowl Association and later Ducks Unlimited. Outside of work and family, which includes my wife and three young boys, my hobbies comprise of hunting, fishing, homebrewing, and the occasional game of golf.

Personal Statement

I'm eager to have an opportunity to expand my knowledge and work with other passionate conservation minds within the Minnesota Chapter of TWS. Good communication, collaboration, and cooperation are more important than ever in facing the many challenges we are presented with across the ever changing landscape of Minnesota and beyond, and I hope that my skills and experiences can be of benefit to the Minnesota Chapter.



Nominations (continued)

Board Member At Large

Steven Hogg

Education

University of Alberta, Edmonton Alberta. May 2004. Bachelor of Science in Environmental and Conservation Sciences
The Northern Alberta Institute Of Technology, Edmonton Alberta. May 2002. Associates Degree in Biological Sciences – Renewable Resources
Red Deer College, Red Deer Alberta. May 2001. 1st year of Associates Degree

Present Position

Currently I work as the Wildlife Specialist for Three Rivers Park District, I have had the honor of serving the wildlife section for 9 years at the Park District. The Park District is a west metro based Park system that owns and operates 27,000 acres of Land. My job duties within the year include, deer management, prairie management, habitat surveys, game and non-game surveys, and wetland management. I love what I do because of the variety of work as well as the people that I work with.

MNTWS Chapter Activities

The Wildlife Society has been a major part of my career at Three Rivers starting with being able to attend the state winter meetings since I started in 2008. The opportunity to network with others during these meeting has been instrumental in my development as a biologist. From a national level, status as a Certified Wildlife Biologist was earned in 2015.

Professional/Personal Interests

My kids regularly fish with me and this is incredibly enjoyable. I also think it is important because fishing is the activity that lead to my love for the natural world. Each season I participate in al-

most every form of hunting, trapping and fishing and this is a huge part of my life. Not to mention, it also fills our family freezer. I consider myself a birder and I especially enjoy watching waterfowl. Living on a small acreage allows my family keep a few animals while also allowing my kids to spend time in the woods right out our backdoor.

Personal Statement

Growing up on a farm you realize at a young age how important land is. By working close to the land I developed an appreciation and curiosity for all things natural. I have learned through my years as a professional that one person can never do it all, we are all a team! I am proud to be a member of The Wildlife Society and would love to serve as a Board member at large for a team dedicated to the conservation of our natural world.



Nominations (continued)

Board Member At Large

Lindsey Messinger

Education

B.A. Zoology & Environmental Studies (double major), 2006, Ohio Wesleyan University
Academic Certificate of Advanced Study in Geographic Information Systems, 2010, University of

Denver

M.S. Geographic Information Science, 2012, University of Denver

M.S. Natural Resource Sciences, Wildlife Ecology, 2015, Nebraska Cooperative Fish and Wildlife Research Unit, University of Nebraska—Lincoln

Present Position

Natural Resource Specialist, Intermediate (Wildlife Research Biologist), Minnesota DNR, Madelia, MN (2016-present)

MNTWS Chapter Activities

As a new resident of Minnesota, I have not been involved (yet) in any MNTWS chapter activities. However, I have been a member of TWS since 2011 and have been involved at several different levels of TWS over the past several years. I was a member of the 2015 Leadership Institute Class and attended the annual conference in Winnipeg as part of that training. I have also served as Education and Information Committee Chair with the Nebraska TWS chapter and as Secretary for the Early Career Professional Working Group. Currently, I serve as Board Member at Large with the Central Mountains and Plains TWS Section (2015-2017) and as the Central Mountains and Plains representative on the Editorial Advisory Board for The Wildlife Professional. I also serve on the COWCH committee at the parent society level.

Professional/Personal Interests

My professional career has primarily focused on upland game bird conservation, including habitat management and hunting effects on wild ring-necked pheasants. I also have professional experience coordinating a state-wide effort assessing



hunter use of public access lands in Nebraska with the goal of improving and providing additional opportunities for hunters. My professional interests are in wildlife research and using sound science to make wildlife and habitat management decisions. Personally, I enjoy hunting, fishing, hiking, and spending time with my 2 ½ old German Shorthair Pointer, Porter.

Personal Statement

Although not actively involved with The Wildlife Society until the beginning of my graduate work as an early career professional, I have quickly realized the value of TWS in promoting and pushing our field forward. I am fortunate enough to have been a part of TWS training programs like the Leadership Institute and to have served at various levels in the organization, getting a taste of the impact TWS makes across North America and getting to know the dedicated and passionate individuals that ARE our society. I would be honored to serve as board member at large with the Minnesota TWS chapter and get to know and work with the passionate individuals doing great work for wildlife and habitat in my new home of Minnesota!

Nominations (continued)

Board Member At Large

Mike Schrage

Education

B.S. Wildlife Resources, University of Idaho
M.S. Wildlife Management, Virginia Tech

Present Position

Wildlife Biologist, Fond du Lac Band of Lake Superior Chippewa

MNTWS Chapter Activities

I've been a member of TWS and MNTWS for 20+ years and attend national and state meetings when I can.

Professional/Personal Interests

In my ideal professional world I would spend all my time in the field doing grouse drumming counts, filing notches on wood turtles and riding around in helicopters counting moose. I've also enjoyed spending time on elk restoration and wolf research projects the last couple of years. As the only wildlife biologist for the Fond du Lac Band, I get a lot of "other duties as assigned" responsibilities including managing tribal hunting and trapping seasons, serving as a liaison with state and federal agencies on issues important to wildlife and treaty rights, and identifying serpents brought to our office in mayonnaise jars. I live in Duluth with my wife Jen, a standard poodle and 2 cats (and yes, they are ecologically pc indoor cats). Last year I nuked and rototilled a big chunk of my backyard and converted it to a pollinator garden. The only Netflix series I've had the patience to binge watch were Firefly and The Last Kingdom and the last good book I read was Ashley's War.

Personal Statement

I would look forward to the opportunity to represent you as an at-large representative on MNTWS's board. My goal would be for MNTWS to keep and enhance its relevance as a source of professional information, training and networking. I believe MNTWS has a valuable role to play on natural resource issues in Minnesota by bringing scientific and professional credibility to the table.



Regional Reports - News from the Field

Region I— Kyle Arola



News from the Northwest

Waterfowl- It was a good year for those that participated in the 2016 waterfowl season on Thief Lake. With water levels near target, boat access throughout the lake was good. Hunters averaged 1.87 ducks per hunter per day for the season, which is above the long-term average. The top three species harvested throughout the season were ring-necks, redheads and blue-winged teal. Years with normal to deeper than average water levels favor divers species, whereas shallow conditions (like those in 2012) yield more dabbling species. Hunter participation on the lake was the highest it has been since 1997.

It was another year of poor ice-making weather all the way into December. Both the Crookston and Thief Lake areas had Canada geese still roosting and feeding through early December. Crookston completed a major brush mowing project this fall despite the extreme wetness in September.

Nongame Wildlife Program in Northwestern Minnesota

Nongame Wildlife Program staff have been quite busy in 2016 with efforts to protect, promote and enhance Minnesota's nongame resources. Here are just a few of our activities from the past year. Numerous presentations to citizens on topics such as landscaping for pollinators, wildlife on your lake,

salamanders, and managing wetland habitats for rare species.

A variety of surveys including common tern surveys on Lake of the Woods, water bird surveys at the North Ottawa Impoundment, a man-made flood damage reduction impoundment near Tintah, MN, and butterfly and tiger beetle surveys at the Badoura Jack Pine Woodland Scientific and Natural Area.

Coordination of the annual Minnesota Loon Monitoring Program, where citizens have been monitoring loons for over 20 years on pre-identified lakes to assess the loon population! Nongame Wildlife Program works with wildlife species that are not

hunted, fished or trapped, including birds, bees, butterflies, frogs, bats and many more! It is a citizen-funded program, where the majority of funding comes from donations provided on tax forms (either look for the

“Nongame Fund” on your tax forms). Please help us continue this important work in Minnesota by making a tax-deductible contribution today.



Festive Tiger Beetle

Regional Reports (continued)



Clouded Sulphur butterfly on red clover



Common Buckeye butterfly

USFWS and MNDNR - Comings and Goings

Ross Hier retired from the Section of Wildlife on 13 Dec 2016; after 35 years with 28 of those being in Crookston and the remainder at the Wetland Wildlife Research Group in Bemidji. At this time, the Crookston Area Office will be further short-staffed to one person. The Area has been short one staff member since Terry Wolfe's retirement in 2012. It is safe to say that the Section of Wildlife will be sad to see him go!



The Nature Conservancy Minnesota/South Dakota/North Dakota Chapter recently welcomed a new face to their team. Lindsey Reinarz joined the Tri-State chapter in October as the new Land Protection Specialist stationed in Glyndon, Minnesota. The majority of her focus will be in northwestern Minnesota working to protect high priority lands. Lindsey, originally from Nebraska and very familiar with Tallgrass Prairies, has spent the last 5+ years in the Ohio Chapter of TNC working on a variety of tasks from project management and



Regional Reports (continued)

prescribed fire to private lands outreach, partnership coordinating and social media for a large consortium of conservation organizations working to improve protection and conservation of the Oak Openings Region of NW Ohio and SE Michigan. Feel free to reach out to her with any leads or just to introduce yourself. Ireinarz@tnc.org 218-498-2679 ext. 106

Region 2— No Report

Region 3— No Report

Region 4— No Report

Region 5— No Report

New Detroit Lakes WMD Staff Member: Darren Wheeling is a new arrival to the Detroit Lakes Wetland Management District serving as a Wildlife Refuge Specialist. Prior to moving to Minnesota, he has worked at the Devils Lake Wetland Management District, Bismarck Habitat and Population Evaluation Team (HAPET) office and, most recently, Crosby Wetland Management District in North Dakota. Wheeling enjoys the diversity of work on Wetland Management Districts that allow for landscape and holistic conservation efforts. When he's not working, Wheeling enjoys tinkering in his garage, remodel projects, bird hunting with his lab Gauge, trapping, snaring, calling coyotes, putting up fur, ice fishing, hand-loading, curling and spending time with his wife and two daughters. Wheeling received his A.S. from Minnesota State University-Bottineau and a B.S. from South Dakota State University.

Region 6— No Report

Departure of Deputy Project Leader Stacy Salvevold: At the end of summer, we said goodbye to Deputy Project Leader Stacy Salvevold. Stacy served nearly four years as the Deputy, overseeing the District's field operations and more. Stacy remains with the US Fish and Wildlife Service as the Supervisory Realty Specialist in the Fergus Falls Wetland Acquisition Office.

Regional Reports (continued)

Farewell to Rich Olsen

Please join me in wishing a fond farewell to Rich Olsen. His last day in the office will be Friday, December 16th. Rich will be joining his family who moved to Estonia earlier this fall. He will be taking on the role of innkeeper, livestock farmer, and Christmas tree wrangler while his wife teaches. The family will be living in one of the more scenic national parks in the country.

Rich is currently our chapter's Past-President. When Rich was the chapter's President-elect in 2014 he took a lead role in co-organizing the 2015 annual meeting that was held in conjunction with the WI chapter of TWS in Duluth. That meeting was a spectacular success and provided us with a great opportunity to network with our WI conservation colleagues.

Rich has been working for the MN DNR Prairie Habitat Program for the past year as the Westcentral Minnesota Prairie Team Support Specialist. His work focused on the Working Lands Initiative and coordinating efforts of the Prairie Plan Local Technical Teams.

Before that, Rich was the Assistant Area Wildlife Manager in Glenwood working with Kevin Kotts beginning in 2006. Kevin states that Rich was instrumental in some of the DNR's early grazing projects, both with cattle and goats (buckthorn control). He was also innovative with cover cropping and diverse seedings in food plots. Kevin said it was always difficult to get a yes/no answer from him, because most answers were a well-reasoned and thought-out 'it depends'. I have had the same pleasant experience. Rich was instrumental with County Board approval of some acquisitions in the Glenwood area.

Thanks to Rich for all he's done for Minnesota's wildlife and their habitats, and for all he's done for the Minnesota Chapter of The Wildlife Society.

Greg Hoch
Prairie Habitat Team Supervisor
MN Department of Natural Resources (DNR)
500 Lafayette Rd
St Paul MN 55155
[651-259-5230](tel:651-259-5230)



Student Chapter Reports

Natural Resources Club at Central Lakes College update article for MN TWS

Once again the Natural Resources (NR) Club at Central Lakes College (CLC) has hit the ground running this fall semester. The NR Club has a reputation for having some of the highest volunteer hours of all CLC clubs. This fall the NR Club has already volunteered for the Morrison County Pheasants Forever Banquet in Little Falls, the Morrison County Minnesota Deer Hunters Association (MDHA) banquet, staffed the MN Darkhouse & Angling Association banquet, began a Legacy project to improve the Mississippi walking trail, staffed both weekends of the annual Camp Ripley Public Archery Hunt, staffed the Governor's Deer Opener at Breezy Point Resort, helped staff the Chronic Wasting Disease (CWD) study with the Minnesota DNR in Southern MN, and bud-capped over 60 acres of white pines for Crow Wing County near Crosslake. Our NR Club volunteers also helped process over a thousand deer hides with the Minnesota Deer Hunter's Association (MDHA) – Brainerd Chapter.

A group of students also made the trek to Duluth to observe migratory birds at Hawk Ridge for a Saturday. Students who attended said it is a great way to practice their bird ID abilities and have the opportunity to see many species they normally wouldn't observe.

The NR Club is taking a much larger role this year in staffing the Camp Ripley Public Archery Hunt for white-tailed deer. This year the area wildlife manager relied on the NR Club volunteers more than in the past due to budget reasons. This volunteer detail is hardly considered work to most of the volunteers. Many of the Conservation Officers and wildlife managers whip up their best wild game dishes to share with everyone who shows up to help. Some of the dishes this year included venison chili, pheasant stew, and bear sticks.

According to Dr. Faber, the Club's advisor, in the thirteen years that he has been advising, never has he witnessed such a busy semester in terms of activities. Since the first week of school, NR club members were stretched as far as they could in order to fulfill all of the commitments on the agenda. As a result, the NR club is doubling down on its recruiting efforts for the next semester.

More events on the calendar for the NR Club include attending the MN Chapter of The Wildlife Society's (TWS) annual conference. Many of the students who volunteered last year are also looking forward to the MSGS brush cut later this winter, even though it is many months away.

New this year at the NR Club meetings is the Braggin' Board which gives NR Club members a chance to share a picture and a story with the club. We have had submissions ranging from monster muskies, big bucks, ring-billed gulls, and everything in between.

Overall, the NR club now has a few weeks to rearm, refit, and resupply following a fast-paced fall semester and get ready for next year. Next semester, students will be looking for and applying to summer internships required for graduation. But if you ask many of the students that did summer internships last year, these are by far the highlights of the Natural Resources Program at Central Lakes College.

Student Reports (continued)

TWS Student Relations Committee Update: 9/30/16

Now that the busy summer is behind us the Student Relations Committee (SRC) is gearing up for the next annual meeting and student professional development grant periods. At the end of August the student professional development grant officially completed its first grant period. The recipient of the award was U of M PHD student Eric Walberg. He presented his paper on "Factors Impacting Hunter Access to Private Lands in Southeastern MN" at the Wildlife Society Annual Conference in Raleigh NC this year. The student professional development grant also moved from two grant periods a year to now **three grant periods** a year. The **new deadlines** for grant applications will be December 1st, May 1st, and August 1st of every year. These grants can be used for any student professional development opportunity, so please check out the TWS webpage if you think you and or your student group would be interested!

I would also like to take the time to officially introduce the 5 committee members who make up the SRC. Kyle Arola; MN DNR Thief Lake Assistant Area Wildlife Manager, and the Region 1 rep for MN TWS. Lindsey Shartell; MN DNR Forest Habitat Assessment Biologist, and MN TWS's Webmaster. Thom Soule; retired MN DNR employee, and Chair of the MN TWS Awards Committee. Bill Severud; PHD Student at the U of M Twin Cities, and the Region 6 rep for MN TWS. And myself, Jennifer DuBay; MN DNR Shallow Lakes Program Specialist, and Chair of MN TWS SRC. All of our committee members, including our president, Stephen Winter, have been instrumental in getting this committee up and running again, and implementing the new student professional development grant.

Activities that will be open to students at the MN TWS Annual conference are the student professional mixer, paper & poster presentation competition, student quiz bowl, and the student leader's breakfast. Please contact me at dubay013@umn.edu if you have any questions about student relations in MN TWS or the student professional development grant.



Student Reports (continued)

Northeast Section of TWS's Wildlife Field Course- LaRysa Nelson, University of Minnesota Crookston

This past May, I took yet another great adventure to unfamiliar lands. After around a 30 hour train ride to Castleton, Vermont I arrived at my destination: the Northeast Section of The Wildlife Society's Wildlife Field Course. The course is designed to give students in Wildlife Biology, Environmental Science, Zoology, Forestry, or other natural resource majors more field experience to help them prepare for their future employment. The field course was run by Dr. John McDonald and Bill Healy. Many other biologists from across the region also volunteered their time to teach us about how they do their jobs and how they got to be where they are today.

This being the first time I have ever been east of Wisconsin, I was both excited and very nervous. I grew up in the suburbs north of Minneapolis and I am currently going to school at the University of Minnesota Crookston. So, traveling to the Green Mountain State was going to be a very new experience for me.

During our first day we went over the different tasks we would be completing over the next two weeks. The first week consisted of instructions on wildlife and habitat sampling techniques, species identification, and getting to know the surrounding natural communities. I was very surprised to notice that Vermont has a very similar habitat structure to Minnesota (minus the mountains of course) and a lot of the things I had already learned in my classes back home I could use here as well.



We would be spending a majority of our time during the second week at Bird Mountain WMA demonstrating the skills we learned the first week. On Bird Mountain we would be split into five groups. Each group is to create 1000 meter transect lines where we conducted small mammal surveys, bird point counts, reptile and amphibian counts, and habitat samplings at 100 meter intervals over the course of three days. At the end of the second week we compiled all the data from each group, made connections to each transect and to the past years data, and then presented it. By presenting this data we were able to show the knowledge we had gained over the duration of the field

Student Reports (continued)

course.

We also got instruction and practice in activities that we didn't use on our transects but were also very cool and helpful. The activities included fish sampling, radio telemetry, trapping and fur-bearer education, hunter education (including shotgun shooting), ProjectWILD certification, and dart gun and rocket net demo. We also had a visit from Dave Nelson, the editor of New York Conservationist, where he explained the importance of outdoor journalism.



One of the main things I am told by my professors is that I need to have experience to succeed in this profession. When I found out about this field course, the experience is the first thing I thought of. Being in a new place with new people and interacting with all the professionals, I have gained so much experience that I'm not sure I could have had as a second year college student if I had not gone through this course.

Lastly, I'd like to thank the MN chapter of The Wildlife Society for assisting in my travel to Vermont. I would recommend this course to anyone interested and if you have any questions you can contact John (twsmcdonald@gmail.com), myself (nels8646@crk.umn.edu), or visit the webpage (<http://wildlife.org/ne-section/about/student-field-course/>).

Student Reports (continued)

I would like to give a special thanks to all the professionals that took time to come out and help us:

John McDonald- Lead Instructor

Bill Healy- Lead Instructor

Mike Fishman- Keeping a Field Notebook and Selecting Field Gear, Map and Compass

Sarah Wilkinson- Map and Compass, GPS

Todd Olanyk- Map and Compass, GPS

Randy Dettmers- Bird Sampling

Mitch Hartley- Bird Sampling

Shawn Good- Fish Sampling

Eric Sorenson- Understanding Natural Communities

Ken MacKenzie- Radio Telemetry

Dan Clark- Radio Telemetry

Valorie Titus- Herp Samplings, Hunter Education

Dave Nelson- editor NY Conservationist

Tom Decker- Trapping and furbearer education

Chris Dwyer- Trapping and furbearer education

John Organ- Trapping and furbearer education

Herb Bergquist- Trapping and furbearer education

Chris Bernier- Trapping and furbearer education

Randy Hazard- Trapping and furbearer education

Alison Thomas- ProjectWILD

Walt Cottrell- Chemical Immobilization and Wildlife Disease

Justin Vreeland- Dart Gun and Rocket Net Demo

Emily Thomas- Birding and transect work



Student Reports (continued)

To whom it may concern,

I was recently awarded the Student Professional Development Grant, which helped me attend The Wildlife Society annual conference in Raleigh, North Carolina. Attending this conference was a great experience for me as this was my first time attending the TWS annual conference, along with providing me the opportunity to present my graduate research. I am a Ph.D. student at the University of Minnesota researching landowner attitudes toward elk and elk management in northwest Minnesota. Attending the conference provided me with an opportunity to learn techniques and findings from other studies that can be applied to my future research, along with the networking opportunities to meet other professionals and students in wildlife management. During the conference, my favorite presentation was a plenary that discussed the question “Is sustainable use of wildlife sustainable?” The speakers discussed sustainable wildlife management within the public and private realms of conservation, public attitudes and beliefs, and raised the issue as a call to action. Overall, attending this conference provided me with opportunities that would not have been possible through other venues because I was able to connect with professionals researching similar topics from other areas of the country. I am grateful for the support of The Wildlife Society chapter of Minnesota and encourage other students to consider attending future TWS annual conferences.

Sincerely,
Eric Walberg

Student Reports (continued)

MNDNR Wildlife Internships

The Minnesota DNR – Shallow Lakes Program is planning to hire student interns for the 2017 field season to assist with surveying shallow lakes and assessing waterfowl habitat throughout Minnesota. The complete announcement and application instructions will be posted in early to mid-January on the State of Minnesota jobs website (<https://mn.gov/mmb/careers/search-for-jobs/>). Interns will likely be stationed out of the Glenwood and Madelia DNR offices. For more information, contact Kati Miller (kati.miller@state.mn.us).

Summer Workshop Recap

Minnesota Chapter Hosts Wetlands Workshop to Record-setting Audience

Bill Severud

Attendees from throughout the state representing a variety of groups came together on 20 September in Brainerd, MN to hear practical methods on managing wetland habitats as part of the Minnesota Chapter of The Wildlife Society's annual workshop. This year's workshop, entitled "Minnesota's Wetland Habitats: Managing Across a Continuum," was held at Cragun's Resort on Gull Lake. Over 120 participants from 45 different organizations listened to 10 speakers discussing wetland habitat management practices. Attendance levels broke unofficial records for a state chapter workshop. Speakers from the University of Minnesota and the Minnesota Department of Natural Resources spoke on topics ranging from the status of Minnesota's wetlands to wetland restoration, from wild rice ecology to lowland conifer forests.

Each summer, the Minnesota Chapter of TWS puts on a workshop designed to provide practical knowledge and skills to wildlife practitioners. This objective was achieved as speakers were asked and came through in presenting "Management Implications" as part of their talks. A roundtable forum occurred following the presentations where the day's speakers fielded a variety of questions from the audience. This year's workshop was sponsored by the North Central Section of TWS, Audubon Minnesota, and The Nature Conservancy. Workshop organizers hope to have all presentations posted on the state chapter's website soon. In addition to listening to speakers, attendees received handouts, including the newly published "Cattail Management in the Northern Great Plains" and guidance for incorporating management for wildlife diversity including rare species. An optional field demonstration of an aquatic vegetation harvester, excavator, and dredger was held the day following the workshop.

Organizers were surprised by the number of registrants. "We originally expected maybe 40 attendees," said Lisa Gelvin-Innvaer, MNDNR Nongame Wildlife Program, one of the organizing committee members. "I'm surprised and happy that we drew on such a wide breadth of organizations," said Bill Severud, graduate student at UMN, another organizer. In addition to many divisions from MNDNR, there were also attendees from Soil, Water Conservation Districts, the Board of Water Soil Resources, and federal agencies US Fish and Wildlife Service, US Forest Service, National Park Service, and Natural Resources Conservation Service. Parks, cities, private consultants, and students representing the University of Minnesota, Bemidji State University, and University of North Dakota were also present. "No single organization has all the resources, expertise or authority to accomplish all the needed wetland management and conservation. So we were trying to foster cross-pollination of ideas, networking, and additional collaboration," says Gelvin-Innvaer. Bruce Anderson, MNDNR and third member of the committee, was happy that things went off without a glitch.

"We realized that we were trying to reach a broad audience, but we think that any one of these topics could make a great, more-focused workshop in the future," said Anderson. For instance, MNTWS has a wetlands committee which planted the idea for this workshop. They may plan to capitalize on the interest and host future workshops with more hands-on activities on focused topics. Reception of the workshop has thus far been positive, with one attendee saying "It was a great workshop and well worth the early morning drive." A follow-up survey will be sent to participants soon to gauge satisfaction and look for ways future workshops may be improved.

"It's great to see that there was so much knowledge being shared and that many different groups were coming together to hear it," Gelvin-Innvaer concluded.

Summer Workshop (continued)

Caption 1: Over 120 attendees listened to presenters on a variety of wetlands-related issues.



Caption 2: Presenters discussing questions from the audience as a panel.



Voices from the Swamp

Voices from the Swamp II – Take a Deep Breadth by Ray Norrgard

It is fashionable these days for some segments of our society to denigrate and ridicule public servants. This is perhaps particularly true for those with responsibilities for our natural environment. During a similar time more than two decades ago, Ralph Morgenweck, then with the Fish and Wildlife Service regional office, distributed a quote in our newsletter from John F. Kennedy. It was a passage from the President Kennedy's 1961 State of the Union address. The President told a joint session of Congress and the American public, "Let it be clear that this administration recognizes the value of dissent and daring - that we greet healthy controversy as the hallmark of healthy change. Let public service be a proud and lively career. And let every man and woman who works in any area of ... government, in any branch, at any level, be able to say with pride and honor in future years, 'I served my country in its hour of need'." I



Ralph went on to observe that we have had great statesman in the past and we will in the future. I, and others of my generation, have seen the political pendulum swing several times. Indeed, it sometimes seems that just when we are making some real progress we get caught in a backlash and are forced to regroup. Whether we "oldsters" will have enough time to experience the next swing in momentum is up for grabs.

In the last four decades I have witnessed enough environmental catastrophes to nearly turn me into a life-long cynic. But they have been balanced by some pretty spectacular successes. When DDT was banned in 1972, few would have predicted the amazing comeback of bald eagles and other top avian predators. Canada goose populations at nuisance levels? My father was absolutely thrilled to see any geese and that only occurred during migration. My granddaughters were recently shocked to learn that the trumpeter swans they see daily all year were once endangered. The resurgence of wolves, deer, wild turkeys, otter, muskies, lake trout and many other species in Minnesota have all been remarkable success stories when measured against my college days.

We have learned that the only constant is change. The environmental and economic disaster of "big ag" farm policies in the 1970s led to the Reinvest In Minnesota Program and the 1985 Farm Bill. And while the current agricultural/industrial complex has led to heart rending farm policies, there are glimmers of hope that I believe will someday blossom into a new round of conservation.

So take a deep breath. Dig in and prepare for the worst but at the same time keep your eyes and ears open for possibilities. The worst and best of environmental policies have occurred under either major party. And while we take our share of "hits" on specific policies, wildlife professionals in Minnesota have really remarkable general support for our efforts. That base of financial and political support gives us a little more breathing room than many others enjoy.

Voices from the Swamp (continued)

So whether you work for a public agency, an educational institution, a nonprofit organization, a for-profit company that provides a public service, or as a volunteer, take pride in what you do. It may be keeping the doors open and the lights on, researching the mysteries, responding to emergencies, or putting wildlife habitat on the ground. Your commitment makes this world, our world, a better place for all of us.

I The last line was altered slightly to be more inclusive. The original was spoken "Let every public servant know, whether his post is high or low, that a man's rank and reputation in this Administration will be determined by the size of the job he does, and not by the size of his staff, his office or his budget. Let it be clear that this Administration recognizes the value of dissent and daring—that we greet healthy controversy as the hallmark of healthy change. Let the public service be a proud and lively career. And let every man and woman who works in any area of our national government, in any branch, at any level, be able to say with pride and with honor in future years: "I served the United States government in that hour of our nation's need." Read more, especially the 2nd paragraph of article V: [State of the Union Address: John F. Kennedy \(January 30, 1961\) | Infoplease.com](http://www.infoplease.com/t/hist/state-of-the-union/174.html#ixzz2sk96CXY5) <http://www.infoplease.com/t/hist/state-of-the-union/174.html#ixzz2sk96CXY5>

Other Items...



MINNESOTA SHARP-TAILED GROUSE SOCIETY

1. This past fall, the MSGS was successful at applying for and receiving significant Expedited Conservation Partnership Legacy Grant funding. Six Projects ear-marked to restore and enhance Sharptail habitats on State lands will begin this winter in the following Wildlife Work Areas.
 - Bemidji (Clearwater County) – \$42,400
 - Cambridge (Kanabec County) – \$50,000
 - Cloquet (Pine County) – \$50,000
 - International Falls (Koochiching County) – \$25,000
 - Tower (St. Louis County) – \$50,000
 - Baudette (Lake of the Woods County) – \$35,000

2. The MSGS is celebrating 30 YEARS OF CONSERVATION the weekend of April 28th - 30th at St. Croix State Park – Norway Point group center. We are planning a Banquet, early morning field trips, raffles, presentations, networking and Board Member elections.

3. We invite any of you interested in openlands/brushlands species and habitat management to become involved in our organization through MSGS membership, Board and/or committee positions, attending our Celebration. See our website (<http://www.sharptails.org/>) for further information and Celebration updates.

Sincerely, yours for the Firebirds!

David C. Pauly

David C. Pauly

MSGS – Life Member / VP / Habitat Projects Coordinator

Retired MNDNR Area Wildlife Supervisor & Moose Project Field Biologist

320.279.1777

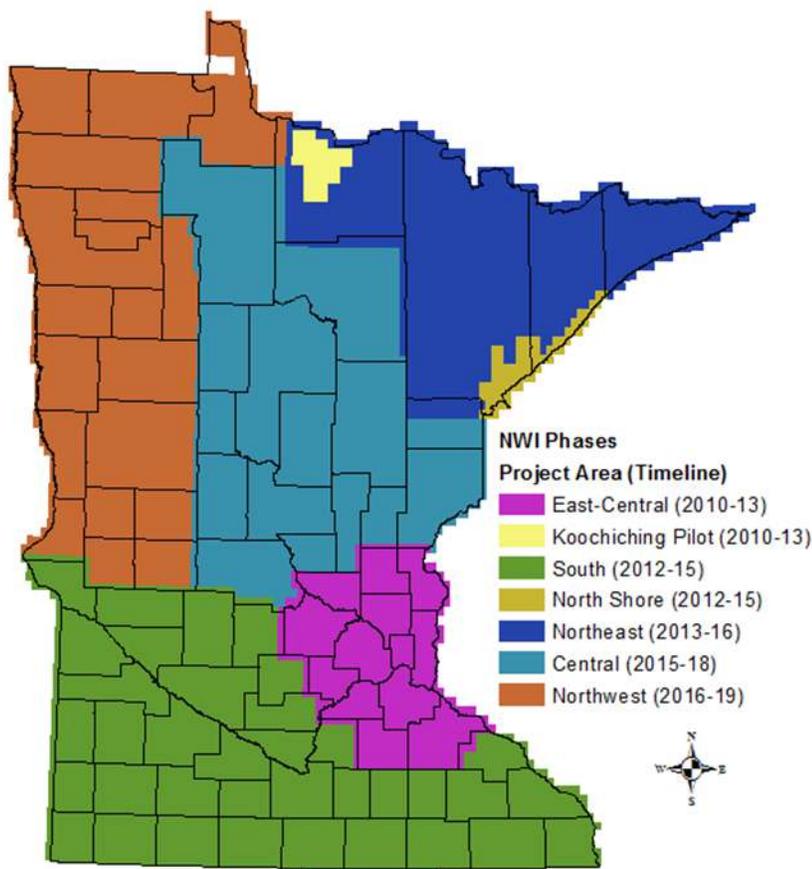
Griz@scicable.net

“We are not placed on this Earth to be curators of a museum, Instead to be stewards of a green and bountiful garden” (?? Author)

Other Items... (continued)

National Wetlands Inventory Update Completed for NE Minnesota

Ducks Unlimited, working under contract for MnDNR, has delivered the final updated NWI map data for northeastern Minnesota. The data have been validated and posted to the Minnesota Geospatial Commons (<https://gisdata.mn.gov/>) and can also be displayed on the MnDNR's online map viewer at: http://www.dnr.state.mn.us/eco/wetlands/nwi_proj.html. This marks the completion of the 4th phase of the statewide NWI update project. Updated map data are now available for all of the state except for the Central and Northwest areas (see figure). Ducks Unlimited is currently working on the Central region update and a contract has been awarded to GeoSpatial Services (St. Mary's University) to begin work on the Northwest Region. The NWI update project is funded by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative Citizen Commission on Minnesota Resources (LCCMR). Contacts: Steve Kloiber, Wetlands Mapping and Monitoring Coordinator, MNIT, steve.kloiber@state.mn.us, or Doug Norris, Wetlands Program Coordinator, MnDNR, doug.norris@state.mn.us.



Other Items...



Please Report - Bats on Bridges

Minnesota Department of Transportation (MnDOT) is seeking reports of bats on bridges and culverts. Please send reports to Chris Smith, MnDOT wildlife ecologist, via e-mail at: Christopher.E.Smith@state.mn.us

Please include the location, date of observation, a short description (bat species if known), and images (if you have them). These reports will support an existing effort to survey transportation infrastructure for roosting bats in an effort to avoid and minimize the agency's impacts to Minnesota's imperiled bats.



Other Items... (continued)



U.S. Fish & Wildlife Service

Rusty Patched Bumble Bee

Bombus affinis

The U.S. Fish and Wildlife Service has proposed listing the rusty patched bumble bee (*Bombus affinis*) as endangered under the Endangered Species Act. Endangered species are animals and plants that are in danger of becoming extinct. Identifying, protecting and recovering endangered species is a primary objective of the U.S. Fish and Wildlife Service's endangered species program.

What is a rusty patched bumble bee?

Appearance: Rusty patched bumble bees live in colonies made up of a single queen and female workers. Males and new queens are produced in late summer. Queens are the largest sized bees in the colony, while workers are the smallest. All rusty patched bumble bees have entirely black heads, but only workers and males have a rusty reddish patch centrally located on the back, on the second abdominal segment.

Habitat: Historically, rusty patched bumble bees occupied grasslands and tallgrass prairies of the Upper Midwest and Northeast, many of which have been lost, degraded, or fragmented by conversion to other uses. This bumble bee needs areas that provide food (nectar and pollen from flowers), nesting sites (underground and abandoned rodent cavities or clumps of grasses above ground), and overwintering sites for



Illustrations of a rusty patched bumble bee queen (left), worker (center), and male (right) by Elaine Evans, *The Xerces Society*.



Photo courtesy of Christy Stewart

hibernating queens (undisturbed soil).

Reproduction: Rusty patched bumble bee colonies experience an annual cycle. In spring, a solitary queen finds a suitable nest site, collects nectar and pollen from flowers and begins laying eggs, which are fertilized by sperm she has stored since mating the previous fall. Workers hatch from these first eggs and the colony grows as workers collect food, defend the colony, and care for young. The queen remains within the nest and continues laying eggs. In late summer, new queens and males also hatch from eggs. Males disperse to mate with new queens from other colonies. At the end of the season the queen dies and only new queens go into diapause (a form of hibernation) over winter. The cycle begins again in spring.

Feeding Habits: Bumble bees gather pollen and nectar from a variety of

Why conserve rusty patched bumble bees?

As pollinators, rusty patched bumble bees contribute to our food security and the healthy functioning of our ecosystems. Bumble bees are keystone species in most ecosystems, necessary not only for native wildflower reproduction, but also for creating seeds and fruits that feed wildlife as diverse as songbirds and grizzly bears.

Bumble bees are among the most important pollinators of crops such as blueberries, cranberries, and clover and almost the only insect pollinators of tomatoes. Bumble bees are more effective pollinators than honey bees for some crops because of their ability to "buzz pollinate." The economic value of pollination services provided by native insects (mostly bees) is estimated at \$3 billion per year in the United States.

Other Items... (continued)

flowering plants. The rusty patched emerges early in spring and is one of the last species to go into hibernation. It needs a constant supply and diversity of flowers blooming throughout the colony's long life, April through September.

Range: Historically, the rusty patched bumble bee was broadly distributed across the eastern United States and Upper Midwest, from Maine in the U.S. and southern Quebec and Ontario in Canada, south to the northeast corner of Georgia, reaching west to the eastern edges of North and South Dakota. Its range included 28 states, the District of Columbia and 2 provinces in Canada. Since 2000, this bumble bee has been reported from only 12 states and 1 province: Illinois, Indiana, Maine, Maryland, Massachusetts, Minnesota, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, Wisconsin – and Ontario, Canada.

Why is the rusty patched bumble bee declining?

Habitat loss and degradation: Most of prairies and grasslands of the Upper Midwest and Northeast have been converted to monoculture farms or developed areas, such as cities and roads. Grasslands that remain tend to be small and isolated.

Intensive farming: Increases in farm size and technology advances improved the operating efficiency of farms but have led to practices that harm bumble bees, including increased use of pesticides, loss of crop diversity which results in flowering crops being available for only a short time, loss of hedgerows and the flowers that grew there, and loss of legume pastures.

Disease: Pathogens and parasites may pose a threat to rusty patched bumble bees, although their prevalence and effects in North American bumble bees are not well understood.

Pesticides: The rusty patched bumble bee may be vulnerable to pesticides used across its range. Pesticides are used widely on farms and in cities and have both lethal and sublethal toxic effects. Bumble bees can absorb toxins directly through their exoskeleton and through contaminated nectar and pollen. Rusty patched bumble bees nest in the ground and may be susceptible to pesticides that persist in agricultural soils, lawns and turf.

Global climate change: Climate changes that may significantly harm bumble bees include increased temperature and precipitation extremes, increased drought, early snow melt and late frost events. These changes may lead to more exposure to or susceptibility to disease, fewer flowering plants and places for the queen to hibernate, fewer nesting areas, less foraging due to high temperatures, and asynchronous flowering plant and bumble bee spring emergence.

What is being done to conserve rusty patched bumble bees?

U.S. Fish and Wildlife Service: Several Service programs work to assess, protect, and restore pollinators and their habitats. Also, the Service works with partners to recover endangered and threatened pollinators and pollinator-dependent plants. Concern about pollinator declines prompted formation of the North American Pollinator Protection Campaign, a collaboration of people dedicated to pollinator conservation and education. The Service has a Memorandum of Understanding with the Pollinator Partnership to work together on those goals. The Service is a natural collaborator because our mission is to work with others to conserve, fish, wildlife, and plants and their habitats.

Other Efforts: Trusts, conservancies, restoration groups and partnerships have begun supporting pollinator

initiatives and incorporating native plants that support bees and other pollinators into their current activities. For example, the USDA Natural Resource Conservation Service is working with landowners in Michigan, Minnesota, Montana, North Dakota, South Dakota, and Wisconsin to make bee-friendly conservation improvements to their land. Improvements include the practices of planting cover crops, wildflowers, or native grasses and improved management on grazing lands.

Research: Researchers are studying and monitoring the impacts of GMO crops and certain pesticides on pollinators. Efforts by citizen scientists and researchers to determine the status of declining bee species are underway throughout the U.S.

What can I do to help conserve the rusty patched bumble bee?

Garden: Grow a garden or add a flowering tree or shrub to your yard. Even small areas or containers on patios can provide nectar and pollen for native bees.

Native plants: Use native plants in your yard such as lupines, clovers, asters, bee balm and other mints and borage. Avoid invasive non-native plants and remove them if they invade your yard. For more information on attracting native pollinators, visit www.fws.gov/pollinators/pdfs/PollinatorBookletFinalrevWeb.pdf.

Natural landscapes: Foster natural landscapes. Many native bumble bees build their nests in undisturbed soil, abandoned rodent burrows or clumps of grass. Preserve unmowed, brushy areas and tolerate bumble bee nests when you find them. Reduce soil tillage and mowing where bumble bees might nest. Support natural areas in your community, county and state.

2016 Chapter Governing Board

Officers

President: Stephen Winter Stephen.winter@okstate.edu

President-Elect: Laurie Fairchild fair0053@umn.edu

Past President: Rich Olsen Richard.olsen@state.mn.us

Secretary: Matt Stasica matt.stasica@gmail.com

Treasurer: Kyle Daly kyle.okeefe.daly@gmail.com

Regional Representatives

Region 1: Kyle Arola kyle.arola@state.mn.us

Region 2: Bruce Anderson bruce.d.anderson@state.mn.us

Region 3: Mandy Uhrich mandyuhrich@hotmail.com

Region 4: Lisa Gelvin-Innvaer lagwild@hotmail.com

Region 5: Michelle Barrett barretm2@miamioh.edu

Region 6: Bill Severud seve0135@umn.edu

Committee Chairs

Audit: Gretchen Mehmel gmehmel@wiktel.com

Awards: Thom Soule souletp@bektel.com

COWCH: Andrew Tri andrew.n.tri@gmail.com

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The Minnesota Wildlifer is an electronic publication published quarterly by The Minnesota Chapter of The Wildlife Society. Newsletter items to be considered for publication should be sent to the Newsletter Editor by the following dates: March 01, June 01, September 01, and December 01. If you would like to contribute to the next newsletter please send an email to Bailey Petersen, Newsletter Editor at baileyjpetersen@gmail.com and write in the subject line "MN TWS newsletter submission". Previous editions of The Minnesota Wildlifer are available on our website.



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