

2021

Annual Report

Wisconsin Center for Wildlife



Wisconsin Center for Wildlife
College of Natural Resources
University of Wisconsin - Stevens Point



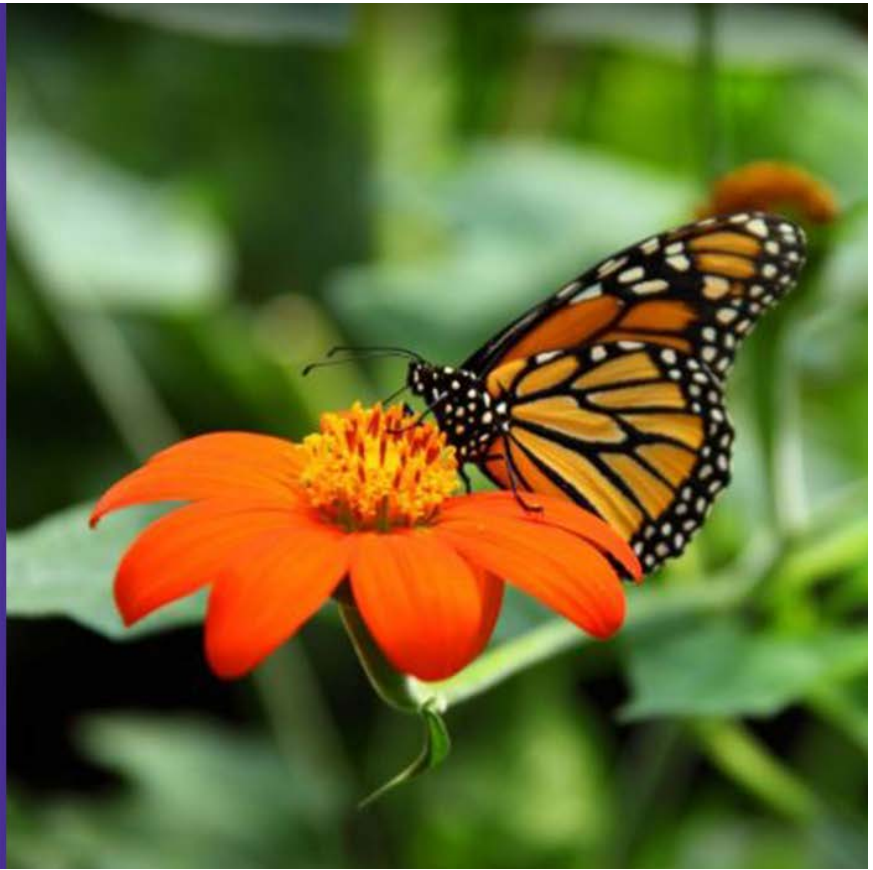
Extension

UNIVERSITY OF WISCONSIN-MADISON

Wisconsin Center for Wildlife

Mission

To engage students, landowners, professionals, and the public in sustainable wildlife management through research, education, and outreach



Goals

The Wisconsin Center for Wildlife works to achieve its mission through five primary goals:

- Increase public awareness and understanding of wildlife management
- Increase knowledge and skills of wildlife students and professionals
- Increase networking and engagement within the wildlife community
- Promote conservation of wildlife and their habitats
- Resolve human-wildlife conflicts.

Endowments

- Douglas R. Stephens Chair in Wildlife Endowment
- Kennedy-Grohne Chair in Waterfowl and Wetlands Conservation Endowment
- Gerald and Helen Stephens Professor in Wildlife Endowment
- The Douglas and Carol Federighi Graduate Assistantship

Douglas R. Stephens Chair in Wildlife Endowment

The Wisconsin Center for Wildlife (WCW) is supported primarily through an endowment established by Gerald and Helen Stephens of Peoria, Illinois. The Douglas R. Stephens Chair in Wildlife Endowment (2013) was created to honor the memory of their son, who graduated with a Bachelor of Science degree in Wildlife Management from UW-Stevens Point in 1991.

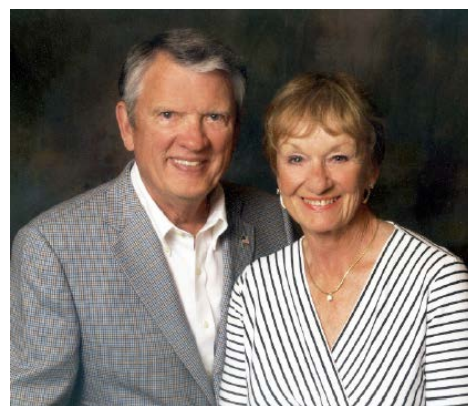
A top undergraduate student, Doug unexpectedly died only a few months after he graduated while working on black bear research in northern Wisconsin. A classmate described him as having "...a quiet leadership - the type of person who had never-ending inquiry, a quest to learn."

Two additional endowments established by Mr. and Mrs. Stephens also support the work of the WCW: the Gerald and Helen Stephens Professor in Wildlife Endowment (2017); and the Doug Stephens Wildlife Research Fellowship (2012).

Scott Hygnstrom acts as the Douglas R. Stephens Endowed Chair, while Jason Riddle serves as Gerald and Helen Stephens Professor of Wildlife, and mentors undergraduate research fellows.



Douglas Stephens (1991)



Gerald and Helen Stephens

Kennedy-Grohne Waterfowl and Wetlands Endowment

In 2015, UW-Stevens Point was awarded a \$2 million Kennedy-Grohne Endowment to support an Endowed Chair position. Ben Sedinger, Ph.D. has served in this role since 2019. These funds were invested by the UW-Stevens Point Foundation to support developing courses, graduate assistantships, undergraduate research fellows, and to match funds for grants and equipment related to waterfowl and wetlands conservation and research.

Special thanks to Ducks Unlimited for their assistance in securing the endowment.

As Kennedy-Grohne Endowed Chair, Ben Sedinger's mission is to advance waterfowl and wetland conservation by training the next generation of wildlife biologists in the theory and application of wetland and waterfowl ecology, conducting cutting edge research to answer interesting questions about waterfowl and wetland ecology, and forming partnerships with NGO's, state and federal agencies, and the general public.

Collaborators and Partners

The WCW collaborated or partnered with the following organizations to develop research projects, workshops, student opportunities, and more in 2021.

State and Federal Agencies

- UW-Madison Division of Extension
- Wisconsin Department of Natural Resources
- US Fish and Wildlife Service
- Necedah National Wildlife Refuge
- Yukon Delta National Wildlife Refuge
- Upper Mississippi National Wildlife and Fish Refuge
- US Forest Service
- US Geological Survey
- Natural Resources Conservation Service
- US Department of Agriculture Wildlife Services and National Wildlife Research Center

UW-Stevens Point Organizations

- Wisconsin Forestry Center
- Student Chapter of The Wildlife Society
- Becoming an Outdoors Woman
- Student Chapter of Ducks Unlimited

Non-Governmental Organizations

- Pheasants Forever
- Delta Waterfowl
- Ducks Unlimited
- Wisconsin Waterfowl Association
- National Ecological Observatory Network
- International Crane Foundation
- San Diego Zoo Wildlife Alliance Academy

Universities

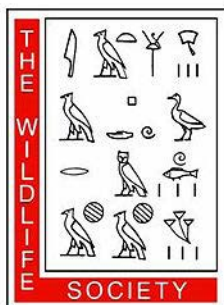
- Drake University
- Cornell University
- Southern Illinois University
- Kansas State University

Private Organizations

- Tau Consultants LTD
- National Wildlife Control Training Program

Professional Organizations

Professional organizations in which WCW Primaries or staff are officers or committee members



Invest in yourself, your wildlife community,
and the future of conservation.



Director's Corner

The year 2021 was one of highs and lows. The effects of the pandemic lingered; some were inconveniences such as occasional testing, vaccinations, and masking, while others were much more significant. I hope as a society, we can learn from the past two years so that we are better prepared for the next emerging infectious disease, environmental disaster, economic collapse, war, or other calamity that comes down the pike. All things considered, the Wisconsin Center for Wildlife (WCW) had another good year in 2021, and as always, it starts with people. The WCW now has a critical mass with Drs. Jason Riddle, Ben Sedinger, and Cady Sartini formally engaged in the WCW, who helped increase the scope and influence of the WCW here and abroad. In addition, we collaborate daily with our other colleagues in the Wildlife Discipline of the UWSP-CNR, including, Drs. Shelli Dubay, Marie Perkins, and Chris Yahnke. It is amazing how well we all get along. Our Friday afternoon faculty meetings are the stuff of legends. We truly are here to support each other at every turn. Jennifer Summers continued as our Program Development Specialist in 2021, managing programs on art, bats, and drones, as well as taking care of most of the administrative responsibilities for the faculty of the WCW. Believe me...the WCW wouldn't have hummed along as it did without Jennifer.

The WCW continues to attract incredibly talented students to assist with our various programs and projects. Brilyn Brecka served as a Teaching Assistant for WLDL 150 Living with Wildlife for four semesters and helped create content for and manage the WCW website. Jeffrey Edwards was a Teaching Assistant for WLDL 334/534 Ungulate Ecology and Management. Brady Roberts served as the Conference Coordinator for the UWSP Student Chapter of The Wildlife Society (TWS) and assisted the WCW in sending over two dozen students, both



virtually and in person, to national, regional, and state wildlife conferences. All three of these remarkable students were recognized with the UWSP Chancellor's Leadership Award and the prestigious Albertson Leadership Award! In addition, Noah Andexler, working as a student assistant, helped pilot the new Outdoor Skills and Safety Program for the WCW. He was recognized with the Aldo Leopold Undergraduate Scholarship by the Wisconsin Chapter of TWS. Last, but not least, Jaden Kerkhoff, Jar Xiong, and Ellen Peterson analyzed a 6-year data set on the occurrence, habitat use, and behavior of dragonflies in the Upper Mississippi River Valley and helped me write a Final Report for the US Fish and Wildlife Service. The remarkable efforts of these and many other students helped keep the WCW rolling along.

Director's Corner Continued

The pandemic brought many restrictions on travel and face-to-face meetings, so we had to manage business differently, but I think we effectively pivoted and found ways to get the job done. In 2021, we were tasked with hosting the 19th Wildlife Damage Management Conference, a professional meeting that typically draws around 150 participants from across the country. Rather than postponing the conference, we threw the dice, stepped out into the great unknown, and hosted it virtually. To my great pleasure, we featured three online plenary sessions, six technical sessions, drew a record 288 participants, and made over \$12,000 for all hosts, including the Wildlife Damage Management Working Group of TWS. As Treasurer of the Wisconsin Chapter of TWS, Jennifer was intimately involved in host their Annual Meeting in February 2021 and by all accounts, it was a very successful meeting. We also hosted three seminar series in 2021, including the CNR Spring Seminar Series that celebrated the 50th Anniversary of the CNR, the Daniel O. Trainer Seminar Series in fall that celebrated the 50th Anniversary of the UW-Stevens Point Student Chapter of TWS, and the Living with Wildlife Seminar Series that featured a variety of guest speakers, all online in a virtual world. By conservative estimate over 3,000 people participated in these seminars provided by 15 guest presenters, both live on-line and by viewing recordings that are available on the WCW website.

Another featured project has been a collaborative with Mike Demchik (UW-Stevens Point-Forestry), Haley Frater (UW-Stevens Point-CNR-Wisconsin Forestry Center), and others on a series of projects to promote forest management practices for wildlife on private and public lands in Wisconsin. We established ten demonstration areas across the state to illustrate active management practices and their outcomes. We

facilitated five workshops on timber marking for wildlife, cooperator collaborations, and managing for deer, ruffed grouse, and neotropical migrants. We also kicked off a certification program that recognizes experienced foresters and land managers who have gained sufficient training and skills in forest management for wildlife. Teamwork can lead to terrific results.

I feel the WCW has risen to meet the challenges of 2021 and continues to move the needle forward regarding wildlife and a land ethic. On a personal note, I was recognized as a Fellow of TWS in 2021, which is an honor I will always cherish. How's that for a high?!!! Be well.

Sincerely,



Director, UWSP-CNR-Wisconsin Center for Wildlife

WCW Primaries

The WCW is composed of four wildlife faculty, or “Primaries,” one staff member, and student employees. The WCW Primaries are wildlife faculty who are recipients of endowments or are involved in special wildlife research projects.



Scott Hygnstrom, Ph.D.
Douglas R. Stephens
Chair in Wildlife
Professor and Extension
Wildlife Specialist



Jason Riddle, Ph.D.
Gerald and Helen
Stephens
Professor of Wildlife



Ben Sedinger, Ph.D.
Kennedy-Grohne Chair in
Waterfowl and Wetlands
Conservation
Assistant Professor



Cady Sartini, Ph.D.
Associate Professor
Bear Research
Project Leader

Associated Staff



Jennifer Summers
Program Development
Specialist

Student Employees



Noah Andexler
Project Assistant



Jaden Kerkhoff
Project Assistant



Ellen Peterson
Project Assistant

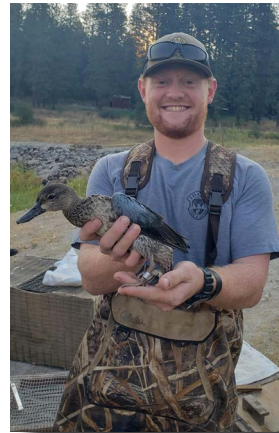


Jar Xiong
Project Assistant

Student Teaching Assistants



Brilyn Brecka
Wildlife 150
Teaching Assistant



Jeffery Edwards
Wildlife 344
Teaching Assistant

Increasing Public Knowledge About Natural Resources Management

Spring Seminar Series (Virtual)

Celebrating 50 Years of Excellence: UW-Stevens Point's College of Natural Resources

The College of Natural Resources turned 50! We helped celebrate with our 2021 Spring Seminar Series. This unique series featured six CNR Alumni, one from each CNR discipline, and our very own Dean Brian Sloss! Not only did each speaker represent a different discipline in the CNR (Wildlife, Fisheries, Natural Resources Management, Waste Management, Paper Science, and Forestry), but they each also graduated in different decades within the CNR's 50-year history. Speakers shared experiences they had while attending the CNR that helped them through their career. They also discussed how their respective disciplines have changed over the decades, and how they expect them to continue to change in the future.



2021 Spring Seminar Series
Celebrating 50 Years of Excellence:
UW-Stevens Point's College of Natural Resources

All Seminars are held at 5 p.m. via Zoom!
 Visit www.uwsp.edu/wcw for the access link and more information

February 11, 2021
Getting to the Point: A Triumph of Work Ethic
 James Heffalinger '86
 Wildlife Science Coordinator
 Arizona Game and Fish Department

February 18, 2021
The Journey from Britain to Wisconsin- It's Been Quite the Ride
 Justine Host '99
 Bureau Director of Fisheries Management
 Wisconsin Department of Natural Resources

February 25, 2021
Non-Profit Land Conservation Experiences and Opportunities
 Carrie (Walia) Rasmussen '02
 Land Trust Development Coordinator,
 Former Executive Director
 Northwoods Land Trust


March 4, 2021
My Journey from Waste Management to Urban Planning
 Shantanu Pai '13
 Assistant Sustainability Researcher, Interim Zero Waste Coordinator
 Illinois Sustainable Technology Center, University of Illinois

March 11, 2021
Adapting to Change: A Look into an Evolving Pulp and Paper Industry
 Omar Mullan '20
 Chemical Engineering, University of Wisconsin-Stevens Point

March 18, 2021
UWSP: A Stepping Stone Towards a Career
 Suzanne Beilfuss '88
 Industrial Forester
 Central Wisconsin Lumber

April 9, 2021
The College of Natural Resources at 50: Where Have We Been and Where Are We Going
 Brian Sloss, Ph.D.
 Dean of the College of Natural Resources, UW-Stevens Point

Wisconsin Center for Wildlife
 College of Natural Resources
 University of Wisconsin - Stevens Point
www.UWSP.edu/WCW



**Celebrating 50 Years
of the Student Chapter of
The Wildlife Society at UWSP**

Fall 2021 Daniel O. Trainer Seminar Series

All seminar recordings are available to view at www.uwsp.edu/wcw under the "Seminar Series" tab!

Daniel O. Trainer Wildlife Disease Fall Seminar Series

The UW-Stevens Point Student Chapter of The Wildlife Society also turned 50! The Student Chapter of TWS co-hosted the Fall 2021 Daniel O. Trainer Seminar Series, "Celebrating 50 Years of the Student Chapter of The Wildlife Society!"

This seminar series featured prominent alumni who had an important role in the Student Chapter of TWS during its 50 year history, and professionals for whom the Student TWS Chapter played an important role in developing their careers.

Increasing Public Knowledge About Natural Resources Management

Living With Wildlife Seminar Series Fall 2021

The Living with Wildlife (LWW) Seminar Series is part of the Wildlife 150 Course of the same name. Scott Hygnstrom and Cady Sartini co-instruct the Living with Wildlife course, which is designed for students across the UW-Stevens Point campus who want to learn more about wildlife.

Speakers in the Spring LWW seminar series included:

- **Scott Hygnstrom, Ph.D.** - ““Save Me from the Lion’s Mouth” Our Efforts to Promote Human-Wildlife Coexistence in Southern Africa.”
- **John Organ, Ph.D.** - “The North American Model of Wildlife Conservation: Origins, Meaning, and Purpose.”
- **Brilyn Brecka** - “Managing Grassland Habitat and Student Success at the Buena Vista Wildlife Area”
- **Adrian Wydeven** - “Living with Wolves in Wisconsin: from Endangered Species to Hunted Game.”

Presentations featured in the Fall LWW Seminar Series included:

- **Kent Van Horn.** - ““Habitat for Wetland Wildlife - A World of Change”
- **Colleen Offenbuttel** - “Black Bears: A Wildlife Success Story...but Now What?”

Recordings for **all** our Seminar Series are available to watch on our website at www.uwsp.edu/wcw under the “Seminar Series” tab!

Living With Wildlife
Seminar Series
Spring 2021

Presented by:
Wisconsin Center for Wildlife
University of Wisconsin - Stevens Point

Tuesdays, 4 PM via Zoom
see www.uwsp.edu/wcw for Zoom Link!

March 9, 2021
“Save Me from the Lion’s Mouth” Our Efforts to Promote Human-Wildlife Coexistence in Southern Africa
Dr. Scott Hygnstrom
Director, Professor
Wisconsin Center for Wildlife, UW-Stevens Point

March 16, 2021
The North American Model of Wildlife Conservation: Origins, Meaning, and Purpose
Dr. John Organ
Former Chief of USGS Cooperative Fish and Wildlife Units
Co-architect of the NAMWC

April 6, 2021
Managing Grassland Habitat and Student Success at the Buena Vista Wildlife Area
Brilyn Brecka
Wildlife Major and AWA Project Leader
Student Chapter of The Wildlife Society, UW-Stevens Point

April 27, 2021
Living with Wolves in Wisconsin, from Endangered Species to Hunted Game
Adrian Wydeven
Timber Wolf Alliance Coordinator
Northland College

Wisconsin Center for Wildlife
College of Natural Resources
University of Wisconsin - Stevens Point

Increasing Knowledge and Skills of Wildlife Students and Professionals

Introduction to Raptor Husbandry Workshop

January 2021

Jennifer Summers and Wildlife Professor Shelli Dubay, Ph.D., coordinated this two-day Raptor Husbandry workshop/course.

Instructed by falconers and founders of River Valley Raptors, Joe and Abbey Krumrie, the course was open to students and professionals. Participants learned about the basics of raptor husbandry, training, educational programming and falconry. The workshop offers hands-on opportunities to practice techniques like trimming nails and coping beaks using raptor carcasses donated by a local wildlife rehab, and featured a falconry demonstration in a local park. While a reduced class size was necessary due to the pandemic, 13 students and two professionals attended!



Shelli Dubay, holding a red-tailed hawk with Joe Krumrie of River Valley Raptors while instructing Intro to Raptor Husbandry.

Chemical Immobilization Workshop (held virtually) - October 2021

Shelli Dubay took over facilitating the Chemical Immobilization workshop. Jennifer Summers continued to contribute significant administrative and logistical support through 2021. Thirty students participated and successfully completed the workshop.



Joe and Abby Krumrie's red-tailed hawk, Dani, flies through a local park during a falconry demonstration.



Increasing Networking Among Wildlife Professionals and Students

Outdoor Skills and Safety Training

By Noah Andexler, Nicole Luoma, and Alayna Corbisier

In May 2021, we revitalized efforts to expand outdoor skills and safety of students and staff within the CNR. Our program goals were to:

- Provide students with applicable, affordable, and safety-oriented training and certifications in outdoor skills that carry over into their professional career and
- Develop a culture of safety throughout the CNR.

Prior to the pandemic, we hosted two First Aid/CPR/AED trainings in cooperation with the American Red Cross (ARC) and concluded with 48 students earning 2-year ARC certifications. In mid-October of 2021, we partnered again with ARC and ran two classes that trained and certified 32 students in First Aid/CPR/AED. Students learned basic first aid and life-saving techniques including the use of automated external defibrillators (AED) and cardio-pulmonary resuscitation (CPR). After successful trainings, positive feedback from students, and multiple inquiries we explored opportunities for additional trainings in 2022, including Chainsaw Safety and ARC Wilderness First Aid.

Reduced Original Price -15%

FIRST AID/CPR/AED CERTIFICATION CLASS

Self-guided 2-hour online course with 2 (1-hour) in-person training sessions

Location: TNR 255
Date: October 13, 2021
Time: 6pm and 8pm
Cost: \$90

Certified training by the American Red Cross
(Certification is valid for 2 years)

Hosted by Wisconsin Center for Wildlife at UW -Stevens Point
Call (715)-326-3241 or email wcw@uwsp.edu for more information

Wisconsin Center for Wildlife
College of Natural Resources
University of Wisconsin - Stevens Point

American Red Cross



American Red Cross

We made continuous progress to provide students relevant, affordable, and high-quality safety training. In the near future, we plan to provide students with an opportunity to obtain First Aid/CPR/AED training every semester, as well as expand to additional unique trainings such as small engine operation and maintenance, tree climbing, and pesticide applicator licenses. The knowledge and skills learned through these workshops not only will serve our students throughout their personal lives, but also in their professional careers for years to come.

Promoting Wildlife Conservation

Forest Management for Wildlife

By Haley Frater, Mike Demchik,
and Scott Hygnstrom

The WCW and outreach personnel at the Wisconsin Forestry Center at UW-Stevens Point united to develop a multifaceted program with a focus on forest management for wildlife. The program includes demonstration areas located across Central Wisconsin, a series of public workshops, and a Forest Management for Wildlife Certificate Program, all designed to provide natural resource professionals, landowners, and the public with the knowledge and skills needed to execute forest management with an emphasis on wildlife habitat.



A large cedar sign at Treehaven in Tomahawk, WI, marks the area as a Wildlife Habitat Demonstration Site.

Ten demonstration areas are distributed from Eau Claire to Marinette Counties and illustrate prescribed forest management techniques, including timber marking, harvest systems, regrowth, and wildlife response. We have conducted surveys for white-tailed deer pellet-groups on the demonstration areas since 2018 and resolved that estimated densities of deer in the demonstration areas vary dramatically across space and time.



Wildlife demonstration area that has recently undergone logging to open the tree canopy, allowing for new tree growth to benefit white-tailed deer, grouse, and other wildlife

Promoting Wildlife Conservation

Forest Management for Wildlife (continued)

The **field-based workshops** cover a wide range of range of topics in forest management for wildlife. The goal is to provide an overview of forest habitat requirements for key wildlife species (white-tailed deer, ruffed grouse, neotropical migrants) and connect them to sustainable forest management practices. Workshops conducted included:

- **Timber Marking for Wildlife**, Clark and Eau Claire Counties, 20 participants
Taught by Mike Demchik, Matt Esser, and Scott Hygnstrom
- **Cross-Boundary Management: From Creation to Harvest**, Virtual via Zoom, 23 participants
Taught by Mike Demchik, Haley Frater, Matt Schultz, Nate Fronczak, and Matt Esser
- **Forest Management for Neotropical Migrant Birds**, Virtual via Zoom, 25 participants
Taught by Mike Demchik, Jason Riddle, and Kevin Sheppard
- **Elements of Deer Habitat**, Treehaven, 9 participants
Taught by Curt Rollman, Jon Steigerwaldt, Randee Smith, Mike Demchik

Experienced and eligible individuals can participate in the Forest Management for Wildlife Certificate Program. Upon successful completion of a series of workshops, site-tours, online trainings, and a special 3-day credentialing course on forest management for wildlife, participants with considerable experience in marking timber will obtain the Forest Wildlife Habitat Manager (FWHM) professional credential. The Program is designed to recognize those who have the knowledge, skills, and experience to manage forests for wildlife habitat.

Partners in this extensive program include Wisconsin Forestry Center, Wisconsin Center for Wildlife, Wisconsin Department of Natural Resources, Young Forest Partnership, Ruffed Grouse Society, American Bird Conservancy, Treehaven, Central Wisconsin Environmental Station, UWSP Foundation, Wisconsin Wetlands Association, and a collection of Wisconsin Counties and NGO's.

More information on the Program is available at

<https://www3.uwsp.edu/cnr-ap/WFC/Pages/Workshops-and-Training.aspx>



A group of workshop participants view habitat at a wildlife demonstration area with Jon Steigerwaldt, Conservation Director with the Ruffed Grouse Society during the "Elements of Deer Habitat" workshop.

Primaries - Scott Hygnstrom, Ph.D

Scott Hygnstrom is the Director of the WCW and is the Douglas R. Stephens Endowed Chair in Wildlife. He primarily focuses on extension, creating opportunities for students, professionals, and the public that meet the WCW's mission and goals. Dr. Hygnstrom also teaches several courses at UW-Stevens Point and advises undergraduate students as they work towards a degree in Wildlife Ecology. His research, teaching, and extension efforts often revolve around managing wildlife-human conflicts and white-tailed deer.



Awards

- *Fellow Award*, The Wildlife Society

Grants

- Long-term collaborative relationship to address refuge priorities and objectives at the Upper Mississippi River National Wildlife and Fish Refuge. US Fish and Wildlife Service, \$45,000, 2018-2021, Co-PI (50%)

Teaching, Advising, and Leadership

Courses Taught at UW-Stevens Point

- Wildlife 100 - Wildlife Profession and Preparation
- Wildlife 150 - Living with Wildlife
- Wildlife 348 - Wildlife Damage Management

Advising

- 20 undergraduate students

Professional Organizations

- Wisconsin Chapter of The Wildlife Society - Past President
- The Wildlife Society's Wildlife Damage Management Working Group - Board Representative

Scott Hygnstrom, Ph.D.

Publications

- Baasch, D., **S. Hygnstrom**, A. Tyre, J. Millspaugh, J. Gilsdorf, and K. VerCauteren. Resource selection of white-tailed deer in response to conversion of land cover. *Western North American Naturalist* (accepted, resubmitted)
- Egan, M.E., K.E. Pepin, J.W. Fischer, **S.E. Hygnstrom**, K.C. VerCauteren, and G. Bastille-Rousseau. Social network analysis of white-tailed deer scraping behavior: implications for chronic wasting disease. *Ecosphere* (accepted, resubmitted)
- Demchik, M., H. Frater, **S. Hygnstrom**, and M. Esser. (2021). Timber marking for wildlife habitat: teaching students how to optimize timber harvest to reach habitat goals. *The Passenger Pigeon* 82(2):97.
- Kerkhoff, J., J. Xiong, E. Peterson, **S. Hygnstrom**, D. Jackson, M. Griffin, and S. Winter. (2021). Final Report, Chapter 1: Occurrence and relative abundance of Odonata species in the Upper Mississippi River Valley, 2013-2018. US Fish and Wildlife Service ServCat <https://ecos.fws.gov/ServCat/Reference/Profile/116720>.
- Palumbo, M., J. Straub, M. Al-Saffar, G. Soulliere, J. Fleener, M. Bergeson, J. Coluccy, T. Finger, D. Fowler, B. Glenzinski, R. Griffin, **S. Hygnstrom**, G. Kidd, N. Miller, K. Van Horn, and K. Waterstradt. (2021). Multi-scale waterfowl habitat conservation planning in Wisconsin, USA. *Landscape Ecology* DOI: 10.1007/s10980-021-01279-7.
- Peterson, E., Kerkhoff, J., J. Xiong, **S. Hygnstrom**, D. Jackson, M. Griffin, and S. Winter. (2021). Final Report, Chapter 3: Behaviors of Odonata in Pools 5A-10 of the Upper Mississippi River, 2013-2018. US Fish and Wildlife Service ServCat
- Scharhag, J., C. Sartini, **S. Hygnstrom**, S. Crimmins, and J. Stetz. (2021). Characteristics of non-fatal attacks by black bear: conterminous United States, 2000-2017. *Human-Wildlife Interactions* 15(1) DOI: 10.26077/f70c-9dbf.
- Summers, J., C. Yahnke, C. T. Van Deelen, J. White, H. Kaarakka, and **S. Hygnstrom**. Influence of underground mining with explosives on a hibernating bat population. *Conservation Science and Practice* (in revision)
- Xiong, J., J. Kerkhoff, E. Peterson, **S. Hygnstrom**, D. Jackson, M. Griffin, and S. Winter. (2021). Final Report, Chapter 2: Odonata habitat use and availability in Pools 5A–10 of the Upper Mississippi River, 2013-2018. US Fish and Wildlife Service ServCat

Presentations

- Scharhag, J., C. Sartini, **S. Hygnstrom**, S. Crimmins, and J. Stetz. (2021, April). Bear manager perceptions of attack risk management and an assessment of their support for using a risk management model. 19th Wildlife Damage Management Conference. Virtual Conference. <https://youtu.be/qCIXSHwe-l>.
- Weisenbeck, N., A. Young, and **S. Hygnstrom**. (2021, April). Wildlife damage in Southern Africa: the elephants of Botswana and their population metrics using digital photogrammetry. 19th Wildlife Damage Management Conference. Virtual Conference. <https://youtu.be/v0bspbGjc9c>.

Scott Hygnstrom



19TH WILDLIFE DAMAGE MANAGEMENT (VIRTUAL) CONFERENCE

“Forward - Dealing with Challenges of Human-Wildlife Conflicts in the Future”

April 19 - 22, 2021

In April 19-22, 2021, the WCW hosted the 19th Wildlife Damage Management Conference, a national meeting on resolving human-wildlife conflicts. We planned to host the Conference in Wisconsin, but had to conduct it as a virtual conference instead because of the COVID-19 pandemic. This was a new experience for all involved and many unknowns had to be addressed, but overall, we feel the Conference was a big success. The overall theme was “Forward – Dealing with Challenges of Human-Wildlife Conflicts in the Future,” which is a play on the Wisconsin State Motto; forward thinking is needed as we move into the post-pandemic world. The Conference started with a virtual Commercial Exhibit Hall displaying the wares of 10 sponsors/vendors. We also included 18 Virtual Field Trips to show off unique issues and sites that make Wisconsin a special place. Most of the Trips were developed by students in Scott Hygnstrom’s course, WLDL 348 Wildlife Damage Management. Jennifer Summers moderated a Poster Session with 12 posters and 80+ participants. We featured an opening plenary session on The Role of Wildlife Damage Management in the Wildlife Profession, featuring four nationally recognized speakers who each presented insightful perspectives on where we are and where we need to be. We hosted two additional morning plenary sessions on

Developing Innovative Communication Strategies for Wildlife Management in the 21st Century and Wildlife Disease Management: Moving from Surveillance to Prevention and Control and six technical sessions on Large Mammals, Cormorants, Human Dimensions/Zoonotics, Bears, Birds, and Wild Pigs. The plenary and technical sessions featured 47 recorded presentations and 9 live panel discussions by Zoom to facilitate interaction. All Conference presentations and materials can be accessed through the following portals:

Overall, the conference included 288 participants (237 professionals, 43 students, and 7 1-day registrants) which to everyone’s recollection is a record for the WDM Conference! We sincerely appreciate the generous support of our Platinum Sponsor, USDA-APHIS-Wildlife Services. In addition, support was provided by the Vertebrate Pest Council, Tomahawk Live Trap, Wisconsin Wildlife Control Operators Association, Critter Control, Reed-Joseph International Company, Botstiber Institute for Wildlife Fertility Control, Bell laboratories Incorporated, Wildlife Control Supplies, Hogeye, and the Wisconsin Department of Natural Resources.

The Conference generated a gross income of \$22,175, of which a net income of \$5,000 was directed to the Wisconsin Center for Wildlife.

Scott Hygnstrom, Ph.D

(Wildlife Damage Management Conference Cont'd)

We shared an additional \$8,175 with the Wildlife Damage Management Working Group (WDMWG) of The Wildlife Society that will be used to support other Conferences and projects in the future.

Special thanks go to the Conference Organizing Staff, including Scott Hygnstrom and Jennifer Summers of the WCW at UW-Stevens Point; Jessica Tegt of the Berryman Institute at Utah State University; and David Drake of the University of Wisconsin-Madison. We also recognize the Wisconsin Conference Coordinating Committee, including Scott Craven, David Drake, and Jamie Nack of the University of Wisconsin-Madison; Dan Hirschert of USDA-APHIS-Wildlife Services-Wisconsin; Brad Koele of the Wisconsin Department of Natural Resources; and Scott Hygnstrom of the University of Wisconsin-Stevens Point. Finally, we wish to thank the Board of the WDMWG for their overall support.

Conference Website - <https://conference.usu.edu/wildlife-damage-management/>

Presentations Continued:

Posters

- Summers, J. and **S. Hygnstrom**. (2021, April). The influence of exclusion on movement and roosting behavior of big brown bats. 13th Midwest Bat Working Group Annual Meeting. Virtual Conference
- Summers, J. and **S. Hygnstrom**. (2021, April). The influence of exclusion on movement and roosting behavior of big brown bats. 19th Wildlife Damage Management Conference. Virtual Conference. <https://wildlifedamageconference.files.wordpress.com/2021/04/jennifer-summers-exclusions.pdf>.
- Summers, J., M. Taylor, and **S. Hygnstrom**. (2021, April). Bat-friendly communities: rise up and be recognized! 13th Midwest Bat Working Group Annual Meeting. Virtual Conference.
- Summers, J., M. Taylor, and **S. Hygnstrom**. (2021, April). Bat-friendly communities: rise up and be recognized! 19th Wildlife Damage Management Conference. Virtual Conference <https://wildlifedamageconference.files.wordpress.com/2021/04/jennifer-summers-bat-city.pdf>.

THE INFLUENCE OF ROOST EXCLUSION ON MOVEMENT AND ROOSTING BEHAVIOR OF BIG BROWN BATS
Jennifer Summers, Monae Taylor, Scott Hygnstrom Ph.D.
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Introduction

- Big brown bats use anthropogenic structures for maternity colonies
- Bats may be excluded from roosts in homes as pests, forcing them to find alternative roosts
- Big brown bats are known to travel short distances to alternate roosts and will switch repeatedly between them

Objectives

- Determine bat use of original and alternative roosts related to exclusion
- Evaluate colonial behavior of bats related to exclusion

Methods

- Captured and radio-equipped bats 3-4 days before exclusion at 3 homes in late August and September
- Located radio-equipped bats with radio telemetry for up to 14 days
- Conducted emergence counts at alternate roosts
- Capture sites were in a rural, a semi-rural, and a residential area.

Results

- 13 bats left original roosts the night of capture (before exclusion).
- 1 bat remained in original roost until exclusion
- 25, 54, and 22 bats counted at 3 alternate roosts
- Bats did not move cohesively, but often roosted together at different roosts

	Isle	New	Stevens	Total
	Lisbon	Point		
Captured Bats (N)	8	6	8	22
All Natural Roosts	13	0	2	15
All Structural Roosts	2	3	2	7
Avg Roost Switches per Bat	3.6	1	2	2.5
Avg Nights in Roost per Bat	3	3.1	3.4	3.2
Avg Distance from Original Roost (m)	932	407	637	652
Avg Distance between Roosts (m)	1222	407	821	472

Discussion

- Most bats were post-reproductive, may have left original roost before exclusion due to lack of need to return
- Repeated use of and presence of other bats at alternate roosts suggests bats are aware of multiple suitable alternate roosts.
- Bats appear to use natural roosts and structures in relation to type of site (rural, semi-rural, residential)

Future Research

- Identify differences in movements among sex and age classes
- Investigate roost selection criteria
- Compare influence of spring vs fall exclusion on movements, roosting behavior, and pup survivorship

Fig 1. Alternate roost locations for bats captured in Isle, WI

Fig 2. Big brown bat with radio transmitter

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Jennifer Summers presents a poster about the influence of roost exclusion on big brown bats via Zoom at the 19th Wildlife Damage Management Conference

Primaries - Jason Riddle, Ph.D

Jason Riddle is the Gerald and Helen Stephens Endowed Professor with the WCW. Jason Riddle was awarded the Professorship in 2017 and uses funds from this generous endowment to support graduate and undergraduate research.

Dr. Riddle's research focuses primarily on upland birds including greater prairie-chickens, ring-necked pheasants, wild turkeys, ruffed grouse, and bobwhite quail. He also focuses research and conservation efforts on grassland and woodland habitats.



Grants

- National Ecological Observatory Network (NEON). \$18,068.

Teaching and Advising

Courses Taught at UW-Stevens Point

- Natural Resources 151 - Ecological Basis for Natural Resources Management
- Wildlife 100 - Wildlife Profession and Preparation
- Wildlife 311/511 - Quantitative Methods for Wildlife and Fisheries Research and Management
- Wildlife 340 - Field Experience in Wildlife Management
- Wildlife 350/550 - Wildlife Management Techniques
- Wildlife 742 - Ecological Data Analysis (Co-Instructor)
- Wildlife 758 - Animal Ecology and Conservation Biology (Co-Instructor)

Advising

- 40 undergraduate students
- 20 undergraduate research students
- Student Chapter of The Wildlife Society

Graduate Students

- Hannah Butkeiwicz
- Sabine Berzins

Turkey Project Undergraduate Research Fellow

- Shelby Truckenbrod

Boone and Crockett Research Fellows

- Hayden Walkush

Jason Riddle, Ph.D

Service

- Steering Committee Chair for “Next Steps” Student Workshop. 2021 Midwest Fish and Wildlife Conference.
- External Reviewer for North Carolina State University personnel promotion packet.
- External Reviewer for Western Carolina University Natural Resources Program.
- Summer Field Experience. CNR committee charged with facilitating the Summer Field Experience.

Professional Organizations

- President. North Central Section of The Wildlife Society.
- Finance and Investments Committee Member with The Wisconsin Chapter of The Wildlife Society.
- Faculty Advisor to the Student Chapter of The Wildlife Society at UW-Stevens Point. Faculty Advisor for the following student chapter projects: Prairie Chicken, Woodpecker, Ruffed-grouse, Saw-whet Owl, and Wild Bird/Crane.
- The Wildlife Society, National membership, Biometrics Working Group member, as well as several state and section memberships at various times.

Publications

- Shurba, J.A., R.A. Cole, M. Broadway, C. Roderick, **J.D. Riddle**, S.A. Dubay, and S. Hull. (2021). Gapeworm (*Syngamus trachea*) Prevalence in Wisconsin greater prairie chickens (*Tympanuchus cupido pinnatus*). *Journal of Parasitology* 107(4): 600-605.
- Summers, J., C. Yahnke, J.P. White, H. Kaarakka, **J. Riddle**, T. Van Deelen, and S. Hygnstrom. Influence of underground mining with explosives on bats. *Conservation Science and Practice* (in revision).

Jason Riddle, Ph.D

Presentations

- Berzins, S, S. Dubay, **J. Riddle**, A. Lacy, S. O'Dell, and B. Sedinger. (2021, February) Reproductive success of greater sandhill cranes (*Antigone canadensis tabida*) in Horicon Marsh, WI. Midwest Fish and Wildlife Conference, Virtual Conference, and Annual Meeting of (2021, February) the Wisconsin State Chapter of The Wildlife Society, Virtual Conference. Best Graduate Student Presentation Award.
- Butkiewicz, H. S. Truckenbrod, **J. Riddle**, J. Stenglein, C. Pollentier, and E. Buege Donovan. (2021, November). Identifying factors influencing eastern wild turkey productivity and Recruitment in Wisconsin Utilizing Snapshot Wisconsin Trail Camera Images. 28th Annual Conference of the Wildlife Society. Virtual Conference.
- Butkiewicz, H. S. Truckenbrod, **J. Riddle**, J. Stenglein, C. Pollentier, and E. Buege Donovan. (2021, February) Determining Adult Wild Turkey (*Meleagris gallopavo silvestris*) Poults to hen ratios in Wisconsin using Snapshot Wisconsin trail camera images. Annual Meeting of the Wisconsin State Chapter of The Wildlife Society. Virtual Conference.
- Butkiewicz, H. S. Truckenbrod, **J. Riddle**, J. Stenglein, and C. Pollentier. (2021, February,) Determining adult wild turkey (*Meleagris gallopavo silvestris*) sex ratios in Wisconsin using Snapshot Wisconsin trail camera images. Midwest Fish and Wildlife Conference. Virtual Conference.
- **Riddle, J.D.** (2021, April) Introduction to neotropical migratory birds. Forest Management for Neotropical Birds Workshop. Virtual workshop.

Directed and Co-Directed Undergrad Presentations

- Houtman, M., S. Dubay, **J. Riddle**, M. Gibson, and A. Gossett. (2021, November). Increased incidence of neurological abnormalities in passerines and near passerines through seven years of avian rehabilitation in Wisconsin. 28th Annual Conference of the Wildlife Society. Virtual Conference.
- Roberts, B., C. Johnson, A. Weisbeck, and Z. Cason. (2021, November). Effects of cover type on seasonal movement patterns in ruffed grouse in northern Wisconsin. 28th Annual Conference of the Wildlife Society. Virtual Conference.
- Suckow, C. C. Freymiller, A. Gehrke, M. Fell, N. Luoma, and S. Reid. (2021, April). Compared morphometrics of northern saw-whet owls (*Aegolius acadicus*) trapped in Sandhill Wildlife Area and Schmeckle Reserve. Jim and Katie Krause CNR Student Research Symposium. UW-Stevens Point, Stevens Point, Wisconsin. Highest Honors
- Suckow, C. C. Freymiller, A. Gehrke, M. Fell, N. Luoma, and S. Reid. (2021, April). Comparison of northern saw-whet owls (*Aegolius acadicus*) frequency and the prey availability in Schmeckle Reserve. Jim and Katie Krause CNR Student Research Symposium. UW-Stevens Point, Stevens Point, Wisconsin. Honorable Mention.
- Truckenbrod, S., H. Butkiewicz, **J. Riddle**, J. Stenglein, and C. Pollentier. (2021, November). Comparing jake-to-tom ratios determined by trail camera images and spring harvest data in Wisconsin. 28th Annual Conference of the Wildlife Society. Virtual Conference.
- Walkush, H., H. Butkiewicz, S. Truckenbrod, **J. Riddle**, J. Stenglein, and C. Pollentier. (2021, November). Use of Snapshot Wisconsin images to predict fall harvest demographics of eastern wild turkeys. 28th Annual Conference of the Wildlife Society. Virtual Conference.

Jason Riddle, Ph.D

Directed and Co-Directed Undergrad Presentations Continued

- Cutler, L., B. Roberts, P. Maguire, C. Johnson, and **J.D. Riddle**. (2021, February). Analysis of drumming direction and adjacent cover type of ruffed grouse in northern Wisconsin. Annual Meeting of The Wisconsin Chapter of the Wildlife Society.
- Cutler, L., B. Roberts, P. Maguire, C. Johnson, and **J.D. Riddle** (2021, February). Preliminary study into how adjacent cover type affects drumming patterns In ruffed grouse in northern Wisconsin. Midwest Fish and Wildlife Conference. Virtual Conference.
- Freymiller, C. M. Meehl, A. Gehrke, M. Fell, C. Suckow, and **J. Riddle**. (2021, February). Differential timing of migrating northern saw-whet owls (*Aegolius acadicus*) based on age categories. Midwest Fish and Wildlife Conference. Virtual Conference.
- Houtman, M., S. Dubay, **J. Riddle**, and A. Nilsson. (2021, February). Intoxication cases in passerines and near-passerines through eight years of avian rehabilitation in northern Wisconsin. Midwest Fish and Wildlife Conference, Virtual Conference, and (2021, April). Jim and Katie Krause CNR Student Research Symposium, UW-Stevens Point, Stevens Point, Wisconsin. Honorable Mention
- Roberts, B., L. Cutler, C. Johnson, and P. Maguire. (2021, April). Preliminary study into how cover type adjacent to home range affects drumming patterns in ruffed grouse (*Bonasa umbellus*) in northern Wisconsin. Jim and Katie Krause CNR Student Research Symposium. UW-Stevens Point, Stevens Point, Wisconsin. Honorable Mention
- Truckenbrod, S., H. Butkiewicz, **J. Riddle**, C. Pollentier, J. Stenglein, and E. B. Donovan. (2021, April). Evaluating wild turkey brood Activity levels in Wisconsin using Snapshot Wisconsin trail camera images. Jim and Katie Krause CNR Student Research Symposium. UW-Stevens Point, Stevens Point, Wisconsin. Honorable Mention
- Truckenbrod, S., H. Butkiewicz, **J. Riddle**, J. Stenglein, C. Pollentier, and E. Buege Donovan. (2021, February) Determination of eastern wild turkey brood activity levels with trail cameras in Wisconsin. Annual Meeting of The Wisconsin Chapter of the Wildlife Society. Virtual Conference. Best Undergraduate Wildlife Presentation Award.
- Truckenbrod, S., H. Butkiewicz, **J. Riddle**, J. Stenglein, and C. Pollentier (2021, February). Determination of male and female wild turkey activity levels with trail cameras in Wisconsin. Midwest Fish and Wildlife Conference. Virtual Conference.

Jason Riddle, Ph.D

Special Projects

Shelby Truckenbrod was an Undergraduate Research Fellow for two years with Dr. Riddle and his graduate student, Hannah Butkiewicz. Shelby's work focused on using trail camera images from the Snapshot Wisconsin program to study Eastern Wild Turkeys. Specifically, Shelby was interested in using these images to test hypotheses about turkey population demographics across the state of Wisconsin. She investigated brood activity and the compared Jake-to-Tom ratios based on these images and spring harvest data. She and Hannah classified over 270,000 photos of turkeys for their work!

Shelby graduated at the end of 2021. She was lead author or co-author on ten presentations or posters during her time as a Fellow. She won the "Best Undergraduate Presentation" from The Wisconsin Chapter of The Wildlife Society for one of her talks. She was awarded Honorable Mention for another talk at the Jim and Katie Krause CNR Student Research Symposium.



Shelby Truckenbrod with a diamondback terrapin at her new position as a master's degree candidate at Nicholls State University in Louisiana.



Turkey hen and poults captured on a WDNR Wisconsin Snapshot camera. Shelby and Hannah used images such as this to investigate wild turkey brood activity levels in Wisconsin.

Following graduation, Shelby went directly into a Masters Program at Nicholls State University, pursuing a master's degree in Marine and Environmental Biology. Her graduate work focuses on the spatial ecology of Diamondback Terrapins in coastal Louisiana using an automated telemetry system. Her data will help guide management on terrapin habitat in Louisiana, especially amid coastal habitat loss and changes due to human activity.

She also is currently co-authoring a paper for the *Journal of Wildlife Management* with Hannah Butkiewicz.

Primaries - Ben Sedinger, Ph.D.

Ben Sedinger is the Kennedy-Grohne Chair in Waterfowl and Wetlands Conservation. He advises graduate and undergraduate research focused on waterfowl and wetlands conservation. He also teaches courses at UW-Stevens Point and has developed a unique waterfowl ecology and management course.



Grants

- Yukon Delta National Wildlife Refuge (2019-2023) - \$286,496.23
- Upper Mississippi River National Wildlife Refuge (2020-2021) - \$30,000

Professional Organizations

- American Ornithological Society - member
- The Wildlife Society - member
- The Wisconsin Chapter of The Wildlife Society - member

Teaching and Advising

Courses Taught

- Wildlife 353/553 - Analysis of Wildlife Populations
- Wildlife 361/561- Waterfowl Ecology and Management
- Wildlife 742 - Waterfowl Ecology
- Natural Resources 796 - Independent Study - R Coding

Advising

Graduate Students

- Andrew Greenawalt
- Kirsten Schmidt
- Jordan Thompson

Service

- Steering Committee - Waterfowl Hunter Expo
- Learn to Hunt Waterfowl - collaborated with Delta Waterfowl to provide Hunting University Program for students

Ben Sedinger, Ph.D

Special Projects

Field Trips

Sedinger led his Waterfowl Ecology and Management Students on field trips the Mead Wildlife Area in central Wisconsin, along the Mississippi River, and to Pffnner Park in Steven's Point. Students had opportunities to meet and learn from waterfowl professionals, and observed biologists capturing and attaching GPS transmitters to urban mallards.



Andrew Greenawalt and WDNR biologist Drew Fowler attach a transmitter to a mallard as students observe while on a field trip in Sedinger's Waterfowl Ecology and Management Course.

Wood Duck Project: Research and Community Outreach

Sedinger's graduate student Andrew Greenawalt gave 4 talks about his research at professional meetings in 2021 including the Wisconsin Chapter of The Wildlife Society, the National Wildlife Society Meeting, and he gave updates to the Upper Mississippi Great Lakes Joint Venture and the Mississippi Flyway Technical Committee.



Undergraduate students hold wood ducks while assisting graduate student Andrew Greenawalt with his duck banding efforts

Andrew also started ramping up his banding efforts in Central Wisconsin. Between April and August he and a crew of UW-Stevens Point undergraduate students banded:

- 411 wood ducks
- 106 blue-winged teal
- 12 mallards 6 hooded mergansers
- 1 ring-necked duck

Perhaps more impressive than those totals, Andrew undertook a serious community science outreach effort to provide opportunities for UWSP students, faculty, staff, WDNR employees, and members from the general public to band ducks. In total, he and his crew brought over 100 people to The Mead Wildlife Area to see his project.

Ben Sedinger, Ph.D

Alaska Waterfowl Research

Sedinger's other graduate student Jordan Thompson successfully completed his fieldwork studying emperor geese on the Yukon Delta National Wildlife Refuge (NWR) in western Alaska. He gave 3 professional talks and won the Best Student Presentation at the Alaska Bird Conference. He also won the prestigious Ankney Award by Delta Waterfowl that is presented to a single Master's student studying waterfowl in North America every year.

Jordan is scheduled to defend his thesis on April 13, 2022. He will then start a Ph.D. with Dr. David Koons at Colorado State in summer 2022, where he will be studying black brant on the Yukon Delta NWR. He also had a manuscript accepted to the Journal of Wildlife Management on green-winged teal mortality dynamics, which was a project he worked on in addition to his graduate research on emperor geese.



Mississippi Wild Celery Project



In May 2021, Sedinger's third graduate student, Kirsten Schmidt who began her research in 2019, successfully defended her thesis titled: *"Estimating Wild Celery Winter Bud Density and Energetic Carrying Capacity For Waterfowl in Pools 4, 8, and 13 of the Upper Mississippi River."*

Shortly thereafter she accepted a position with the U.S. Fish and Wildlife Service at Two Rivers National Wildlife Refuge where she is currently working as a Wildlife Technician.

Ben Sedinger, Ph.D

Publications

- Thompson, J.M., T.V. Riecke, B. L. Daniels, K.A. Spragens, M.L. Gabrielson, C.A. Nicolai, **B.S. Sedinger**. Survival and mortality of green-winged teal banded on the Yukon-Kuskokwim Delta, Alaska. *Journal of Wildlife Management*. (Accepted, in revision)
- Womble, J.N., P.J. Williams, R.W. McNabb, A. Prakash, R. Gens, **B. Sedinger**, C. Acevedo. (2021). Harbor seals as sentinels of ice dynamics in tidewater glacier fjords. *Frontiers in Marine Science*, section Global Change and the Future Ocean. <https://doi.org/10.3389fmars.2021.634541>

Presentations

- Berzins, S, S. Dubay, J. Riddle, A. Lacy, S. O'Dell, and **B. Sedinger**. (2021, February). Reproductive success of greater sandhill cranes (*Antigone canadensis tabida*) in Horicon Marsh, WI. Midwest Fish and Wildlife Conference, Virtual Conference, and (2021, February) Annual Meeting of the Wisconsin State Chapter of The Wildlife Society, Virtual. Best Graduate Student Presentation Award.
- Greenawalt, A., T. Riecke, D. Fowler, **B.S. Sedinger**. (2021, February). Harvest and survival of wood ducks in the Upper Mississippi River Great lakes Region. Wisconsin Chapter of the Wildlife Society. Virtual Conference.
- Greenawalt, A., T. Riecke, D. Fowler, **B.S. Sedinger**. (2021, August). Update on Wisconsin wood duck project. Mississippi Flyway Virtual Meeting.
- Greenawalt, A., T. Riecke, D. Fowler, **B.S. Sedinger**. (2021, October). Update on Wisconsin wood duck project. Upper Mississippi River Great Lakes – Joint Venture Virtual Meeting
- Greenawalt, A., T. Riecke, D. Fowler, **B.S. Sedinger**. (2021, November). Mortality dynamics of wood ducks that breed in the Upper Mississippi River Great Lakes Region. 28th Annual Conference of the Wildlife Society. Virtual Conference.
- Kroening, C., K. Schmidt, S. Winter, **B.S. Sedinger**. (2021, April). Waterfowl distributions and habitat use on Pool 8 of the Mississippi River during autumn migration. Jim and Katie Krause CNR Student Research Symposium. Virtual Conference.
- Kroening, C., K. Schmidt, S. Winter, **B.S. Sedinger**. (2021, February). Waterfowl distributions and habitat use on Pool 8 of the Mississippi River during autumn migration. Wisconsin Chapter of the Wildlife Society. Virtual Conference.
- Schmidt, K., J. Straub, **B.S. Sedinger**, S. Winter. (2021, February). Linking long term resource monitoring vegetation data with bioenergetics needs of waterfowl to inform wildlife habitat management. Wisconsin Chapter of the Wildlife Society. Virtual Conference.
- Thompson, J., B. Daniels, **B.S. Sedinger**. (2021, February) Factors influencing nest survival and nest site fidelity of emperor geese on the Yukon-Kuskokwim Delta, Alaska. Wisconsin Chapter of the Wildlife Society virtual conference, Virtual Conference.
- Thompson, J., B. Uher-Koch, B. Daniels, **B.S. Sedinger**. (2021, November). Effects of environmental variation on nest survival of emperor geese on the Yukon-Kuskokwim Delta, Alaska. Alaska Bird Virtual Conference.
- Thompson, J., B. Daniels, **B.S. Sedinger**. (2021, November). Survival and cause-specific mortality of American green-winged teal on the Yukon-Kuskokwim Delta, Alaska. 28th Annual Conference of the Wildlife Society. Virtual Conference.

Primaries -Cady Sartini, Ph.D

Cady Sartini joined the WCW in 2019, though she has served as a full-time assistant professor since 2015. She teaches several courses at UW-Stevens Point and leads the UW-Stevens Point Wisconsin Black Bear Research Project, which is a long-term project that has been ongoing for over 30 years.



Teaching and Advising

Courses Taught

- Natural Resources 150 - People, Resources, and the Biosphere
- Wildlife 150 - Living with Wildlife
- Wildlife 305 - Black Bear Ecology and Management
- Wildlife 340 - Field Experience in Wildlife Management Techniques
- Wildlife 365 - Behavioral Ecology
- Wildlife 450 - Human Dimensions of Wildlife

Advising

- 40 undergraduates
- Nathan Kluge (Graduate Assistant)
- Matthew Hanneman (Graduate Assistant)

Publications

- Scharhag, J., **C. Sartini**, S. Crimmins, S. Hygnstrom, and J. Stetz. (2021). Characteristics of non-fatal attacks by American black bear, 2000-2017. *Human-Wildlife Interactions* 15:23.

Presentations

- Scharhag, J. (2021, April). Bear manager perceptions of attack risk management and an assessment of their support for using a risk management model. 19th Annual Wildlife Damage Management Working Group Conference. Virtual Conference.
- Young, A.T. (2021, April). Impact of local-scale mast production on bait site visitation by bears: Implications for human-bear conflict. 19th Annual Wildlife Damage Management Working Group Conference, Virtual Conference.

Wisconsin Black Bear Project

The year 2021 was another good one for the Wisconsin Black Bear Project. Led by Cady Sartini the project is a long-term, multi-decade project which originally began in the mid-1980s in the College of Natural Resources. Over the years, the project has produced 11 masters' theses which have contributed greatly to the understanding of black bear ecology in Wisconsin. At least 30 undergraduate students witnessed and gained hands-on experience with safe and humane capture, anesthetization, collaring and tagging black bears, and also gained experience with radio-telemetry. Largely educational, this project provides opportunities for student research projects in collaboration with the WDNR. The objective is to collect long-term data on bear cub production and survival for the state of Wisconsin. Currently, UW-Stevens Point maintains 12 to 20 collared female black bears in Clam Lake, WI, and the Chequamegon National Forest.



Five orphaned yearling black bears, having been raised at a wildlife rehab facility are anesthetized, measured, tagged, and released. Two were collared.



Sartini's graduate student, Nathan Kluge, poses with three black bear cubs while visiting the den of their hibernating mother.

Sartini began the year with five collared black bears. She and a team of other professionals and students visited four of the collared bears while they were hibernating. The bears were anesthetized, measured, weighed, and had their collars replaced. Any cubs or yearlings present at the dens of the collared bears also were counted, weighed, and measured.

Two new female yearlings were collared. These bears were orphaned as cubs and raised at Wild Instincts, a wildlife rehabilitation center. Five orphaned yearling black bear were anesthetized, measured, weighed and ear-tagged, but only two were collared. Many students participated in this collaring and release event, where they gained hands-on experience with health monitoring, measuring, and collaring anesthetized bears.

By the year's conclusion two collared bears slipped their collars off and two were harvested by hunters.

Support WCW

Thank you for reading the 2021 WCW Annual Report. If you enjoyed what you see here and would like more information, be sure to check out our website at www.uwsp.edu/WCW

We welcome opportunities to collaborate and develop educational wildlife materials and events.

We also welcome your questions about wildlife!

The activities of the WCW largely are funded by generous endowments. To support the work of the Center, consider contributing financially to the UW-Stevens Point Foundation. Your contributions help us in day-to-day operations or you can specify a program, project, scholarship, travel fund, or other need. Thank you for your generous support.

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or

Please contact us at:

715-346-3241

WCW@uwsp.edu