



2019 Annual Report

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



College of Natural Resources
University of Wisconsin-Stevens Point



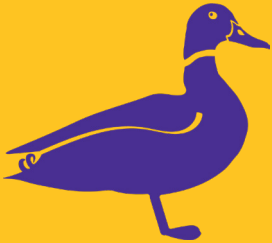
Extension

UNIVERSITY OF WISCONSIN-MADISON

WCW Goals

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

- Increase public awareness of natural resources issues
- Increase knowledge and skills of wildlife students and professionals
- Increase networking and engagement within the natural resources community
- Promote conservation of wildlife and their habitats
- Resolve human-wildlife conflicts



Endowments

Douglas R. Stephens Chair in Wildlife Endowment

Gerald and Helen Stephens Professor in Wildlife Endowment

**Kennedy-Grohne Chair in Waterfowl and
Wetlands Conservation Endowment**

The Douglas and Carol Federighi Graduate Assistantship Endowment

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) - honoring 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 kind of 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 endowment (2012).

Scott Hygnstrom acts as the Douglas 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. Jacob Straub originally filled this role until July 2019, when the position was taken over by Ben Sedinger. These funds were invested by the UW 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 (1) training the next generation of wildlife biologists in the theory and application of wetland and waterfowl ecology, (2) conduct cutting edge research to answer interesting questions about waterfowl and wetland ecology, and (3) form partnerships with NGO's, State and Federal agencies, and the general public.

WCW Primaries

The WCW is made up 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, PhD
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



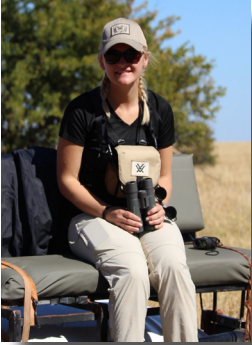
Cady Sartini, Ph.D.
Assistant Professor
Bear Project Leader

Associated Staff



Jennifer Summers
Program Development
Specialist

WCW Student Employees



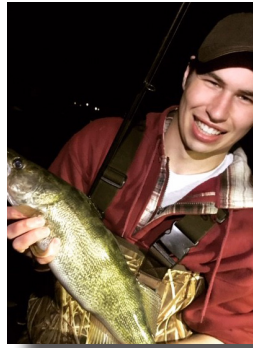
Kelsey Brown
Deer Project Assistant



Monae Taylor
Bat Project Assistant



Stuart Fetherston
Eagle Project Assistant



Jaden Kerkhoff
Goose Project Assistant

Not pictured: Kelsie Hayes (Deer Project Assistant),
Tim Zappa (Southern Africa Project Assistant)

Student Teaching Assistants



Ben Tjepkes
Wildlife 344
Ungulate Ecology



McKenna Hammons
Wildlife 150
Living with Wildlife



Joe Quehl
Wildlife 150
Living With Wildlife

Collaborators and Partners

The WCW collaborated or partnered with the following organizations to develop research projects, workshops, student opportunities, and more in 2019.

State and Federal Agencies

- The Wisconsin Department of Natural Resources (WDNR)
- US Fish and Wildlife Service (USFWS)
- Necedah National Wildlife Refuge
- Yukon Delta National Wildlife Refuge
- Upper Mississippi National Wildlife and Fish Refuge
- US Forest Service (USFS)
- US Geological Survey (USGS)
- Natural Resources Conservation Service (NRCS)
- US Department of Agriculture Animal Health and Plant Service National Wildlife Research Center

UW-Stevens Point Organizations

- Forestry Education and Development Initiative (FEDI)
- UW-Madison Division of Extension
- UW-Stevens Point Student Chapter of The Wildlife Society
- Becoming an Outdoors Woman (BOW)

Non-Governmental Organizations

- Pheasants Forever
- Delta Waterfowl
- Ducks Unlimited
- Wisconsin Waterfowl Association
- National Ecological Observatory Network (NEON)
- National Wildlife Control Training Program (NWCT)
- International Crane Foundation (ICF)

Universities

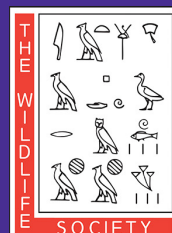
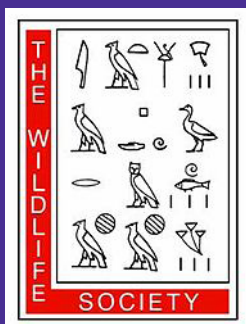
- Southern Illinois University
- Kansas State University

Private Organizations

- Tau Consultants LTD

Professional Organizations

of which WCW Primaries are officers or committee members



**NORTH CENTRAL
SECTION**



Director's Corner

The Wisconsin Center for Wildlife (WCW) had another great year in 2019. Jason Riddle and I welcomed two new faculty members to the WCW. Ben Sedinger replaced Jake Straub as our Waterfowl-Wetlands Ecologist and Cady Sartini joined us with a focus on managing the College of Natural Resources' (CNR) Bear Project: a project that has been a high-visibility feature of the College for several years. Jennifer Summers continued as our Program Development Specialist, starting up projects on drones and bats, as well as taking care of many of the administrative responsibilities for the WCW. Monae Taylor joined us as a full-time Assistant on the bat project, Abby Ewert led two interns to work on large predators and elephants in Botswana, and Stuart Fetherston helped evaluate 23 years of data on bald eagle nesting activity in the Upper Mississippi River Valley. We also added eight student employees to the WCW staff to assist with the above projects and others. Adding to our critical mass has helped increase the scope and influence of the WCW here and abroad.

Last year, I mentioned that we were excited about our "wildlife habitat trifecta." Jake Straub and I worked with Matt Polumbo (UW-Stevens Point-Wildlife) and many others with the WDNR, USFWS, and NRCS to develop the Wisconsin Waterfowl Habitat Conservation Strategy that includes decision-making tools that will shape how funds are invested in waterfowl habitat and wetland management in Wisconsin for years to come. I have been collaborating with Robin Rothfeder (UW-Stevens Point-Human Dimensions) and several others with the Wisconsin Department of Natural Resources (WDNR) and US Fish and Wildlife Service (USFWS) on a working lands initiative for Central Wisconsin that we hope will improve the landscape for wildlife and people for generations.



WCW Director Scott Hygnstrom with his dog, Abby

Finally, I have been working with Mike Demchik (UW-Stevens Point-Forestry), Haley Frater (CNR Outreach Program Manager), and others on a series of workshops, demonstration areas, and a certification program that promotes wildlife-friendly forest management practices on private and public lands in Wisconsin. Again, the WCW truly is more than the sum of its individual parts.

The WCW helped contribute to the education and professional growth of dozens of wildlife students in 2019. We provided WCW Travel Awards for two students to the Annual Meeting of The Wildlife Society (TWS), two students to the Midwest Fish and Wildlife Conference, and five students to the Annual Meeting of the Wisconsin Chapter of TWS (WCTWS). We sponsored twenty students who were trained at a Red Cross First Aid/Defibrillator/CPR Workshop and twenty others at a Student-Professional Workshop on wetland renovation and distance sampling at the Necedah National Wildlife Refuge. Our faculty taught sixteen classes and advised four graduate students and over 140 undergraduate advisees during 2019.

The WCW has attracted the interests of some very talented people. Ben Tjepkes modeled habitat selection of bald eagles in the Upper Mississippi River Valley and was a Teaching Assistant for Wildlife 334 Ungulate Ecology. Ben was recognized with a Fenske Award for being the top undergraduate student in the Midwest. McKenna Hammons and Joe Quehl served as Teaching Assistants for Wildlife 150 Living with Wildlife. Both McKenna and Joe were recognized as the Outstanding Wildlife Undergraduate Students in 2018 and 2019, respectively, by the Wisconsin Chapter and North Central Section of TWS. In addition, Cady Sartini was recognized by our students with the CNR Outstanding Teaching Award! The efforts of these and many others keep the WCW humming along.

The CNR Spring Seminar Series has become a signature program for the WCW. In 2019, we featured six speakers on Diversity and Inclusivity in Natural Resource Management and received widespread participation across campus and the Stevens Point community. We facilitated a Living with Wildlife Seminar Series, Student Leadership Workshop Series, a Chemical Immobilization Workshop, and a UW-Stevens Point Alumni Reception at the Annual Meeting of TWS. In addition, I served as an instructor at three Becoming an Outdoors Woman workshops, three Learn-to-Hunt programs, and two Conservation Leaders for Tomorrow workshops. Dozens of research presentations, posters, papers, chapters, books, and other publications were produced in 2019.

As part of my commitment to professional engagement, I served as President of the Wisconsin Chapter of TWS in 2019. After two years of joint meetings with other organizations, we held our Annual Meeting in Central Wisconsin in February 2019 with a theme of Strength from Within. Over 210 members participated in a plenary session that featured three Presidents of TWS, followed by dozens of presentations and six meetings of our most active Issues Committees.

In closing, I invite you to visit the new WCW office in 167 TNR. It is a hub of student and staff activity and is prominently located next to the West Lobby, 170 TNR teaching classroom, and UW-Stevens Point Cooperative Fisheries Unit. With a reception area, conference room, student work space, and Director's office, we now have a space that adequately reflects the capability and promise of the WCW faculty, staff, and students. We thank all for your contributions and support.

Sincerely,




Scott Hygnstrom presenting a "Tap Talk" at Central Waters Brewery, in Amherst, WI, in Nov, 2019

Increasing Public Knowledge about Natural Resources Management

CNR 2019 Spring Seminar Series

“Expanding Our Reach in Natural Resources Management.”

Featuring six speakers from around the nation, this series focused on increasing engagement of all people in the practice and profession of natural resources management.

Videos of seminars can be viewed on-line at: www.uwsp.edu/WCW

New for 2019!

Living with Wildlife Seminar Series

Coordinated by Scott Hygnstrom and Cady Sartini for the Wildlife 150 *Living with Wildlife* course, seminars are open to all faculty, staff, students, and the public!

Tap Talks at Central Waters Brewery

The WCW collaborated with UW-Extension-Lakes to plan five natural resources science “Tap Talks” held at the Central Waters Brewery in Amherst, WI.



WCW with educational touch-screen kiosks at the Midwest Renewable Energy Fair

Expanding Our Reach in Natural Resources Management Seminar Series

All talks will be held in TNR170 from 4-5 p.m with refreshments to follow.

	February 7, 2019 Challenges to Equity and Inclusion in a Field that Breathes Biodiversity Dana Sanchez, Ph.D.
	February 14, 2019 Improving Engagement of Woodland Owners in Wisconsin Steve Swenson
	February 21, 2019 It's Kinda Fun to do the Impossible: Finding Community Abundance Through Sustainable Design Ken Leinbach
	February 28, 2019 Our Natural World: An Indigenous Perspective Jon Greendeer
	March 14, 2019 A New Culture of Conservation - Misunderstanding a Generation A.J. DeRosa
	March 28, 2019 Educating and Inspiring the Next Generation of Conservation Leaders Christine Thomas, Ph.D.

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

uwsp.edu/WCW

Youth Engagement Events

- “Just Behave!” - a behavioral ecology module created and delivered by Cady Sartini for the annual College Days for Kids. Jennifer Summers assisted instructing the module
- ViewPoint Days - Jennifer Summers promoted the Wildlife Major at UW-Stevens Point events

Community Table Events

- Midwest Renewable Energy Fair - WCW staffed an educational booth
- Central Wisconsin State Fair - Wildlife/Biology Professor Chris Yahnke collaborated with WCW to staff an educational table, and deliver presentations about bats

Increasing Knowledge and Skills of Wildlife Students and Professionals

Drone Safety and Flight Training

Jennifer Summers trains wildlife graduate and undergraduate students to safely fly drones for their research. These students have earned their FAA Remote Pilot Certification, but have not previously had opportunities to gain flight experience with drones. Through the WCW, Jennifer provides a safe and supervised opportunity for students to familiarize themselves with how to operate a drone and practice their flight skills.



Jennifer Summers (middle) observes Nora Hargett while learning to fly a drone, with visual observer, Jaden Kerkhoff (right)



Students of the Chemical Immobilization Workshop

Chemical Immobilization Workshop

Instructed by The San Diego Zoo Global Academy, participants learn to safely and humanely anesthetize and chemically immobilize wildlife for research or captive wildlife care. UW-Stevens Point students receive course credit, and all participants receive a chemical immobilization certification upon completion of this two-day course.

WCW-Sponsored Student TWS Workshops

The WCW annually sponsors workshops organized and hosted by the UW-Stevens Point Student Chapter of The Wildlife Society, including:

- Student Leadership Workshop Series
- First Aid Training Workshop



Students participate in a First Aid Training workshop with the American Red Cross

Increasing Networking Among Wildlife Professionals and Students

Student Travel Scholarships

WCW provides funds to selected students for travel to national, regional, and state professional conferences.

- National TWS Conference
 - 2 students at \$500 each
- Midwest Fish and Wildlife Conference
 - 5 students at \$250 each
- Wisconsin Chapter of The Wildlife Society (WCTWS) 2019 Annual Meeting
 - 10 students at \$100 each



Photo Credit: UW-Stevens Point Student Chapter TWS

Mark Pfof demonstrates land survey equipment at the Necedah National Wildlife Refuge for a Student/Professional Workshop



Photo Credit: UW-Stevens Point Student Chapter TWS

TWS students present their research at the 2019 TWS Conference in Reno, Nevada

Necedah Student-Professional Workshop

Co-organized with WCTWS, this workshop was designed to not only provide professional training, but also to allow students and professionals to learn together, and from each other. Led by Brad Strobel and Mark Pfof, US Fish and Wildlife Biologists at the Necedah National Wildlife Refuge, participants experienced hands-on activities and demonstrations on distance sampling, data analysis with R software, and wetland restoration.

Promoting Conservation of Wildlife and Their Habitats

Promoting wildlife conservation begins with nurturing an appreciation for nature. Jennifer Summers hosted two workshops at the Becoming an Outdoors Woman (BOW) Summer Weekend, designed to encourage women to enjoy and appreciate the outdoors.

Painting En Plein Air

Participants learn how to paint scenery outside using acrylic paint.

Birding 101

Participants learn the basics of birding, how to choose and use binoculars, bird identification, using a field guide, and more.



A group of women paints surrounding scenery at a workshop at the BOW Summer Weekend, at Treehaven

Promoting Wildlife Conservation and Resolving Human-Wildlife Conflict

WCW Research Projects

Bat Exclusion Research

Scott Hygnstrom and Jennifer Summers led a project investigating the effect of roost exclusion on big brown bats. The WCW collaborated with wildlife control operators to locate houses in which bats were scheduled to be removed from their roost sites. In addition to two project employees, WDNR conservation biologists assisted with capturing bats at two locations. Student employees and student volunteers assisted with radio telemetry to locate the bats that were radio-tagged for the project.



Monae Taylor and Jennifer Summers prepare bats for radio transmitters while a student volunteer records data



A big brown bat with a small radio transmitter affixed to its back

They radio-tagged 22 big brown bats from three different houses. They tracked them to 22 different roosts, 14 roosts were trees and 8 were barns or houses.

A description and preliminary results of this project were published in the WDNR Wisconsin Bat Program's newsletter "The Echolocator."

Plans are underway to present this research at future conferences and events in 2020.

Elk Hazing Research

Jennifer Summers earned her FAA Remote Pilot Certificate and has taken the lead on reviving a project studying the efficacy of using drones to haze elk out of agricultural fields in the Black River Falls area.

The WDNR collaborates with the WCW, alerting Jennifer when elk are likely to be present to attempt hazing. A team of student employees and one student volunteer assisted with preparation and execution of this project.



The drone used for the elk hazing project

WCW Primaries - Scott Hygnstrom, Ph.D.



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



Scott instructing an archery workshop of BOW Winter Weekend in February, 2019

Extension, Leadership, and Service

Faculty Advisor

- UW-Stevens Point Archery Club

Assistant to the Faculty Advisor

- UW-Stevens Point Student Chapter of The Wildlife Society
- UW-Stevens Point Student Chapter of Ducks Unlimited

Workshops Instructed

- Conservation Leaders for Tomorrow
 - Chicago, IL
 - Atlanta, GA
- BOW Winter Weekend
 - Firearm Safety
 - Rifle
 - Shotgun
 - Archery and Bow Hunting

Teaching and Advising

Courses Taught at UW-Stevens Point

- Wildlife 150 - Living with Wildlife
- Wildlife 305 - Chemical Immobilization
- Wildlife 334 - Ungulate Ecology
- Wildlife 381 - Southern Africa Internship

Advising

- 20 Undergraduate Students
- 12 WCW Student Employees

Instruction

- Learn-to-Hunt Programs
 - White-tailed deer
 - Waterfowl
 - Pheasants



WCW Teaching Assitant, McKenna Hammons receives the WCTWS Aldo Leopold Student Scholarship award from Director, Scott Hygnstrom

Scott Hygnstrom, Ph.D.

Southern Africa Experience

The UW-Stevens Point Internship Program in Southern Africa is a collaboration between the WCW and Tau Consultants LTD, a private wildlife research organization in Botswana. The program has been running annually since 2015 and typically involves sending a Project Assistant and two Student Interns to Botswana for 6 to 12 weeks. The students spend a majority of the time in the bush camping and conducting surveys of African wildlife, especially large carnivores and their prey. They manage data sets and conduct basic statistical analyses. Upon returning, the students present results of their work at a variety of wildlife conferences.



Christiaan Winterbach of Tau Consultants LTD hosts Tommy, Abby, and Scott in Botswana



Some of the many incredible photos captured by the students during their studies in Botswana. Above: a leopard rests in the shade. Left: a herd of elephants bathe and drink



Southern Africa Experience Student Employee and Interns



Abby Ewert
Southern Africa Project
Assistant



Nathan Weisenbeck
Southern Africa Project
Intern



Tommy Young
Southern Africa Project
Intern

Scott Hygnstrom, Ph.D.

USFWS Cooperative Agreement

The WCW hires up to three student employees each year on a three-year cooperative funding agreement with the US Fish and Wildlife Service. These students are hired to analyze long-term biological survey data that were collected by USFWS biologists. This unique opportunity provides students with experience in data organization and analyses as undergraduates, when they have not yet had the opportunity to collect a robust dataset themselves.

Prior to analyses, students organize, update, and upgrade the data sets. Students produce a report for on-line distribution, describing the data and reporting the findings of the surveys. They then draft papers on a specific topic derived from the data for publication in scientific journals.

Two students, Ben Tjepkes and Stewart Fetherston, completed a report on bald eagle nesting activity based on data collected over 23 years in the Upper Mississippi River Valley. An article on habitat selection by nesting bald eagles is in preparation for publication in a scientific journal.

Most recently, Jaden Kerkhoff was hired in summer 2019, in part to analyze USFWS data and develop a report on the occurrence and relative abundance of dragonflies and damselflies in the Upper Mississippi National Wildlife and Fish Refuge.

City of Stevens Point - WCW Cooperative, Goose Project

The WCW and the City of Stevens Point hired student Jaden Kerkhoff to assist with a management project that included investigating the effectiveness of hazing over-abundant Canada geese from Pffnner Park in Stevens Point. Jaden used bio-acoustics (audio of goose alarm calls) and pyrotechnics to haze geese from the park. Jaden also recorded the number of geese and the timing of their park use. Jaden presented his results to the City and has plans to present at UW-Stevens Point research symposia.

Grants

- Resolving human-wildlife conflicts in Southern Africa. Donation, PI (100%) 2019. \$8,900
- 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, Co-PI (50%) 2018-2021. \$45,000
- Long-range forecasting of the spread of Chronic Wasting Disease across the Upper Mississippi River Valley. US Geological Survey. Co-PI (10%) 2018-2020. \$90,000

Final Report: Bald Eagle Nest Monitoring on the Upper Mississippi River, 1990–2012



Photo of bald eagles on nest at
obtained from <https://www.flickr.com/photos/usfwsmprairie/34084169930>

Written by Stuart Fetherston, Benjamin Tjepkes, and Scott Hygnstrom
Wisconsin Center for Wildlife,
College of Natural Resources,
University of Wisconsin - Stevens Point
and
Stephen Winter
Upper Mississippi River National Wildlife and Fish Refuge
51 East 4th Street, Suite 105, Winona, MN 55987

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Jaden Kerkhoff collects goose data in Pffnner Park, Stevens Point, WI

Scott Hygnstrom, Ph.D.

Peer-reviewed Publications

- Wilber, M., K. Pepin, H. Campa, **S. Hygnstrom**, M. Lavelle, T. Xifara, K. Vercauteren, and C. Webb. 2019. Modeling multi-species and multi-mode contact networks: implications for persistence of bovine tuberculosis at the wildlife-livestock interface. *Journal of Applied Ecology* 56:1471-1481.
- 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 Journal*. (Accepted)



An African lion lies in the sun while students conduct research

Extension Publications

Peer Edited Extension Publications

- Braband, L., P. Curtis, M. Fishman, T. Hiller, **S. Hygnstrom**, and S. Vantassel. Private-Sector Wildlife Professionals: Where do they fit? *The Wildlife Professional*.
- Smith, R., P. Curtis, and **S. Hygnstrom**. Developing training standards for wildlife control Operators. 18th Wildlife Damage Management Conference Proceedings.
- Smith, R., P. Curtis, and **S. Hygnstrom**. 2019. Wildlife control operator occupational standards. National Wildlife Control Training Program, Ithaca, NY. 16 pp.

Books and Other Publications

- Curtis, P.D, **S.E. Hygnstrom**, and R. Smith. 2019. Core Principles of Wildlife Control and Species Information. 7th edition. National Wildlife Control Training Program, Ithaca, NY. 468 pp.
- Smith, R., P. Curtis, and **S. Hygnstrom**. 2019. Managing Wildlife Damage-Practical Methods for Resolving Human-Wildlife Conflicts. National Wildlife Control Training Program, Ithaca, NY. 125 pp.
- Smith, R., P. Curtis, and **S. Hygnstrom**. 2019. NWCTP Guide to Acceptable Management Practices for Bat Eviction and Structural Remediation. National Wildlife Control Training Program, Ithaca, NY. 40 pp.

WCW Primaries - Jason Riddle, Ph.D.



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

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



Grants

- Turkey Productivity Grant. (co-author) \$358,700
- Ring-necked Duck Drone Project. (co-author) \$14,560
- National Ecological Observatory Network (NEON) \$13,720
- Woodcock Habitat Project. (co-author) \$4,000
- Ruffed Grouse Habitat Project. (partner) \$5,000

Teaching and Advising

Courses Taught at UW-Stevens Point

- Natural Resources 151 - Ecological Basis for Natural Resources Management
- Wildlife 311/511 - Quantitative Methods for Wildlife and Fisheries Research and Management
- Wildlife 100 - Wildlife Profession and Preparation
- Wildlife 458/658 - Wildlife Ecology and Conservation Biology

Advising

40 Undergraduate Students

Two undergraduate Douglas Stephens and Boone and Crockett Research Fellows

- Megan Brown
- Nora Hargett

One Turkey Project Undergraduate Research Fellow

- Shelby Truckenbrod

Three Graduate Students

- Ross McLean
- Sabine Berzins
- Hannah Butkiewicz

Jason Riddle, Ph.D.

Accomplishments

- Earned USFWS sub-permittee status for passerine, near-passerine, and northern saw-whet owls in Wisconsin

Awards

- University Leadership Mentor Award at UW-Stevens Point
- Advisor of the Year Award from The Wildlife Society (nominated)

UW-Stevens Point Student Chapter of TWS

Student Chapter of the Year Award

- The Wildlife Society 2019, Reno, NV
- The North Central Section of The Wildlife Society, Springfield, IL

Professional Organizations

Wisconsin Chapter of The Wildlife Society -
Interim Past President

Midwest Ruffed Grouse Symposium (to be held February, 2020)
Chair of Steering Committee

North Central Section of The Wildlife Society-
President-Elect for 2020



Members of the UW-Stevens Point Chapter of TWS with Jason Riddle and TWS President, Darren A. Miller, and the Student Chapter of the Year Award at the 2019 Annual Meeting of TWS in Reno, NV

Photo Credit: UW-Stevens Point Student Chapter TWS



Turkey Productivity Project

Hundreds of trail cameras have been deployed across Wisconsin by the WDNR in cooperation with private landowners through the Snapshot Wisconsin Program. These cameras have generated nearly 300,000 images of wild turkeys. Our graduate student, Hannah Butkiewicz, co-advised by Dr. Jennifer Stenglein with the WDNR, is using these images to estimate hen to poult ratios as well as turkey productivity rates. Hannah is working closely with our Undergraduate Research Fellow, Shelby Truckenbrod, to accomplish this work while also mentoring Shelby through the research process with Shelby's own independent research questions. Shelby's Undergraduate Research Fellowship is the first 2-year fellowship of its kind at UW-Stevens Point.

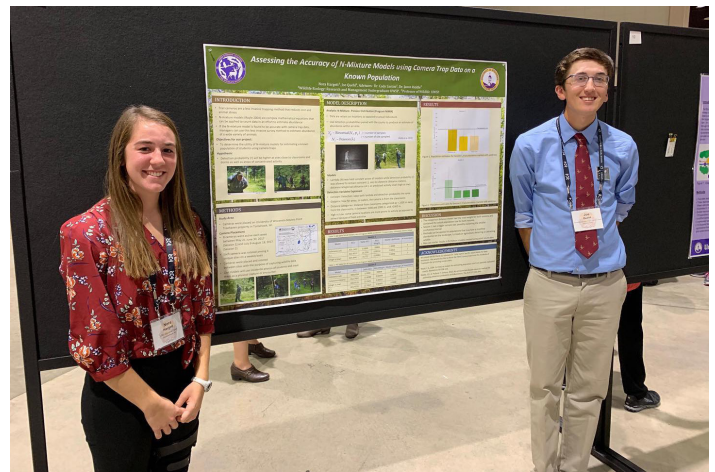


A flock of turkeys captured by a WDNR Snapshot Wisconsin camera:
www.zooniverse.org/projects/zooniverse/snapshot-wisconsin

Jason Riddle, Ph.D.

Presentations Co-authored or Mentored

- Brown, M.E., **J. Riddle**, S. Dubay, B. Strobel, R. McLean. Detecting secretive marshbirds and the impacts of water management. Annual Meeting of the Wisconsin State Chapter of The Wildlife Society, Wausau, WI
- Brown, M.E., **J. Riddle**, S. Dubay, B. Strobel, R. McLean. The secret to managing secretive marshbirds. Invited talk for the Boone and Crockett Club at the 84th North American Wildlife and Natural Resources Conference. Denver, CO
- Brown, M.E., **J. Riddle**, S. Dubay, B. Strobel, R. McLean. The affects of water management on secretive marshbirds. Invited talk for the Bill Cook Chapter of the Isaak Walton League, Stevens Point, Wisconsin
- Brown, M.E., **J. Riddle**, S. Dubay, B. Strobel, R. McLean. Managing impoundments for secretive marshbirds. Jim and Katie Krause CNR Student Research Symposium. Highest Honors
- Lang, A. and M. Fell. Seasonal weight change in migrating northern saw-whet owls. Jim and Katie Krause CNR Student Research Symposium. Honorable Mention
- Hargett, N., J. Quehl, C. Sartini, and **J. Riddle**. Assessing the accuracy of n-mixture models and mark-recapture using camera trap data on a known population. Jim and Katie Krause CNR Student Research Symposium
- Williams, J., B. Tjepkes, R.A. Martin, J. Quehl, L. Cutler, and **J. Riddle**. Determining an acoustical component to drumming log selection in ruffed grouse (*Bonasa umbellus*). Jim and Katie Krause CNR Student Research Symposium
- Quehl, J., N. Hargett, C. Sartini, and **J. Riddle**. Assessing the accuracy of N-mixture models using camera trap data on a known population. 26th Annual Conference of The Wildlife Society. Reno, NV
- Quehl, J. R. Martin, B. Roberts, L. Cutler, and **J. Riddle**. Preliminary study into the seasonal movement patterns of ruffed grouse (*Bonasa umbellus*). 26th Annual Conference of The Wildlife Society. Reno, NV
- R.P. McLean. The influence of impoundment management on whooping and sandhill crane colt survival at Necedah NWR. 79h Midwest Fish and Wildlife Conference. Cleveland, OH
- R.P. McLean, B.N. Strobel, **J.D. Riddle**, S.A. Dubay, and J.M. Fox. The influence of impoundment management on whooping and sandhill crane colt survival at Necedah NWR. Annual Meeting of the Wisconsin State Chapter of The Wildlife Society, Wausau, WI
- Williams, J., J. Quehl, R. Martin, L. Cutler, and **J. Riddle**. Our journey to discover: why a ruffed grouse (*Bonasa umbellus*) chooses a drumming log. Treehaven Dinner and a Talk Series. Tomahawk, WI



Undergraduate students presenting their research at The Wildlife Society Conference in Reno, NV
Photo Credit: UW-Stevens Point Student Chapter TWS

Jason Riddle, Ph.D.

Peer-reviewed Publications

- Broadway, M.S., **J.D. Riddle**, M.A. Hardy, S. Hull, C. Pollentier, and B. Zuckerberg. Incubation and intra-seasonal temporal trends explain greater prairie-chicken nest survival in Wisconsin. *Avian Ecology and Conservation* (in review)
- Broadway, M.S., R.N. Konkle, and **J.D. Riddle**. Nest depredation times and their relationship with spatial characteristics on a circadian scale. *Journal of Field Ornithology* (in review)
- Dittrich, J. J., **J. D. Riddle**, and S. Hull. Lack of observer differences in ring-necked pheasant detection rates. *Wildlife Society Bulletin* (in review)
- Hardy, M.A., M.S. Broadway, C.D. Pollentier, V.C. Radeloff, **J.D. Riddle**, S.D. Hull, and B. Zuckerberg. Responses to land cover and grassland management vary across life-history stages for a grassland specialist. *Ecosphere* (in review)
- Hyzy, B.A, R.E. Russell, **J. Riddle**, A. Silvis, T. Ginnett, K. Russell, and W.M. Ford. Occupancy of northern long-eared bats in the Lake States Region: accounting for misclassification errors. *Wildlife Society Bulletin* (in review)
- Hyzy, B.A, R.E. Russell, A. Silvis, W.M. Ford, and J. Riddle. Investigating maternity roost selection of northern long-eared bats at three sites in Wisconsin. *Endangered Species Research* (in review)
- Shurba, J.A., R.A. Cole, M. Broadway, C. Roderick, **J.D. Riddle**, S.A. Dubay, and S. Hull. Gapeworm (*Syngamus trachea*) presence and prevalence in Wisconsin greater prairie chickens (*Tympanuchus cupido*). *Journal of Parasitology* (in review)



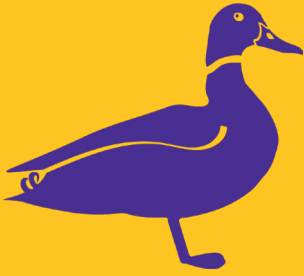
Saw-whet owl being measured for an undergraduate research project

Photo Credit: UW-Stevens Point Student Chapter TWS

Other Publications

- Dubay, S., A. Lacy, R. McLean, **J.Riddle**, and B. Strobel. Whooping and sandhill crane colt survival. An Executive Summary for the State of the Birds Grant

WCW Primaries - Ben Sedinger, Ph.D.



Ben Sedinger joined the WCW in July 2019 as the new Kennedy-Grohne Chair in Waterfowl and Wetlands Conservation. Ben joins us from the University of Nevada-Reno, where he was a postdoctoral researcher. He advises graduate and undergraduate research focused on waterfowl. Ben also is developing and teaching a unique waterfowl ecology and management course.



Leadership and Service

Student Organization Leadership

- Faculty Advisor for UW-Stevens Point Student Chapter of Ducks Unlimited
- Advisor for student TWS Wood Duck Project

College of Natural Resources

- CNR Graduate Committee Member

Professional Conferences

- Co-chaired plenary on waterfowl harvest dynamics and management with seven speakers at the North American Duck Symposium in Winnepeg, MB
- Co-chaired special session on using life-history theory to inform gamebird management at The Wildlife Society in Reno, NV

Teaching and Advising

Courses Taught at UW-Stevens Point

- Wildlife 353/553: Analysis of Wildlife Populations
- Wildlife 361/561: Waterfowl Ecology and Management
- Natural Resources 250: Introduction to Fisheries, Forestry and Wildlife

Advising

- 33 Undergraduate Students

Graduate Students

- Andrew Greenawalt
- Jordan Thompson
- Kristen Schmidt



Students perform necropsies on duck carcasses for Wildlife 361, Waterfowl Ecology and Management

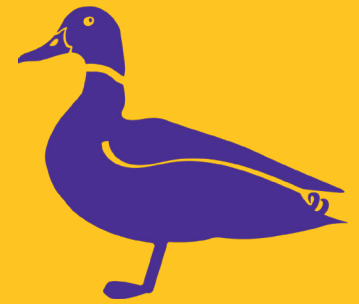
Ben Sedinger, Ph.D.

Grants

- Upper Mississippi River Great Lakes Joint Venture Wood Duck Project. 2-year grant total: \$89,324
- Cooperative Ecosystem Studies Unit network grant with Yukon Delta NWR in Alaska Emperor Goose Project. 2-year grant total: \$77,093



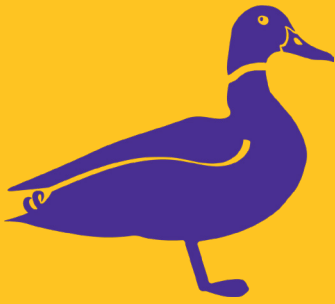
Federighi Graduate Assistant Andrew Greenawalt (left) and UW-Stevens Point undergraduate project assistant Rachel Martin with wood ducks they banded at Mead Wildlife Area



Presentations

- Riecke T., P. Williams, T. Behnke, D. Gibson, A. Leach, **B. Sedinger**, P. Street, J. Sedinger, Integrated population models: model assumptions and inference. The Wildlife Society National meeting, Reno, NV, October 2019
- **Sedinger, B.**, T. Riecke, J. Sedinger, F. Rohwer, C. Feldheim, P. Williams. Rethinking waterfowl harvest management from a life-history perspective. The Wildlife Society National meeting, Reno, NV, October 2019
- Sedinger, J., T. Riecke, **B. Sedinger**, E. Blomberg. Longitudinal data and life-history theory: how should we guide the future of gamebird management? The Wildlife Society National meeting, Reno, NV, October 2019
- **Sedinger B.**, T. Riecke, J. Sedinger, F. Rohwer, C. Feldheim, P. Williams. Cross-seasonal models reveal correlations among seasonal mortality, harvest and environmental conditions in North American mallards. North American Duck Symposium, Winnipeg, MN, Canada, August 2019
- **Sedinger, B.**, Update on waterfowl teaching and research at UWSP. Wisconsin Wildlife Federation, Stevens Point, WI, December 2019
- **Sedinger B.**, T. Riecke, Harvest dynamics of North American waterfowl. Nevada Department of Wildlife, Reno, NV, January 2019

Ben Sedinger, Ph.D.



Peer-reviewed Publications

- Riecke T., **B. Sedinger**, P. Williams, A. Leach, J. Sedinger, 2019. Estimating correlations among demographic parameters in population models. *Ecology and Evolution*, 9, 13521-13531
- Riecke T., T. Behnke, D. Gibson, A. Leach, **B. Sedinger**, P. Street, J. Sedinger. 2019. Integrated population models: bias and inference. *Methods in Ecology and Evolution*, 10, 1072-1032
- **Sedinger B.**, T. Riecke, C. Nicolai, K. Stewart. 2019. Experimental harvest regulations reveal that water availability during spring, not harvest, affects change in a waterfowl population. *Ecology and Evolution*, 9, 12701-12709

Other Publications

- **Sedinger, B.** So long Nevada, you have been good to me. Nevada Waterfowl Association Online Flyer. Summer 2019

Presentations Continued

- Riecke, T., **B. Sedinger**, J. Sedinger, F. Rohwer, C. Feldheim, P. Williams. Rethinking waterfowl harvest management from a life-history perspective. The Wildlife Society National meeting, Reno, NV, October 2019
- Riecke, T., **B. Sedinger**, T. Arnold, C. Feldheim, F. Rohwer, P. Williams, J. Sedinger. Abundance drives cause-specific teal mortality. North American Duck Symposium, Winnipeg, MN, Canada, August 2019
- Sedinger J., T. Riecke, **B. Sedinger**. Waterfowl population models: New biological findings and harvest management. North American Duck Symposium, Winnipeg, MN, Canada, August 2019

Mississippi River Field Trip - Ben Sedinger, Ph.D.

A highlight from Waterfowl Ecology (Wildlife 361/561) was our trip to the Mississippi River during the peak of fall migration. On Saturday, November 16th, 2019 we made our way towards Necedah National Wildlife Refuge where we stopped to observe a few hundred sandhill cranes feeding in a recently cut corn field. We then headed for the USGS Upper Midwest Environmental Science Center in La Crosse, WI, where we had a tour of the research facilities, including a huge area for fish culture. Students also learned about employment with the Federal government.



Students view waterfowl on the Mississippi River during a field trip for their Waterfowl Ecology course.



Students observe a fish culture facility at the USGS Midwest Environmental Science Center in La Crosse

After the tour and a hearty parking-lot-lunch of elk chili, USGS biologist Luke Fara took us on a tour of Pool 8 on the Mississippi River. We viewed several huge habitat improvement projects and counted 12 different duck species, including a banded mallard perched on a log, tundra and trumpeter swans, and some Canada geese. The canvasback migration was especially exciting— while we missed the peak, we

still saw many thousands rafted up and gorging themselves on wild celery buds in preparation for the rest of their migration and the coming winter. We also watched a big group of ring-necked ducks feeding near a large bed of wild celery. Before driving back to Point, we stopped by the Upper Mississippi River NWR office in La Crosse to hear about how the River has changed through time and how the USFWS manages the Refuge for wildlife.

- Ben Sedinger



Waterfowl Ecology students enjoy a tour at the USGS Midwest Environmental Science Center



WCW Primaries - Cady Sartini, Ph.D.

Cady Sartini is the WCW's newest primary educator and researcher. While Cady has served as a full-time assistant professor since 2015, she joins the WCW through taking over the UW-Stevens Point Wisconsin Black Bear Project, which is a long-term project that has been ongoing for over 30 years.

Leadership and Service

Through the Wisconsin Black Bear Project, Cady has engaged 18 undergraduate students who participated in field work and monitoring.

Student Organization Leadership

- Women in Natural Resources - Co-advisor
- UW-Stevens Point Herpetology Society - Advisor

College of Natural Resources

- UW-Stevens Point Office of Student Creativity and Academic Research Committee
- CNR Curriculum Committee



Teaching and Advising

Courses Taught at UW-Stevens Point

- Wildlife 150 - People, Resources, and the Biosphere
- Wildlife 305 - Behavioral Ecology
- Wildlife 350 - Wildlife Management Techniques
- Wildlife 340 - Field Experience in Wildlife Management Techniques
- Wildlife 450/650 - Human Dimensions of Wildlife
- Natural Resources 405/605 - Lake Superior Region: Natural Resources, Culture, and Climate Change

Advising

- 31 undergraduate students

Graduate Students

- Janel Scharhag
- Matthew Hanneman

Wisconsin Black Bear Project

The Wisconsin Black Bear Project began in the mid-1980s in the College of Natural Resources and continues today. Over the years, the project has produced ten masters theses which have contributed greatly to the understanding of black bear ecology in the state. Countless undergraduate students have witnessed and gained hands-on experience with safe and humane capture, anesthetization, collaring and tagging of black bears, and have 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 provide long-term data on bear cub production and survival to the state of Wisconsin. UW-Stevens Point maintains 12 to 20 collared female black bears in Clam Lake, WI and the Chequamegon National Forest.



Cady Sartini (right) assists a student volunteer carrying an anesthetized black bear fitted with radio color and ear tags.

Each year, collared bears are visited in their dens while hibernating. They are anesthetized, measured, weighed, and have their collars replaced or adjusted if necessary. The cubs or yearlings also are counted, weighed, and measured.

Plans for 2020 include monitoring the current collared bears as well as collaring additional bears.



A black bear raised at a wildlife rehab center is released after being fitted with a radio collar and ear tags.

The previous project lead, Tim Ginnett, retired in 2019. Administrative and funding concerns led to a temporary halt on collaring new bears in late 2018 and early 2019. As of January 2019, UW-Stevens Point had four collared bears.

Then in October, after Cady Sartini became the project lead, two bear cubs had been raised at a wildlife rehabilitation center, collared, released to the wild, and were monitored with radio telemetry until they went into hibernation for the winter.



A student uses radio telemetry to locate collared bears

Cady Sartini, Ph.D.

Peer-reviewed Publications

- Netherton, H.K., M.J. Rader, S.M. Crimmins, B.K. Lackey, and **C. Sartini**. Situational and demographic impacts on university student attitudes towards bears and their management. *Human Dimensions of Wildlife* (in review)
- Scharhag, J., **C. Sartini**, S. Crimmins, S. Hygnstrom, and J. Stetz. Characteristics of non-fatal attacks by American black bear, 2000-2017. *Wildlife Society Bulletin*. (in review)



Presentations

Co-Authored or Mentored

- Foster, H. 2019. Impacts of Hollywood film and documentaries on people's perceptions of wildlife species. Student Research Symposium, College of Natural Resources, Stevens Point, Wisconsin
- Hammons, M. 2019. Butterfly response to barrens management at Crex Meadows Wildlife Area, Grantsburg, WI. Student Research Symposium, College of Natural Resources, Stevens Point, Wisconsin
- Hargett, N. and J. Quehl. 2019. Assessing the accuracy of n-mixture models and mark-recapture using camera trap data on a known population. National Conference of The Wildlife Society, Reno, Nevada (poster)
- Hargett, N. and J. Quehl. 2019. Assessing the accuracy of n-mixture models and mark-recapture using camera trap data on a known population. Student Research Symposium, College of Natural Resources, Stevens Point, Wisconsin (poster)
- Scharhag, J. 2019. Non-fatal black bear attacks in the conterminous United States: 2000-2017. Wisconsin Chapter of The Wildlife Society Winter Meeting, Rothschild, Wisconsin
- Scharhag, J. and C. **Sartini**. 2019. Non-fatal black bear attack associations, manager perceptions of risk management and litigation. 5th International Human-Bear Conflict Conference, Gatlinburg, TN
- Zappa, T., C.J. Glass, N. Bartles, and E. Kuhel. 2019. Does experience matter? Observing how previous experience of students may affect trail camera setup. Student Research Symposium, College of Natural Resources, Stevens Point, Wisconsin

Support WCW

Thank you for reading the WCW 2019 Annual Report. If you enjoyed what you see here and would like more information, be sure to check out our website at 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 are largely 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 the 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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