



FOREST AND WILDLIFE ECOLOGY NEWS



A Newsletter for Dept. of Forest and Wildlife Ecology Staff, Students, Alumni, and Friends

Vol. 19, No. 1

May 2016

Can coyotes and fox co-exist with people in urban areas?

Urban canid study hopes to answer that question and more.

Not only is Madison home to nearly 300,000 human inhabitants, it is also home to an existing and seemingly growing population of red fox (*Vulpes vulpes*) and coyotes (*Canis latrans*). David Drake, Extension Wildlife Specialist and Professor, is leading the UW urban canid project along with Marcus Mueller, MS candidate, to understand more about the ecology of red fox and coyotes in an urban landscape. There are three main objectives: 1) understand interactions between red fox and coyotes, 2) evaluate the health of these urban canids, and 3) raise the public's awareness, knowledge, and tolerance for red fox and coyotes in Madison.

Drake and Mueller use cable restraints (live traps) to catch red fox and coyotes. Once trapped, they anes-

A trail cam captures a rare encounter between a fox (bottom of photo) and coyote. The two species typically do not share territory.



thetize the animal, draw blood and collect other health samples, ear tag, and fit a radio collar, then use a drug to reverse the anesthetic. Once radio-collared, each animal is located once per week.

In rural areas, one factor that seems to dictate red fox distribution is the presence or absence of coyotes. Where coyotes are found, typically red fox are not because coyotes will kill red fox to limit competition. Preliminary findings from the UW urban canid project suggest that red fox and coyotes in Madison commonly overlap in space and, although less frequently,



The coyote caught in a live trap (above) will be anesthetized and researchers will collect data on its health before it is released.

also in time. A possible explanation for spatial and temporal overlap is that they may be sharing abundant resources in urban areas rather than competing for scarcer resources in rural areas. Preliminary findings also suggest that urban red fox and coyotes are generally healthy, although coyotes seem more susceptible to diseases like Lyme and heartworm than red fox. This may be

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The red fox above has a new radio collar. Urban canid project researchers will locate the fox weekly to track its movement.



Alumni Update

Alexander Rahmlow's (BS Forest Science 2011) graduate studies in the Biological and Health Sciences Department at Texas A&M University-Kingsville are off to a great start. He recently received two first place awards at the 12th Annual Pathways Student Research Symposium—one for the best graduate level poster presentation and the other in the Graduate Life Sciences category. He also was awarded second place for his presentation at the 17th Annual GIS Coastal Bend consortium's GIS Day.
alexrahmlow@gmail.com

Amber Roth (MS Wildlife Ecology 2001) recently began a new tenure-track position as Assistant Professor of Forest Wildlife Management at the University of Maine in Orono. The position is split between the School of Forest Resources and the Department of Wildlife, Fisheries, and Conservation Biology.
amber.roth@maine.edu

David J. Lauten (MS Wildlife Ecology 1995) and his long-time
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FOREST AND WILDLIFE ECOLOGY NEWS is published by the Dept. of Forest and Wildlife Ecology

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News from the Chair



Mark Rickenbach

May brings the end of another academic year. Our seniors are poised for graduation, while many graduate students gear up for the summer field season. It is easy to get distracted by all that has happened in Wisconsin recently, but all-in-all, the Department remains strong: our students are smart and energetic, our cutting edge research advances science, and extension and outreach activities inform management in Wisconsin and beyond.

Reductions in state resources have affected us, but generous support from alumni and friends—through financial gifts, connections with students, or otherwise lending a hand—has been key in helping us remain a vibrant department. It is a strong vote of confidence for faculty, staff, and students.

UW–Madison recently launched a comprehensive campaign, “All Ways Forward,” to raise the necessary funds to

advance the entire university. The campaign seeks to touch every aspect of the UW–Madison experience, and our Department has four goals that fit within this larger campus initiative.

- Increase the number of experiential and field-based learning opportunities—like summer camp—for undergraduates.
- Provide support to graduate students to train the next generation of ecological and natural resource researchers.
- Improve our teaching and research facilities. (Yes, we're still in Russell Labs.)
- Retain and recruit top faculty, to include the creation of named professorships.

Yes, we are ambitious, but we have a great history and a bright future. My guess is that many of you help us continue that story every day. If you are so inclined to help continue our story financially, we ask you to participate in the campaign. Either way, we always like hearing from you.

For financial gifts, you can give cash (see page 7), appreciated stock, or include us in your estate plan. For more information about participating in the All Ways Forward campaign, contact me (608-263-6710 - mark.rickenbach@wisc.edu) or Jodi Wickham at the UW Foundation (608-206-6058 - jodi.wickham@supportuw.org).

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due to coyotes concentrating their time in urban green spaces where tick and mosquito habitat is more available than areas where fox are mostly found, which is in residential neighborhoods and other developed areas. The UW urban canid project has engaged the public in a number of ways, including inviting the public to participate in their research by walking the trap line and report sightings of red fox and coyotes. The project also maintains an active Facebook page and website, and project personnel give public presentations to explain the project and help the public understand how to maintain a peaceful co-existence with red fox

and coyotes. Students from FWE, as well as veterinarian students, are also involved in the project and gain valuable experience trapping, handling, and tracking urban canids.

For more information about the canid project, please visit their Facebook page (UW urban canid project) or website uwurbancanidproject.weebly.com. If you see a red fox or coyote in or around Madison, please report the sighting using the UW urban canid project's iNaturalist page, an on-line citizen science reporting form. The web address for the iNaturalist page is <http://uwurbancanidproject.weebly.com/reporting-an-observation.html>.



Department News

Van Deelen promoted to full professor



Professor Tim Van Deelen was approved for promotion to full professor as of July 1, 2016. He earned his PhD in wildlife ecology at Michigan State University in 1995 and

joined the department as an assistant professor in 2004. He specializes in large mammal management, population dynamics, and the impact of Wisconsin's wolf population on white-tailed deer.

Guries and Smalley receive Lifetime Achievement Award



Ray Guries



Eugene Smalley

The Wisconsin Urban Forestry Council presented Emeritus Professor Ray Guries and Eugene Smalley (post humously) with its Lifetime Achievement Award. The award is presented to individuals who have made outstanding contributions to urban forestry in Wisconsin throughout their careers. Together Guries and Smalley developed elm cultivars that are resistant to Dutch elm disease and mentored numerous university students over the years. According to R. Bruce Allison, Wisconsin Urban Forestry Council member, Smalley joined the UW-Madison faculty in 1957 specifically to research ways to battle Dutch elm disease. When it became obvious that chemical treatment was not a viable option, he planted thou-

sands of elm trees searching for resistant cultivars. As the project grew, Guries was recruited to join the faculty and partner with Smalley. Together they had many successes with cultivars resistant to Dutch elm disease: Sapporo Autumn Gold, Regal, New Horizon, and American Liberty. Both men also made significant contributions to the scientific literature and to educating new generations of arborists and foresters. After Smalley died in 2002 at age 75, Guries continued the Elm Breeding Program as well as taught courses and mentored students, served as department chair, and served as an interim CALS administrator before retiring in 2011. The Wisconsin Urban Forestry Council advises the WI Department of Natural Resources and State Forester on the best ways to preserve, protect, expand, and improve Wisconsin urban and community forest resources.

UW ag and forestry ranked 5th in world

The UW-Madison was ranked 5th in the world in the area of Agriculture and Forestry by QS World University Rankings. The annual rankings highlight the world's top universities in 42 subjects, based on academic reputation, employer reputation, and research impact. To view additional rankings and information about ranking methodology, visit the QS Top Universities website: <http://www.topuniversities.com/>.

Remembering Aldo Leopold's students

As part of his activities as a Senior Fellow at the Aldo Leopold Foundation, Professor Emeritus Stan Temple is writing a new series of monthly blog posts exploring the legacy of Aldo Leopold's 26 graduate students. He began the series in February this year by remembering Leopold's last surviving student, Dick Taber who died in January (see page 4). <http://www.aldoleopold.org/post/exploring-the-legacy-of-leopolds-students-remembering-dick-taber/>

Forestry alumni mixer set for May 21

All forestry alumni of the Department of Forest and Wildlife Ecology are invited to a Forestry Alumni Mixer on Saturday, May 21, 4-6 pm at Kemp Natural Resources Station, 9161 Kemp Rd, Woodruff, WI. The picnic will be held during Forestry Summer Camp and will give our current students a chance to mingle with our seasoned graduates. This is a family friendly event with brats and refreshments being served. **Please RSVP by May 10 to:** fwealumni@russell.wisc.edu. Provide your name and the names of family members that will be attending with you. Unfortunately, housing will not be available at Kemp given the number of students and researchers already on station, but feel free to come early to enjoy the station.

Temple will continue writing about Leopold's students in reverse chronological order of the year when they began their studies with Leopold. Thus the second post in the series was dedicated to Leopold's last student, Bob Ellarson (PhD 1956), who went on to spend his career as a pioneering wildlife extension specialist in our department. <http://www.aldoleopold.org/post/exploring-the-legacy-of-leopolds-students-remembering-bob-ellarson/>

You can follow Temple's future monthly postings at <http://www.aldoleopold.org>.

Two alumni on CALS Board of Visitors

We are honored that two department alumni are serving four-year terms on the CALS Board of Visitors (BOV). Bill Staudenmaier (BS Forest Science and Soil Science with distinction 1983) joined

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Alumni News continued from page 2

partner Kathy Castelein received the Outstanding Service Award from the Oregon Chapter of The Wildlife Society for their 19 years of service working with, monitoring, and managing the threatened population of Western Snowy Plovers on the Oregon Coast. Kathy also has ties to the department. She worked as a field technician for various projects and professors, including Don Rusch and Stan Temple. deweyesage@frontier.com

Lee Jennings (BS Wildlife Ecology 1974) has taken a position as agronomist technician at the Brown County Land & Water Conservation Department located in Green Bay. leer-jennings@gmail.com

In Memoriam

Richard D. Taber, Aldo Leopold's last living student, died on January 24, 2016, in Missoula, Montana. Taber was 95 years old. Taber earned his MS degree at UW-Madison in 1949. However, Leopold died in April 1948 before Taber finished his degree. Joe Hickey, assumed responsibility for advising Taber through the completion of his Master's. Taber earned his PhD degree at UC-Berkeley under the direction of Aldo Leopold's son, Starker Leopold. Taber held faculty positions at the University of Montana and, later, at the University of Washington in Seattle, where he was a colleague of another of Aldo Leopold's offspring, Estella. A celebration of Taber's life is scheduled for July 9, 2016, at 11 am at the United Church of Christ in Missoula, MT. For more details about Richard Taber please see Stan Temple's blog at The Aldo Leopold Foundation's website: http://www.aldoleopold.org/post/exploring-the-legacy-of-leopolds-students-remembering-dick-taber/#disqus_thread

Board of Visitors, continued from Page 3



Bill Staudenmaier



Terry Droessler

the BOV in 2014 and Terry Droessler (BS Forest Science 1981 and MS Forestry 1983) has been active with BOV since 2013. The BOV serves as an outside advisory group to the Dean of the College. It meets twice each year. Staudenmaier is an attorney in Phoenix with 25 years of experience practicing water law and natural resources law. In addition to his undergraduate degree from UW-Madison he earned a JD, magna cum laude at University of Michigan Law School. Droessler earned a PhD in forest biometrics from the University of Minnesota. He has over 25 years of experience in quantitative natural resource analyses, with emphases in growth and yield model setup, projection of silvicultural scenarios, inventory design and processing, harvest scheduling, timberland appraisal, statistical analyses, and expert witness work. In 2005 he formed his own consulting business called Forest Analytics LLC located in Oregon.



Sara Rodock

Rodock receives undergrad advising award

Sara Rodock, student services coordinator, recently received the UW-Madison Outstanding Achievement in Undergraduate Advising Award. The award recognizes Rodock for her exceptional work supporting undergraduate and graduate students in forest and wildlife ecology as well as entomology and plant pathology. Rodock was selected based on her commitment to undergraduate education; ability to build strong relationships

with students, faculty, and staff; equity and inclusion in her advising practices; and offering innovative advising and programming. The award selection committee included members from the Office of Undergraduate Advising and previous award winners.



New tool detects wood defects

Adjunct Faculty member R. Bruce Allison has invented and recently patented Sonic Wave Tree Decay Detection, an inexpensive handheld tool that uses impact-induced stress waves applied through tree trunks to determine the presence of decay or defect. The tool should prove useful to urban foresters and others in assessing tree stability and predicting failure of trees thus avoiding risk to people, vehicles, and utility lines. The tool is jointly patented to Allison as first inventor and the US Forest Service. Commercial marketing of the tool will begin this spring. Allison plans to provide the tool to the department so that researchers and students can try it out. Allison will also share the invention process with students so they might be inspired to bring their own creative solutions to reality.



Student News

Students impress at WI TWS annual meeting

Congratulations to **Lucas Olson**, a senior majoring in wildlife ecology. He was awarded the state chapter of The Wildlife Society's Aldo Leopold Memorial Scholarship for undergraduates. Lucas will join Tim Van Deelen's lab as a graduate student in the fall. **Phil Manlick** was awarded the chapter's Aldo Leopold Memorial Scholarship for graduate students. Phil recently completed his MS degree working on American Martens with Jon Pauli and is continuing his graduate work for his PhD. In addition to the two scholarship recipients, Emily Iehl won the best graduate student paper for a contributed paper entitled *Declining Lake Ice Predicted to Impact the Structure of Large Mammal Communities in Apostle Islands National Lakeshore*. Several other students presented at the meeting, including **Brittany Peterson**, **Michael Wheeler**, and **Bryn Evans** as well as visiting scholar **Liu Bingwan**.

News from The Student Chapter of The Wildlife Society

The Student Chapter of The Wildlife Society has been busy this semester at UW-Madison. We have had multiple events this semester such as carnivore tracking, teaching children at the Wisconsin Institutes for Discovery on Aldo Leopold Day, a hiking trip at Blue Mounds State Park, The North Central Conclave, salamander crossing, elk habitat restoration, and observing a prairie chicken lek at Buena Vista Grasslands. We have had a very successful year, especially with regards to our annual game dinner. In addition, our very own president, Lucas Olson, won the prestigious Aldo Leopold Memorial Scholarship! We look forward to officer elections and having a strong finish to the end of the semester.

Eric Hammerer, Outreach Coordinator

Photo at right shows a wolf spoor found by TWS carnivore tracking team on their block in Babcock county.



Congratulations to our undergraduate scholarship recipients

Undergraduate students in Forest and Wildlife Ecology received over \$125,000 in scholarships over the 2015-16 academic year. These scholarships provide vital support to lighten the financial burden for students and sometimes provide the means for students attend college. Thank you to all who support scholarships at UW-Madison and within our department. Following is a list of students who received scholarships this academic year.

Forest Science Majors:

- Troy Baebler**, Departmental Forestry Scholarship
- Griffin Brown**, Robert B. Hendricks Memorial/Hardwood Manufacturers Association Scholarship
- Nathaniel Chotlos**, Stone Forestry Scholarship, Harry Sharff Memorial Scholarship
- Ethan Erdmann**, Departmental Forestry Scholarship

- Kyle Hall**, Stone Forestry Graduating Senior Award, Stone Forestry Scholarship
- Ralph Hutchens**, Departmental Forestry Scholarship
- Trevor Iglinski**, Stone Forestry Graduating Senior Award, Departmental Forestry Scholarship
- Philip Krahn**, Departmental Forestry Scholarship
- Kristina Kusel**, Robert B. Hendricks Memorial/Hardwood Manufacturers Association Scholarship
- Carly Ottery**, Earle D. Lyon Memorial Scholarship, Stone Forestry Scholarship, Vicky Lee Hirsh Academic Merit Award
- Michael Reitz**, Harry Sharff Memorial Scholarship, Stone Forestry Scholarship
- Robert Schwartz**, Stone Forestry Scholarship, Irving W. Gerhardt Scholarship

Scholarships continues on page 6



Forestry Club members and hosts Ted and Rose Amman (center front) pose in front of the "shack" where the Amman's process their maple syrup. Photo by Ellen Kinzer

Forestry Club Happenings

The Forestry Club held a number of social activities this semester, including a hockey game and a night at the Comedy Club. Throughout the semester we've hosted guest speakers for Friday lunch talks on topics such as wood identification, wildland fire fighting, and landowner perspectives. We also toured the Forest Products Lab with students from UW-Stevens Point, where we learned about wood composites, stress tests for bridges, and improving moisture content in houses. These events help expand our horizons on forest management and products. In early April, we traveled to Kemp Station to tour a sugar bush owned by retired DNR soil scientist and Badger alumni Ted Amman and his wife Rose. On deck for spring semester is the CALS Day for Kids, where we'll explain the importance of trees. We'll also host a discussion on forest management and sustainability with forestry professionals. Lastly, we hope to begin a new Arbor Day tradition with the Club by planting a Patton Silver Splendor white pine (white pine blister rust resistant) with the help of Dr. Stanosz. Our final events of the year are a Forestry Club hosted departmental cookout and a tree climbing workshop. We've had an incredible year and are excited to continue our momentum with our new officer team: President-Megs Seeley, Vice President-Kristina Kusel, Treasurer-Kyle Schansberg, Secretary-John Joutras, Reporter-Elly Voigt, and Tech Coordinator-Nate Chotlos. The Forestry Club thanks everyone in Russell Labs for the support they have provided to create such a successful year. - Logan Wells, President

Scholarships continued from page 5

Megan Seeley, Vicky Lee Hirsh Academic Merit Award, Helen Miller Forestry Scholarship, Dept of Forestry Scholarship

Teague Walsh-Felz, Vicky Lee Hirsh Academic Merit Award, Stone Forestry Scholarship

Elijah Welhouse, Stone Forestry Graduating Senior Award, Stone Forestry Scholarship

Logan Wells, Stone Forestry Scholarship, DeGrand/Coryell Scholarship

Wildlife Ecology Majors:

Lily Babler, Netzer-Brouchoud Scholarship

Hannah Butkiewicz, Ferdinand Plaenert Scholarship

Daniel Erickson, Alfred and Isabella Galpin Scholarship, Robert McCabe Field Course Scholarship Award, Vicky Lee Hirsh Academic Merit Award

Mirelle Goetz, Robert McCabe Field Course Scholarship Award, John A. Spurrell Scholarship

Jordan Gruel, Vicky Lee Hirsh

Academic Merit Award, Alfred and Isabella Galpin Scholarship

Angela Ingrassia, Irving W. Gerhardt Scholarship

William Kamp, John A. Spurrell Scholarship

Auna Kaufmann-Schwartz, Ruth and Carol Miller Academic Merit Award

Ellen Kinzer, Laurence N. and Anella W. Dexter Scholarship

Scout Kirby, Irving W. Gerhardt Scholarship

Brooke Klesmith, John E. and Elizabeth B. Ross Science Writing Scholarship, Alfred and Isabella Galpin Scholarship

Valerie Knurr, Vicky Lee Hirsh Academic Merit Award, John A. Spurrell Scholarship

Cody Lane, Henry Steenbock Academic Merit Award, Alfred and Isabella Galpin Scholarship

Gina Lehner, Robert A. McCabe Scholarship for Academic Excellence

Melissa Nelson, Wis. Rural Youth Scholarship, Diercks Family Wis. Rural Youth Scholarship

Lucas Olson, Netzer-Brouchoud Scholarship, Ruffed Grouse Society - John Michael Dew Memorial Scholarship, Wis. Rural Youth Scholarship, Cora I. Jayne Academic Merit Award

Nicole Perrett, Vicky Lee Hirsh Endowment for Conservation Scholarship

Maia Persche, Vicky Lee Hirsh Academic Merit Award, Alfred and Isabella Galpin Scholarship

Shelby Petersen, Robert A. McCabe Scholarship for Academic Excellence, Vicky Lee Hirsh Endowment for Conservaton Scholarship

Kelsey Rayment, John A Spurrell Scholarship

Kyle Schehr, Vicky Lee Hirsh Academic Merit Award

Grace Sowaske, Netzer-Brouchoud Scholarship, Robert McCabe Field Course Scholarship Award

Cody Tisdale, Vicky Lee Hirsh Academic Merit Award, John A. Spurrell Scholarship



FWE well represented at TWS annual meeting in Winnipeg

Many graduate students from the department traveled to Winnipeg, Manitoba in October 2015 to

participate in The Wildlife Society's annual conference. Students presenting were Emily Iehl, *Evaluating Hunter Recruitment, Retention, and Reactivation Programs in Wisconsin Using Mark-recapture Survival Analysis*; Michael Hardy, *Sharp-tailed Grouse Occupancy-Habitat Relationships: How do Birds Utilize the Matrix?*; Regan Dohm, *Will the Raptors Return? The Long-term Impact of Wind Development*; Bryn Evans, *Occupancy Models to Assess the Recovery of*



Bryn Evans (above left) presents her research findings during the poster session at TWS annual meeting in Winnipeg in October 2015.

Semi-aquatic Mammals in the St. Louis AOC; and Marcus Mueller, *Spatial Interactions Between Urban Red Foxes and Coyotes*. A group of undergraduate students also traveled to the meeting and competed in the quiz bowl. One graduate student commented that it was a great way to get acquainted with the undergrad wildlifers in another setting.

Forest Science student featured in the LEAFlet

Logan Wells, a senior majoring in forest science, was featured in the February 2016 issue of the LEAFlet, a newsletter distributed to K-12 educators by the Wisconsin Center for Environmental Education. The article focused on Wells demonstrating his portable sawmill to 4th grade students in Green County, Wis. He established the portable sawmill to nurture both his interests in entrepreneurship and education. Wells will graduate this spring and, according to LEAFlet, plans to continue his education at Purdue University, possibly eventually becoming a woods products extension specialist like his mentor and advisor Scott Bowe.

Forest and Wildlife Ecology Fund

We invite you to join us in our efforts to provide support for important department priorities. Donations to the General FWE Fund help cover the costs of the summer field camp and hosting activities such as special lectures. Donations to the Grad Student Travel Fund provide support for student travel to professional meetings.

I/we would like to donate to: General FWE Fund Grad Student Travel Fund

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If paying by check, please make your gift payable to UW Foundation and mail to: University of Wisconsin Foundation, US Bank Lockbox, P.O. Box 78807, Milwaukee, WI 53278.

Donations may also be made online at: <http://fwe.wisc.edu/alumni>

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RESEARCH CAPSULE

Diane Mayerfeld, Mark Rickenbach, Adena Rissman, and Keefe Keeley

QUESTION

Are Wisconsin resource professionals and farmers open to silvopasture?

PROJECT

Silvopasture intentionally integrates livestock and tree production. This management approach can increase net income and provide environmental benefits, but it has not been promoted or studied in Wisconsin. We interviewed foresters, agricultural professionals, and farmers to learn about their attitudes towards introducing silvopasture to Wisconsin.

FINDINGS

All three groups think silvopasture makes sense in some cases, and all would like to see demonstration sites and more information on how silvopasture would work in Wisconsin.



Photo by Ruth McNair, UWMadison CIAS