

CALIPER

Newsletter of the Department of
Natural Resources & the Environment
University of Connecticut

2017-18 Edition

www.caliper.uconn.edu

Highlights

Jack Clausen
sourcing *E. coli* in
surface waters
with DNA

John Volin new
Vice Provost for
Academic Affairs

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Editor this issue:
Dr. Gary Robbins,
with material by
Veronica DeFelice
and Ashley Sandy

New Head's Up



Dr. Jason Vokoun: New Interim Department Head

In May 2017, Dr. Jason Vokoun became NRE's Interim Department Head. Jason's scholarly activities are dedicated to resolving management issues associated with fisheries conservation and associated aquatic sciences, and recently finished serving as President of the Northeastern Division of the American Fisheries Society. He had at previous times been both Graduate Program Coordinator and Undergraduate Program Coordinator for NRE. In his role as Interim Head he also serves as Director of the Environmental Sciences interdisciplinary major. He is Director of the Wildlife and Fisheries Conservation Center, and was co-founder of the Connecticut Conference on Natural Resources (CCNR) in 2007. He received the Kinsman Award for Excellence in Undergraduate Teaching from the college in 2009. Known as a student-centered professor, Jason is proud of his former students and maintains connections with many of them post-graduation.

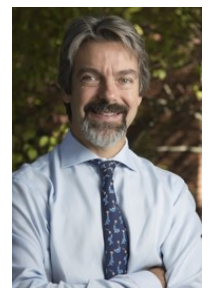
Tired of waiting a whole year for your NRE news?
Don't want to miss the excitement?
Now you can get updates in almost real time online:
www.caliper.uconn.edu



NRE is also on Facebook and Twitter:
Follow us **@UConnNRE**

Dr. John Volin Becomes New Vice Provost for Academic Affairs

In May 2017, John Volin became Vice Provost for Academic Affairs at UConn. Dr. Volin joined the Department of Natural Resources and the Environment as Department Head in 2007. He led our department through a decade of growth and change at UConn. In 2017, Dr. Volin received the Excellence in Research Award from our College. Dr. Volin also received the 2015 David Blick Science Education Award given through the Neag School of Education, recognizing those who have contributed significantly to its mission. Besides being involved in virtually everything academic at UConn, John's current \$3 million NSF grant on advancing informal STEM learning expanded the Natural Resources Conservation Academy programming and investigates intergenerational learning between youth and community partners.





Abby Beissinger Joins NRE as NRCA 'CAP' Coordinator



Abby Beissinger joined NRE as the Natural Resources Conservation Academy (NRCA) Conservation Ambassador Program (CAP) Coordinator in early 2017. She joined our faculty as an Assistant Extension Educator. The NRCA engages high school students, conservation volunteers, and teachers in environmental education and service learning programming, where teen participants come to campus for a week-long field

experience in summer, then once back in high school execute a long-term conservation project in their own communities. Abby provides her knowledge to the application of science in a direct, hands-on way. She says, "I really enjoy talking to folks about the NRCA because it is a great example of how to put science into practice, and translate classroom topics out into the field." Abby elaborated on how she loves the transformative power our field experience can have on students, and how many "firsts" it often provides. In many cases, it exposes students to their first time hiking off the trail, wearing waders, holding a fish, starting a campfire, using a shovel or saw, and using field instruments to collect environmental data.

Abby is interested in exposing more students to these authentic and outdoor experiences so there is greater chance of instilling in them a land

ethic and the desire to be stewards of our environment.

Abby attended the University of Wisconsin and received her B.A. in Anthropology in 2011. In her undergraduate studies, Abby focused on agriculture, sustainable development, and youth programming. She studied cultural anthropology and implemented sustainable development projects in Costa Rica, Mexico, and Uganda. After graduation, Abby managed environmental and urban agriculture programs for youth in Massachusetts and Chicago before beginning graduate school. In 2016, Abby graduated from Washington State University with her M.S. in Plant Pathology. Her research focused on the management of Potato virus Y, a plant virus that has caused more than 40% yield losses for seed potato and commercial potato growers in western Washington.

FOR MORE INFORMATION ABOUT NRCA PROGRAMS FOR TEENS AND TEACHERS VISIT THE ACADEMY WEBSITE AT: WWW.NRCA.UCONN.EDU

Faculty Award Winner



Dr. John Clausen: University Teaching Fellow Awarded

On April 4, 2017, the University Teaching Fellow Award was given to NRE Professor Dr. John "Jack" Clausen for a commitment to teaching, demonstrated knowledge of educational pedagogy, and an interest in fostering innovative teaching practices at the University. It is the University's highest recognition for teaching excellence. Congratulations Jack!

Dr. Glenn Warner Retires After 27 Years at UConn

Dr. Glenn Warner retired in February 2018 after 27 years at UConn as a Professor of Water Resources. From 2000 to 2018, Dr. Warner served as the Director of the Connecticut Institute of Water Resources (CTIWR), which is part of a national network of 54 water institutes. Glenn taught various Water Resources courses, including Watershed Hydrology, Dynamic Modeling of Ecosystems, and Soil and Water Management and Engineering. In retirement, Glenn will partially channel his passion for water resources through the international Partners in Development program. Dr. Warner has already made a trip to Guatemala, where he assessed water supplies, and also helped build several cook stoves for communities in need.

Dr. Warner received his Ph.D. from the University of Minnesota and joined the UConn faculty in 1990. His research focused on the prediction of runoff from landscapes using dynamic, deterministic models, as well as understanding the physical processes of runoff generation. Dr. Warner's research topics have included the influences of land use and land treatment on the infiltration capacity and associated surface and shallow-subsurface flows and the roles of soil flora and fauna in the development of pathways for water and solute movement. Additionally, Dr. Warner focused on the application of watershed models to predict potential changes in streamflow with changes in land use and climate and the role of water conservation and water reuse in optimizing available water for both instream and out-of-stream uses.

Dr. Warner will remain involved in the UConn Community and will be co-teaching a study abroad course this coming summer in Rome, Italy called Water Systems of Rome: Ancient to Modern, with Dr. Anita Morzillo and Dr. Gary Robbins.



The Department of Natural Resources and the Environment sends our best wishes to Glenn. You can reach out to him at: glenn.warner@uconn.edu.

Back to Back Kinsman Award Winners! NRE prides excellence in instruction

Dr. Chadwick Rittenhouse: Donald M. Kinsman Award for Excellence in Teaching (2018)



On March 28, 2018, Dr. Chadwick Rittenhouse will be recognized as the 2018 recipient of the Kinsman Award for Excellence in Teaching by a junior faculty member in the College of Agriculture, Health and Natural Resources (CAHNR). Dr. Rittenhouse joined UConn in 2011 as an Assistant Research Professor and launched the Sustainable Environmental Planning and Management (SEPM) Online Graduate Certificate Program in 2014.

Dr. Ashley Helton: Donald M. Kinsman Award for Excellence in Teaching (2017)



Dr. Ashley Helton was recognized as the 2017 recipient of the Kinsman Award for Excellence in Teaching by a junior faculty member in the College of Agriculture, Health and Natural Resources (CAHNR). She is an Assistant Professor in NRE with a joint appointment in the Center for Environmental Sciences and Engineering (CESE). She routinely teaches Stream Ecology and Global Sustainable Natural Resources, and a graduate course in her specialty, biogeochemistry.

Undergraduate Awards

Undergraduate Lena Ives Receives the 2018 Spignesi Scholarship



Helena "Lena" Ives will be honored at the 17th Annual James V. Spignesi Jr. Scholarship Banquet in April 2018 at the Scotland, CT Fire Department as the 2018 Spignesi Memorial Scholarship Recipient.

The scholarship was established in memory of James V. Spignesi, Jr. who was tragically killed in the line of duty while working as a conservation officer. The scholarship fund strives to reward men and women who have a passion for wildlife, while living their lives with integrity and humility.

When Lena began taking a field ecology course in high school, her experiences with wildlife evolved into a passion and dedication to keeping ecosystems healthy for future generations. Lena says, "I feel so honored to have been selected for this scholarship and hope to use it to allow myself to obtain a diversity of field work and wildlife related experiences as I further my career development after I graduate in May!"

UConn Gives is the first ever *Giving Day for UConn*. For 36 hours, all of UConn Nation will come together to support the university they love!



ARE YOUR PAWS IN?

NRE has chosen the



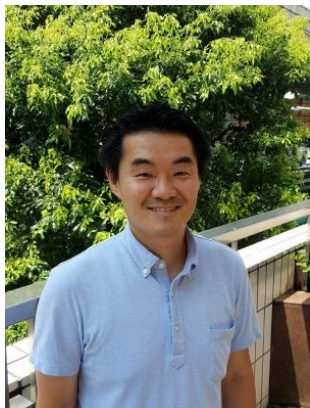
Natural Resources Conservation
Academy

as our 2018 gifting focus.

On April 4-5, show the world your *Natural Resources Husky pride!*

Make any size gift at givingday.uconn.edu and spread the word: #UConnGives.

Alumni Updates



Yoichiro Kanno Ph.D. 2010

After receiving his undergraduate degree from Meiji University in Japan, Yoichiro Kanno wanted to work on a global scale. In his undergraduate studies, he studied international law and then worked as a diplomat for the Government of Japan for a few years following receiving his law degree. “I then made a career change,” said Kanno. He got his Ph.D. degree in Natural Resources focused on fisheries due in large part to his curiosity about how aquatic ecosystems function. Currently, he is an Assistant Professor at Colorado State University, after spending a few years on the faculty at Clemson University. In Colorado, Yoichiro works on a variety of streams and their fishes, including ones in the Rocky Mountains and the Great Plains, and also internationally in Japan. Yoichiro says, “I’d really like to know more about fish and their habitat.” Freshwater conservation in the era of a growing human population and global change is challenging, but Yoichiro likes to solve challenging issues.

Alicia Morandi (Landi) M.S. 2011

Alicia’s experience as a graduate student studying the habitat use patterns of spawning Horseshoe Crabs along the Connecticut Coast at UConn led her to a job in environmental consulting. The science of ecology was of interest to Alicia from a young age. When she went on a field trip in 4th grade which explained how barrier islands were formed, including how the salt in the wind off the ocean sculpted the trees, and how plants grew between dunes but not before or behind them: “It really instilled an interest in nature in me,” said Morandi. Currently, she works in Rhode Island at Applied Science Associates, which is a consulting firm that, among other things, develops models to analyze the fate and trajectory of oil spills and other contaminants in the marine environment based on meteorological and oceanographic conditions like winds, currents, bathymetry, etc.



David Rosa M.S. 2013, Ph.D. 2017

Focusing on watershed hydrology and nonpoint pollution, David Rosa is one of many Department of Natural Resources and the Environment alumni that completed their Ph.D. under Dr. Jack Clausen. Rosa has a B.S. from the Rubenstein School of the Environment and Natural Resources at the University of Vermont after which he pursued graduate studies at UConn. Currently, Rosa works at the Watershed Management Division of the Vermont Department of Environmental Conservation. “I am motivated by a belief that protecting our water resources is one of the most critical issues we face,” said Rosa.

Andrew Ransom B.S. 2015

Andrew is a Natural Resources graduate with the Fisheries and Wildlife Conservation concentration, and current Master’s student at the University of Wisconsin – Green Bay. His research focuses on the recent and historical resurgence of Lake Whitefish into Green Bay and its major tributaries. Following graduation from UConn, Andrew worked for the CT DEEP Inland Fisheries division and the Idaho Department of Fish and Game as a seasonal employee before entering his M.S. program.



To find out more about these and other alumni, visit us online: www.caliper.uconn.edu

Want to tell us what you are up to these days, email us at: nre@uconn.edu

Research Highlights

Welcome Dr. Lauren Koenig- New Postdoctoral Research Associate



As an ecosystem ecologist and biogeochemist, Dr. Lauren Koenig's research focuses on how energy and nutrients are stored and transformed in freshwater environments. For her postdoctoral research, she is working with Dr. Ashley Helton on NSF funded research on scaling stream metabolic regimes to whole river networks. Lauren says, "This research is exciting because I am building on my previous work that focused on primary production and respiration at small spatial scales to understand the emergent properties of river networks, which we currently know little about, but are important for understanding the contribution of freshwater ecosystems to continental carbon and nutrient budgets."

Dr. Jack Clausen Awarded \$670K USDA RCPP Grant to Source Contamination in Waterways

Understanding the source of contaminants in our waterways is crucial for public health and safety, and NRE Professor Dr. John 'Jack' Clausen is developing an easier way to do just that. Jack started this project almost by chance when he realized that a method had not yet been developed. "I discovered that no one has perfected the technique for being able to look at a water sample, find *E. coli* and tell you where it came from, so that's my quest," he says. The \$670K USDA NRCS Regional Conservation Partnership Program (RCPP) project is using DNA source tracking to develop reliable methods to identify the source of *E. coli* contamination in surface waters. There are many species of *E. coli* and they are generally host specific to major groups of animals, so by using their DNA, if one knows where in the large molecule to look, laboratory methods could isolate the DNA from water samples, and then backtrack to the source, whether it be horses, cattle, chickens, people, or birds.



\$1.3M NSF Collaborative Research Grant Awarded to Dr. Chandi Witharana



Dr. Chandi Witharana and his collaborators from University of Alaska-Fairbanks and University of Virginia recently received a \$1.3 million research grant from the NSF Arctic System Science program to deepen our understanding on the complex and interlinked processes responsible for the evolution of the pan-Arctic ice-wedge polygon tundra landscape. Tundra wetlands have been called the "Serengeti of the North," because they are home to abundant wildlife populations that migrate to the Arctic from all regions of the world. This is also an area that is changing in response to the climate faster than most of the planet. Chandi is using remote sensing technologies and geospatial science to study the changes.

Read about these and about other research projects online at:
www.caliper.uconn.edu

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Meet Our Students



Undergraduates Lindsey Tenebaum and Mary Donato Attend the COP23 United Nations Climate Change Conference with Dr. Tracy Rittenhouse

From left to right at the COP23 Conference in Bonn, Germany: Dr. Tracy Rittenhouse of NRE; Lindsay Tenebaum, NRE and International Business Management double major; Mary Donato, NRE major; Weston Henry, Landscape Architecture and Ecology and Evolutionary Biology double major. Check the Caliper online to read how panels at the U.S. Climate Action Center show how businesses can lead on carbon reduction by Lindsey Tenebaum and on climate messages communicated through public spaces by Mary Donato.



Meet Undergraduate Stephen Hnatuk

Stephen Hnatuk is extremely involved within the College of Agriculture, Health and Natural Resources. Driven by his passion for the environment, he has created a variety of opportunities for himself. Stephen enjoys learning about water resources, our environment, and the world. He is currently a senior graduating in December 2018. After graduation, he hopes to continue working at the United States Geological Survey. Then, he wants to pursue a graduate degree in water hydrology. "The biggest thing I have learned during my time at UConn is that it's not where you start, it's where you finish."



M.S. Student Cristina Macklem Receives Graduate Student Research Award

Cristina Macklem's M.S. research focused on wildlife, primarily amphibian, responses to anthropogenic alterations of the environment. Cristina received the Holster Scholar Research Award her freshmen year, and was selected and graduated a University Scholar, the highest honor given to undergraduates. Her MS degree program culminated in her receiving the College-wide Graduate Student Research Excellence Award! Now a recent graduate, Cristina spent a season working in Oregon on amphibian conservation, followed by a nongame winter position with CT DEEP Wildlife Division working on bats, among other critters.



Meet Graduate Student Lukas McNaboe

"I've always said that I have a love-love relationship with water. We're 70 percent water, it resonates with me," says Luke McNaboe. "I wanted a career path that involves water." McNaboe received a B.S. in Environmental Engineering from UConn in 2015. He earned his M.S. in 2017 through UConn's Bridge to Doctorate STEM Program, a division of the National Science Foundation. He is currently working on his Ph.D. with Extension Educator Dr. Michael Dietz as his advisor.

Read more about these students and others on the Caliper website: Caliper.uconn.edu

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occupation and how things have progressed since
leaving UConn.

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please complete the information below.

I/we would like to contribute to the NRE department.

\$25 \$50 \$100 \$250 other

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Questions? Contact: Ashley Sandy at NRE at (860) 486-2840 or
Ashley.sandy@uconn.edu

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