

# Profiles



Department of Soil Science  
UNIVERSITY OF WISCONSIN-MADISON

JUN 2023 VOL. 14 NO.2

## MESSAGE FROM THE DEPARTMENT CHAIR

The path of the Department of Soil Science was carved out by the 'Benjamin Franklin' of American soil science: F.H. King. In the late 1800s, he laid the foundation for our science and the department. On June 8, we will celebrate his birth 175 years ago, and we hope that you can join us for that celebration (more details in this newsletter). Although we continuously broaden our mission, the fundamentals of our work have not changed since the department was formed - we maintain the tradition of transforming soil science, delivering inspirational teaching, and providing impactful extension.



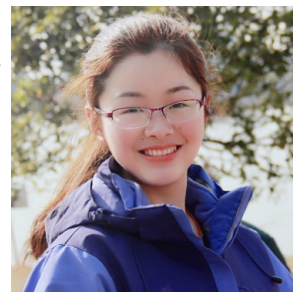
In July, I will step down as chair, and it has been a great honor to chair the department over the past eight years. Although much has happened, I cannot claim that my judgment has been infallible, but in all the intricacies that a chair deals with, I often thought of our long heritage and have always aimed to promote anything that strengthens research, teaching or extension -- an approach as artless as that. I have no doubt that Professor Doug Soldat, who will chair the department as of July, brings leadership skills that will further heighten our standing and continue our fundamental goals. We are very fortunate that he will chair our department!

Lastly, I wish to thank you for all your support and trust, it has been a joy interacting and working with all of you. I look forward returning to what may be called 'ordinary faculty life' which means that I will aim to push the frontiers of pedology. Thank you!

**Alfred Hartemink**  
Chair

## STUDENT PROFILE: JIE HU

Jie Hu received her Master's degree in Agricultural Remote Sensing & Geographical Information System from Zhejiang University in China, where she developed a strong interest in the principles of soil science and the critical zone. Driven by her passion for cutting-edge research, Jie joined the Soil Sensing and Monitoring Lab in the Department of Soil Science as a PhD student in 2019, under the guidance of Assistant Professor Jingyi Huang. Jie's research interests lie in understanding the soil-plant-atmosphere interactions in the carbon and water cycles. She aims to utilize the large-scale observations and the quantitative models developed to gain a deeper understanding of these interactions. Jie is committed to addressing pressing environmental challenges, particularly those arising from climate change, through her research.



## RESEARCH CORNER: TURFGRASS & URBAN SOILS LAB

Most people are surprised to learn that turfgrass is the third largest crop in the state of Wisconsin and covers more than 1.2 million acres of land. Almost 80% of the turfgrass in the state is associated with home lawns and roadsides. The remainder can be found on commercial properties, golf courses, parks, schools, cemeteries, and sod farms. Turfgrass Science is not a new endeavor in the Department of Soil Science. In the 1920s, O.J. Noer (as a graduate student with Emil Truog) was studying the fertilizer value of what would become Milorganite® at Blackhawk Country Club, the new golf course on University Avenue. Over 100 years later, students and staff in Doug Soldat's Lab are building on the foundations laid by Drs. Jim Love and Wayne Kussow to unravel the mysteries of turfgrass and the soils beneath it. The Lab's mission is to enhance the agronomic, economic, and environmental sustainability of turfgrass management in Wisconsin.



l-r: Doug Soldat, Nick Bero, Britta Welsch, and Travis Miller at the O.J. Noer Turfgrass Research and Education Facility.

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## DEPARTMENT NEWS

We recognized the career accomplishments and retirement of **Mattie Urrutia** in January. Her knowledge, leadership, dedication, and instruction touched thousands of students over the years. The department gifted her a painting of the King Hall entrance that was painted by numerous faculty, staff, and students using watercolor paints made from soil - an activity she included annually in her Soil Sci 301 laboratory class.

**Jingyi Huang** has been elected the new chair of the Soils Processes and Critical Zone Technical Committee of the American Geophysical Union (AGU).

Congratulations to **Inna Popova** on receiving the Leo Walsh Faculty Fellow Award. She was honored at the CALS Awards Event in May.



Mattie Urrutia beside the painting of King Hall

**Matt Ruark** was appointed to the United States Farmers and Ranchers in Action (USFRA) science advisory council. <https://usfarmersandranchers.org/our-community/our-board-leaders/science-advisory-council/>

**Dana Johnson's** paper titled, "Experimentally-determined Traits Shape Bacterial Community Composition One and Five Years Following Wildfire," was published in *Nature Ecology and Evolution*. Dana is a PhD student in the **Whitman Lab**.



Congratulations to **Brooke Propson**, PhD student in the **Freedman Lab**, who is the recipient of a 3-year National Science Foundation graduate fellowship.

Check out **Doug Soldat's** recent article titled, "Five Counterintuitive Facts for the Conscientious Lawn Owner," featured in CALS *Grow* magazine.

In early December and late April, graduate students from Soil Science visited Madison College Goodman South campus to speak at two Science, Technology, Engineering, and Math (STEM) seminars. The Madison College students were dual enrolled high school students who signed up for the seminar to learn about a wide range of STEM careers and opportunities. **Hannah Anderson, Ashmita Rawal, Anna Stevenson, Mia Keady, Brooke Propson, and Jie Hu** (photo l-r) spoke about their academic journeys and their current research. The outreach event was organized by the DEI committee as part of a continuous effort to engage with our local community.

Join us in honoring **F.H. King** on the 175 anniversary of his birth. Born on June 8, 1848, on a farm near Whitewater, WI, he became the first professor of soil science at the UW-Madison. He studied soil water, drainage, tillage, irrigation, swamps, nitrate movement, erosion by wind on sandy soils, the construction of silos, maintenance of country roads, making of silage, and the comparative value of warm and cold water for dairy cows. On Thursday, June 8, we will celebrate his legacy with a program in 270 Soils Building, 1525 Observatory Dr. from 3 to 5 pm. All are welcome, and attendance is free. **RSVP to [jgarvin2@wisc.edu](mailto:jgarvin2@wisc.edu) by June 1**, if you plan to attend.

### SAVE THE DATE

The **James G. Bockheim Distinguished Lectureship in Soil Science** is set for Wednesday, October 18, 2023. Our guest presenter is Daniel Egan, an environmental journalist and the well-known author of *The Devil's Element* and *The Death and Life of the Great Lakes*.

## ALUMNI UPDATES

**Ron J. Bieganski (BS, 1982)** currently works as the Artistic Director NeuroKitchen Arts Collective, and he also runs a small youth theater in low-income areas of Chicago.

**Eric T. Cooley (BS, 1998; MS 2005)** passed away February 22, 2023. He was the Director of Discovery Farms and was well-known for his active role with UW-Madison Soil Judging Team. He will be greatly missed.

**Gary R. Konwinski (BS, 1974)** mapped soils in SW Michigan at the Soil Conservation Service and coauthored Kalamazoo County Soil Survey Report. He relocated to Colorado as a uranium geologist, researched ground water contamination associated with uranium recovery and waste disposal. Later, he was the decommission manager at Rocky Flats Nuclear Weapons Plant, retiring in 2004. He is now the owner and CEO of Quality Lapel Pins, Inc.

**Gary L. Krueger (Natural Resources BS, 1981)** retired after 32 years working in the Minnesota Pollution Control Agency's (MPCA) Superfund program. Most of that time was managing the MPCA's efforts to address PFAS impacts to drinking water supplies and cleanup of 3M PFAS waste disposal sites in the East Metro area of the Twin Cities. Gary is a member of the Minnesota Association of Professional Soil Scientists and was President of the Association in 2019.

### Attention Class of '73 Soil Scientists

Fifty years has passed and members of the UW Class of the 1973 Reunion Committee invite all soil science graduates from that era to join in the reunion activities from Thursday, October 12 through Sunday, October 15. For American Society of Agronomy (ASA) Badger Crops and Soils Club alumni from '71 to '75, an informal gathering will be held on Thursday from 2 to 4 pm.

Interested?

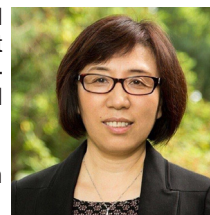
Send an email to **Doug Karlen ([doug.karlen@gmail.com](mailto:doug.karlen@gmail.com))**

# LEO M. WALSH DISTINGUISHED LECTURESHIP



The Department hosted its annual **Leo M. Walsh Distinguished Lectureship** on April 19. Dr. Yan Jin, Professor of Soil and Environmental Physics in the Department of Plant and Soil Sciences at the University of Delaware was this year's presenter. Her presentation titled, "Microbes Engineer Microhydrological Niches in Soil" was well attended and enthusiastically received.

The lectureship is made possible by the generosity of Leo M. Walsh, former CALS dean and Department of Soil Science chair and professor.



## WELCOME

### Hava Blair

(Nutrient Mgmt Specialist, Good)

### Juma Bukomba

(Research Assistant, Ruark)

### Prativa Chhetri

(Research Assistant, Popova)

### Yanyu Deng

(Research Assistant, Zhu-Barker)

### Soni Ghimire

(Research Assistant, Freedman)

### Mehdi N. Hadad

(Scientist, Soldat)

### Kyle Kettner

(Researcher, Good)

### Calla Little

(GIS Specialist, Good)

### Josh Mirabella

(Research Assistant, Zhu-Barker)

### Andrew Pahnke

(Soil Technician, Soldat)

### Malithi Weerasekara

(Research Assistant, Hartemink)

## STAFF PROFILE: MADEILENE HOFFMAN



Madeilene Hoffman (Maddie) joined Soil Science in February 2023. She graduated with a bachelor's degree in industrial technology from Carlos Hilado Memorial State College in the Philippines. She worked as a human resources assistant for Lexmark, a printer manufacturing company, before immigrating to the US to be with her husband. After graduating with a medical coding certificate from MATC in 2008, the US Department of Veterans Affairs hired her as an insurance verification clerk. She also worked as a non-VA care coordinator with veterans to ensure outside VA care claims were appropriately adjudicated. Her last job before UW was at the VA accounts management department, where she spent three years working in healthcare claims denial management.

She worked for the VA for over 12 years in various aspects of health insurance and benefit claims. Aside from her current UW job, she works part-time at a retail store. She loves customer service and being able to interact with customers. She is graduating this spring with an HR certificate. She also has been volunteering with Badger honor flights and Operation Homefront.

She likes to spend time with her family, traveling, and baking. Her favorite vacation destination is Hawaii. She dreams of someday providing scholarships for kids to attend college in her hometown of Silay City, Philippines.

## OUR SUPPORTERS

11/16/2022 to 04/015/2023

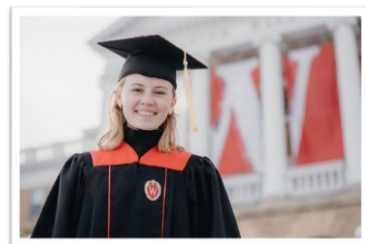
Albert Beaver  
Ron and Anne Checkai  
Elizabeth and Steven Comfort  
Corteva Agriscience  
Lewis Daniels  
William and Kathleen Davies  
Carol and Colin Duffy  
Robin and Inge Harris  
Alfred Hartemink  
Brian Hess  
Jeffrey Kalenak and Kathleen Muldowney

Dennis and Betty Keeney  
M.B. Kirkham  
Eileen Kladvko  
Virginia Laszewski  
Ester and Birl Lowery  
Kristine Lund  
Dwight and Mary Mueller  
Alan Nass  
Gerald and Lavonne Nielsen  
Nufarm Americas Inc.  
Dale Parker  
Parth Patel

Robert Rand  
Relena Ribbons  
Douglas Soldat  
James and Patricia Swan  
Victoria Szatalowicz  
Ellyn Tanner  
Caroline Van Schaik and Christopher Iremonger  
Stephen Ventura and Margaret Krome

## RECENT GRADUATE

O'Brien, Allison - BS, 2022



## Department of Soil Science at the University of Wisconsin-Madison

The Department of Soil Science is deeply grateful to its alumni and friends. Your generous support is appreciated, and we thank you! To join other students, alumni, industry, and friends in enhancing the teaching, research, and outreach programs in the department, please consider donating to one of our various funds. A complete list of funds available can be found on our website (<https://soils.wisc.edu/giving/>).

If paying by check, please make your check payable to the **UW Foundation-Department of Soil Science** and mail to:

University of Wisconsin Foundation  
US Bank Lockbox  
PO Box 78807  
Milwaukee, WI 53278-0807

Online donation is available on our website: <https://soils.wisc.edu/giving/>



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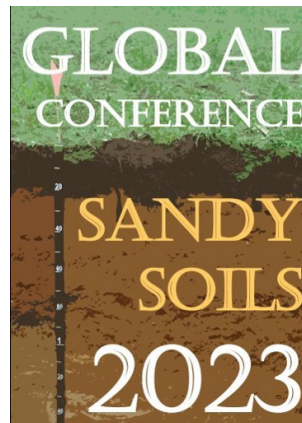
Web site: [soils.wisc.edu](http://soils.wisc.edu)  
Email: [jgarvin2@wisc.edu](mailto:jgarvin2@wisc.edu)

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## Research Corner, continued from page 1

The Lab is comprised of Dr. Doug Soldat (Soil Sci MS 2003), Research Scientist Nick Bero (Soil Sci MS 2012), Postdoctoral Associate Dimitrios Pavlou, MS student Britta Welsch, MS student Travis Miller (Soil Sci BS 2021). Undergraduate assistants round out the lab members and include Megan Hart, Davis MacNabb, Erin Noel, McKenna Smith, Riley Smith, Evan Freed, and Gigi Diekelman. We're also very proud of our recent graduates Dr. Qiyu Zhou (Soil Sci MS 2018, PhD 2021), now an assistant professor of turfgrass management at North Carolina State University, and Dr. Michael Bekken (Soil Sci PhD 2022), a Fulbright Fellow at the University of Oslo, Norway studying soil carbon in the Arctic. The Soldat Lab has over 25 current research projects, and while much has changed in 100 years, one of those projects is evaluating the performance of new formulations of Milorganite®!



## Management & Properties

June 4-8

University of Wisconsin-Madison

[www.sandysoils.org](http://www.sandysoils.org)



International Union of Soil Sciences

## Alumni Update

**We'd love to hear from you!** Please complete and return this form  
or send your updates via email to: [jgarvin2@wisc.edu](mailto:jgarvin2@wisc.edu)

Name: \_\_\_\_\_

Degree(s) and Year(s): BS ( ) MS ( ) PhD ( ) \_\_\_\_\_

Home Address: \_\_\_\_\_

Email: \_\_\_\_\_ Phone No.: \_\_\_\_\_

Position: \_\_\_\_\_ Employer: \_\_\_\_\_

News to share: \_\_\_\_\_

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