### SUMMER 2024

## MSUFORESTER

## Future Foresters

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Front cover: Prescribed burn with forestry club members at MacCready Reserve. Photo by KJ Kettler Back cover: Tree Work 101 course, led by Dr. Asia Dowtin. Photo by Melissa Utykanski

### FROM THE department chair

Dear MSU Forestry Alumni and Friends,

Students and educating future foresters are at the core of our mission and are the focus of this issue of the MSU Forester.

We firmly believe that a rigorous forestry education incorporates a good dose of hands-on and field-based studies. Dr. Jeremy Johnson's new course on Tree Biology (p. 6) and photos from Field Studies (p. 5) clearly illustrate this value. Our faculty are outstanding – they care deeply about our students and providing a quality educational experience. It is not easy or inexpensive to bring students to the field, but we think it is critically important.

We believe that a lot of valuable learning takes place to be at least 100 students for fall 2024, the highest outside of formal education. Learning from peers from enrollment since I started at MSU in 1997 and likely since different backgrounds can be transformative, as my the 1980s or earlier. We have been working toward this own history illustrates. For a summer in high school, I goal for the last several years and I am delighted to reach participated in the Youth Conservation Corps, which this benchmark, especially since forestry enrollments at brought together students from a diversity of backgrounds to assist with natural resource projects. The YCC was also is growing at a healthy clip, with 21 new students the seed of my career in forest ecology and forestry, starting in fall and a total enrollment of approximately 35. something this city kid likely would not have pursued otherwise. Similarly, MSU Forestry values enrolling We have good reasons to have pride in MSU Forestry. Feel students from a diversity of backgrounds and perspectives, free to reach out if you would like to learn more about our partly so that students can learn from each other. momentum and how you can contribute to it.

We value how students grow from interacting with forestry Go Green! professionals through internships and conferences. Ruliand IC Take Internship sponsors have been delighted with the energy and current knowledge that our students bring to their Rich organizations. Through internships, our students gain a kobe@msu.edu new appreciation and real-world context for their MSU

#### **IN MEMORIAM**

JOSEPH "PAUL" SWARTZ (BS '74) 1952-2024



Forestry education. Our students also have been great participants in Michigan and National SAF meetings, including SAF's Rising Professionals Conference (p. 10).

MSU Forestry students truly stand out for their dedication and passion. They are committed, diligent, and curious individuals who are driven to make a positive impact on the world. Our graduate students are engaged in impactful cutting-edge research, recognized by the awarding of the most prestigious scholarships (p. 11). Our student placement rate in forestry positions or graduate study has hovered around 95% for the last several years.

Finally, we have great momentum in student enrollment. Forestry B.S. enrollment (across all four years) is projected many universities are contracting. Our Hybrid MS program

## Alum Updates

### Passing of Advisory Board member

#### JEROME (JERRY) GELOCK | BS '62

My wife LouAn and I continue to live in our home in Bakersfield. Meanwhile, our family continues to grow. We'll be adding to number of great grandkids - in November # 10 will arrive.

The years are going by much faster than they used to. Continue with hobbies around the house and remain active in our church. Life has been good to us both. Reminisce our 4 years at MSU – the best university one could ever attend. A Spartan forever.

#### WADE NUTTER | PHD '68

I retired from University of Georgia Warnell School of Forestry and Natural Resources as Professor Emeritus of Hydrology in 1997. I am currently partially retired as chairman of an environmental consulting company, Nutter & Associates, Inc. I co-founded in 1984. Nutter & Associates has 28 employees.

#### KEN FREYE | MS '76

After 43 years in Maine, Cheryl and I moved to Emmaus, PA in 2022 to be close to family. It is great living two miles from our granddaughter, but we do miss Maine. Love the huge tulip trees here and the availability of cherry lumber. I am fully retired having spent most of my career doing real estate transactions for electric utilities. My forestry degree and background was excellent for this line of work in a rural state like Maine.

#### JOHN ROBINSON | MS '89

After a 25 years with Plum Creek Timber and Weyerhaeuser as a GIS and data analyst, my wife and I split our time between Hollywood, FL and Las Matas de Farfán, Dominican Republic.

#### MOLLY ROONEY | BS '11

I work as the Living Collections Acquisitions Manager in the horticulture department of the Missouri Botanical Garden in St. Louis, Missouri.

I plan and execute fieldwork collecting and conserving the world's flora in Missouri and across

the globe. My forestry education and my time at MSU provided a basis for my interest in global plant communities and I will always cherish my time wandering Baker Woodlot with my fellow students and friends.

I have an awesome young toddler and it's been incredible to share an interest in the natural world with him.

#### JUNGHO BAEK | PHD '04

I earned my Ph.D. in Forest Economics in 2004 under the supervision of Dr. Runsheng Yin. Following my graduation, I worked as a research assistant professor at North Dakota State University from 2004 to 2009. In 2009, I began my career as an assistant professor of economics at the University of Alaska Fairbanks, where I currently hold the position of Harold T. Caven Professor of Economics.

My Ph.D. dissertation focused on international trade, and I have continued to research this area while also exploring new topics in energy economics and applied econometrics. I am deeply grateful for the knowledge and experiences I gained at MSU and hope to visit in the near future.

#### **CHRISTIAN GABLER | BS '23**

After MSU, I began my career with the Michigan DNR as a forester and moved to Michigan's Upper Peninsula. Currently I live and work out of Sault Ste. Marie MI, managing state forests within the Sault Ste. Marie Management Unit and managing USFS land via the Good Neighbor Authority on the East Zone of the Hiawatha NF.

My typical day is a balance of office work and field work. Field work is mostly setting up timber for sale and administering timber sale contracts and office work is the computer side of timber sale prep and contract write up.

The coolest thing I've seen on the job so far was a fisher that ran in front of me while I was cruising in a mixed conifer stand near Trout Lake, MI.

ormer MSU Forestry Advisory Board (FAB) member Mark. J. Pawlicki (BS 1974) passed away surrounded by family on May 7, 2024 from complications related to Progressive Supranuclear Palsy.

Mark made tremendous contributions to MSU Forestry, applying his skills in government relations to advise the department on strategy and communications, serving on the FAB from 2014 to 2022. Mark enjoyed many years working in Sacramento representing the forest products industry.

### A Look Inside FOR 420: Forestry Field Studies



- ber He was a professional forester who believed in the ed science of forest management and was strongly committed to his alma mater.
- Mark's family stated that he would be honored if you ry, remember him by contributing to MSU Department of Forestry, 480 Wilson Road, E. Lansing, MI 48824, or online at for.msu.edu/giving2.

### FOR 175: Tree Biology

MELISSA UTYKANSKI

Jeremy Johnson has been at MSU in the Department of Forestry for two years and has been focused on developing new courses on tree biology and forest genetics. FOR 175 Tree Biology welcomed its first cohort of students during the Spring 2024 semester.

"My favorite part is the access to all the resources and all the brainpower that comes with working at a big institution like this, particularly in plant biology. From the facilities to the people, it's been really exciting," said Johnson.

Johnson explains that trees are unique in terms of how they grow, and this unique biology isn't fully captured in existing plant biology courses currently offered.

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I've taught in a lot of other places in different states and institutions, and the students in this department are pretty phenomenal. They all show up, they're always energetic and asking great questions, and that makes the whole class easier..."

#### JEREMY JOHNSON

This was how he came to develop a brand new course for students to gain a well-rounded understanding of the different factors that affect how trees grow while also being hands-on. For this introductory course, Johnson's approach was to structure the curriculum so that early on in the undergraduate program, students can develop a more complete biological understanding of tree structures and functions prior to taking classes like FOR 340 Forest Ecology.

"In class we have lectures where we talk about cells, genetics, morphology and the physiology of trees. When we go into the lab, the students are involved in every aspect of designing their experiments," said Johnson.

The lab portion of the class, taking place at the Tree Research Center, just south of campus, has allowed the students to explore and demonstrate what they are learning in classroom lectures. They learn how to set up a laboratory notebook as well as learn the appropriate practices for keeping track of observations and recording data. Then, students work on hypothesis generation and basic statistics, helping to build up these skills needed for their semester-long experiment.

"The first lab was about propagating the trees, so we planted over 300 hybrid poplars from two different genotypes. From then, they had to devise an experiment that tested something about tree biology," said Johnson.







Each lab group was free to choose what they were most interested in testing about their new saplings that they will be monitoring throughout the semester. That could be the role of shade, water, or nutrients, amongst other factors. Throughout the semester, students are responsible for recording their sapling's progress, sharpening the practical and methodical skills that Johnson's course is all about.

"The way this course's lab is integrated with the lecture has grown my tree biology knowledge in a way that is shockingly obvious when I read my early lab notebook entries compared to today. I especially enjoy learning the fundamentals of tree biology and immediately applying that knowledge to our Hybrid Poplar clone experiments," said Dustin Lambries, a student in Johnson's class.

Lambries is early on in the undergraduate program and feels as though taking this course was the right choice.

"I am thankful that I was able to take this class at an early point in the forestry program. It has opened my eyes to the research side of Natural Resources and meshes very well with other first-year forestry classes. The broader understanding provided by this class will surely come in handy as I continue my forestry path," said Lambries.

Experiential learning is pertinent to not only this course, but most other courses in the forestry program as well.

"I think that's one of the reasons we're all in forestry, right? We love trees and forests and being outside. You can only go so far sitting in a classroom. Giving students that break to then go out and actually do those things that they are learning about, I think it helps to incorporate that into their understanding of reality. Without that, sometimes it just becomes rote memorization, and it's difficult to apply that when you need to," said Johnson.

The course has been well received so far, and Johnson has really enjoyed the curiosity and enthusiasm from his students. FOR 175 has cultivated a rich learning environment that goes both ways between the students and the professor.

"My experience with the course has been very positive. Dr. Johnson is engaging in his lectures because you can feel the passion he has for the subject. Recently, I asked him a question about photosynthesis. He not only answered it but went above and beyond in making sure I understood why it was the case so that I could succeed. Before every exam, he will help us shake off our nerves by asking us to stand up to stretch if we need to and tell cheesy jokes," said Leah Boocher, another student in FOR 175.

People like Johnson make MSU a great place to learn and explore a new field of study, and Johnson feels the same way about the students.

"I've taught in a lot of other places in different states and institutions, and the students in this department are pretty phenomenal. They all show up, they're always energetic and asking great questions, and that makes the whole class easier in a lot of ways because it feels like I'm getting across to them. It makes it all the more exciting to teach this type of class," said Johnson.

# New Faculty Member in 2024



#### **DR. DAVID CARTER** ASSISTANT PROFESSOR. **APPLIED FOREST ECOLOGY &** SILVICULTURE

Introducing new faculty member Dr. David Carter, Assistant Professor of Applied Forest Ecology and Silviculture in the Department of Forestry. His previous work allowed him to work in oak-hickory systems in the Midwest, mixed hardwood and softwood systems of the Northeast, Douglas-fir forests in the Pacific Northwest, Appalachian hardwood forests and loblolly pine in the

southeast. A native Midwesterner, he is excited to be at Michigan State University, researching the forests that got him interested in forestry 20 years ago. His interests include silvicultural restoration, ecological silviculture, precision forestry, and preparing the forest resource for global change.

### **Multicultural Scholars** Program in <u>Forestry</u>

Ilticultural Scholars participate in a 10-day study-Multicultural Scholars participate in end away program during the summer before their first semester at MSU. Scholars travel throughout the state of Michigan exploring a variety of forested ecosystems, including urban green infrastructure. Via this study away experience, students are introduced to diverse career pathways in forestry in urban, rural, and suburban areas.



### A student reflects on the Study Away Program 66

The experience was an exceptional one to say the least. exploring the land and working interdepartmentally to I was taken around various areas around Michigan and fulfill sustainable goals of the future. I may never forget the shown things that I had never actually known existed in my trip to the Indigenous reservation where they taught us own state. I had been to the northern region of Michigan ways in which to engage in sustainable forestry, thinking before, but never to that magnitude. decades down the line in their planting techniques. Along with the history of Idlewild, and the historical reverence of the place in relation to people of color. The itinerary was very well put together and I never felt

like I wasn't learning something new or engaging with the fellow students I was traveling with, or the speakers we More than anything though, I will say that the beautiful were taken around to meet. I was shown so many different locations of Michigan, and the quiet moments in the deep aspects and iterations of forestry and conservation in forests connected me to the land and nature in a way that general, and due to the program my idea of what it was I I have craved since I was a child. To that degree I thank could and would do with forestry changed drastically. this program for all it gave, and look forward to what the program and my mentors can offer for the future.

I had originally thought that forestry was only good for chopping trees and taking index, but it made a clear shift to

### ALUMNI TAILGATE 2024

### You're Invited / Oct 19

Mark your calendars, the Forestry Alumni Association Tailgate is coming up quick! Please join us Saturday, Oct. 19 for delicious BBQ and connecting with the MSU Forestry community. We welcome all alumni, faculty, staff, students, friends, and family to join us.

Thanks to sponsors Arborjet and Weyerhaeuser (Grayling OSB Plant), we are providing the tailgate free of charge again this year. RSVP by scanning the code below or visiting online: for.msu.edu/tailgate24.



Students network with current forestry professionals who may provide internship or other practicum experiences during the remainder of their MSU career. The study away program builds a stronger cohort and promotes a 'sense of belonging' in the Department of Forestry community.

DAVIEN GRAHAM - BS '22

# SAF Rising Professionals Conference

### **Doctoral Student Earns** NASA Fellowship

his February, Michigan State University (MSU) Department of Forestry student Jacob Reinking had the unique opportunity to attend the Society of American Foresters (SAF) Rising Professionals Conference in Baton Rouge, Louisiana.

This brand-new conference is tailored specifically for young professionals and students in natural resources and forestry.

The conference included a wide array of topics in the forestry world, including a focus on diversity, the current path of the forestry sector, and how to be a leader despite not being in a leadership role.

With support from the Forestry Alumni Association, and added encouragement from Forestry Club president,



Emily Vaillencourt. Reinking was able to attend his first conference and large-scale networking opportunity. "It was an incredible experience, being able to network with other people in my field, which was a first for me. I met more people than I can count, all with different backgrounds and paths in forestry. It was fascinating meeting people from all over the United States, and the world," said Reinking.

This type of travel was a first for Reinking, and though initially anxiety-producing, he persisted. "Going through the entire experience proved to myself that I could do it. strengthening me with confidence. Overall, Baton Rouge is a great city with great culture, and I'm so glad I was able to attend this cool event in an equally cool city I had never been to before," said Reinking.

Reflecting on his experience, Reinking noted he would recommend this type of experience to any student.

"I traveled across the country all alone, successfully. Managing to have a great time, learn career-related information and tactics, and meet cool people in the process. I believe every undergraduate student should consider taking part," said Reinking.

Reinking also credits the Forestry Alumni Association for providing this learning and networking opportunity. "I could not have attended the conference without the financial support of MSU's Forestry Alumni Association," said Reinking.

Based on Reinking's positive experience, the MSU Student Forestry Club is excited to have many student members attend the national SAF conference in Loveland. Colorado this September.

eonardo Ziccardi, a doctoral student in the MSU Tropical ecosystems, such as the Amazon rainforest, Department of Forestry, was recently named a recipient are threatened by various disturbances, including of the Future Investigators in NASA Earth and Space Science deforestation, fire and drought, with the possibility and Technology (FINESST) fellowship. of such events worsening with the effects of climate change. There is a longstanding debate on whether Ziccardi was awarded a three-year grant for his research the Amazon will adapt to future changes in climate: initiative studying how the Amazon rainforest will respond to whether it can thrive in a drier environment or instead climate change. Working with his project mentor Scott Stark, begin to transform into more of a tropical savanna.

associate professor in the MSU Department of Forestry, Ziccardi is focusing on measurements of carbon dynamics and chlorophyll fluorescence of trees within the Amazon.

The Science Mission Directorate (SMD) of NASA solicits proposals from accredited U.S. universities and other eligible organizations for graduate student-led research that contributes to the goals and objectives of the organization.



SIERRA JEZUIT



Ziccardi hopes to help researchers predict the impacts of forthcoming climate change on the Amazon rainforest, and ideally, other locations worldwide. The fellowship will provide Ziccardi with additional resources and time to collect and analyze data, allowing researchers to understand and predict future outcomes more thoroughly.

One of the vital components in this research initiative is capturing field data throughout the rainforest. Ziccardi accomplishes this through tree climbing and measuring vertical variation of photosynthesis in leaves throughout the forest, which helps in building models for future reference.

"From the start of his Ph.D., I have been very impressed with Leo's focus and ability to set his sights on something and accomplish it. When Leonardo first came to MSU, he did not have experience tree climbing, but he was presented with the opportunity to try. After his first trip to our field site in the Tapajos National Forest, Leonardo was able to climb with our collaborator Neill Prohaska, a sort of 'tropical tree climbing guru,' and Leo was thrilled about the prospect of incorporating this in his work," recalled Stark. "I think it is safe to say that he is now one of the few experts we have in the Amazon that can climb and study leaf level processes in the canopy, an incredible – and incredibly important for climate change research accomplishment."





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