# FOCUS

THE MAGAZINE OF THE OSU COLLEGE OF FORESTRY

**FALL 2023** 





# FOCUS FALL 2023



#### **04** A LASTING LEGACY

Celebrating 75 Years of the H.J. Andrews Experimental Forest

#### **06** CONCLAVE RETURNS

Forestry Club hosts and wins the 83<sup>rd</sup> AWFC Conclave Logging Sports Event

#### **08** OUTSTANDING ALUMNI

Alumni and student scholarship award recipients honored at the Dean's Dinner

#### 10 RESEARCH UPDATES

The latest research and innovation from the College of Forestry

#### 12 EXTENSION UPDATES

Forestry and Natural Resource Extension agents make an impact across Oregon

#### 4 NEWS + NOTES

General college and community updates



Dear College of Forestry community,

In the academic world, summer is a time to slow down and reflect on what we've accomplished over the last year, consider where we excelled and where we can do better. This summer marked my third anniversary at Oregon State University, so this was also an opportunity to look back on all that has occurred since arriving.

The pandemic and the Labor Day Fires of 2020 served as a serious marker in my first year and created a unique lens through which to view the College and our community. Over the two years that followed, I focused on in-person meetings with the vast array of people affiliated with the College.

What I learned after meeting with this amazing collection of dedicated staff, faculty, students, and incredibly loyal alumni and friends, is that the roots at the College of Forestry run deep. Our community has a rich legacy of doing extraordinary things, all around the world.

In this issue of Focus, I invite you to learn about some of them — like the 75-year legacy of the H.J. Andrews Experimental Forest, our 2023 Outstanding Alumni recipients, the legacy of Emeritus Dean George Brown, and the return of the 83<sup>rd</sup> annual Conclave where alumni came "home" to host and secure victory for current Forestry Club students.

As we settle back into autumn, let's celebrate what is ahead, thanks to the legacies of those who came before.

Take care,

Tom Ofrea

Tom DeLuca

Cheryl Ramberg-Ford and Allyn C. Ford Dean Oregon State University College of Forestry

2 COLLEGE OF FORESTRY FOCUS - FALL 2023 3

# A LASTING LEGACY

## Celebrating 75 years of the H.J. Andrews Experimental Forest

Some things happen in an instant. Other things take their time, gradually evolving over the years. The work on the H.J. Andrews Experimental Forest Long Term Ecological Research Program is more of a take-your-time kind of thing — like 75-year kind of time.

Managed by Oregon State University in partnership with the U.S. Forest Service, the Andrews, as it's affectionately known, is a 16,000-acre ecological research site east of Eugene in Oregon's western Cascades. First established in 1948 as a U.S. Forest Service Experimental Forest, the Andrews is committed to long-term, place-based research and celebrates its 75<sup>th</sup> anniversary this November.

"Most ecological research lasts for only two or three years," says Matt Betts, a professor of landscape ecology and the lead principal investigator. "At the Andrews, we've studied tree growth and death in the same stands for 52 years, examined fish populations in the same section of stream for 37 years and measured climate and streamflow for 65 years across the forest."

This kind of long-term research is incredibly rare and extraordinarily valuable because it's nearly impossible to understand an ecological system on a two-to-three-year time scale. In fact, research results from short-term studies are often overturned by long-term studies.

However, this same commitment to long-term research can also be a challenge. How do you stay excited about looking at the same thing in the same place for 50 years?

Associate Professor and Co-Principal Investigator Catalina Segura says she never feels like her hydrology research at the Andrews is repetitive.

"The ability to ask diverse questions in this same place keeps the excitement alive," Segura says. "The overlapping research adds to the thrill, and on an emotional level, I have a deep love for the Andrews."

Segura is not the only one. The love for the Andrews Forest runs deep and wide. And not just with scientists and researchers. The Andrews has a robust humanities program welcoming writers, artists, musicians and philosophers to explore the meaning of the ancient forest ecosystem.

"Though our data goes back 75 years, the legacy of the Andrews is found in its people," says Betts. "We have a global, intergenerational alumni group and even now, have over twenty graduate students and postdoctoral fellows doing research, studying a range of topics from tree canopies and climate resilience to groundwater and streamflow to environmental psychology and social science."

The collaborative nature of the Andrews extends its legacy goes beyond the College of Forestry. Posy Busby, a microbiologist and associate professor in the department of botany and plant pathology at the College of Agricultural Sciences and Brooke Penaluna, the lead scientist with the U.S. Forest Service, are also co-principal investigators, with a long history of research at the Andrews.

"The Andrews is a special and unique place because it makes you feel alive and curious about the world," says Penaluna. "It's also particularly special because of the people that make up its partnership, including Pacific Northwest Research Station, the Willamette National Forest, and the College of Forestry."

Learn more about the H.J. Andrews Experimental Forest and its 75<sup>th</sup> anniversary online at andrewsforest.oregonstate.edu.



COLLEGE OF FORESTRY

# CONCLAVE RETURNS

Alumni come home to help the Forestry Club host and win the 83<sup>rd</sup> AWFC Conclave logging sports event

Over the span of three days, from April 13-15, student forestry teams from across the American West gathered at Peavy Arboretum for the annual Association of Western Forestry Club's Conclave logging sports event. Each day, from 8 a.m. to 5 p.m., more than 150 students competed in events like axe throwing, caber toss, birling and log chopping. The Oregon State University Forestry Club team proudly claimed the No. 1 ranking, with many of the team's competitors also earning first place in their individual events.

Last hosted by Oregon State University in 2012, the success of the 2023 Conclave was due in large part to the support of dedicated alumni, including former logging sports team members, who secured sponsorships, spent hours in the research forest fixing up the arenas and volunteering at the event. This year, to celebrate that spirit of giving back, the chopping arena was dedicated to Patrick "Hoss" Fitzmorris who graduated from OSU in 2013. Patrick, along with his fellow logging sports team members from the classes of 2010-2015, worked tirelessly to build the George W. Brown Sports Arena and the chopping arena to host the 83<sup>rd</sup> Annual AWFC Conclave in 2012. Patrick passed away in December 2022.

The College of Forestry would like to thank all the community volunteers and the generous sponsors who helped make the 83<sup>rd</sup> AWFC Conclave such a success.

# Oregon State Forestry Club Conclave 2023 Awards

#### Winning Team:

Oregon State University

1st place

#### **Bull of the Woods:**

Eli Gold, 1<sup>st</sup> place Zeke Bluhm, 2<sup>nd</sup> place Angus Nicholson, 3<sup>rd</sup> place

#### Belle of the Woods

Kailee Curtis, 4th place

To view a photo album, visit beav.es/TGz.

Opposite: Conclave 2023 participants test their skills and endurance – choker race, standing block chop, single buck, underhand block chop. Bottom: dedication sign for the newly named Patrick "Hoss" Fitzmorris Chopping Arena.













## **DEAN'S DINNER**

Outstanding alumni, extraordinary students

At Oregon State University College of Forestry, students, faculty and staff work collaboratively with alumni, donors and partners toward a shared desire to improve life for all. Whether it's developing innovative approaches to forest management, creating new wood products, preserving the health and vitality of ecosystems or expanding and supporting local economies, the college is strengthened by this collective approach.

At this year's Dean's Dinner on May 24, the college community honored current students and alumni who are making a difference in our changing world. This year's outstanding alumni are leading the charge to ensure healthy forests, gender equality, and robust and resilient economies. Learn more about their legacies on the following page and join the college in celebrating their accomplishments.

During the 2023 Dean's Dinner held May 24 at CH2M Hill Alumni Center, the College of Forestry graduate scholarship committee recognized our top incoming and returning graduate students with College of Forestry fellowships. The committee selected 28 students, both Master- and Ph.D.-level, to receive college fellowships totaling just over \$150,000 for the 2023-2024 academic year. Scholarships range in value from \$3,000 to \$8,000.

Pictured L to R: Victoria Diedrichs, M.S. Wood Science & Engineering; Katie Wampler, Ph.D. Water Resources Science, Forest Engineering, Resources and Management; Mark Kerstens, Ph.D. Forest Engineering, Resources and Management; Kira Minehart, Ph.D. Recreation Ecology, Forest Ecosystems and Society; Dean Tom DeLuca; Jacob Atkins, M.S. Wood Science & Engineering; David Hamilton, Ph.D. Forest Engineering, Resources and Management.









### Jessica Leahy, Ph.D.

'99, B.S. Forest Recreation Resources
'01, M.S. Forest Resources

An advocate for women in forestry, Leahy was the second woman tenured in the University of Maine School of Forest Resources and first to achieve the rank of full professor. She was a founding member of SWIFT, a UMaine group supporting women and gender minorities in forestry programs, and was an advisory council member for the inaugural 2022 Women's Forest Congress. She recently served as the associate dean for the College of Natural Sciences, Forestry and Agriculture and associate director of the Maine Agricultural and Forest Experiment Station at UMaine.

## Camille Chow-Moyers

'14, B.S. Renewable Materials and Interior Design

After graduation, Chow-Moyers went on to work for Roseburg Forest Products in quality assurance and sales, before a 6-year stint working as a program manager of international compliance and auditing for Benchmark International (Eugene, OR and Shanghai, China). Today, she is co-owner of MCM Global, LLC (Portland, OR and Yorkshire, England), a consulting and auditing firm that specializes in international forestry compliance and quality management systems.

## Suzanne Simard, Ph.D.

'89, M.S. Forest Science '95, Ph.D.

Simard is a professor of forest ecology at the University of British Columbia and the author of the book, "Finding the Mother Tree." She is known for her work on how trees interact and communicate using below-ground fungal networks. Her work has influenced filmmakers and her TED talks have been viewed by more than 10 million people worldwide. She has published over 200 peer-reviewed articles, presented at conferences around the world and in 2023 she received the Kew International Medal.

8 COLLEGE OF FORESTRY FOCUS - FALL 2023



#### Bees flock to clearcut areas but decline as forest canopy regrows

Doctoral Student Rachel Zitomer and Associate Professor of Wildlife Ecology Jim Rivers studied 60 intensively managed Douglas-fir (Pseudotsuga menziesii) stands of multiple ages, including within the OSU Research Forests. They found that bee abundance and species richness declined rapidly with stand age, decreasing by 61% and 48%, respectively, for every five years since timber harvest. This research is one of the first attempts to study how native bee communities change over time in the Oregon Coast Range. Management activities that keep the forest canopy open for a longer period during the initial stage of stand regeneration may enhance bee diversity in landscapes dominated by intensively managed conifer forests.

# Temperature, more than drought, caused heat dome tree damage.

In June 2021, the Pacific Northwest had multiple days of record setting, triple-digit temperatures resulting in widespread tree scorch. A team led by Professor Christopher Still attributes the damage more to the temperature than to drought conditions, citing evidence that leaf discoloration and damage are consistent with direct exposure to solar radiation in combination with extreme air temperatures. A previous article had concluded that the trees' problems were the result of drought and a failure in the trees' hydraulic system. The coastal Douglas-fir and western hemlock plantation forests saw the most extensive impacts from the heat dome, and they experienced low levels of drought compared to the Willamette Valley and the western slopes of the Cascade Range, which experienced less foliar damage.

### Woodpecker adapts to both burned and unburned forests



Research led by Doctoral Student Mark Kerstens and Associate Professor Jim Rivers sheds new light on the Black-backed Woodpecker. This species is known for its strong association with recently burned forests. It is also a species of conservation concern due to habitat loss stemming from post-fire management practices in those same forests. Kerstens and Rivers studied breeding Black-backed Woodpeckers in southern Oregon to evaluate whether nest survival and post-fledging survival differed between green and burned forests. The woodpeckers in green forests were equally successful at breeding as those in recently burned forest, although densities of nesting pairs in green forest were lower than those in burned forest. Certain types of green forest, particularly mature lodgepole pine, and practices that promote pyrodiversity—landscape-level spatial and temporal variability in fire effects—as well as connectivity between green and burned forest within fire-prone landscapes are likely to provide the greatest conservation benefit for this species.

# Research explores how wildfire can help restore forests

Graduate Research Fellow Skye Greenler and Assistant Professor Chris Dunn studied the dry forests of Eastern Oregon, which evolved amid frequent, low-severity fires. To explore the potential for fire alone to restore these dry forests, they developed a novel method to predict the range of fire severities most likely to restore historical conditions. They found moderate severity fires can help restore resilient forest conditions, but multiple burns or treatments are required to fully restore historical conditions.

# TDI continues to advance mass timber technologies

TallWood Design Institute (TDI) has received a \$1 million dollar grant from the National Science Foundation to research innovations in mass timber architecture, engineering and construction in the region. The National Science Foundation awarded the grant as part of its "Regional Innovation Engines" program. Advancing Mass Timber technology promotes environmental resilience and U.S. global competitiveness through the increased use of sustainable mass timber products and their applications in buildings, including affordable housing.

# Moisture is key to soils' ability to sequester carbon

Soil is the Earth's second biggest carbon storage locker after the ocean, and a research collaboration has shown that moisture levels are key to locking in carbon. Previously it was thought that temperature and the mineral content of the soil would have a larger effect on how long carbon stayed in the soil. The findings are important for understanding how the global carbon cycle might change as the climate grows warmer and drier. Professor Jeff Hatten was a co-author of the study, and Doctoral Student Adrian Gallo analyzed many of the 400 soil core samples from 34 sites.

## MAKING AN IMPACT FOR OREGONIANS

Forestry and Natural Resources (FNR) Extension fosters stewardship of Oregon's Forests



#### Get Outdoors Day returns

Sponsored by the OSU Research Forests, FNR Extension, the Benton County Health Department and Linn and Benton counties, Get Outdoors Day returned to the Peavy Arboretum for the first time since 2019. The theme was "Returning to the Forest," and the day featured bilingual activities, self-guided tours, fishing and more. More than 20 organizations from the Willamette Valley worked together to host the event, dedicated to encouraging healthy, inclusive outdoor recreational opportunities.

#### Teaching youth to value forests

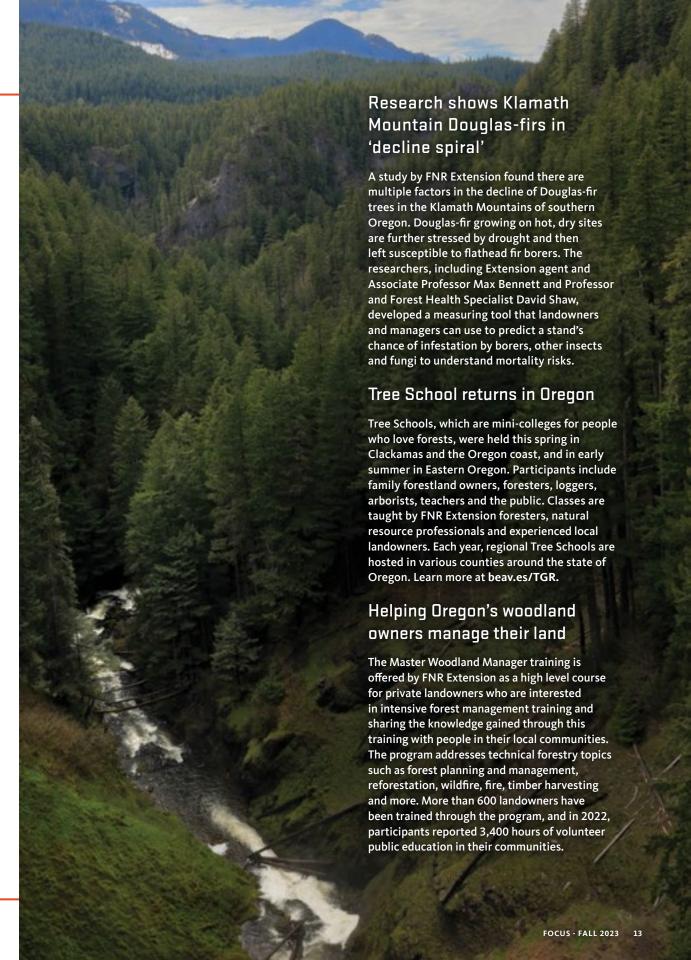
Associate Professor Alicia Christiansen, the FNR Extension agent for Douglas County, hosted the 60th annual Douglas County School Forestry Tour at the Glide Educational Forest in April. Students learned about topics such as wildlife, forest products, forest management, fire management, fisheries and hydrology, tree identification and archeology. They were also able to participate in activities like choker races and using crosscut saws. FNR Extension foresters like Christiansen are in the community teaching the public, including young people, about the value of Oregon forests.





#### Fire program expands outreach

The FNR Extension Fire program has a mission to teach all Oregonians how to be prepared for wildfires. The program developed and translated informational cards in Spanish about basic wildfire preparedness for the home, simple actions to reduce wildfire impact before it strikes, how to be smoke ready and tools to support mental health before, during and after a wildfire. The program also offers online resources for those who can't attend in-person events, such as a recent webinar on preparing for wildfire season in Benton County.



## NEWS + NOTES



# Creating a shared vision for a sustainable future

After two productive years of working together as a College, Dean DeLuca is proud to share the College of Forestry 2023-2027 strategic plan. This strategic plan is an ambitious framework for a future rooted in sustainability, creativity and inclusion. The college's values include vision, critical thinking, reciprocity, student success, sustainability, creativity, trust, inclusivity and care. View the plan at beav.es/TGe.



### Indigenous Natural Resource Office holds open house

The newly opened Indigenous Natural Resource Office at the College of Forestry is a brave cultural space where Indigenous students and scholars can honor their identities and build community. Led by Cristina Eisenberg, the associate dean for inclusive excellence and Maybelle Clark Macdonald Director of Tribal Initiatives in Natural Resources, the office is funded in perpetuity by a generous endowment from the Maybelle Clark Macdonald Fund. Through the office, the college aims to foster partnerships and Government-to-Government relationships with Tribes that braid together Traditional Ecological Knowledge and Western science in support of shared goals.



## New department head for Forest Ecosystems and Society

Kevin Bladon, an associate professor of forest ecohydrology and watershed science, has been named the new head of the Forest, Ecosystems and Society department. Bladon has been at Oregon State University since 2014 and most recently was the Associate Department Head in the Department of Forest Engineering, Resources and Management. Bladon is committed to building cohesive, inclusive, equitable and innovative teams and his leadership approach is rooted in open communication, connection, trust and establishing a psychologically safe environment.



College of Forestry professors are recipients of prestigious global award

Darius Adams, professor emeritus in the College of Forestry Engineering, Resources and Management department, is one of three researchers sharing the 2023 international Marcus Wallenberg Prize for developing a pair of groundbreaking forest economic models. Professor Emeritus Richard Waring was the recipient of this significant honor, considered to be the highest award in the field of forestry, in 2020.



In Memoriam: Dr. George W. Brown, III

January 31, 1939 -June 9, 2023



In Memoriam: Marilyn Jean Starker

January 8, 1950 -March 9, 2023

George arrived at Oregon State University in 1964 as a Ph.D. student studying forest hydrology and began his teaching and research career in 1966. In 1973, he was appointed head of the Forest Engineering Department and in 1986 he became associate dean for Research. In total, he was a faculty member or administrator at Oregon State for 32 years, retiring in 1999 as dean of the College of Forestry, a position he held for 10 years.

As dean, George encouraged the kind of systems-based, collaborative and inter-disciplinary research the college continues today. He pushed faculty members to work across organizational and institutional boundaries and transformed the college into the leading recipient of grants and contracts among the nation's forestry schools. After retirement, George stayed connected with the college, and the logging sports arena in the Peavy Arboretum is proudly named after him.

The Brown family suggests memorials may be made to the College of Forestry Dean's Fund or the George W. Brown Scholarship Endowment through the OSU Foundation. Donations can be made online at **fororegonstate.org**. Please note "in memory of George W. Brown" on memo line or in the online giving form. The family also suggests memorials may be made to Community Outreach or the Corvallis First United Methodist Church Foundation.

From an early age, Marilyn cared for those around her, with a particular gift and interest in caring for children. Her heart for others led her to earn a degree in English education from Oregon State University and later a Master of Education at the University of Oregon with an endorsement in learning disabilities. Throughout her life, she worked and volunteered in multiple roles supporting families and children in Corvallis, later establishing Mari's Place, a state-certified childcare program as part of Community Outreach's shelter.

In all the many roles she held — daughter, wife, mother, teacher, director of Mari's Place, community leader, and board of directors of Starker Forests and Family Council — she devoted herself to service and to caring for others.

As a lifelong partner to Bond Starker and an enthusiastic supporter of the College of Forestry, many in our college community were fortunate to know Marilyn, experience her warmth and witness her dedication to her family and children in and around Corvallis.

14 COLLEGE OF FORESTRY FOCUS - FAIL 2023 15

COLLEGE OF FORESTRY

# HOMECOMING TAILGATE

CELEBRATION

Saturday, October 14

2 hours before kickoff at 3100 SW Jefferson Way

Enjoy some food, beer, wine and conversation, then cheer on the Beavers as they take on UCLA!







Please join the College of Forestry and the OSU Foundation in their campaign this October to raise funds for another year of supporting students and their families with food and hygiene products free of charge.

Learn more about Rootstock at beav.es/TxC

FORESTRY.OREGONSTATE.EDU



@OSUCOLLEGEOFFORESTRY