THE UC ANR FIRE NETWORK PRESENTS Hot Topics in Fire Science and Stewardship Webinar Series

Interested in learning about some of the latest research in fire science and stewardship? Join the UC ANR Fire Network for a series of free lunchtime webinars where we will explore a diversity of fire science topics with colleagues from all over the world!

For more information, visit: <u>https://ucanr.edu/sites/fire/Home_430/Events/</u>.

RESTORING FIRE TO MEADOWS AND OTHER 5/29 CULTURAL LANDSCAPES

Presenters: Alice Lincoln-Cook, *California Indian Basketweavers Association* Brian Peterson, *Fire Forward*

Register Here: https://bit.ly/3Qksc0J

HOW CAN WE ASSESS PLANT FLAMMABILITY? 6/5

Presenters: Dr. Jane Cawson, *University of Melbourne* Dr. Max Moritz, *UC Santa Barbara and UC ANR*

Register Here: https://bit.ly/3WetrlA

NUANCES IN FIRE HISTORY AND MANAGEMENT: 6/12 LESSONS FROM OREGON

Presenters: Dr. Andrew Merschel, US Forest Service PNW Dr. Chris Dunn, Oregon State University

Register Here: https://bit.ly/44fMU7u

FORESTRY AND FUEL PROFILES

Presenters: Don Radcliffe, *University of Washington* Dr. Eric Knapp, *US Forest Service PSW*

Register Here: https://bit.ly/4aTql5Q

FIRE NETWORK

7/17

THE UC ANR FIRE NETWORK PRESENTS Hot Topics in Fire Science and Stewardship Webinar Series

RESTORING FIRE TO MEADOWS AND OTHER CULTURAL LANDSCAPES

May 29, 2024 | 12 - 12:45 PM PST

REGISTER HERE: <u>HTTPS://BIT.LY/3QKSCOJ</u>

REKINDLING CULTURE AND FIRE

Alice Lincoln-Cook, Executive Director of the California Indian Basketweavers Association

Rekindling Culture and Fire is the California Indian Basketweavers Association's (CIBA) most recent initiative to support the reintroduction or increase of prescribed and cultural fire in basketweavers' gathering sites across the state. Rekindling Culture and Fire events are designed with regional partners to bring together traditional California Indian basketweavers, agency personnel, and community members in conversation and hands-on

practice. Rekindling Culture and Fire aims to build partnerships in communities where cultural-burn projects occur; teach about the importance of traditional ecological knowledge to maintain basket gathering areas; help basketweavers gain access to burned sites to gather materials; help cultural burn practitioners become advocates for Basketweavers; and share knowledge about land access, burning techniques for traditional burns. We will share information about the results from year one of Rekindling Culture and Fire, and our new work creating a cultural fire module for fire workforce trainings.

COASTAL GRASSLAND RESTORATION & STEWARDSHIP IN MARIN COUNTY

Brian Peterson, Fire Ecologist with Fire Forward

California coastal grasslands are among the most threatened ecosystems in the state, and they continue to rapidly disappear under encroaching forest and scrubland. Martin Griffin Preserve, located in Marin County, California on the coast, has had an estimated 91.5 percent reduction in grassland cover since 1962. However, remnant native bunchgrass stands, the foundation of coastal prairie ecosystems, remain scattered throughout these encroached

areas. Audubon Canyon Ranch's Fire Forward program has been working on Marin Griffin Preserve to save and enhance these remaining native bunchgrass stands by reversing encroachment processes by restoring fire as a natural disturbance process using a cycle of mapping, manual cutting, burning, and planting.







THE UC ANR FIRE NETWORK PRESENTS Hot Topics in Fire Science and Stewardship Webinar Series

HOW CAN WE ASSESS PLANT FLAMMABILITY?

June 5, 2024 | 3 - 3:45 PM PST

REGISTER HERE: <u>HTTPS://BIT.LY/3WETRLA</u>

MEASURING PLANT FLAMMABILITY -WHICH METRICS TO USE?

Dr. Jane Cawson, Senior Research Fellow, University of Melbourne School of Agriculture, Food, and Ecosystem Sciences

Jane is a fire scientist at the University of Melbourne investigating the drivers of flammability and strategies to reduce wildfire risk. Plant flammability is an important determinant of wildfire behaviour and its impacts. As such, there is

growing interest across the community in understanding which plants can be used to create low flammability landscapes. Yet, we lack consistency in how to measure plant flammability. In this presentation Jane will describe her research to address some of the challenges with measuring plant flammability. The research aims to provide a pathway towards greater consistency in the metrics used to quantify plant flammability.

PLANTS FLAMMABILITY TESTING: A REVIEW OF EXISTING METHODS AND NEW APPROACHES

Dr. Max Moritz, *Wildfire Specialist, UC Cooperative Extension and Adjunct Professor, UC Santa Barbara Bren School of Environmental Science and Management*

Max Moritz is a Wildfire Specialist with U.C. Cooperative Extension, part of the U.C. Agriculture and Natural Resources Division. He is an adjunct professor at

the Bren School of Environmental Science & Management and an affiliate of the Earth Research Institute. Increased wildfire frequency and size has led to a surge in flammability research, most of which investigates landscape-level patterns and wildfire dynamics. There has been a recent shift towards organism-scale mechanisms that may drive these patterns, as more studies focus on flammability of plants themselves. We examine methods developed to study tissue-level flammability, comparing a novel hot-plate-based method to existing methods identified in a literature review.







THE UC ANR FIRE NETWORK PRESENTS

Hot Topics in Fire Science and Stewardship Webinar Series

NUANCES IN FIRE HISTORY AND MANAGEMENT: LESSONS FROM OREGON

June 12, 2024 | 12 - 12:45 PM PST

REGISTER HERE: <u>HTTPS://BIT.LY/44FMU7U</u>

A REFINED UNDERSTANDING OF HISTORICAL FIRE REGIMES IN THE WESTERN CASCADES AND OREGON COAST RANGE

Dr. Andrew Merschel, *Postdoctoral Scholar with ORISE and the USFS Pacific Northwest Research Station*

The largest, tallest, and often the longest-lived species of nine conifer genera are found in temperate rainforests of the Pacific Northwest. Newly developed fire and tree establishment histories are challenging paradigms regarding how old-growth trees and forests developed their iconic structurally diversity and their tremendous biomass. This presentation will review annually precise reconstructions of fire and forest development history that reveal how low- to moderate-severity fire and Indigenous fire stewardship historically shaped old trees and forests.



OREGON'S WILDFIRE HAZARD MAPPING DEBACLE

Dr. Chris Dunn, Assistant Professor, Oregon State University

In 2021. Oregon's Legislature passed Senate Bill 762 requiring Oregon State University, in collaboration with Oregon Department of Forestry, to create a wildland-urban interface map coupled with a wildfire hazard map to narrow regulation of the home ignition zone to only those properties at high or extreme risk. Upon release, the public exploded with anger, fueled in part by misinformation and false-narratives, including threats of violence, leading to retraction of the map. In this talk I will discuss the difficulty of integrating science with policy, how the public responded, and lessons learned relevant to state and local government policy actions.





THE UC ANR FIRE NETWORK PRESENTS

Hot Topics in Fire Science and Stewardship Webinar Series

FORESTRY AND FUEL PROFILES

July 17, 2024 | 12 - 12:45 PM PST

REGISTER HERE: <u>HTTPS://BIT.LY/4ATQ15Q</u>

HOW ARE FUEL PROFILES AFFECTED BY TREATMENT TYPE & INTENSITY ~15 YEARS POST-TREATMENT?

Don Radcliffe, *PhD Candidate, University of Washington School of Environmental and Forest Sciences*

Though important tools to bolster forest resilience, the long-term (> 10 yrs) effects of fuel treatments are relatively understudied. We re-measured fuel profiles in 15-year-old fuel treatment units in the Northeastern Cascades in Washington (USA). We found that thinning followed by prescribed burning

showed the greatest effects among tested treatments, reducing long-term basal area and canopy fuel loads. In all treatments, long-term effects were correlated with pre-treatment conditions and treatment intensity. Don Radcliffe is a PhD candidate in Brian Harvey's lab at the University of Washington. His dissertation research focuses on fuel treatment longevity and biodiversity responses to fuel treatment. Don has also studied forestry at the University of Wisconsin-Madison and Ohio State University, and has worked for the U.S. Forest Service in Montana and the Society of American Foresters in Washington D.C.

PRESCRIBED BURNING IN YOUNG TREE PLANTATIONS: TIMING AND FIRE EFFECTS

Dr. Eric Knapp, Research Ecologist, USFS Pacific Southwest Research Station

Many young trees in plantations are susceptible to wildfire, in part because surface fuel loads are too high for the shorter statured and still relatively thinbarked trees to survive. Prescribed fire is one tool to reduce surface fuel loading, but concern about injuring or killing young trees has limited its use in plantations. In order to determine the optimal timing for introducing fire to young stands, we

monitored trees before and after early or late season prescribed burns in nine plantations on the Shasta-Trinity National Forest, California. Survival of larger planted conifers appeared to be influenced more by ignition strategy and fuels than tree age or season of burning. Burning slightly reduced rate of subsequent tree growth in some plantations, but also enhanced stand heterogeneity. Eric Knapp is based in Redding, CA and has been conducting prescribed fire effects research for over two decades.





