

A large, stylized '10' with a 'th' superscript, rendered in a dark blue, hand-drawn style.

International Fire Ecology and Management Congress

IGNITING CONNECTIONS:
CELEBRATING OUR FIRE FAMILY
ACROSS GENERATIONS, CULTURES,
AND DISCIPLINES

#FireCon2023



Hyatt Regency Monterey Hotel
Monterey, California, USA
December 4-8, 2023

Week at a Glance

Monday, December 4: Workshops (Pre-registration required)		
8:00am	Morning Workshops	1st Floor Meeting Rooms
12:00pm	Lunch: Pre-purchased Boxed Lunch or On Your Own	Regency Foyer
1:00pm	Afternoon Workshops	1st Floor Meeting Rooms
5:00pm	Welcome Social	Regency Foyer and Terrace
Tuesday, December 5		
8:00am	Opening Plenary	Monterey Ballroom
10:00am	Morning Break	Regency Ballroom
10:30am	Concurrent Sessions	1st Floor Meeting Rooms
12:00pm	Lunch: Poster Session and Exhibitor Networking	Regency Ballroom and Foyer
2:00pm	Concurrent Sessions	1st Floor Meeting Rooms
3:30pm	Afternoon Break	Regency Ballroom
4:00pm	Concurrent Sessions	1st Floor Meeting Rooms
8:00pm	AFE Dance Party	Monterey Ballroom
Wednesday, December 6		
8:00am	Plenary: Fire AFEx Talks	Monterey Ballroom
9:45am	Morning Break	Regency Ballroom
10:15am	Concurrent Sessions	1st Floor Meeting Rooms
11:45am	Lunch: Pre-purchased Boxed Lunch or On Your Own	Regency Ballroom
12:45pm	Concurrent Sessions	1st Floor Meeting Rooms
2:15pm	10-minute Break	
2:25pm	Concurrent Sessions	1st Floor Meeting Rooms
3:55pm	Afternoon Break	Regency Ballroom
4:15pm	Fire Circles	1st Floor Meeting Rooms
6:00pm	Celebration of Life for Jan van Wagtendonk	Regency Foyer and Terrace
Thursday, December 7		
8:00am	Closing Plenary	Monterey Ballroom
10:00am	Morning Break	Regency Ballroom
10:30am	Concurrent Sessions	1st Floor Meeting Rooms
12:00pm	Awards Luncheon (Pre-purchased Ticket) or Lunch On Your Own	Monterey Ballroom
2:00pm	Concurrent Sessions	1st Floor Meeting Rooms
3:30pm	Afternoon Break	Regency Ballroom
4:00pm	Concurrent Sessions	1st Floor Meeting Rooms
Evening	Bonfire and Closing Ceremony (RSVP required)	Asilomar Conference Center
Friday, December 8: Field Trips (Pre-registration required)		
<ul style="list-style-type: none"> Elkhorn Slough and Walden Monterey The Ecology and Cultural Tending of Old-growth Redwood Forests in Big Sur Santa Lucia Conservancy Prescribed Burning Program and Wildfire Resilience Work Big Basin Redwoods State Park Whale Watch with Monterey Bay Whale Watch 		
Exhibit Hall, Regency Ballroom	Registration, Regency Foyer	Presentation/AV Station, The Hub
Tuesday: 8:00am-5:00pm Wednesday: 8:00am-5:00pm Thursday: 8:00am-4:00pm	Monday: 7:00am-7:00pm Tuesday: 7:00am-4:00pm Wednesday: 7:30am-4:00pm Thursday: 7:30am-4:00pm	Monday, Tuesday, Wednesday: 3:30pm-5:30pm (for questions or checking slides). The Hub is on the 2nd floor of the conference center, across from Regency IV. Uploads should be completed online by 12:00pm the day before your talk.

Cover photo credit: Lenya Quinn-Davidson, University of California Cooperative

10th International Fire Ecology and Management Congress

*Hosted by the Association for Fire Ecology
in cooperation with the California Fire Science Consortium*



Table of Contents

AFE Board of Directors and Fire Congress Program Committee.....	2
About AFE.....	3
Congress Information.....	4
Welcome.....	5
Fire Congress Sponsors and Exhibitors.....	7
In Memory of Jan van Wagtendonk.....	14
Monday Schedule.....	15
Tuesday Schedule.....	16
Wednesday Schedule.....	24
Thursday Schedule.....	34
Poster Presentations.....	42
Hotel and Meeting Space Maps.....	45

AFE Board of Directors

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Fire Congress Program Committee

CONGRESS CO-CHAIRS

Jeffrey Kane, Cal Poly Humboldt
Lenya N. Quinn-Davidson, University of California Agriculture and Natural Resources
Morgan Varner, Tall Timbers

AFE EVENTS COMMITTEE CHAIR

Mark Kaib, Retired US Fish and Wildlife Service

CONGRESS COORDINATOR

Annie Oxarart, Association for Fire Ecology

PROGRAM COMMITTEE MEMBERS

Kori Blankenship, The Nature Conservancy
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Michael Winfield, Oregon State University, SAFE Representative

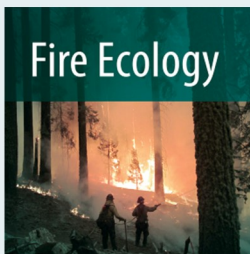
THANK YOU!

AFE's work is not possible without the time, energy, and creative ideas of dedicated members who serve on our committees and the Board of Directors. Special thanks to our Program Committee for making the 10th anniversary of the Fire Congress an amazing event!



PROMOTING FIRE ECOLOGY RESEARCH, EDUCATION, AND MANAGEMENT

The Association for Fire Ecology is an international organization dedicated to improving the knowledge of fire ecology and uses of fire in resilient landscape management.



FIRE ECOLOGY JOURNAL

AFE's journal, *Fire Ecology*, publishes peer-reviewed articles on all ecological and management aspects relating to wildland fire. *Fire Ecology* articles are available for free online at fireecology.springeropen.com



CONFERENCES AND EVENTS

AFE hosts conferences, regional events, and international fire congresses to provide opportunities for learning and networking with professionals from a variety of agencies, organizations, universities, regions, and nations.



SAFE

The Student Association for Fire Ecology (SAFE) provides students with a forum to share research, network with others, and access wildland fire information, training, and funding opportunities. Follow the SAFE Instagram page @s.a.f.e_national.



CERTIFICATION PROGRAMS

AFE has a Professional Wildland Fire Certification Program for ecologists, managers, and technicians, as well as an Academic Certification Program. We have multiple certifications to fit diverse career stages and focal areas.



AWARDS

Each year, the Association for Fire Ecology recognizes the accomplishments of exceptional individuals in the field of fire ecology and management. We have several awards, ranging from student excellence to lifetime achievement awards.



COMMITTEES

Committees help AFE work toward meeting its mission by providing leadership to our programs. We welcome new members and value the varied experiences, ideas, and motivation that new volunteers bring.

JOIN AFE TODAY

and help shape the growing profession
and field of fire ecology.

Learn more at fireecology.org

Congress Information

Whova: Official Event App

Make sure to download Whova so you can easily search the program, find presentation abstracts and session details, presenter bios, maps, connect to social media, post photos, and network with other conference attendees.



How to Download Whova

1. Go to your App store or Google Play, search for Whova, and download the free app.
2. Enter your email and password to log in, or create an account if you have not used Whova before. You should see the conference listed at the top of the home screen under "My Events."
3. If you don't see the conference listed, you can search the events for "10th International Fire Ecology and Management Congress" and the enter the invitation code: FireCongress23

Wifi

There is free access to wireless internet throughout the meeting area. The password is AFE23

Nursing Mothers and Family Room

The Mark Thomas Room on the 1st floor of the conference center is available for nursing mothers and families to use as needed. If you need anything, please visit Registration and let us know.

Volunteers

Report directly to your volunteer location. If you have any issues, come to Registration for assistance. Thank you for helping the Fire Congress run smoothly!

CFEs and CEUs

Visit Registration if you need our assistance applying for continuing education credits.

Diversity Statement

The Association for Fire Ecology respects all aspects of people including race, ethnicity, gender, sexual orientation, socio-economic background, age, religion, and ability. We seek to create a learning environment that embraces differences and diversity, in which all members of the fire community feel welcome, safe, and valued. If you have feedback for the Diversity, Equity, and Inclusion Committee, or you want to discuss or report a non-urgent matter, you can:

- Visit Registration and speak with AFE staff. They can also offer email addresses for committee members who are willing to speak with you confidentially.
- Look for Diversity, Equity, and Inclusion Committee members wearing blue ribbons on their name tag.
- Use the comment box near Registration to submit feedback (can be made anonymously).

Evaluation

Please complete the Fire Congress evaluation online at <https://www.surveymonkey.com/r/FireCongress23>. We value your input and use this information to improve future events. You will also receive an email after the Fire Congress with this survey link.

Local Activities

There are many opportunities for sight seeing, fitness, nature exploration, and relaxation. If you'd like company, use the Whova app to create a "meetup" with other conference attendees. A list of local activities recommended by the program committee is available on Whova as well.

Field Trips

We have several great field trips planned for Friday, December 8! Trip information is available on Whova and the Fire Congress website. There still may be room for you to join a field trip; check at Registration. All trips will leave promptly at their posted departure time; please plan to arrive 10 minutes early.

#FireCon2023

Welcome and Introduction

In celebration of our 10th International Fire Ecology and Management Congress, we return to California, harkening back to the origins of the Association for Fire Ecology and where the 1st Fire Ecology and Management Congress was held 23 years ago. While many things have changed over this time, our dedication to improving the knowledge of fire ecology and the uses of fire to promote resilient landscapes steadfastly endures.

What also remains is the Association for Fire Ecology's commitment to providing opportunities for the fire family to get together to connect and exchange ideas so that we may better coexist with fire and nurture the ecosystems we know and love. Now more than ever there is an urgent need to increasingly work together in new and creative ways to address wildfire-related challenges and identify opportunities to promote fire-resilient human and ecological communities in this era of remarkable change.

The theme of congress is *Igniting Connections: Celebrating our Fire Family across Generations, Cultures, and Disciplines*. To align with this theme, we have a great set of plenary speakers, special sessions, fire circles, contributed talks, and fieldtrips planned that represent a wide range of localities, experiences, and perspectives. And thanks to you, this will be one of best attended and most diverse congresses in the organization's history. While clearly there is more work to be done, it is also important that we take time to celebrate and showcase the accomplishments of our diverse and growing fire family. So many of you have worked countless hours dedicated to making a difference and we want to recognize and celebrate you for these efforts.

Our aim is that this conference will inspire you, connect you with others, and keep you committed to this important work. Whether you are one of the founding members of AFE or this will be your first time attending, we welcome you, we thank you for your contributions, and we hope you will stay involved with the Association for Fire Ecology for years to come.

With warm regards from your Fire Congress leadership team,

Jeffrey Kane
Lenya Quinn-Davidson
Morgan Varner
Mark Kaib
Annie Oxarart



Monterey County is the ancestral homelands of the Amah Mutsun, Awaswas, Chalone, Coastanoan, Esselen, Oholone, Rumsen, Salinan, and Tamien people. We recognize they have stewarded the land in this region since time immemorial and are active stewards of the land today. We are happy to be collaborating with the Esselen Tribe of Monterey County to integrate cultural knowledge and traditions into this event.

Welcome from Chairman Tom Little Bear Nason, Esselen Tribe

On behalf of the Indigenous community of the Monterey Bay, we welcome you to the 10th International Fire Ecology and Management Congress. We are honored to host this conference within our shared territories and celebrate the opportunities we have locally to steward the lands together uniting tribes around the world. We are grateful for the opportunity to work in collaboration with many organizations like Tribal Cultural Fire Communities, Land Trusts, PBAs, Prescribed Fire Councils, State Parks, Regional Parks, Forest Service, CalFire, and many more. The work within tribal communities allows for the utilization and sharing of traditional ecological knowledge. Strengthening our relations that build our capacity as indigenous cultural knowledge bearers. It is essential that tribes are a part of the process of land management. It is imperative that tribes acquire land to rematriate with their ancestral territory. Creating space for future generations to build back connections with their culture and traditions.

The Esselen Tribe of Monterey County includes tribal members of Esselen, Rumsen, Chalone, Sureno, Chunchunes, and Guatcharrone peoples who have inhabited the sacred lands in Monterey County since time immemorial. We are dedicated to preserving and enacting tribal heritage with cultural fire, food sovereignty, and continuing cultural monitoring work that protects natural resources and cultural sites. We have restored forests, woodlands, watersheds, and coastal environments with burning, dam and fish barrier removal, and invasive species removal. We are continuing our mission by promoting wildfire resilience and forest health through invasive species management, caring for our ancestor trees and old-growth forests with biochar and TEK. Through co-management with conservation groups and governmental grants we have regained stewardship of over 21,000 acres of ancestral land within our Monterey County territory. To learn more about our tribe and our projects visit our website at Esselentribe.org



Fire Congress Sponsors and Exhibitors

GOLD SPONSORS

- CAL FIRE
- University of California Agriculture and Natural Resources
- US Bureau of Indian Affairs

SILVER SPONSORS

- ESRI (Booth 17)
- Save the Redwoods League
- Tall Timbers

BRONZE SPONSORS

- California Fire Science Consortium (Booth 2)
- US Geological Survey (Booth 12)

EXHIBITORS

- Alaska Fire Science Consortium (Booth 1)
- Arizona Wildfire Initiative (Booth 9)
- Fire AI (Booth 22)
- Fire Learning Network (Booth 11)
- Firefighters United for Safety, Ethics, and Ecology (FUSEE) (Booth 16)
- Great Basin Fire Science Exchange (Booth 3)
- Green Oregon Alliance (Booth 15)
- Northern Arizona University (Booth 10)
- Northern Rockies Fire Science Network (Booth 5)
- Northwest Fire Science Consortium (Booth 6)
- Oak Woodlands & Forests Fire Consortium (Booth 4)
- Overwatch Imaging (Booth 20)
- Sequoia Ecological Consulting, Inc. (Booth 18)
- SERDP & ESTCP (Booth 13)
- Shifting Mosaics Corporation/Northern Fire WoRx Corp (Booth 19)
- Southern Fire Exchange (Booth 7)
- Southern Rockies Fire Science Network (Booth 5)
- Southwest Fire Science Consortium (Booth 8)
- SWCA Environmental Consultants (Booth 21)
- Vibrant Planet (Booth 14)

Thank you to the organizations, agencies, and others that have generously contributed to the 2023 Fire Congress!

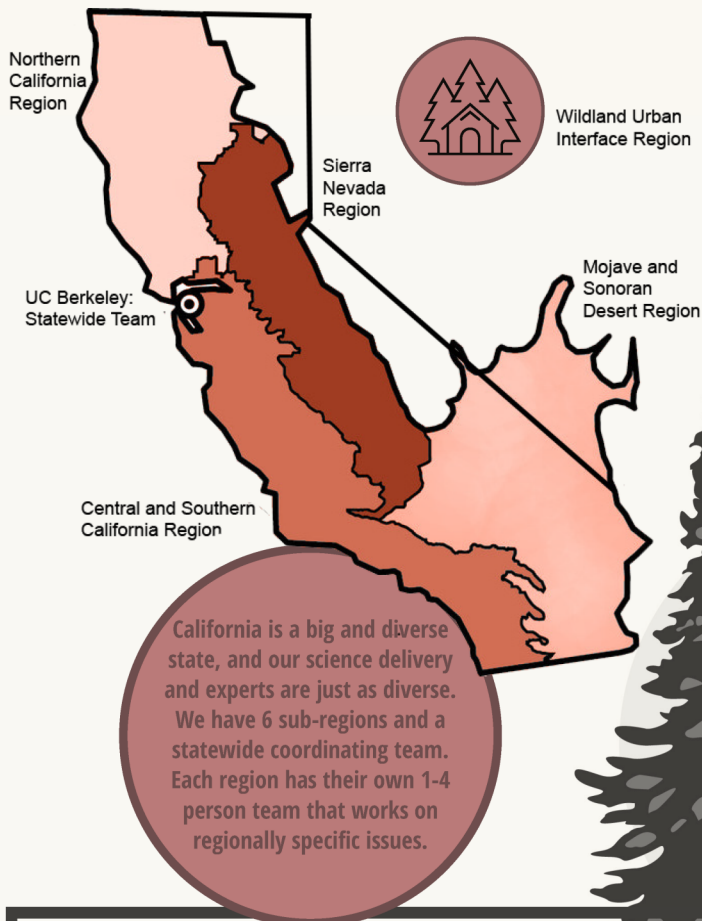
Visit the Exhibit Hall!

The exhibit hall is located in the Regency Ballroom on the 2nd floor of the conference center. You can also connect with sponsors and exhibitors on the Whova app.



THE CALIFORNIA FIRE SCIENCE CONSORTIUM

The California Fire Science Consortium strives to accelerate the awareness, understanding, and adoption of wildland fire science information by federal, tribal, state, local, and private stakeholders within ecologically similar regions.



WHAT WE DO

Diversify dissemination tactics to maximize exposure, understanding, and integration of fire science concepts across a wide range of landscapes and managers.

CFSC Website: CAFireScience.org

Offering a centralized hub of resources, data, tools, and valuable information related to fire science.

Research Briefs and Syntheses

Publishing concise highlights of science papers for easy access to key findings and management implications

Workshops, Seminars, and Conferences

Organizing events that facilitate interaction, networking, and knowledge exchange among fire science professionals and enthusiasts.

Field Tours

Leading guided tours of recent prescribed fires, wildfires, fuel treatments, experimental forests, and other fire management-related locales.

Webinars

Recording online sessions that offer in-depth knowledge sharing and discussions on specific fire science topics.

Media Requests

Responding to media requests with valuable insights, information, and access to leading experts.

Foster collaboration and strengthen networks across research, management, policy, and public spheres to ensure maximal relevancy, utility, and positive outcomes of fire science information.

Partnerships

Our partnerships are diverse and tailored to each organization and individual we collaborate with. From event hosting to research briefs, these opportunities extend to all of the products and resources we offer, ensuring a seamless and impactful alliance. We love supporting partner activities by providing personnel resources, coordination skills, and sponsorships.

Research Needs

We identify and compile research needs from managers to help shape future Joint Fire Science Program and CFSC priorities.

Ask an Expert

Connecting individuals with experts who can provide valuable insights and recommendations, assisting them in making informed decisions or finding solutions to their fire-related inquiries.

Elevate fire science literacy across public, policy, and media spheres, increasing the social license, will, and demand for needed change.

CAFireScience.org

cafirescience@gmail.com



California
Fire Science
Consortium



@CAFireScience



California
Fire Science
Consortium

CFSC Newsletter

Stay informed and up-to-date on the latest advancements in fire science: exciting events, cutting-edge research, and new tools by signing up for our newsletter today!



SPECIAL THANKS TO OUR GOLD LEVEL SPONSORS!



UC
CE

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

UC Cooperative Extension



**Save the
Redwoods
League works
to reestablish
healthy fire
regimes across
California's
iconic
redwood
forests.**

Save The Redwoods

LEAGUE

SaveTheRedwoods.org



TALL TIMBERS

The mission of Tall Timbers is to foster exemplary land stewardship through research, conservation and education.

Our primary research focus is the ecology and management of fire-dependent ecosystems, and its wildlife, including bobwhite quail, in the Southeastern Coastal Plain.

Our conservation efforts are dedicated to helping protect the distinctive, rural landscape of South Georgia and North Florida and its traditional land uses.

Our education program transfers research and conservation information for resource management.



13093 Henry Beadel Drive | Tallahassee, FL 32312
850.893.4153 | www.talltimbers.org



The U.S. Geological Survey's Wildland Fire Science Program produces fundamental information to identify the causes of wildfires, understand the postfire environment, and help prevent and manage larger, catastrophic events. Our fire scientists provide information and develop tools that are widely used by stakeholders to make decisions before, during, and after wildfires in desert, grassland, tundra, wetland, and forest ecosystems across the United States.

USGS fire science helps land, fire, and emergency managers by providing new knowledge, data, and tools to promote cost-effective and informed fire management. Active areas of research include:

- Wildland fire history, behavior, and management;
- Fire ecology, fire effects, and restoration of post-fire ecosystems;
- Risk assessments for human health, public safety, and the Nation's infrastructure; and
- Remote sensing and geospatial tools and data.

Real-Time Insights for Data-Driven Decisions

Esri can help you

- Visualize preparedness measures.
- Manage suppression activities.
- Analyze rehabilitation efforts.
- Monitor fuel management programs.

go.esri.com/fire-ecology-23



Damaged Structures

- Destroyed (>50%)
- Major (26-50%)
- Minor (10-25%)
- Affected (1-9%)

Structures Destroyed

13,972 residences
528 commercial
4,293 other buildings

Alaska Fire Science Consortium

<https://www.frames.gov/afsc/home>

The Alaska Fire Science Consortium (AFSC) is one of the 15 regional fire science exchanges supported by the Joint Fire Science Program. AFSC

works to accelerate the awareness, understanding, development, and adoption of wildland fire science to address Alaska's unique fire management issues. AFSC connects managers, practitioners, scientists, and communities and collaboratives working on fire issues across Alaska. AFSC provides informational products and boundary-spanning services including: seasonal workshops and trainings, webinars and videos, fire science highlights, proposal support and collaboration, help desk service, consultation by subject matter experts, and agency/leadership briefings. AFSC is guided by an interagency Advisory Board representing the agencies involved in wildland fire science and management in the state.



Arizona Wildfire Initiative

<https://azwildfire.org>

Launched in the Spring of 2023, the Arizona Wildfire Initiative aims to become a center of excellence for wildfire-related research, workforce development and outreach in the Southwest, prioritizing responsive programs and resource development that focus on Arizona's needs.



Fire AI

www.fireai.io

Fire AI provides a streamlined solution for wildfire intelligence.

Allowing firefighters to create, edit, share, and store their maps in one place, making it easier to quickly understand the fire, map it with drones, and share insights with ease.



Loaded with collaborative features--changes and updates made by one person can be synced across devices and all of your data is easily transferable to other platforms. Our plugin marketplace, the MApp Store, makes it easy to find what you need to streamline your data processing. Join us as we ignite curiosity and reimagine modern wildfire intelligence.

Fire Learning Network

<https://firenetworks.org>

The Fire Learning Network is made up of place-based collaborations working toward a better future with wildland fire in landscapes and communities across the nation. We believe that building relationships between agencies,

organizations, Tribes, and communities is at the core of building a better way of living with fire. Only with these relationships is it possible to fundamentally change how communities throughout the United States understand, relate to, and live with wildland fire while creating the ecologically healthy landscapes we all need.



Firefighters United for Safety, Ethics, and Ecology (FUSEE)

<https://fusee.org>

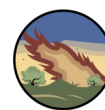
FUSEE does public education and policy advocacy promoting safe, ethical, ecological fire management. FUSEE members include current, former, and retired wildland firefighters; other fire management specialists; fire researchers, educators, and students; forest conservationists; and other citizens who support FUSEE's vision and mission. As an independent voice in the wildland fire community, FUSEE offers a safe forum for fire professionals to provide information and analysis to the newsmedia, elected officials, government agencies, and nonprofit organizations. Come join FUSEE's growing network of torchbearers for a new fire management paradigm!



Great Basin Fire Science Exchange

<https://greatbasinfirescience.org>

The Great Basin Fire Science Exchange (GBFSE) is one of 15 regionally focused Fire Science organizations funded by the



GREAT BASIN
FIRE SCIENCE
EXCHANGE

Joint Fire Science Program (JFSP). The GBFSE identifies and makes available science information about fire, fuels, and restoration in the Great Basin region. The GBFSE also facilitates better land management decision making by supporting improved communication and collaboration between management and research communities. The specific goals of the GBFSE project are to:

1. Provide a forum for identification of fire, fuels, and post-fire vegetation management technical needs
2. Develop and synthesize the information and technical tools to meet these needs
3. Provide the information and technical tools through preferred venues
4. Develop direct lines of communication between scientists and managers

Green Oregon Alliance

<https://greenoregon.org>

Green Oregon Alliance works with scientists, tribes, conservation groups, government agencies and communities throughout the Pacific Northwest to change the fire story, protect forests, and restore burned landscapes. Go Alliance investigates the causes of fires, documents wildlife and recovery in burned landscapes, and works to help people and communities prepare for more fire in a hotter drier world. The team has worked to bring science-informed storytelling to the public so they are empowered to take action. Go Alliance has produced dozens of short films about wildfire, and worked with firefighters, cultural fire lighters and fire experts to advance public understanding about fire. Go Alliance has worked with PBS' Weathered on episodes about wildfire, supported the post-fire recovery work of the American Red Cross and produced the award-winning documentary Elemental: Reimagine Wildfire (elementalfilm.com).



Northern Arizona University

<https://nau.edu/forestry/>

The School of Forestry at Northern Arizona University is perfectly located to give students pursuing forestry degrees an exceptional learning environment. With five life zones within fifty miles of campus and six climate zones in the state, as well as NAU's Centennial Forest facility, those looking for forestry careers have come to the right place. Our forestry program is a gateway to a fulfilling forestry career; it's also an invitation to create sustainable solutions for the natural world and outdoor enjoyment for years to come. Northern Arizona University's School of Forestry is:

- a national and international leader in natural resource education and forest research
- in a state with six climate zones, including five life zones within 50 miles of the Flagstaff campus
- our program has one of the most diverse faculty in North America
- nationally accredited by the Society of American Foresters



School of Forestry

Northern Rockies Fire Science Network

<https://www.nrfirescience.org>

As a member of the Joint Fire Science Program's Fire Science Knowledge Exchange Network, the Northern Rockies Fire Science



Network (NRFNSN) is a go-to resource for managers and scientists involved in fire and fuels management in the Rocky Mountains of Idaho, Montana, Washington, and Wyoming. We facilitate knowledge exchange among managers and scientists by bringing people together to strengthen collaborations, synthesize science, and enhance science application to critical fire and fuels management issues. We work in the ancestral territories of Tribal Nations in the Rocky Mountains and recognize the importance of lands far beyond reservation boundaries for cultural practices and ceremonies. Since time immemorial, Tribal communities have used fire to enhance valued resources and ecosystems. The NRFNSN strives to promote communication, collaboration, and shared learning in the larger wildland fire community to support tribal land managers in co-managing these ecosystems for generations to come.

Northwest Fire Science Consortium

<https://nwfirescience.org/home>

The Northwest Fire Science Consortium works to accelerate the awareness, understanding, and adoption of wildland fire science. We connect managers, practitioners, scientists, and local communities and collaboratives working on fire issues on forest and range lands in Washington and Oregon. We are a multi-disciplinary, multi-institutional network of federal and state agencies, non-governmental organizations, universities, and private landowners within Washington and Oregon. The Consortium seeks to provide:

- Effective dissemination that improves the accessibility and adoption of fire science information, knowledge, tools, and expertise;



- A framework within which existing organizations and outreach programs focused on fire science needs, delivery, and use can coordinate more effectively;
- A venue to increase researcher understanding of the fire science needs of practitioners.

Oak Woodlands & Forests Fire Consortium

www.oakfirescience.com

The Oak Woodlands & Forests Fire Consortium (OWFFC) is one of fifteen fire science exchanges funded by the Joint Fire Science Program (JFSP Fire Science Exchange Network), serving much of the Central Hardwoods Forest Region in the eastern U.S. The Fire Science Exchange Network's efforts are guided by principles emphasizing inclusiveness, neutrality, and innovation. The OWFFC's mission is to provide fire science information to resource managers, landowners, and the public about the use, application, and effects of fire. The fire science needs of oak ecosystems in the eastern U.S. are primarily related to management and restoration as opposed to protection, setting a unique stage for the fire topics addressed and activities offered by the OWFFC.



Overwatch Imaging

www.overwatchimaging.com

Overwatch Imaging develops automated airborne imaging systems and solutions for important intelligence-gathering missions. Cutting-edge software and smart sensor payloads leverage the latest advancements in sensor technology, computer vision, GPU processing, machine learning, AI, and sensor fusion to scan wide areas, automatically find objects of interest and deliver actionable geospatial intelligence quickly and efficiently. The company was founded in 2016 in Hood River, Oregon, and serves customers in six continents around the world, with missions ranging from fire, flood, and oil spill mapping to counter narcotics, border security, tactical intelligence, and search and rescue.



SERDP & ESTCP

<https://serdp-estcp.org>



The Strategic Environmental Research and Development Program (SERDP) and the Environmental Security Technology Certification Program (ESTCP) are the Department of Defense's environmental, resilience, and installation energy and water research programs, harnessing the latest science and technology to improve DoD's environmental performance, reduce costs, and enhance and sustain mission capabilities. The Programs respond to environmental, resilience, and installation energy and water technology requirements that are common to all of the Military Services, complementing the Services' research programs. SERDP and ESTCP promote partnerships and collaboration among academia, industry, the Military Services, and other Federal Agencies. They are independent programs managed from a joint office to coordinate the full spectrum of efforts, from basic and applied research to field demonstration and validation.

Sequoia Ecological Consulting, Inc.

<https://sequoiaeco.com>

Sequoia Ecological Consulting, Inc.

(Sequoia) is a woman-owned small business that provides biological and ecological consulting services to resource and land management agencies, fire districts, fire safe councils, and contractors throughout California. From offices in Sacramento, Contra Costa, Sonoma, and San Diego Counties, Sequoia's environmental planners, resource specialists, foresters and wildfire experts work proactively to expedite fuel reduction projects while avoiding costly permitting requirements and project delays. This allows agencies to redirect time and resources to other high priority areas. Sequoia helps clients apply an all-lands approach to creating fire-resilient forest ecosystems and fire-adapted communities.



Shifting Mosaics Corporation/Northern Fire WoRx Corp

<https://shiftingmosaics.com>

Shifting Mosaics Corporation is an ecological consulting company that strives to bring harmony to all of the places where land, wildlife, society, and industry intersect. Our services can help you manage our natural resources, using ecologically and culturally appropriate methods and techniques.



Northern Fire WoRx is one of the leading private fire companies in Canada <https://northernfireworx.com>. We integrate fire on the land in a safe and professional way through prescribed fire and wildland fire. Both companies are owned by Dr. Sonja Leverkus who is also an ignitions specialist and an adjunct professor in the Wildfire Analytics Lab at the University of Alberta.

Southern Fire Exchange

<https://southernfireexchange.org>

The Southern Fire Exchange (SFE) helps to tackle wildland fire problems by moving science into practice. SFE bridges the gap between the fire science and natural resource management communities so that relevant cutting-edge fire science information can be applied to address wildfire and prescribed fire challenges in the southeastern US. SFE works with key partners across the region to develop innovative programs, resources, and networks that move fire science and management forward. SFE publications, workshops, webinars, and events facilitate meaningful connections between fire scientists and managers that foster collaborative approaches for solving real-world problems. As a member of the Joint Fire Science Program funded Fire Science Exchange Network, SFE is a collaborative partnership between the University of Florida, North Carolina State University, and Tall Timbers Research Station. To sign up for the SFE newsletter or to learn more, visit: www.southernfireexchange.org.



Southern Rockies Fire Science Network

www.southernrockiesfirescience.org

The Southern Rockies Fire Science Network supports the exchange of wildland fire knowledge and impacts on public and private lands, rangelands, and populated areas. The Network connects people with credible fire science for sound decisions in land management and planning. We are one of the 15 regional fire science exchanges of the Joint Fire Science Program. Stop by our booth to find out more how we can support YOU!



Southwest Fire Science Consortium

www.swfireconsortium.org

The Southwest Fire Science Consortium (SWFSC) gets emerging science on the ground by connecting scientists, land managers, and the public. By facilitating these connections, the SWFSC helps to assure that scientists are addressing the most pressing questions and managers are applying cutting-edge science and diverse knowledge in their efforts to protect communities and critical natural resources. Attend the SONORAN INVASIVE SPECES & FIRE SESSION + WORKSHOP THIS WEDNESDAY!



**SOUTHWEST
FIRE SCIENCE
CONSORTIUM**
JFSP Fire Science
Exchange Network

SWCA Environmental Consultants

www.swca.com

Since 1981, SWCA Environmental Consultants (SWCA) has offered comprehensive environmental planning, regulatory compliance, and natural and cultural resources management services. In the face of rapid environmental, economic, and societal changes, our purpose is simple: to preserve natural and cultural resources for tomorrow while enabling projects that benefit people today. SWCA offers a wide variety of services, including wildfire sciences. We work with federal, state, and local government agencies, non-governmental agencies, private industry, and communities on collaborative projects for fire management planning, risk reduction and analysis, vegetation management, post-fire assessments and restoration, public education and outreach, spatial and online web content support, and much more.



Vibrant Planet

www.vibrantplanet.net

Vibrant Planet advances land restoration in fire-prone ecosystems through its cloud-based adaptive management platform. We help planners and policymakers save lives, avoid trillions of dollars in infrastructure loss, and restore the ability of natural systems to store carbon, deliver clean water, and support biodiversity, local economies, and recreational habits.



vibrant planet

In Memory of Jan van Wagtendonk

Jan was a native Californian who spent most of his youth in Indiana. It was there that he developed a lifelong interest in trees and forests, which encouraged him to enroll in the forestry program at Purdue University. Between his freshmen and sophomore years, he was lured westward by a job as a smokejumper. Working with the Forest Service and the Bureau of Land Management, he suppressed wildfires in Oregon and Alaska. Those experiences planted a seed in Jan's mind, that not all wildfire effects were destructive and not all fire suppression efforts were justified. He transferred from Purdue to Oregon State University, to be closer the forests of the west, and graduated with a degree in forest management in 1963.

Jan joined the U.S. Army and spent four and a half years as an officer in the 101st Airborne. While at Fort Ord in Monterey, he corresponded with Professor Harold Biswell, who was a leading fire ecologist at the University of California, Berkeley. He began a Masters' program in 1967 and started his Ph.D. program in 1968. Jan's doctoral dissertation was focused on refining burning prescriptions in mixed-conifer forests. He was invited to conduct research at Yosemite National Park, where the National Park Service had just changed its fire policies to allow prescribed fires. Dr. van Wagtendonk was offered a job at Yosemite National Park when he graduated from Berkeley, and he spent his 40-plus-year career at the park. He conducted pioneering research in wilderness management and fire science.



Jan always took time from his busy schedule to talk to people about fire and forests. Not only did he mentor numerous graduate students, but he brought them into his professional circles and his home. Jan began an annual backpacking trip in Yosemite that included the park's senior leadership and scientists. He believed getting people around a campfire and having discussions along the way was crucial to conserving the ecosystems. The trips at Yosemite continue today.

Jan also led field courses for the California Association for Fire Ecology (CAFÉ) which he then helped lead to become an international non-profit now known as the Association for Fire Ecology (AFE). Jan was a founding member of AFE, served as its President, and as Editor of the Association's journal, *Fire Ecology*. During his tenure on the Joint Fire Science Program Governing Board, he was a champion for science that guided the restoration of fire in fire-adapted ecosystems, in wilderness conservation, and wildlife habitats.

Jan was an avid backpacker and hiked every trail in Yosemite National Park. He was always willing to sit down and talk fire over a good beer after work or give advice to a new student or professional. It is fitting that while Jan passed on, the Mariposa Giant Sequoias Grove in Yosemite was threatened but turned out to be insulated from high-severity effects by the Washburn Wildfire. This was due to decades of thoughtful science-guided fire and fuels management founded and led by Jan—Jan's Legacy. Jan will be missed by all as a mentor, leader, and friend.

Friends, family, and colleagues: Please join us for a celebration of Jan's Life on Wednesday Evening 6:00-7:30pm.

Monday, December 4

Welcome Social

Regency Foyer and Terrace, 5 to 7pm

Join us to meet and socialize with conference attendees and pick up your registration materials. Poster presenters, you can set up during this time as well. A no-host bar will be available.

Registration, Regency Foyer
7:00am to 7:00pm

Presentation/AV Station, The Hub
3:30pm to 5:30 pm

Exhibitor Move In, Regency Ballroom
12:00pm to 4:00pm

Poster Set-up, Regency Ballroom
1:00pm to 7:00pm

Lunch
12:00pm to 1:00pm
Pre-ordered boxed lunches for full day participants, or lunch on your own

Pre-Congress Workshops, Additional Registration Required

Full Day Workshops, 8am to 5pm

Measuring wildfire-fuel treatment outcomes at large scales

Organizers: Jens Stevens, Eric Knapp, Morris Johnson, Mike Battaglia, Matt Thompson, and Matt Dickinson
Location: Spyglass I-II

A collaborative framework for fire, archaeology, and culture history: Past, present, and future

Organizers: Rachel Loehman, Linn Gassaway, and Grant Snitker,
Location: Oaktree

Collaborative, cross-boundary strategic fire planning for a changing fire environment (9am to 4pm)

Organizers: Christopher J Dunn and Rebecca Weber
Location: Big Sur II

Morning Workshops, 8am to 12pm

Basic fire behavior modeling with FlamMap

Organizers: Nathan Gill and Chuck McHugh
Location: Big Sur I

Photoload method to estimate surface fuel loadings

Organizers: Christine Stalling and Sarah Flanary
Location: Cypress I

Current state of wildfire risk management and solutions to build fire-resilient risk reduction strategies

Organizers: Amelie Jeanneau, Hedwig van Delden, Fantina Tedim, Douglas Radford
Location: Cypress II

Afternoon Workshops, 1pm to 5pm

Planscape fire resilience planning workshop

Organizers: Rob Lawson, Lizzie Tao, and David Harris (1pm to 3pm)
Location: Cypress I

Advanced topics and geospatial modeling with FlamMap

Organizers: Nathan Gill and Chuck McHugh
Location: Big Sur I

Hands-on activities to teach wildland fire science: The FireWorks Educational Program

Organizer: Ilana Abrahamson
Location: Big Sur III

Forest health and wildfire research scoping: needs, opportunities, and a roadmap for the next 10 Years

Organizers: CAL FIRE, Berkeley Forests, and the California Fire Science Consortium
Location: Cypress II

Tuesday, December 5

Registration, Regency Foyer

7:00am to 4:00pm

Presentation/AV Station, The Hub

3:30pm to 5:30 pm

Exhibit Hall Hours, Regency Ballroom

8:00am to 5:00pm

Poster Set-up, Regency Ballroom

7:00am to 11:30am

Opening Plenary Session, Monterey Ballroom

8:00am to 10:00am

- 8:00am: Welcome and Opening Ceremony
- 8:30am: The Honorable Ron W. Goode
- 9:00am: Dr. Rachael Nolan
- 9:30am: Dr. Diego R. Pérez-Salicrup

Morning Break, Regency Ballroom

10:00am to 10:30am

Concurrent Sessions, 1st Floor Meeting Rooms

10:30am to 12:00pm

Poster Session and Exhibitor Networking

Lunch, Regency Ballroom and Foyer

12:00pm to 2:00pm

Join us for lunch, meet poster presenters, explore exhibit booths, and mingle with friends old and new.

Concurrent Sessions, 1st Floor Meeting Rooms

2:00pm to 3:30pm

Afternoon Break, Regency Ballroom

3:30pm to 4:00pm

Concurrent Sessions, 1st Floor Meeting Rooms

4:00pm to 5:30pm

Special Events

OPENING CEREMONY

8:00am to 8:30am, Monterey Ballroom

The Esselen Tribe of Monterey County is planning a special opening ceremony for the congress with elders and members from many local tribes participating. Please arrive on time if you plan to attend.

CENTRAL COAST INDIGENOUS CULTURE AND ART SHOWCASE

12:00pm to 4:00pm, Regency Foyer

We are very excited to feature members and vendors of several local tribes to share information, art, and culture throughout the afternoon on Tuesday.

MEET THE AUTHOR AND FUSEE INFORMATION GATHERING

5:30pm to 7:00pm, 1st Floor Conference Center

Join Maura O'Connor, author of "Ignition: Lighting Fires in a Burning World" in a book signing, Tuesday Dec 5, 5:30-6:00pm on the 1st floor of the conference center. Books will be available for purchase at the signing. They make great gifts for your fire-loving friends!

Maura will kick off the FUSEE Info Meeting starting at 6:00pm in Spyglass I on the 1st floor conference center. Come meet Board members and learn about FUSEE's exciting programs and projects in 2024.

PBA HAPPY HOUR

6:00pm to 8:00pm, Bar at Sea Root (near Hyatt Lobby)

Join us for happy hour to connect with Prescribed Burn Association (PBA) members and enthusiasts. This will be a fun and informal opportunity to meet and learn about other PBAs across the country.

AFE DANCE PARTY

8:00pm to 11:00pm, Monterey Ballroom

Don't miss the 1st ever AFE Dance Party, being hosted and DJ'd by several of your AFE friends!

Attached Meetings, Windjammer IV

- BLM Fire Ecologists Meeting, 12:30pm to 2:00pm
- National Extension Wildland Fire Initiative, 2:00pm to 3:30pm

KEYNOTE SPEAKERS

OPENING PLENARY SESSION, DECEMBER 5, 8AM-10AM PST



Putting Cultural Fire Back on the Land

The Honorable Ron W. Goode, Tribal Chairman of the North Fork Mono Tribe

Chairman Goode's talk will explore how cultural burning among the North Fork Mono differs from government agency-lead prescribed burning, including examining the knowledge which informs each type of burning and how that leads to different landscape outcomes.



Wildfires and Climate Change: An Australian Perspective

Dr. Rachael Nolan, Senior Research Fellow, Hawkesbury Institute for the Environment, Western Sydney University

How is climate change affecting wildfires? And how is vegetation responding to changing fire regimes? This presentation delves into these questions, using the Australian Black Summer fire season as a case-study.



Integrated Fire Management, What Do We Need to Know and How Do We Know It Is Enough?

Dr. Diego R. Pérez-Salicrup, Director, Instituto de Investigaciones en Ecosistemas y Sustentabilidad, Universidad Nacional Autónoma de México

Research on Integrated Fire Management intends to reach socio-ecosystems such that the occurrence of forest fires is compatible with ecosystem health and social welfare. Using the Monarch Butterfly Biosphere Reserve as a case example, I will share how dendrochronological and social research helped identify actions to improve forest management. However, as in most complex systems, new challenges modify the system, forcing us to continue with an adaptive management approach.

Concurrent Sessions: Tuesday, December 5, 10:30am to 12:00pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Preventing Human-caused Wildfire Ignitions	Extreme Fire Spread Events: Drivers, Outcomes, and Management Considerations	The Role of Seeds in Post-Fire Forest Recovery	Improving Decision Support for Predicting Fire-Caused Tree Mortality	Nurturing Indigenous Fire Stewardship Globally	Interdisciplinary Fire Science and Management in Temperate Rainforests of the Pacific Northwest
	Special Session Organizers: Catrin Edgeley	Special Session Organizers: Jonathan D Coop, Ellen Whitman, Sean Parks	Special Session Organizers: Derek Young, David Green, Andrew Latimer	Special Session Organizers: Sharon Hood, Duncan Lutes, Morgan Varner	Special Session Organizers: Don Hankins, Amy Cardinal Christianson, Frank K. Lake, Mary Huffman	Special Session Organizers: John Kim, Susan Charnley, Jeremy Fried, Becky Kerns
10:30am	Geospatial assessment of human ignitions Gabe Kohler	Review of the common drivers behind the occurrence of extreme wildfire events around the globe Andrea Duane	Aerial seedbanking as a mechanism for forest resilience to wildfire Derek Young	Postfire tree mortality applications and software systems Sharon Hood	“An Indian seldom does anything except by necessity”: Acknowledging a history of Indigenous erasure and racism in fire ecology, and looking toward a more inclusive future Karin L. Riley	Introduction to the Westside Fire and Climate Adaptation Initiative Rachel White
10:45am	Public perceptions of human-caused wildfire prevention strategies: Tailoring approaches to align with recreation use Sarah Devenport	Weather drivers of extreme fire growth events Brian Potter	Quantifying the seasonal window of aerial seed banking in non-serotinuuous conifers David F Greene	FOFEM mortality prediction capabilities and what is on the horizon Duncan C. Lutes	Changing fire regimes in East and Southern Africa’s savanna-protected areas: opportunities and challenges for indigenous-led savanna burning emissions abatement schemes Abigail R. Croker	A refined understanding of historical fire regimes in the Western Cascades and Oregon Coast Range Andrew Merschel
11:00am	Current challenges and opportunities for the fire prevention workforce: Insights from the Southwestern US Catrin Edgeley	Critical fire weather conditions during active fire spread days in Canada Xianli Wang	Built-in resilience? Testing mechanisms of conifer seed availability within infrequent, stand-replacing fire regimes of the northwestern Cascades, USA Madison Laughlin	Integrating drought stress into empirical models and decisions support systems predicting fire-induced tree mortality C. Alina Cansler	Braiding knowledges to reconstruct human-fire relationships in Maine Madi Landrum	Inventory analysis of post-fire vegetation and fuels trajectories in westside Pacific Northwest forests Oriana Chafe
11:15am	Declaration on wildfire management in Spain Kathleen Uyttewaal	Fine-scale weather, fuel, topography, and human drivers of explosive fire spread in California Michael J. Koontz	Fire injury modifies the reproductive output of surviving conifers within fire footprints Nina Venuti	Summary and Future Research Needs J. Morgan Varner	Restor(y)ing Hat Creek Valley: Fire histories and futures in Stuxwtéwsemcúl’ecw Ariel Eatherton	Spatial patterns of burn severity and early-post-fire forest responses in Northwestern Cascadia Brian J. Harvey
11:30am	Involving our most vulnerable populations: People experiencing homelessness Chelsea Young	Weather thresholds for overcoming fuel limitation of fire spread in recently burned areas Ellen Whitman	Seed dispersal capacity and the size of severely burned patches David Greene	Panel Discussion	Blending knowledge to quantify cultural burning spatial and temporal patterns on Karuk Ancestral Territory Skye M. Greenler	The influence of socioeconomic factors on human wildfire ignitions in the Pacific Northwest, USA Caitlyn Reilley
11:45am	Question/Answer and Discussion with All Presenters	Drivers and patterns of fire spread in North American landscapes Jared Balik	Mapping surviving trees to improve predictions of post-fire regeneration Andrew Latimer		Indigenous fire restoration in the face of climate change: applications from Karuk Territory Kari Marie Norgaard	Management for fuels and wildfire risk reduction by private and public forest managers Eric White
12:00pm	Poster Session and Exhibitor Networking Lunch, Regency Ballroom Central Coast Indigenous Culture and Art Showcase, 12pm to 4pm, Regency Foyer and Terrace BLM Fire Ecologists Meeting, 12:30pm to 2:00pm, Windjammer IV					

Concurrent Sessions: Tuesday, December 5, 10:30am to 12:00pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	Burn Severity	Wildland Urban Interface, Community Preparedness	Fire History and Regimes	Wildfire Management	Fuels Mapping	
	Moderator: Nancy French	Moderator: Fantina Tedim	Moderator: Leece LaRue	Moderator: Melissa Jaffe	Moderator: Kayla Johnston	
10:30am	Predicting burn severity in intermountain west forests, Utah USA Kipling Klimas	Incident dynamics illuminated (and obscured) in social media Lise Ann St. Denis	Fire history in northern Sierra Nevada mixed conifer forests across a gradient of soil productivity Michelle Coppoletta	Integrated application of wildfire risk modeling and Potential Operational Delineations (PODs) to support the spatial treatment strategy of a wildland fire collaborative Scott Ritter	Machine learning for sub-meter resolution wildfire fuel estimation from remote sensing imagery Lily Hu	
10:45am	A scalable framework for evaluating treatment effectiveness at moderating burn severity Garrett Meigs	Mitigate the impacts of extreme wildfires in companies: development of a scale to measure preparedness Fernando Jorge Martins Correia	Higher, drier, more fire? Management targets for Eastern Sierra Nevada forests Paige Kouba	Working across private boundaries to address wildfire risk: Insights from communities in Yavapai County, AZ Jack Burnett	Application of multimodal data, generative ai, and ensemble machine learning models for real-time wildfire fuel mapping Riyaz Shaik	
11:00am	Using the Landsat archive to create a comprehensive assessment of burn severity within the conterminous United States Joshua J. Picotte	The road to private burning Rich Fairbanks	Fire history of a former eastern white pine, pitch pine, and American chestnut forest on the Allegheny Plateau in northwest Pennsylvania, USA Joseph M. Marschall	Using random forest models to estimate firefighting personnel needs within the United States Kevin S. Young	Fuel types mismatch forest structure and composition in interior British Columbia Jen Baron	
11:15am	Mapping individual tree mortality to predict burn severity within Creek Fire using high-resolution imagery and deep learning Pratima Khatri-Chhetri	Marin County evacuation risk assessment study Tami L. Lavezzo	Postglacial climate-vegetation-fire interactions in the western Cascades of southern Washington and Oregon William "Buzz" Nanavati	Question/Answer and Discussion with All Presenters	Capturing vegetation structure from waveform lidar for fire and fuels applications Birgit Peterson	
11:30am	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Natural range of variation and its relevance to contemporary management of fire-adapted forest ecosystems John Williams		Creating wildfire resilient forest structures through mechanical thinning using two aerial lidar based tools Bryce Bartl-Geller	
11:45am			Question/Answer and Discussion with All Presenters		Question/Answer and Discussion with All Presenters	
12:00pm	Poster Session and Exhibitor Networking Lunch, Regency Ballroom Central Coast Indigenous Culture and Art Showcase, 12pm to 4pm, Regency Foyer and Terrace BLM Fire Ecologists Meeting, 12:30pm to 2:00pm, Windjammer IV					

Concurrent Sessions: Tuesday, December 5, 2:00pm to 3:30pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Post-Fire Community Recovery: Research on the Social and Policy Contexts That Facilitate Response and Readiness	Extreme Fire Spread Events: Drivers, Outcomes, and Management Considerations	The Role of Seeds in Post-Fire Forest Recovery	Improving Decision Support for Predicting Fire-Caused Tree Mortality	Nurturing Indigenous Fire Stewardship Globally	Interdisciplinary Fire Science and Management in Temperate Rainforests of the Pacific Northwest
	Special Session Organizers: Courtney Schultz and Briar Goldwyn	Special Session Organizers: Jonathan D Coop, Ellen Whitman, Sean Parks	Special Session Organizers: Derek Young, David Green, Andrew Latimer	Special Session Organizers: Sharon Hood, Duncan Lutes, Morgan Varner	Special Session Organizers: Don Hankins, Amy Cardinal Christianson, Frank K. Lake, Mary Huffman	Special Session Organizers: John Kim, Susan Charnley, Jeremy Fried, Becky Kerns
2:00pm	Introduction and Policy Overview Courtney Schultz	Mass fire behavior created by extensive tree mortality and high tree density not predicted by operational fire behavior models in the southern Sierra Nevada Brandon Collins	Obstacles to post-fire regeneration of serotinous lodgepole pine in the wake of pine beetle outbreaks Chuck Rhoades	The 60-degree for one minute mortality threshold: Where did it come from, is it real, and should we use it? Leda Kobziar	Indigenous fire stewardship & climate-forests adaptive capacity Frank Kanawha Lake	Variation in cross-boundary wildfire management across Pacific Northwest ecoregions Susan Charnley
2:15pm	Policy challenges and opportunities in the post-fire environment: Lessons from Colorado Clint Carney	Pyroclouds modification of convective boundary layer promotes extreme wildfire events intensification Marc Castellnou Ribau	Role of seeds following wildfire for giant sequoia and coast redwood Robert Van Pelt	A temperature-dependent process model of leaf necrosis by heat Kate Fuller	Degradation and restoration of Indigenous California black oak stands in the northern Sierra Nevada Scott Stephens	Evaluating fire resistance trends in forests of western Cascadia Jeremy Fried
2:30pm	Multiple jurisdictions and post-fire policy: Response and recovery following the 2022 Hermit's Peak/Calf Canyon Wildfire in New Mexico Cole Buettner	Evaluating temporally rich fire data to determine the influence of fire dynamics for coupled atmospheric fire behavior modeling Eric Rowell	Recruitment dynamics of aspen and conversion of boreal conifer stands to alternative states Jill F. Johnstone	Impacts of prescribed fire on drought vulnerability of ponderosa pine and Douglas-fir Charlotte Reed	We are fire: Indigenous fire practices in the Saskatchewan River Delta (Canada) Renée Carrière	Fire resistance and carbon sequestration prospects in westside Oregon and Washington forests under business-as-usual and fire-aware management. Sebastian Busby
2:45pm	Wildfire recovery and governance: Local government and nonprofit networks supporting community recovery in western Oregon Heidi Huber-Stearns	Using next-generation fire model to gain insight into fire phenomenology Rod Linn	Give seeds a chance: Opportunities and techniques to reestablish ponderosa pine forests using postfire direct seeding Marin Chambers	Estimating heat tolerance of buds in southeastern US trees in fire-prone forests Adam Coates	The global fire use survey Cathy Smith	Mid-21st century shifts in fire regimes of Pacific Northwest Westside forests due to future climate change Alex Dye
3:00pm	The roadmap to resilience: Building partnerships at all scales to deploy place-based solutions Alexandria Keeble-Toll and Alessandra Zambrano	Extreme fires in Australia: Recent advances Trent Penman	Mind the gap: Reforestation needs vs. reforestation capacity in the western U.S. Solomon Dobrowski	Simulating 3D crown scorch with a computational fluid dynamics wildland fire simulator Adam Atchley	Question/Answer and Discussion with All Presenters	Modeling present and future wildfire impacts to communities in PNW using wildfire simulation output John B. Kim
3:15pm	Panel Discussion	Harnessing spatial scaling relationships to inform expected future spatial patterns of burn severity across fire size distributions Michele S. Buonanduci	Got seeds? Strengthening the reforestation pipeline in the western United States Matthew Aghai	Panel Discussion		Panel Discussion
3:30pm	Afternoon Break, Regency Ballroom					

Concurrent Sessions: Tuesday, December 5, 2:00pm to 3:30pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	15 Years of Sagebrush Steppe Treatment Evaluation Project (SageSTEP)	Modeling and Simulations, Fuels	Fire History and Regimes, North America	Education and Communication	Fuel Treatment Planning	
	Special Session Organizer: Lisa M. Ellsworth	Moderator: Susan Prichard	Moderator: Peter Brown	Moderator: Annie Leverich	Moderator: Ralph Bloemers	Organizer: Jennifer Fawcett
2:00pm	A history of the Sagebrush Steppe Treatment Evaluation Project (SageSTEP) Beth Newingham	Reliability of digital resources for planning fuels treatment to break the cheatgrass-fire cycle Samuel "Jake" Price	How do fire intervals scale with area? Observations and implications for fire ecology Chris Guiterman	Wildfires - impact of climate change - film and high school curriculum Trevor Bloom	Constraints on mechanical fuel reduction treatments in USFS Wildfire Crisis Strategy priority landscapes George Woolsey	Attached Meeting National Extension Wildland Fire Initiative
2:15pm	Plant community shifts following fuel treatments and subsequent wildfire Brian Howard	Spatial variations in forest ignitability in a topographically diverse landscape Jane Cawson	Quantifying multivariate fire-regime departure across western US wilderness areas Jeffrey Chandler	Igniting curiosity through the Fire Ecology Learning Lab Cole Brant	Guiding strategic planning on US Forest Service landscapes with simulation modeling and risk assessment principles Don Helmbrecht	
2:30pm	Ground spider response to prescribed fire in sagebrush steppe James McIver	Forests without fire: Fire suppression effects on dry forest fuels Mike Stefanuk	A gridded dataset of historical fire activity for North America Chris Guiterman	Effectiveness of a virtual reality tour for increasing understanding of forest treatments for fire hazard reduction in the Stanislaus-Tuolumne Experimental Forest, California Alan H. Taylor	Fuel Management Suitability Tool: Advancing resilient wildfire management practices through flexible decision support and local information Amelie Jeanneau	
2:45pm	Prescribed fire management of woodland expansion and the effects on Great Basin songbird nest-site selection Jessica A. Pletcher	Leveraging field and remotely sensed data to assess the vulnerability of lower ecotone aspen stands Sofia Koutzoukis	The geography of historical fire-climate relationships in North America Ellis Margolis	Fire & the media: An insider's perspective on how to improve public understanding of fire ecology Maura R. O'Connor	Direct and indirect effects of California's Million Acre Strategy Carrie Levine	
3:00pm	Fuel treatment effects on hydrology C. Jason Williams	Question/Answer and Discussion with All Presenters	A multi-century perspective reveals a pervasive fire deficit across most of North America Sean Parks	Understanding forest activists' critiques of thinning and burning for fuels reduction Timothy Ingalsbee	Estimation of hazardous fuel treatment costs on national forests using the FACTS database Rachel M. Houtman	
3:15pm	The SageSTEP datastore: Opportunities for collaboration using long-term data and plot infrastructure Scott E. Shaff		Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	
3:30pm	Afternoon Break, Regency Ballroom					

Concurrent Sessions: Tuesday, December 5, 4:00pm to 5:30pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Post-Fire Community Recovery: Research on the Social and Policy Contexts That Facilitate Response and Readiness	Extreme Fire Spread Events: Drivers, Outcomes, and Management Considerations	Post-fire Tree Mortality	Fire and Soils	Nurturing Indigenous Fire Stewardship Globally	Wildfire Risk and Prediction
	Special Session Organizers: Courtney Schultz and Briar Goldwyn	Special Session Organizers: Jonathan D Coop, Ellen Whitman, Sean Parks	Moderator: Carol Ewell	Moderator: Kipling Klimas	Special Session Organizers: Don Hankins, Amy Cardinal Christianson, Frank K. Lake, Mary Huffman	Moderator: Haizhong Wang
4:00pm	Introduction and Key Points from Session 1 Briar Goldwyn	Connecting fuels and weather to fire impacts in the 2020 Creek Fire C. Alina Cansler	Factors affecting tree and stand-level mortality in coast redwood forests following large wildfires Jeff Kane	Post-fire black carbon input alters vegetation recovery and ecological stoichiometry in boreal forests of China Xu Dou	Stewardship Action for Climate Resilience Scott Stephens and Don Hankins	Assessing new methodologies for accurate small scale ignition prediction in Bexar County, Texas Robert McGonagle
4:15pm	Synthesis of stakeholder perspectives on post-fire consequences across jurisdictions for the 2021 Cedar Creek and Muckamuck Fires in Washington Briar Goldwyn	Burn severity and landscape outcomes of extreme fire spread events in the southwestern United States. Jessica McFarland	Does localized or stand-level forest structure influence giant sequoia mortality from wildfire? Linnea Hardlund	Soil microbial responses to fire-induced heating Elena Cox	The right to burn Don L. Hankins and Amy Cardinal Christianson	Artificial intelligence-driven high-resolution wildfire monitoring Kasra Shamsaei
4:30pm	Exploring the influence of home insurance on recovery trajectories after the 2021 Marshall Fire Catrin Edgeley	Examining the drivers of dry conifer forest resilience to extreme wildfire events Amy DeCastro	Emergency responses reduce giant sequoia mortality during wildfires, and how to prevent emergency responses Garrett Dickman	Prescribed burning shifted the diver of biodiversity by reshaping the nutrient limitation Yu Han	Western forest landscapes need fire opportunity zones Malcolm North	Wildland Fire Potential Index: New inputs and features Christopher Woody
4:45pm	What does recovery look like? Early findings from post-fire recovery in communities of northern California and southern Oregon Catriona Barr	Deconstructing the 'megafire': Trends and ecological outcomes of exceptionally large wildfires in California forests Gina Cova	Tree growth declines more following the first fire than subsequent fires after long-term fire exclusion Kevin Willson	Monitoring impacts of climate-driven wildfires on soils: Landowners have a role to play Mercedes M. Ondik	Reframing Environmental Regulation for Stewardship Sara Clark	Question/Answer and Discussion with All Presenters
5:00pm	Fire resiliency in the Arroyo Seco through restoration and recovery actions Wendy Katagi	Characteristics and implications of burn severity heterogeneity from large fires in Northwestern Cascadia Brian J Harvey	Disturbance effects on tree level resistance in ponderosa pine trees along the Colorado Front Range Kelby Woodard	Question/Answer and Discussion with All Presenters	Re-kindling a Next-generation Stewardship Workforce J. Morgan Varner	
5:15pm	Panel Discussion	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters		Question/Answer and Discussion with All Presenters	
Evening	5:30pm to 6:00pm: Book Signing with Maura O'Connor, 1st Floor Conference Center 6:00pm to 7:00pm: FUSEE Information Gathering, Spyglass I (open to all) 6:00pm to 8:00pm: PBA Happy Hour, The Bar at Sea Root (in Hyatt Lobby) 8:00pm to 11:00pm: AFE Dance Party, Monterey Ballroom					

Concurrent Sessions: Tuesday, December 5, 4:00pm to 5:30pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	15 Years of Sagebrush Steppe Treatment Evaluation Project (SageSTEP)	Modeling and Simulations, Prescribed Fire	Wildland Urban Interface, Defensible Space	Workforce Development and Next Generation	Prescribed Fire	
	Special Session Organizer: Lisa M. Ellsworth	Moderator: Susan Prichard	Moderator: Ralph Bloemers	Moderator: Annie Leverich	Moderator: Leece LaRue	
4:00pm	Using gap intercept data to understand fuel continuity and ecosystem recovery after fire Beth Newingham	Next-generation fuels and fire models to inform prescribed fire in a type-converted ponderosa pine forest Andreas Wion	Modeling factors associated with wildland firefighter assessment of structure defensibility Alex Heeren	Training the next generation of firefighters and fire practitioners Bradley Massey	Assessing FOFEM duff consumption predictions for frequently burned forests in Alabama, USA Julia DeFeo	
4:15pm	What happens when fuel treatments burn? Claire Williams	3D fuel and fire modeling with FastFuels and QUIC-Fire: new systems supporting prescribed fire Russ Parsons	Assessing structural damage caused by WUI fires in California using geospatial datasets Maryam Zamanialaei	Imagining beyond suppression: A firefighter's journey from wildland fire use to prescribed fire mentor Michael Beasley	Restoring and conserving coastal perennial bunchgrass grasslands in Marin County by reintroducing fire as a disturbance: An overview of a project using multiple approaches N. Brian Peterson	
4:30pm	Ecological resilience and invasion resistance indicators for prioritization and management in fire prone sagebrush ecosystems Jeanne C. Chambers	Wind regime analysis for modeling of prescribed fire scenarios Seth Bigelow	Wildfire mitigation influence on fuels and flora in the California home ignition zone David Benterou	Igniting resilient futures: A mixed-methods study engaging young generations to envision their fire involvement Meredith Jacobson and Kyle Trefny	Expanding prescribed burning on city owned wildlands in Chico, California Zeke Lunder	
4:45pm	Scaling treatments to landscapes Matt Reeves	ABAM: A decision support tool to guide prescribed fire in Northern Great Plains grasslands Amy Symstad	Examining barriers to mitigating property-level wildfire risk across different communities in California, USA Christian R Tensuan	Fire and forestry workforce barriers for justice impacted individuals in California Harrison Raine	Can prescribed fire untrammel Wilderness? Barriers and opportunities for Wilderness fire management in an era of change Jonathan Coop	
5:00pm	Assessing wildfire risk and mitigation opportunities in the sagebrush biome Karen C. Short	The Innovation Landscape Network Concept Kevin Hiers	Impact of home and lot characteristics on structure survival during a wildland-urban interface wildfire Erica Fischer	Scaling the prescribed fire workforce through higher education Eli Goodsell	Prescribed fire windows in north-central California: How climate change and increased wildfire activity is influencing the annual number of burn days Christina Fossum	
5:15pm	The future of SageSTEP: A model for research, outreach, teaching, and monitoring Lisa M. Ellsworth	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	
Evening	5:30pm to 6:00pm: Book Signing with Maura O'Connor, 1st Floor Conference Center 6:00pm to 7:00pm: FUSEE Information Gathering, Spyglass I (open to all) 6:00pm to 8:00pm: PBA Happy Hour, The Bar at Sea Root (in Hyatt Lobby) 8:00pm to 11:00pm: AFE Dance Party, Monterey Ballroom					

Wednesday, December 6

Registration, Regency Foyer

7:30am to 4:00pm

Exhibit Hall Hours, Regency Ballroom

8:00am to 5:00pm

Presentation/AV Station, The Hub

3:30pm to 5:30 pm

Fire AFEx Talks, Monterey Ballroom

8:00am to 9:45am

- 8:00am: Welcome
- 8:05am: In Memory of Jan van Wagtendonk
- 8:15am: Fire AFEx Talks
 - Adriana Ford
 - Zeke Lunder
 - Matt Weiner
 - Susan Prichard
 - Sara Brown and Tony Cheng
 - Marc Castellnou
 - Amy Cardinal Christianson, Monique Wynecoop, and Frank Kanawha Lake

Morning Break, Regency Ballroom

9:45am to 10:15am

Concurrent Sessions, 1st Floor Meeting Rooms

10:15am to 11:45am

Lunch

11:45am to 12:45pm

- Pre-purchased Box Lunch, Regency Ballroom
- AFE Community and Member Lunch, Regency Ballroom
- Student Lunch, Monterey Ballroom
- Or Lunch On Your Own

Concurrent Sessions, 1st Floor Meeting Rooms

12:45pm to 2:15pm

Quick Break (10 minutes)

2:15pm to 2:25pm

Concurrent Sessions, 1st Floor Meeting Rooms

2:25pm to 3:55pm

Afternoon Break, Regency Ballroom

3:55pm to 4:15pm

Fire Circles, 1st Floor Meeting Rooms

4:15pm to 5:45pm

Special Events

AFE COMMUNITY AND MEMBER LUNCH

11:45am-12:45pm, Regency Ballroom

The AFE Membership and Engagement Committee invites you to join us for lunch. Pick up your pre-purchased boxed lunch in the exhibit hall or bring your own. Each table will be staffed by leaders of different AFE committees—Journal, Diversity Equity and Inclusion, Mentoring, and more. Besides catching up with old friends and making new ones, this is also an opportunity to learn more about the inner workings of AFE and perhaps share ideas for how to make the organization even better.

STUDENT LUNCH

11:45am-12:45pm, Monterey Ballroom

The Student Association for Fire Ecology and FireGeneration Collaborative are hosting a lunch to bring together students and early career professionals. Come hear from the leadership of both groups! If you are a student that RSVP'd for free lunch, you will pick it up outside Monterey Ballroom before the meeting begins.

CAREER PANEL AND NETWORKING

12:45pm-2:15pm, Monterey Ballroom

Join us to explore career options, connect with experts across a range of career stages and professions, and gain exposure to programs, fellowships, and other resources that are geared toward the new generation of fire professionals.

CELEBRATION OF LIFE FOR JAN VAN WAGTENDONK

6:00pm to 7:30pm, Regency Foyer and Terrace

Friends, family, and colleagues will gather to celebrate the life and career of Jan van Wagtendonk. We will share memories and reflections of Jan and his career, and have time to enjoy each other's company with appetizers and a no-host bar.

Attached Meetings, Windjammer IV

- CDFW Training and Lunch, 11:45am to 12:45pm
- Gov't to Gov't Convening: Fire-Prone Lands Science Progress (WA and CA), 2:00pm to 4:00pm

FIRE AFEx TALKS

PLENARY SESSION, DECEMBER 6, 8AM-9:45AM PST

Join us for this special plenary session featuring Fire AFEx Talks, which are provocative “TEDx” style presentations. The goal of these 10-minute talks are to share thought provoking, inspiring, or innovative ways of seeing wildland fire issues and solutions.



HUMAN PERCEPTIONS OF FIRE EXPRESSED THROUGH THE ARTS

Adriana Ford, Leverhulme Centre for Wildfires, Environment and Society



PLAN ON IT HAPPENING

Zeke Lunder, Deer Creek Resources



THE CASE FOR POLICY OPTIMISM

Matt Weiner, Megafire Action



PLACE-BASED STEWARDSHIP: CONNECTIONS OF PEOPLE, FIRE, AND ECOLOGY

Susan Prichard, School of Environmental and Forest Sciences, University of Washington



NUDGING THE ANCHOR: DEEPLY HELD ASSUMPTIONS AND SHIFTING THE FIRE PARADIGM

Sara Brown, USDA Forest Service and **Tony Cheng**, Colorado State University



FIREFIGHTERS' FINEST HOUR

Marc Castellnou, Catalan Fire and Rescue Service and University of Lleida



INDIGENOUS ERASURE IN FIRE ECOLOGY

Amy Cardinal Christianson, Parks Canada

Monique Wynecoop, NW Bureau of Indian Affairs

Frank Kanawha Lake, USFS Pacific Southwest Research Station

Concurrent Sessions: Wednesday, December 6, 10:15am to 11:45am

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Taking Action to Reduce Forest and Community Vulnerability to Fire	Advances and Applications of Wildfire Risk Management Science	Fire and Wildlife	Using Fire Acoustics to Remotely Sense Wildland Fires	Indigenous Fire Resurgence in California: Research, Praxis, and Collaboration	Prescribed Burn Associations: Burning Down Boundaries and Creating Access to Good Fire
	Special Session Organizers: Jamie Peeler, Kimberley Davis, Tyler Hoecker, Kerry Metlen, Svetlana Yegorova	Special Session Organizer: Matthew P. Thompson	Moderator: Stacey Frederick	Special Session Organizer: Kara M. Yedinak	Special Session Organizers: Tony Marks-Block, Peter Nelson, Melinda M. Adams, Don Hankins, Frank K. Lake	Special Session Organizers: Alison Deak, Chris Adlam, Jared Childress, Barb Satink Wolfson, Lenya Quinn Davidson
10:15am	A framework for understanding forest and community vulnerability to fire: Exposure, sensitivity, and social adaptive capacity Jamie Peeler	Introduction Matthew P. Thompson	Earthworm abundance and diversity under varying fire regimes in a Guinean savanna (Côte d'Ivoire) Armand W. Koné	Introduction Kara M. Yedinak	Realigning Indigenous fire in California Don L. Hankins	The PBA movement in California Lenya Quinn-Davidson
10:30am	Projecting climate-driven and fire-facilitated forest transitions for the state of Oregon Svetlana Yegorova	PODs on fire: Enhancing analytics for use before, during, and after fire Kit O'Connor	Fire-driven animal evolution Gavin Jones	Identifying chemical constituents originating from crackling plant leaves Duncan D. Smith	Rekindling culture and fire: CIBA's statewide program to bring fire back to basketweaving gathering sites Carolyn Smith	Cultural fire practitioner and Prescribed Burn Association partnership Tom Little Bear Nason
10:45am	Anticipating fire-driven transformation of conifer forests and pathways for stewardship Tyler Hoecker	Suppression workload analysis Erin J Belval	Effects of wildfire burn severity on cavity-nesting bee and wasp habitat and community composition Alaina Smith	Measurements of acoustic emissions from the flow field of diffusion flames Shane V. Lympany	Fire as tool: opportunities, challenges, and transformations in narratives about Indigenous burning Ghaleb Attrache	Prescribed Burn Associations: Burning down boundaries and creating access to good fire Kate Wilkin
11:00am	Shifting social-ecological fire regimes explain rapidly increasing home and structure loss from Western wildfires Philip Higuera	Mapping spatial and temporal dynamics of major and extreme wind events in the Western US Rebecca Lemons	A Bumble where it should not "Bee": Prescribed fire and Bombus fraternus in Virginia Jennifer Weber	Modeling the sound of fire Jesse Canfield	Native sovereignty, leadership and relations in good fire ecosystem management Carlie Domingues, Deniss Martinez	PBAs burning with ranchers Bob Larson and Jared Childress
11:15am	Identifying hot spots for reducing the risk of wildfire-caused carbon loss in western US conifer forests Jamie Peeler	Measuring the impacts of US Forest Service Wildfire Crisis investments Dave Calkin	Wildfire and management effects on bee fitness and diet breadth Jessie Dodge	Passive acoustic applications in wildland fire sciences Brian Carpenter	Panel Discussion	Panel: Questions from moderator and audience about PBAs
11:30am	Panel Discussion		Question/Answer and Discussion with All Presenters	Seismo-acoustic observations of a prescribed burn Omar Marcillo		
11:45am	Lunch (Pre-purchased boxed lunch, Regency Ballroom) or Lunch On Your Own <u>Lunch Meetings</u> AFE Member and Community Lunch, Regency Ballroom (all welcome; pre-purchased boxed lunch or bring your own) Student Lunch with SAFE and FireGeneration Collaborative, Monterey Ballroom (student RSVP required for free boxed lunch; pick up at Monterey Ballroom) CDFW Training and Lunch, Windjammer IV					

Concurrent Sessions: Wednesday, December 6, 10:15am to 11:45am						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	Fire in the Sonoran Desert	Disturbance Interaction	Post-fire Recovery	Fuel Treatment Effectiveness	Wildfire, Fire Effects	
	Special Session Organizers: Mary Lata and Molly McCormick	Moderator: Saba Saberi	Moderator: Tucker Furniss	Moderator: Rut Domenech	Moderator: Leece LaRue	
10:15am	Human influences on fire regimes in the Sonoran Desert: Introduced species, climate change, and ignition patterns Mary Lata	Land fragmentation promotes tropical forest fires but decreases global burned area Simon P.K. Bowring	Pre to post-fire plant communities following extreme wildfires in Colorado Camille Stevens-Rumann	Forest restoration and fuels reduction work: Different pathways for achieving success in the Sierra Nevada Scott Stephens	Managed wildfire promotes native plant diversity and fuels reduction in California's Sierra Nevada Wilderness Areas Raphaela E. Floreani Buzbee	
10:30am	Repeat photography and the long-term effects of Sonoran Desert wildfire Jim Malusa	Dead tree removal after drought mortality increases understory plant diversity in a mixed conifer forest Quinn M. Sorenson and Rebecca Wayman	Impact of climate on long-term post-fire forest regeneration Mark Kreider	How are fuel profiles affected by treatment type and intensity ~15 years following fuel treatments? Don C. Radcliffe	Assessing landscape change from individual and cumulative wildfire in North-Central Washington with structural change detection Derek Churchill	
10:45am	Invasive grasses and the changing climate and fire regime of the Sonoran Desert F. Jack Triepke	More fuel for the fire? Bark beetle and fire synergisms in the Cascadia region of North America Holden Payne	Ecological indicators of slow, post-fire stand development may illuminate future effects of reduced forest resilience Andres J. Andrade	Managing shrub encroachment with mechanical mastication: impacts on vegetation structure and composition Jamie Burton	Wildfire catalyzes upward range expansion of trembling aspen in southern Rocky Mountain beetle-killed forests Katie Nigro	
11:00am	Fire in Sonoran Desert scrub communities: Synthesized information from the Fire Effects Information System Kris Zouhar	A wicked triad: Expanding WUI, fuels build up, and rapid climate change Andrea Thode	Dozer line impacts to post-fire vegetation recovery Kristen M. Kaczynski	Understory vegetation response to fuels reduction treatments in the Jemez Mountains, New Mexico Meagan Dreher	An imprint of fire: Variation in plant communities across two Alaskan landscapes Sarah Stehn	
11:15am	Changes and challenges in the management of fire in the Sonoran Desert Nick Castro	Question/Answer and Discussion with All Presenters	Modeling post-fire vegetation recovery in the Inland Northwest with time series of multispectral satellite imagery Madeline Franz	Restoring resilience in frequent-fire forests: comparing trends in active management with opportunities to leverage wildfire Kristen Shive	Question/Answer and Discussion with All Presenters	
11:30am	Quality control and analysis of fire effects data for Southern Arizona National Parks Eva Deegan		Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters		
11:45am	Lunch (Pre-purchased boxed lunch, Regency Ballroom) or Lunch On Your Own Lunch Meetings AFE Member and Community Lunch, Regency Ballroom (all welcome; pre-purchased boxed lunch or bring your own) Student Lunch with SAFE and FireGeneration Collaborative, Monterey Ballroom (student RSVP required for free boxed lunch; pick up at Monterey Ballroom) CDFW Training and Lunch, Windjammer IV					

Concurrent Sessions: Wednesday, December 6, 12:45pm to 2:15pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Taking Action to Reduce Forest and Community Vulnerability to Fire	Advances and Applications of Wildfire Risk Management Science	Fire and Insect Interactions in North American Forests	Fire and Smoke Model Evaluation Experiment (FASMEE) findings and updates	Indigenous Fire Resurgence in California: Research, Praxis, and Collaboration	Tackling Diverse Fire Challenges through Science-management Collaborations
	Special Session Organizers: Jamie Peeler, Kimberley Davis, Tyler Hoecker, Kerry Metlen, Svetlana Yegorova	Special Session Organizer: Matthew P. Thompson	Special Session Organizers: Christopher J. Fettig, Michael D. Ulyshen, Justin B. Runyon	Special Session Organizer: Adam Watts	Special Session Organizers: Tony Marks-Block, Peter Nelson, Melinda M. Adams, Don Hankins, Frank K. Lake	Special Session Organizers: Adriana Ford and Abigail Croker
12:45pm	Navigating post-fire vegetation transitions with the resist-accept-direct framework Kimberley Davis	Debiasing decisions in real time - the incident strategic alignment process in the US Brad Pietruszka	Like flies to a flame: Flying insect responses to wildfire in a globally rare landscape Heather M. Thompson	Overview of the Fire and Smoke Model Evaluation Experiment (FASMEE) Adam Watts	Amah Mutsun revitalization of Indigenous cultural burning systems in Central California Rob Q. Cuthrell	Session Introduction Adriana Ford and Abigail Croker
1:00pm	Identifying opportunities for cultural burning in CA and beyond to advance national stewardship goals Nina Fontana	An optimization framework for landscape fuel-break prioritization in Southern California Dung Nguyen	Responses from bees, butterflies, and ground beetles to different fire characteristics: A global meta-analysis Stephen Mason	Multi-scale modeling and mapping of fuel loads and consumption Benjamin Bright	Preserving tribal heritage and cultural resource sites with fire Peter Nelson	Socio-economic incentives leading to wildfires, a Sicilian case study Erika Piroli
1:15pm	Fostering community-led fire/fuels management and monitoring for diverse objectives Monique Wynecoop	Assessing the Risk Management Assessment (RMA) dashboard use in wildfire response Melanie Colavito	Wildfire severity influences offspring sex ratio in a solitary bee Jim Rivers	Restoring aspen using high severity fire in the Rocky Mountains, USA: Soil heating and sucker regeneration. Jesse Kreye	Indigenous Fire Knowledge, Research, Governance, and Data Sovereignty Frank Lake	TBD
1:30pm	Efficacy of fuel mitigation treatments in the dry forests of British Columbia Lori Daniels	A decision framework for incident management Stephen D. Fillmore	Wildfire and forest thinning shift floral resources and nesting substrates to impact native bee biodiversity in ponderosa pine forests of the Colorado Front Range Ryleigh V. Gelles	Bacterial emission factors: A foundation for the terrestrial-atmospheric modeling of bacteria aerosolized by wildland fires Leda N. Kobziar	Karuk Fire Sovereignty and the TEK Rush Bruno Seraphin, Vikki Preston, and Jessica Conrad	Co-forming technological solutions with stakeholders for wildfire management in a Mediterranean environment: The TREEADS (H2020) project Anastasios Rovithakis
1:45pm	A path to fire adaptation at pace and scale Kit O'Connor	Prioritizing critical fire management features and restoration in a forested landscape Rebecca Weber	Factors influencing the effects of fire on insect pollinators in North America forests Michael Ulyshen	FireSense: Updates from the FASMEE field campaign Jacquelyn K. Shuman	Drawing from Karuk World Renewal: Summoning cultural fire with graphic illustrations Kirsten Vinyeta	Translating fire: barriers to implementation of ecological science-based fire management policies Jordan Thomas
2:00pm	Panel Discussion	Keeping up with the heat: Improving the space for wildfire risk decision support Tristan O'Mara	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters
2:15pm	Quick Break (10 minutes; beverages to be served at the 3:55pm afternoon break)					

Concurrent Sessions: Wednesday, December 6, 12:45pm to 2:15pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Monterey Ballroom
	Fire in the Sonoran Desert	Wildfire Management	Post-fire Regeneration	Changing Fire Regimes	Prescribed Fire, Fire Effects	Career Panel and Student Networking
	Special Session Organizers: Mary Lata and Molly McCormick	Moderator: Haizhong Wang	Moderator: Cara Applestein	Moderator: William Hockaday	Moderator: Stacey Frederick	Organizers: Michael Gollner, Crystal Kolden, Jeanette Cobain, Scott Stephens, Autym Shafer, and Student Committee
12:45pm	The desert's changing edge: Grassification and the expansion of fire in the desert Benjamin T. Wilder	Washington's 20-Year Forest Health Strategic Plan: The first five years of plan implementation Andrew Spaeth	Drivers of survival in planted tree seedlings after wildfires in Colorado Laura Marshall	Wildfire patterns in Texas: A spatial and temporal analysis Hari Katuwal	Prescribed fire seasonality and frequency effects on Tallgrass Prairie plant diversity Tom Bragg	A multitude of career options exists within the field of fire science, offering various pathways to achieve your professional aspirations. Join us for a career development panel and discussion to explore these options, connect with experts across a range of career stages and professions, and gain exposure to programs, fellowships, and other resources that are geared toward the new generation of fire professionals. While all are encouraged to attend, this event is specifically tailored to graduate students, postdocs, and early-career scientists. The first portion of the event will include six panelists from a diversity of career stages and professions. They will share their experiences within the field and the paths they took to achieve their career goals. The second portion of the event will feature informal breakout sessions where attendees can engage with the panelists and additional fire-science professionals. Career panelists will come from a spectrum of careers including wildland fire operations and management, non-profit groups, policy, science communication, research, land management, and industry/tech.
1:00pm	Mapping predicted social-ecological fire resilience and vulnerability across the Sonoran Desert, Arizona, USA Martha Sample	Integrated fire management in Europe; the pioneering Fire Management Plan of the Aran, Pyrenees Jordi Oliveres Solé	Impact of seasonal-to-annual climate on post-fire regeneration of western larch Spencer Vieira	The forest structure of Emet and Domanic Region in Turkey and the relationship with fire Ali Telli	Linking burn severity with post-fire oak recovery in a Southern California foothill prescribed fire Kaili Brande	
1:15pm	A floristic inventory of the 2021 Telegraph Fire in the Sonoran Desert Brittany Burgard	Igniting connections for natural and cultural resource protection before and during wildland fires in southern California Austin Parker	How well can we predict long-term post-fire forest recovery from short-term post-fire data? Claire Tortorelli	The current role of fire across border piñon (Pinus discolor) distributions in the Madrean Sky Islands Sandra L. Haire	Scorched and torched: UAS-based evaluation of individual tree prescribed fire effects Lauren Lad	
1:30pm	Fire effects on wildlife populations in the Sonoran desert: Knowns and unknowns Jesse S Lewis	A 3-D approach to fire management for biodiversity conservation Byron Lamont	Drought conditioning three conifer species for post-fire management and climate change adaptation Anna Ross	Climate-growth analyses reveal challenges for aspen forests in the southern Rocky Mountains Gabrielle Ayres	What is the optimal timing for introducing prescribed fire to pine plantations? Eric Knapp	
1:45pm	The immediate response of Sonoran species to a June fire: Species shifts and implications for future fire behavior and effects Mary Lata		Factors contributing to post-fire conifer regeneration persistence in the 2021 Dixie Fire Dani Niziolek	Environment, fire, and drought shape stand structure in south-east Australian forests and woodlands Kate Fuller	Efficacy of prescribed fire as a fuel reduction treatment in the Colorado Front Range Kat Morici	
2:00pm	Effects of uncharacteristic wildfires on the Sonoran Desert seed bank Kristen Countryman	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	
2:15pm	Quick Break (10 minutes; beverages to be served at the 3:55pm afternoon break)					

Concurrent Sessions: Wednesday, December 6, 2:25pm to 3:55pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Fire Effects on Wood Products	Advances and Applications of Wildfire Risk Management Science	Fire and Insect Interactions in North American Forests	Fire and Smoke Model Evaluation Experiment (FASMEE) findings and updates	Indigenous Fire Resurgence in California: Research, Praxis, and Collaboration	14 Years of Fire Science Exchange: Lessons Learned and New Ideas in Fire Science Communication
	Special Session Organizer: Michael Stambaugh	Special Session Organizer: Matthew P. Thompson	Special Session Organizers: Christopher J. Fettig, Michael D. Ulyshen, Justin B. Runyon	Special Session Organizers: Adam Watts	Special Session Organizers: Tony Marks-Block, Peter Nelson, Melinda M. Adams, Don Hankins, Frank K. Lake	Special Session Organizers: Autumn Ellison, Karen Dante-Wood, and Vita Wright
2:25pm	Impacts of fire on hard pine wood properties: Field assessment using nondestructive methods Xiping Wang	An assessment of pre-fire planning and wildfire response in a rapidly evolving fire landscape Jesse D. Young	Fire-induced changes to tree defenses and long-term tree mortality Sharon Hood	Using incident command systems to implement live fire research: A case study Rick Anderson	Storytelling and cultural fire: rebuilding plant and soil health in northern California Melinda M. Adams	Introduction
2:40pm	Fire-impacted timber utilization: A survey of select mill procurement managers Lane Johnson	Analyzing fireline effectiveness and its relationship with previous disturbances: A case study of the dixie fire in northern California Alexander Arkowitz	What causes bark beetle outbreaks after wildfires? Investigating the interaction between bark beetles, wildfires, and lagged mortality in western North America Kate Kitchens	Pyrometrics: Evaluating prescribed fire with UAS-derived imagery Leo O'Neill	Fire effects on acorn insect infestations in Southern Pomo and Coast Miwok territory Tony Marks-Block	Lessons learned in setting up boundary spanner organizations Vita Wright
2:55pm	Bole char duration for red pine Brian Stearns	Evaluating the efficacy of large airtankers in wildfire suppression: A causal inference approach Cal Bryan	Changes in fuel biomass following severe drought and bark beetle outbreaks in the Sierra Nevada Crystal S. Homicz	UAS-mounted radio-frequency-based soil moisture sensing for wildland fire characterization Mohamad Alipour	Exploring fire-water connections across multiple scales in Karuk Aboriginal Territory Cleo Woelfle-Hazard	Scientist engagement with boundary organizations and knowledge coproduction Andrea Thode
3:10pm	Examining fire-exposed softwoods and hardwoods and what wood quality means for the two Jennifer Jung	Managers insights on fuel break effectiveness Andrew S Johnson	Effects of defoliator outbreaks on fuels and wildfires Patrick James	Surface to air: Microbial exchange between ground fuels and wildland fire smoke Krista Bonfantine	Facilitating restoration of Indigenous fire stewardship on National Forest System lands Jonathan W. Long	Assessing needs in fire research and science delivery Autumn Ellison
3:25pm	Differences in wounding from prescribed fire among deciduous species in the central hardwoods Mike Saunders	Assessing how fuel treatments are considered during incident response Michelle Greiner	Challenges and limitations to our understanding of the effects of insect epidemics on wildfires Justin Runyon	Capturing fuel variability for emissions modeling with remote sensing Clare Saiki	Panel Discussion	Innovations in fire science communication from across the Fire Science Exchange Network David Godwin
3:40pm	Panel Discussion	Fuel treatment effectiveness doesn't always decline with severe fire weather Emily G. Brodie	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters		Panel Discussion
3:55pm	Afternoon Break, Regency Ballroom					

Concurrent Sessions: Wednesday, December 6, 2:25pm to 3:55pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	Fire in the Sonoran Desert	Origins of Fire-adapted Traits	Post-fire Recovery, High Severity	Fire History and Regimes	Prescribed Fire, Fire Effects	
	Special Session Organizers: Mary Lata and Molly McCormick	Special Session Organizers: Rebecca A. Koll, Claire Belcher, Cindy Looy	Moderator: Ralph Bloemers	Moderator: Katie Glover	Moderator: Andrea Duane	Organizer: Loretta Moreno
2:25pm	Navigating the Flames: Knowledge Exchange in Southwest Deserts in an Era of Grassification and Fire Molly McCormick	How did evolutionary shifts in vegetation alter wildfire behaviour during the Permian period of Earth's history? Sarah J Baker	Characterizing 20 years of post-wildfire recovery in the Black Hills of South Dakota Kurtis Nelson	How fire regime modelling can become a key tool for ecological fire management Lluís Brotons	Fire may mitigate negative effects of climate on longleaf pine tree growth Nicole Zampieri	Attached Meeting (2:00pm to 4:00pm) Gov't to Gov't Convening: Fire-Prone Lands Science Progress, WA and CA
2:40pm	Invasive grass influences on fire and treatment effectiveness to reduce their spread in the Southwest Sarah Costanzo	Evolution of branch shedding in ancient conifers Rebecca Koll	Characterizing 30-years of conifer regeneration patterns in high-severity wildfires: A snow-on remote sensing approach Wade Tinkham	Multi-scale assessment of fire regimes in North African mountain park Peter Fulé	Pyrogenic controls on resprouting shrub and grass persistence in a semi-arid savanna ecosystem William E Rogers	
2:55pm	Enhancing the natural patchiness of the Sonoran Desert as a fire break option Alan Sinclair	A Case for pyrotypic variation? Ecophysiological adaptations and leaf level flammability Claire M. Belcher	When is regeneration succeeding after high severity fire? Hannah Redford	How fire regimes drive Parks Canada fire management: Mount Revelstoke and Glacier National Parks Case Study Spencer Verdiel	Assessing post-fire vegetation recovery across burn frequencies in a frequently burned pine savanna Jennifer McDaniel	
3:10pm	Weeds, fire, and robots: Prospects for Sonoran Desert conservation Garry Rogers	What burned where and when in the Carboniferous coal swamps? Tales from a 300-Myr-old, 23-Myr-long fossil record Cindy Looy	Impacts of short-interval wildfire on forest regeneration in Glacier National Park, Canada Natalie Maslowski	Changing fire regimes in the Great Basin, USA Corey Gucker and Kori Blankenship	Annual brome and native perennial regeneration following prescribed fire in a grassland and grassland-shrubland ecotone Jacqueline P. Ott	
3:25pm	Rehabilitating the living skin of the Sonoran Desert to protect water quality and break the grass-fire cycle Helen Rowe	Do fire regimes result from top-down or bottom-up drivers Jon E Keeley	Question/Answer and Discussion with All Presenters	Fire regime disruption in conifer forests of western North America J. Eduardo Sáenz	Macartney rose response to herbicide and prescribed fire in Attwater's prairie chicken habitat Catherine Gatlin	
3:40pm	Question/Answer and Discussion with All Presenters	Matched fire histories of Proteaceae explain sister genera in South Africa and SW Australia Byron Lamont		Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	
3:55pm	Afternoon Break, Regency Ballroom					

Concurrent Sessions: Wednesday, December 6, 4:15pm to 5:45pm						
	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Fire Circle	Fire Circle	Fire Circle	Fire Circle	Fire Circle	Fire Circle
	Organizer: Michael C Stambaugh	Organizers: Matthew P Thompson, Tony Cheng, Jim Menakis	Organizers: Thea Maria Carlson, Ashley Grupenhoff, Lindsay Dailey, Hannah Lopez, M. R. O'Connor, José Luis Duce-Aragüés	Organizers: Rebecca A. Koll and Claire Belcher	Organizers: Tara Harmon and Crystal Kolden	Organizers: Autumn Ellison, Carol Baldwin, Karen Dante-Wood, Molly McCormick, Eugénie MontBlanc, Autym Shafer, Alison York
	Fire effects on wood products This fire circle will review the content of presentations in the special session and aim to identify outstanding questions related to the intersection of fire management and wood products.	Mapping the wildland fire system and aligning the Cohesive Strategy We aim to bring systems thinking to bear to better understand opportunities to improve the wildland fire system and better integrate the Cohesive Strategy pillars. We hope for an earnest and engaging discussion with participation from diverse perspectives.	Burning across boundaries: weaving together public, private, tribal, academic, and community participation in tending land with fire To get more good fire on the ground, multi-stakeholder collaborative prescribed and cultural burning is essential. In this interactive conversation, fire practitioners will share how they have forged meaningful partnerships, and challenges they face in bringing people together across sectors to tend the land together with fire.	Origins of fire-adapted traits This Fire Circle will expand upon the Origins of fire-adapted traits special session to further the discussion exploring the dynamics of fire-behaviour and plant evolution through time. The session objective is to establish new collaborations that develop and expand relevant research areas capable of enhancing evolutionary fire ecology.	Challenges and solutions for co-stewardship with Indigenous partners in California This Fire Circle is a discussion about co-stewarding land and fire with indigenous communities in California. We aim to bring together indigenous and non-indigenous attendees to discuss the wide variety of successful partnerships and the benefits and drawbacks of each approach. This discussion will help inform future workshops and research.	Communicating fire science: Increasing impact, improving management, and expanding connections with the fire community What is a Fire Science Exchange? What do they do? Can the Exchanges help my work to have a greater impact? Join us to find out more about how Exchanges work, help identify high priority fire science and management needs, and explore potential collaborations at both national and regional levels.
6:00pm	6:00pm to 7:30pm: Celebration of Life for Jan van Wagtenonk, Regency Foyer and Terrace					

Concurrent Sessions: Wednesday, December 6, 4:15pm to 5:45pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	Fire Circle	Fire Circle	Fire Circle	Fire Circle	Fire Circle	Fire Circle
	Organizers: Molly McCormick and Mary Lata	Organizers: Adriana Ford and Abigail Croker	Organizers: Eric Knapp and Gavin Jones	Organizers: Bradley Massey, Ryan Reed, Ayuthea LaPier, Kyle Trefny	Organizers: Sharon Hood, Duncan Lutes, Morgan Varner	Organizers: Sarah Dickson-Hoyle, Jen Baron, Kate Kitchens, Kelsey Copes-Gerbitz
	<p>Investigating the novel invasive species - fire cycle in the Sonoran Desert</p> <p>Discussion for those working in conditions resulting from novel invasive species-fire cycles. Our focus is the Sonoran Desert, but discussions will be relevant to and informed by areas facing similar conditions. Discussion topics: strategies for reducing damaging fire effects, post-fire recovery, and creation of new ecological trajectories that guide management.</p>	<p>Tackling diverse fire challenges through science-management collaborations</p> <p>This fire circle delves into and acts as a catalyst for active science-management collaborations in the context of wildfires. Participants will engage in a structured networking session through a series of activities to create a globally connected, equitable, diverse, and inclusive fire family for long-term fire science-management impact.</p>	<p>Do fuel treatments work?</p> <p>The need for fuel treatments in western US forests with long-term fire exclusion is widely accepted by scientific experts. However, counter arguments persist and play an outsized role in the media landscape. We will explore why, discuss means of breaking down polarization, and identify zones of agreement.</p>	<p>FireGeneration: Introducing a center of power for students and diverse young fire practitioners</p> <p>This Fire Circle is for the next generation in fire. We have a significant dependence on the outcomes of climate crises response and land stewardship decisions. The FireGeneration Collaborative aims to connect most-impacted communities with decision-making, center Indigenous and diverse young practitioners in solutions, and transform our generation's relationship with fire.</p>	<p>Improving decision support for predicting fire-caused tree mortality</p> <p>This fire circle will focus on the process for updating First Order Fire Effects Model (FOFEM), how FOFEM fits into family of software that predicts fire effects and work flow for improvements, and how should improvements be prioritized?</p>	<p>Guiding principles for transdisciplinary fire research: sharing and applying insights from early-career researchers</p> <p>Led by a collective of early career researchers, this Fire Circle aims to bring together fire researchers, practitioners and community members from diverse career stages and backgrounds to collectively envision a new form of transdisciplinary fire research. Framed around four key principles for transdisciplinarity, the session will foster discussion around the need for transformation in fire research and management, the complexity of the 'fire challenge' worldwide, and how transdisciplinary research and collaborations can be applied to overcome these challenges.</p>
6:00pm	6:00pm to 7:30pm: Celebration of Life for Jan van Wagtendonk, Regency Foyer and Terrace					

Thursday, December 7

Registration, Regency Foyer

7:30am to 4:00pm

Exhibit Hall Hours, Regency Ballroom

8:00am to 4:00pm

Exhibitor Move Out, Regency Ballroom

4:00pm to 7:00pm

Closing Plenary Session, Monterey Ballroom

8:00am to 10:00am

- 8:00am: Welcome
- 8:10am: Prof. Dr. Christine Eriksen
- 8:40am: Chief Royal Ramey
- 9:10am: Ryan Reed and Kyle Trefny
- 9:40am: Closing Remarks

Morning Break, Regency Ballroom

10:00am to 10:30am

Concurrent Sessions, 1st Floor Meeting Rooms

10:30am to 12:00pm

Lunch

12:00pm to 2:00pm

- AFE Awards Luncheon (Monterey Ballroom, Pre-purchased ticket)
- Or Lunch on Your Own

Concurrent Sessions, 1st Floor Meeting Rooms

2:00pm to 3:30pm

Afternoon Break, Regency Ballroom

3:30pm to 4:00pm

Concurrent Sessions, 1st Floor Meeting Rooms

4:00pm to 5:30pm

Special Events

AFE AWARDS LUNCHEON

12:00pm-2:00pm, Monterey Ballroom

The awards luncheon will honor AFE's 2022 and 2023 award winners. We will be recognizing lifetime achievement awards, early career, students, and more! If you have not already purchased a ticket, you can check at registration to see if we have any available.

CLOSING CEREMONY AND BONFIRE, RSVP REQUIRED

Asilomar Conference Grounds

6:00pm for Pre-purchased dinner tickets

7:00pm Ceremony and Bonfire

The Esselen Tribe of Monterey County is planning a closing ceremony on Thursday evening at Asilomar Conference Grounds, in Pacific Grove, at what is known to tribal communities as Achastawhich. The location is about 5 miles from the Hyatt, and we will help coordinate carpools to and from the location.

There will be a talking stick ceremony with tribal elders, members of local and neighboring tribes, and congress attendees. This ceremony will reflect on the congress and provide a space for connection, healing, and learning. There will be a traditional ceremonial fire, smudging, blessings, and a chance to share stories around the fire. All walks of life are welcome.

It is free to attend but RSVP is required as space is limited. The ceremony will begin at 7pm. If you bought a dinner ticket for the Asilomar Dining Hall, please plan to arrive at 6pm.

*"Fire at the center, the teacher and purifier, smoke billowing into the sky, healing the land and the people."
- Tom Little Bear Nason*

KEYNOTE SPEAKERS

CLOSING PLENARY SESSION, DECEMBER 7, 8AM-10AM PST



When the Familiar Becomes the Unknown: Coping, Caring, and Coexisting in a Fiery World

Prof. Dr. Christine Eriksen, Institute of Geography, University of Bern, Switzerland

Is home still home when the world around us has changed irrevocably yet seems oddly familiar? In this talk, I reflect on the social and structural challenges we face, as a fire family, in the context of catastrophic wildfires.



Fighting Fire with Fire: Creative Solutions at the Intersection of the Climate Crisis and Criminal Justice

Chief Royal Ramey, Co-Founder & Chief Program Officer, Forestry & Fire Recruitment Program (FFRP)

California depends on incarcerated people to fight wildfires, but provides no viable pathway to employment once they are released. Meanwhile, wildfires are more common, there are personnel shortages to fight them, and the recidivism rate for those being released from prison is 60%. I co-founded the Forestry and Fire Recruitment Program to provide opportunities for the formerly incarcerated to save both lives and land, while purposefully restoring what has been lost in our forests, our prisons, and our communities.



Passing the Torch: Empowering Our Generation in a Time of Crisis

Ryan Reed, FireGeneration Collaborative Program Director; Northwest Forest Plan Federal Advisory Committee member and
Kyle Trefny, Co-Founder, FireGeneration Collaborative

Two young leaders share a vision to empower their generation in the paradigm shift for ecological fire management. Young people are depended on by all to carry this effort forward - through a volatile climate, intensifying disasters, and increasing demands. This keynote will introduce the FireGeneration Collaborative, and priorities of education, Indigenous leadership, and a proactive approach. It will also highlight the grief, heart, hope, and needs of young leaders and fire practitioners.

Concurrent Sessions: Thursday, December 7, 10:30am to 12:00pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Fire in U.S. Oak Woodlands: East and West	Advances and Applications of Wildfire Risk Management Science	Reaching the Limit: When Fire-Adapted Vegetation Fails to Recover Post-Fire	Climate Adaptation and Management	The Fire Next Time: Protecting Native Cultural Resources and Heritage Sites from Severe Wildfire and Fire Suppression Impacts	Spanning the Boundaries of Science, Practice, and Management: The Role of Cooperative Extension
	Special Session Organizers: Michael Stambaugh and Joseph Marschall	Special Session Organizer: Matthew P. Thompson	Special Session Organizers: Rachael Nolan and Ryan Tangney	Moderator: Tony Cheng	Special Session Organizers: Tom Little Bear Nason and Timothy Ingalsbee	Special Session Organizers: Emily Jane Davis and Christina Restaino
10:30am	Introduction	Introduction	Fire season delays and reduces post-fire recruitment from seeds in Mediterranean climate ecosystems. Ryan Tangney	Forest Service Wildfire Crisis Strategy Landscapes: Workshop results for incorporating climate change and adaptation Brooke Hagarty and Conception Flores	Panel Discussion and Presentations by Tom Little Bear Nason, Chairman, Esselen Tribe Honorable Ron Goode, Chairman, North Fork Mono Tribe Christy Fischer, Conservation Director, Trust for Public Lands Pete Crowhart Zavala, Tribal Liaison and Heritage Resources Department, U.S. Forest Service June Kinoshita, Former Fire Archaeologist, National Park Service Timothy Ingalsbee, Executive Director, Firefighters United for Safety, Ethics, and Ecology	The role of Cooperative Extension in wildfire Emily Jane Davis
10:45am	Fire in the Heartland: Who are we rooting for in the epic feud between prairies and woodlands? Sherry A. Leis	Community impacts from wildfire Erica Fischer	Structural reorganisation of resprouting temperate eucalypt forests following megadisturbance varies with forest type and soil fertility Eli Bendall	Implementing climate change adaptation strategies across an elevational gradient in the Colorado Rocky Mountains Mike A. Battaglia		Enabling extension to serve as fire science communicators: An online course to prepare trusted boundary spanners David Godwin
11:00am	The Southern Tier Oak Restoration Initiative: Looking into the past for the future Greg Nowacki	Socially vulnerable communities are disproportionately exposed to wildfire in the Pacific Northwest Caitlyn Reilley	Drivers of post-fire tree regeneration across gradients of climate and burn severity in Eastern WA, USA Angela Gonzalez	Learning from the past and planning for the future: Managing for ecosystem responses to wildfire and drought Anna L. Vaughn		Sharing tricks of the trade: Hosting a workshop for fire outreach professionals Elliot Nauert
11:15am	Frequent fire in California oak woodlands Don L. Hankins	Integrating social vulnerability into quantitative wildfire risk assessments Andy McEvoy	Vegetation recovery following Australia's Black Summer wildfires is moderated by fire interval and severity Christopher E. Gordon	Embedding 'fire-smartness' within the nature-based solutions paradigm Adrián Regos		Creating equitable and inclusive wildfire extension programs: How attention to place, culture, and ability strengthen education and outreach Megan Kay
11:30am	Managing scrub oak in a pitch pine-scrub oak barrens Neil A. Gifford	Science, policy, and controversy: Oregon's risk map receives and explosive public response Christopher J Dunn	Frequent fire in northern California chaparral reduces post-fire shrub regeneration and native plant diversity Ashley Grupenhoff	Investigating suffering from global wildfire events: challenges and opportunities Fiona Newman Thacker		WTREX: Empowering change in the fire workforce Lenya Quinn-Davidson
11:45am	Panel Discussion	Panel Discussion	Thirty-year trends in postfire conifer regeneration in California and western Oregon Joseph Stewart	Question/Answer and Discussion with All Presenters	Panel Discussion	
12:00pm	Awards Luncheon (pre-purchased tickets, Monterey Ballroom) or Lunch on Your Own					

Concurrent Sessions: Thursday, December 7, 10:30am to 12:00pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	Fire Effects and Compounding Disturbances in Semi-Arid Shrublands	Changing Fire Regimes and Carbon	Fire Ecology in the Forgotten Landscapes of the Upper Great Lakes	Wildland Urban Interface, Risk, and Mapping	Prescribed Fire, Increasing Use and Tracking	
	Special Session Organizer: Lea Condon	Moderator: Stacey Frederick	Special Session Organizer: Kurt Kipfmueller	Moderator:Jim Zollweg	Moderator: Leda Kobziar	Organizer: Maya Elson
10:30am	Fire effects and compounding disturbances in semi-arid shrublands Lea A. Condon	Persistent positive anomalies in geopotential height drive enhanced wildfire activity across Europe Kerryn Little	Revisiting fire and fire history in the Upper Great Lakes: Challenges and opportunities Kurt Kipfmueller	Riparian areas are the WUI: A comprehensive approach to regional wildfire risk reduction Bruce K Orr	The use of prescribed fire in northeastern US: Demand and barriers Arun Regmi	Fire Circle Fire and Fungi: Pre and post fire microbial inoculation A facilitated discussion and networking session on the potential for fungi and other microbes to be applied for post fire fuels reduction, erosion control, toxin mitigation, carbon sequestration and ecological regeneration.
10:45am	Could biological soil crusts act as natural fire fuel breaks in the sagebrush steppe Lea A. Condon	Extreme weather breaks phenological control on temperate fuel moisture; implications for future wildfire regimes Nick Kettridge	Historical fire regimes of sub-boreal peatlands Jed Meunier	Examining the Impact of Fire Emissions on Weather via air pollution over Greece using WRF-Chem Anastasios Rovithakis	California's State Certified Prescribed Fire Burn Boss Program Phillip Dye	
11:00am	Assessing postfire water quality in chaparral amidst changing precipitation patterns Erin J. Hanan	Long-term trends in burned area and weather in boreal forests of Canada, Alaska, and Russia Connor Stephens	Fire history applied to the restoration of a biocultural landscape on the Fond du Lac Reservation Lane Johnson	Assessing new methodologies for delineating the wildland urban interface Robert McGonagle	The California Prescribed Fire Monitoring Program: Partnerships to measure effectiveness of prescribed fire Tessa Putz	
11:15am	Fire return interval impacts on loss of biodiversity in California shrublands Jon E. Keeley	Promoting Scots Pine Fire Regimes in Lithuania: Understanding the complexity of forest landscape change across generations of land-use Charles M Ruffner	Fire History and Red Pine: An above-ground archaeological approach Sean Dunham	Promoting community resilience in high wildfire risk areas: the nexus between utilities and communities Amanda Stasiewicz	Building a prescribed fire database for the western United States Kori Blankenship	
11:30am	Conservation grazing for habitat restoration and fuels reduction in Southern California Mendel Stewart	Does forest management enhance resistance and resilience to drought and bark-beetle caused tree mortality? Becky Estes	Nimaawanji'idimin Giiwitaashkodeng: Together we are gathering around the fire Evan Larson	An interdisciplinary agent-based multimodal wildfire evacuation model: Critical decisions and life safety Haizhong Wang	Learning to burn: Designing prescribed fire training to maximize training transfer Heather Heward	
11:45am	Fire effects and grazing gradients in Northern Great Basin plant communities Lina Aoyama	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	
12:00pm	Awards Luncheon (pre-purchased tickets, Monterey Ballroom) or Lunch on Your Own					

Concurrent Sessions: Thursday, December 7, 2:00pm to 3:30pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Wildfire Risk and Complexity in Research and Practice	Wildfire Risk to Communities	Fire and Wildlife	Incorporating Fire into Climate-Adaptation Strategies for Old and Mature forests of North America	Cultural Fire and Fire History	Spanning the Boundaries of Science, Practice, and Management for More Fire-Adapted Futures: The Role of Cooperative Extension
	Special Session Organizers: Paige Fischer, Heidi Huber-Stearns, Francisca N. Santana	Moderator: Annie Leverich	Moderator: Alexandria Keeble-Toll	Special Session Organizers: Susan Prichard, Cristina Eisenberg, Marc-André Parisien	Moderator: Thea Carlson	Special Session Organizers: Emily Jane Davis and Christina Restaino
2:00pm	When community wildfire adaptation requires transformation Paige Fischer	Understanding wildfire risk to communities Eva Karau	Deadwood management and forest health, Prince William Forest National Park, Virginia, USA Daria Maslyukova	Braiding Indigenous knowledge and western science approaches to forest adaptation Cristina Eisenberg and Susan Prichard	'Walking on two legs': applying an Indigenous framework to guide collaborative research in fire-adapted territories Sarah Dickson-Hoyle	Increasing fire science knowledge and workforce development through technical education in Nevada Christina Restaino
2:15pm	Understanding behavioral adaptation to compounding and cascading wildfire-related hazards in Northern California Francisca N. Santana	Community risk reduction zones: A new map to inform actions in around the WUI Greg Dillon	Slash piles as habitat for threatened and endangered salamanders in the southwestern US Rachel Loehman	Retooling conservation strategies for old-growth boreal and hemiboreal forests Marc Parisien	Pre-Euroamerican annual burnt area in California, USA: An updated and comprehensive map Andrea Duane	Designing a wildfire educational event and curriculum around a critical water supply and recreation site Aaron Groth
2:30pm	Post-fire vegetation recovery in a changing climate: Informing forest planning/reseeding decision making in New Mexico Rémi Bardou	Building, housing-unit, and population density rasters for the United States Melissa Jaffe	The impact of wildfire on avian communities: Exploring habitat associations two decades after fire Maria Vicini	Climate adaptation challenges and strategies for mixed conifer forests of the eastern forests and woodlands Nicole Zampieri	Local Ecological Knowledges in the Mediterranean contribute to wildfire risk adaptation Kathleen Uyttewaal	Prescribed Burn Associations: Extension helping neighbors helping neighbors Chris Adlam
2:45pm	Our communities, our bay: Preparing our communities for compound stressors Gabrielle Wong-Parodi	An update to probabilistic wildfire hazard datasets for the United States Greg Dillon	Fire, birds and the sixth extinction Cecil Frost	Climate adaptation challenges and strategies for mixed conifer forests of the western interior of North America Paul Hessburg	The science, practice, and efficacy of fire mimicry in restoring oak health Lee Klinger	Visualizing likely fire outcomes to support strategic rangeland fire planning and management Katie Wollstein
3:00pm	Adaptation to wildfire risk among family forest owners in the Western Pacific Northwest, USA Mahmood Muttaqee	How does Wildfire Hazard Potential characterize the relative likelihood of high-intensity wildfire? Mitchell Lazarz	Fire management for fauna conservation in heathy woodlands of southeastern Australia Matt Swan	Braiding Indigenous knowledge and western science: Climate change adaptation strategies for North American forests Cristina Eisenberg	Historic fire regimes in whitebark pine ecosystems of west-central British Columbia Kira Hoffman	Reforestation after high severity wildfire in California: Assisting small private landowners Susan Kocher
3:15pm	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Climate adaptation strategies for old-growth forests in the southwestern US and northern Mexico Diego Pérez Salicrup	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters
3:30pm	Afternoon Break, Regency Ballroom					

Concurrent Sessions: Thursday, December 7, 2:00pm to 3:30pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	Fire Effects and Compounding Disturbances in Semi-Arid Shrublands	Fuel Moisture and Flammability	Modeling and Simulations, Wildfire Behavior	Carbon Dynamics	Fuel Treatement Effectivness, Wildfire	
	Special Session Organizer: Lea Condon	Moderator: Anne Ganteaume	Moderator: Haizhong Wang	Moderator: Leda Kobziar	Moderator: Leece LaRue	Organizer: Anthony Schultz
2:00pm	Even without repeated fire, annual grass invasion drives biodiversity loss in a semi-arid shrubland. Adam L. Mahood	Spatiotemporal fuel moisture dynamics in a Rocky Mountain mixed-conifer forest Gunnar Ohlson	Leveraging GIS, remotely sensed data, and machine learning to forecast and mitigate wildfires James Zollweg	Estimating risk to forest carbon in CONUS using an actuarial approach Karin Riley	Surface and canopy fuel characteristics in unburned, once-burned, and twice-burned Rocky Mountain mixed-conifer forests Andrew J Larson	ESRI Session A New Fuels Reduction Frontier: Mapping Our Way To Better Risk Reduction This session provides a practical demonstration on how to utilize ArcGIS GeoPlanner, a scenario-planning tool, to compare and contrast different fuels treatment scenarios.
2:15pm	Effects of wild horses and burros on wildfire characteristics Amanda Gearhart	Examining sources of uncertainty when modelling fuel moisture across different forest types Derek van der Kamp	Improved understanding of future wildfire risk through simulating dynamic exposure profiles Hedwig van Delden	Functional attributes of conifers expanding into grassland modulate carbon and nitrogen fluxes in response to prescribed fire Justin D. Gay	Prescribed burning following wildfire: Effects on surface fuel loading and regeneration in a ponderosa pine forest Cristina Winters	
2:30pm	Improving postfire restoration of vegetation in the Great Basin: A demographic perspective Robert Shriver	Mapping live fuel moisture content in Monterey County, CA A.J. Purdy	Using spatial decision support tools to study tradeoffs and synergies of social-ecological resilience Tucker Furniss	Prescribed fire effects on aboveground forest carbon in coniferous forests of US national parks in California and Oregon Phil van Mantgem	55 years of succession following clearcutting plus broadcast burning and wildfire in a mixed-conifer forest Neil G. Williams	
2:45pm	How do climate and wildfire history affect fuel break treatment effectiveness in sagebrush landscapes? Douglas Shinneman	Quantifying litter bed flammability in temperate eucalypt forests Jamie Burton	Coupled fire-atmosphere simulation: The effects of fuel properties and heat release Kasra Shamsaei	Impacts to greenhouse gas emissions and fire behavior following fuel treatments in California forests Christopher A. Dicus	Logging after high severity wildfire may mitigate fire effects up to 40 years after wildfire Katie Ireland	
3:00pm	A retrospective assessment of fuel break effectiveness for wildfire suppression across the western U.S. Cali Weise	Decomposition-driven changes in tree litter flammability Morgan Varner	Connecting wildland fire science with electrical grid management: modeling seasonal and long-term risk Troy Saltiel	Greenhouse gases emitted across fire seasons in a mesic savanna of West Africa A. Brigitte N'DRI	Quantifying the restorative work of wildfires in the Sierra Nevada and identifying its key drivers Caden Chamberlain	
3:15pm	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	
3:30pm	Afternoon Break, Regency Ballroom					

Concurrent Sessions: Thursday, December 7, 4:00pm to 5:30pm

	Spyglass I	Spyglass II	Oaktree	Big Sur I	Big Sur II	Big Sur III
	Wildfire Risk and Complexity in Research and Practice	Modeling and Simulations, Fuel Treatments and Wildfire Behavior	Smoke Ecology and Management	Incorporating Fire into Climate-Adaptation Strategies for Old and Mature forests of North America	Fire Circle	Fire Circle
	Special Session Organizers: Paige Fischer, Heidi Huber-Stearns, Francisca N. Santana	Moderator: Heather Heward	Moderator: Tony Cheng	Organizers: Susan Prichard, Cristina Eisenberg, Marc-André Parisien	Organizers: Timothy Ingalsbee and Ryan Reed	Organizer: Emily Jane Davis, Carrie Berger, Jennifer Fawcett, Katie Wollstein
4:00pm	Wildfire risk and complexity: challenges and opportunities for practice and policy Heidi Huber-Stearns	Impacts of forest treatment on steep slopes on potential fire behavior Scott Ritter	A new EPA National Ambient Air Quality Standard: What now? Peter Lahm	Climate adaptation challenges and strategies for California Mediterranean and Sierran Forests, Don Hankins and Jonathan Long	Fire Circle Fire back: Making space for Indigenous cultural burning in prescribed fire planning and operations Expanding opportunities for Indigenous cultural burning raises questions about if and how can Native resource objectives and traditional practices be included in prescribed burn plans and operations. How can the two intentional burning systems share resources on the same project sites in ways that respect Tribal sovereignty and prevent cultural appropriation?	Fire Circle Connecting research and practice through fire Extension's people and programs This Fire Circle offers a space for dialogue among Extension peers and with fire managers, scientists, and community practitioners. Topics will include the role of Extension in applying fire science, how to respond to community needs, and how to develop strategic approaches.
4:15pm	Disaster-resilient community based organizations: Pivoting to become wildfire and smoke disaster responders for vulnerable populations Ginger Harris	Climate change alters fuel treatment effects on fire behavior in the Sierra Nevada Mountains Ashley Cale	Impacts of smoke on tree physiological health at Fishlake National Forest, Utah Annapurna C. Post-Leon	Fire Circle Adapating forests to climate change: place-based stewardship and ecocultural restoration Given their immense cultural and ecological value of forests, strategies for sustaining old and mature forests under climate change are being carefully considered, including a recent Executive Order by President Biden (14702: Strengthening the Nation's Forests, Communities, and Local Economies). In this fire circle, we will discuss threats to the conservation of forests across the United States and the role of place-based stewardship and ecocultural fire in restoring and enhancing resilience of forests to climate change.		
4:30pm	Linking wildfire smoke, forest management, and human health: Perspectives from health organizations in California Signe Stroming and Kirsten Hodgson	Do linear fuel breaks reduce wildfire size and limit spread of roadside ignitions in rangelands? Kayla Johnston	Transmission received: Smoke disperses living microbes from fuels to soils changing community composition and function Krista Bonfantine			
4:45pm	Challenges and opportunities for prescribed fire workforces in the United States Laurel Kays	A Q-methodology approach to understanding causes and drivers of wildfires in Crete, Greece Haleema Misal	Question/Answer and Discussion with All Presenters			
5:00pm	Following the path to policy change: 2020 Oregon wildfires Leanne Giordono	Question/Answer and Discussion with All Presenters				
5:15pm	Question/Answer and Discussion with All Presenters					
Evening	Bonfire and Closing Ceremony, Asilomar Conference Grounds, RSVP Required 6:00pm for pre-purchased dinner tickets; 7:00pm for Ceremony and Bonfire					

Concurrent Sessions: Thursday, December 7, 4:00pm to 5:30pm						
	Cypress I	Cypress II	Cypress III	Windjammer I	Windjammer II-III	Windjammer IV
	Fire Behavior	Measuring Plant Flammability	Wildfire, Fire Effects	Fuel Treatment Effectiveness, Wildfire after Treatments	Carbon Dynamics	
	Moderator: Carol Ewell	Moderator: TBD	Moderator: Alina Cansler	Moderator: Ralph Bloemers	Moderator: Alexandria Keeble-Toll	
4:00pm	Hourly wildfire growth database fusing polar-orbiting, geostationary, and multi-agency observations Crystal McClure	Tools for firewise landscape management: Ranking species according to their flammability can be tricky Anne Ganteaume	European forest post-fire trajectories shaped by plants strategies, fire history and topo-climatic conditions Lilian Vallet	Linking forest management to operational outcomes of the Washburn Fire in Yosemite National Park Lacey Hankin	FuelMap: An imputed map of carbon stored in litter, duff, fine and coarse woody debris for CONUS forests circa 2014 Karin Riley	
4:15pm	Quantifying fire behavior precisely and economically using small unmanned aircraft Phinehas Lampman	Canopy traits drive plant flammability: Shoot flammability of Texas shrubs Azaj Mahmud	Abrupt and gradual transitions in plant community composition after fire in sagebrush steppe Cara Applestein	The contributions of past fires and fire management operations to severity patterns of the Dixie Fire Alan H. Taylor	Sustainable integrated fire management, carbon and source water protection strategies: Kafue National Park and Chyulu Hills National Park McRee Anderson	
4:30pm	Comparing crown fire predictions in treated and untreated ponderosa stands among four fire behavior models Jacob Ney	Building the components of a UK fire danger rating system: a flammability phenology for dry heaths Claire M. Belcher	Fire effects on interspecific competitive and facilitative interactions and forest structure in the alpine treeline ecotone Josh Beisel	Ecological impacts and effectiveness of fuels treatments in three major 2021 California wildfires Rebecca Bewley Wayman	Modelling trade-offs between forest and fire management and carbon dynamics in British Columbia, Canada Jen Baron	
4:45pm	The 2020 Creek Fire: An investigation into understanding and attribution of fire behavior Janice Coen	An evaluation of metrics for quantifying plant flammability Jane Cawson	Remotely sensing the effects of managed wildfire on Sierra Nevada meadows Logan Hansen	Shaded fuel breaks create wildfire-resilient forest stands in the Sierra Nevada Kathryn Low	Question/Answer and Discussion with All Presenters	
5:00pm	Question/Answer and Discussion with All Presenters	Flammability comparison of five common east Texas semi/evergreen plants using thermogravimetric analysis and bomb calorimetry Michael Tiller	The effects of wildfire on roost selection of the California myotis Anna Doty	Are current fuel reduction treatments successfully mitigating risk of catastrophic wildfire in rural communities in British Columbia, Canada? Kea Rutherford		
5:15pm		Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters	Question/Answer and Discussion with All Presenters		
Evening	Bonfire and Closing Ceremony, Asilomar Conference Grounds, RSVP Required 6:00pm for pre-purchased dinner tickets; 7:00pm for Ceremony and Bonfire					

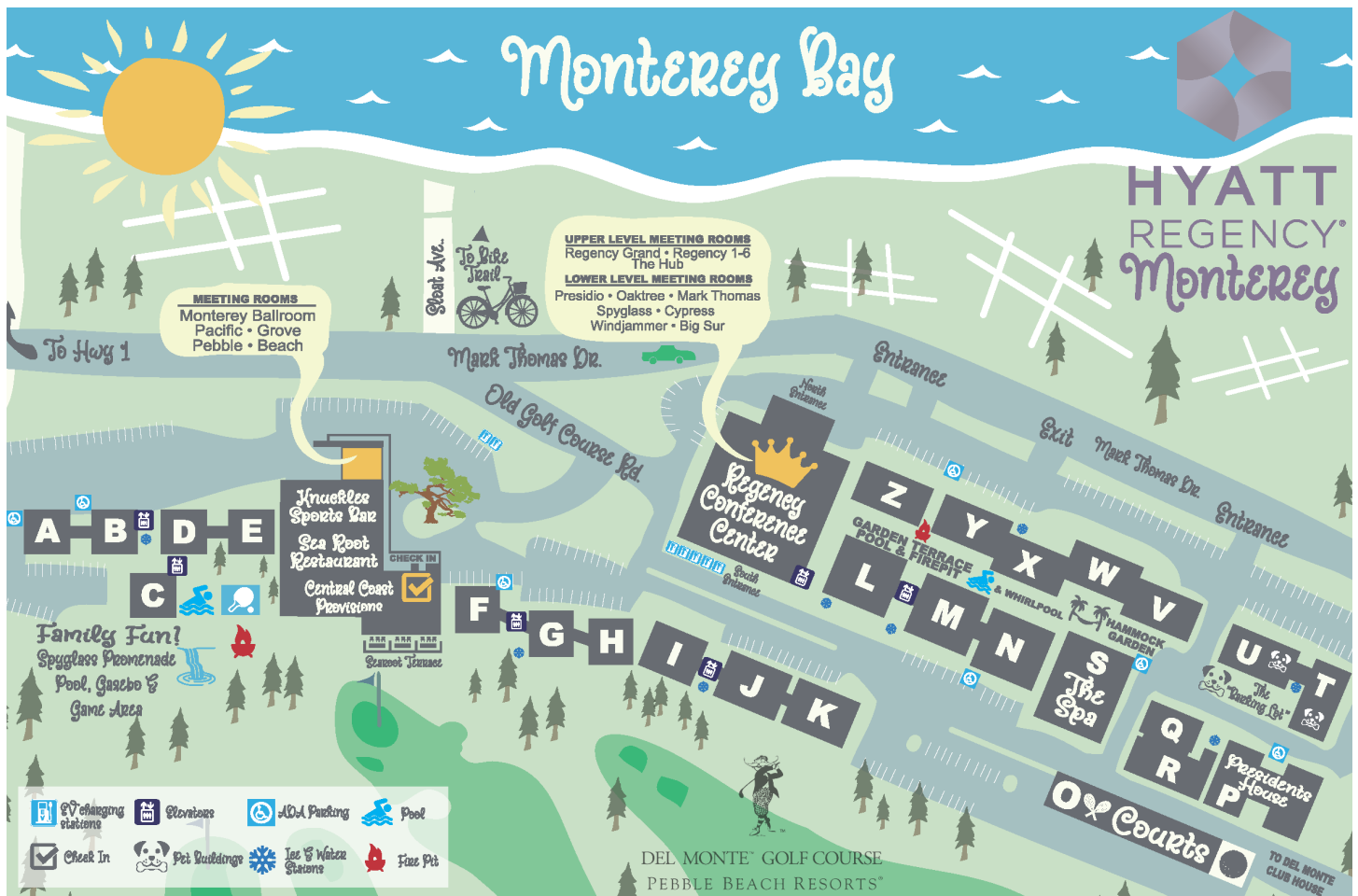
Poster Presentations

The Poster Session will be held Tuesday from 12:00pm to 2:00pm in the Regency Ballroom. Come talk with poster presenters, network with exhibitors, and enjoy lunch. All abstracts and presenter bios are available on the Whova mobile app.

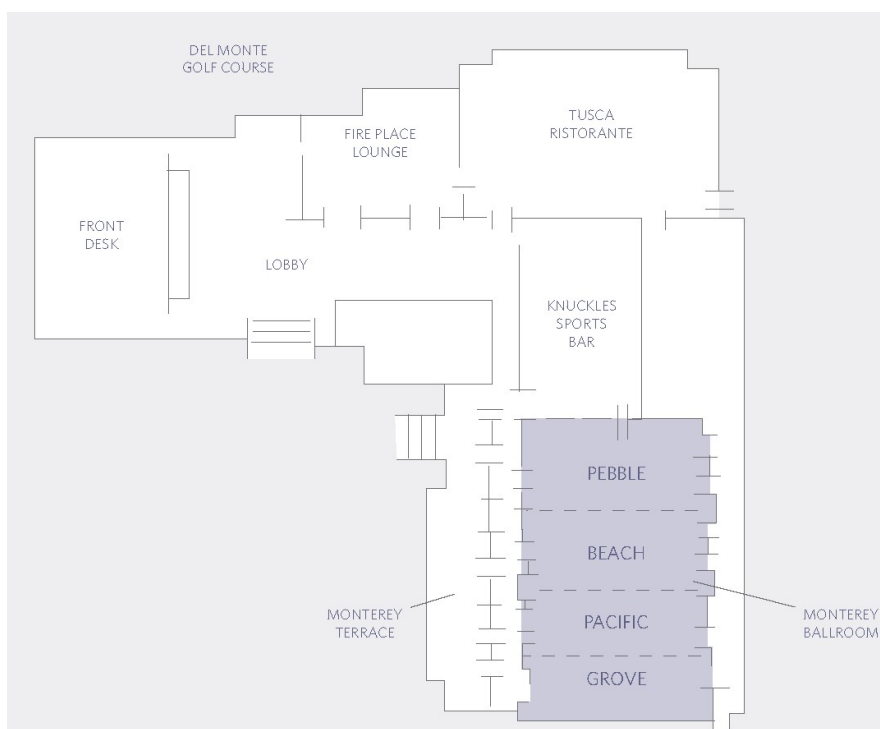
CLIMATE CHANGE		
1	Assessing impacts of climate change and human population growth on forest fire potential in the tropics: The case of the Tain II Forest Reserve in Ghana	Eric Osei-Kwarteng
2	Climate influences on future fire severity: A synthesis of climate-fire interactions on high-severity fire in the western United States	Stephanie Mueller
3	An emerging framework for adapting to changing fire regimes: Reimagining science, management, and culture	Carolyn AF Enquist
4	Trees for the future: How local adaptation may influence reforestation success	Katie Nigro
5	Understanding the cumulative impacts of wildfire and climate change on early life-stage boreal tree species in Newfoundland, Canada	Lucas Brehaut
6	Downscaled 21st century global fire weather projections	Taejin Park
CULTURAL BURNING		
7	Fire severity drives understory plant community dynamics and the recovery of culturally significant plants in British Columbia's interior dry forests	Sarah Dickson-Hoyle
8	We are fire: Indigenous fire practices and western fire management in the Saskatchewan River Delta	Renée Carrière
9	Fire impact on cultural significant plants and biodiversity at Vaseux Lake, BC	Gracie Crafts
FIRE AND FUEL MAPPING, MODELING		
10	A remote sensing approach to map the wildland urban interface in California	Tirtha Banerjee
11	Mapping wildfire hazard and risk: Raster data products available via Wildfire Risk to Communities	Eva Karau
12	Assessing live tree patch size in recent fire footprints	Varvara Fedorova
13	Incorporating Fire Ecology in a National Ecological Framework for Land Management Decision-Making	Mathew Cocking
14	Scaling UAS burn-severity metrics to Satellite imagery to improve post-fire watershed management	Josh von Nonn
15	Comparison of RAVG burn severity to field CBI	Alicia Reiner
16	Cross scale evaluation of fuel maps in Colorado ponderosa pine dominated forests.	Katelyn Johnston
17	Evaluating post-fire forest structural changes using time series of satellite spectral and textural data	Miguel Villarreal
18	Leveraging aerial systems and generative modeling to improve canopy fuels mapping resolution and periodicity	Troy Saltiel
19	Analyzing and predicting fire refugia throughout forested British Columbia, Canada	Diana Stralberg
20	Burn volume estimation of wildfire by drone remote sensing	Xiangyu Ren
21	Unearthing wildfire patterns: GIS-driven insights into wildfire severity trends	Richard Schonenberg
22	Spatial analysis of the contemporary southwestern wildfire landscape: patch evaluation in Arizona and New Mexico, USA	Samantha Baxter
23	Basal area loss from wildfire using field-calibrated remote sensing refines western U.S. fire severity measurements	Sara Winsemius
24	Mapping infrasound emissions for tracking fire activity	Jacob Anderson
25	Exploring drivers of reburn potential in northwestern Cascadia, USA	Jenna E Morris
26	Assessing the efficacy of the Defensible Space on reducing the risk of wildfire-induced building damage in California's wildland urban interface	Yunzhe Zhu
27	Fuel model uncertainty effects on burn probability modeling	Nikki C Inglis
28	Fuel structure affects deadwood volume estimation using terrestrial laser scanning in Appalachian Mountain forests	Sarah Wolsiffer
FIRE EFFECTS		
29	Assessing influences of prescribed fire on leaf function and nutrient allocation in shortleaf pine (<i>Pinus echinata</i>)	Julia DeFeo
30	Historical wildfire impacts on Willamette basin wetlands	Lauren Melendez
31	Influences of climate and long-term management on wildfire severity on the Colville Reservation, Washington USA	Turtle May
32	Fens, fire, and forest management: Effects of the Dixie Fire on Sierra Nevada fens	Carina Bilodeau

33	Fire scar injury characteristics across varied burn histories and severities on the Plumas National Forest, California, USA	Michael Stambaugh
34	Pyrodiversity: Prescribed fire intensity, fuels consumed, and biodiversity in California's maritime chaparral	Jannike Allen
35	Wildfire impacts to local businesses: Exploring outcomes and solutions in Flagstaff, Arizona	Sarah Devenport
36	The effect of fire and stand characteristics on Douglas-fir beetle host tree selection in southwest Colorado mixed-conifer forests five years post-fire	Matt Young
37	Fire and rust: Altered fire regimes and white pine blister rust in Yosemite sugar pines	Jennifer E Cribbs
FIRE EFFECTS, SOIL		
38	Fire history effects soil microbial community composition in temperate mixed conifer forest	Isabella Muscettola
39	Comparison of vegetation and soil response and recovery post-fire in Northern California (USA)	Lauren Holzman
40	Coupling belowground post-fire changes in soil organics, hydrology, and geochemistry	Courtney Creamer
41	Soil enzyme activities responses to burn severity over 17 years after fire	Sara Sadeghi
FIRE EFFECTS, TREE REGENERATION		
42	Community matters: Ponderosa pine recruitment after high severity fire varies according to plant community membership in dry mixed conifer forests of the western United States	Meg Krawchuk
43	Spatially explicit estimates of seed availability improve estimates of postfire conifer seedling density	Micah Wright
44	Reburns of high severity patches: effects on ponderosa pine regeneration and plant community composition	Nadav Mouallem
45	Exploring resilience in piñon-juniper woodlands: Insights from three Colorado fires	Katie A. Jones
46	Post-fire regeneration patterns in giant sequoia groves and mixed conifer forests burned in the 2021 KNP Complex	Marc D. Meyer
47	Determining appropriate plot sizes for field studies of natural forest regeneration	Tara Ursell
48	Post-fire resprouting dynamics of shortleaf pine (<i>Pinus echinata</i>)	Erin Watcher
FIRE EFFECTS, WILDLIFE		
49	Birds of the burn: Post-fire avian community structure in warm-dry mixed conifer forests	Luke Scott
50	Parasite presence in mule deer and Rocky Mountain elk five-years post-fire, 416 Fire Southwestern Colorado	Rochelle Hunt
51	Wildfire severity effects 5 years post-fire on herbaceous biomass and graminoid crude protein in the 416 Fire, southwestern Colorado	Arantxa Curley
52	Butterfly richness, diversity, and abundance in warm, dry mixed conifer 5 years post-fire in Southwest Colorado	Savana Carroll
53	416 Fire effects on vegetation nutritional value and mule deer habitat preferences five years post-fire	Ricardo Ruiz-Mendiola
FIRE ENVIRONMENT		
54	On-ground live fuel moisture content sampling along California's Central Coast	Michael Biedebach
55	Deriving a new regional one-hour fuel moisture equation for historical and predictive fire ecology	Sarah Stemple and Tucker Winkelman
56	Introducing the NOAA fire weather testbed	Benjamin J. Hatchett
57	Quantifying litter decomposition in heterogenous forests at local scales	Ryan Michael Savaikie
FIRE HISTORY		
58	Fire history and fire-climate relationships in Front Range Forest, New Mexico	Annie Topal
59	Historical cover of fire-dependent vegetation on a wet temperate landscape in Georgia, USA	Charles W. Lafon
60	Progress in documenting historical fire regimes from tree-ring dated fire scars across Maine, USA	Michael C. Stambaugh
61	Exploring the legacy of fire exclusion: Reconstructing the historical fire regime in Nemiah Valley, British Columbia	Alexis Myhre
FIRE MANAGEMENT		
62	Factors influencing evacuation decision-making during fast-moving wildfire events: A case study of two Colorado fires	William Cannon
63	Drivers of structure loss: A multi-scale WUI examination of the 2020 Creek fire in the southern Sierra Nevada, California	Liz van Wagtendonk
64	Accuracy of fire pattern indicators in wildfire arson investigations	Trevor B Haltermann
65	Smokey says only you can communicate clearly about fire use in the new ecological fire management paradigm	Timothy Ingalsbee

66	Lessons Learned From the 2018 Attica Wildfire: Households' Expectations of Evacuation Logistics and Evacuation Time Estimate Components	Haizhong Wang
FUEL MANAGEMENT		
67	Fuel Treatment Effectiveness in the Lake Tahoe Basin Management Unit in the 2021 Caldor Fire	Saba J Saberi
68	Bootleg Fire: Evaluating the role of fuel treatments in mitigating fire severity near Sycan Marsh, Oregon	Astrid Sanna
69	Aspen as a firebreak: influence of forest type in impeding fire spread.	Matthew Harris
70	Longevity of prescribed fire effectiveness in mixed-evergreen forests of the Klamath Mountains	Kaily Fineran
71	Longleaf pine woodland vegetation response to slash manipulation treatments in the South Carolina Wiregrass Gap	Armin Weise
72	Forest structure drives finescale variation in microclimate and fuel moisture in northern conifer forests	Peter Breigenzer
73	Tree spatial patterns in alternative mixed-conifer forest fuel reduction treatments	Connor Ryan
74	Evaluating the impacts of fuel treatments on burn severity across the Front Range	Sarah Hettema
75	Fire and forest restoration for waters supply protection in the Santa Fe Municipal Watershed	Ella Kasten
76	Carbon, fire hazard, and regeneration dynamics following high severity wildfire at Boggs Mountain Demonstration Forest	Joe Restaino
77	Delay the decay: Introducing “chartoons” to promote biochar as a fuels treatment	Parts Permillion
78	Fuel treatment effectiveness in the eastern Sierra Nevada (USA) during the 2021 Tamarack Fire	Alison K. Paulson
79	Effects of long-term forest restoration on understory vegetation dynamics in Northern New Mexico	Hope Nowak
FUEL MANAGEMENT, PRESCRIBED FIRE		
80	The Fire Networks: Centering relationships for a better fire future	Laurel Kays
81	Tree recruitment dynamics in a frequently burned, old-growth longleaf pine forest, Thomasville, Georgia	Chris Guiterman
82	Revisiting a long-term fire return interval study in the eastern Oregon Cascades	Nathan Wade
83	Mechanical pre-treatments and prescribed fire to reduce <i>Baccharis pilularis</i> (coyote brush) encroachment in coastal prairies	Killian Cook
84	Effects of thinning and prescribed fire on a grassland-forest ecotone	Andrea Robinson
85	The importance of burn timing: Does prescribed fire burn season affect Black Oak (<i>Quercus kelloggii</i>) survivorship?	Ryan Fass
86	Revitalizing prescribed fire for oak woodlands and acorn resources in California	Armando Valencia
PLANNING AND MANAGEMENT		
87	Altered fire regimes threaten Macnab cypress	Kyle Merriam
88	Climate and management futures for the Tahoe Central Sierra Region	Robert Scheller
89	Potential Operational Delineations for Pre-Wildfire Planning in Marin County, California	Harrison Raine
90	Southern California montane forest conservation strategy: Developing a prioritization framework for action	Nicole Molinari
SCIENCE TRANSLATION AND TEACHING		
91	Developing opportunities to increase high school student understanding of fire ecology and ecosystem services	Bryan Yockers
92	Understanding Gaps & Future Needs in Wildfire Science	Dr. Eric B. Kennedy
93	Navigating collaborative wildfire risk reduction across boundaries: the influence of policy and science translation	Noah Haarmann
SMOKE		
94	The National Wildfire Coordinating Group's Smoke Committee: Tools you can use	Peter Lahm
95	Contaminant attenuation in CZU wildfire particulates across space and time: Santa Cruz and Monterey, CA	Renee K. Takesue
96	Development of the AirNow Fire and Smoke Map: Architecture, design, and display choices	Stuart Illson



LOBBY AND MONTEREY BALLROOM

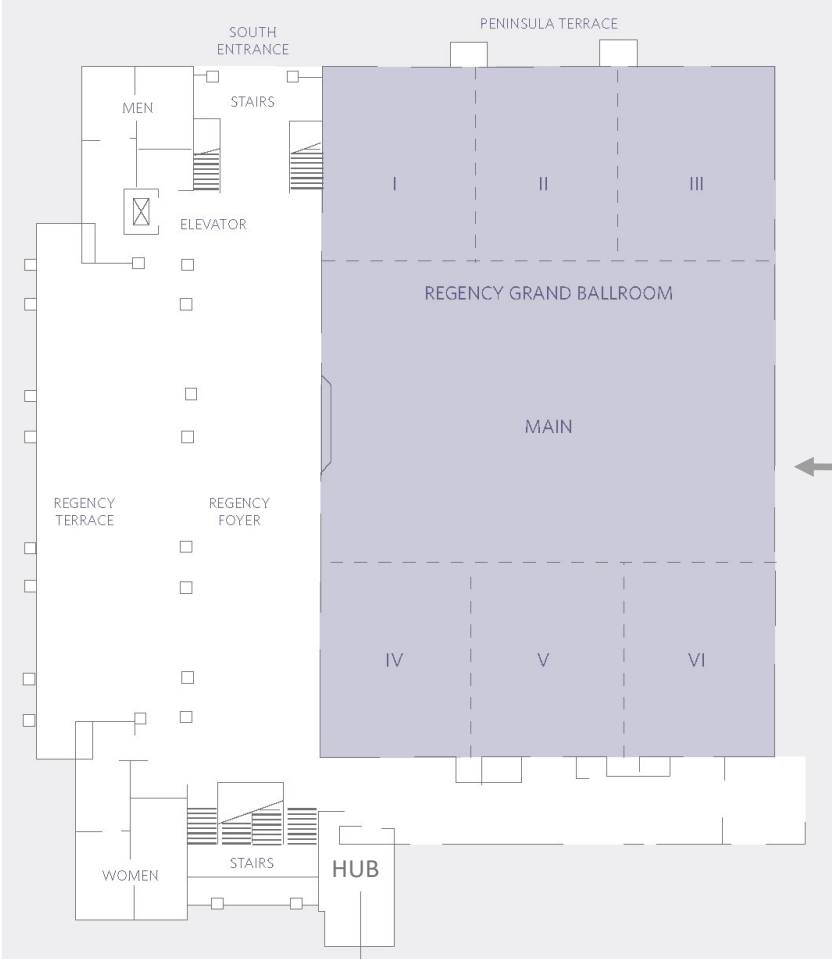


Location of all plenary sessions, dance party, and awards luncheon

CONFERENCE CENTER

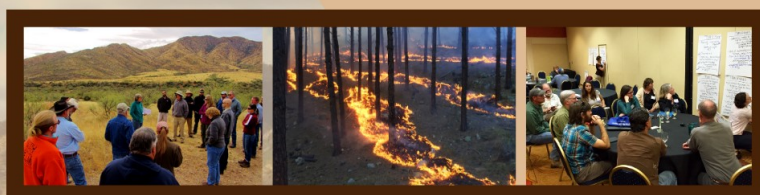


1st floor, location of all concurrent session meeting rooms



2nd floor, location of exhibit hall with posters, breaks, and registration in foyer

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