



- The Fire Congress will use [Whova](#) for viewing presentations, discussions, and networking from Nov 30 – Dec 3, 2021. All registered participants should have received log-in instructions by email.
- The titles of each session and presentation in this document are hyperlinks. By clicking the title, congress registrants can open the associated webpage within Whova to view the presentation, abstract, and speaker bio.
- All columns with a gray background will include live Spanish and Portuguese interpretation; this includes the three plenary sessions and one set of presentations during the concurrent sessions.

**Monday, November 29**

12:00pm - 4:00pm Eastern Standard Time

Pre-Congress Workshops

<b>12:00 - 2:00pm</b>	<p><b>Convergence Workshop on Simultaneous Wildfires</b></p> <ul style="list-style-type: none"> <li>– Workshop Organizer: Susan Prichard, Research Scientist, University of Washington School of Environmental and Forest Sciences</li> <li>– In this interactive workshop, we invite participants involved in wildfire forecasting and fire and fuels management to discuss how to prepare for future wildfire seasons under climate change. We will present findings from a NSF-funded Convergence Project on increasing wildfire simultaneity and proactive solutions and tools for wildland fire management.</li> <li>– Registrants will be sent Zoom log-in information</li> </ul>
<b>1:00 - 3:00pm</b>	<p><b>Exploring Tree-ring Fire History across North America</b></p> <ul style="list-style-type: none"> <li>– Workshop Organizer: Chris Guiterman, Assistant Research Professor, Laboratory of Tree-Ring Research, University of Arizona</li> <li>– New online and open source tools deliver tree-ring fire history data and analysis options. We will learn about these tools and use them to explore historical fire activity at landscape and larger scales. Bring your own data or easily access the public archive of tree-ring fire history across North America.</li> <li>– Registrants will be sent Zoom log-in information</li> </ul>

**Tuesday, November 30**

11:00am - 12:40pm Eastern Standard Time

\*Opening Plenary Session

<b>11:00am</b>	<p><b>Opening Plenary Session</b></p> <p>Welcome and Congress Overview</p> <ul style="list-style-type: none"> <li>– Christopher Dicus, AFE President, California Polytechnic State University</li> <li>– Morgan Varner, Fire Congress Chair, Tall Timbers</li> </ul> <p>Keynote Presentation</p> <ul style="list-style-type: none"> <li>– Indigenous Fire: Following the Original Instructions, Don Hankins, California State University, Chico, USA</li> </ul> <p>Welcome from AFE's Diversity and Inclusivity Committee</p> <ul style="list-style-type: none"> <li>– Karin Riley, USDA Forest Service</li> </ul> <p>AFE Awards</p> <p>Presented by Brian Oswald, Stephen F. Austin State University</p> <ul style="list-style-type: none"> <li>– Early Career</li> <li>– Distinguished Leader in Research</li> <li>– Applied Fire Science</li> </ul>
<b>12:40pm</b>	Break

*\* Indicates this session will have live Spanish and Portuguese interpretation*

Tuesday, November 30						
1:00pm - 2:40pm Eastern Standard Time				Concurrent Sessions (Block 1)		
	<p><b>*Inter-Relationships Between Invasive Plants and Fire Management</b></p> <p>Special Session Organizer: Matt Brooks Moderator: Emily Yurchich</p>	<p><b>Recovering Resilience: Post-Fire Forested Landscapes and Future Management Implications</b></p> <p>Special Session Organizer/Moderator: Nicholas Povak</p>	<p><b>Moving Towards System Resiliency: Leveraging Wildfire Operations Data for Discovery, Prediction, and Optimization</b></p> <p>Special Session Organizer/Moderator: Yu Wei</p>	<p><b>Fire In the Southern Appalachians: Past, Present, And Future Resilience</b></p> <p>Special Session Organizer/Moderator: E. Louise Loudermilk</p>	<p><b>Wildfire Simulation Under Future Climate Change: Methods and Applications</b></p> <p>Special Session Organizer/Moderator: Alex Dye</p>	<p><b>What We Know About Landscape Fuel Treatment Effectiveness</b></p> <p>Special Session Organizer/Moderator: Theresa Jain</p>
1:00pm	Invasive plants and wildland fire – special session introduction and overview, Stas Burgiel	Ecological principles to guide post-fire forest landscape management, Andrew J Larson	Fuel break effectiveness in Southern California National Forests, Benjamin Gannon	Historical fire regimes and climate associations in the southeastern U.S., Michael Stambaugh	Evolving risk: California wildfires in a time of change, Carling Hay	Quantifying fire hazard and fuel treatment effectiveness from stands to landscapes, Sharon M. Hood
1:20pm	Effects of fire on non-native invasive plants, Matt Brooks	Landsat and aerial lidar remote sensing to evaluate impacts of fire history, pre-fire management, and post-fire management on forest in northeastern Washington State, C. Alina Cansler	Modeling WUI fire impacting risk during large fire events, Yu Wei	Landscape patterns of burn severity in the 2016 wildfire outbreak in the southern Appalachian Mountains, Matthew J. Reilly	Shifts in Southern California simulated burn probability by mid-century under 8 climate change scenarios, Alex Dye	A systematic review of empirical evidence for landscape-level fuel treatment effectiveness, Shawn T. McKinney
1:40pm	Influence of invasive plants on fire regimes in the western USA, Carla M. D'Antonio	Variation in long-term post-fire regeneration success across environments foreshadows future changes in post-fire regeneration success, Nicholas Povak	Changes in location and severity of wildfires managed for resource objectives following the 2009 wildfire management guidance, Jesse D. Young	Modeling Mountain Wave Wind Events in the Southern Appalachians, Marcus D. Williams	Using GCM-based future climate data to drive a fire model: how much bias is too much?, John B. Kim	Landscape-scale Fuel Reduction Treatment Effectiveness Inferred from Simulation Studies, Jeffrey Ott
2:00pm	How invasive plants in the Eastern and Southern Regions of the USA affect fire behavior and alter fire regimes, Dr. Rima D. Lucardi	Passive or active management? Understanding the short and long-term consequences and changes after large stand-replacing wildfires, Morris C. Johnson	Detecting critical nodes in forest landscape networks to reduce wildfire spread, Denys Yemshanov	Fuels in Managed and Unmanaged Portions of the Southern Appalachians, Adam Coates	Discussion	Lessons learned about landscape fuel treatment effectiveness from wildland case studies, Brice Hanberry
2:20pm	How fire can be used to manage invasive plants, James T. Vogt	Integrating the work of wildfires with post-fire management in eastern Washington, USA, Derek Churchill	21st Century planning techniques for creating fire resilient forests in the American West, John Hogland	Extended severity, initial effects, and management response following 2016 wildfires in Great Smoky Mountains National Park, Tennessee, USA, Rob Klein		Effectiveness of fuel treatments at the landscape scale: State of understanding and key research gaps, Theresa Jain
2:40pm	Break					

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Tuesday, November 30 3:00pm - 4:40pm Eastern Standard Time							Concurrent Sessions (Block 2)
	<p><b>Inter-relationships Between Invasive Plants and Fire Management</b> Special Session Organizer: Matt Brooks Moderator: Ilana Abrahamson)</p>	<p><b>Recovering resilience: Post-fire forested landscapes and future management implications</b> Special Session Organizer/Moderator: Nicholas Povak</p>	<p><b>Applied science and management collaborations</b> Special Session Organizer/Moderator: Joe Noble</p>	<p><b>Fire in the Southern Appalachians: Past, Present, and Future Resilience</b> Special Session Organizer/Moderator: E. Louise Loudermilk</p>	<p><b>*Wildfire simulation under future climate change: methods and applications</b> Special Session Organizer/Moderator: Alex Dye</p>	<p><b>Assessing wildland fuels and fire effects using high-resolution remote sensing</b> Special Session Organizer/Moderator: C. Alina Cansler</p>	
3:00pm	<p>Fire-invasive plant species dynamics in North American Deserts: altered ecosystems and management challenges, Douglas Shinneman</p>	<p>Postfire landscape management in frequent-fire conifer forests of the southwestern United States, Jens T. Stevens</p>	<p>Mapping burned areas from the Landsat archive: monitoring of fire occurrence across the United States, Todd Hawbaker</p>	<p>Reference Conditions? Tree-Ring Evidence of High Severity Fire from the Southern Appalachian Mountains, 1700-2000, Will Flatley</p>	<p>Trends and spatial shifts in lightning fires and smoke concentrations in response to 21st century climate over the national forests and parks of the western United States, Yang Li</p>	<p>High-resolution sensing of vegetation and fuel structure from terrestrial, airborne and spaceborne platforms, Van R. Kane</p>	
3:20pm	<p>Challenges and opportunities in the management of fire and invasive plants in North America's Great Plains, Amy J Symstad</p>	<p>Applying a science-based framework to post-megafire restoration, Amarina Wuenschel</p>	<p>Using the Landsat Burned Area Products to Map Fire History Metrics in Florida, USA, Casey Teske</p>	<p>The air quality impacts of duff burning from the 2016 Appalachian wildfires, Yongqiang Liu</p>	<p>Empirical Characterization of Fire Regimes Across the Globe Using Historical MODIS Hotspots, William W. Hargrove</p>	<p>Characterizing understory fuel structure and biomass in pine-dominated forests using coupled terrestrial lidar scanning and field sampling, Eric Rowell</p>	
3:40pm	<p>Lurking on the sidelines: Plant invasion and fire in northwestern US forests, Becky K. Kerns</p>	<p>Forest resilience and transition in the face of successive large wildfires in California's Sierra Nevada Mountains, Zack Steel</p>	<p>Mapping wetland burned area from Sentinel-2 across the southeastern United States and its contributions relative to Landsat-8 (2016-2019), Melanie Vanderhoof</p>	<p>Delayed fire mortality has long-term ecological effects across the Southern Appalachian landscape, Zachary Robbins</p>	<p>TreeMap lays foundation for analysis of risk to terrestrial carbon from wildland fire and fuel treatment, Karin L. Riley</p>	<p>Can GoPros democratize field data collection of 3D fuel structure?, Gina R. Cova</p>	
4:00pm	<p>Fire and invasives: Eastern Temperate Forests, Tropical Wet Forests and Northern Forests, Steve Norman</p>	<p>Forecasting future fire with a process-based landscape disturbance model, Tucker Furniss</p>	<p>Application of Burned Area Products for Conservation and Fire Management Success, Joe Noble</p>	<p>The return of fire to a transitioning forest: Fire effects are mediated through forest floor processes in fire excluded, southern Appalachian forests, Melanie K. Taylor</p>	<p>The past, present, and future of fire wildfire-prone weather conditions in Brazil, Sihan Li</p>	<p>Linking LiDAR-derived shrub architecture to flammability, Michelle Bester</p>	
4:20pm	<p>Break</p>	<p>Break</p>	<p>Discussion</p>	<p>Prescribed fire smoke scenarios using projected climate, development, and management priorities, Kate Jones</p>	<p>Robust Projections of Future Fire Probability for the Conterminous United States, Peng Gao</p>	<p>Terrestrial lidar scanning for fuel moisture characterization, Jonathan L Batchelor</p>	
4:40pm	<p>Break</p>						

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**Tuesday, November 30**

**3:00pm - 4:40pm Eastern Standard Time**

Moderator: Zachary Prusak, Tall Timbers

- 3:00pm – 4:00pm: The Longleaf Pine Ecosystem at the Jones Center at Ichauway: Conserving Biodiversity through Research and Management, Kevin McIntyre, Jones Center at Ichauway
- 4:00pm – 4:40pm: Goodfire through collaboration in western North Carolina, Jenifer Bunty, Consortium of Appalachian Fire Managers & Scientists

**Tuesday, November 30**

**5:00pm - 6:40pm Eastern Standard Time**

**Concurrent Sessions (Block 3)**

	<b>*Actions for sustaining biodiversity in fire-prone ecosystems</b> Special Session Organizer/Moderator: Luke Kelly	<b>Bayesian modeling and causal inference in wildfire risk assessment</b> Special Session Organizer/Moderator: Matthew Thompson	<b>General Session: Fire Regimes</b> Moderator: Charlotte Reed
<b>5:00pm</b>	Actions for sustaining biodiversity in fire-prone ecosystems, Luke Kelly	Causal Bayesian networks in assessments of wildfire risks: opportunities for ecological risk assessment and management, Mace Barron	Quantifying fire regime divergence at tree-ring fire history sites in dry forests of the American southwest, Emma McClure
<b>5:20pm</b>	Wetlands: Tipping from fire refugia to fire wicks, Sophie Wilkinson	Assessing Fuel Treatment Performance with Probabilistic Causal Inference, Matthew Thompson	Shifting paradigms: ecosystem restoration is not maintenance in degraded pitch pine-scrub oak barrens, Neil Gifford
<b>5:40pm</b>	Nature-based solutions for fire suppression: green firebreaks, low-flammability foods and planting fire micro-refugia, Tim Curran	Bayesian networks to assess vulnerability of salmonids to climate change and wildfire in Washington and Alaska, Jeff Falke	Updating U.S. fire regime data provides insight into the state of fire ecology knowledge at a national scale, Kori Blankenship
<b>6:00pm</b>	Restoring wildfire increases landcover heterogeneity in a Sierra Nevada watershed, Gabrielle Boisrame	Why did the fire cross the road? Modelling roadside fire management strategies to reduce risk, Kate Parkins	Communities, Fire Managers, and Scientists Collaborate to Examine Caribbean Pine Population Dynamics in a Frequently Burned, Humid Savanna, Jennifer M Fill
<b>6:20pm</b>	Sustaining biodiversity post-fire: building safe houses for biota in the ashes, Chris R. Dickman	Discussion	

**Tuesday, November 30**

**Networking Activities**

**5:00-6:00pm Eastern: SAFE Meeting and Trivia**

SAFE (Student Association for Fire Ecology) will be hosting a short national meeting followed by a trivia game. Test your knowledge of fire ecology, management, and firefighting operations. You do not need to be a SAFE member to attend; all students are welcome!

**6:30pm-7:00pm Eastern: 1<sup>st</sup> time Congress Attendees Welcome with Q&A**

**7:00-8:00pm Eastern: Meet the Exhibitors and Passport Contest**

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Wednesday, December 1						
11:00am - 12:40pm Eastern Standard Time				Concurrent Sessions (Block 4)		
	<p><b>Inter-relationships Between Invasive Plants and Fire Management</b></p> <p>Special Session Organizer: Matt Brooks Moderator: Zachary Prusak</p>	<p><b>Frontiers of post-fire tree regeneration in a rapidly changing landscape</b></p> <p>Special Session Organizer/Moderator: Jeff Kane and David Greene</p>	<p><b>*Increasing social and ecological resilience to wildfire risk: The role of collective action</b></p> <p>Special Session Organizer/Moderator: Maureen Essen and Daniel Williams</p>	<p><b>General Session: Fire History</b></p> <p>Moderator: David Godwin</p>	<p><b>Coupled Fire Atmospheric Modeling: Advances, Applications, and Opportunities</b></p> <p>Special Session Organizer/Moderator: J. Kevin Hiers</p>	<p><b>Assessing wildland fuels and fire effects using high-resolution remote sensing</b></p> <p>Special Session Organizer/Moderator: C. Alina Cansler</p>
11:00am	<p>Altered Fire Regimes and Invasive Species: A Wildland Fire Management Conundrum, Michele Crist</p>	<p>Climate drivers of post-fire conifer regeneration across the western US, Kimberley Davis</p>	<p>Wildfire as a collective action problem, Susan Charnley</p>	<p>Revisiting the Fire History of Itasca State Park and the Upper Mississippi River Headwater Region, Dan Brumm</p>	<p>CFA tools: opening doors from fire research to prescribed fire applications, Rod Linn</p>	<p>High resolution remote sensing: accelerating wildland fuels research, Russ Parsons</p>
11:20am	<p>Invasive plant management with a core strategy to slow the spread and limit fuel to wildland fire, Lindy Garner</p>	<p>Legacy effects of past fires on post-fire tree regeneration: lessons from Lassen Volcanic National Park, California, Lucas B. Harris</p>	<p>Improving wildfire management outcomes: Shifting the paradigm of wildfire from simple to complex risk, Maureen Essen</p>	<p>Using the Past and the Present to Understand the Historical Role of Fire in Sagebrush Habitats of the Gunnison Sage-Grouse, Petar Simic</p>	<p>The FDS tool suite: Exploring tradeoffs in computational speed and physical fidelity in CFA models, William (Ruddy) Mell</p>	<p>Vegetation characterization across topographic gradients in a frequently burned Piedmont Forest in Georgia, USA, E. Louise Loudermilk</p>
11:40am	<p>Effects of Wildfire Suppression Tactics on Invasive Plants, Garrett Dickman</p>	<p>Drivers of postfire tree regeneration in a dry conifer forest of the Southern Cascades, California, Dani Niziolek</p>	<p>From Checkers to Chess: Using Social Science Lessons to Advance Wildfire Adaptation Processes, Travis Paveglio</p>	<p>Implications of fire history for conservation of fire adapted pines on Sideling Hill, Maryland, USA, Gabriel D. Cahalan</p>	<p>Establishing canonical test cases for coupled fire-atmospheric modeling, J. Kevin Hiers</p>	<p>Spatial distribution modeling of eucalypt bark traits significant to fire behaviour in SE Australian forests, Kathryn Fuller</p>
12:00pm	<p>Management of annual grasses in recently burned areas, Matthew W Germino</p>	<p>Quaking aspen regeneration following high severity prescribed burns in the mountains of central Utah, Michael Toolan</p>	<p>Clinical solutions to wicked problems: A place-based perspective on forest and wildfire governance, Daniel R. Williams</p>	<p>Tree-ring records reveal past fire regimes in a Gulf Coast longleaf pine savanna, Jean Huffman</p>	<p>Smoke modeling as part of a coupled-fire atmospheric modeling tool suite, Scott Goodrick</p>	<p>A spatially explicit tree crown-based approach to estimate litter surface fuels in fire-maintained pine forests in the Southeastern US, Nuria Sánchez López</p>
12:20pm	<p>Concepts and tools to integrate invasive plant management into Fire Management Plans, Greg Eckert</p> <p>12:35pm Invasive Plants and Wildland Fire – Special Session Summary and Next Steps, Mike Zupko</p>	<p>Vegetation changes along a gradient of burn severities in the Cross Timbers of Oklahoma, Michael Stambaugh</p>	<p>Variation in cross-boundary collective action to address wildfire across forest ecoregions, Gretchen Engbring</p>	<p>Re-examining historical fire regimes in the western Cascades of Oregon and Washington, Andrew Merschel</p>	<p>Using advanced modeling tools to further fuel hazard reduction and restoration treatments, Justin Ziegler</p>	<p>Advanced methods for large scale multi-layer fuel load characterization in forest and savanna ecosystems using NASA's GEDI spaceborne lidar system, Rodrigo Leite</p>
12:40pm	Break					

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Wednesday, December 1						
1:00pm - 2:40pm Eastern Standard Time				Concurrent Sessions (Block 5)		
	<p><b>Getting into the Weeds: Fire, Invasive Plants and Disturbance Interactions</b></p> <p>Special Session Organizer/Moderator: Becky Kerns</p>	<p><b>Frontiers of post-fire tree regeneration in a rapidly changing landscape</b></p> <p>Special Session Organizer/Moderator: Jeff Kane and David Greene</p>	<p><b>Increasing social and ecological resilience to wildfire risk: The role of collective action</b></p> <p>Special Session Organizer/Moderator: Maureen Essen and Daniel Williams</p>	<p><b>*General Session: Ecosystem Services</b></p> <p>Moderator: Kevin Robertson</p>	<p><b>Coupled Fire Atmospheric Modeling: Advances, Applications, and Opportunities</b></p> <p>Special Session Organizer/Moderator: J. Kevin Hiers</p>	<p><b>Assessing wildland fuels and fire effects using high-resolution remote sensing</b></p> <p>Special Session Organizer/Moderator: C. Alina Cansler</p>
1:00pm	Annual grass invasion is associated with large wildfires in the interior northwestern US, Ty Nietupski	Topographic and climatic controls on post-fire planted seedling establishment in the southwestern US, Matthew Hurteau	Shifting wildfire operations in the face of the COVID-19 global pandemic, Erin Belval	Effect of the prescribed burnings and silvopasture on the carbon in the soil fractions in Galicia (NW Spain), María Rosa Mosquera-Losada	Re-envisioning firefighter training with 3D physics-based fire models, Russ Parsons	Observing pattern-process interactions: a fuel treatment-prescribed fire experiment utilizing UAS and thermal imagery, Chris Moran
1:20pm	The human-grass-fire cycle: How people and invasives co-occur to drive fire regimes, Emily Fusco	The contribution of planted trees to tree regeneration in the Western Sierra Nevada, CA, Tara Ursell	Assessing wildfire risk management networks for potential to foster collective action, Max Nielsen-Pincus	Effects of Prescribed Burning on Soil Water Infiltration Physical Properties in East Texas, Cassidy Pennington Dunson	Capturing the sensitivity of fire spread to small perturbations in atmospheric conditions using a computational fluid dynamics model of wildfire behavior, Alex Jonko	Assessing the utility of multi-temporal digital aerial photogrammetry in determining fire-caused forest structure change, Saba J Saberi
1:40pm	Burn severity and fuel connectivity are mechanisms of the annual grass fire-cycle, Adam L. Mahood	Microsite and site level drivers of planted seedling survival and growth, Laura AE Marshall	Why wildfire is an increasingly transboundary problem: Addressing barriers to collaboration and aligning institutional objectives to improve wildfire governance, Brett Alan Miller	Impacts to Greenhouse Gas Emissions Following Fuel Treatments in California, Christopher Dicus	Using Ecosystem Process Models to Inform Fire-Atmosphere Models, E. Louise Loudermilk	Using high fidelity lidar to examine fire-induced changes in forest structure and mortality at a fine scale, Jonathan Kane
2:00pm	Forecasting rangeland fuels and the impact of invasive annuals, Matthew C. Reeves	How serotiny (on-plant seed storage) can help trees survive a drying, increasingly fireprone climate, Byron Lamont	Developing a Library of Community Wildfire Protection Plans as a Tool to Understand Boundary-Crossing Collective Action, Matthew Hamilton	Modeling landscape dynamics in the Central Sierra Nevada mountains to support conservation finance, Sam Flake	Just above the ground, Kara Yedinak	Discussion
2:20pm	Feeding the fire: Modeling annual grass invasion in a forest-mosaic landscape, Claire Tortorelli	Increased fire and the decline of fire adapted black spruce in the boreal forest, Jennifer Baltzer	Interagency Hotshot Crews views of new practices developed to address COVID-19, Erin Belval	Forest response to future climates: calibrating a simulation model for the Sacramento Mountains, NM, Gaby Ayres	FastFuels: a 3D fuel modeling system opening doors to next generation fire modeling, Russ Parsons	
2:40pm	Break					

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**Wednesday, December 1****1:00pm - 2:40pm Eastern Standard Time**

Moderator: David Godwin, Southern Fire Exchange

- 1:00pm – 1:40pm: Landscape Level Fire Restoration in Banff National Park, Jane Park, Parks Canada
- 1:40pm – 2:40pm: Evolution of Wilderness Fire in the Northern Rockies: From Fire Control to Fire Management, Vita Wright, Northern Rockies Fire Science Network

**Wednesday, December 1****3:00pm - 4:40pm Eastern Standard Time****\*Plenary Session****Plenary Session**

Welcome Back

- Morgan Varner, Fire Congress Chair, Tall Timbers

Keynote Speakers

- Prescribed Fire Science: tools and research that we needed yesterday, J. Kevin Hiers, Wildland Fire Scientist Tall Timbers Research Station, USA
- Bridging theoretical and applied science to address pressing questions on global fire, Sally Archibald, Professor, School of Animal Plant and Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa

AFE Lifetime Achievement Awards

- Stoddard Award
- Biswell Award

**3:00pm****4:40pm**

Break

**Wednesday, December 1****5:00pm - 6:40pm Eastern Standard Time****Concurrent Sessions (Block 6)**

	<b>*Actions for sustaining biodiversity in fire-prone ecosystems</b> Special Session Organizer/Moderator: Luke Kelly	<b>Bayesian modeling and causal inference in wildfire risk assessment</b> Special Session Organizer/Moderator: Matthew Thompson	<b>General Session: Fuels Management</b>
<b>5:00pm</b>	Scenario planning for social-ecological fire management, Kate Giljohann	Prescribed fire decision support under a science-management integration framework: collaborative development of Bayesian networks and trade-off optimization, Lars Y. Pomara	Mapping fuel dynamics with airborne lidar and field observations in Kaibab National Forest, Arizona, Benjamin C. Bright
<b>5:20pm</b>	Using fire to enhance rewilding when agricultural policies fail, Adrián Regos	Strengthening Bayesian networks using empirical data and correlation analysis, Danny C. Lee	Canopy Bulk Density Estimation of Scots Pine and Black Pine in the Netherlands, Jade Buckley
<b>5:40pm</b>	Drivers of understory plant communities in Sierra Nevada mixed conifer forests with pyrodiversity, Kate Wilkin	Reflections on Bayesian analysis to support landscape ecological risk assessment in the Upper Grande Ronde Watershed, Wayne G. Landis	LiDAR quantifies coarse woody fuels that complicate prescribed burning after wind disturbance, Andrew W Whelan
<b>6:00pm</b>	Forgotten experts in our midst: Traditional Indigenous knowledge and managing changing cerrado landscapes with fire in Central Brazil, James R. Welch	Bayesian Networks in Australian Fire Management - A decade of wins and near misses, Trent Penman	Can targeted browsing by goats increase the longevity of fuel treatments in a mixed conifer forest?, Emily Yurcich
<b>6:20pm</b>	Moving from Sisyphus to an Aikido relationship with wildfire management, Dominick DellaSala	Discussion	Reconstructing the Spring Hill Wildfire and Exploring of Alternate Management Scenarios with QUIC-fire, Michael R. Gallagher

**Wednesday, December 1****Networking Activities****5:00pm-6:00pm SAFE Career Panel and Discussion**

SAFE will be facilitating a fire-focused career panel open to anyone. Panel members will include professionals from research, ecology, management, and operations. Stop by to hear potential career paths and ask any questions you have!

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Thursday, December 2 11:00am - 12:40pm Eastern Standard Time							Concurrent Sessions (Block 7)
	Getting into the Weeds: Fire, Invasive Plants and Disturbance Interactions Special Session Organizer/Moderator: Becky Kerns	Frontiers of post-fire tree regeneration in a rapidly changing landscape Special Session Organizer/Moderator: Jeff Kane	Post-fire tree mortality: understanding and modeling tree death and improving decision support Special Session Organizer/Moderator: Sharon Hood	The Nexus of Climate Change and Fire: Taking Science to Action Special Session Organizer/Moderator: Molly Hunter	*Advances and Challenges for Indigenous Fire Stewardship Special Session Organizer/Moderator: Don Hankins	The role of fire across U.S. oak forest ecosystems: sharing varied ecologies to realize unifying themes Special Session Organizer/Moderator: Michael Stambaugh and Joseph Marschall	
11:00am	Fire and Invasive Plants in Alaska's Boreal Forest, Katie Spellman	Too Soon? Evidence of declining post-fire regeneration in reburned serotinous forests, Michelle Agne	Tree crown injury from wildland fires: Causes, measurement, and ecological and physiological consequences, Morgan Varner	Introduction to the Special Session on Climate Change, Paul Steblein	Cultural burning promotes landscape scale pyrodiversity, Kira Hoffman	The role of fire across U.S. oak forests ecosystems: sharing varied ecologies to realize unifying themes: Northeast US and Canada, Daniel Dey	
11:20am	Wildfire and grass invasion under a changing climate in the Hawaiian Islands, Alyssa Anderson	Forest invasion of chaparral as a function of pre-fire tree density and stand porosity, Sean Lindley	The role of xylem hydraulics in post-fire tree physiology, Andreas Bär	A national scale look at changing fire regimes: Prediction and uncertainty quantification of continental-scale fire regimes using downscaled ensembles, Adam Terando	National Indigenous Fire Working Group in Canada, Amy Cardinal-Christianson	The role of tree-fire feedbacks in diminishing flammability of oak forests of the Central Hardwood Region, Heather D. Alexander	
11:40am	Plant invasion and drought interact to alter the effects of fire in the longleaf pine ecosystem, S. Luke Flory	Seed production of serotinous species, David F. Greene	Effects of fire on tree hydraulics and carbon processes, Daniel M Johnson	Panel Discussion: The role of agency partnerships in addressing climate adaptation in the context of changing fire regimes  Moderators: Ed Brunson and Molly Hunter	FireSticks Alliance: new initiatives, Victor Steffenson	Southeastern USA oaks: Traits for persistence in diverse fire regimes, Morgan Varner	
12:00pm	Wildfire, plant invasion, and future climate change: results from wildfire simulation, John B. Kim	Facultative serotiny: an alternative mechanism for regeneration in conifers following stand-replacing fires, Jeff Kane	Experimental Examination of the Heat-Plume Hypothesis of Tree Death, William A. Hoffmann		Indigenous Fire Progress in California, Don Hankins	Fire regimes for restoring black oak ( <i>Quercus kelloggii</i> ) in mixed hardwood and conifer forests of California, Eric Knapp	
12:20pm	Barriers to building resilient forest landscapes in the presence of weeds, Becky K. Kerns	Discussion	Post-Fire ecophysiological processes: a multidisciplinary approach, Giovanna Battipaglia		How do you get to family-based burning?, Frank Lake	Conifer encroachment and drought resistance in Oregon white oak woodlands, Rosemary Sherriff	

Thursday, December 2 11:00am - 12:40pm Eastern Standard Time		Fire Circle Discussions
11:00am	Joint Fire Circle: Simulations and Modeling, Alex Dye and Nick Skowronski	
12:40pm	Break	

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Thursday, December 2 1:00pm - 2:40pm Eastern Standard Time							Concurrent Sessions (Block 8)
	General Session: Human Dimensions	General Session: Restoration and Ecosystem Resilience Moderator: Susan Prichard	Post-fire tree mortality: understanding and modeling tree death and improving decision support Special Session Organizer/Moderator: Sharon Hood	The Nexus of Climate Change and Fire: Taking Science to Action Special Session Organizer/Moderator: Molly Hunter	*Advances and Challenges for Indigenous Fire Stewardship Special Session Organizer/Moderator: Don Hankins	The Fire Learning Network: 20 years of Advancing Collaborative Fire Practices in the U.S. Special Session Organizer/Moderator: Emily Hohman	
1:00pm	Fire Science Information Needs of Southeastern Cooperative Extension Professionals, Hope Miller	What is a disturbance, and why does it matter?, Kevin M. Robertson	The Fire and Tree Mortality database: Development, data representativeness, considerations for use, and new data contributions, C Alina Cansler	Incorporating plausible future scenarios into land management: Challenges, science needs, and examples of leveraged science, Rachel Loehman	Burning for people, wildlife, and landscapes: Modeling cultural fire regimes in the California Klamath Mountains, Skye M. Greenler	Building social license for fire through local community engagement, Ben Wheeler	
1:20pm	Reddit Ask Me Anything: A tool for public communication, Laurel Kays	Slowed obligate seeder recovery post-fire in dozer lines, Hannah Weinberger	Does climatic stress increase post-fire mortality for common North American conifers?, Phil van Mantgem	Incorporating cultural burning and other Indigenous land management practices into the prescribed fire portfolio for climate adaptation, Frank K. Lake	Panel Discussion: Support from Non-Indigenous partners  Moderator: Mary Huffman	Empowering California Landowners with Prescribed Burn Associations, Lenya Quinn-Davidson	
1:40pm	Wildfire risk and crisis communication to enhance communities' resilience: evidences from Portugal, Fantina Tedim	Aspen seedling establishment is widespread following recent fires in the western U.S., Mark Kreider	Importance values of crown and bole injury for tree mortality change with time since fire in eight western USA conifers, Tim Shearman	Panel Discussion: Manager and practitioner needs and activities in response to adaptation to changing fire regimes		Cross boundary planning using the PODs framework, Michael Caggiano	
2:00pm	IGNIS: A tool for citizen reporting of forest and grassland fires in the State of Guanajuato, Mexico, Iván Eduardo Alonso Ramírez	Mechanisms of forest resilience, Don Falk	Area ancient giant sequoia resilient to changing fire regimes?, Kristen Shive	Moderators: Kevin Hiers and Molly Hunter		Collaboration for restoration action in the Central Appalachian Mountains, Sam Lindblom	
2:20pm	Nutrient intake of wildland firefighters during arduous wildfire suppression: Macronutrient and micronutrient consumption, Samantha Brooks	Break	Translating error into ecology: What uncertainty in satellite-derived fire severity maps can tell us about fire effects, Tucker Furniss			Discussion	

Thursday, December 2 1:00pm - 2:40pm Eastern Standard Time		Fire Circle Discussions
1:00pm	<ul style="list-style-type: none"> <li>The role of fire across U.S. oak forest ecosystems: sharing varied ecologies to realize unifying themes, Michael Stambaugh and Joseph Marschall</li> <li>Joint Fire Circle: Information Needs for the Management of Fire and Invasive Species, Matt Brooks and Becky Kerns</li> </ul>	
2:40pm	Break	

\* Indicates this session will have live Spanish and Portuguese interpretation

**Thursday, December 2****3:00pm - 4:30pm Eastern Standard Time**

Posters will be available for viewing any time after event begins; speakers will be available for questions and discussion during poster session

#	Presentation Title	Name of Presenter
1	A modern fire history reconstruction for Quetico Provincial Park (Ontario, Canada)	Walter (Jared) Stachiw
2	Carbon consequences and reburn potential following forest fires in western Cascadia: influence of stand age and burn severity	Jenna E. Morris
3	Characterizing salvage logging following wildfire with multi-temporal remote sensing in western Oregon, USA	Aaron Zuspan
4	Continued short-interval reburning changes fuel structures of Boreal forests	Katherine Hayes
5	Contrasting the impacts of wildland fire and campfires on archeological materials to better understand the ancient social-ecological roles of fire	Kyra E. Johnson
6	Disturbance and climate drivers of conifer regeneration following stand-replacing wildfire in western Cascadia, USA	Madison M. Laughlin
7	Early Emergers: Hydrologic drivers of post-fire fungal and plant regeneration in Rocky Mountain Front Range	Michael McNorvell
8	Effect of fire severity and time since fire on the diversity $\beta$ of terrestrial arthropods in a temperate forest	Daniel Alejandro Cadena Zamudio
9	Effects of Fire Seasonality on Forest Structure and Bird Populations in the Southern Appalachians	Allison Melcher
10	Effects of soil moisture on windfirmness in hurricane prone and fire adapted pine species using experimental tree winching	Hunter Scully
11	Equipment for monitoring soil parameters affecting the forest fuel dryness	Bazarova Aryun
13	Evaluating the utilization of 3D physics-based fire models in conjunction with terrestrial remote sensing data	Zane Cooper
14	Examining changes in surface wildland fuels post-disturbance using handheld mobile laser scanning	Alanna Post
15	Expanding contemporary reference sites in the Sierra Nevada to characterize fine-scale structural patterns of forest resilience	Caden Chamberlain
16	Exploring the use of terrestrial laser scanning in evaluating change in plot-level aboveground biomass following wildfire	Paul David Bacchi
17	Extreme heat events alter community structure in burned landscapes	Megan E. Spina
18	Fire management in the face of rapid climate change: a case study of the Yukon Flats National Wildlife Refuge	Abigail Hicks
19	Fire severity, frequency impact arthropod diversity in pine-oak forests	Julia DeFeo
20	Fuel treatment effects on fuels and modeled fire behavior in high elevation forests, Utah, USA	Kipling Klimas
21	Google Earth Engine: Data and Information from the Cloud to Your House	Isaac Arroyo
22	Identifying time- and workload-dependent errors in wildland fire dispatcher performance	Jennifer J Harrell
23	Laying the groundwork: Drivers of post-fire early-seral forest community trajectories in western Cascadia	Liliana K. Rangel-Parra
24	Linking canopy structure and composition with fire behavior in mountain longleaf restoration	Collin Anderson
25	Mathematical modeling of heat and mass transfer processes in a forest fuel element using parallel computing technologies	Viktoriya Kirienko

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26	Micrometeorological sensing of nocturnal temperature inversions in southeastern pine systems	Gunnar C. Ohlson
27	Modeling needle fuel dispersal in longleaf pine-dominated forests	Suzie Blaydes
28	Operationalizing the predictive mapping of wildfire severity using Google Earth Engine in the Canadian Rockies ecoregion	Mitchell Lazarz
29	Parallel implementation of the problem of the impact of radiation from a forest fire front on infrastructure facilities near the WUI	Aleksey Olegovich Malinin
30	Post-fire forest recovery across an elevational gradient in southern Colorado	Amanda Hastings
31	Prescribed and wildfire have different effects on tree population dynamics in the southeastern U.S.A.	Rashelle H. Deak
32	Pyrogenic Carbon in a Southeastern Pine Plantation: What is Leaching from Soils?	Ali Moss
33	Patterns of Vegetation Cover in Fire-Prone Ecosystems in the Netherlands	Lauren Lara
34	Reboot of the North Atlantic Fire Science Exchange's 'Virtual Fire Lab for Students' unites a global community of wildland fire students through the Covid-19 pandemic	Kathryn Fuller
36	Snagging Drought Mortality using high resolution lidar and imagery	Liz van Wagtenonk
37	Spatial quantification of shortleaf pine and loblolly pine hybridization in East Texas using chromatography and GIS	Gary R. White, Jr.
38	The effect of fire season on understory plant reproduction in a pine savanna	Mary Nell Armstrong
39	Turning up the Heat: Effects of Climate-Adaptive Silviculture on High-Intensity Prescribed Burns in Longleaf Pine	George Jensen
40	Understory vegetation recovery following wildfire in the Southern Rocky Mountains	Kate Weimer
41	2020 Colorado Wildfires: tree regeneration 1 year post-fire	Marin Chambers
42	A history of recurrent, low-severity fire without fire exclusion in southeastern pine savannas, USA	Monica Rother
43	Creation of GIS layers for studying the occurrence of forest fires on the example of Zaigraevsky district of the Republic of Buryatia, Russian Federation	Roman Sychev
44	Dominant bunchgrass structure affects soil heating patterns	Carolina Baruzzi
45	Ensuring Air Force mission capability	Kelley Anderson
46	Fire history of a former eastern white pine ( <i>Pinus strobus</i> ), pitch pine ( <i>P. rigida</i> ), and American chestnut ( <i>Castanea dentata</i> ) forest on the Allegheny Plateau in northwest Pennsylvania, USA	Joseph M. Marschall
47	Fire influence on central and eastern grasslands of the United States	Brice Hanberry
48	Fire management benefits flora in Ozark glade and woodland habitat	Jamie Ladner
49	Firedpy: Fire event delineation for anywhere on earth from the MODIS burned area product	Adam L. Mahood
50	Forest fires in Buryatia: causes, consequences, importance of the problem	Ignateva Anna Vladimirovna
51	Grass invasion and post-fire <i>Acacia koa</i> regeneration in Hawaii Volcanoes National Park	Nathan Gill
53	Human Behavior and Climate Co-regulate Fire Synchrony and Its Spatial Clustering in Alberta's Southern Canadian Rocky Mountains	Erana Jae Taylor
54	Integrated fire management in the Atlantic Forest: challenges and opportunities	Henrique LT Zaluar
55	Integrated Wildfire Hazard Real-Time Forecast	Andrea Markos

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56	Linking public health with forest restoration: reducing tick-borne disease through prescribed burning	Michael R. Gallagher
57	Monitoring Trends in Burn Severity (MTBS) in the Southeastern US 1984-2020	Seth Bogle
58	Planning resilient forest treatments using airborne lidar data	Bryce Bartl-Geller
59	Prescribed Fire in the campos de altitude of the Atlantic Forest in Southeastern Brazil	Marcelo Souza Motta
60	Sonoran Desert scrub in the Fire Effects Information System (FEIS): Fire regimes, introduced buffelgrass, and implications for saguaro persistence	Olga Helmy
61	Syntheses about fire ecology and management of three Centaurea species in the Fire Effects Information System (FEIS)	Robin Innes
62	Trends in Western US fire fuels using historical data and modeling	Gabrielle Boisrame
63	What fire regime promotes Douglas-fir woodlands?	Brice Hanberry
64	Interannual climate variability mediates changes in carbon and nitrogen pools caused by annual grass invasion in a semiarid shrubland	Adam L. Mahood
65	The Temporal Window for Post-Fire Sexual Reproduction by Conifers	Kelsey Fletterick
66	Environmental Education in Integrated Fire Management: Context, Implementation, and Perspectives	Ricardo Augusto de Souza Ayres Lopes

Thursday, December 2		Networking Activities
	<p><b>5:00pm – 5:30pm AFE Annual Members Meeting/ Open House</b>                  Pop in and say hello, especially if you have questions about AFE membership, interest in becoming more active with various committees, suggestions for how to make AFE’s fire education efforts even more effective, or just want to learn more about AFE initiatives. We would also like to hear from current student (SAFE) members – how can we serve you better? This will be an informal drop in opportunity, monitored by AFE Membership Committee Chair, Eric Knapp. A few minutes of your time could go a long way.</p> <p><b>5:30pm: We've got Movie Sign!</b>                  You may know your LCES....but do you know your MST3K? For this session, sit back with your favorite beverage and enjoy some riffing on a few classic public domain fire videos in the Mystery Science Theater 3000 style. After this, you'll add a new Watch Out....for laughs!</p>	

Thursday, December 2		Fire Circle Discussions
5:00pm – 6:40pm Eastern Standard Time		
5:00pm	Fire Circle: Actions for sustaining biodiversity in fire-prone ecosystems, Luke Kelly	

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Friday, December 3 11:00am - 12:40pm Eastern Standard Time							Concurrent Sessions (Block 9)
	<b>General Session: Human Dimensions</b>	<b>General Session: Biodiversity</b> Moderator: Kevin Robertson	<b>Post-fire tree mortality: understanding and modeling tree death and improving decision support</b>  Special Session Organizer/Moderator: Sharon Hood	<b>The Nexus of Climate Change and Fire: Taking Science to Action</b>  Special Session Organizer: Molly Hunter  Moderator: Karen Dante-Wood	<b>Fine fuel physics: measurement and models of moisture and flammability in 1-hr fuels</b>  Special Session Organizer/Moderator: Seth W. Bigelow	<b>*Wilderness for science: multidisciplinary perspectives on the causes and consequences of active fire regimes</b>  Special Session Organizer/Moderator: Andrew J Larson	
11:00am	The Value of Prescribed Burning in Northeastern Forests, Arun Regmi	Effects and implications of fire on pinyon-juniper woodland bird communities, Jamie Woolet	Long-term tree mortality and growth after fire, Sharon M. Hood	Case studies of advancing application of new science to address changing prescribed fire management opportunities: The role of partnerships and boundary organizations in the Southeast, John Kupfer	Live fuel flammability: why everything we thought we knew was wrong, Sara McAllister	Wilderness for fire science: how protected areas help scientists better understand fire regimes, Sean Parks	
11:20am	Passage of a prescribed burning act in New Mexico, Doug Cram	Prescribed fire effects on White-tailed deer ( <i>Odocoileus virginianus</i> ) browse quality in the Pineywoods of Texas, Wyatt Bagwell	Linking 3D fire behavior predictions to fire effects, Chad M Hoffman	Effects of Changes to the Fire Regime of the northern Sonoran Desert, Mary Lata and Molly Hunter	Progress on measuring and modeling preignition processes in live foliage, David R. Weise	Snowpack, soil moisture, and streamflow in Sierra Nevada watersheds with frequent wildfire, Gabrielle Boisrame	
11:40am	The art of ranching with fire: Social and ecological factors affecting the spread of pyrodiversity in ranching communities, Ryan Wilbur	A beetles-eye view of early seral forests: Does forest harvest emulate wildfire disturbance for ground beetle communities in the Pacific Northwest?, Graham Frank	Incorporating Delayed Mortality into Burn Severity Mapping, Matthew J. Reilly	The North Yuba Forest Partnership: kick-starting collaborative restoration with new prioritization tools and private investment, Hugh Safford	Flammability and moisture dynamics of northeastern US tree species: the potential role of leaf litter traits in fire-vegetation feedbacks, Jesse Kreye	Debris flows and the link between wildfire and salmon spawning habitat in the Middle Fork Salmon River, Greg Jacobs	
12:00pm	Results and Recommendations from the Prescribed Fire Training Survey, Laurel Kays	An Emerging Framework for Microbial Fire Ecology, Thea Whitman	SpatialFOFEM: A tool for modeling fire-caused tree mortality at landscape scales, Duncan Lutes	Improving wildfire management decision-making for the Yukon Flats National Wildlife Refuge: A case study of boundary organizations and partnerships in Alaska, Sarah Trainor and Jeremy Littell	Stand conditions alter seasonal microclimate and dead fuel moisture in a northwestern California oak woodland, Jeff Kane	A synthesis of stream-riparian ecosystem response to fire in wilderness areas of the Central Rockies and Sierra Nevada, Breeanne K Jackson	
12:20pm	Burning with research and training objectives: a field station case study, Andrew Rappe	Fire regimes and vegetation structure predict flower abundance and pollinator habitat use in fire-maintained pine savannas, Johanna Freeman	Next Generation IT Fire Modeling, Reggie Goolsby	Drought, wildfire, and forest loss: Hotspots and potential impacts in the Washington East Cascades, Garrett Meigs	Modeling fine dead fuel moisture in a saw palmetto ( <i>Serenoa repens</i> ) dominated understory: statistical adventures in cross-correlations, Christina Staudhammer	Good fire: managed fire and pyrodiversity promote spotted owl conservation in the Sierra Nevada, CA, Gavin Jones	
12:40pm	Break	Break	Break	Break	Transient fine fuel moisture dynamics in southeastern USA: from measurements to models, Scott Pokswinski	Break	

Friday, December 3 11:00am - 12:40pm Eastern Standard Time		Fire Circle Discussions
	– Advances and Challenges for Indigenous Fire Stewardship, Mary Huffman and Frank Lake	

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Friday, December 3 1:00pm - 3:00pm Eastern Standard Time							Concurrent Sessions (Block 10)
	General Session: Fire Ecology and Effects Moderator: Emily Yurcich	*General Session: Fire Behavior	General Session: Fire Severity	General Session: Fire Management Planning and Policy	General Session: Landscape Fire Management Moderator: Susan Prichard	Wilderness for science: multidisciplinary perspectives on the causes and consequences of active fire regimes Special Session Organizer/Moderator: Andrew J Larson	
1:00pm	Persistent composition legacy and rapid structural change following successive fires in Sierra Nevada mixed conifer forests, Asha Paudel	AFIRE database: an approach to the global knowledge of plant flammability, Korina Ocampo-Zuleta	Northern California Fire Severity Mapping Project, Stacy A Drury	Marin County Community Wildfire Protection Plan, Charles Scarborough	Fire-weather Drivers of Severity and Spread: Learning from Past Fire Patterns to Inform Future Wildfire Decision Making, Stephanie Mueller	The Role of People and Fire in Shaping the Pristine Forests of the Boundary Waters Canoe Area Wilderness, Evan Larson	
1:20pm	Expansion and population structure of transplanted <i>Aristida beyrichiana</i> (wiregrass) tussocks: results of a 37-year study, Kevin M. Robertson	Junction Fires on Sloped Terrain, Jacky Fayad	Monitoring Trends in Burn Severity (MTBS) Data Explorer, Seth Bogle	What can we learn from the single-family homes that survived the 2018 Camp Fire in Paradise, California?, Yana Valachovic	High-severity fire incidence higher both on and near industrially managed forests, Jacob Levine	Effects of historical high-severity fire on forest structure in the Selway Bitterroot Wilderness, Melissa Jaffe	
1:40pm	Seasonality of prescribed fire in the southern Appalachians, USA, Matthew C. Vaughan	Quantifying fuel characteristics and potential fire behavior along ecological gradients in aspen stands, Kristin A. Nesbit	Plot-level burn severity prediction with terrestrial laser scanning and machine learning, Michael R. Gallagher	Designing for Wildfire on the Colorado Front Range: A Landscape Architecture Approach, Jacob Heydorn Gorski	Fuel Treatment Effectiveness in Utah, Brad Washa & Jamela Thompson	Long-Term Plant Community Responses to Managed Wildfire Across a Climatic Gradient in Montane Coniferous Forests of Grand Canyon National Park, AZ, Judy Springer	
2:00pm	Effects of silvicultural selection treatments on spatial pattern and dynamics in a longleaf pine ( <i>Pinus palustris</i> ) woodland: implications for management with fire, Jeffery B. Cannon	Methodology for consistent daily and sub-daily mapping of wildfire growth for 2003-2020 and beyond, Nathan Pavlovic	A comparison of Sentinel-2 and Landsat 8 for burn severity mapping in western North American forests, Alexander Howe	Evaluating a Methodology for Measuring Fireline Effectiveness, Rebecca Lemons	Restoration and fuel hazard reduction treatments result in equivalent reductions in potential crown fire behavior in dry conifer forests, Scott Ritter	Scientific contributions of wilderness fire management assessed through systematic review, Mark Kreider	
2:20pm	Using fire and thinning to restore open woodlands in the Ouachita National Forest, Virginia McDaniel	A fire behavior analyst's perspective on use of new, open-source near-term fire risk forecasting tools developed as part of the Pyregence Project, Taro Pusina	A new Fire Exposure and Recovery Index captures the effects of multiple reburns over space and time, Don Falk	Break	Long-term trajectories of fuels and stand structure in dry forests of central Washington, Don C. Radcliffe	Discussion	
2:40pm	Break	Extreme fire spread events, area burned, and climate in the western US, Jonathan Coop	Southwest regionally specific models for predicting burn severity, basal area change, and canopy cover change, Alicia Reiner	Break	Forest fires in western Cascadia: Drivers, characteristics, and indicators of post-fire resilience, Brian J. Harvey	Break	

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Friday, December 3 1:00pm - 2:40pm Eastern Standard Time		Fire Circle Discussions
1:00pm	<ul style="list-style-type: none"> <li>– The nexus of climate change and fire: taking science to action, Molly Hunter</li> <li>– Post-fire tree mortality: understanding and modeling tree death and improving decision support, Sharon Hood</li> </ul>	

Friday, December 3 3:00pm - 5:00pm Eastern Standard Time		*Closing Plenary Session
3:00pm	<p><b>Closing Plenary</b></p> <p>Welcome</p> <ul style="list-style-type: none"> <li>– Christopher Dicus, AFE President, California Polytechnic State University</li> <li>– Paul Hessburg, Incoming AFE President, USDA Forest Service</li> </ul> <p>AFE Special Awards</p> <p>Keynote Speakers</p> <ul style="list-style-type: none"> <li>– The changing role of fire in southern Europe landscapes, Paulo Fernandes, Associate Professor, CITAB, University of Trás-os-Montes and Alto Douro, Portugal</li> <li>– The light burns brightest in the dark: Inspirations from California's prescribed fire community, Lenya Quinn-Davidson, Area Fire Advisor, University of California Cooperative Extension, USA</li> </ul> <p>Closing Remarks</p> <ul style="list-style-type: none"> <li>– Morgan Varner, Fire Congress Chair, Tall Timbers</li> </ul>	

On-Demand Oral Presentations	
Available to view any time after start of event; speakers and attendees can interact through chat and/or video throughout the week as desired	
Presentation Title	Name of Presenter
A wildfire forecasting system to strengthen information systems for wildfire decision-making in Peru	Blanca Ponce
Adapting to wildland fire in rural Mediterranean social contexts	Kathleen Uyttewaal
After the fire is before the fire: Extending forest restoration to build resilience after wildfires	Elizabeth K Swanson
Assessing large-footprint lidar data to characterize wildland fire-relevant vegetation structure	Birgit Peterson
Canopies, the final frog-tier: Exploring the impacts of prescribed fire on a specialist treefrog in a pyrogenic ecosystem	Ian Biazzo
Changes in understory plant diversity following the alteration of burn regimes in the Pineywoods of East Texas	William Steinley
Divergence in the fire history of two mixed pine-oak forests: implications for prescribed fire and forest resiliency in the Central Appalachians	Tom Saladyga
Drivers, types, and management responses to vegetation type conversions in the US Southwest	Chris Guiterman
Dying a slow death: patterns of delayed overstory mortality following wildfire in the southern Appalachians	Brayden M. Williams
Effects of climate change on resilience of fire prone eucalypt communities	Harriet Simpson-Southward
Effects of Prescribed Burning on Butterfly Populations in Coastal South Texas	Rebecca Zerlin
Fanning flames or blowing smoke? Communicating clearly about resource benefit objectives in suppression firing operations	Timothy Ingalsbee
Fire danger classification models: a Peru case study	Harry Podschwit
Fire regimes in central Argentina: Can droughts trigger fires?	Sofia Sánchez

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Fire relationships with wildland-housing intermix, invasive species, and land classes	Brice Hanberry
FireWorks: Teaching wildland fire science to students, educators, and the public	Ilana Abrahamson
French Creek - A Resilient Forest Story	Frankie Romero
Fuel modelling characterization using aerial LiDAR	Aurora Ferrer Palomino
Going beyond Braun-Blanquet to reveal forest structure-species relationships	Chad Anderson
Implementation of greenhouse gas benefit quantification for a variety of forest management activities in a statewide program	ShihMing Huang
Increasing Pace and Scale of Prescribed Fire in the US Forest Service	Frankie Romero
Integration of unmanned aerial systems monitoring in structurally diverse forests	Laura Hanna
Factors contributing to legacy hardwood mortality following prescribed fire in Karuk Ancestral Territory	Heather Rickard
Leveraging technology to reduce cost and increase quality of wildfire detection & mapping	Erfan Chowdhury
Managed Wildfire, Drought, and Overstory Survival: A Case Study in the Ouachita Mountains of Arkansas	Virginia McDaniel
Management strategy influences landscape patterns of high-severity burn patches in the southwestern US	Jose M Iniguez
Modeled interactions of mountain pine beetles and wildland fire under future climate and management scenarios for three western US landscapes	Bob Keane
Peru's National Meteorological Service's role to support fire management	Diego Rodriguez Zimmermann
Pine savanna plant communities are resilient to 35 years of seasonal fire treatments	Raelene Crandall
Post-fire Recovery of Trees and Carbon Stocks One Year After Australia's 2019-20 Black Summer fires	Rachael Nolan
Potential impacts of future fires in western Cascadia: scaling spatial patterns of burn severity	Michele S. Buonanduci
Predictive indices from prescribed burns: How UAVs can improve our knowledge of drought stress before and after fires	Lauren Lad
Pre-fire ground fuel loadings drive fire energy in low and medium severity wildfire in California mixed-conifer forests	Joseph D. Birch
Spatial patterns of a ponderosa pine and subsequent regeneration following a moderate severity fire	Carolyn Hull Sieg
Spatiotemporal drivers of postfire conifer establishment and growth in a managed postfire landscape	Robert Andrus
Sustainable Fire Management and Carbon Sequestration in Kafue National Park, Zambia through collaborative Fire Management Exchanges: A Case Study	McRee Anderson and Irene Muthunka
The effect of fire severity and tree size on the survival of Afrotropical forest trees	Brandon Giddey
The false dichotomy of Green versus Black: Why understanding within burned area variability is critical for improving our understanding of fire effects	Joseph O'Brien
The North American tree-ring fire-scar network	Ellis Margolis
Understanding the contributions of nematode community structures in forest soil post-fire regeneration process: A review	Tesleem T. Bello
Wildfires of south-east Australia; old rules no longer apply	Dr Diana Kuchinke

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