

International Association of Wildland Fire  
**Rethinking the Global Wildfire Problem: Are we Focusing on the Right Problems and Right Solutions?**  
 15th International Wildland Fire Safety Summit & 5th Human Dimensions of Wildland Fire Conference  
 Renaissance Hotel Asheville, North Carolina - December 10-14, 2018

**PROGRAM SCHEDULE (December 1, 2018)**

<b>8:00 - 6:00</b>	<b>Registration Desk Open</b>		
	Swannanoa	Victoria	Alexander
	<b>Educational and Training Workshops</b>		
<b>9:00-11:00</b>		<b>12 O'Clock High Leadership: Lessons from the Cockpits of the Greatest Generation to the Fire Line</b>	<b>Courage to Be Safe® in the Wildland</b>
<b>11:00-1:00</b>	<b>Evaluation Methods in Fire Management: A Crash Course</b> Eric Kennedy, Asst Professor, Disaster and Emergency Management, York University	John Tippett, Director, Fire Service Programs, National Fallen Firefighters Foundation	Richard Best, Everyone Goes Home® Advocate Program Manager for the National Fallen Firefighters Foundation
<b>1:00-2:00</b>	<b>Lunch - on your own</b>		
	Swannanoa		
<b>2:00 - 6:00</b>	<b>Luck Runs Out</b> Mark Smith, Mission-Centered Solutions		
<b>6:00</b>	<b>Pre-Conference Gathering</b> Renaissance Asheville Hotel - Lobby Bar		
<b>Tuesday, December 11</b>			
<b>7:00-10:00 am</b>	<b>Exhibitor Set up (Grand Ballroom Salon A/B)</b>		
<b>7:30- 5:30</b>	<b>Registration Desk Open</b>		
	Grand Ballroom Salon C		
<b>8:30-9:00</b>	<b>OPENING REMARKS/WELCOME AND IAWF AWARDS</b> <b>Conference Co-Chairs</b> Toddi Steelman, IAWF Vice President, Stanback Dean of the Nicholas School of the Environment at Duke University and Sarah McCaffrey, Research Forester, USDA Forest Service		
<b>9:00-10:30</b>	<b>The Rise of the Phoenix: Gender Equity in Wildland Fire</b> Dr Christine Eriksen, Australian Centre for Culture, Environment, Society and Space, School of Geography and Sustainable Communities, University of Wollongong, Australia  <b>Gender, Race and Cultural Perspectives: Developing New Approaches to Being with Fire</b> <i>This panel will explore how/why inclusion of more diverse perspectives on fire, whether due to gender or race or cultural background, is critical for developing new perspectives of the problem and new approaches that will lead to better outcomes.</i> <b>Featuring:</b> Dr Christine Eriksen, University of Wollongong, Australia Mary Huffman, Indigenous Peoples Burning Network and Fire Science Don Hankins, California State University, Chico Department of Geography and Planning		
<b>10:30-11:00</b>	<b>NETWORKING BREAK with Exhibitors (Grand Ballroom Salon A/B)</b>		
	<b>CONCURRENT SESSIONS (rooms on the 2nd level)</b>		
	Swannanoa	Victoria	Alexander
	<b>Moderator: Matthew P. Thompson</b>	<b>Moderator: Tony Jarrett</b>	<b>Moderator: Travis Paveligio</b>
	<b>Firefighter Decision Making</b>	<b>Community Mitigation</b>	<b>WUI</b>
<b>11:00-11:20</b>	Managing Teams More Effectively During Large-Scale Emergencies Chris Bearman	Identifying barriers to proactive wildfire management in the wildland urban interface: community perspectives from British Columbia, Canada Sarah L. Ravensbergen	Exposure of Human Communities to Wildfire in Oregon and Washington, USA Joe H. Scott
<b>11:20-11:40</b>	When Risk Becomes Routine: An Introduction to Individual Risk Desensitization Elliot Nauert	The Impact of Different Measures of Homeowner Wildfire Preparedness Claire Rapp	Managing Wildfire Risk, Precipitation, and Transportation Infrastructure Andrew Fraser

11:40-12:00	Rethinking Mop-Up "Standards:" Challenges With Implementing New Approaches Riva Duncan	Assessing Public Health Interventions for Wildland Fire Smoke: Summary of Evidence Stasia Widerynski	Why Does Structure Loss to Wildfires Continue to Rise Despite Increasing Prevention Actions? David Shew
12:00-12:20	Design, Implementation and Evaluation Process of an Integrated Education Intervention to Address Psychosocial Risk Factors Across a Wildland Fire Season Caleb Leduc	Themes and Patterns in the Media's Coverage of Wildfires in the United States, Canada, and Australia: 1986 – 2016 Sarah McCaffrey	Southern Appalachian Large Wildfire Risks and the Evolving Non-resident Wildland Interface Steven P Norman
12:20-12:40	Cognitive Factors Influencing Human Decision Making for Wildland Fire Suppression Van V. Miller	Risk Communication: A summary of Lessons Learned in the Southwest and Northern Rockies Jayson Coil	Smoke and Transportation Safety: New Concepts and Tools to Predict Reduced Roadway Visibility Gary Curcio
12:40-12:50	Red Flag Warnings—do they adequately warn the public or support resource management Tim Brown	Moving From the Why to the How for Implementing Modified Wildfire Management Strategies Stephen D. Fillmore	Anthropogenic Fire Regimes in the Blue Ridge Mountains Cynthia Fowler
12:50-2:10	<b>Lunch (on your own)</b>		
	<b>CONCURRENT SESSIONS (rooms on the 2nd level)</b>		
	<i>Swannanoa</i>	<i>Victoria</i>	<i>Alexander</i>
	<b>Moderator: Kelsy Gibos</b>	<b>Moderator: Sarah McCaffrey</b>	<b>Moderator: Toddi Steelman</b>
	<b><i>Firefighter Safety</i></b>	<b><i>Community Evacuation</i></b>	<b><i>Co-Management</i></b>
2:10 - 2:30	How fast can you get to the safety zone? Crowdsourcing fitness tracker data to improve travel rate estimates Michael J. Campbell	Exploring Resident Understandings of the Three-Tier Evacuation Warning System for Wildfire in Central Idaho Catrin Edgeley	Evaluating the influence of local social context on the design of “pathways” for achieving Fire Adapted Communities Travis Paveglio
2:30 - 2:50	Applied In-Depth Leadership and Human Factors Research to Reduce Wildland Fire Fatalities Fred J. Schoeffler and Thomas Taylor	Approach to Using Human Behaviour in Fire to Inform WUI Community Evacuations Lauren Folk	Co-Managing for Complexity: New Tools Emerging from Complex Inter- jurisdictional Wildfires in 2017 and 2018 Toddi Steelman, Anne-Lise Velez, Branda Nowell, Ryan Scott, Daisy Mills and Honey Minkowicz
2:50 - 3:10	Diversity, Inclusion and Sector Change – an Australian national perspective Noreen Krusel	Community understandings and responses to bushfire warnings Josh Whittaker	Risk Management Assistance Teams Tim Sexton
3:10 - 3:30	Towards a Deeper Understanding of Injury Incidence, Mechanism and Type in Ontario Wildland Firefighters over a Five-Year Period, 2011-2015 Caleb Leduc	Examining private property owners' expectations for wildfire suppression and perceptions of local firefighting capacity Amanda Stasiewicz	Discussion
3:30-4:00	<b>NETWORKING BREAK with Exhibitors (Grand Ballroom Salon A/B)</b>		

				<b>Deep Dives/Panels</b>	
Swannanoa		Victoria		Alexander	
<b>Deep Dive: Why do we still not know how to prevent firefighter entrapments?</b>		<b>Panel Session: Wildfire Preparedness Education at All Ages</b>		<b>Panel Session Cognition, Complexity, and Fire: Governing in the "New Normal"</b>	
<b>4:00-5:30</b>	<p>Presenters Scott Elliott and Kelsy Gibos</p> <p>We're will not focus on the standard analysis of the fire environment related to firefighter deaths that tend to be definable instead we hope to pull apart and address some of the human dimensions of entrapment.</p> <p>We are not researchers- just practitioners who probably have the same questions as you... we did a bit of digging into the Wildfire Lessons Learned Center's entrapment reports and came up with some interesting observations that we'd like to share.</p>	<p>Moderator: Tom Welle Presenters: Faith Berry, Tony Jarrett and Lauren Thie</p> <p>Children and youth do not need to be passive bystanders when it comes to wildfire preparation and response.</p> <p>Collaborative work in many countries seeks to infuse wildfire preparedness education in schools to embed practices that will be part of solution to the wildfire problem in the future.</p> <p>The Panel will explore innovative practice involving Elementary and High School students in the United States and Australia.</p>	<p>Network Cognition in Co-Managing Complex Incidents Branda Nowell, Toddi Steelman, Anne-lise Velez, Kate Albrecht</p> <p>Managing Multi-Functional Landscapes at the Interface of Public Forests and Private Land: Exploring the Role of Cognitive Maps at Finding Common Ground among Diverse Stakeholders Eric Toman</p> <p>Moneyball for Fire Matt Thompson</p> <p>Conceptualizing complexity and trade-offs in a wildfire-prone social-ecological system Matt Hamilton</p>		
<b>5:30-6:30 Social Reception with Exhibitors (Grand Ballroom Salon A/B)</b>					
<b>7:00 Documentary Film: Uno de los Nuestros (one of Ours) (75 minutes)</b>					
<b>7:00 Afterhours Networking Packs Tavern</b>					
<b>Wednesday, December 12</b>					
<b>8:00-12:30 Registration Desk Open</b>					
<b>Grand Ballroom Salon C</b>					
<b>8:30-10:00</b>	<p><b>Why Are We Still Missing the Solutions to Keeping Firefighters Safe?</b> International perspectives from researchers and practitioners</p> <p><b>Featuring:</b> Michael T. DeGrosky, Chief, Fire Protection Bureau, Montana Department of Natural Resources &amp; Conservation Roger Strickland, Senior Instructor, Planned Burn Coordinator, Country Fire Authority, Victoria, Australia Scott Elliott, Wildfire Management Training Specialist, Hinton Training Centre, Alberta, Canada José Luis Duce Aragüés, Senior Scientist, Fire Management, Spatial Informatics Group Kelly Close, Battalion Chief, Poudre Fire Authority Christopher Dunn, Research Associate, Dept of Forest Engineering, Resources and Management, Oregon State University</p>				
<b>10:00-11:30 NETWORKING BREAK with Exhibitors and Poster Session (Grand Ballroom Salon A/B)</b>					
<b>Poster Presentations</b>	Fire Adapted Community Working Groups: Initiating resident and fire district buy-in - Michael S Beaudoin	Rapidly drying fuels in the western United States and adaptation options -Yongqiang Liu			
	Long-Term Ecological Monitoring: Fire Management for Future Forests Julia R. Chandler	Fire Management in a Natural Protected Area: Who are the Local Key Actors and How do they Interact? H. Leonardo Martínez-Torres			
	Building Social-Ecological Resilience to Wildfire in the Williams Lake Community Forest, British Columbia Kelsey Copes-Gerbitz	Check Your Heart: What Can Firefighter Do to Reduce Firefighter Deaths Statistics? Jerry McAdams			
	Moving From the Why to the How for Implementing Modified Wildfire Management Strategies Stephen D. Fillmore	Wildland fires across the United States: Spatio-temporal trends and impacts on air quality Ryan Michael			
	An exploratory study to understand the organizational public health response to wildfire smoke Mary Clare Hano	Mountain Wave Induced Extreme Wildfire Behavior: The Deadly Eastern Tennessee Fires of 2016 Steven P Norman			
	Prescribed Fire Management and Social Vulnerability at the Wildland-Urban Interface - Nicole C. Inglis	Incorporating Deep Uncertainty into Wildfire Risk Reduction Planning: A Framework - Sara Turner			
	Environmentally Friendly Fertilizer to Form Mobile Containment Firebreak - Robert V Kasowski	Health Symptoms and Behavior During Wildland Fire Smoke Exposure: Data from the EPA Smoke Sense Citizen Science Smartphone Application - Linda Wei			
	Tools for Addressing the Health and Safety Risks of Smoke Developed by the National Wildfire Coordinating Group's Smoke Committee - Peter Lahm	Wildland Fire Science Exchange in the Northern Rockies: Communicating Research to Meet Regionally Important Management Needs - Vita Wright			

	Swannanoa	Victoria	
	<b>Deep Dive: New technologies for accessing geospatial data in wildland fire operations</b>	<b>Panel Session: Appalachian RC&amp;D Fire Adapted Communities Coalition</b>	
11:30-12:30	The interactive, hands-on, session will describe two activities for improving access to information by wildland fire personnel. The session will include demonstrations of the Wildfire Data Logistics Network (WildfireDLN) and the Team Awareness Kit (TAK) app, emerging technologies to deliver and access geospatial and other data in the field.  Presenters Nancy French, Brad Schmidt, Ezra Kissel, Reid Sawtell	The Appalachian RC&D FAC Coalition consists of: Chestatee-Chattahoochee (GA), Southwestern (NC), Mountain Valleys (NC), Blue Ridge (NC), Carolina Land & Lakes (NC), and New River Highlands (VA). Join them to hear success stories and lessons learned about their partnerships and projects.  Presenters Melissa Patton, Douglas Benson, Frank Riley, Jessica Hocz, Jonathan Hartsell, Lynn Sprague, Kimberly McCollum	
1:00-7:00	<b>FIELD TRIP</b>		
<b>Thursday, December 13</b>			
8:00 - 5:30	<b>Registration Desk Opens</b>		
	<b>Grand Ballroom Salon C</b>		
8:30-10:00	<b>Postfire Impacts and Response - Critical Gaps in the Wildfire Cohesive Strategy</b> In this session the presenters will discuss the rationale to include postfire planning and response in the National Cohesive Strategy, provide observations and recommendations for change based on two case study geographies, and provide time for open dialog with the audience <b>Featuring:</b> Anne Bradley , Director of Forest Conservation, The Nature Conservancy, New Mexico Field Office Alan Lawson, Southeast Region Department of Natural Resources (DNR) Katherine Rowden, Service Hydrologist, National Weather Service / NOAA Annie Schmidt, Director of Policy and Partnerships, Washington State Fire Adapted Communities Learning Network		
10:00 - 10:30	<b>NETWORKING BREAK with Exhibitors (Grand Ballroom Salon A/B)</b>		
	<b>CONCURRENT SESSIONS (rooms on the 2nd level)</b>		
	Swannanoa	Victoria	Alexander
	<b>Moderator: Vita Wright</b>	<b>Moderator:</b>	<b>Moderator:</b>
	<b>Fire Use</b>	<b>Health</b>	<b>Community Recovery</b>
10:30-10:50	Failure, Innovation, and Capacity Building for Resilient Landscapes and Fire Adapted Communities in New Mexico Eytan Krasilovsky	Noise Exposure Among Wildland Firefighters – Exposure Assessment, Safety and Health Risks George Broyles	Enhancing Local Capacities for Monitoring Forest Fires: Firefighting Brigades as Citizen Scientists H. Leonardo Martínez-Torres
10:50-11:10	What Limits Use of Fire as a Management Tool on National Forests? Perspectives of Forest Service Line Officers Sarah McCaffrey	Comprehensive Study of Wildland Firefigthers' Health Over Multiple Seasons: Overview and Update Kenneth W. Fent	Community Engagement in (Crisis) Preparation and Recovery – an Australian Perspective Margaret Moreton
11:10-11:30	Designing Prescribed Burns: A Biocultural Design Case Study from Northwestern Ontario Kurtis Ulrich	Wildland Firefighter Smoke Exposure and Risk of Lung Cancer and Cardiovascular Disease Mortality Kathleen Navarro	What Does Community-led Recovery Look Like? A Case Study from the Carwoola 2017 Bush Fire Zoe D'Arcy
11:30-11:50	2018 National Prescribed Fire Use Survey Peter Lahm	Understanding Factors Contributing to Wildland Firefighter Health, Safety, and Performance: Assessing Sleep Quantity and Quality on the Fireline Randall Brooks	What the research on human community resilience can teach us about strategies for wildfire safety and education: A review of the literature Marlene Rebori
11:50-12:10	Increasing safety risk due to fire season shift from spring / fall to summer in Daxing'anling region, China Fengjun Zhao	Wildfire Smoke – Tools and Information People can use Susan M. O'Neill	Capacity Building Approach to Disaster Preparedness. How one community's experience through recovery has informed and influenced a community approach to preparedness Sarah U'Brien
12:10-1:30	<b>Lunch (on your own)</b>		

	Deep Dives/Panels		
	Swannanoa	Victoria	Alexander
	<b>Panel Session: With Apologies to Dr. Pyne, All Fire Departments Are Not Alike!</b>	<b>Panel Session: Multi-Agency and Community Collaborations: Designing and Utilizing Products, Tools, and Activities to Communicate and Reduce the Risk of Exposure to Wildland Fire Smoke</b>	<b>Deep Dive: Crossing Boundaries of Wildfire Management in the US</b>
<b>1:30-3:30</b>	<p>Join the National Fallen Firefighter Foundation representatives Tom Harbour, Rick Best and Tricia Sanborn to discuss this relevant and timely topic.</p> <p>Two worlds apart or one world fragmented?</p>	<p><u>Health</u> Update on health effects of smoke and ORD research - Wayne Cascio</p> <p><u>New Tools</u> 2019 Wildfire Smoke: Guide for Public Health Officials and related factsheets Susan Lyon Stone CDC Online Tool for Identifying Areas and Populations Vulnerable to Wildfire Surface Smoke Ambarish Vaidyanathan CDC Framework for the Role of Public Health and Wildfires Kathryn Conlon and Kanta Sircar</p> <p><u>Communities</u> Wildland Fire Air Quality Response Program and new tools - Pete Lahm Proactive work in Missoula MT Sarah Coefield Oregon state-wide, emergency protocol for wildfire smoke - Jamie Bash Smoke-Wise Ashland - Alison Lerch Discussion</p>	<p>The session will be 15 min presentations followed by a world café interaction/set of dialogues.</p> <p>Presenters: Maureen Essen Max Nielsen-Pincus Daniel R. Williams Jesse Abrams Anne-lise Velez</p>
<b>3:30-4:00</b>	<b>NETWORKING BREAK with Exhibitors (Grand Ballroom Salon A/B)</b>		
	Deep Dives/Panels		
	Swannanoa	Victoria	Alexander
	<b>Panel Session: Pre-Season Planning: Science toward Informed Decision-Making in the USDA Forest Service</b>	<b>Panel Session: Geospatial Situational Awareness for Wildfire Mitigation, Education, Prevention and Operations</b>	<b>Deep Dive: The Hard Truths of Living with Fire</b>
	<b>Moderator: Matthew P. Thompson</b>	<b>Moderator: Jerry McAdams</b>	<b>Moderator: Katie Lighthall</b>
<b>4:00-5:30</b>	<p>Life First Culture Meets Unnecessary Exposure Policy in Wildland Fire Emily Haire</p> <p>Pre-Season Planning and Collaboration in High-Suppression Forests David Flores</p> <p>Geospatial Tools for Effective Assessment and Decision Response Joe Scott</p> <p>Management Science for the Changing Fire Environment Christopher Dunn</p>	<p>This interactive presentation will include a panel of presenters from both Operations and Mitigation, and will discuss ways to engage agency personnel and the community with more accurate geospatial data, as opposed to anecdotal and unscientific data.</p> <p>Presenters: Jerry McAdams, Tyre Holfeltz, Tony Piscopo</p>	<p>During this session they will be discussing a large event and go through a shared learning exercise to get at the hard truths related to implementing the Cohesive Strategy on a number of levels and what those mean in terms of actions</p> <p>Presenter: Katie Lighthall</p>
<b>6:00</b>	<b>Afterhours Networking Lexington Avenue Brewery (LAB)</b>		

**Friday, December 14**

<b>8:00 - 12:00</b>	<b>Registration Desk Opens</b>		
	<b>Grand Ballroom Salon C</b>		
<b>8:30-10:00</b>	<p><b>The Essential Partnership Between Learning and Action</b></p> <p>High-functioning research-practitioner partnerships create critical linkages between research and practice that can uniquely leverage access, skills and capacity for better outcomes. Through a guided panel discussion, we will explore partnerships in place throughout the country and illuminate opportunities for session attendees to apply these concepts to their own work. Panelists include research professionals, cooperative extension personnel, and on-the-ground wildfire adaptation practitioners from across the country.</p> <p><b>Featuring:</b></p> <p>Michelle Medley-Daniel, The Watershed Research and Training Center          Annie Schmidt, Washington State Fire Adapted Communities Learning Network          Sarah McCaffrey, Rocky Mountain Research Station          Forest Schaefer, Tahoe Douglas Fire District          Branda Nowell, School of Public and International Affairs - North Carolina State University          Jennifer Fawcett, North Carolina State Extension          Richard Thornton, Bushfire &amp; Natural Hazards CRC</p>		
<b>10:00 - 10:30</b>	<b>NETWORKING BREAK with Exhibitors (Grand Ballroom Salon A/B)</b>		
	<b>Deep Dives/Panels</b>		
	<b>Swannanoa</b>	<b>Victoria</b>	<b>Alexander</b>
	<b>Panel Session: Advanced Material Fire Shelters</b>	<b>Panel Session: Research Nexus Panel</b>	<b>Deep Dive: Holistic Disaster Planning - Integrating Wildfire Protection Plans with Hazard Mitigation Plans</b>
<b>10:30-1200</b>	<p>Developing Wildland Shelters for Improved Performance in Fire Roger Barker and John Morton-Aslanis</p> <p>A Full-Scale Test of Fire Shelter Performance in Turbulent Flames John Morton-Aslanis and Roger Barker</p> <p>Field Testing Protocol for Wildland Fire Shelters Joseph R. Roise</p>	<p>Understanding the most efficient and effective way to support manager relevant science is particularly critical. Three of the largest fire research funders – the USDA Forest Service Research Branch, The Joint Fire Science Program, and the Bushfire and Natural Hazards Cooperative Research Centre – represent three different models for funding fire science research. This session will bring together discussants with experience with each of these models to provide a brief overview of the structure and its strengths and weaknesses as a starting point for a group discussion about what the most effective future support for manager relevant fire research would look like.</p> <p>Moderator: Noreen Krusel          Presenters          Sarah McCaffrey, Richard Thornton, David Bruce, Stacey Frederick</p>	<p>This session will cover the four steps of Wildland Urban Interface planning as outlined in “Planning for Wildfire in the Wildland-Urban Interface: a Resource Guide for Idaho Communities” (Miller et al., 2016), Idaho’s seven standards for Wildfire Protection Plans, showcasing Idaho’s agreement as a model of how to create a similar agreement between regulatory agencies, and integration how-to’s. Additionally, the presentation will include discussion of the hurdles Idaho has encountered with the development of these integrated plans, and will address solutions to common pitfalls in the planning process.</p> <p align="right">Presenter: Tyre Holfeltz</p>
<b>12:00-12:30</b>	<b>Closing Remarks</b>		