

The Social-Ecological Consequences of Future Wildfire in the West: A Workshop – June 13-14, 2024

ARNOLD AND MABEL BECKMAN CENTER | 100 ACADEMY WAY IRVINE CA 92617 USA

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The National Academies of Sciences, Engineering, and Medicine, in collaboration with the Royal Society of Canada, has organized a workshop on the future climate, social, and ecological drivers of wildfire in the western region of the United States and Canada. This workshop will focus on understanding and responding to increasing fire size, severity, and frequency since the 1970s. The public workshop will also focus on policy/practice considerations, research/data needs, and community engagement strategies as it seeks to identify gaps in knowledge, the value of filling those gaps, strategies for doing so, and what disciplines must work together.

ALL TIMES PT

THURSDAY, JUNE 13, 2024 - HUNTINGTON ROOM

9:00–9:10 am Welcoming Remarks and Introductions

Jonathan Fink (Committee Chair), *Professor*, Portland State University

John Ben Soileau, *Program Officer*, National Academies Board on Environmental Change and Society

9:10–9:20 Sponsor Welcome and Comments

Gordon and Betty Moore Foundation

Genevieve Biggs, *Program Director*, Wildfire Resilience Initiative and Special Projects

9:20–10:10 Keynote Address: Fire in the Past, Fire in the Mind, Fire in the Future

Objective: Provide a broad overview of the relationship between wildfire and human communities in the West

Keynote Speaker: Stephen Pyne, *Professor Emeritus*, Arizona State University

Keynote Respondents:

- **Cathy Whitlock (NAS)**, *Professor Emerita*, Montana State University
- **Glen MacDonald (NAS/RSC)**, *Professor*, University of California at Los Angeles
- **Gary Machlis** (Committee Member), *Professor*, Clemson University

10:10–11:15 Session 1: The Trajectory of Wildfire in the West

Objective: Provide a broad evidence-based foundation to the workshop about the relationship between wildfire and human communities in the West from different and overlapping perspectives (e.g., climatic, ecological, social) in the context of the historical and future (mid-term, long-term) trajectory of increasing wildfire size, severity, frequency, and synchronicity.

Moderator: Ernesto Alvarado-Celestino (Committee Member), *Research Associate Professor*, University of Washington

Panelists:

- **Michael Flannigan**, *Professor of Wildland Fire*, Thompson Rivers University
- **Philip Higuera**, *Professor of Fire Ecology*, University of Montana
- **Sarah McCaffrey**, *Research Social Scientist*, U.S. Forest Service (retired)

11:15–11:30 BREAK

11:30–12:30 Session 2: The Range and Scope of Social-Ecological Consequences of Wildfire in the West

Objective: Describe the consequences of future wildfires on communities of different types (e.g., rural, overburdened, marginalized), at different geographic scales, and with varying levels of healthcare, co-morbidity, and resource availability/access.

Moderator: **A. Paige Fischer** (Committee Member), *Associate Professor*, University of Michigan

Panelists:

- **Emily Schlickman**, *Assistant Professor*, University of California at Davis
- **Miranda Mockrin**, *Research Scientist*, U.S. Forest Service
- **Beth Rose Middleton**, *Professor*, University of California at Davis

12:30-1:45 Lunch & Film Screening

Lunch will not be provided for the audience; however, coffee and other beverages will be provided throughout the day. There are places close to the Beckman Center to pick-up or eat food. More details will be provided at the event.

12:30–1:10 Lunch (committee and speakers)

1:10-1:45 Film Screening (everyone)

Film Screening: **Contents Inventory**, by Irene Lusztig

Film Link: <https://vimeo.com/561627771/0830d7cab1>

1:45–2:45 Session 3: Case Studies

Objective: Present case studies of wildfires that bring together the perspectives of the workshop's purpose and ground them in real-world experiences.

Moderator: **Oceana Puananilei Francis** (Committee Member), *Professor*, University of Hawai'i at Manoa

Case Studies and Panelists:

- **Fort McMurray:** **Tara McGee**, *Professor*, University of Alberta
- **Woolsey Fire:** **Robert Taylor**, *Fire and GIS Specialist*, US National Park Service
- **Lahaina:** **Karl Kim**, *Professor*, University of Hawai'i at Manoa

2:45-2:55 BREAK

2:55–4:25 Session 4: Critical Gaps in the Social-ecological Understanding of Wildfire Consequences

Objective: Engage in mutual learning across relevant disciplines on the critical knowledge gaps concerning the social-ecological consequences of wildfire in the West. The focus shifts from earlier sessions (what we do know) to gaps in evidence or knowledge (what we don't know). Speakers should articulate knowledge gaps that transcend their own specialty.

Moderator: Alexandra D. Syphard, *Senior Research Ecologist*, Conservation Biology Institute

Panelist:

- **Max Moritz**, *Statewide Wildfire Specialist*, University of California Cooperative Extension
- **Marian Weber**, *Manager, Community Recovery, Emergency Management and Climate Readiness*, Government of British Columbia.
- **Sarah Henderson**, *Scientific Director for Environmental Health*, British Columbia Centre for Disease Control
- **Judson Boomhower**, *Assistant Professor*, University of California at San Diego

4:25-4:35 BREAK

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- 4:35–5:00** **Summary of Day One**
Sarah McCaffrey, *Research Social Scientist*, U.S. Forest Service (retired)
- 4:55–5:05** **Closing Remarks**
Jonathan Fink (Committee Chair), *Professor*, Portland State University
- 5:05** **ADJOURN**
- END OF DAY 1**

ALL TIMES PT

FRIDAY, JUNE 14, 2024 - HUNTINGTON ROOM

9:00–9:05 Welcoming Remarks

Jonathan Fink (Committee Chair), *Professor*, Portland State University

9:05–9:45 Keynote Address: Challenges, Research Needs, and Gaps in Understanding the Social-Ecological Consequences of Wildfire

Objective: Provide emerging "over the horizon" challenges and associated research needs with regards to understanding the social-ecological consequences of future wildfires, as well as the identification/description of current (or foreseen) deficiencies, gaps, and weaknesses.

Keynote Speaker: Susan Cutter (NAS), *Professor*, University of South Carolina

9:45–11:00 Session 5: Stories from Impacted Communities

Objective: Engage with the perspectives and experiences of fire-impacted communities and populations (e.g., outdoor workers, migrant workers, elderly) to develop a preliminary inventory of shared community needs and knowledge gaps.

Moderator: Frank Lake (Committee Member), *Research Ecologist*, U.S. Forest Service

Panelists:

- **Michael Mendéz**, *Assistant Professor*, University of California at Irvine
- **Marianne and Ron Ignace**, Skeetchestn Indian Band and Simon Fraser University
- **Irene Lusztig**, *Professor of Film and Digital Media*, University of California at Santa Cruz
- **Amy Cardinal Christianson**, *Policy Advisor*, Indigenous Leadership Initiative

11:00–11:15 BREAK

11:15–12:30 Session 6: Fire Technology for Social Resilience

Objective: In the context of fire technologies, this session describes systems, technologies, and innovations that will enhance social resilience to wildfire, such as risk communication, wildfire prevention strategies, and evacuation processes.

Moderator: Tamara U. Wall (Committee Member), *Research Professor*, Desert Research Institute

Panelists:

- **Pete Lahm**, *Smoke Program Leader*, U.S. Forest Service
- **Jessica Block**, *Associate Director, Operational Programs*, WIFIRE Lab
- **Haizhong Wang**, *Professor*, Oregon State University
- **Kelsey Winter**, *Wildfire Director*, FP Innovations

12:30–1:30 LUNCH

Lunch will not be provided for the audience; however, coffee and other beverages will be provided throughout the day. There are places close to the Beckman Center to pick-up or eat food. More details will be provided at the event.

1:30–2:45 Session 7: Policy, Funding, and Action

Objective: Identify key needs in policy, funding, and action (e.g., mitigation strategies, insurance, community engagement, improved evaluation/metric capabilities) to better address the social-ecological consequences of wildfire in the West, from local to national and bi-national scales.

Moderator: Gary Machlis (Committee Member), *Professor*, Clemson University

Panelists:

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- **Edward Alexander**, *Co-Chair and Head of Delegation*, Gwich'in Council International, Yukon and Northwest Territories
- **Michael Wara**, *Senior Research Scholar*, Stanford University
- **Cat Fong**, *Research Associate*, National Center for Ecological Analysis and Synthesis

2:45–3:30 **Workshop Themes Wrap-Up and Discussion**

Objective: Present key themes from over the course of the workshop and then open the discussion for input from the audience and participants.

Jonathan Fink (Committee Chair), *Professor*, Portland State University

3:30-3:35 **Closing Remarks**

Jonathan Fink (Committee Chair), *Professor*, Portland State University

3:35 **MEETING ADJOURNS**