



PRE-CONFERENCE WORKSHOPS/SEMINAR | MONDAY 6 JUNE

12:00 - 16:00	WORKSHOP 1 - Red Sunday - 8 January 2040 Workshop hosted by: Bureau of Meteorology		10:00 - 15:00	WORKSHOP 2 - Changing Climate, Changing Practices: The role of sector and community partnerships in managing bushfire risk Workshop hosted by: Forest Fire Management Victoria	
10:00 - 16:00	SEMINAR 1 - So close to the new beginning - Implementing the Australian Fire Danger Rating System (AFDRS) Seminar hosted by: AFAC and NSW Rural Fire Service		 		

Day 1 | TUESDAY 7 JUNE

07:30 - 18:30	Conference registration & information desk open PLENARY Grand Ballroom 3 & 4						
09:15 - 09:45	Welcome to Country - Aunty Janet Galpin (Boonwurrung Land) Opening ceremony - IAWF President Joaquin Ramirez Cisneros and David Bruce, Melbourne conference co-chair and Natural Hazards Research Australia Chair: Naomi Stephens, NSW National Parks and Wildlife Service						
09:45 - 10:30	KEYNOTE 1: The latest science of our changing climate Dr Sophie Lewis, ACT Commissioner for Sustainability and the Environment	Session sponsored by:				 	
10:30 - 10:55	MORNING TEA Chair: Richard Thornton, Natural Hazards Research Australia						
10:55 - 11:40	KEYNOTE 2: Climate and fire – learnings from the political interface Greg Mullins, Climate Councillor, fmr Commissioner, Fire & Rescue NSW						
11:40 - 12:20 [REMOTE]	KEYNOTE 3 : A NASA perspective: Global to local connections between fire, weather, and climate Dr Amber Soja, Research Fellow, National Institute of Aerospace	Session sponsored by:					
12:20 - 13:15	LUNCH						
	STREAM 1 Grand Ballroom 3 & 4 Climate change and fire Chair: Murray Carter, Department of Fire and Emergency Services	STREAM 2 Grand Ballroom 1 & 2 Understanding and engaging communities Chair: Dr Blythe McLennan, Natural Hazards Research Australia	STREAM 3 Grand Ballroom 5 Readiness and response Chair: Dr Matt Plucinski, CSIRO				
13:20 - 13:40	Spreading like wildfire - the rising threat of extraordinary landscape fires: a United Nations environment program rapid response assessment Andrew Sullivan, CSIRO	Learning alongside community: a contemporary approach to post-fire engagement Peta M O'Donohue, SA Country Fire Service; Fiona L Dunstan, Bureau of Meteorology	Moneyball for Fire: analytics in Wildfire response Nick F McCarthy, Country Fire Authority				
13:40 - 14:00	Global increases in forest fire risk under climate change based on daily fire-atmospheric water demand relationships Hamish Clarke, NSW Bushfire Risk Management Research Hub	Using Behavioural Insights methods to encourage community behaviour change Jodi Brassell, Department of Environment, Land, Water and Planning; Bernice Plant, Monash University	Theorizing mutual aid in Wildland Fire: benefits, challenges, and emerging pressures Eric B Kennedy, York University, Canada				
14:00 - 14:20	Review of the climate mechanisms behind the occurrence of extreme wildfire events around the globe Lluís Brotons, Ecoland lab, CSIC-CREAF, Spain	Engaging with children today will bring solutions for tomorrow Tony Jarrett, Central Queensland University	Forest Operation Restrictions: reducing the likelihood of industry caused bushfire ignitions Ruth Ryan, HVP Plantations				
14:20 - 14:40	Fire behaviour during heatwaves and implications in a changing climate Mika Peace, Bureau of Meteorology	"I never cared about the trees before": Empowering landholders to undertake sustainable fire management in the aftermath of Australia's Black Summer Hannah Etchells, Nature Conservation Council NSW	Developing a suppression effectiveness model to calculate the likelihood of bushfire containment Tim Gazzard, Department of Environment, Land, Water and Planning				
14:40 - 15:05	AFTERNOON TEA						
	Climate change and Policy in fire management Chair: Dr John Bates, Natural Hazards Research Australia	Understanding and engaging communities Chair: Laura Gannon, Meridian Urban	Ignitions and response Chair: Tim Gazzard, Department of Environment, Land, Water and Planning				
15:10 - 15:30	Turning Fire Management Policy Into Practice Kevin G Tolhurst, University of Melbourne	An ecologist, a bushfire risk planner and a firefighter walked into a bar. Here's what happened next... Balancing risk and connections to place in fire adapted landscapes: Reflecting on fire ecology engagement approaches Samantha J Strong, Safer Together; Jennie Cramp, NSW Rural Fire Service	Exploring the influence of drought and weather on fire incidents and suppression responses across Victoria, Australia Matt Plucinski, CSIRO				
15:30 - 15:50	The role of science in the bushfire-inquiry cycle: a case study from the 2019/20 fire season Ross Bradstock, NSW Bushfire Risk Management Research Hub	Strange beauty: Bushfire impacts on people's experiences of forest landscapes Rebecca M Ford, University of Melbourne	Spatial patterns in unplanned ignitions in the Australian Capital Territory and their implications for fire management. Nicholas Wilson, Australian National University				
15:50 - 16:10	What do we already know about improving bushfire laws and policies? Lessons for climate-adaptive law reform in Australia Phillipa C McCormack, University of Adelaide	Wildfire Risk Reduction in Portugal: What is the contribution of Community Wildfire Protection Plans? Fantina Tedim, University of Porto, Portugal	An Operational Lightning Ignition Model for Early Fire Detection Stephen Deutsch, Forest Fire Management Victoria				
16:10 - 16:30	The California Fire Science Consortium: A decade of fire science exchange Stacey Frederick, UC Berkeley, US	Evacuation Behaviour in Peri-urban Fires: A case study of the 2019 Kincadee fire in California, USA Erica D Kuligowski, RMIT University	Development of a Model of Response for forest firefighting in northeast Victoria Shaun Lawlor, Forest Fire Management Victoria				
16:30 - 16:35	BREAK - DELEGATES TO RE-GROUP IN PLENARY						
	PLENARY Room: Grand Ballroom 3 & 4 Chair: Sandra Whight, Bureau of Meteorology						
16:40 - 17:25	KEYNOTE 4: Australian Climate Service - an update Vicki Woodburn, Australian Climate Service						
17:25 - 18:10	KEYNOTE 5: A national perspective: managing consequences in complex emergencies Joe Buffone, Director-General, Emergency Management Australia	Session sponsored by:					
18:15 - 20:15	WELCOME RECEPTION, OFFICIAL POSTER LAUNCH & EXHIBITION Pullman Melbourne Albert Park		Sponsored by:				

DAY 2 | WEDNESDAY 8 JUNE

08:00 - 17:30	Conference registration & information desk open		
	PLENARY		
	Room: Grand Ballroom 3 & 4		
	Chair: Dr Timothy Neale, Deakin University		
09:00 - 09:20 [REMOTE]	KEYNOTE 6: Erasing the Ancestors: Indigenous Fire in the Boreal Amy Christianson, Indigenous Fire Specialist, Parks Canada		
09:20 - 09:40	KEYNOTE 7: Neglect of Country and the rise of catastrophic bushfires in southeast Australia Assoc. Prof Michael-Shawn Fletcher, University of Melbourne		
09:40 - 10:00	KEYNOTE 8: Cultural land management in southeastern Australia - Black Summer final report Oliver Costello, Firesticks and Jagun Alliance Aboriginal Corporation		
	Facilitator: Dr Timothy Neale, Deakin University		
10:00 - 10:45	PANEL 1: Working together Amy Christianson, Parks Canada ; A/Prof Michael-Shawn Fletcher, University of Melbourne; Oliver Costello, Firesticks and Jagun Alliance Aboriginal Corporation		
10:45 - 11:10	MORNING TEA		
	STREAM 1	STREAM 2	STREAM 3
	Room: Grand Ballroom 3 & 4	Grand Ballroom 1 & 2	Grand Ballroom 5
	Cultural burning and the 2019/20 fires	Bushfire risk planning	Fire spread and behaviour prediction
	Chair: Neil Cooper, National Bushfire Intelligence Capability	Chair: Dr Raphaela Bianchi, CSIRO	Chair: Simeon Telfer, Department of Environment and Water, SA
11:15 - 11:35	Disruption of cultural burning lead to unprecedented wildfires in southeast Australia Michela Mariani, University of Nottingham, UK	Bush Fire Risk Management Planning: the balance between science and experience Melissa O'Halloran, NSW Rural Fire Service	A fast, physically based model for predicting long-range firebrand transport in bushfire plumes Jeffrey D Kepert, Bureau of Meteorology
11:35 - 11:55	Westernised Land Management meets Aboriginal Land Management through incorporating cultural burns Jacob Keed, Transport Canberra and City Services	Upper Beaconsfield & surrounds: A Community led values-based bushfire risk mitigation project Michael Jones, Department of Environment, Land, Water and Planning	A Systematic Quantitative Approach to Assessing Probabilistic Fire Spread Predictive Skill and Value of Information Ben Twomey, RedEye
11:55 - 12:15	The 2019-20 Australian forest fires are a harbinger of decreased prescribed burning effectiveness under rising extreme conditions Hamish Clarke, NSW Bushfire Risk Management Research Hub	Toowoomba Region Bushfire Risk Analysis: Translating risk into land use planning practice Laura Cannon, Meridian Urban	A Bayesian probabilistic approach to bushfire rate of spread modelling using line scan data Michael Storey, University of Wollongong
12:15 - 12:35	NSW RFS Fire Behaviour Analysis Unit: adapting to the challenge during the 2019-20 season and lessons learnt and future adaptations Laurence McCoy, NSW Rural Fire Service	Norfolk Island opportunity for Australasian best-practice bushfire risk management Rod L Rose, Eco Logical Australia	Simple fuel-moisture functions for empirical fire-spread models Kevin Tory, Bureau of Meteorology
12:35 - 13:30	LUNCH		
	Lightning Talks	Lightning Talks	Lightning Talks
	Chair: Bianca Pickering, University of Melbourne	Chair: Dr Alexander Filkov, university of Melbourne	Chair: Dr Michael Storey, University of Wollongong
13:35 - 13:40	Effects of climate change on resilience of fire prone eucalypt communities Harriet M Simpson-Southward, University of Wollongong	Physical modelling for mapping firebrand and heat flux on structures in the wildland-urban interface (WUI) Amila Wickramasinghe, Victoria University	An index for describing the spatial-connectivity of flammable landscapes Douglas AG Radford, University of Adelaide
13:40 - 13:45	Predicting biodiversity risk under changing climate and fire regimes Sarah McColl-Gausden, University of Melbourne	House Loss Probability Model: A Surf Coast case study examining building, street and township vulnerability William Swedosh, CSIRO	A case study of the Green Valley/Talmalmo (NSW)-Corryong (VIC) fire (30-31 Dec 2019) Dragana Zovko-Rajak, Bureau of Meteorology
13:45 - 13:50	Megafire-induced interval squeeze threatens vegetation at landscape scales Tom Le Breton, University of NSW	The ideal defensible space: Findings about Portuguese building resilience Fantina Tedim, University of Porto, Portugal	Assessing soil moisture impacts on surface fuel moisture Marta Yebra, Australian National University
	Fire spread and behaviour prediction	Vegetation dryness	Fuel management impacts and implications
	Chair: Dr Mika Peace, Bureau of Meteorology	Chair: Dr Simon Watson, Department of Environment, Land, Water and Planning	Chair: Melissa O'Halloran, NSW Rural Fire Service
13:55 - 14:15	Foreseeing the forecasters: the future development and use of predictive services in Australia Timothy Neale, Deakin University	Predicting the flammability-switch in wet eucalypt forests Jane Cawson, University of Melbourne	The culture of sacrificial areas: blackout burning increases long-term fire risk adjacent communities Diana Virkki, Healthy Land and Water
14:15 - 14:35	Communicating the art and science of fire spread prediction Andrew Sturgess, RedEye Apps	Does drought severity erode wildfire resilience in wet forests of east Australia? Christopher E Gordon, Western Sydney University	Forest thinning and planned fire mitigate wildfire severity in Australian Eucalyptus open forests Chris Weston, University of Melbourne
14:35 - 14:55	Spark: Australia's newest national operational bushfire spread simulator John Bally, AFAC; James Hilton, Data61	Grassland Curing Prediction Using a national Seasonal Water Outlook Ashkan Shokri, Bureau of Meteorology	Effects of mechanical mastication on fuel properties and bushfire behaviour in Australian fuel types Bianca J Pickering, University of Melbourne
14:55 - 15:15	The application of heuristics to predicting grassfire rate of spread under elevated fire danger conditions Miguel G Cruz, CSIRO	A forest fuel dryness forecasting system that integrates an automated fuel sensor network, spatially forecast weather variables, landscape attributes and machine learning models. Christopher S Lyell, University of Melbourne	The dynamics of prescribed burn smoke in NSW eucalypt forests Owen Price, University of Wollongong
15:15 - 15:40	AFTERNOON TEA		
	Fuels and fire	Synoptic and mesoscale meteorology role in fire	Climate change mitigation and adaptation
	Chair: A/Prof Marta Yebra, Australian National University	Chair: Dr Lachlan McCaw, McCaw Consulting	Chair: Deb Sparkes, AFAC
15:45 - 16:05	Adding fuel to the fire: have fires in southeast Australia always burned so hot? Anthony Romano, University of Melbourne	Meteorological and climatological aspects of some extreme fire event days in eastern Victoria during Black Summer Graham A Mills, Monash University	Carbon farming and bushfire risk - are we worsening the risks, and what can we do about it? Cuong Tran, Market Advisory Group
16:05 - 16:25	Manipulating fire regimes in sensitive ecosystems to adapt to climate change Adam Leavesley, ACT Parks and Conservation Service	Synoptic and mesoscale meteorology affecting fire behaviour in southeast New South Wales Paul Fox-Hughes, Bureau of Meteorology	Linking climate change science, policy and practice: Lessons from the Victorian Fire Management Sector Chloe Begg, Country Fire Authority
16:25 - 16:45	Pyrodiversity, functional heterogeneity and the role of emerging, climate change derived fire regimes on biodiversity Luis Brotons, Ecoland lab, CSIC-CREAF, Spain	Estimating smoke emissions using bottom-up and top-down methods for improved smoke forecasting Fabienne Reisen, CSIRO	Climate induced change in wildfire extent and severity drives tree mortality and carbon balance in Australian temperate forests Luba Volkova, University of Melbourne
16:50 - 17:00	BREAK - DELEGATES TO RE-GROUP IN PLENARY		
	Chair: Alen Slijepcevic, Country Fire Authority		
17:00 - 17:50	KEYNOTE 9: Fire and climate: A safe future or a resilient future? Dr Sidney Dekker, Griffith University	Session sponsored by: 	
18:00	DAY 2 CLOSE		
19:00 - 22:30	CONFERENCE DINNER The CitiPower Centre, Junction Oval, St Kilda	Sponsored by: 	

DAY 3 | THURSDAY 9 JUNE

08:00 - 17:30	Conference registration & information desk open		
	PLENARY		
	Grand Ballroom 3 & 4		
	Chair & Facilitator: David Bruce, Natural Hazards Research Australia		
09:00 - 09:45	KEYNOTE 10: Communicating the complexity of fire and climate science Stephen Oliver, Manager, Documentaries, Australian Broadcasting Corporation		
09:45 - 10:30	PANEL 2: Communicating the complexity of fire and climate science Stephen Oliver, ABC; Allie Gallant, Monash University; Anthony Clark, NSW RFS; Fiona Dunston, BoM		
10:30 - 10:55	MORNING TEA		
	Bushfire risk mitigation approaches	Seasonal prediction of fire risk	Ecological resilience and impact
	Chair: Asst. Comm. Mathew Smith, NSW Rural Fire Service	Chair: Dr Paul Fox-Hughes, Bureau of Meteorology	Chair: Dr Jane Cawson, University of Melbourne
11:00 - 11:20	Strategic Fuel Break Costs and Benefits – A Case Study from the Barwon South West Liam Fogarty, Department of Environment, Land, Water and Planning	Accurately predicting fire season severity from analysis of historic fire climatology Andy Ackland, Country Fire Authority	The impact of forest fires on long-term streamflow and water yields in Melbourne's water catchments Gary J Sheridan, University of Melbourne
11:20 - 11:40	Maximising bushfire risk reduction and minimising environmental impact: a novel local government approach using manual fuel reduction Jeremy Little, Mornington Peninsula Shire	Predicting bushfire risks for Victoria over multiple weather streams using Bayesian Network Analyses Erica Marshall, University of Melbourne	The effect of fire severity patchiness on post-fire recovery dynamics in eucalypt-dominated forests of south-eastern Australia Ross A Bradstock, University of Wollongong
11:40 - 12:00	Risk 2.0: a journey along the Victorian risk-based approach to bushfire management Estrella Melero-Blanca & Mitchell B Stephen, Department of Environment, Land, Water and Planning	Thresholds of fire danger: the need to quantitatively link fire risk metrics and fire activity Thomas J Duff, Country Fire Authority	Development of Ecological Health Performance Scorecard and Fire Metrics for NSW National Parks Peta Norris & Ross Peacock, NSW National Parks and Wildlife Service
12:00 - 12:20	The Fuel Management Suitability Tool – A new way to select the most suitable fire management strategies to reduce wildfire risk Amelie Jeanneau, University of Adelaide	Progress towards a new National Seasonal Fire Outlook Paul Gregory, Bureau of Meteorology	Prioritisation tools for post-fire restoration in Mediterranean-type ecosystems in California Hugh Safford, Vibrant Planet, USA
12:20 - 13:15	LUNCH		
	STREAM 1	STREAM 2	STREAM 3
	Grand Ballroom 3 & 4	Grand Ballroom 1 & 2	Grand Ballroom 5
	Lightning Talks	Lightning Talks	Lightning Talks
	Chair: Dr Erica Marshall, University of Melbourne	Chair: Darcy Prior, Department of Environment, Land, Water and Planning	Chair: Dr Rachel Badlan, University of New South Wales, Canberra
13:20 - 13:25	Quantifying litter bed ignitability in temperate eucalypt forests Jamie E Burton, University of Melbourne	Securing water supplies in remote areas for firefighting in northeast Victoria David Ross, Department of Environment, Land, Water and Planning	Influence of wind and fire interactions on near-bed flame pulsations and flame spread through a vegetative fuel bed Abhinandan Singh, Worcester Polytechnic Institute
13:25 - 13:30	The effects of bushfire disturbances on estuaries Thyanne L Barros, University of NSW	Rapid inspection of lightning strike ignitions utilising unmanned aerial vehicles with swarming behaviour Marta Yebra, Australian National University	Seasonal drivers of extreme fire weather in Australia Rachel Taylor, Australian National University
13:30 - 13:35	Land and fire management strategy Mitigation of excessive fuel load following and extreme weather event Sharon Merritt & Brian Earl, Country Fire Authority	Quantifying pump and roll: Leveraging radio-based automatic vehicle location for analysing fire agency tanker production rates Kristy A Butler & Nick F McCarthy, Country Fire Authority	Risk 2.0 – fire size prioritisation: developing a tool to support fuel management in landscape management zones Sarah Loveday, Department of Environment, Land, Water and Planning
	Future fires and management	Fire-atmosphere interactions	Fauna and fire
	Chair: Liam Fogarty, Department of Environment, Land, Water and Planning	Chair: Dr Nick McCarthy, Country Fire Authority	Chair: Assoc Prof Gary Sheridan, University of Melbourne
13:40 - 14:00	Future fire regimes - the knowns, the hurdles and the unknowns Trent D Penman, University of Melbourne	Fire-generated tornadic vortices during the Australian 2019/20 bushfire season Mika Peace, Bureau of Meteorology	Exploring interrelations between fire, habitat, and mammals in a fragmented South Australian heathy woodland Simeon Zylinski, University of Melbourne
14:00 - 14:20	Shifts in bushfire dynamics and impacts, how can we face them? Marta Yebra, Australian National University	The Roles of Vortices in Fire Environments Bryan Quaife, Florida State University, USA	A summary of bird responses to fire in central Victoria's heathy-dry forests, in terms of time-since-fire, fire frequency and the severity of prescribed burns Diana Kuchinke, Federation University
14:20 - 14:40	Wildfire Futures: examining fire management trends, challenges and mitigation options in southern Australia under changing climates Thomas A Fairman, University of Melbourne	Predicting blow-up fire events: lessons from Black Summer Rick McRae, University of NSW	Matchstick turns planned burning on its head Dale Tonkinson, Country Fire Authority
14:40 - 15:00	Climate change significantly alters future wildfire mitigation opportunities in southeastern Australia Giovanni Di Virgilio, NSW Department of Planning and Environment	Development of a dynamic mapping tool for regions prone to vorticity-driven lateral spread. Rachel L Badlan, University of NSW	Similar fire history does not equate to similar fauna habitat in structurally similar vegetation Jane S Williamson, NSW Department of Planning and Environment
15:00 - 15:25	AFTERNOON TEA		
	PLENARY		
	Grand Ballroom 3 & 4		
	Facilitator: Rob Webb, AFAC		
15:30 - 16:45	PANEL 3: Fire leaders Naomi Stephens, NSW National Parks and Wildlife Service; Murray Carter, Department of Fire and Emergency Services; Chris Hardman, Forest Fire Management Victoria; Ruth Ryan, HVP Plantations; Fiona Gill, Department of Environment and Water; Rob Rogers, NSW Rural Fire Service		
16:45 - 17:00	Closing ceremony - Alen Slijepcevic, Melbourne conference co-chair and Country Fire Authority		

POST-CONFERENCE FIELD TRIPS | FRIDAY 10 JUNE

07:30 - 16:00 FIELD TRIP 1 - Strategic Fuel Breaks in High Bushfire Risk Landscapes- pulling the right levers to ensure resilient communities

Field trip sponsored and hosted by:
Forest Fire Management Victoria



07:30 - 16:00 FIELD TRIP 2 - Forest fire research: management effects and fire dynamics

Field trip hosted by: University of Melbourne

