

III FIRE IN THE EARTH SYSTEMS

UNIVERSIDAD DE EXTREMADURA

FACULTAD DE FILOSOFÍA Y LETRAS



INTERRA



Research Institute for Sustainable Land Development



Contact number and emails (organizers)

- 1. Jesús Barrena-González (jesusbarrena@unex.es and 0034 636623251)
- 2. Artemi Cerdà (artemiocerda@gmail.com and 0034 696320315)
- 3. Manuel Pulido (mapulidof@unex.es and 0034 684080710)

Pre-conference excursions

DAY 1 --- 31/05/2024

Pre-conference day. Visit to a sheep and goat farm in Arroyo de San Serván and visit to the second largest cooperative in Tierra de Barros. The transition between irrigated and non-irrigated agriculture, from Vegas Bajas del Guadiana to Tierra de Barros.

DAY 2 --- 01/06/2024

Pre-conference day. Visit to Sierra de Alor, Alqueva Reservoir (the largest artificial lake in Europe), and the city of Olivenza. Border territory: stories of smuggling, wars, and a blend of Spanish-Portuguese culture.

DAY 3 --- 02/06/2024

Pre-conference day. Visit to the Comarca de La Siberia in Extremadura, a land renowned for its livestock farming and vast artificial lakes. Discovering the unique symbiosis between pastures and water, in the historic lands of La Mesta. Enjoy the rich heritage and natural beauty of this captivating region.







Conference activities

DAY 4 - 5 --- 03 - 04/06/2024

In situ conference with keynotes, oral presentations and coffee breaks at the Faculty of Philosophy and Letters at the University of Extremadura. Main floor, auditorium (paraninfo). <u>https://maps.app.goo.gl/XD7K2dDSitpDWxAx5</u>

Cáceres city Walk (19.00 h): Ayuntamiento de Cáceres (point of meet)

Link to online presentations: <u>https://unex-</u> es.zoom.us/j/91084830367?pwd=Qk1JcmJ1d1NPY0h6aEs4SWtPVEt4Zz09

DAY 6 --- 05/06/2024

Conference fieldtrip: Past, present and future of "<u>Dehesa de la Luz</u>" an agroforestry system against forest fires by Alberto Alfonso Torreño and Javier Lozano Parra.

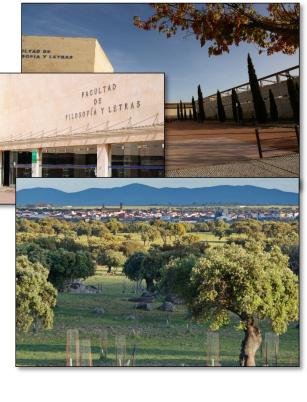
Guided visit in Trujillo City by Antonio Zurrones.

We will depart at 8:30 from here<mark>: https://maps.app.goo.gl/LggGAUvvH136fSKQA</mark>

DAY 7 --- 06/06/2024

Conference fieldtrip: **Visit to the Sierra de Gata, interventions from** <u>MOSAICO Project</u> by Fernando Pulido. Delve into territories affected by fires, those at risk of fire, and local producer-led anti-fire initiatives.

We will depart at 8:00 from here: <u>https://maps.app.goo.gl/LggGAUvvH136fSKQA</u>





PRELIMINARY AGENDA (PENDING ON LAST MINUTE CORRECTIONS) 03/06/2024

08.15 - 09.15	Registration of participants	
09.15 - 09.30	Dean, Director of GeoEnvironment Research Group and organizers welcome	
	Quantitative Assessment of Wildfire Exposure and Risk	Marcos Rodrigues
09.30 - 09.45	A spatially explicit containment modelling approach for escaped wildfires in a Mediterranean climate	Gbenga Lawrence
09.45 - 10.00	Wildland Fires Recognition using Deep Learning on Aerial and Ground Images	Rafik Ghali (online)
10.00 - 10.15	Undestanding fire regimes and fire-conducive conditions in Chile	Rodrigo Crespo
10.15 - 10.30	Mapping open burning of agricultural residues from Earth Observations and modelling of air quality impacts	Bárbara Silva
10.30 - 10.45	The firefighters on the frontline of forest fires: from the exposure to adverse health effects	Filipa Esteves (online)
10.45 - 11.00	Analysis of severity conditions in sixth-generation fires	Andrea Monzón
11.00 - 11.15	The impact of fire on soil infiltration rates in forest soils. The Vall d'Ebo forest fire in Eastern Iberian Peninsula	Artemi Cerdà
11.15 - 11.45	Coffee break	
	The Impact of Forest Fires on Soil and Watershed Hydrology	Artemi Cerdà
11.45 - 12.00	Fire and water: Effect of forest fires on soil hydrobionts from long-time perspective	Miloslav Devetter
12.00 - 12.15	The impact of forest fires on groundwater, an approximation of their effects in several case studies	Raquel Morales
12.15 - 12.30	Temporal Impacts on the microbial communities of prescribed fires in semi-arid Mediterranean forest	Raúl Ortega (online)
12.30 - 12.45	Socio-Economic analysis of the pyric herbivorism in Spain	Rosa Mosquera
12.45 - 13.00		
	Forest related nature-based solutions for climate-change induced effects: wildfires and forestry pests mitigation	Saskia Keesstra
13.00 - 13.15	Forest related nature-based solutions for climate-change induced effects: wildfires and forestry pests mitigation Amendment Improves Depleted Soil Chemical Properties and Microbial Populations after Prescribed Fire under an Agricultural System in Nigeria	Saskia Keesstra Rotimi Ibitoye (online)
13.00 - 13.15 13.15 - 13.30	Amendment Improves Depleted Soil Chemical Properties and Microbial Populations after Prescribed Fire under an	Rotimi Ibitoye
	Amendment Improves Depleted Soil Chemical Properties and Microbial Populations after Prescribed Fire under an Agricultural System in Nigeria	Rotimi Ibitoye (online)
13.15 - 13.30	Amendment Improves Depleted Soil Chemical Properties and Microbial Populations after Prescribed Fire under an Agricultural System in Nigeria Fire in agricultural land in citrus plantations in Spain. Impact on soil infiltration Keynote speaker:	Rotimi Ibitoye (online) Artemi Cerdà
13.15 - 13.30 13.30 -14.00	Amendment Improves Depleted Soil Chemical Properties and Microbial Populations after Prescribed Fire under an Agricultural System in Nigeria Fire in agricultural land in citrus plantations in Spain. Impact on soil infiltration Keynote speaker: Proactive landscape approaches to wildfire fire prevention: concept, practice, and policy implication	Rotimi Ibitoye (online) Artemi Cerdà

		(online)
15.45 - 16.00	The role of fire as a driver of tropospheric ozone concentration exceedances in Portugal	Catarina Alonso (online)
16.00 - 16.15	Recurrence of large forest fires, and land use: cause and consequence	Alfonso Doctor Cabrera
16.15 - 16.30	Grazing as a tool to prevent forest fires in Eastern Iberian Peninsula. The "Ramat de Foc de Gandia" study case.	Francisco Escrivá
16.30 - 16.45	Spatial characterization of forest fire in Extremadura (SW, Spain): main patterns and causal relationship	Jesús Barrena
16.45 - 17.00	From Science to Society: INFORMA's Journey in Integrating Stakeholder Voices for Forest Wildfire Resilience	Doan Ho
17.00 - 17.15	Forest structure and fire severity in the pine forest of La Palma, Spain	Leonardos Leonardos
19.00 - 21.00	Cáceres City Walk	

PRELIMINARY AGENDA (PENDING ON LAST MINUTE CORRECTIONS) 04/06/2024

08.30 - 09.30	Registration of participants	
	The Interaction of Fire with Nature and Humans. Environmental Planning and Fire in the 21st	Jesús Barrena
09.30 - 09.45	Forest fires in Iran	Artemi Cerdà
09.45 – 10.00	Long-term management actions of fire-prone Mediterranean ecosystems under climate change using fuel reduction and post-fire restoration	Mara Baudena (online)
10.00 - 10.15	Mapping target areas for introducing agroforestry systems as a management approach for wildfire risk mitigation in Europe	Anthony Gabourel
10.15 - 10.30	Forest fires in Portugal caused by negligent causes: assessing the contribution of pile burning and extensive burning practices	Sebastiano Rossi
10.30 - 10.45	Good fires, bad fires in the Western Catalan Pyrenees. Is the tool becoming a threat?	Anna Badia (online)
10.45 - 11.00	SenForFire: Smart wireless sensor networks for forest fire surveillance and early warning	Jesús Lozano
11.00 - 11.15	The use of chipped pruned branches as an alternative to burning to reduce fire risk and improve soil quality in the Mediterranean region	Francisco Escrivá
11.15 - 11.45	Coffee Break	
	Climate and Wildfires	Marco Turco

11.45 – 12.00	Increasing trends of burned area in Western Mediterranean Europe? A comparative trend analysis of different burned area products	Andrina Gincheva (online)
12.00 - 12.15	Towards understanding future fire risks: integrating climate, vegetation dynamics, and fuel management	Marcos Rodrigues
12.15 - 12.30	The exceptionality of the fire over Alexandroupolis region in 2023	Célia Gouveia
12.30 - 12.45	Evaluating Fire Weather Index Approximations Using ERA5 Reanalysis: Global Trends and Implications for Fire Danger Assessment (1980-2020)	Marco Turco
12.45 - 13.00	TREEADS PROJECT H2020: Socio-Technological Solutions for Restoration and Adaptation	Elena Yajeya
13.00 - 13.15	Examining Climate Drivers and Land Cover for Italian Burned Area Prediction	Gabriele Vissio (online)
13.15 – 13.30	Trends in Forest Fire Incidences in the Iberian Mediterranean	Artemi Cerdà
13.30 -14.00	Keynote speaker: Educating for wildfires: Where we are, where we need to get to	Renata Martins Pacheco
14.00 - 15.30	Break	
14.00 - 15.30		María Isabel Asensio
14.00 - 15.30 15.30 - 15.45	Break	María Isabel Asensio Adel Sahila
	Break Uncertainty in Forest Fire Statistical Analysis of Wildfire Dynamics Using a Cellular Automata Software: Four-Parameter Beta Distribution as	
15.30 - 15.45	Break Uncertainty in Forest Fire Statistical Analysis of Wildfire Dynamics Using a Cellular Automata Software: Four-Parameter Beta Distribution as the Optimal Parametric Model	Adel Sahila Angela-María
15.30 - 15.45 15.45 - 16.00	Break Uncertainty in Forest Fire Statistical Analysis of Wildfire Dynamics Using a Cellular Automata Software: Four-Parameter Beta Distribution as the Optimal Parametric Model Architecting Wildfire Resilience: A Framework for Software-Driven Detection and Response	Adel Sahila Angela-María Despotopoulou
15.30 - 15.45 15.45 - 16.00 16.00 - 16.15	Break Uncertainty in Forest Fire Statistical Analysis of Wildfire Dynamics Using a Cellular Automata Software: Four-Parameter Beta Distribution as the Optimal Parametric Model Architecting Wildfire Resilience: A Framework for Software-Driven Detection and Response Fire-spotting modelling in operational cellular automata simulators	Adel Sahila Angela-María Despotopoulou Andrea Trucchia
15.30 - 15.45 15.45 - 16.00 16.00 - 16.15 16.15 - 16.30	Break Break Uncertainty in Forest Fire Statistical Analysis of Wildfire Dynamics Using a Cellular Automata Software: Four-Parameter Beta Distribution as the Optimal Parametric Model Architecting Wildfire Resilience: A Framework for Software-Driven Detection and Response Fire-spotting modelling in operational cellular automata simulators Evaluation of post-fire vegetation cover prediction using feed-forward neural networks	Adel Sahila Angela-María Despotopoulou Andrea Trucchia Rayo Pinto

DAY 8 --- 07/06/2024

Post-conference day. Visit and walking tour of Monfragüe National Park and Biosphere reserve to explore its stunning landscapes, rich biodiversity, and unique natural beauty.



DAY 9 --- 08/06/2024

Post-conference day. Visit to the Jerte Valley, renowned for its cherry blossoms, and Hervás, with its charming Jewish quarter, to enjoy breathtaking landscapes and rich history.



DAY 10 --- 09/06/2024

Post-conference day. Visit to the Villuercas-Ibores-Jara Geopark and the Monastery of Guadalupe to experience breathtaking geological formations and rich historical heritage.