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Sharing the latest wildfire research relevant to the Southwest.

FALL 2024 EDITION

Covering publications produced between August 2024 and November 2024

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Contact: Molly McCormick, SWFSC Program Manager at molly.mccormick@nau.edu

Adaptive Management

No articles on this topic for this period.

Climate Change & Carbon

No articles on this topic for this period.

Fire Behavior

[Moderating effects of past wildfire on reburn severely depend on climate and initial severity in Western US forests.](#) Tortorelli, CM; Latimer, AM; Young, DJN. Aug 2024 | ECOLOGICAL APPLICATIONS. - Open Access

Fire Ecology

[Trees have similar growth responses to first-entry fires and reburns following long-term fire exclusion.](#) Wilson, KG; Margolis, EQ; Hurteau, MD. Nov 2024 | FOREST ECOLOGY AND MANAGEMENT

Fire Models & Tools

No articles on this topic for this period.

Fire Regimes & Fire History

[Contemporary fires are less frequent but more severe in dry conifer forests of the southwestern United States.](#) McClure, EJ; Coop, JD; (...); Parks, SA. Oct 2024 | COMMUNICATIONS EARTH AND ENVIRONMENT- Open Access

Fuels Reduction & Restoration

[Impact of soil residual auxin herbicide on seedling emergence and biomass differs between soil types, water pulse event, and seedling species.](#) Schroeder, RWR; Reichenborn, MM; (...); Faist, AM. Aug 2024 | RESTORATION ECOLOGY

[Effectiveness of pre-fire forest management on post-fire forest conditions in southeastern Arizona.](#) Hefty, KL; Gillan, JK; Trejo, J; Koprowski, JL. Sep 2024 | FIRE ECOLOGY - Open Access

GIS & Remote Sensing

[An ecoregional conservation assessment for the Southern Rocky Mountains Ecoregion and the Santa Fe Subregion, Wyoming to New Mexico, USA.](#) DellaSalla, DA; Africanis, K; Baker, BC; Koopman, M. Aug 2024 | LAND - Open Access

Human Dimensions of Fire

[Estimating proximity effects to wildfire fuels treatment on house prices in Cibola National Forest, New Mexico, USA.](#) Fitch, RA; Mueller, JM; Meldrum, J; Huber, C. Oct 2024 | LANDSCAPE AND URBAN PLANNING

[Biochar production in northern New Mexico: Identifying challenges and opportunities.](#) Ynfante, RS; Falkowski, TB; Stricker, E; Cespedes, B. Sep 2024 | JOURNAL OF ENVIRONMENTAL MANAGEMENT.

[Identifying optimal locations for biochar production facilities to reduce wildfire risk and bolster rural economies: A New Mexico case study.](#) Adhikari, RK; Falkowski, TB; Sloan, JL. Dec 2024 | FOREST POLICY AND ECONOMICS - Open Access

Indigenous & Cultural Fire

[Co-design as participation: Creating meaningful pathways for collaboration in flood risk adaptation in Ohkay Owingeh Pueblo.](#) Mukerji, R; Lin, YC; (...); Johnson, C. Oct 2024 | INTERNATIONAL JOURNAL OF DISASTER RISK REDUCTION

Invasive Species

[Ventenata dubia projected to expand in the western United States despite future novel conditions.](#) Nietupski, TC; Kim, JB; (...); Kerns, BK. Sep 2024 | ECOSPHERE - Open Access

[Extent, impacts and drivers of oystershell scale invasions in aspen ecosystems.](#) Crouch, CD; Grady, AM; (...); Waring, KM. Sep 2024 | NEOBIOTA - Open Access

[Phenology forecasting models for detection and management of invasive annual grasses.](#) Prev  y, JS; Pearce, IS; (...); Jamevich, CS. Oct 2024 | ECOSPHERE - Open Access

Prescribed Fire & Managed Fire

No articles on this topic for this period.

Post-Fire

No articles on this topic for this period.

Safety, Health, & Well-being

[Gestational exposure to wildfire PM2.5 and its specific components and the risk of gestational hypertension and eclampsia in the southwestern United States.](#) Zhang, T; Ren, AX; (...); Wang, M. Nov 2024 | SCIENCE OF THE TOTAL ENVIRONMENT - Open Access

Smoke & Air Quality

[Shortwave absorption by wildfire smoke dominated by dark brown carbon.](#) Chakrabarty, RK; Shetty, NJ; (...); Mishra, R. Aug 2023 | NATURE GEOSCIENCE - Open Access

Suppression, Operations & Management

[Lightning-ignited wildfires in the Western Unites States: Ignition precipitations and associated environmental conditions.](#) Kalashnikov, DA; Abatzoglou, JT; (...); Singh, D. Aug 2023 | GEOPHYSICAL RESEARCH LETTERS - Open Access

Vegetation Change, Regeneration & Recovery

[Multidecadal vegetation transformations of a New Mexico ponderosa pine landscape after sever fires and aerial seeding.](#) Wion, Ap; Stevens, JT; (...); Allen, CD. Sep 2024 | ECOLOGICAL APPLICATIONS

[An assessment of conservation opportunities within sagebrush ecosystems of US National Parks and Wildlife Refuges.](#) Sparklin, BD; Doherty, KE; (...); Warren, JM. Nov 2024 | RANGELAND ECOLOGY AND MANAGEMENT - Open Access

[Climate drivers of Pinus ponderosa tree development on the volcanic tephra deposits in the Southwestern USA: Insights from radial increment and wood density variations.](#) Molian, JGA; Altman, J; (...); Dolezal, J. Dec 2024 | DENDROCHRONOLOGIA

Watershed & Hydrology

[Changed seasonality and forcings of peak annual flows in ephemeral channels at Flagstaff, Northern Arizona, USA.](#) Schiefer, E; Schenk, E. Aug 2024 | HYDROLOGY - Open Access

[Estimating changes in streamflow attributable to wildfire in multiple watersheds using a semi-distributed watershed model.](#) Wells, R; Mankin, KR; (...); Bamard, B. Aug 2024 | ECOHYDROLOGY - Open Access

[Redistribution of debris-flow sediment following severe wildfire and floods in the Jemez Mountains, New Mexico, USA.](#) Friedman, JM; Tillery, AC; (...); Allen, CD. Aug 2024 | EARTH SURFACE PROCESSES AND LANDFORMS

[Pre-fire assessment of post-fire debris-flow hazards in the Santa Fe Municipal Watershed.](#) Lopez, M; Margolis, E; (...); Hook, A. Aug 2024 | INTERNATIONAL JOURNAL OF WILDLAND FIRE

[Longitudinal propagation of aquatic disturbances following the largest wildfire recorded in New Mexico, USA.](#) Nichols, J; Joseph, E; (...); Gonz  lez-Pinz  n, R. Aug 2024 | NATURE COMMUNICATIONS - Open Access

[Assessment of post-wildfire geomorphic change in the north fork eagle creek stream channel, New Mexico, 2017-21.](#) Nichols, JR; Chavarria, SB; Alexander, P. Sep 2024 | SCIENTIFIC INVESTIGATIONS REPORT - Open Access

Wildlife

[Population viability analysis of Chihuahua Chub in the Mimbres River, New Mexico.](#) Del Piccolo, G; Klein ZB; Zeigler, MP. Sep 2024 | TRANSACTIONS OF THE AMERICAN FISHERIES SOCIETY

[Abiotic and demographic drivers of flea parasitism on deer mice in a recovering mixed-conifer forest a decade postfire.](#) Padilla, CJ; Martin, JT; Cain, JW; Gompper, ME. Aug 2024 | JOURNAL OF PARASITOLOGY

Wildland-Urban Interface (WUI)

No articles on this topic for this period.

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