

DONALD A. FALK
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School of Natural Resources and the Environment
University of Arizona, Tucson, AZ 85721
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JOINT APPOINTMENTS:

2007 – Laboratory of Tree-Ring Research (Professor, Dendrochronology)
2007 – Arizona Institute for Resilient Environments and Societies (AIRES; Affiliated Faculty)
2015 – Global Change Graduate Interdisciplinary Program (Professor, Global Change)

EDUCATION

Ph.D. University of Arizona, Ecology & Evolutionary Biology, 2004
M.A. Tufts University, Environmental Policy, 1981
B.A. Oberlin College, Interdisciplinary Studies, 1972

RESEARCH INTERESTS

Fire ecology, fire history, ecological resilience, dendroecology, fire climatology, restoration ecology, global change ecology, ecological scale.

PREVIOUS POSITIONS

1998 – 2007 **Laboratory of Tree-Ring Research, University of Arizona**
2004 – 2007 Adjunct Associate Professor
1998 – 2004 Graduate Associate in Research

1993 – 2002 **Society for Ecological Restoration**

2000 – 2002 Science & Policy Consultant.

1993 – 2000 Executive Director. First director of the leading international organization dedicated to the science and practice of ecological restoration.

1993 – 1994 **The Nature Conservancy of Arizona.** Field biologist and consultant for assessment of conservation status of rare plants in southern Arizona.

1984 – 1993 **Center for Plant Conservation, Co-Founder and Executive Director.** Co-founder of first national organization dedicated to conservation of endangered plants, at Arnold Arboretum (Harvard University (1984 – 1991), Missouri Botanical Garden (1991 – 2015), and San Diego Zoo Global (2015 – present).

1980 – 1984 **Cambridge Community Development Department, Energy Director.** Developed and managed \$1.5 million residential energy conservation program.

AWARDS AND HONORS

1991 – current Fellow, American Association for the Advancement of Science (AAAS)

2023 – current Sigma Xi

2013, 2021 Outstanding Course (Introduction to Wildland Fire), School of Natural Resources and the Environment, University of Arizona

2020, 2023 Outstanding Faculty Member, School of Natural Resources and the Environment, University of Arizona (2023: Honorable Mention)

- 2019 – 2020 Academic Leadership Institute, University of Arizona
2015 Research Delegate representing the University of Arizona, Conference of Parties (COP21), UN Framework Convention on Climate Change (UNFCCC); Paris, France.
2014 – 2015 Faculty Fellow, Udall Center for Studies in Public Policy
2012 Outstanding Scholarly Achievement, School of Natural Resources and the Environment, University of Arizona
2008 Outstanding Paper in Landscape Ecology, International Association for Landscape Ecology (US): Falk, Miller, McKenzie, and Black, 2007, *Ecosystems*
2004 Center for Plant Conservation, STAR Award
2004 International Association of Landscape Ecology (US), Student Presentation Award, Honorable Mention
2003 Edward S. Deevey Award, Ecological Society of America, Outstanding Presentation in Paleoecology
2001 – 2002 Marshall Foundation Graduate Fellowship
2001 – 2003 National Science Foundation, Doctoral Dissertation Improvement Grant
2001 – 2002 Robert W. Hoshaw Scholar, Ecology & Evolutionary Biology, U. Arizona
1999 – 2000 William McGinnies Scholar, Arid Lands Studies, University of Arizona
1998 – 2001 Achievement Rewards for College Scientists (ARCS) Scholar
1996 Pinchot Institute for Conservation, U.S. Forest Service, Conservation Scholarship
1995 – 1996 Lockwood Fellow, College of Forest Resources, University of Washington
1991 Fulbright Short-Term Scholars Award, Australian Fulbright Foundation
1990 – 1991 Arboretum Associate, Arnold Arboretum, Harvard University
1990 Plant Conservation Award, New England Wild Flower Society
1981 Governor's Award for Energy Conservation, Commonwealth of Massachusetts

TEACHING, LECTURES, AND INTERNSHIPS

University of Arizona

- 2020 – current The Climate Crisis and How to Solve It. Honors College Colloquium (HNRS 195-I)
2010 – current Fire Ecology (Renewable Natural Resources 496a/696a)
2009 – current Restoration Ecology (Renewable Natural Resources 435/535)
2008 – current Introduction to Wildland Fire (Renewable Natural Resources 355)
2006 – current Instructor, Advanced Fire Effects (RX-510) and Fire in Ecosystem Management (M-580), National Advanced Fire and Resource Institute (NAFRI)
2005 – current Dendroecology (Geosciences/Ecology 497k/597k)
2003 – current Lectures and seminars in climate adaptation, fire ecology, conservation biology, dendroecology, restoration ecology, and ecological resilience in multiple University units
2013 – 2017 Introduction to Natural Systems (DVP 620, Master's Program in Development Practice), teaching cadre
2002 Environmental History of the Southwest (GEOS 220, P. Sheppard), Teaching Assistant
2000 – 2001 Columbia University, Earth Semester Mentor, BioSphere II, Oracle, AZ.
1988 – 1989 Conservation Botany (BOT 332), Arnold Arboretum of Harvard University
1981 – 1989 Tufts University, Adjunct Assistant Professor, Dept. of Urban and Environmental Policy: Biological Diversity and Conservation Strategies, Environmental Policy, Environmental Political Economy
1979 – 1980 The Nature Conservancy/Massachusetts Department of Environmental Management, Research Associate, Massachusetts Natural Heritage Program.
1979 Science Instructor, Charles River Academy, Cambridge, MA
1978 EarthWatch, Inc. and Massachusetts Department of Environmental Management.
1978 Research Assistant, Hummingbird Cay Field Station, Great Exuma, Bahamas
1978 Graduate Teaching Assistant, Environmental Planning and Design, Tufts University
1977 – 1978 Lincoln Filene Center, New England Environmental Network, Tufts University.

SELECTED PUBLICATIONS

Publication metrics (GS):

Citations	12,333
<i>h</i> -index	51
<i>i</i> 10 index	107

Books

- Palmer MA, **DA Falk**, and JB Zedler (Eds.). 2016. *Foundations of Restoration Ecology*. Second Edition. Island Press, Washington, DC.
- McKenzie D, C Miller, and **DA Falk** (Eds.). 2011. *The Landscape Ecology of Fire*. Ecological Studies Series No. 213, Springer, Dordrecht, Netherlands. 24,697 chapter downloads since publication.
- Falk DA**, MA Palmer, and JB Zedler (Eds.). 2006. *Foundations of Restoration Ecology*. Island Press, Washington, DC.
- Falk DA**, CI Millar, and M Olwell (Eds.). 1996. *Restoring Diversity: Strategies for Reintroduction of Endangered Plants*. Island Press, Washington, DC.
- Falk DA** and KE Holsinger (Eds.). 1991. *Genetics and Conservation of Rare Plants*. Oxford University Press, New York.

Thesis and Dissertation

- Falk DA**. 2004. *Scaling rules for fire regimes*. Ph.D. dissertation, Department of Ecology & Evolutionary Biology, and Laboratory of Tree-Ring Research, University of Arizona. Tucson. 305 pp. <https://repository.arizona.edu/handle/10150/290135>
- Falk DA**. 1981. *Political economy of the environment*. Department of Urban and Environmental Policy, Tufts University. https://tufts-primis.hosted.exlibrisgroup.com/permalink/f/18fc9o8/01TUN_ALMA2190679550003851

Peer reviewed publications

In review/revision

- Cortés Montaña C, J Kellerman, PZ Fulé, **DA Falk**, and EC Enkerlin Hoeflich. Thick-billed Parrot (*Rhynchopsitta pachyrhyncha*: Psittacidae) old-growth forest habitat associated with frequent fires in northwestern México. *Fire Ecology*. In revision.
- Ektvedt TM, **DA Falk**, MN Evans, R Penniston, S White, and P Sheppard. Dendrochronology and isotope chronology of *Juglans neotropica* and its response to El Niño events in tropical highlands of Piura, northern Peru. *Dendrochronologia*. In revision.
- Fule, M and **DA Falk**. Repeated Fire and Extended Drought Influence Forest Resilience in Arizona Sky Islands. *Fire Ecology*, revised and resubmitted.
- Kellerman JL, **DA Falk**, and C van Riper II. Birds select diverse fire mosaics during migration. *Ecological Applications*. In revision.
- Parks SA, Guiterman CH, Margolis EQ, Lonerman M, Whitman E, Abatzoglou JT, **Falk DA**, Johnston JD, Daniels LD, Lafon CW, Loehman RA, Kipfmüller KF, Naficy CE, Parisien M-A, Portier J, Stambaugh MC, Williams AP, Wion AP, and Yocom LL. Widespread evidence of a North American fire deficit despite recent increased high severity wildfire. *Proceedings of the National Academy of Sciences*. Submitted.
- Swetnam TL, **DA Falk**, BJ Enquist, AM Lynch, DP Guertin, and SR Yool. Assessing the generality of Metabolic Scaling Theory in differing forest disturbance regimes. *American Naturalist*. In revision.

Published

- Lalor AR, DJ Law, DD Breshears, **DA Falk**, JP Field, RA Loehman, FJ Triepke, and GA Barron-Gafford. 2023. Mortality Thresholds of Juvenile Trees to Drought and Heatwaves: Implications

- for Forest Regeneration across a Landscape Gradient. *Frontiers in Forests and Global Change*, 6: 1198156. <https://doi.org/10.3389/ffgc.2023.1198156>
- MacDonald G, T Wall, CAF Enquist, SR LeRoy, JB Bradford, DD Breshears, T Brown, D Cayan, C Dong, MKE Evans, **DA Falk**, E Fleishman, A Gershunov, M Hunter, RA Loehman, PJ van Mantgem, BR Middleton, HD Safford, MW Schwartz and V Trouet. 2023. The drivers of California's changing wildfires: A state-of-the-knowledge synthesis. *International Journal of Wildland Fire* 32(7): 1039-1058. <https://doi.org/10.1071/WF22155>
- Taylor EJ, **DA Falk**, RH Towner. 2023. Traversing the Southern Canadian Rocky Mountains: A Least Cost Path Analysis. *Human Ecology* <https://doi.org/10.1007/s10745-022-00386-6>
- Margolis EQ, CH Guiterman, RD Chavardès, JD Coop, K Copes-Gerbitz, DA Dawe, **DA Falk**, et al. 2022. The North American tree-ring fire-scar network. *Ecosphere* 13(7), p.e4159. <https://doi.org/10.1002/ecs2.4159>
- Guiterman, C.H., R.M. Gregg, L.A.E. Marshall, J.J. Beckmann, P. van Mantgem, **D.A. Falk**, J.E. Keeley, A.C. Caprio, J.D. Coop, C. Haffey, S.T. Jackson, A.M. Lynch, E.Q. Margolis, C. Marks, M.D. Meyer, H. Safford, A.D. Syphard, A. Taylor, C. Wilcox, D. Carril, C.A.F. Enquist, P.J. Fornwalt, D. Huffman, J. Iniguez, N.A. Molinari, C. Restaino, and J.T. Stevens. 2022. Vegetation type conversion in the US Southwest: Field observations and perspectives from fire and ecosystem managers. *Fire Ecology* 18: 6. <https://doi.org/10.1186/s42408-022-00131-w>
- Falk DA**, PJ van Mantgem, JE Keeley, RM Gregg, CH Guiterman, AJ Tepley, DJN Young, and LA Marshall. 2022. Mechanisms of forest resilience. *Forest Ecology & Management Tamm Review* 515: 120129. <https://doi.org/10.1016/j.foreco.2022.120129>
- Chazdon, R, **DA Falk**, L Banin, M Wagner, S Wilson, RC Grabowski, and KN Suding. 2021. The intervention continuum in restoration ecology: rethinking the active-passive dichotomy. *Restoration Ecology* <https://doi.org/10.1111/rec.13535>
- Garfin GM, **DA Falk**, CD O'Connor, K Jacobs, RD Sagarin, AC Haverland, A Haworth, A Baglee, J Weiss, JT Overpeck, and AA Zuñiga-Terán. 2021. A new mission: Mainstreaming climate adaptation in the US Department of Defense. *Climate Services* 22: 100230. <https://doi.org/10.1016/j.cliser.2021.100230>
- Swetnam TL, SR Yool, S Roy, and **DA Falk**. 2021. On the use of standardized multi-temporal indices for monitoring disturbance and ecosystem moisture stress across multiple Earth Observation Systems in the Google Earth Engine. *Remote Sensing* 13: 1448. <https://doi.org/10.3390/rs13081448>
- Hagmann K, P Hessburg, S Prichard, N Povak, PM Brown, PZ Fulé, R Keane, E Knapp, JM Lydersen, K Metlen, M Reilly, A Sánchez Meador, S Stephens, J Stevens, AH Taylor, LY Yocom, M Battaglia, D Churchill, L Daniels, **DA Falk**, M Krawchuk, J Johnston, C Levine, G Meigs, A Merschel, M North, H Safford, TW Swetnam, and A Waltz. 2021. Evidence for Widespread Changes in the Structure, Composition, and Fire Regimes of Western North American Forests. *Ecological Applications* 31(8): e02431. <http://dx.doi.org/10.1002/eap.2431>
- Evans MEK, BA Black, EL Schultz, and **DA Falk**. 2021. Growth Rings across the Tree of Life: Demographic insights from biogenic time series data. Pp. 77-96 in R Salguero-Gomez and M Gamelon (Eds.), *Demographic Methods Across the Tree of Life*. Oxford University Press.
- Dewar JJ, **DA Falk**, TW Swetnam, CH Baisan, CD Allen, RR Parmenter, EQ Margolis, and EJ Taylor. 2021. Landscape reconstruction of historical fire regimes of forest-grassland ecotones and grasslands in the Valles Caldera National Preserve, New Mexico, USA. *Landscape Ecology* 36: 331–352. <https://link.springer.com/article/10.1007/s10980-020-01101-w>
- Van Mantgem E, PJ van Mantgem, **DA Falk**, and JE Keeley. 2020. Linking diverse terminology to vegetation type-conversion, a complex emergent property. California Fire Science Consortium, *Research Synthesis for Resource Managers*, December. <http://www.cafiresci.org/>
- O'Connor CD, **DA Falk**, and GM Garfin. 2020. Projected climate-fire interactions drive forest to shrubland transition on an Arizona Sky Island. *Frontiers in Earth Science* 8: Article 137. <https://doi.org/10.3389/fevs.2020.00137>

- Republished in: D Bachelet, G Lasslop, and JT Abatzoglou, Eds. 2021. *Climate, Land Use, and Fire: Can Models Inform Management?* Lausanne: Frontiers Media SA. <http://doi:10.3389/978-2-88966-383-5>
- Coop JD, SA Parks, CS Stevens-Rumann, S Crausbay, PE Higuera, MD Hurteau, A Tepley, E Whitman, T Assal, BM Collins, KT Davis, S Dobrowski, **DA Falk**, PJ Fornwalt, PZ Fulé, BJ Harvey, VR Kane, CE Littlefield, EQ Margolis, M North, M-A Parisien, S Prichard, KC Rodman. 2020. Wildfire-driven forest conversion in western North American landscapes. *BioScience* 70 (8): 659–673. <https://doi.org/10.1093/biosci/biaa061>
- Arizpe AH, **DA Falk**, C Woodhouse, and TW Swetnam. 2020. Widespread fire years in the US-Mexico sky islands are contingent on both winter and monsoon precipitation. *International Journal of Wildland Fire*. <https://doi.org/10.1071/WF19181>
- Marshall LA and **DA Falk**. 2020. Demographic trends in community functional tolerance reflect tree responses to climate and altered fire regimes. *Ecological Applications* e02197. <https://doi.org/10.1002/eap.2197>
- Lepley K, R Touchan, D Meko, E Shamir, R Graham, and **DA Falk**. 2020. A multi-century Sierra Nevada snowpack reconstruction modeled using upper-elevation coniferous tree rings (California, USA). *The Holocene* 30(9): 1266-1278. <https://doi.org/10.1177/0959683620919972>
- van Mantgem PJ, **DA Falk**, EC Williams, AJ Das, and NL Stephenson. 2020. Intermediate- and long-term growth predict post-fire tree mortality for common conifers in western U.S. parks. *International Journal of Wildland Fire* 29(6) 513-518. <https://doi.org/10.1071/WF19020>
- Newman EA, M Wilber, K Kopper, M Moritz, **DA Falk**, D McKenzie, and J Harte. 2020. Disturbance macroecology: a comparative study of community structure metrics in a high severity disturbance regime. *EcoSphere* 11(1):e03022. Top cited article list, Wiley & Sons. <https://10.1002/ecs2.3022>
- Webb AD, **DA Falk**, and DM Finch. 2019. *Fire Ecology and Management in Lowland Riparian Ecosystems of the Southwestern United States and Northern Mexico*. US Forest Service, General Technical Report RMRS-GTR-401. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 132 p. <https://www.fs.usda.gov/treearch/pubs/59156>
- Guiterman CH, EQ Margolis, CH Baisan, **DA Falk**, CD Allen, and TW Swetnam. 2019. Spatio-temporal variability of human-fire interactions on the Navajo Nation. *EcoSphere* 10(11): e02932. <https://doi.org/10.1002/ecs2.2932>
- Friggens M, RA Loehman, AE Thode, W Flatley, A Evans, W Bunn, C Wilcox, S Mueller, L Yocom, and **DA Falk**. 2019. *User guide to the FireCLIME Vulnerability Assessment (VA) tool: A rapid and flexible system for assessing ecosystem vulnerability to climate-fire interactions*. Gen. Tech. Rep. RMRS-GTR-395. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 42 p. <https://www.fs.usda.gov/treearch/pubs/59033>
- Newman EA, MC Kennedy, **DA Falk**, and D McKenzie. 2019. Scaling and complexity in landscape ecology. *Frontiers in Ecology and Evolution* 7: a293. <https://doi.org/10.3389/fevo.2019.00293>
- Keeley JE, P van Mantgem, and **DA Falk**. 2019. Fire, climate and changing forests. *Nature Plants* 5 (8): 774-775. <https://doi.org/10.1038/s41477-019-0485-x>
- Falk DA**, AC Watts, and AE Thode. 2019. Scaling ecological resilience. *Frontiers in Ecology and Evolution* 7: 275. <https://doi/10.3389/fevo.2019.00275>
- Smith M, Stark, T Taylor, M Ferreira, E de Oliveira, N Restrepo-Coupe, S Chen, T Woodcock, D dos Santos, L Alves, M Figueira, P de Camargo, R Oliviera, LE Cruz de Aragão, **DA Falk**, S McMahon, T Huxman, and S Saleska. 2019. Seasonal and drought-related changes in leaf area profiles depend on height and light environment in an Amazon forest. *New Phytologist* <https://nph.onlinelibrary.wiley.com/doi/epdf/10.1111/nph.15726> .
- Marshall LA, **DA Falk**, and NG McDowell. 2019. Nitrogen can limit overstory tree growth following extreme stand density increase in a ponderosa pine forest. *Tree-Ring Research* 75(1):49-60. <https://doi.org/10.3959/1536-1098-75.1.49>

- Heyerdahl EK, RA Loehman, and **DA Falk**. 2019. A multi-century history of fire regimes along a transect of mixed-conifer forests in central Oregon, USA. *Canadian Journal of Forest Research* 49: 76–86. <https://dx.doi.org/10.1139/cjfr-2018-0193>
- Van Mantgem P, **DA Falk**, EC Williams, A Das, and N Stephenson. 2018. Pre-fire drought and competition mediate post-fire conifer mortality in western U.S. National Parks. *Ecological Applications* 28(7): 1730–1739. <https://doi.org/10.1002/eap.1778>
- Hanna D, **DA Falk**, TW Swetnam, and W Romme. 2018. Age-related climate sensitivity in *Pinus edulis* at Dinosaur National Monument, Colorado, USA. *Dendrochronologia* 52:40-47. <https://doi.org/10.1016/j.dendro.2018.09.002>
- Keane RE, RA Loehman, LM Holsinger, P Higuera, SM Hood, and **DA Falk**. 2018. Evaluating resilience into the future from the past: using historical variation to develop an operational application. *EcoSphere* 9(9):e02414. <https://doi:10.1002/ecs2.2414>
- Gann GD, T McDonald, J Aronson, KW Dixon, B Walder, JG Hallett, K Decler, **DA Falk**, EK Gonzales, C Murcia, CR Nelson, and AJ Unwin. 2018. The SER Standards: a globally relevant and inclusive tool for improving the practice. *Restoration Ecology* 26(3): 426-430. <https://doi:10.1111/rec.12819>
- Newman EA, MQ Wilber, KE Kopper, MA Moritz, **DA Falk**, D McKenzie, and J Harte. 2018. Disturbance macroecology: integrating disturbance ecology and macroecology in different-age post-fire stands of a closed-cone pine forest. *bioRxiv* 309419; doi: <https://doi.org/10.1101/309419>
- Harley G, CH Baisan, PM Brown, H Grissino-Mayer, **DA Falk**, W Flatley, A Hessl, EK Heyerdahl, M Kaye, C Lafon, EQ Margolis, R Maxwell, A Naito, W Platt, M Rother, T Saladyga, R Sherriff, L Stachowiak, M Stambaugh, EK Sutherland, and AH Taylor. 2018. Advancing dendrochronological studies of fire in the United States. *Fire* 1: 11. <http://doi:10.3390/fire1010011>
- Conver JL, **DA Falk**, SR Yool, and RR Parmenter. 2018. Modeling fire pathways in montane grassland-forest ecotones. *Fire Ecology* 14(1): 17-31. <http://doi:10.4996/fireecology.140117031>
- Guiterman CH, EQ Margolis, CD Allen, **DA Falk**, and TW Swetnam. 2018. Long-term persistence and frequent fire suggest future increased landscape dominance of shrubfields in northern New Mexico. *Ecosystems* 21(5): 943-959. <http://DOI:10.1007/s10021-017-0192-2>
- Ketcham SL, JL Koprowski, and **DA Falk**. 2017. Differential Response of Native Arizona Gray Squirrels and Introduced Abert's Squirrels to a Mosaic of Burn Severities in the Santa Catalina Mountains. *Mammal Study* 42: 247–258. <https://doi.org/10.3106/041.042.0407>
- Kitzberger T, **DA Falk**, AL Westerling, and TW Swetnam. 2017. Direct and indirect climate controls predict heterogeneous early-mid 21st century wildfire burned area across western and boreal North America. *PLoS One* 12(12): e0188486. <https://doi.org/10.1371/journal.pone.0188486> . *PLoS One* top-10% most cited 2017 papers.
- Evans MK, **DA Falk**, AH Arizpe, TL Swetnam, F Babst, and KE Holsinger. 2017. Fusing tree-ring and forest inventory data to infer influences on tree growth. *EcoSphere* 8(7):e01889. <http://doi:10.1002/ecs2.1889>
- Falk DA**. 2017. Restoration ecology, resilience, and the axes of change. *Annals of the Missouri Botanical Garden* 102:201–216. <http://doi:10.3417/2017006>
- Minor J, **DA Falk**, and GA Barron-Gafford. 2017. Fire severity and regeneration strategy influence shrub patch size and structure following disturbance. *Forests* 8: 221. <http://doi:10.3390/f8070221>
- O'Connor CD, **DA Falk**, AM Lynch, TW Swetnam, and C Wilcox. 2017. Disturbance and productivity interactions mediate stability of forest composition and structure. *Ecological Applications* 27(3): 900–915. <http://doi:10.1002/eap.1492>
- Yocom Kent LL, PZ Fulé, PM Brown, J Cerano-Paredes, E Cornejo-Oviedo, C Cortes Montaña, SA Drury, **DA Falk**, J Meunier, HM Poulos, CN Skinner, SL Stephens, and J Villanueva-Díaz. 2017. Climate drives fire synchrony but local factors control fire regime change in northern Mexico. *Ecosphere* 8(3):e01709. <http://doi:10.1002/ecs2.1709>

- Triepke FJ, EH Muldavin, MM Wahlberg, TK Lowrey, **DA Falk**, MM Friggens, and KE Bagne. 2016. *Assessing the Climate Change Vulnerability of Ecosystem Types of the Southwestern U.S.* http://digitalrepository.unm.edu/biol_etds/200
- Falk DA** and CI Millar. 2016. The Influence of Climate Variability and Change on the Science and Practice of Restoration Ecology. In Palmer MA, DA Falk, and JB Zedler (Eds.). *Foundations of Restoration Ecology*. Second Edition. Island Press, Washington, DC.
- Richards CM, **DA Falk**, and AM Montalvo. 2016. Population and Ecological Genetics in Restoration Ecology. In Palmer MA, DA Falk, and JB Zedler (Eds.). *Foundations of Restoration Ecology*. Second Edition. Island Press, Washington, DC.
- Palmer MA, JB Zedler, and **DA Falk**. 2016. Ecological Theory and Restoration Ecology. In Palmer MA, DA Falk, and JB Zedler (Eds.). *Foundations of Restoration Ecology*. Second Edition. Island Press, Washington, DC.
- Falk DA**, W van Leeuwen, and A McEwen. 2016. Low-cost high-resolution global pyrogenic thermal sensing: Critical information for biosphere-atmosphere interactions. *Decadal Survey for Earth Science and Applications from Space (ESAS 2017)*, *National Academy of Science*.
- Stevens JT, HD Safford, MP North, PM Brown, CR Dolanc, SZ Dobrowski, **DA Falk**, CA Farris, JF Franklin, JS Fried, PZ Fulé, AN Gray, RK Hagmann, EE Knapp, JD Miller, DF Smith, TW Swetnam, and AH Taylor. 2016 Average Stand Age From Forest Inventory Plots Does Not Describe Historical Fire Regimes in Ponderosa Pine and Mixed-Conifer Forests of Western North America. *PLoS ONE* 11(5): e0147688. <http://doi:10.1371/journal.pone.0147688> . *PLoS One* top-10% most cited 2016 papers.
- Swetnam TW, J Farella, CI Roos, MJ Liebmann, **DA Falk**, & CD Allen. 2016. Multi-Scale Perspectives of Fire, Climate and Humans in Western North America and the Jemez Mountains, U.S.A. *Philosophical Transactions of the Royal Society B* 371: 20150168. <http://dx.doi.org/10.1098/rstb.2015.0168>
- Falk DA**. 2016. The resilience dilemma: Incorporating global change into ecosystem policy and management. *Arizona Law Journal* 48(1): 145-156.
- Falk DA**. 2016. Review of *Fire on Earth: An Introduction*. AC Scott, DMJS Bowman, WJ Bond, SJ Pyne, and ME Alexander. 2014. Wiley Blackwell, Oxford, UK. *Quarterly Review of Biology* 91: 76-77.
- Smith KT, E Arbella, **DA Falk**, and EK Sutherland. 2016. Macroanatomy and compartmentalization of recent fire scars in three North American conifers. *Canadian Journal of Forest Research*. 46: 535–542. <http://dx.doi.org/10.1139/cjfr-2015-0377> .
- Anhold J, B Mitchell, C Wilcox, T Mellin, M Merrick, AM Lynch, M Waltermann, **DA Falk**, J Koprowski, D Laes, D Evans, and H Fisk. 2015. Using LiDAR to Evaluate Forest Landscape and Health Factors and Their Relationship to Habitat of the Endangered Mount Graham Red Squirrel on the Coronado National Forest, Pinaleño Mountains, Arizona. Ch. 12, p. 133-142 in KM Potter and B Conkling, Eds. *Forest Health Monitoring: National Status, Trends, and Analysis 2014*. Gen. Tech. Rep. SRS-209. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station.
- Swetnam TL and **DA Falk**. 2015. *Carbon Cycling in Southwestern Forests: Reservoirs, Fluxes, and the Effects of Fire and Management*. ERI Working Paper No. 35. Ecological Restoration Institute and Southwest Fire Science Consortium, Northern Arizona University, Flagstaff, AZ. 15 p. Synthesized as an ERI Fact Sheet: *Carbon Cycling in Southwestern Forests: Reservoirs, Fluxes, and the Effects of Fire and Management*. Ecological Restoration Institute and Southwest Fire Science Consortium, Northern Arizona University. <http://library.eri.nau.edu/gsd/collect/erilibra/index/assoc/D2015025.dir/doc.pdf>
- Keane RE, E Smithwick, D McKenzie, C Miller, **DA Falk**, and LB Kellogg. 2015. Representing Climate, Disturbance, and Vegetation Interactions in Landscape Simulation Models. *Ecological Modelling* 309–310: 33–47. <http://dx.doi.org/10.1016/j.ecolmodel.2015.04.009>

- Guerrant EO, K Havens, PL Fiedler, P Vitt, **DA Falk**, and K Dixon. Population Structure Integral to Seed Collection Guidelines: A Response to Hoban and Schlarbaum. 2015. *Biological Conservation* 184: 465-466. <http://dx.doi.org/10.1016/j.biocon.2015.02.020>
- Swetnam TL, AM Lynch, **DA Falk**, SR Yool, and DP Guertin. 2015. Discriminating natural variation from legacies of disturbance in semi-arid forests, Southwestern USA. *EcoSphere* 6(6):97. <http://dx.doi.org/10.1890/ES14-00384.1>
- Sidman G, DP Guertin, DC Goodrich, D Thoma, **DA Falk**, and IS Burns. 2015. A coupled modeling approach to assess the impact of fuel treatments on post-wildfire runoff and erosion. *International Journal of Wildland Fire*. <http://dx.doi.org/10.1071/WF14058>
- O'Connor CD, AM Lynch, **DA Falk**, and TW Swetnam. 2015. Post-fire forest dynamics and climate variability affect spatial and temporal properties of spruce beetle outbreaks on a Sky Island mountain range. *Forest Ecology and Management* 336: 148-162. <http://dx.doi.org/10.1016/j.foreco.2014.10.021>
- Yocom LL, P Z Fulé, C García-Domínguez, **DA Falk**, E Cornejo-Oviedo, PM. Brown, J Villanueva-Díaz, J Cerano, and C Cortés Montaña. 2014. Fine-scale factors influence fire regimes in mixed-conifer forests on three high mountains in Mexico. *International Journal of Wildland Fire* 23: 959–968. <http://doi.org/10.1071/WF13214>
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Editorial Panels

- 2023 – current Core Writing Team, *Climate adaptation strategies for old and mature forests of the United States: an ecocultural state of the science report*. US Forest Service white paper in response to *Strengthening the Nation's Forests, Communities, and Local Economies* (E.O. 14072, 2022).
- 2023 – current Associate Editor, *Frontiers in Forests and Global Change*
- 2019 – current Co-Editor, *Remote Sensing* Special Issue “Earth Observations for Ecosystem Resilience” (https://www.mdpi.com/journal/remotesensing/special_issues/ecosystem_resilience_RS). Papers published: Bernardino *et al.* 2020, Vova *et al.* 2020, Balch *et al.* 2020, Khatri-Chhetri *et al.* 2021, Swetnam *et al.* 2021.
- 1998 – current Co-founder (Associate Series Editor, 2000-2008; Editorial Board 2008 – present), Book Series: *Science & Practice of Ecological Restoration*, Island Press and Society for Ecological Restoration. <https://islandpress.org/books/science-and-practice-ecological-restoration-series> Titles published to date: 28.
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- 1996 – 98 Section editor, Conservation and Ecological Management, *Encyclopedia of Ecology and Environmental Management*, P Calow (Ed.). 1998. Blackwell Science, Oxford, U. K.
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RESEARCH SUPPORT

Central Oregon Fire Management Service
Collaborative Forest Restoration Program, US
Forest Service

Coronado National Forest
Ecological Restoration Institute, Northern
Arizona University

Ecosystem Interest Group, College of Forest
Resources, U. Washington
Global Change Research Program, US Forest
Service
Joint Fire Science Program
Mazamas Research Committee
National Park Service (Saguaro, Zion NPs)
National Science Foundation
National Center for Ecological Analysis &
Synthesis
Natural Resources Conservation Service
Pima County Regional Flood Control District
Rocky Mountain Research Station, US Forest
Service

T&E Foundation
US Department of Defense, Strategic
Environmental Research and Development
Program (SERDP)
USGS, Southwest Climate Adaptation Science
Center
University of Arizona:
Arizona Institutes for Resilience
Ecology & Evolutionary Biology
Research Innovation Challenge, College of
Agriculture and Life Sciences
Institute of the Environment
Faculty Seed Grant, VP for Research

SELECTED LECTURES AND KEYNOTE PRESENTATIONS

American Association for the Advancement of
Science (AAAS)
American Geophysical Union (AGU)
AmeriDendro
Arizona Cooperative Extension Service
Arizona Native Plant Society
Association of American Geographers (AAG)
Association for Fire Ecology
Carnegie-Mellon University
Center for Plant Conservation
Central Oregon Fire Science Symposia
Chicago Botanic Garden
Chinese Academy of Sciences, Peoples' Republic of
China
Collaborative Forest Restoration Program, US Forest
Service
Consultative Group on Biological Diversity
Colorado State University
Columbia University, Lamont-Doherty Earth
Observatory
Ecological Landscape Association
Ecological Restoration Institute, Northern Arizona
University
Ecological Society of America
Fire Sciences Laboratory, US Forest Service
Forest Guild
Gila River Basin Restoration Forum
Harvard Club of Tucson
International Arid Lands Consortium
Institute of the Environment
International Association for Landscape Ecology
International Institute for Tropical Forestry, Puerto
Rico
Joint Fire Science Program
Missouri Botanical Garden, Fall Symposium

Mountain Climate Sciences Symposium
National Advanced Fire and Resource Institute
National Center for Ecological Analysis & Synthesis
National Forestry and Grasslands Administration,
Peoples' Republic of China
Natural Areas Association
New England Wildflower Society, Centennial Tour
New Mexico Forest and Watershed Health Board
Oklahoma State University
Pacific Southwest Research Station, US Forest
Service
Santa Cruz Watershed Collaborative
Santa Fe Forest Forum
Society of American Foresters
Society for Ecological Restoration
Society for Range Management
Southwest Fire Science Consortium
St. Albert Forum on Theology and Science, Newman
Center, University of Arizona
The Nature Conservancy, Fire Learning Network
The Royal Society, UK
United States Congress
University of Arizona, Desert Laboratory
University Corporation for Atmospheric Research
(UCAR)
University of Gröningen, Netherlands
University of North Carolina
US Army, Engineering Research and Development
Center (ERDC)
US Forest Service, Landscape Architecture Summit
USGS Southwest Climate Adaptation Science Center
USGS Western Mountain Initiative

PEER REVIEW

Air, Soil, and Water Research
Atmospheres
BioScience
Blackwell Science
Cambridge University Press
Canadian Journal of Forest Research
Climatic Change
Canadian Journal of Water Resources
Conservation Biology
Diversity and Distributions
Ecology
Ecological Applications
Ecological Modeling
Ecosphere
EcoScience
Environmental Research Letters
Fire Ecology
Forest Ecology & Management
Frontiers in Ecology and the Environment
Global Change Biology
International Journal of Wildland Fire
Island Press
Journal of Arid Environments
Journal of Biogeography

Journal of Ecology
Journal of Forestry
Journal of the Royal Society Interface
Journal of Vegetation Science
Landscape Ecology
MacArthur Fellows Program
Natural Environment Research Council (NERC), UK
Nature Ecology & Evolution
Natural Sciences and Engineering Research Council
of Canada (NSERC)
National Science Foundation (US)
Nature Reviews Genetics
Oecologia
Oxford University Press
Plant Diversity
Proceedings of the National Academy of Sciences
(PNAS)
Quarterly Review of Biology
Remote Sensing
Restoration Ecology
Science
Turkish Journal of Agriculture and Forestry
US Geological Survey
Western Journal of Applied Forestry

BOARDS AND COMMITTEES

2023 – current Climate Adaptation Strategies for Old and Mature Forests, Core Writing Team, US Forest Service White Paper.

2023 – current External Reviewer Panel, Conservation and Adaptation Resources Toolbox (CART: <https://usbr.maps.arcgis.com/apps/Cascade/index.html?appid=01245fcb9dec43938996e18b53f0f142>), US Fish & Wildlife Service and Bureau of Reclamation.

2023 – current Center for Plant Conservation, Emeritus Trustee

2021 – current SWFire CAP, Steering Committee (<https://www.swfirecap.org/home>)

2021 – current Nevada NSF-EPSCOR: Harnessing the Data Revolution for Fire Science. External Advisory Committee (<https://epscorspo.nevada.edu/>)

2019 – current Faculty Status Committee, School of Natural Resources and the Environment, University of Arizona (Chair 2021-2022)

2018 – current Center for Climate Adaptation Science and Solutions, University of Arizona, Core Advisory Team, (<https://www.cclass.arizona.edu/node/364>)

2020 – 2021 California Air Resources Board, SB 901 “Historical Wildfire Emissions Baseline” Science Advisory Group

2020 IPCC AR6 Working Group I, Reviewer, Second Order Draft

2019 – 2022 Society for Ecological Restoration, Southwest Chapter, Board Member-at Large (<https://chapter.ser.org/southwest/>)

2019 – 2021 Diversity and Inclusion Council, Division of Agriculture, Life and Veterinary Sciences, and Cooperative Extension (ALVSCE), University of Arizona

2019 Faculty Promotion and Tenure Committee, Laboratory of Tree-Ring Research, University of Arizona.

2018 Co-Chair (with Jia Hu), SNRE Departmental Seminar Series, “Women in Ecology and Natural Resources.”

2018 Program Review Panel, Institute of the Environment

- 2017 – current Inclusive Excellence Committee, School of Natural Resources and the Environment, University of Arizona (Co-Chair 2017-2021)
- 2011 – current Chair, Global Change Ecology and Management Working Group, School of Natural Resources and the Environment, University of Arizona
- 2010 – current Executive Board, Southwest Fire Science Consortium
- 2008 – current Working Group, Fire History Analysis and Exploration (FHAES) program (www.frames.gov/fhaes)
- 2007 – current Advisor, Society for Ecological Restoration-Nepal
- 2003 – 2011 Office of the Governor, Arizona Forest Health Council
- 2001 – 2003 US Forest Service, Collaborative Forest Restoration Program, Technical Advisory Panel
- 1994 – current Indigenous Peoples Restoration Network
- 1993 – 2003 Native Seeds/SEARCH, Board of Directors
- 1991 – 1994 IUCN Species Survival Commission, Reintroduction Specialist Group
- 1988 – 1993 Society for Ecological Restoration, Madison, WI, Board of Directors
- 1984 – 1993 American Association of Botanical Gardens & Arboreta, Plant Conservation Committee

PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science
Association for Fire Ecology
Ecological Society of America
International Association for Landscape Ecology

Society for Ecological Restoration
Tree-Ring Society

MENTORS (current affiliations shown)

W Wallace Covington (Northern Arizona University); Peter Dreier (Occidental College); Kenneth Geiser (University of Massachusetts-Lowell); Lisa Graumlich (University of Washington); Charles Halpern (University of Washington); Sheldon Krimsky (Tufts University); Norton Nickerson (Tufts University); Peter H. Raven (Missouri Botanical Garden); Robert Robichaux (University of Arizona); Thomas W. Swetnam (University of Arizona); D. Lawrence Venable (University of Arizona).

POST-DOCTORAL SCHOLARS

Newman, Erica (University of California, Berkeley) 2018-2020
O'Connor, Christopher (University of Arizona) 2013-2015
Swetnam, Tyson (University of Arizona) 2013-2016

CURRENT AND GRADUATED STUDENTS (current affiliation)

Arizpe, Alexis, MS 2015 (University of Cambridge, UK)
Chiriboga, April, PhD 2015
Conver, Joshua, MS 2011 (University of Cincinnati)
Dewar, Jacqueline, MS 2011 (Alberta Fire Management Service)
Dreher, Meagan, MS, Northern Arizona University School of Forestry (in process)
Fulé, Miles, MS 2022 (University of Arizona, ecohydrology research program)
Guiterman, Christopher, PhD 2016 (NOAA/NCEI, Paleoclimate program)
Hannah, Dustin, MS 2014 (Northern Arizona University)
Kellerman, Jherime, PhD 2012 (Oregon Institute of Technology)
Ketcham, Shari, MS 2015 (US Forest Service)
Lalor, Alexandra, MS 2022 (US National Park Service)
Lee, Kangsan, PhD (in process)
Leinberger, Amanda, PhD (in process)
Lepley, Kai, MS 2018 (Technicians for Sustainability)
Lombardo, Keith, PhD 2012 (Cabrillo National Monument, National Park Service)

Macalady, Alison, PhD 2015 (National Research Council, Board on Atmospheric Sciences and Climate)
Maghran, Lauren, MS 2014 (US Environmental Protection Agency)
Marshall, Laura, PhD 2019 (Colorado State University)
Minor, Jesse, PhD 2017 (Bates College)
O'Connor, Christopher, PhD 2013 (US Forest Service, Rocky Mountain Research Station)
Pelletier, Pamela, PhD 2023, University of Arizona Laboratory of Tree-Ring Research
Potter, Grace (MS (in process)
Schulze, Scott, MS (US Department of Defense, Davis-Monthan AFB)
Sharma, Akanksha, MS 2018 (University of Georgia)
Sidman, Gabriel, MS 2013 (Winrock International)
Smith, Marielle, PhD 2017 (Michigan State University)
Steig, Adair, PhD (Anthropology, in process)
Swetnam, Tyson, PhD 2013 (University of Arizona, Data Science Institute/CyVerse)
Taber, Ethan, PhD (in process)
Taylor, Erana, PhD 2021 (Aldo Leopold Wilderness Institute, US Forest Service)
Towne, Geoffrey, MS 2013 (Tucson Water)
Von Haupt, Lea, MS (Coronado National Forest)
Walker, Athan, MSc (University of Arizona Computer Science, in process)
Webb, Amanda, MS 2017 (University of Arizona)
Wickhorst, Andrew, MS 2015 (City of Phoenix)
Williams, Emma, MS 2016 (US Forest Service, Tahoe Basin)