

Donald A. Falk
Professor
School of Natural Resources and the Environment
University of Arizona, Tucson, AZ 85721

Professional Preparation

University of Arizona, PhD 2004, Ecology & Evolutionary Biology
Tufts University, MA 1981, Environmental Policy
Oberlin College, BA 1972, Interdisciplinary Studies

Current Appointments:

2015 – current Global Change Graduate Interdisciplinary Program (Professor, Global Change)
2007 – current Laboratory of Tree-Ring Research (Professor, Dendrochronology)
2007 – current Institute for the Environment (Joint Faculty)

Previous Appointments

2007 – 2017 **School of Natural Resources and the Environment**, Associate Professor
2004 – 2007 **Laboratory of Tree-Ring Research, University of Arizona**, Postdoctoral Scholar
and Adjunct Associate Professor
1993 – 2000 **Society for Ecological Restoration**, Executive Director
1993 – 1994 **The Nature Conservancy of Arizona**. Field biologist and consultant
1984 – 1993 **Center for Plant Conservation**, Co-Founder and Executive Director

Selected recent publications:

1. Marshall LA, **DA Falk**, and NG McDowell. Nitrogen can limit overstory tree growth following extreme stand density increase in a ponderosa pine forest. *Tree-Ring Research*. In press.
2. Webb AD, **DA Falk**, and DM Finch. *Fire Ecology and Management in Lowland Riparian Ecosystems of the Southwestern United States and Northern Mexico*. US Forest Service, General Technical Report. In press.
3. Heyerdahl EK, RA Loehman, and **DA Falk**. A multi-century history of fire regimes along a transect of mixed-conifer forests in central Oregon, USA. *Canadian Journal of Forest Research*. In press.
4. 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.
5. 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.
6. 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>
7. 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>
8. 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>
9. 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>
10. Conner JL, **DA Falk**, SR Yool, and RR Parmenter. 2018. Stochastic fire modeling of a montane grassland and ponderosa pine fire regime in the Valles Caldera National Preserve, New Mexico, USA. *Fire Ecology* 14(1): 17-31. <http://doi:10.4996/fireecology.140117031>

11. 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>
12. Guiterman CH, EQ Margolis, CD Allen, **DA Falk**, and TW Swetnam. 2017. Long-term persistence and frequent fire suggest future increased landscape dominance of shrubfields in northern New Mexico. *Ecosystems* 1-17. <http://DOI:10.1007/s10021-017-0192-2>
13. Evans MK, **DA Falk**, A 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>
14. **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>
15. 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>
16. 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>
17. 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>
18. 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>
19. Keane, R. E., E. Smithwick, D. McKenzie, C. Miller, **D. A. Falk**, and L. B. 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>
20. Swetnam, T. L., A. M. Lynch, **D. A. Falk**, S. R. Yool, and D. P. Guertin. Discriminating natural variation from legacies of disturbance in semi-arid forests, Southwestern USA. 2015. *EcoSphere* 6(6):97. <http://dx.doi.org/10.1890/ES14-00384.1>
21. Swetnam, T. L., **D. A. Falk**, A. M. Lynch, and S. R. Yool. 2014. Estimating individual tree mid- and understory rank-size distributions from airborne laser scanning in semi-arid forests. *Forest Ecology and Management* 330: 271-282
22. O'Connor C.D., **Falk D.A.**, Lynch A.M., and Swetnam T.W. 2014. Fire severity, size, and climate associations diverge from historical precedent along an ecological gradient of the Pinaleno Mountains, Arizona, U.S.A. *Forest Ecology and Management* 329: 264–278. <http://dx.doi.org/10.1016/j.foreco.2014.06.032>
23. **Falk DA**. 2013. Are Madrean ecosystems approaching tipping points? Anticipating interactions of landscape disturbance and climate change. In Gottfried GJ, Pfolliott PF, Gebow BS, Eskew LG, and Collins LC, *Merging science and management in a rapidly changing world: Biodiversity and management of the Madrean Archipelago III*. RMRS P-67. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Fort Collins, CO.

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.
- 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, NY.

As of 16 November 2018:

Citations: 6718

h-index: 34

*i*10 index: 64

Selected Committees, Awards and Honors

Review Panel, Institute of the Environment, University of Arizona, 2018

Core Advisory Team, Center for Climate Adaptation Science and Solutions, U. Arizona, 2018 – current
Chair, Inclusive Diversity Committee, School of Natural Resources and the Environment, University of Arizona, 2017 – current

Chair, Global Change Ecology and Management Degree Option, School of Natural Resources and the Environment, University of Arizona, 2011 – current

Delegate, UN Conference of Parties 21 Climate Summit, Paris, France, December 2015

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

Udall Center Faculty Fellow, Udall Center for Studies in Public Policy, 2014 – 15

Outstanding Course (Introduction to Wildland Fire), School of Natural Res. and the Environment, 2013

Outstanding Scholarly Achievement, UA School of Natural Resources and the Environment, 2012

Best Paper in Landscape Ecology, International Association for Landscape Ecology – US (Falk, Miller, McKenzie, and Black, *Ecosystems*, 2007), 2008

Edward S. Deevey Award, Ecological Society of America, 2003

Marshall Foundation Graduate Fellowship, 2001 – 02

National Science Foundation, Doctoral Dissertation Improvement Grant, 2001 – 03

Robert W. Hoshaw Scholar, Ecology & Evolutionary Biology, University of Arizona, 2001 – 02

William McGinnies Scholar, Arid Lands Studies, University of Arizona, 1999 – 2000

Achievement Rewards for College Scientists (ARCS) Scholar, 1998 – 2001

Pinchot Institute for Conservation, U.S. Forest Service, Conservation Scholarship, 1996

Fulbright Short Term Scholars Award, Australian Fulbright Foundation, 1991

Synergistic Activities

Arizona FireScape. Research-management collaboration for landscape-scale fire management and restoration in the Arizona Sky Islands with local, state, and Federal partners. Co-PI 2007 – current. <http://www.srn.arizona.edu/projects/firescapesnr/index.html>.

Southwest Fire Science Consortium, science-management interface group. Executive Board, 2009 – present. Web: <http://www.forestguild.org/SWconsortium.html>.

National Advanced Fire and Resource Institute (NAFRI), Tucson. Instructor, Advanced Fire Effects (RX-510) and Ecosystem Management (M-580), 2006 – current.

Thesis advising and postgraduate scholar sponsor. Current: 3. Graduated: MS (13), PhD (9).

Postdoctoral scholars: 3. Total graduate students and postdocs: 28.