

Thomas W. Swetnam
Short Bio & Curriculum Vitae – March 2017

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Bio:

Tom Swetnam studies changes in climate and forest disturbances using dendrochronology. He is Regents' Professor Emeritus at the world's premier and largest laboratory dedicated to all aspects of tree-ring research and education, the Laboratory of Tree-Ring Research, University of Arizona. He has worked extensively on wildfire history and ecology in pine and giant sequoia forests of the western U.S., Mexico, South America, and Siberia, Russia. In addition to research in forest dynamics, disturbances and climate change, Tom is interested in the applications of science in the management of natural resources and in promoting effective science education and communication with land managers and the public.

University Education:

University of New Mexico, Dept. of Biology, Biological Sciences, B.S. 1977

University of Arizona, School of Natural Resources, Watershed Management, M.S. 1983

University of Arizona, School of Natural Resources /Geosciences, Ph.D.1987

Positions:

Regents' Professor Emeritus, 2015-present

Regents' Professor of Dendrochronology, 2012-2015

Director, Laboratory of Tree-Ring Research, 2000-2014

Professor of Dendrochronology, Laboratory of Tree-Ring Research; joint professorial appointments in School of Natural Resources & Environment, Ecology & Evolutionary Biology, School of Geography & Development, 2000-2012

Assistant/Associate Professor of Dendrochronology, Lab. of Tree-Ring Research, 1988-2000

Graduate Assistant/Associate in Research, Laboratory of Tree-Ring Research, 1980-1987

Forestry Technician, U.S. Forest Service, Gila Wilderness, 1977-1980

Park Technician, National Park Service, Grand Canyon National Park, 1975-1976

Honors & Awards (selected):

Harold C. Fritts Lifetime Achievement Award, Tree-Ring Society, 2016

Harold Biswell Award for Lifetime Achievement, Association for Fire Ecology, 2016

American Association for the Advancement of Science, Fellow, elected 2015

Zurich Financial Services Distinguished Visitor, Bren School of Environmental Science & Management, University of California Santa Barbara, 2014

E.J. Taaffe Distinguished Lecturer, Dept. of Geography, Ohio State University, 2010

Henry Cowles Award, Association of American Geographers, 2002

William Skinner Cooper Award, Ecological Society of America, 2001

Walter Orr Roberts Public Lecturer, Aspen Global Change Institute, 1999

Service Activities (selected):

Member, Board of Trustees, Valles Caldera National Preserve (appointed by U.S. President William J. Clinton, 2000-2004); Member, Governor's Forest Health Advisory Council (appointed by Arizona Governor Janet Napolitano (2003-2006); Member, Governor's Climate Change

Advisory Group (appointed by Arizona Governor Janet Napolitano (2005-2006)); Member (and founder), Board of Advisors, International Multiproxy Paleofire Database, National Climate Data Center, NOAA (2002-2014); Member & Chair, Board of Advisors, NOAA Paleoclimatology Program (2004-2005); Member of Executive Committee, Consortium for Integrated Climate Research in Western Mountains (CIRMOUNT) (2003-2010); Steering Committee of FireScape, a collaborative adaptive management initiative on fire and forest restoration in So. AZ 2007-2013; Oral and written testimony to U.S. Congress, 4 times since 2000; Currently associate editor for *International Journal of Wildland Fire*, 1993-present; *Fire Ecology*, 2009-present.

Four First-Authored Publications with >300 citations each (of approx. 150 papers, Google Scholar H-index 57, >18,500 citations total):

Swetnam, T. W., and J. L. Betancourt. 1990. Fire-Southern Oscillation relations in the Southwestern United States. *Science* 249:1017-1020.

Swetnam, T. W. 1993. Fire history and climate change in giant sequoia groves. *Science* 262:885-889.

Swetnam, T. W., and J. L. Betancourt. 1998. Mesoscale disturbance and ecological response to decadal climatic variability in the American Southwest. *Journal of Climate* 11:3128-3147.

Swetnam, T. W., C. D. Allen, and J. L. Betancourt 1999. Applied historical ecology: Using the past to manage for the future. *Ecological Applications* 9(4):1189-1206.

Four Other Selected Publications:

Westerling, A. L., H. G. Hidalgo, D. R. Cayan, and **T. W. Swetnam**. 2006. Warming and earlier spring increase western U.S. wildfire activity. *Science* 313:940-943.

Swetnam, T.W., C. H. Baisan, A. C. Caprio, P. M. Brown, R. S. Anderson, and D. W. Hallett. 2009. Multi-millennia fire history of the Giant Forest, Sequoia National Park, USA. *Fire Ecology* 5(3):117-147.

Swetnam, T.W. and P. M. Brown. 2011. Climatic inferences from dendroecological reconstructions. Chapter 9, In: Hughes, M.K., **T.W. Swetnam**, and H.F. Diaz, editors, *Dendroclimatology: Progress and Prospects*, Springer, New York. 340pp.

Williams, A.P., C.D. Allen, A.K. Macalady, D. Griffin, C.A. Woodhouse, D.M. Meko, **T.W. Swetnam**, S.A. Rauscher, R. Seager, H.D. Grissino-Mayer, J.S. Dean, E.R. Cook, C. Gangodagamage, M. Cai, and N.G. McDowell. 2013. Temperature as a potent driver of regional forest drought stress and tree mortality. *Nature Climate Change* 3:292–297.

Four other Recent Publications:

Guiterman, C.H., **T.W. Swetnam**, and J.S. Dean. 2015. Eleventh-century shift in timber procurement areas for the great houses of Chaco Canyon. *Proceedings of the National Academy of Sciences* 113(5):1186-1190.

Iniguez, J.M., **T.W. Swetnam**, and C.H. Baisan. 2016. Fire history and moisture influences on historical forest age structure in the sky islands of southern Arizona, USA. *Journal of Biogeography* 43(1):85-95.

Liebmann, M.J., J. Farella, C.I. Roos, A. Stack, S. Martini, and **T.W. Swetnam**. 2016. Native American depopulation, reforestation, and fire regimes in the Southwest United States, 1492–1900 CE. *Proceedings of the National Academy of Sciences* 113 (6) E696-E704; published ahead of print January 25, 2016

Swetnam, T.W., J. Farella, C.I. Roos, M.J. Liebmann, D.A. Falk and C.D. 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*.
<http://dx.doi.org/10.1098/rstb.2015.0168>