

## JAKE F. WELTZIN

Ecologist, US Geological Survey  
jweltzin@usgs.gov

### Select Education

- 1993-1998 Ph.D., Renewable Natural Resource Studies (major) and Global Change (minor), 1998  
University of Arizona, Tucson, AZ
- 1988-1990 M.S., Range Science, 1990  
Texas A & M University, College Station, TX
- 1983-1987 B.S., *cum laude*, Range and Forest Management, 1987  
Colorado State University, Fort Collins, CO

### Select Experience

- Program Manager, Status and Trends Program. Ecosystems Mission Area, US Geological Survey, Reston, VA, 20192. 2015-Present.
- Executive Director, USA National Phenology Network, National Coordinating Office, Tucson, AZ 85721. 2007-Present.
- Ecologist, Ecosystems Mission Area, US Geological Survey, Reston, VA, 20192. 2007-Present.
- Adjunct Associate Professor. School of Natural Resources and Environment, University of Arizona, Tucson, AZ, 85721. 2007-Present.
- Program Director. Ecological Biology, Division of Environmental Biology, National Science Foundation, Arlington, VA, 22230. 2006-2007.
- Associate Professor. Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN, 37996. 2005-2007.
- Assistant Professor. Department of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN, 37996. 1999-2005.

### Select Research, Development, and Teaching Grants

- Geocaching Natural Features – Applying Game Mechanics to Citizen Science Data Collection. US Geological Survey Community for Data Integration. 2015-2016. \$48,805. Co-PI.
- DataONE. (Data Observation Network for Earth; A DataNet Project.) National Science Foundation. 2009-2014. \$19,247,742. Investigator.
- California Phenology Project: Technical Assistance. NPS Cooperative Ecosystems Studies Unit. 2011-2013. \$103,923. Co-PI.
- Integrated phenological monitoring, analysis, and synthesis to track ecosystem responses to climate change. USGS Status and Trends National Park Monitoring Program. 2010-2012. \$180,000. PD/PI.
- RCN (Research Coordination Network) - USA National Phenology Network. National Science Foundation. 2007-2014. \$406,951. Co-PI.
- Community and ecosystem response to global change: interactive effects of atmospheric carbon dioxide, surface temperatures, and soil moisture. Department of Energy, Program for Ecosystem

Research. 2002-2007. \$1,061,653. PD/PI.

Collaborative Research: Vulnerability of semi-arid grasslands to encroachment by woody plants: the role of grass invasions, seasonal precipitation, and soil type. National Science Foundation. 2004-2008. \$72,651. PD/PI.

### Select Recent Refereed Publications (out of about 85)

- Mehdipoor, H., R. Zurita-Milla, A. Rosemartin, K.L. Gerst, and J.F. Weltzin. 2015. Developing a workflow to identify inconsistencies in volunteered geographic information: A phenological case study. *PLoS ONE* 10(10): e0140811. DOI: 10.1371/journal.pone.0140811
- Ault, T.R., M.D. Schwartz, R. Zurita-Milla, J.F. Weltzin and J.L. Betancourt. 2015. Trends and natural variability of spring onset in the coterminous United States as evaluated by a new gridded dataset of spring indices. *Journal of Climate* 28:8363-8378. DOI: 10.1175/JCLI-D-14-00736.1
- McKinley, D.C., A.J. Miller-Rushing, H.L. Ballard, R.E. Bonney, H. Brown, D.M. Evans, R.A. French, J.K. Parrish, T.B. Phillips, S.F. Ryan, L.A. Shanley, J.L. Shirk, K.F. Stepenuck, J.F. Weltzin, A. Wiggins, O.D. Boyle, R.D. Briggs, S.F. Chapin III, D.A. Hewitt, P.W. Preuss, and M.A. Soukup. 2015. Investing in Citizen Science Can Improve Natural Resource Management and Environmental Protection. *Issues in Ecology*. Issue 19. <http://www.esa.org/esa/wp-content/uploads/2015/09/Issue19.pdf>
- Rosemartin, A.H., E.G. Denny, J.F. Weltzin, R.L. Marsh, B.E. Wilson, H. Mehdiipoor, R. Zurita-Milla, and M.D. Schwartz. 2015. Lilac and honeysuckle phenology data 1956-2014. *Scientific Data* 2:150038. DOI: 10.1038/sdata.2015.38
- Thomas, K.A., M.D. Fornwall, J.F. Weltzin and R.B. Griffis. 2014. Organization of marine phenology data in support of planning and conservation in ocean and coastal ecosystems. *Ecological Informatics*. DOI: [dx.doi.org/10.1016/j.ecoinf.2014.08.007](https://doi.org/10.1016/j.ecoinf.2014.08.007)
- Resco de Dios, V., J.F. Weltzin, W. Sun, T.E. Huxman and D.G. Williams. 2014. Transitions from grassland to savanna under drought via passive facilitation by grasses. *Journal of Vegetation Science* 25:937-946. DOI: 10.1111/jvs.12164
- Crimmins, T.M., J.F. Weltzin, A.H. Rosemartin, E.M. Surina, L. Marsh, and E.G. Denny. 2014. Focused campaign increases activity among participants in *Nature's Notebook*, a citizen science project. *Natural Sciences Education* 43:64-72. DOI: 10.4195/nse2013.06.0019
- Denny, E.G., K.L. Gerst, A.J. Miller-Rushing, G.L. Tierney, T.M. Crimmins, C.A.F. Enquist, P. Guertin, A.H. Rosemartin, M.D. Schwartz, K.A. Thomas and J.F. Weltzin. 2014. Standardized phenology monitoring methods to track plant and animal activity for science and resource management applications. *International Journal of Biometeorology*. DOI: 10.1007/s00484-014-0789-5
- Rosemartin, A.H., T.M. Crimmins, C.A.F. Enquist, K.L. Gerst, J.L. Kellermann, E.E. Posthumus, E.G. Denny, P. Guertin, L. Marsh and J.F. Weltzin. 2013. Organizing phenological data resources to inform natural resource conservation. *Biological Conservation*. DOI: 10.1016/j.biocon.2013.07.003
- Schwartz, M.D., J.L. Betancourt, and J.F. Weltzin. 2012. From Caprio's Lilacs to the USA National Phenology Network. *Frontiers in Ecology and the Environment* 10:324-327. DOI 10.1890/110281
- Jones, K.B., H. Bogen, H. Vereecken, and J.F. Weltzin. 2010. Design and Importance of Multi-tiered Ecological Monitoring Networks. Pages 355-374 in F. Müller et al. (eds.), *Long-Term Ecological Research*, Springer Science+Business Media B.V. DOI 10.1007/978-90-481-8782-9\_25