

Amy Concilio

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ACADEMIC AND RESEARCH APPOINTMENTS

- 2016 **Assistant Professor of Environmental Science & Policy**, St Edward's University
- 2015 **Visiting Professor**, Department of Environmental Studies, Fort Lewis College
- 2013-15 **Postdoctoral Scholar**, University of Colorado, Boulder, with Timothy Seastedt and Jesse Nippert
- 2012 **Adjunct Faculty**, Department of Biology, Berkeley City College
- 2012 **Adjunct Faculty**, Graduate Program in Environmental Management, University of San Francisco
- 2012 **Lecturer**, Department of Environmental Studies, University of California, Santa Cruz
- 2006 **Science Associate**, National Ecological Observatory Network, Washington, D.C.

EDUCATION

- 2012 **Ph.D. Environmental Studies**, University of California, Santa Cruz, with Michael E. Loik (advisor); "Bromus tectorum Invasion and Global Change: Likelihood of Spread and Feasibility of Control"
- 2005 **M.S. Ecology**, University of Toledo, with Jiquan Chen (advisor); "Interannual Variability in Soil Respiration and Response to Experimental Burning and Thinning in an Old Growth Mixed-Conifer Forest"
- 1999 **B.A. Chemistry**, Providence College, with Leslie Sherman (thesis advisor); "Phase Distribution of Arsenic in Soils and Sediments in and around the Mining Community of Zimapán, Hidalgo, Mexico"

AWARDS, GRANTS, AND HONORS

- 2017 Commons Ford Research. Commons Ford Prairie Committee & Travis Audubon Society (\$1000)
- 2017 P-SPICE Scholarship, Pedagogical Innovation, Creative Expression reassignment
- 2012 First Place, Student Poster Contest at the California Native Plant Society Conservation Conference
- 2011 University of California Chancellor's Dissertation Year Fellowship (\$36,900 value)
- 2011 Outstanding Teaching Assistant Award, UC Santa Cruz (\$200 value)
- 2011 California Native Plant Society Educational Grant (\$700)
- 2011 Environmental Studies Departmental Award, UC Santa Cruz (\$1000)
- 2010 Graduate Research Assistantship, W. Cheng Lab, UC Santa Cruz (\$23,600 value)
- 2010 Best Poster Presentation, California Society for Ecological Restoration Annual Meeting
- 2009 Hammett Fund Award for Research on Water Management and Climate Change, UC Santa Cruz (\$1500)
- 2009 Mildred E. Mathias Graduate Student Research Grant, UC Natural Reserve System (\$2500)
- 2008 Valentine Eastern Sierra Reserve Graduate Student Grant, UC Reserve System (\$1128)
- 2007 EPA STAR Fellowship, Environmental Protection Agency, 3-year term (\$110,000 value)
- 2007 Graduate Grant, STEPS Institute for Innovation in Environmental Research, UC Santa Cruz (\$1500)
- 2006 Regent's Fellowship, Dean's Fellowship, Fee Fellowship, and Tuition Fellowship, UC Santa Cruz (\$55,000 value)
- 2005 Catherine Eberly Award for Women in Math and Science, University of Toledo
- 2003 Graduate Research Assistantships, Landscape Ecology & Ecosystem Science Laboratory, University of Toledo, awarded for 3 semesters and 3 summers (\$56,000 value)
- 1995 Dean Scholarship, Providence College, Providence, RI, 4-year term (\$40,000 value)

PUBLICATIONS (*denotes undergraduate researcher)

- 2016 **Concilio, A.**, T. Seastedt, and J. Nippert (*in press*) Changing edaphic conditions and exploitation of an expanded phenological niche allows for increased introduced species dominance. *Plant and Soil*.
- 2016 **Concilio, A.**, J. Nippert, Shivani Ehrenfeucht*, Karie Cherwin and T. Seastedt (2016) Imposing antecedent global change conditions rapidly alters plant community composition in a mixed-grass prairie. *Oecologia*. 182 (3): 899-911

- 2015 **Concilio, A.**, J. Prev y, P. Omasta*, J. Connor*, J. Nippert, and T. Seastedt (2015) Response of a mixed grass prairie to an extreme precipitation event: Introduced species, soil nitrogen and previous precipitation patterns influence responses. *Ecosphere*. 6(10): 172
- 2015 **Concilio, A.**, T. Vargas and W. Cheng (2015) Effect of an invasive annual grass on rhizosphere priming in invaded and uninvaded soils. *Plant and Soil* 393: 245-257
- 2015 Loik, M.E., A.B. Griffith, H. Alpert, **A. Concilio**, C.E. Wade, and S.J. Martinson (2015) Impact of intra- vs. inter-annual snow depth variation on water relations and photosynthesis for two Great Basin Desert shrubs. *Oecologia*. 178(2): 403-414
- 2014 Tzankova, Z. and **A. Concilio** (2014) Social, logistical, and regulatory factors affecting feasibility of control of a widespread non-noxious invasive species at the edge of its range. *Biological Invasions*. 17(1): 507-527
- 2013 **Concilio, A.** (2013) Effectiveness and cost of downy brome (*Bromus tectorum*) control at high elevation. *Invasive Plant Science and Management*. 6(4): 502-511
- 2013 **Concilio, A.** and M.E. Loik (2013) Elevated nitrogen effects on *Bromus tectorum* dominance and native plant diversity in an arid, montane ecosystem. *Applied Vegetation Science*. 16(4):598-609
- 2013 **Concilio, A.** (2013) The spread of cheatgrass into the Eastern Sierra. *Fremontia*. 41(2): 10-13
- 2013 **Concilio, A.**, M.E. Loik, and J. Belnap (2013) Global change effects on *Bromus tectorum* L. (Poaceae) at its high-elevation range margin. *Global Change Biology*. 19 (1): 161-172
- 2010 Ma, S., **A. Concilio**, B. Oakley M. North, J. Chen (2010) Spatial variability in microclimate in a mixed-conifer forest before and after thinning and burning treatments. *Forest Ecology and Management*. 259: 904-915
- 2009 Ryu, SR, **A. Concilio**, J. Chen, M. North, and S. Ma (2009) Prescribed burning and mechanical thinning effects on belowground conditions and soil respiration in a mixed-conifer forest, California. *Forest Ecology and Management*. 257 (4): 1324-1332
- 2009 **Concilio, A.**, J. Chen, S. Ma and M. North (2009) Precipitation patterns drive inter-annual variation in summer soil respiration in a Mediterranean-climate, mixed conifer forest. *Climatic Change*. 92: 109-122
- 2009 Holl, K., **A. Concilio**, T. Cornelisse, G. Eshete, B. Ferguson, S. Langridge, J.L. Reid, D. Schweizer, J. Torres-Ortega, and M. Vasey (2009) *Review of New Models for Ecosystem Restoration*- Edited by Richard J. Hobbs and Katherine N. Suding. *Restoration Ecology* 17 (4): 562
- 2007 Ongley, L., L. Sherman, A. Armienta, **A. Concilio**, and C. Ferguson Salinas (2007) Arsenic contamination in the soils of Zimap n, Mexico. *Environmental Pollution*. 145 (3): 793-799
- 2007 Holl, K., M. Bonilla, R. Carle, S. Carvill, **A. Concilio**, A. Gabbe, K. Hulvey, E. Kolden, M.L. Krawack, D. Schweizer, and M. Vasey (2007) *Review of Foundations of Restoration Ecology* - Edited by Donald A. Falk, Margaret A. Palmer, and Joy B. Zedler . *Restoration Ecology* 15 (3): 592-593
- 2006 **Concilio, A.**, S. Ma, S.R. Ryu, J. Chen, and M. North (2006) Soil respiration response to burning and thinning from one to three years after experimental treatments. *Forest Ecology and Management*. 228 (1-3): 82-90
- 2005 **Concilio, A.**, S. Ma, Q. Li, J. LeMoine, J.Chen, M. North, R. Jensen, and D. Moorhead (2005) Soil respiration response to burning and thinning in mixed conifer and hardwood forests. *Canadian Journal of Forest Research*. 35 (7): 1581-1591

INVITED TALKS

- 2017 Managing changing landscapes in a human-dominated world. The Change Institute 2017 Conference. St. Edward's University, Mar 1, 2017
- 2015 Management of rangeland ecosystems in an era of global change. Department of Environmental Science, Policy, and Management, University of California, Berkeley, March 13, 2015
- 2015 Global change effects on rangeland ecosystems of the US West. Department of Forest, Rangeland, and Fire Sciences. University of Idaho, Feb 25, 2015
- 2014 Global change effects on the spread of cool-season exotic plants in the Colorado Front Range. Ecology and Evolutionary Biology Seminar Series, Kansas State University, April 24, 2014
- 2011 Effects of changing precipitation patterns on the spread of *Bromus tectorum* L. in the eastern Sierra Nevada and implications for management. Annual meeting of the California Invasive Plant Council. Tahoe City, CA, Oct 5-6, 2011

Curriculum Vitae

- 2005 Women in Ecology: Successes and Obstacles. Brown Bag Seminar Series, Catherine E. Eberly Women Center, University of Toledo, Toledo, OH, Nov 3, 2005

COURSES TAUGHT

- Spring 2017: *Environmental Chemistry, Community Ecology, Internship*
- Fall 2016: *Environmental Science, Applied Research, Population Ecology*
- Summer 2016: *Climate Change: An Interdisciplinary Perspective*
- Spring 2016: *Methods in Environmental Studies, Senior Colloquium, Introduction to Environmental Studies*
- Fall 2015: *Introduction to Environmental Studies, Environmental Studies Colloquium*
- Fall 2012: *Principles of Ecology*, lab
- Summer 2012: *Principles of Ecology*, lab and lecture (co-taught with Dr. Blair McLaughlin)
- Fall 2012: *Resource Management* (co-taught with Drs. Jae Pasari and Michael Vasey)
- Summer 2012: *The Physical and Chemical Environment*
- Fall 2010: *Ecology and Society (TA; led discussion section, collaborated with teaching team of 7: 2 faculty, 5 TAs)*
- Winter 2009: *Plant Physiological Ecology (TA; led lab section)*
- Spring 2007: *Field Methods (TA; led lab section)*
- Spring 2004: *Earth, Ecological, and Environmental Sciences Seminar Series (coordinated speaker series)*
- Fall 2003: *Biodiversity (TA; led study sessions)*

UNDERGRADUATE RESEARCHERS MENTORED

- **2015:** Anna Amidon, Ian Lenney, Josi Pearson, Paul Ramseth – Perceptions of the Animas River spill
- **2014:** Summer Sugg – Seed dispersal patterns and community assembly after an extreme event; Peter Omasta – Cheatgrass response to an extreme event; Summer Sugg, Oren Rabanowitz, Michael Mann, and Johanna Protheroe – Plant colonization on landslides after an extreme event, UROP project
- **2011:** Brenna Blessing – Effectiveness of non-chemical methods of cheatgrass control; James Hanson – Germination rates of seedlings exposed to different snowpack levels
- **2010:** Michael Kanning – Cheatgrass response to changing snowpack

GUEST LECTURES

- *Snowmobiles in Yellowstone*. Upper-division undergraduate course in Environmental Policy, St Edward's University, Austin, TX, Oct 25, 2016
- *Interdisciplinary research methods for invasive species management*. Upper-division undergraduate course on Methods in Environmental Studies, Fort Lewis College, Durango, CO, Dec 8, 2015
- *Climate change research in China*. Introductory undergraduate course in Geography, Fort Lewis College, Durango, CO, Nov 30, 2015
- *Roots of the US environmental justice movement*. Introductory undergraduate course in Environmental Studies, Fort Lewis College, Durango, CO, Oct 15, 2015
- *Invasive species, global change, and ecosystem transformation in the US West*. Upper-division undergraduate course on Methods in Environmental Studies, Fort Lewis College, Durango, CO, Oct 9, 2014
- *Global change and plant communities in the Front Range*. Field trip leader for STEM in Action program with students from Foothills Community College, June 13, 2014
- *Role of introduced species as an ecosystem science issue*. Upper-division undergraduate Ecosystem Ecology course, University of Colorado, Boulder, April 28, 2014
- *The climate system*. Upper-division undergraduate Ecosystem Ecology course, University of Colorado, Boulder, January 24, 2014
- *Emerging topics in Invasion Biology*. Upper-division undergraduate Intervention Ecology course, University of Colorado, Boulder, Sept 17, 2013
- *Restoration of invaded habitats*. Upper-division undergraduate Restoration Ecology course, University of California, Santa Cruz, Aug 6, 2012
- *The carbon cycle*. Upper-division undergraduate Biogeochemistry course, University of California, Santa Cruz, Santa Cruz, CA. March 5, 2007

SELECTED RESEARCH PRESENTATIONS

- 2016 **Concilio, A.** Managing invasive species in an era of global change: Examples from the Eastern Sierra Nevada, California, and the Colorado Front Range. Texas Society of Ecological Restoration. Livingston, TX, Nov 11, 2016
- 2015 **Concilio, A.,** J. Nippert, and T. Seastedt. Plant community change in response to directional shifts in nitrogen deposition and precipitation seasonality in the Colorado Front Range. Ecological Society of America Annual Conference. Baltimore, MD, Aug 14, 2015.
- 2014 Prevéy, J., **A. Concilio,** and T. Seastedt. Climate change and introduced plant species interactions in a semi-arid grassland in North America. School of Plant Biology, University of Western Australia, Nov 19, 2014.
- 2014 **Concilio, A.,** T. Seastedt, and J. Nippert. Global change effects on exotic plant species in the Front Range, CO. Annual meeting of the Guild of Rocky Mountain Ecologists and Evolutionary Biologists. Pinigree Park, CO, Sept 20, 2014.
- 2014 **Concilio, A.,** T. Seastedt, and J. Nippert. Competitive interactions between exotic and native grasses under changing precipitation and increased nitrogen deposition in the Colorado Front Range. Ecological Society of America Annual Conference, Sacramento, CA, Aug 13, 2014.
- 2013 **Concilio, A.,** T. Seastedt, and J. Nippert. Global change effects on the spread of cool-season exotic plants in the Colorado Front Range. Ecological Society of America Annual Conference, Minneapolis, MN, Aug 9, 2013.
- 2012 **Concilio, A.** and M.E. Loik. Elevated nitrogen effects on native plant diversity and *Bromus tectorum* L. dominance in the Eastern Sierra Nevada, CA. Ecological Society of America Annual Conference, Portland, OR, Aug 10, 2012.
- 2012 **Concilio, A.** and M.E. Loik. Non-toxic control options for high elevation populations of *Bromus tectorum* L. in the eastern Sierra Nevada, CA. California Native Plant Society Conservation Conference. Jan 12, 2012.
- 2011 **Concilio, A.** and M.E. Loik. Effects of global change on high elevation populations of *Bromus tectorum* in the eastern Sierra Nevada, CA. Ecological Society of America Annual Meeting, Austin, TX, Aug 11, 2011.
- 2010 **Concilio, A.** and M.E. Loik. Control options for high elevation patches of cheatgrass (*Bromus tectorum* L.) in the Eastern Sierra Nevada, CA. California Society for Ecological Restoration (SERCAL) annual meeting, Mammoth Lakes, CA, May 19-20, 2010.
- 2009 **Concilio, A.** and M.E. Loik. Management of high elevation populations of *Bromus tectorum* L. Restoring the West Conference, Logan, UT, Oct 27-28, 2009.
- 2009 **Concilio, A.** and M.E. Loik. Effects of global change on the invasion of *Bromus tectorum* at high elevation in the eastern Sierra Nevada, CA. Ecological Society of America Annual Meeting, Albuquerque, NM, Aug 2-7, 2009.
- 2009 **Concilio, A.** Factors affecting ecosystem invasibility by *Bromus tectorum* L. in the eastern Sierra. UCSC Plant Science Symposium. Santa Cruz, CA, Jan 31, 2009.
- 2008 **Concilio, A.** and M.E. Loik. Climatic and edaphic drivers of ecosystem invasibility by *Bromus tectorum* L. in the eastern Sierra Nevada. CEREC Symposium. Bishop, CA, Nov 5-8, 2008.

ADDITIONAL RESEARCH EXPERIENCE

- 2011 **Research Assistant.** Rhizosphere priming effects on soil organic matter decomposition at the Konza Prairie LTER. Department of Environmental Studies, UC Santa Cruz. 1/11- 9/11
- 2006 **Science Associate.** Compiled information on sensors for monitoring climatic variables and helped facilitate meetings. National Ecological Observatory Network, American Institute of Biological Sciences, Washington, DC, 12/05-06/06
- 2005 **Research Assistant.** Effects of land management on carbon sequestration in rangeland sites across Inner Mongolia, China. United States-China Carbon Consortium (USCCC), University of Toledo, 8/19/05- 10/31/05
- 2002 **Field Crew Leader.** Led field crew in collecting vegetation data in the Lamar Valley. Yellowstone Ecological Research Center, Silvergate, MT, 6/02-10/02
- 2000 **SCA Intern.** Vegetation response to elk browsing. Bandelier National Monument, NM, 6/00– 10/00

Curriculum Vitae

1999 **REU participant.** Arsenic contamination in soils and sediments of Zimapan, Hidalgo, Mexico. Bates College, ME, and Universidad Nacional Autónoma de México, Summer semester, 1998 & 1999

PEER-REVIEW SERVICE FOR ACADEMIC JOURNALS

American Journal of Botany, American Midland Naturalist, Biological Journal of the Linnean Society, Climatic Change, Ecosphere, Environmental Earth Sciences, Forest Ecology and Management, Global Change Biology, Invasive Plant Science and Management, Journal of Applied Ecology, Journal of Arid Land, Journal of Plant Ecology, Oecologia, Plant Ecology, Plant Ecology & Diversity, Weed Science

ACADEMIC SERVICE

St Edward's University

- Interdisciplinary Scholars Program faculty mentor, 2016-
- Sustainability and Stewardship Working Group member, 2016-
- SEU delegate for the Organization for Tropical Studies, 2016-
- Content and Context: Science committee for the General Education Review, 2016

University of California, Santa Cruz

- Student Organizing Committee, California Native Plant Society 2012 Conservation Conference
- Steering Committee, UCSC Environmental Studies Graduate Students, 2008-2009
- Graduate Committee, Graduate Student Representative for department, UCSC, 2008-2009

University of Toledo

- Departmental Representative, Graduate Student Association, 2004
- Graduate Student Association Representative on Health Care, 2004
- Officer (VP, Secretary), Society for Environmental Education, 2003-2004

COMMUNITY SERVICE AND OUTREACH ACTIVITIES

- Service on non-profit boards of directors: SkillShare Boulder, Boulder, CO, 1/14 -12/14; Reskilling Expo, Santa Cruz, CA, 1/12 -current
- Organized workshops at sustainability-focused events: the HillFlea, Boulder, CO, Aug 2013; Reskilling Expos, Santa Cruz, CA, 2011-2013; Inner Sunset Sundays, San Francisco, CA, Nov 12
- Led workshops in sustainability topics: at the HillFlea, Boulder, CO, Aug 2013, Inner Sunset Sundays, San Francisco, CA, Nov 2012; Kidzapalooza, Mammoth Lakes, CA, Earth Day 2010; University of Toledo, OH, Earth Day 2006
- Guest presentations for grammar school classes: Cullowhee Valley School, Cullowhee, NC. 11/17/14; Georgiana Bruce Kirby Prep School, Santa Cruz, CA. 05/22/07, 05/15/08; Beacher Road Elementary School, Woodbridge, CT. 11/18/05; Georgiana Bruce Kirby Preparatory School, Santa Cruz, CA. 12/15/11, 6/6/12
- Interviewed in educational film, The Teakettle Experiment: Fire and Forest Health, UC Davis, <http://teakettle.ucdavis/index/htm>, 2007

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Ecological Society of America, member since 2004
- Union of Concerned Scientists, Science Network member since 2006
- Society for Conservation Biology, member since 2006
- California Native Plant Society, member since 2009
- California Invasive Plant Council, member since 2011