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# **Amy Concilio**

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#### ACADEMIC AND RESEARCH APPOINTMENTS

2020-	Associate Professor of Environmental Science & Policy, St. Edward's University, Austin, TX
2016-20	Assistant Professor of Environmental Science & Policy, St. Edward's University, Austin, TX
2015-16	Visiting Professor of Environmental Studies, Fort Lewis College, Durango, CO
2013-15	Postdoctoral Scholar, University of Colorado-Boulder, with Timothy Seastedt and Jesse Nippert
2012	Adjunct Faculty, Department of Biology, Berkeley City College, Berkeley, CA
2012	Adjunct Faculty, Graduate Program in Environmental Management, University of San Francisco
2012	Lecturer, Department of Environmental Studies, University of California - Santa Cruz
2005-06	Science Associate, National Ecological Observatory Network, Washington, D.C.

## **EDUCATION**

- 2012 **Ph.D. Environmental Studies**, University of California, Santa Cruz <u>Dissertation:</u> Bromus tectorum invasion and global change: Likelihood of spread and feasibility of control Advisor: Dr. Michael Loik; Committee: Drs. Weixin Cheng, Jayne Belnap, & Zdravka Tzankova
- 2005 **M.S. Ecology**, University of Toledo <u>Thesis:</u> Interannual variability in soil respiration and response to experimental burning and thinning in an old growth mixed-conifer forest *Advisor*: Dr. Jiquan Chen
- 1999 **B.A. Chemistry**, Providence College, with Minors in **Environmental Studies** and **Spanish**<u>Senior research</u>: Arsenic contamination of soils and sediments of Zimapán, Hidalgo, Mexico
  <u>Advisors</u>: Dr. Leslie Sherman (Providence College) and Dr. Lois Ongley (Bates College)

#### AWARDS, GRANTS, AND HONORS

- 2022 Air Central Texas Environmental Education Award, Capitol Area Council of Government's Air Quality Program and Clean Air Coalition
- 2022 Presidential Excellence Grant for research on "Carbon storage potential of native restored grasslands of the Texas Hill Country", St. Edward's University
- 2021 Institute for Interdisciplinary Science (i4) Research Opportunity Award for "Assessing the impact of drought on Central Texas grassland communities" with P.I. Dr Kimberly O'Keefe, School of Natural Sciences, St. Edward's University
- 2021 Presidential Excellence Grant for research on "Climate change impacts on native and invasive grasslands of the Texas Hill Country", St. Edward's University
- 2021 Prairie Project 2021 Educator Cohort, Texas A & M University
- 2020 Distinguished Teaching Award, St. Edward's University
- 2020 Presidential Excellence Grant for research on "Impacts of drought on ecosystem function and services in the Texas Hill Country", St. Edward's University
- 2020 Richard B. Hughes Teaching Award, School of Behavioral and Social Sciences Nomination for Distinguished Teaching Award, St. Edward's University
- 2019 SPICE Scholarship, Pedagogical Innovation, Creative Expression reassignment for research on "Benefits of prairie restoration in urban green spaces", St. Edward's University
- 2019 Ecolab Agreement between SEU and Mr. Christopher Harte for research on climate change and land use impacts on TX Hill Country grassland and forest ecosystems, with Dr. Teresa Bilinski
- 2018 Presidential Excellence Grant for research on "Benefits of prairie restoration in urban green spaces", St. Edward's University
- 2018 BBVA Compass Community Grant for "Water Quality Research in Low-Income Communities"
- 2017 Development of digital techniques for using unmanned aerial vehicle photography for vegetation analysis. Sub-contract with USFS Pacific Southwest Research Office
- 2017 Teaching, Learning, and Technology Roundtable Award for "Environmental contaminant mapping and monitoring in Travis County", St. Edward's University

- 2017 Commons Ford Prairie Committee & Travis Audubon Society, Vegetation monitoring award.
- 2017 P-SPICE Scholarship, Pedagogical Innovation, Creative Expression reassignment for "Development of Texas-based research program in restoration ecology", St. Edward's University
- 2012 First Place, Student Poster Contest at the California Native Plant Society Conservation Conference
- 2011 University of California Chancellor's Dissertation Year Fellowship
- 2011 Outstanding Teaching Assistant Award, UC Santa Cruz
- 2011 California Native Plant Society Educational Grant
- 2011 Environmental Studies Departmental Award, UC Santa Cruz
- 2010 Graduate Research Assistantship, W. Cheng Lab, UC Santa Cruz
- 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
- 2009 Mildred E. Mathias Graduate Student Research Grant, UC Natural Reserve System
- 2008 Valentine Eastern Sierra Reserve Graduate Student Grant, UC Reserve System
- 2007 EPA STAR Fellowship, Environmental Protection Agency, 3-year term
- 2007 Graduate Grant, STEPS Institute for Innovation in Environmental Research, UC Santa Cruz
- 2005 Catherine Eberly Award for Women in Math and Science, University of Toledo

## PUBLICATIONS (\*denotes undergraduate researcher)

- Johnson, C.E., K.A. Tafoya, P. Beck, **A. Concilio**, K.E. White, R. Quiros, M.D. Wasserman. 2023. Primate richness and abundance is driven by both forest structure and conservation scenario in Costa Rica. PLoS ONE 18(9): e0290742
- 2020 Vargas, T., A. Concilio, L.G. Woyann, R.H.S. Santos, and W. Cheng (2020) Rhizosphere priming on N mineralization in vegetable and grain crop systems. Plant and Soil. 452: 281-293
- 2020 Seastedt,, T., C.T. White, C. Tucker, E.M. Beaury, **A. Concilio**, E. Gasarch, V. Haggans, and J. Smith (2020) Decadal dynamics of dry alpine meadows under nitrogen and phosphorus additions. Plant Ecology. 221: 647-658
- 2017 **Concilio, A.,** T. Seastedt, and J. Nippert (2017) Changing edaphic conditions and exploitation of an expanded phenological niche allows for increased introduced species dominance. Plant and Soil. 415: 299-315
- 2016 **Concilio, A.**, J. Nippert, S. Ehrenfeucht\*, K. 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. Prevéy, 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 Zimapán, 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

# RESEARCH PRESENTATIONS (\*denotes undergraduate researcher)

- 2023 Concilio, A., O'Keefe, K., Ordoveza, M., and Jefferson, J. Restoration Planning for a Drier, Hotter Climate in Central Texas. Texas Society for Ecological Restoration Annual Conference, El Paso, Texas, Oct 12-14, 2023
- Avila, V.\*, Richards, J.\*, Pete, N.\*, Paulus, E., & Concilio, A.. Texas Society for Ecological Restoration Annual Conference, El Paso, Texas, Oct 12-14, 2023
- 2023 Crowder, C.\*, Johnson, R., **Concilio, A.** Effects of biochar-compost product blends on switchgrass growth rates. Texas Society for Ecological Restoration Annual Conference, El Paso, Texas, Oct 12-14, 2023
- Hosek, G.\*, Prior, O.\*, Johnson, R., Fletcher, S., **Concilio, A.** Impacts of native trees in an urban food forest on soil fertility and hydrologic function. Texas Society for Ecological Restoration Annual Conference, El Paso, Texas, Oct 12-14, 2023
- 2023 **Concilio, A.**, Tobias, L.\*, Ordoveza, M.\*, Johsnon, R., and Morris, J. Strategies for growing and maintaining campus gardens and food forests. Texas Regional Alliance for Campus Sustainability, College Station, Texas, April 3-4 2023
- Avila, V.\*, Richards, J.\*, Pete, N.\*, Paulus, E., & Concilio, A. Effects of ecological restoration of formerly mowed parklands on soil function in Roy G. Guerrero Park, Austin, TX. Texas Society for Ecological Restoration Annual Conference. Austin, TX, Nov 17-19, 2022
- 2022 Enriquez, A.\*, Scott, J.\*, Soojhai, M.\* & **Concilio, A**. Impacts of ecological restoration on soil physical and chemical characteristics in grasslands of the Texas Hill Country. Texas Society for Ecological Restoration Annual Conference. Austin, TX, Nov 17-19, 2022
- 2022 Ordoveza, M.\*, Concilio, A. & O'Keefe, K. Floral resources in native grasslands yield better tolerance responses to drought conditions compared to *Bothriochloa ischaemum*-dominated grasslands in the Texas Hill Country. Texas Society for Ecological Restoration Annual Conference. Austin, TX, Nov 17-19, 2022
- 2022 **Concilio, A.**, Macik, M. & Wu, B.X. Impacts of an interrupted case study focused on urban prairie restoration on student knowledge and perspectives of rangeland ecosystems. Annual meeting of the Ecological Society of America. Montreal, Canada. August 14-19, 2022
- Sigel, L.\*, Effects of ecological restoration of formerly mowed parklands on soil function in Roy G. Guerrero Colorado River Metro Park, Austin, TX Turner, N.\*, and **Concilio, A.** Carbon storage in

- privet-invaded forests of Central Texas: Another reason to restore invaded forests? Society for Ecological Restoration. 9th World Conference on Ecological Restoration, June 21-24, Virtual.
- 2021 **Concilio, A.,** Cunningham, S.\*, Moncayo, J.\*, Tran, V.\*, Venzon A.\* and Sherrill, D. Response of vegetation and ecosystem services to prairie restoration treatments in Austin, TX. Society for Ecological Restoration. 9th World Conference on Ecological Restoration, June 21-24, Virtual.
- 2021 **Concilio, A.** panel presenter for Teaching the American West with *High Country News*. American Association of Geographers Annual Meeting. April 7-11, 2021. Virtual.
- 2020 Tran, V. \*, and **Concilio, A.** (advisor). An assessment of Austin's urban forest ozone mitigation potential. Lucian Symposium, St. Edward's University, Sept. 25, 2020
- 2019 **Concilio, A.,** Sherrill, D., and Brewer, A. Winners and losers in a 70-species prairie restoration seed mix in the Texas Hill Country. Texas Society for Ecological Restoration Annual Conference. Galveston, TX, Nov 9, 2019.
- 2019 Rome, O.\*, Kang, Y.\*, **Concilio, A**. and Quinn, W. Seedbank dynamics before and after a prescribed fire in the Texas Hill Country. Texas Society for Ecological Restoration Annual Conference. Galveston, TX, Nov 9, 2019.
- 2019 Rippel, J.\*, O'Donnell, J., O'Donnell, L., and **Concilio, A**. Use of turkey tail fungus (*Trametes versicolor*) to restore soil fertility and improve ecosystem function in degraded Texas Hill Country forests. Texas Society for Ecological Restoration Annual Conference. Galveston, TX, Nov 9, 2019.
- 2019 Tran, V.,\* **Concilio, A.** Biodiversity and productivity response to restoration in the Texas Hill Country. Lucian Symposium. St. Edward's University, Sept 27, 2019.
- de Leon, C.\* and **Concilio, A.** Mycorestoration of a *Ligustrum*-invaded urban park in Austin, TX. Texas Society for Ecological Restoration Annual Conference. San Antonio, TX, Nov 10, 2018.
- 2018 Carranza, A.\* and **Concilio, A.** Exploring effects of an urban prairie restoration project on public engagement. Texas Society for Ecological Restoration Annual Conference. San Antonio, TX, Nov 10, 2018.
- Brooks, J.\*, Gembarowski, M. \*, McOsker, C. \*, Tumicki, M. \*, and **Concilio, A.** Changes in plant and animal diversity and movement in response to shaded fuel break fire mitigation. Texas Society for Ecological Restoration Annual Conference. San Antonio, TX, Nov 10, 2018.
- Brom, A.\*, Ochoa, S., Wilder, B., and **Concilio, A.** Response of insect diversity to prairie restoration at Commons Ford Metropark in Austin, TX. Texas Society for Ecological Restoration Annual Conference. San Antonio, TX, Nov 10, 2018.
- Woodward, B. and **Concilio, A.** Fitness response of *Asclepias asperula*, antelope horns milkweed, with the inoculation of arbuscular mycorrhizal fungi. Texas Society for Ecological Restoration Annual Conference. San Antonio, TX, Nov 10, 2018.
- 2018 Cunningham, S., Ramirez, A., and \* Concilio, A. Pollinator plant diversity response to urban prairie restoration in the Edward's Plateau, TX. Lucian Symposium. St. Edward's University, Sept 23, 2018.
- 2018 Concilio, A. Sherrill, D. and Brewer. A. Plant diversity response to urban prairie restoration in the Edward's Plateau, TX/ Respuesta de la diversidad de plantas a la restauración de praderas urbanas en el Edward's Plateau, TX. Annual Meeting of the Southwestern Association of Naturalists. San Marcos, TX. April 14, 2018.
- 2017 **Concilio, A.** Vegetation response to prairie restoration treatments at an urban park in Travis County, TX. Texas Society for Ecological Restoration Annual Conference. Denton, TX, Nov 11, 2017.
- 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 for 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.
- **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.

#### **INVITED TALKS**

- 2019 Managing invasive species in an era of global change. Trinity University Biology Seminar Series, Oct 2019
- 2017 Climate change: The greatest challenge of the 21st century. Dean's Leadership Council, St. Edward's University, Oct 5, 2017
- 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. Plenary talk at the Annual Meeting of the California Invasive Plant Council. Tahoe City, CA, Oct 5-6, 2011
- 2005 Women in Ecology: Successes and Obstacles. Brown Bag Seminar Series, Catherine E. Eberly Women Center, University of Toledo, Toledo, OH, Nov 3, 2005

#### **TEACHING EXPERIENCE**

- Graduate courses: Population Ecology (FA16, FA17), Community Ecology (SP17, SP18), Applied Research (SP15, SP16, SP17), Internship (SP17, SP18), Resource Management, co-taught with Drs. Jae Pasari & Michael Vasey (FA12)
- Undergraduate upper division courses: Environmental and Ecological Field Methods (SP19), Research Experience for ENSP (FA18, FA20), Natural Resources Conservation and Management (FA18, SP21, SP22), Climate Change Science, Impacts, and Responses (SU16, SP18, FA22, SP23),

- Internship (FA19, SU19), Methods in Environmental Studies (SP16), Senior Colloquium (SP16), Environmental Studies Colloquium (FA15)
- Undergraduate lower division courses: Environmental Science (every semester, FA16 through FA22), Chemistry in the Environment (every spring semester 17-23), Sustainable Food Systems (FA20, 21, 22), Introduction to Environmental Studies (FA15, SP16), Principles of Ecology (SU12) + Ecology lab (FA12), The Physical and Chemical Environment (SU12)
- Study abroad and field courses: Climate Change Science & Solutions, and Urban Sustainability, taught in Angers, France (SP20); Global Sustainability Challenges- A European Perspective, taught in Angers, France (SU19); Yellowstone Threatened Species, Wildland Studies field course co-taught with Dr. Veronica Yovovich (SU18); Tropical Ecology & Conservation in Costa Rica, field course co-taught with Dr. Peter Beck (SU17)

#### GUEST LECTURES FOR UNDERGRADUATE COURSES

- 2022 Climate change impacts on the Middle East, Undergraduate course on Survey of the Middle East, St. Edward's University, Austin, TX, April 20, 2022
- 2021 Climate change planning in Austin: Natural systems adaptation and mitigation, Undergraduate Honors course entitled "Austin as Text", St. Edward's University, Austin, TX, January 24, 2021
- 2020 Scientific evidence for anthropogenic climate change, Undergraduate course in Climate Change, St. Edward's University, Austin, TX, January 22, 2020
- 2019 Overconsumption, Sustainable Transportation, Sustainable Food Systems- Undergraduate course in Sustainability, St. Edward's University, Austin, TX, Sept 30, Nov 10, and Nov 18, 2019
- 2017 Invasive species spread and management in an era of global change. Undergraduate course in Ecology, St. Edward's University, Austin, TX, Feb 13, 2017
- 2016 Snowmobiles in Yellowstone. Undergraduate course in Environmental Policy, St. Edward's University, Austin, TX, Oct 25, 2016
- 2015 Interdisciplinary research methods for invasive species management. Undergraduate course in Methods in Environmental Studies, Fort Lewis College, Durango, CO, Dec 8, 2015
- 2015 Climate change research in China. Undergraduate course in Geography, Fort Lewis College, Durango, CO, Nov 30, 2015
- 2015 Roots of the US environmental justice movement. Introductory undergraduate course in Environmental Studies, Fort Lewis College, Durango, CO, Oct 15, 2015
- 2014 *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
- 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
- 2014 Role of introduced species as an ecosystem science issue. Upper-division undergraduate Ecosystem Ecology course, University of Colorado, Boulder, April 28, 2014
- 2014 The climate system. Undergraduate Ecosystem Ecology course, University of Colorado, Boulder, Jan 24, 2014
- 2013 Emerging topics in Invasion Biology. Undergraduate Intervention Ecology course, University of Colorado, Boulder, Sept 17, 2013
- 2012 Restoration of invaded habitats. Undergraduate Restoration Ecology course, UC Santa Cruz, Aug 6, 2012
- 2007 The carbon cycle. Upper-division undergraduate Biogeochemistry course, UC Santa Cruz. March 5, 2007

#### STUDENT RESEARCH PROJECTS ADVISED

- 2023 Katie Gay, Hailey Green, Olivia Prior, & Ryan Riojas. Impacts of native trees in an urban food forest on soil fertility and hydrologic function. *ENSP Senior Capstone Research*
- 2023 Cameron Crowder. Effectiveness of biochar, compost tea, and compost amendments on switchgrass survival and growth. *McNair Scholar Research*
- 2023 Maya Soojhai. Impacts of King Ranch bluestem (*Bothriochloa ischaemum*) on soil physical and chemical properties in grasslands of the Texas Hill Country *Honors Thesis* Research
- 2023 Marguax Ordoveza. Impacts of drought and ecological restoration on floral resources in native and invaded grasslands of Central Texas. ENSP Senior Capstone Research

- 2022 Ava Enriquez, John Scott & Maya Soojhai. Impacts of ecological restoration on soil physical and chemical properties in grasslands of the Texas Hill Country. *ENSP Senior Capstone Research*
- 2022 Victoria Avila & Jessie Richards. Effects of ecological restoration of formerly mowed parklands on soil function in Roy G. Guerrero Colorado River Metro Park, Austin, TX ENSP Senior Capstone Research
- Janiece Jefferson. Biomass responses to ecological restoration in grasses of the Texas Hill Country. McNair Scholar Research
- 2021 Laurel Tashjian. Floral resources in invaded and restored grasslands of Central Texas. *Mount Holyoke College, Senior Thesis*
- 2021 Camille Dedeaux & Meriam Elawad. The effects of invasive *Bothriochloa ischaemum* on native grassland systems and their ability to sequester carbon in the Texas Hill Country. *Hook Scholar Research*, *ENSP Senior Capstone Research*
- Janiece Jefferson & Rae Bennet. Impacts of invasive *Bothriochloa ischaemum* on soil moisture, compaction, and plant productivity. *IUSE 8-week Summer Research*
- Flor Flores Jaimes. Perspectives on water quality, contamination, and trust in government in rural versus urban communities along the US-Mexico border. *McNair Scholar Research*
- 2021 Ederé Ohwobete. Analysis of contaminant levels in centralized water systems v. domestic wells in rural and urban communities along the US-Mexico border. *McNair Scholar, Honors Thesis*
- 2021 Logan Sigel. Carbon storage in invaded and native forests of Central Texas. Honors Thesis Research
- 2020 Logan Sigel & Natalie Turner. Carbon storage in invaded and native forests of Central Texas. *ENSP Senior Capstone Research*
- 2020 Colton Mitchel. Bird diversity in native and invasive forests around Austin, TX. Hook Fellow & ENSP Senior Capstone Research
- 2020 Andres Targa & Anna Qualls. Changes in plant diversity and abundance in response to shaded fuel break treatments at Wild Basin Wilderness Preserve, Austin, TX. ENSP Senior Capstone Research
- 2020 Natalie Cuellar. Edge effects on invasive species spread at the Wild Basin Wilderness Preserve. ENSP Senior Capstone Research
- 2020 Paloma Ridge-Rojas & Jose G. Zuniga. The relationship of drought tolerance and insect damage on trees. *ENSP Senior Capstone Research*
- 2020 Abril Gurrola, Yolanda Guzman, and Natalia Zaragoza. Public transportation 3 city comparison and recommendations to improve ridership. *ENSP Senior Capstone Research*
- 2020 Vinh Tran, An assessment of Austin's urban forest ozone mitigation potential. *IUSE 8-week Summer Research Experience*
- 2019 Hailey Reier Costs and benefits of campus trees at St. Edward's University. *ENSP Senior Capstone Research*
- 2019 Yeji Kang and Olivia Rome Seedbank dynamics before and after a prescribed fire in the Texas Hill Country. ENSP Senior Capstone Research
- Jack Ripple Use of turkey tail fungus (*Trametes versicolor*) to restore soil fertility and improve ecosystem function in degraded Texas Hill Country forests. Hook Fellow & Senior ENSP Research
- 2019 Vinh Tran Biodiversity and productivity response to restoration in the Texas Hill Country. *SCIE* 1199 Freshman Research Experience
- 2019 Grace DeLucia How do formative environmental influences impact career path? *Honors Thesis* Research
- Becky Woodward Fitness response of Asclepias asperula, antelope horns milkweed, with the inoculation of arbuscular mycorrhizal fungi Hook Fellow & Master's research for MSEM degree
- 2018 Elayna Grove Wildlife diversity and abundance in invaded and native urban forest stands of Austin, TX Hook Fellow & Master's research for MSEM degree
- 2018 Adriana Lee Ecosystem function response to remediation of an old dump site at Wild Basin Wilderness Preserve Hook Fellow & Master's research for MSEM degree
- 2018 Faith Chonko Environmental and ownership factors contributing to produce availability in convenience stores *Master's research for MSEM degree*
- 2018 Clarissa Mae de Leon Mycorestoration of a *Ligustrum*-invaded urban park in Austin, TX. *McNair Scholar Research*

- 2018 Karolyn Newton How to Maximize Vitamin N(ature): Determining the indicators of green space use in Austin, Texas. *Honors Thesis Research*
- 2018 Jonathon Brooks, Michael Gembarowski, Conlon McOsker, and Madison Tumicki Changes in plant and animal diversity and movement in response to shaded fuel break fire mitigation. ENSP Senior Capstone Research
- 2018 Aileen Brom, Shirley Ochoa, and Bowen Wilder Response of insect diversity to prairie restoration at Commons Ford Metropark in Austin, TX. ENSP Senior Capstone Research
- 2018 April Carranza- Exploring effects of an urban prairie restoration project on public engagement. ENSP Senior Capstone Research
- 2018 Allison Dean, Heather Gardener, and Mary Knothe -A Travis County environmental justice examination of lead content in drinking water. *ENSP Senior Capstone Research*
- 2018 Stella Cunningham and Abigail Ramirez Pollinator plant diversity response to urban prairie restoration in the Edward's Plateau, TX. SCIE Freshman Research Experience
- 2017 Leslie Roberts, Ashley Bussell, Nico Gonzalez Characterizing heavy metals in bridge deck runoff: A rainfall simulation study *Hook Fellow & Master's research for MSEM degree*
- 2017 Nicole Moore, John Gonzalez Sampling Travis County's water for lead contamination. *Master's research for MSEM degree*
- 2017 K. Zwiesineyi Chindori-Chininga The dynamics of the rise and fall of the Zimbabwean economy in 1970-2010 as an impact of fluctuating agricultural productivity. *McNair Scholar Research*
- 2016 Savannah Bryson, Abigail Kropf, Eric Johnson Effectiveness and feasibility of privet control techniques in riparian areas of Wild Basin. *Master's research for MSEM degree*
- 2015 Anna Amidon, Ian Lenney, Josi Pearson, Paul Ramseth Perceptions of the Animas River Gold King Mine Spill. *Senior Thesis Research*
- 2014 Summer Sugg Seed dispersal patterns and community assembly after an extreme event. UROP
- 2014 Peter Omasta Cheatgrass response to an extreme event. UROP project
- 2013 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. *Senior Thesis Research*
- 2010 Michael Kanning Cheatgrass response to changing snowpack. Senior Thesis Research

## SERVICE FOR ACADEMIC JOURNALS & CONFERENCES

- Guest Editor for: Sustainability Special Issue on Conserving Biological Diversity and Sustainability
- Reviewer for the following peer review journals: American Journal of Botany; American Midland Naturalist; Arctic, Antarctic and Alpine Research; Biological Journal of the Linnean Society; Climatic Change; Ecology; Ecology and Evolution; Ecosphere; Ecosystems; 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; Restoration Ecology; Plant & Soil; Weed Science
- Reviewer for the undergraduate research journal: J-Source, McNair
- Host for the Texas Society for Ecological Restoration's 25th Annual Conference "Restoration for All" at St. Edward's University, Nov 17-20, 2022
- **Judge for student presentations:** Society for Ecological Restoration Annual Conference (2021), Texas Society for Ecological Restoration Annual Conference (2018, 2019, 2022)

# ACADEMIC SERVICE

# St Edward's University

- Strategic Plan 2027 Infrastructure & Resources Committee, 2022-
- Food Forest Guild, 2022 -
- Faculty advisor for the St Edward's Ecological Society, 2021-
- Tree Campus Higher Ed Committee, 2018 -
- Sustainability Committee, 2018 -
- Interdisciplinary Scholars Program faculty mentor, 2016-

- BSS Research Awards Committee, 2020-2022
- Institutional Review Board, 2019 2021
- SEU delegate for the Organization for Tropical Studies, 2016-2021
- Natural Science SLO Committee for the General Education Review, 2016-2017

## 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

## MEMBERSHIP & LEADERSHIP IN PROFESSIONAL ORGANIZATIONS

- Texas Society for Ecological Restoration, currently Board President (2023-), Board Secretary 2021-2022, member since 2016
- Central Texas Arból Equity Collective member, 2023- ongoing
- DEIJ Committee, Hill Country Conservation Network, 2021- ongoing
- Urban Wildlife Information Network (UWIN), member of the Austin team, 2018- ongoing
- Society for Ecological Restoration member since 2011
- Ecological Society of America, member since 2004

#### **COMMUNITY SERVICE**

- Commons Ford Prairie Restoration Organization, Vegetation ecologist, 2017 ongoing
- Austin Living Streets Initiative, active member of advocacy team, 2020-2021
- Planning Committee for Teacher Conservation Institute: Urban Connections (TCI), with Texas Forest Service, Texas Forestry Association, and City of Austin, Winter-Summer 2020
- Natural Systems Advisory Committee for the Austin Climate Equity Plan, City of Austin's Office of Sustainability, Fall 2019 - Summer 2020

# **COMMUNITY OUTREACH**

- Earth Day program speaker, St. Stephen's Episcopal School, Austin, TX, April 18, 2023
- Organizing team for Food Forest event with the Roots and Wings Festival, St. Edward's University, Nov 5, 2022
- Worm composting workshop leader, Students for Sustainability, St. Edward's University, April 21, 2021
- Interviewed about my research for a film and then participated in live Q&A for Wild Basin's Science Live! Program, April 14, 2021
- Speaker on climate change impacts and mitigation for Young Women in Conservation Program, Ann Richards School, February 26, 2021
- Speaker on ecological restoration of Central Texas prairies for Travis Audubon, February 26, 2021
- Speaker for Save Barton Creek Association Happy Hour Speaker Series, "A virtual plant walk around Commons Ford prairie", May 14, 2020
- Speaker for Travis Audubon event, "Response of vegetation and ecosystem services to restoration treatments at Commons Ford prairie", January 9, 2020
- Workshop leader for sustainability event at the English-language Library in Angers, France. "Ecological action & climate change", June 28, 2019
- Native seed workshop leader at a sustainability event at Thinkery21, August 21, 2019

## WORKSHOPS, TRAININGS & CERTIFICATIONS

- Prescribed Burn School, Texas A&M, August 2021
- Climate Change Adaptation in Austin's Urban Forests, USFS workshop, 2019
- First Aid/CPR/AED Certified
- CITI certified for human subjects research, St. Edward's University
- Use of Stable Isotopes in Ecology & Paleoecology, Kansas State University, 2013

# LANGUAGES AND INTERNATIONAL EXPERIENCE

- Fluent in English and Spanish
- Taught study abroad courses for St. Edward's University students in Costa Rica and France
- Taught English as a Second Language in Madrid, Spain
- Studied tropical ecology in Costa Rica, 2-week graduate field course with University of Toledo
- Semester abroad as an undergraduate student at School for Field Studies, Baja California Sur, Mexico
- Travelled extensively via bicycle through Europe, Latin America and the United States