

## TERESA M. BILINSKI

### Curriculum Vitae

Associate Teaching Professor & Associate Chair of Undergraduate Studies  
Department of Ecology & Evolutionary Biology  
University of Colorado, Boulder  
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### EDUCATION

- 2008-2013** Ph.D, Department of Ecology & Evolutionary Biology  
University of Colorado, Boulder | Advisors: Dr. D. Nemergut & Dr. D. McKnight
- 2009** Microbial Diversity Course, Marine Biological Laboratory
- 2006-2008** M.A., Department of Geography  
University of Colorado, Boulder | Advisor: Dr. Peter Blanken
- 1999-2003** B.S. with Honors, Clark Honors College & Department of Environmental Science  
University of Oregon, Eugene

### ACADEMIC EMPLOYMENT

- 2/2022 - Present** *Associate Chair Undergraduate Studies*, Dept. Ecology & Evolutionary Biology, CU Boulder
- 2/2022 - Present** *Associate Teaching Professor*, Dept. Ecology & Evolutionary Biology, CU Boulder
- 2020 – 2021** *Instructor*, Dept. Ecology & Evolutionary Biology, University of Colorado, Boulder
- 2019 – 2020** *Lecturer*, Dept. Ecology & Evolutionary Biology, University of Colorado Boulder
- 2013 – 2019** *Assistant Professor of Biology*, St. Edward's University
- 2012 – 2013** *Graduate Research Assistant*, INSTAAR, University of Colorado
- 2010 – 2012** *NSF Graduate STEM Fellow (GK-12 Project Extremes)*, University of Colorado
- 2008 – 2010** *Graduate Research Assistant*, INSTAAR, University of Colorado
- 2006 – 2008** *Graduate Teaching Fellow*, Dept. Geography, University of Colorado
- 2005 – 2006** Earth Science Instructor, Charlottesville High School, Charlottesville, VA

### GRANTS

- 2022-2025** Co-PI, Innovation Large Courses Initiative Team Grant, Center for Teaching & Learning, CU Boulder; \$10,000/year for 3 years
- 1/2022 – 12/2024** Co-PI, NSF Division of Undergraduate Education, IUSE program: A Power of Place Learning Experience & Research Network to Support Community College Student Success and Civic Engagement; \$599,781 over 3 years.
- 2015 - 2020** Co-PI, NSF Division of Undergraduate Education, IUSE program: SEU Living Learning Community/Active Learning (SEU-LLCAL); \$1.3 million over 5 years.
- 2016-2019** Hook Endowed Wild Basin Creative Research Grant (8 students supported, \$10,000 total)
- 2010 – 2011** Doctoral Student Grant, Lewis & Clark Fund for Exploration & Research, American Philosophical Society
- 2010** Graduate Student Research Grant, Dept. Ecology & Evolutionary Biology, University of Colorado
- 2009** Beverly Sears Graduate Student Grant (Ph.D), University of Colorado
- 2008** Beverly Sears Graduate Student Grant (M.A.), University of Colorado
- 2007** Special Projects Grant, Dept. Geography, University of Colorado

## **PROFESSIONAL DEVELOPMENT**

2021- <i>Present</i>	Co-leader, General Biology Faculty Learning Community, EBIO CU Boulder
2022-2023	Faculty participant, Learning By Design STEM Active Learning Academy, CU Boulder
8/4/2020	Session organizer, "Data for All: Data Science Education as a Pathway for Diversity and Inclusion in Ecology," Ecological Society of America annual meeting, 2020.
4/16/2019	Workshop attendee, "Inclusive by Design Discussing approaches to creating courses." Center for Teaching Excellence, St. Edward's University, Austin, TX.
4/2 – 4/4/2019	NSF INCLUDES conference, Environmental Data Science Inclusion Network conference, Boulder, CO.
9/20 – 12/6/2018	American Society for Microbiology Grant Writing Online Course.
5/11/2018	Organizational Communication Workshop, School of Natural Sciences, St. Edward's University, Austin, TX.
8/17/2017	Active Learning Workshop (lead organizer/presenter), Department of Biological Sciences, St. Edward's University, Austin, TX.
5/9 & 9/16/2017	Diversity Workshop, School of Natural Sciences, St. Edward's University, Austin, TX.
5/11-5/13/2016	IUSE Active Learning Pedagogy Workshop, School of Natural Sciences, St. Edward's University, Austin TX.
2/10-2/12/2016	The New American Colleges & Universities Science Summit, , Belmont University, Nashville, TN.
8/8/2015	REIL-Biology CURE development workshop, Ecological Society of America annual meeting, Baltimore, MD.
10/31-11/2/2013	AAC&U Transforming Undergraduate STEM Education Conference, San Diego, CA.

## **COURSES**

Introductory freshman seminar for STEM majors, 1-credit. Fall 2020, 2022.

Biology & Society, general biology lecture for non-majors, 3 credits. Spring 2014, Fall 2019-Fall 2022.

General Biology 1 & 2 lecture for biology majors, 3 credits. 2014-2019, 2022. Course Coordinator 2016 2019, 2022.

Introduction to EBIO Research for Biology majors, 4 credits (CURE lecture + lab). Fall 2019, 2020, 2022.

Microbiology lecture, 3 credits. 2013-2018, 2021, 2023.

Microbiology lab, 1 credit. 2013-2018.

The Human Microbiome lecture, 3 credit elective for Biology majors. Spring: 2015 & 2018.

Ecology lecture, 3 credits. 2015-2019, 2021.

Ecology lab, 1 credit. 2015-2019.

Teaching Biology, 2 credits. 2019-2022. Enrollment: 3-8 students/semester.

Undergraduate Research course, 1 credit. 2013- 2019, 2022. Average enrollment: 6 students.

## **SERVICE & SYNERGISTIC ACTIVITIES**

10/2022 - *Present* Participant, Transfer Credit Evaluation Prototype Project (\$1500 paid stipend)

8/2022 Transfer Orientation Faculty Panel, College of Arts & Sciences, CU Boulder

2/2022 – *Present* Executive Committee, Dept. Ecology & Evolutionary Biology, CU Boulder

8/2020 – *Present* Boulder Apple Tree Project leadership team

9/2019 - *Present* EBIO Undergraduate Curriculum Committee; Organizer & Leader since 2/2022

9/2021 – 11/2021 EBIO Ad-Hoc Conflict Resolution Committee

9/2019 Abstract reviewer, Annual Biomedical Research Conference for Minority Students

2/18/2019 Workshop Presenter, "Reducing the Stress, Increasing the Collaboration: Developing and Supporting Effective Group Projects." Center for Teaching Excellence, St. Edward's University, Austin, TX.

8/2018 – 5/2019 Faculty Committee for Diversity and Inclusion member; Training and Development sub-committee

11/2018 Faculty Panelist, PhD advice and experience for undergraduate McNair scholars, St. Edward's University

10 – 12/2018 McNair Student Journal, Faculty Review Committee, St. Edward's University

8/2018 - 5/2020 Faculty Performance Evaluation Committee (elected), St. Edward's University

7/2018 - Present Pass/No Pass University Policy Review Committee, St. Edward's University

5/2018 Reviewer, student abstract submissions and travel award applications, 2018 SACNAS National Diversity in STEM Conference

3/2018 - Present Center for Teaching Excellence Annual Teaching Symposium Organizing Committee, St. Edward's University

8/2017 ESA SEEDS mentor, 2017 Ecological Society of America annual meeting

8/2017 Presentation Judge, Buell and Braun Awards, Ecological Society of America meeting

9/2017 - Present NSCI Strategic Plan Implementation Steering Committee, St. Edward's University

3/2017 - Present Advisory Board & Strategic Planning, Wild Basin Creative Research Center

11/2016 - 1/2017 Reviewer and Panelist, NSF Graduate Research Fellowship, Life Sciences

8/2016 - 5/2017 Secretary/Treasurer, Early Career Ecologists Section, Ecological Society of America

8/2016 - 5/2017 NSCI Strategic Planning Committee, St. Edward's University

8/2016 - 1/2018 Faculty Search Committee, Tenure Track Invertebrate Biologist Position, Department of Biological Sciences, St. Edward's University

3/2016 Reviewer, McCarley Grant, Southwestern Association of Naturalists

11/2016 Presentation Award Judge, Annual Biomedical Research Conference for Minority Students

2/2016 - 9/2016 Center for Teaching Excellence Annual Teaching Symposium Organizing Committee, St. Edward's University

8/2015 - 5/2017 Admissions Advocacy Committee (elected), St. Edward's University

9/2015 Abstract reviewer, Annual Biomedical Research Conference for Minority Students

8/2015 - 10/2015 Department of Biological Sciences self-study team, St. Edward's University

4/2015 - Present Honors Program Advisory Committee, St. Edward's University

2015 - 2016 School of Natural Sciences Web Re-design Committee, St. Edward's University

2013 - 2015 Hudspeth Innovative Teaching Award Committee, St. Edward's University

2014 - 2015 Teaching Innovation Fellowships Committee, St. Edward's University

2013 - 2014 Academic Innovation Task Force Working Group, St. Edward's University

### **HONORS, AWARDS & FELLOWSHIPS**

**2016 - 2019** St. Edward's University SPICE research fellowship, 3 credit/year course release

**2015** USDA Kika de la Garza fellowship, recipient

**2010 – 2012** NSF Graduate STEM Fellowship (GK-12)

**2009 – 2012** Achievement Rewards for College Scientists (ARCS) Scholar

**2009** NSF Graduate Research Fellowship, Honorable Mention

**2009** Microbial Diversity Course Scholarship, Marine Biological Laboratory

**2007** Kolff Graduate Student Research Fellowship, Dept. Geography, Univ. Colorado

**1999 – 2003** Dean's Scholarship, University of Oregon

**PUBLICATIONS** \* denotes an undergraduate author | *Previously published under T. M. Legg*

Jaeger, D, **T. Bilinski**, A. Dunbar-Wallis, I. Alam, and L. Corwin. In Review. The Power of Place: Community-Based Research Project using Local Fruit Trees to Improve Student Learning and Science Skills, *CourseSource*.

Stewart, J. \*, A. Ontai\*, K. Yusoof\*, K. Ramirez, **T. Bilinski**. 2021. Functional Redundancy in Local Spatial Scale Microbial Communities Suggest Stochastic Processes at an Urban Wilderness Preserve in Austin, TX, USA, *FEMS Microbiology Letters* **368**(3): fnab010.

Stewart, J., K. Shakya, **T. Bilinski**, J. Wilson, S. Ravi, C. Seok Choi. 2020. Variation of near surface atmosphere microbial communities at an urban and a suburban site in Philadelphia, PA, USA, *Science of the Total Environment* **724**: 138353.

Vargas, R. \*, A. Kenney, **T. Bilinski**. 2019. Variable Influences of Water Availability and Rhizobacteria on the Growth of *Schizachyrium scoparium* (Little Bluestem) at Different Ages, *Frontiers in Microbiology* **10**: doi:10.3389/fmicb.2019.00860.

Hartman, E., T. Baynham, **T. Bilinski**. 2018. Motivation for a Course-based Undergraduate Research Experience (CURE), In: *Course-Based Undergraduate Research: Educational Equity and High-Impact Practice*, N. Hensel & D. Brightman ed., Stylus Publishers.

Ontai, A.,\* **T. Bilinski**. 2018. Effects of Ashe juniper on soil ecology in South Central Texas, *McNair Scholars Journal*, St. Edward's University.

Nemergut, D., J. Knelman, S. Ferrenberg, **T. Bilinski**, B. Melbourne, L. Jiang, C. Voille, J. Darcy, T. Prest, S. Schmidt, A. Townsend. 2015. Decreases in average bacterial community rRNA operon copy number during succession, *ISME Journal*: doi: 10.1038/ismej.2015.191

Mladenov, N., Y. Zheng, B. Simone, **T. Bilinski**, D.M. McKnight, D. Nemergut, K.A. Radloff, M.M. Rahman, K.M. Ahmed. 2015. Dissolved organic matter quality in a shallow aquifer of Bangladesh: Implications for Arsenic Mobility, *Environmental Science and Technology*: doi: 10.1021/acs.est.5b01962

Taylor, P.G., **T. Bilinski**, H. R. Fancher\*, C. C. Cleveland, D. R. Nemergut, S. R. Weintraub, W. R. Wieder, A. R. Townsend. 2014. Palm oil wastewater methane emissions and bioenergy potential. *Nature Climate Change* **4**: 151-152.

Nemergut, D.R., S. Schmidt, T. Fukami, S. O'Neill, **T. M. Legg**, L. Stanish, J. Knelman, J. Darcy, R. Lynch, S. Ferrenberg, P. Wickey. 2013. Microbial Community Assembly: Patterns and Processes. *Microbiology and Molecular Biology Reviews* **77**(3): 342-56.

Stanish, L. F., S. P. O'Neill, A. Gonzalez, **T. M. Legg**, J. Knelman, D. M. McKnight, S. Spaulding and D. R. Nemergut. 2012. Bacteria and diatom co-occurrence patterns in microbial mats from polar desert streams. *Environmental Microbiology* **15**(4): 1115-31.

Fierer, N., S. Ferrenberg, G. Flores, A. Gonzalez, J. Kueneman, **T. Legg**, R. C. Lynch, D. McDonald, J. Mihaljevic, S. P. O'Neill, M. Rhodes, S. J. Song and W. A. Walters. 2012. From Animalcules to the Superorganism: Application of Ecological Concepts to the Human Microbiome. *Annual Reviews of Ecology, Evolution and Systematics* **43**: 137-155.

**Legg, T. M.**, Y. Zheng, B. Simone, K. A. Radloff, N. Mladenov, A. Gonzalez, D. Knights, H. C. Siu\*, M. M. Rahman, K. M. Ahmed, D. M. McKnight, and D. R. Nemergut. (2012). Carbon, metals and grain size correlate with bacterial community structure in sediments of a high arsenic aquifer. *Frontiers in Microbiology* **3**(82):1-15.

Knelman, J. E., **T. M. Legg**, S. P. O'Neill, C. L. Washenberger, A. Gonzalez, C. C. Cleveland, and D.R. Nemergut. (2012). Bacterial community structure and function change in association with colonizer plants during early primary succession in a glacier forefield. *Soil Biology and Biochemistry* **46**: 172-180.

Yilmaz, P., R. Kottmann... **T.M. Legg**, et al. (2011). Minimum information about a marker gene sequence (MIMARKS) and minimum information about any (x) gene sequence (MixS) specifications. *Nature Biotechnology* **29**(5): 415-420.

Mladenov, N., Y. Zheng, M. P. Miller, D. R. Nemergut, **T. Legg**, B. Simone, C. Hageman, M. M. Rahman, K. M. Ahmed, and D. M. McKnight. (2010). Dissolved organic matter sources and consequences for iron and arsenic mobilization in Bangladesh Aquifers. *Environmental Science & Technology* **44**(1): 123-128.

**CONFERENCE PRESENTATIONS** \*denotes an undergraduate author \*\*denotes presenting author(s)  
*Previously presented under T. M. Legg*

**T. Bilinski**\*\* , R. Deaton Haynes\*. (2018) *Improving the Accessibility of General Biology through Application-based Semester-long Group Projects*. AAC&U Transforming STEM Higher Education 2018 annual conference, Atlanta, GA (workshop).

**T. Bilinski**\*\* , R. Deaton-Haynes\*, E. Schwarz\*, S. Scobell\*. (2018). *Learning how to learn together: active learning through group projects in an introductory course sequence*. St. Edward's University 2018 Teaching Symposium, Austin, TX (workshop).

**T. Bilinski**\*\* , P. Baynham\*. (2018). *Facilitating Group Work Using CATME: Comprehensive Assessment of Team Member Effectiveness*. St. Edward's University 2018 Teaching Symposium, Austin, TX (talk).

A. Armeriv\*\*, J. Cantu\*, A. Ries\* & **T. Bilinski**. (2017). *Investigation Into The Effects Of Pseudomonas on The Growth & Development of Ocimum Basilicum (basil)*. UTSA College of Sciences Research Conference, San Antonio, TX (poster).

R. Vargas\*\*, A. Kenney & **T. Bilinski**. (2017). *Rooting for Growth: The Effects of Pseudomonas and Drought on Schizachyrium Scoparium (Little Bluestem)*. Symposium for Undergraduate Research Exploration, University of Texas at Austin (talk).

J. Stewart\*\*, A. Hernandez\*, D. Johnson and **T. Bilinski**. (2017) *Carbon Substrate Utilization and Soil Characteristics at Wild Basin Wilderness Preserve, Austin, TX*. Ecological Society of America annual meeting, Portland, OR (poster).

**T. Bilinski**\*\* , J.A. Belaire, L. F. Stanish. (2017) *Evaluating the Learning Outcomes Associated with a Course-based Undergraduate Research Experience Investigating Ecosystem Services across Urbanization Gradients*. Ecological Society of America annual meeting, Portland, OR (talk).

A. Ontai\*\*, **T. Bilinski**. (2016). *Microbial Communities in Ashe Juniper-Dominated Soils*, Annual Biomedical Research Conference for Minority Students, Tampa, FL (talk).

M. Rodriguez\*\*, A. Cuartas\*, J.A. Belaire, **T. Bilinski**. (2016). *Using Indicator Microorganisms to Determine the Effects of Urbanization on Ecosystem Services at Wild Basin Wilderness Preserve*. Annual Biomedical Research Conference for Minority Students, Tampa, FL (poster).

K. Yusoof\*\* & **T. Bilinski**. (2016). *The Effect of pH on the Growth Of Probiotic Bacteria: A Simulation of the Human Gastrointestinal Tract*. Annual Biomedical Research Conference for Minority Students, Tampa, FL (poster).

**T. Bilinski**\*\* , R. Deaton Haynes, E. Hartman, P. Baynham. (2016). *Innovative Approaches to Integrating Undergraduate Research into the Curriculum*. St. Edward's University Teaching Symposium, Austin, TX (talk).

**T. Bilinski**\*\* .(2016). *Training Undergraduates to Sell It: #SciComm in an Ecology Course*. SciComm2016 – Effective Science Communication, Lincoln, NE (talk).

A. Cardenas\*, M. Victoria\*\*, **T. Bilinski** (2016) *Stream habitat characteristics across an urbanization gradient*. Ecological Society of America annual meeting, Ft. Lauderdale, FL (poster).

- T. Bilinski**<sup>\*\*</sup> & J.A. Belaire (2016). *Ecosystem services at Wild Basin: involving undergraduates in ecological investigations at the wildland-urban interface of Austin, TX*. Southwestern University-HHMI Transforming STEM Pedagogy through Active Learning, Georgetown, TX (poster).
- A. Canales<sup>\*\*</sup> & **T. Bilinski**. (2016). *Bacterial Heavy Metal Resistance in Town Lake, Austin, TX*. Texas Academy of Sciences annual meeting, Junction, TX (poster).
- M. Rodriguez<sup>\*\*</sup> & **T. Bilinski**. (2016). *Using Indicator Microorganisms to Determine the Effects of Urbanization on Ecosystem Services*. Texas Academy of Sciences annual meeting, Junction, TX (poster).
- J. Williamson<sup>\*\*</sup> & **T. Bilinski**. (2016). *Concentration Effects of Plant Growth Promoting Rhizobacteria on Nolina lindheimeriana in Differing Organic Matter*. Texas Academy of Sciences annual meeting, Junction, TX (poster).
- K. Yusoof<sup>\*\*</sup> & **T. Bilinski**. (2016). *The effect of pH on the growth of probiotic bacteria: A simulation of the human gastrointestinal tract*. Texas Academy of Sciences annual meeting, Junction, TX (poster).
- T. Bilinski**<sup>\*\*</sup> (2015). *Rhizosphere bacterial warfare and host plant immunity*. Ecological Society of America annual meeting, Baltimore, MD (talk).
- V. Alford<sup>\*\*</sup>, **T.M. Bilinski**. (2014). *Temperature Sensitivity of Rhizosphere Bacteria Associated with Common Plants Found at Wild Basin Wilderness Preserve (Austin, TX)*. Annual Biomedical Research Conference for Minority Students, San Antonio, TX (poster).
- C. Basbas<sup>\*\*</sup>, **T.M. Bilinski**. (2014). *The Effects of Salicylic Acid and Jasmonic Acid on the Growth of Rhizosphere and Bacillus Bacteria*. Annual Biomedical Research Conference for Minority Students, San Antonio, TX (poster).
- K. Cuellar<sup>\*\*</sup>, **T.M. Bilinski**. (2014). *Microbial Warfare in Soil: An Investigation of Microbial Competition Using Secondary Metabolites*. Annual Biomedical Research Conference for Minority Students, San Antonio, TX (poster).
- T.M. Legg**<sup>\*\*</sup>, P.G. Taylor, H. Fancher, A.R. Townsend, D.R. Nemergut. (2013). *The greening of palm oil mill effluent (POME): Can we turn greenhouse gas emissions into clean energy?* Ecological Society of America annual meeting, Minneapolis, MN (talk).
- T.M. Legg**<sup>\*\*</sup>. (2012). *Bacterial Community Structure in the Arsenic Zone*. USGS Cape Cod Toxics annual meeting, Boulder, CO (invited talk).
- T.M. Legg**<sup>\*\*</sup>, B. Simone, N. Mladenov, Y. Zheng, D. M. McKnight and D. R. Nemergut. (2011). *Labile and redox-active organic matter sources influence bacterial community structure and groundwater arsenic mobilization*. International Symposium of Subsurface Microbiology, Garmisch-Partenkirchen, Germany (talk).
- T.M. Legg**<sup>\*\*</sup>, Y. Zheng, B. Simone, K. A. Radloff, N. Mladenov, A. González, D. Knights, H. Siu, M. M. Rahman, K. M. Ahmed, D. M. McKnight and D. R. Nemergut. (2011). *Sedimentary carbon, metals, and grain size structure bacterial community composition in a high arsenic aquifer*. American Society for Microbiology Annual Meeting, New Orleans, LA (poster).
- T.M. Legg**<sup>\*\*</sup>. (2010). *Methodological approaches and preliminary findings in characterizing bacterial community structure in the arsenic zone*. USGS Cape Cod Toxics annual meeting, Boulder, CO (talk).
- T. M. Legg**<sup>\*\*</sup>, D. R. Nemergut, B. Simone, D. M. McKnight, A. González and Y. Zheng. (2010). *Patterns in bacterial community structure across groundwater arsenic gradients*. International Society for Microbial Ecology, Seattle, WA (poster).

**T. M. Legg<sup>§</sup>**, D. R. Nemerlut, K. A. Radloff, Y. Zheng, B. Simone and D.M. McKnight. (2008). *Microbial community structure and the mobilization of groundwater arsenic: evidence from Araihasar, Bangladesh*. American Geophysical Union Annual Meeting, San Francisco, CA (poster).

**T. M. Legg<sup>§</sup>**, P. D. Blanken and S.P. Anderson. (2007). *A hydrologic study of High Creek Fen: groundwater dynamics and sources*. American Geophysical Union Annual Meeting, San Francisco, CA.

**PROFESSIONAL SOCIETY MEMBERSHIPS**

American Society for Microbiology

Ecological Society of America

Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)