

curriculum vitae

July 2024

# **LAURA GOUGH**

## Current Address

Department of Biolog

- 2009-2015 NSF, Office of Polar Programs Grant, “Collaborative Research: Effects of Warming Induced Increases in Shrub Abundance and Changing Seasonality on Migratory Songbirds in Alaskan Arctic Tundra” \$346,230, PI/PD (with N. Boelman, Columbia University and J. Wingfield, University of California Davis)
- 2009-2014 NSF, Division of Undergraduate Education Grant, “UBM-Institutional: Undergraduate Training in Theoretical Ecology Research (UTTER)” \$781,000, co-PI
- 2009-2013 NSF, Office of Polar Programs Grant, “Collaborative Research: A Biotic Awakening: How Do Invertebrates, Microbes, and Plants Determine Soil Organic Matter Responses to Release from Nutrient Limitation in Arctic Tundra” \$225,550, lead PI/PD (with J.C. Moore, M. Wallenstein, and W. Parton, Colorado State University)
- 2010-2012 Luminant Power, “Succession of Turtles and Frogs in Reclaimed Wetlands” \$105,446, fellowship support for Jayme Walton (M.S. student)
- 2004-2009 NSF, Office of Polar Programs Grant, “Collaborative Research: Above- and Belowground Community Responses to Climate Change in Arctic Tundra” \$152,000, lead PI/PD (with J.C. Moore, Colorado State University)
- 2004-2005 University of Texas Arlington, Research Enhancement Program, “The Influence of Management Regime and Invasion by Non-native Species on Native Prairie Grass Growth in North Central Texas” \$9,722, PI
- 2002-2006 NSF, Office of Polar Programs Grant, “ADVANCE Fellows Award: Continuing and Enhancing a Career in Arctic Ecology Research and Education” \$449,500, PI/PD
- 2000 NSF, Research Experience for Undergraduates (REU) Supplement to Polar Programs Grant, \$6,750, PI/PD
- 2000 NSF, REU Supplement to Ecology Program Grant, \$5,000, PI/PD
- 1999-2003 NSF, Office of Polar Programs Grant, “Collaborative Research: Moist Acidic vs. Non-acidic Tundra: Why Does the Vegetation Composition Differ and What Are the Consequences for Ecosystem Carbon Storage?” \$180,000, PI/PD (with S.E. Hobbie, University of Minnesota)
- 1999-2009 NSF, Office of Polar Programs Grant, “Collaborative Research: Competitive Ability of Plants: The Roles of Clonal Integration and Ramet Aggregation in Structuring Plant Communities” \$55,000, PI/PD (with D.E. Goldberg, University of Michigan)
- 1999-2001 University of Alabama, Center for Freshwater Studies Grant, "Interdisciplinary Approach to Assessing Interactions Between Riparian Vegetation and Fluvial Geomorphic Processes in a Coastal Plain Stream, West-Central Alabama" \$36,000, co-PI (with D.A. Cenderelli, Dept. of Geological Sciences, University of Alabama)
- 1999-2000 University of Alabama, School of Mines and Energy Development Grant, “Changes in Forested Wetlands of Alabama Caused by Beaver Activity” \$10Ee la an)

2011-2017 NSF, DEB Grant, "The Arctic LTER: Climate Change and Changing Disturbance Regimes in Arctic Landscapes" \$5 million, Senior Personnel/Executive Committee Member









- Gough, L., C.W. Osenberg, K.L. Gross, and S.L. Collins. 2000. Fertilization effects on species density and primary productivity in herbaceous plant communities. *Oikos* 89:428-439.
- Gross, K.L., M.R. Willig, L. Gough, R. Inouye, and S. Cox. 2000. Patterns of species diversity and productivity at different spatial scales in herbaceous plant communities. *Oikos* 89:417-427.
- Gough, L., G.R. Shaver, J. Carroll<sup>†</sup>, D. Royer<sup>†</sup>, and J.A. Laundre. 2000. Vascular plant species richness in Alaskan arctic tundra: the importance of soil pH. *Journal of Ecology* 88:54-66.
- Gough, L. and J.B. Grace. 1999. Effects of environmental change on plant species density: comparing predictions with experiments. *Ecology* 80:882-890.
- Waide, R.B., M.R. Willig, G. Mittelbach, C. Steiner, L. Gough, S.I. Dodson, G.P. Juday, and R. Parmenter. 1999. The relationship between productivity and species richness. *Annual Review of Ecology and Systematics* 30:257-300.
- Rastetter, E.B., L. Gough, A.E. Hartley, D.A. Herbert, K.J. Nadelhoffer, and M. Williams. 1999. A revised assessment of species redundancy and ecosystem reliability. *Conservation Biology* 13:440-443.
- Gough, L. and J.B. Grace. 1998. Effects of flooding, 001 0 0 1 Review of



coastal wetland losses. pp. 115-133 in Silliman, B.R., M.D. Bertness, and D.R. Strong (eds.), *Human Impacts on Salt Marshes, A Global Perspective*. University of California Press, Berkeley.

Book Reviews and Other Articles

- Gough, L. and A.L. Asmus\*. 2014. Review of *Tundra-Taiga Biology: Human, Plant, and Animal Survival in the Arctic* by R.M.M. Crawford. *Arctic, Antarctic, and Alpine Research* 4:1011-1018.
- Gough, L. 2009. How the Arctic LTER helped me prepare to be a mom. LTER Network News, Spring 2009.



- Boelman, N., L. Gough and J.C. Wingfield. Trophic matches in northern Alaska: existing synchrony among climate, vegetation, arthropods and migratory songbirds. Organized Session: Multitrophic Level Responses to Climate Change in the Arctic Tundra Ecosystem, American Geophysical Union, Annual Meeting, San Francisco, CA, December 2011.
- Moore, J.C., L. Gough, R. Simpson, and D.R. Johnson\*. Aboveground and belowground responses to nutrient additions and herbivore exclusion in arctic tundra ecosystems in northern Alaska. Organized Session: Multitrophic Level Responses to Climate Change in the Arctic Tundra Ecosystem, American Geophysical Union, Annual Meeting, San Francisco, CA, December 2011 (poster). c Su
- Daly, K.M., H. Steltzer, N. Boelman, M.N. Weintraub, A. Darrouzet-Nardi, M.D. Wallenstein, P. Sullivan, L. Gough, et al. Lepidoptera larvae as an indicator of multi-trophic level responses to changing seasonality in an arctic tundra ecosystem. Organized Session: Multitrophic Level Responses to Climate Change in the Arctic Tundra Ecosystem, American Geophysical Union, Annual Meeting, San Francisco, CA, December 2011 (poster).
- Gough, L. Interactions between top-down and bottom-up factors in arctic tundra plant communities. Organized Oral Session: Examining Bottom-up and Top-Down Forces: Bringing Together Aquatic and Terrestrial Perspectives, Ecological Society of America, Annual Meeting, Austin, TX, August 2011.
- Gough, L. The cutting edge: Writing successful research grant proposals, Symposium on Essential Skills for Success in Wetland Science, Society of Wetland Scientists, Annual Meeting, Madison, WI, June 2009.
- Gough, L. The role of clonal plant growth form in community response to environmental change. Symposium on Clonal Plant Ecology, Ecological Society of America, Annual Meeting, Memphis, TN, August 2006.

Gough, L. and the TU REP Team. Lessons learned: CURES beyond cell and molecular biology (and taught on-line). 2021 Capital PKAL Regional Network Spring Conference, March 2021.  
Kimble, S., B. Margulies, K. McDougal, M.



- McLaren, J.R. ‡, L. Gough, and M.N. Weintraub. Seasonal variation in soil nitrogen availability across a fertilization chronosequence in moist acidic tundra. American Geophysical Union, Annual Meeting, San Francisco, CA, December 2012.
- Moore, J.C., L. Gough, R.T. Simpson and D. Johnson\*. Aboveground and belowground responses to nutrient additions and herbivore exclusion in arctic tundra ecosystems in northern Alaska. LTER All Scientists Meeting, Estes Park, CO, September 2012 (poster).
- Gough, L., N. Boelman, J. Wingfield, et al. Effects of increasing shrubs in arctic tundra on associated arthropods and migratory songbirds. LTER All Scientists Meeting, Estes Park, CO, September 2012 (poster).
- Smith, M., K. LaPierre, J. Barrett, S. Collins, S. Frey, L. Gough, K.L. Gross, R. Miller, J. Morris, L. Rustad and J. Yarie. Assessing ecosystem sensitivity to chronic resource alterations: a synthesis of long-term experiments. LTER All Scientists Meeting, Estes Park, CO, September 2012 (poster).

McLaren, J.R. ‡, L. Gough, and M.N. Weintraub. Seasonal variation in soil nitrogen availability across a fertilization chronosequence in moist acidic tundra. American Geophysical Union, Annual Meeting, San Francisco, CA, December 2012.

- Johnson, D.\* , L. Gough, and E. Ramsey†. Nutrient amendment and herbivory interact differently for five arctic Alaska plant species. Ecological Society of America, Annual Meeting, Memphis, TN, 2006.
- Clark, C.M., E.E. Cleland, S.L. Collins, J. Fargione, L. Gough, J. Grace, K.L. Gross, D. Milchunas, S. Pennings and K.N. Suding. Predicting the loss of biodiversity with nitrogen addition cross North American grasslands: abiotic vs. biotic drivers. Ecological Society of America, Annual Meeting, Montreal, 2005.
- Fargione, J., S. Pennings, C. Clark, E. Cleland, L. Gough, J. Grace, K. Gross, S. Collins, and K. Suding. A negative relationship between species richness and productivity response to N addition in a synthesis of N fertilization studies. Ecological Society of America, Annual Meeting, Montreal, 2005.
- Rout, M.\* and L. Gough. *Sorghum halepense* displaces the common native prairie grass *Schizachyrium scoparium*

- Clone 2000: Current Progress and Developments in Clonal Plant Research, Obergurgl, Austria, 2000 (poster).
- Doles, J.L., J. Moore, G.R. Shaver, and L. Gough. The effects of nutrient addition in the arctic tundra on soil and moss-inhabiting mesofauna. Ecological Society of America and British Ecological Society Joint Symposium Meeting, Orlando, FL, 2000 (poster).
- Gough, L. and G.R. Shaver. Plant species diversity, plant biomass, and soil nutrients in acidic and non-acidic Alaskan arctic tundra, Ecological Society of America, Annual Meeting, Spokane, WA, 1999.
- Gough, L. and G.R. Shaver. Why is non-acidic tundra so species rich: an examination of northern Alaska plant communities. Society of Wetland Scientists, Annual Meeting, Anchorage, AK, 1998.
- Gough, L., C.W. Osenberg, K.L. Gross, and S.L. Collins. Fertilization effects on species density, richness, and productivity in herbaceous plant communities. Ecological Society of America, Annual Meeting, Baltimore, MD, 1998.
- Willig, M.W., K.L. Gross, S. Cox, and L. Gough. Scale-dependence in the relationship between productivity and species density of low stature vascular plants. Ecological Society of America, Annual Meeting, Baltimore, MD, 1998.
- Gough, L. and J.B. Grace. The influence of vines on an oligohaline marsh community: results of a removal and fertilization study. Ecological Society of America, Annual Meeting, Providence, RI, 1996.
- Gough, L. and J.B. Grace. Plant species richness changes due to experimental manipulations in a Louisiana coastal marsh. Ecological Society of America, Annual Meeting, Snowbird, UT, 1995.
- Gough, L. and J.B. Grace. The relationship between species richness and community biomass: the importance of environmental variables. Ecological Society of America, Annual Meeting, Madison, WI, 1993.

### Teaching Experience

TU	Undergraduate: Principles of Biology (non-majors); Biodiversity; Seminar in Ecology, Evolution, Conservation and Behavior Undergraduate/Graduate: Urban Ecology, General Ecology Graduate: Global Change Biology
UTA	Undergraduate: Plant Science (lecture and laboratory), Probability and Random Processes in Biology, Seminar in Mathematical Biology, UTeach Research Methods Undergraduate/Graduate: Plant Ecology Graduate: Wetlands Ecology, Ecology Journal Club, Principles of Ecology
UA	Undergraduate: General Ecology, Introductory Biology for Non-Majors Graduate: Statistics in Ecological Research, Community Ecology
LSU	Undergraduate: Biology for Non-Majors Laboratory, General Botany Laboratory

### Graduate Students (all Biology, UT Arlington unless noted)

Ashley Asmus, Ph.D., 2012-2017  
Michelle Green, Ph.D., 2010-2016  
C. Matthew Watson, Ph.D., 2005-2008  
David R. Johnson, Ph.D., 2003-2008  
Julia Cherry, Ph.D. (Biology, University of Alabama), 2000-2005

Sara Kramer, M.S., Environmental Science, TU, 2020-2023 (co-advised with V. Beauchamp)  
Nicole Williamson, M.S., Environmental Science, TU, 2019-2022  
Matt Suchocki, M.S., Biology, TU, 2017-2020



David Grow, M.S., Biology, TU, 2016-2019 (co-advised with V. Beauchamp)  
Margaret Park, M.S., Environmental Science, TU, 2016-2019  
Heather Bass, M.S., Environmental and Earth Science, UT Arlington, 2013-2015  
Matt Rich, M.S., 2010-2012  
Jayme Walton, M.S., 2009-2012  
Carol Moulton, M.S., 2006-2009  
Carolyn Hess, M.S., 2006-2008  
Amie Treuer, M.S., 2004-2006  
Marnie Rout, M.S., 2003-2005  
Nijole Pauliukonis Wellendorf, M.S. (Biology, University of Alabama), 2000-2002

#### Opponent for Ph.D. Students

Dr. Matteo Petit Bon, student of Professor Kari Anne Bråthen, Department of Biosciences, Fisheries, and Economics, UiT The Arctic University of Norway, August 2020

Dr. H el ene Barthelemy, student of Professor Johan Olofsson, Department of Ecology and Environmental Science, Ume  University, Sweden, June 2016

#### Additional Graduate Committees Outside TU

Mr. Andrew Uccello, Ph.D. candidate of Professor Jennie McLaren, Department of Biology, University of Texas-El Paso, 2022-

Ms. Ruby An, Ph.D. candidate of Professor Jonathan Levine, Department of Ecology and Evolutionary Biology, Princeton University, 2021-

Ms. Jess Steketee, Ph.D. candidate of Professor Rebecca Rowe, Department of Natural Resources and the Environment, University of New Hampshire, 2017-

#### Postdoctoral Scientist

Jennie McLaren, UT Arlington, 2010-2012

#### Editorial Board Service

Appointed member, editorial board of *Arctic, Antarctic, and Alpine Research*, Jan 2011-May 2023

Appointed member, editorial board of *Oecologia*, Feb 2011-2016

Appointed member, editorial board of *Ecology* and *Ecological Monographs*, Jan 2006-Aug 2008,  
Jan 2010-Jan 2011

#### Manuscript Reviews

*American Journal of Botany, American Naturalist, Annals of Botany, Applied Vegetation Science, Arctic, Antarctic and Alpine Research, Canadian Journal of Botany, Castanea, Community Ecology, Ecography, Ecological Applications, Ecology and Ecological Monographs, Ecology Letters, Ecology and Society, Ecoscience, Ecosystems, Evolutionary Ecology, Folia Geobotanica, Global Change Biology, Global Ecology & Biogeography, Journal of Applied Ecology, Journal of Ecology, Journal of Geophysical Research-Atmospheres, Journal of Vegetation Science, Nature, New Phytologist, Northwest Science, Oecologia, Oikos, Plant and Soil, Plant Ecology, Science, Wetlands*

Proposal Reviews

U.S. National Science Foundation; National Sciences and Engineering Research Council of Canada; Ohio Agricultural Research and Development Center; Association for Women in Science Educational Foundation Pre-doctoral Fellowship Proposals; Georgia Sea Grant College Program; U.S. Civilian Research and Development Foundation Georgian-U.S. Bilateral Grants Program; Earthwatch Institute; book proposals to Springer; National Geographic; Texas Academy of Science

Departmental, College and University Service

2021-2023	Co-Leader, Fisher College of Science and Mathematics DEIJ Task Force, TU
2015-2023	Member, Council of Chairs, TU
2015-2023	Member, Chairs Council, Fisher College of Science and Mathematics, TU
2019-2021	Co-Chair, Council of Chairs, TU
2013-2015	Member, Undergraduate Assembly, UTA
2013-2015	Chair, Undergraduate Curriculum Committee, Biology Department, UTA
2005-2015	Faculty Mentor, UTA; mentoring one assistant professor in another college
2005-2015	Member, Promotion and Tenure Committee, Biology Department, UTA
2005-2015	

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Founder and Chair, Arctic LTER DEI Committee  
Arctic LTER Representative, LTER Network

2006-2008 Nature walk leader, Smart Start Preschool, Coppell, TX  
2006 Participant in Toyota TAPESTRY proposal (with the National Science Teachers Association) from Reagan Middle School, Grand Prairie, TX to request funding for an outdoor learning center and wetland restoration project

2005, 2006 Guest Speaker on Women in Science in UTA Course "Contemporary Science" for current secondary science teachers pursuing a master's degree

2003, 2004 Guest Speaker in UTA Education/Women's Studies Course "Women in Science"

2000 Presentation on Global Change in the Arctic to Tuscaloosa Audubon Society

1995 Women's Center Advisory Board, LSU, appointed member

1992-1994 Women's and Gender Studies Outreach Committee, LSU, appointed member

1992-1993