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# LAURA GOUGH

## Current Address

Department of Biological Sciences Towson University 8000 York Road Towson, MD 21252

## Professional Experience

2015-	Professor, Biological Sciences, Towson University
2015-2023	Chair, Biological Sciences, Towson University
2014-2015	Interim Chairperson, Biology, University of Texas Arlington
2013-2015	Professor, Biology, University of Texas Arlington
2008-2009	Program Director, Ecological Biology Cluster, Division of Environmental
	Biology, National Science Foundation, Arlington, Virginia
2005-2013	Associate Professor, Biology, University of Texas Arlington
2002-2005	Assistant Professor, Biology, University of Texas Arlington
1999-2002	Assistant Professor, Biological Sciences, University of Alabama, Tuscaloosa
1996-1998	Postdoctoral Scientist, The Ecosystems Center, Marine Biological Laboratory,
	Woods Hole, Massachusetts

## Education

1991-1996	Louisiana State University, Baton Rouge, Louisiana
	Ph.D., Plant Biology, minor: Experimental Statistics
1986-1990	Brown University, Providence, Rhode Island
	Sc.B., Biology, with Honors

## Funding History (PI/co-PI)

2024-2027	NSF, Division of Undergraduate Education, "Increasing Institutional Capacity to Engage and Mentor Students in Research after Participation in Course-based Research Experiences" \$750,000, PI/PD
2017-2024	Howard Hughes Medical Institute, "TU-REP: Expanding Inclusive Excellence in Science at Towson University" \$1,050,000, PI/PD
2017-2024	NSF, Division of Environmental Biology Grant, "LTER: The Role of Biogeochemical and Community Openness in Governing Ecological Change in Arctic Ecosystems" \$214,000 to TU (out of \$6.7 million total), co-PI (with E. Rastetter and A. Giblin, Marine Biological Laboratory; G.W. Kling, University of Michigan; P. Budy, Utah State University; W.B. Bowden, University of Vermont)
2016-2024	NSF, Office of Polar Programs Grant, "Collaborative Research: Adding animals to the equation: linking observational, experimental and modeling approaches to assess herbivore impacts on carbon cycling in northern Alaska" \$340,935 to TU (out of \$2.7 million total), PI/PD (with N. Boelman and K. Griffin, Columbia University; J. McLaren,

	University of Texas-El Paso; E. Rastetter, Marine Biological Laboratory; R. Rowe,
	University of New Hampshire)
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.
2010-2012	Moore, M. Wallenstein, and W. Parton, Colorado State University) Luminant Power, "Succession of Turtles and Frogs in Reclaimed Wetlands" \$105,446,
2010-2012	fellowship support for Jayme Walton (M.S. student)
2004-2009	NSF, Office of Polar Programs Grant, "Collaborative Research: Above- and
2001 200)	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
2000	Enhancing a Career in Arctic Ecology Research and Education" \$449,500, PI/PD
2000	NSF, Research Experience for Undergraduates (REU) Supplement to Polar Programs
2000	Grant, \$6,750, PI/PD 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-
1999 2003	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)
1999-2003	NSF, Ecology Program Grant, "Collaborative Research: Competitive Ability of Clonal
	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.
1999-2000	Cenderelli, Dept. of Geological Sciences, University of Alabama) University of Alabama, School of Mines and Energy Development Grant, "Changes in
1999-2000	Forested Wetlands of Alabama Caused by Beaver Activity" \$17,600, PI/PD
1993-1995	NSF, Ecology Program, Doctoral Dissertation Improvement Grant, "Development of a
1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Model of Wetland Community Structure: Experimental Testing and Evaluation" \$6,330,
	PI: James B. Grace
1989	Brown University Biomedical Support Grant for Undergraduate Research

# Other Funded Project Involvement (Senior Personnel)

2022-2024	NSF, DEB Grant, "BIORET: Authentic Research for Teachers at NSF's Long-Term
	Ecological Research Sites," assist with ARC LTER Education efforts
2021-2022	NSF, RCN-UBE Grant, "Incorporating Online Biological Data and Data Science into
	Undergraduate Education in Alaska", Arctic LTER site representative

2016-2018	NSF, ADVANCE Grant, "Faculty Workload and Rewards Study" \$5,000 to Towson
	from UMD College Park, Department Leader for Biological Sciences
2011-2017	NSF, DEB Grant, "The Arctic LTER: Climate Change and Changing Disturbance
	Regimes in Arctic Landscapes" \$5 million, Senior Personnel/Executive Committee
	Member
2010-2014	NSF, DUE Grant, "Robert Noyce Scholarship Program for Science and Math Teachers"
	\$1.45 million, Senior Personnel
2004-2010	NSF, DEB Grant, "The Arctic LTER: Regional Variation in Ecosystem Process and
	Landscape Linkages" \$5.7 million, Senior Personnel

#### Honors and Awards

2024	University Diversity and Inclusion Faculty Award, TU
2023	Diversity, Equity, Inclusion and Justice Faculty Award; Fisher College of Science and
	Mathematics; TU
2021	Hilton Service Award, Department of Biological Sciences, TU
2015	College of Science Outstanding Research Award, UTA
2012	Faculty Development Leave, UTA
2009	Honorary Service Award, Division of Environmental Biology, NSF
2004	Professor of the Year, Phi Sigma, Biology Graduate Student Honor Society, UTA
1996	Outstanding Biology Teaching Assistant Award, LSU
	Introductory biology labs for non-majors, 1995-6 academic year
1991-1995	Board of Regents Fellowship, LSU

# Peer-Reviewed Journal Articles (under Gough's supervision: \*graduate student, †undergraduate student, †postdoc)

- Brachmann, C.G., et al. (L. Gough is one of 26 co-authors). Accepted. Impacts of large herbivores on mycorrhizal fungal communities across the Arctic. *Ecography*.
- Kramer, S.\*, L. Gough, and V. Beauchamp. 2025. The effect of legacy sediment removal and floodplain reconnection on hydrochory in urban streams. *Ecological Engineering*. https://doi.org/10.1016/j.ecoleng.2025.107777
- Gough, L., R. Miranda, M. Hemm, L. Norman, and B. Jara. 2025. Faculty perceptions of a professional development program to learn how to develop CUREs and teach inclusively and equitably. *Journal of Microbiology and Biology Education*. https://doi.org/10.1128/jmbe.00215-24
- Machmuller, M.B., L. Lynch, S.L. Mosier, G.R. Shaver, F. Calderon, L. Gough, M.L. Haddix, J.R. McLaren, E. Paul, M.N. Weintraub, M.F. Cotrufo, and M.D. Wallenstein. 2024. Arctic soil carbon trajectories shaped by nitrogen and plant-microbe interactions. *Nature Climate Change*. <a href="https://doi.org/10.1038/s41558-024-02147-3">https://doi.org/10.1038/s41558-024-02147-3</a>
- Norman, L., L. Gough, M. Hemm, J. Doyle, K. Elkins, B. Jara, and R. Miranda. 2024. Integrating a DEI focus into a CURE development model across STEM departments. *Scholarship and Practice of Undergraduate Research* 7: 61-72. doi: 10.18833/spur/7/4/2
- Min, E., N. Boelman, L. Gough, J.R. McLaren, E.B. Rastetter, R.J. Rowe, A. Rocha, M. Turnbull and K. Griffin. 2024. The give and take of arctic greening: Differential responses of the carbon sink-to-source threshold to light and temperature in tussock tundra may be influenced by vegetation cover. *Nature Communications Biology* 7:950 https://doi.org/10.1038/s42003-024-06600-z
- Williamson, N.\*, M. Suchocki\*, and L. Gough. 2024. Soil nutrient availability affects tundra plant composition and plant-vole interactions. *Arctic, Antarctic, and Alpine Research* 56(1). <a href="https://doi.org/10.1080/15230430.2024.2356276">https://doi.org/10.1080/15230430.2024.2356276</a>
- Min, E., S. Naeem, L. Gough, J.R. McLaren, R.J. Rowe, E. Rastetter, N. Boelman, and K. Griffin. 2023. Using structure to model function: Incorporating canopy structure improves estimates of

- ecosystem carbon flux in arctic dry heath tundra. *Environmental Research Letters*. https://doi.org/10.1088/1748-9326/acceb6
- Roy, A., L. Gough, N.T. Boelman, R.J. Rowe, K.L. Griffin, and J.R. McLaren. 2022. Small but mighty: impacts of rodent-herbivore structures on carbon and nutrient cycling in arctic tundra. *Functional Ecology*. https://doi.org/10.1111/1365-2435.14127
- Koltz, A., L. Gough, and J.R. McLaren. 2022. Arctic terrestrial food webs: Effects of climate change and implications for carbon and nutrient cycling. *Annals of the New York Academy of Sciences*. (invited) https://doi.org/10.1111/nyas.14863
- Steketee, J., A. Rocha, L. Gough, K. Griffin, I. Klupar, R. An, N. Williamson\*, and R. Rowe. 2022. Small herbivores with big impacts: Tundra voles (*Microtus oeconomus*) alter post-fire ecosystem dynamics. *Ecology*. <a href="https://doi.org/10.1002/ecy.3689">https://doi.org/10.1002/ecy.3689</a>
- Vuorinen, K.E.M. et al. (L. Gough is one of 41 co-authors). 2022. Growth rings show constrained evidence for ungulates' potential to suppress shrubs across the Arctic. *Environmental Research Letters* 17 034013 <a href="https://doi.org/10.1088/1748-9326/ac5207">https://doi.org/10.1088/1748-9326/ac5207</a>
- Rastetter, E.B., K.L. Griffin, R.J. Rowe, L. Gough, J.R. McLaren and N. Boelman. 2021. Model responses to CO<sub>2</sub> and warming are underestimated without explicit representation of arctic small mammal grazing. *Ecological Applications*. https://doi.org/10.1002/eap.2478
- Lindén, E., L. Gough, and J. Olofsson. 2021. Large and small herbivores have strong effects on tundra vegetation in Scandinavia and Alaska. *Ecology and Evolution*. <a href="https://doi.org/10.1002/ece3.7977">https://doi.org/10.1002/ece3.7977</a>
- Avolio, M., et al. (L. Gough is one of 27 co-authors). 2021. Determinants of plant community compositional change are equally affected by global change. *Ecology Letters*. <a href="https://doi.org/10.1111/ele.13824">https://doi.org/10.1111/ele.13824</a>
- Ponette-Gonzalez, A., M.L. Green\*, J. McCullars†, and L. Gough. 2021. Ambient urban N deposition drives increased biomass and total plant N in two native prairie grass species in the U.S. Southern Great Plains. *PLoS ONE* 16(5): e0251089. https://doi.org/10.1371/journal.pone.0251089
- Rastetter, E.B., et al. (L. Gough is one of 13 co-authors). 2021. Time lags: insights from the U.S. Long-Term Ecological Research Network. *Ecosphere* 12(5):e03431. 10.1002/ecs2.3431
- Rastetter, E.B., G.W. Kling, G.R. Shaver, B. Crump, L. Gough, and K.L. Griffin. 2021. Ecosystem recovery from disturbance is constrained by element cycle openness, vegetation-soil element distribution, and form of element losses. *Ecosystems* 24: 667-685. https://doi.org/10.1007/s10021-020-00542-3
- Min, E., M. Wilcots, S. Naeem, L. Gough, J.R. McLaren, R.J. Rowe, E. Rastetter, N. Boelman and K.L. Griffin. 2021. Herbivore influence on carbon sink capacity of Alaskan dry heath tundra is sensitive to temperature and light. *Environmental Research Letters* 16 024027.
- Kropp, H. et al. (L. Gough is one of 50 co-authors). 2020. Shallow soils are warmer under trees and tall shrubs across arctic and boreal ecosystems. *Environmental Research Letters*. <a href="https://doi.org/10.1088/1748-9326/abc994">https://doi.org/10.1088/1748-9326/abc994</a>
- Roy, A., M. Suchocki\*, L. Gough, and J.R. McLaren. 2020. Above- and belowground responses to long-term herbivore exclusion. *Arctic, Antarctic, and Alpine Research* 52:1, 109-119, DOI: 10.1080/15230430.2020.1733891
- Komatsu, K.J. et al. (L Gough is one of 75 co-authors). 2019. Global change effects on plant communities are magnified by time and the number of global change factors imposed. *Proceedings of the National Academy of Sciences* https://doi.org/10.1073/pnas.1819027116.
- Krause, J., J. Pérez, H. Chmura, S. Meddle, K. Hunt, L. Gough, N. Boelman, and J. Wingfield. 2018. Weathering the storm: Do arctic blizzards cause repeatable changes in stress physiology and body condition in breeding songbirds? *General and Comparative Endocrinology* DOI: 10.1016/j.ygcen.2018.07.004
- Chmura, H., J. Krause, J. Pérez, A. Asmus\*, S. Sweet, K. Hunt, S. Meddle, R. McElreath, N. Boelman, L. Gough and J. Wingfield. 2018. Snowfall decreases offspring survival in two migratory arctic-breeding songbird species. *Journal of Avian Biology* DOI: 10.1111/jav.01712.

- Asmus, A.L.\*, H.E. Chmura, T.T. Høye, J.S. Krause, S.K. Sweet, J.H. Pérez, N.T. Boelman, J.C. Wingfield, and L. Gough. 2018. Shrub shading moderates the effects of weather on arthropod activity in arctic tundra. *Ecological Entomology* DOI: 10.1111/een.12644.
- Oliver, R. D. Ellis, H. Chmura, L. Gough, J. Krause, J. Pérez, S. Sweet, J. Wingfield, and N. Boelman. 2018. Eavesdropping on the Arctic: Automated bioacoustics reveal dynamics in songbird breeding phenology. *Science Advances* DOI: 10.1126/sciadv.aaq1084.
- Gough, L. and Johnson, D.R.\* 2018. Mammalian herbivory exacerbates plant community responses to increased soil nutrients in two Alaskan tundra plant communities. *Arctic Science* 4: 153-166. DOI: 10.1139/AS-2017-0025
- Asmus, A.\*, A. Koltz, J.R. McLaren‡, G.R. Shaver, and L. Gough. 2018. Long-term nutrient addition alters arthropod community structure and seasonality in arctic tundra. *Oikos* 127: 460-471. DOI: 10.1111/oik.04398
- McLaren, J.R.‡, A. Darrouzet-Nardi, M. Weintraub, and L. Gough. 2018. Seasonal patterns of nitrogen availability in moist acidic tundra. *Arctic Science* 4: 98-109. DOI: 10.1139/AS-2017-0014
- Koltz, A.M., A. Asmus\*, L. Gough, Y. Pressler, and J.C. Moore. 2017. The detritus-based microbial-invertebrate food web contributes disproportionately to carbon and nitrogen cycling in the Arctic. *Polar Biology*. DOI 10.1007/s00300-017-2201-5
- Wilcox, K.R. et al. (L. Gough is one of 43 co-authors). 2017. Asynchrony among local communities stabilizes ecosystem function of metacommunities. *Ecology Letters* 20:1534-1545
- Boelman, N., J. Wingfield, L. Gough, J. Krause, S. Sweet, H. Chmura and J. Perez. 2017. Extreme spring conditions in the Arctic delay spring phenology of long-distance migratory songbirds. *Oecologia*. 185: 69-80.
- McLaren, J.R.‡, M.J. van de Weg, K.M. Buckeridge, G.R. Shaver, J.P. Schimel and L. Gough. 2017. Shrub encroachment in arctic tundra: *Betula nana* effects on above- and belowground litter decomposition. *Ecology* 98: 1361-1376.
- Green, M.L.\*, K. Foster† and L. Gough. 2016. Urban development in the southern Great Plains: Effects of elevated atmospheric NOx on the long-lived post oak tree (*Quercus stellata*). *Urban Ecosystems*. DOI 10.1007/s11252-016-0622-5
- Gersony, J.T., C.M. Prager, N.T. Boelman, J.U.H. Eitel, L. Gough, H.E. Greaves, K.L. Griffin, T.S. Magney, S.K. Sweet, L.A. Vierling and S. Naeem. 2016. Scaling thermal properties from the leaf to the canopy in the Alaskan arctic tundra. *Arctic, Antarctic and Alpine Research*. DOI 10.1657/AAAR0016-013
- Gough, L., N.D. Bettez, K.A. Slavik, W.B. Bowden, A.E. Giblin, G.W. Kling, J.A. Laundre and G.R. Shaver. 2016. Effects of long-term nutrient additions on arctic tundra, stream, and lake ecosystems: Beyond NPP. *Oecologia* 182: 653-665.
- Krause, J., J.H. Pérez, H.E. Chmura, A. Asmus\*, S.K. Sweet, S.L. Meddle, K.E. Hunt, L. Gough, N. Boelman, and J.C. Wingfield. 2016. The effects of an extreme spring on body condition and stress physiology in Lapland longspurs and white-crowned sparrows breeding in the Arctic. *General and Comparative Endocrinology* 237: 10-18.
- Boelman, N.T., J.D. Holbrook, H.E. Greaves, J.S. Krause, H.E. Chmura, T.S. Magney, J.H. Perez, J.U.H. Eitel, L. Gough, K.T. Vierling, J.C. Wingfield, and L.A. Vierling. 2016. Airborne laser scanning and spectral remote sensing give a bird's eye perspective on arctic tundra breeding habitat at multiple spatial scales. *Remote Sensing of the Environment* 184:337-349.
- Krause, J., J.H. Pérez, H.E. Chmura, S.L. Meddle, K.E. Hunt, L. Gough, N. Boelman, & J.C. Wingfield. 2016. The stress response is attenuated during inclement weather in parental, but not in preparental, Lapland longspurs (*Calcarius lapponicus*) breeding in the Low Arctic. *Hormones and Behavior* 83: 68-74.
- Pérez, J.H., J.S. Krause, H.E. Chmura, S. Bowman, M. McGuigan, A.L. Asmus\*, S.L. Meddle, K.E. Hunt, L. Gough, N.T. Boelman, and J.C. Wingfield. 2016. Nestling growth rates in relation to food abundance and weather in the Arctic. *The Auk* 133: 261-272.

- Abbott, B., et al. 2016. Biomass offsets little or none of permafrost carbon release from soils, streams, and wildfire: an expert assessment. *Environmental Research Letters* 11: 034014.
- Krause, J.S., H.E. Chmura, J.H. Perez, L.N. Quach, A. Asmus\*, K.R. Word, M.A. McGuigan, S.K. Sweet, S.L. Meddle, L. Gough, N. Boelman and J. Wingfield. 2015. Breeding on the leading edge of a northward range expansion: Differences in morphology and the stress response in the Arctic Gambel's white-crowned sparrow. *Oecologia* 180: 33-44.
- Christie, K.S., R.W. Ruess, K.D. Tape, L. Gough, V.T. Ravolainen and J.P. Bryant. 2015. The role of vertebrate herbivores in regulating shrub expansion in the Arctic: A synthesis. *BioScience* 65: 1123-1133.
- Sweet, S.K., K. Griffin, H. Steltzer, L. Gough and N. Boelman. 2015. Greater deciduous shrub abundance extends the annual period of maximum tundra greenness and increases modeled net CO<sub>2</sub> uptake. *Global Change Biology* 21: 2394-2409.
- Smith, M.D., K. LaPierre, S.L. Collins, A.K. Knapp, K.L. Gross, J.E. Barrett, S.D. Frey, L. Gough, R.J. Miller, J.T. Morris, L.E. Rustad, and J. Yarie. 2015. Global environmental change and the nature of aboveground net primary productivity responses: Insights from long-term experiments. *Oecologia* 177: 935-947.
- Sweet, S.K., A. Asmus\*, M.E. Rich\*, J. Wingfield, L. Gough, and N.T. Boelman. 2015. NDVI as a predictor of canopy arthropod biomass in the Alaskan arctic tundra. *Ecological Applications* 25: 779-790.
- Gough, L., H. Bass†, and J.R. McLaren‡. 2015. Effects of increased soil nutrients on seed rain: a role for seed dispersal in the Greening of the Arctic? *Arctic, Antarctic, and Alpine Research* 47: 27-34.
- Boelman, N., L. Gough, J. Wingfield, S. Goetze, A. Asmus\*, H. Chmura, J.S. Krause, J. Perez, S. Sweet and K. Guay. 2014. Greater shrub dominance alters breeding habitat and food resources for migratory songbirds in Alaskan arctic tundra. *Global Change Biology* 21: 1508-1520.
- Sweet, S., N. Boelman, L. Gough, and K. Griffin. 2014. Greater thaw depth enhances the growth and phenological development of woody deciduous shrubs in arctic tundra. *Arctic, Antarctic, and Alpine Research* 46:82-697.
- Sistla, S.A., J.C. Moore, R.T. Simpson, L. Gough, G.R. Shaver and J.P. Schimel. 2013. Twenty years of tundra warming restructures plant and soil communities without changing overall soil carbon pools. *Nature* 497: 615-618.
- Heskel, M., H. Greaves, A. Kornfeld, L. Gough, O.K. Atkin, M.H. Turnbull, G.R. Shaver and K.L. Griffin. 2013. Differential physiological responses to environmental change promote woody shrub expansion. *Ecology and Evolution*. DOI: 10.1002/ece3.525
- Rich, M.E.\*, L. Gough, and N.T. Boelman. 2013. Arctic arthropod assemblages in habitats of differing shrub dominance. *Ecography* 9: 994-1003.
- Johnson, D.R.\* and L. Gough. 2013. Two arctic tundra graminoids differ in tolerance to herbivory when grown with added soil nutrients. *Botany* 91:82-90.
- Kornfeld, A., M. Heskel, O.K. Atkin, L. Gough, K.L. Griffin, T.W. Horton, and M.H. Turnbull. 2013. Respiratory flexibility and efficiency are affected by simulated global change in arctic plants. *New Phytologist* 197:1161-1172.
- Rout, M.E.\*, L. Gough, W.K. Smith and T.H. Chrzanowski. 2013. Impacts of an invasive grass, *Sorghum halepense*, on native tallgrass prairie: the role of allelopathy. *Biological Invasions* 15: 327-339. DOI 10.1007/s10530-012-0289-7.
- Gough, L., J.C. Moore, G.R. Shaver, R.T. Simpson, and D.R. Johnson\*. 2012. Above- and belowground responses of arctic tundra ecosystems to altered soil nutrients and mammalian herbivory. *Ecology* 93:1683-1694.
- Gough, L., K.L. Gross, E.E. Cleland, C.M. Clark, S.L. Collins, K.N. Suding, J.E. Fargione, and S.C. Pennings. 2012. Incorporating clonal growth form clarifies the role of plant height in response to nitrogen addition. *Oecologia* 169:1053-1062.
- Watson, C.M.\* and L. Gough. 2012. The role of temperature in determining distributions and coexistence of three species of *Plestiodon. Journal of Thermal Biology* 37:374-379.

- Moulton, C.A.\* and L. Gough. 2011. Effects of soil nutrient availability on the role of sexual reproduction in an Alaskan tundra plant community. *Arctic, Antarctic, and Alpine Research* 43: 612-620.
- Cleland, E.E., C.M. Clark, S.L. Collins, J.E. Fargione, L. Gough, K.L. Gross, S.C. Pennings, and K.N. Suding. 2011. Patterns of trait convergence and divergence among native and exotic species in herbaceous plant communities are not modified by nitrogen enrichment. *Journal of Ecology* 99: 1327-1338.
- Boelman, N.T., L. Gough, J. McLaren‡ and H. Greaves. 2011. Does NDVI reflect variation in the structural attributes associated with increasing shrub dominance in arctic tundra? *Environmental Research Letters* 6:03550; doi: 10.1088/1748-9326/6/3/035501.
- Cherry, J.A.\* and L. Gough. 2009. Trade-offs in plant responses to herbivory influence trophic routes of production in a freshwater wetland. *Oecologia* 161: 549-557.
- Wookey, P.A., R. Aerts, R.D. Bardgett, F. Baptist, K.A. Bråthen, H. Cornelissen, L. Gough, I. Hartley, D. Hopkins, S. Lavorel, S.F. Oberbauer, G.R. Shaver, and CAT-B Participants. 2009. Climate change-induced feedback mechanisms drive ecosystem responses in a greening Arctic. *Global Change Biology* 15: 1153-1172.
- Collins, S.L., K.N. Suding, E.E. Cleland, M. Batty, S.C. Pennings, K.L. Gross, J.B. Grace, L. Gough, J.E. Fargione, and C.M. Clark. 2008. Rank clocks and plant community dynamics. *Ecology* 89: 3534-3541.
- Cleland, E.E., C.M. Clark, S.L. Collins, J.E. Fargione, L. Gough, K.L. Gross, D.L. Milchunas, S.V. Pennings, W.D. Bowman, I.C. Burke, W.K. Lauenroth, G.P. Robertson, J.C. Simpson, G.D. Tilman, and K.N. Suding. 2008. Species responses to nitrogen fertilization in herbaceous plant communities, and associated species traits. *Ecology* 89:1175.
- Gough, L., K. Shrestha<u>†</u>, D.R. Johnson\*, and B. Moon†. 2008. Long-term mammalian herbivory and nutrient addition alter lichen community structure in Alaskan dry heath tundra. *Arctic, Antarctic, and Alpine Research* 40:65-73.
- Clark, C.M., E.E. Cleland, S.L. Collins, J.E. Fargione, L. Gough, K.L. Gross, S.C. Pennings, K.N. Suding, and J.B. Grace. 2007. Environmental and plant community determinants of species loss following nitrogen enrichment. *Ecology Letters* 10:596-607.
- Wildová, R., L. Gough, T. Herben, C. Hershock and D.E. Goldberg. 2007. Architectural and growth traits differ in effects on performance of clonal plants: an analysis using a field-parameterized simulation model. *Oikos* 116:836-852.
- Gough, L., E.A. Ramsey†, and D.R. Johnson\*. 2007. Plant-herbivore interactions in Alaskan arctic tundra change with soil nutrient availability. *Oikos* 116:407-418.
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## Peer-Reviewed Book Chapters

- DeBoy, C., L. Gough, S. Kennedy, A. Raimer and J. Sible. 2023. From the soul: Learning and leading together towards inclusive excellence. In Briganti, J., J. Sible, and A.M. Brown (eds.) Fostering Communities of Transformation in STEM Higher Education A Multi-institutional Collective of DEI Initiatives. Pressbooks. https://pressbooks.lib.vt.edu/fosteringcommunities/
- Wojdak, J., T. Phelps-Durr, L. Gough, T. Atuobi, C. DeBoy, P. Moss, J. Sible and N. Mouchrek. 2020. Learning together: Four institutions' collective approach to building sustained inclusive excellence programs in STEM. Chapter 11 in White, K. et al. (eds.) *Transforming Institutions: Accelerating Systemic Change in Higher Education*. Pressbooks. <a href="http://openbooks.library.umass.edu/ascnti2020/">http://openbooks.library.umass.edu/ascnti2020/</a>.
- Gough, L. 2016. Conducting research at the Arctic LTER: Bridging community and ecosystem ecology via collaborations. pp. 83-90 in Willig, M. and L. Walker (eds.) *Long Term Ecological Research: Changing the Nature of Scientists*. Oxford University Press, New York.
- Gough, L. 2014. Vignette 5.1. Plant Species Diversity in the Vicinity of Toolik Lake, Alaska. pp. 95-96 in Hobbie, J.E. and G. Kling (eds.) *Alaska's Changing Arctic: Ecological Consequences for Tundra, Streams, and Lakes.* Oxford University Press, New York.
- Shaver, G.R., J.A. Laundre, M.S. Bret-Harte, F.S. Chapin, III, A.E. Giblin, L. Gough, et al. 2014. Terrestrial Ecosystems at Toolik Lake, Alaska. pp. 90-142 in Hobbie, J.E. and G. Kling (eds.) *Alaska's Changing Arctic: Ecological Consequences for Tundra, Streams, and Lakes*. Oxford University Press, New York.
- Gough, L. 2012. Freshwater arctic tundra wetlands. pp. 371-385 in Batzer, D. and A. Baldwin (eds.), Wetland Habitats of North America: Ecology and Conservation Concerns. University of California Press, Berkeley.
- Keddy, P.A., L. Gough, J.A. Nyman, T. McFalls, J. Carter, and J. Siegrist. 2009. Pelt traders, alligator hunters, and runaway consumption of Gulf Coast marshes: a trophic cascade perspective on 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. <a href="http://news.lternet.edu/article235.html">http://news.lternet.edu/article235.html</a>

#### Selected Research in the News and Public Outreach

- Highlighted in Arctic Data Center Blog, March 2025, <a href="https://arcticdata.io/all/news/2025/03/new-datasets-exploring-small-mammal-impact-on-arctic-vegetation-with-dr-laura-gough/">https://arcticdata.io/all/news/2025/03/new-datasets-exploring-small-mammal-impact-on-arctic-vegetation-with-dr-laura-gough/</a>
- Co-authored a Data Nugget "Which tundra plants will win the climate change race?" for middle and high school teachers to teach with data collected by the Arctic Long-Term Ecological Project, September 2023, <a href="https://datanuggets.org/2023/09/which-tundra-plants-will-win-the-climate-change-race/">https://datanuggets.org/2023/09/which-tundra-plants-will-win-the-climate-change-race/</a>
- Interviewed for "Listening to the Arctic" radio documentary, June 2019, https://beta.prx.org/stories/281334

- Science News for Students, January 2018, "Here's why scientists have been fertilizing the Arctic,"

  <a href="https://www.sciencenewsforstudents.org/article/heres-why-scientists-have-been-fertilizing-arctic">https://www.sciencenewsforstudents.org/article/heres-why-scientists-have-been-fertilizing-arctic</a>
- Frontier Scientists, 2015, "Migration" Videos, <a href="http://frontierscientists.com/projects/animal-physiology-science/migration/">http://frontierscientists.com/projects/animal-physiology-science/migration/</a>
- Audubon Magazine, Sep-Oct 2013, Arctic Researchers Race to Uncover Effects of Global Warming on Songbirds. <a href="http://www.audubon.org/magazine/september-october-2013/arctic-researchers-race-uncover">http://www.audubon.org/magazine/september-october-2013/arctic-researchers-race-uncover</a>

## Workshops and Panels

- 2019 NSF Office of Polar Programs Panel
- 2019 NSF-funded Faculty Workload and Rewards Study, Panelist for Leading Workload Reform: Department Chair Perspective
- 2018 Panelist for New Chairs Workshop, Towson University
- 2018 NSF-funded Faculty Workload and Rewards Study, Panelist for Concluding Workshop
- 2017 NSF Office of Polar Programs Panel
- 2016 NSF Division of Environmental Biology Panel
- 2012 LTER Veg-DB (Vegetation-Database) Workshop, Harvard Forest, MA
- Women Evolving Biological Sciences (WEBS) Symposium, NSF-funded workshop to retain women in ecology and environmental biology, Served as Mentor, Durham, NC
- 2011 LTER Synthesis and Hypothesis Testing Working Group, Hartford, CT
- Women Evolving Biological Sciences (WEBS) Symposium, NSF-funded workshop to retain women in ecology and environmental biology, Served as Mentor, Seattle, WA
- 2007 NSF Division of Environmental Biology Ecology Program Advisory Panel
- 2006 NSF Division of Environmental Biology Doctoral Dissertation Improvement Grant Panel
- 2003 Predicting Species Response to Changes in Resource Availability, Sevilleta LTER, New Mexico
- 2003 Predicting Species Response to Changes in Resource Availability, LTER All Scientists Meeting, Seattle, WA
- 2003 Species Responses to N Fertilization: an LTER Synthesis Workshop, hosted at UTA
- 2001 NSF ADVANCE Institutional Transformation Grant Panel
- 2000 NSF Division of Environmental Biology Doctoral Dissertation Improvement Grant Panel
- 1999 NSF Frontiers of Ecology Workshop
- 1996 Analysis of the Relationship Between Productivity and Diversity Using Experimental Results from the Long-Term Ecological Research Network, Working Group, National Center for Ecological Analysis and Synthesis, Santa Barbara, CA

#### **Invited Talks**

- 2022 Department of Biology, The College of New Jersey, Ewing, NJ
- 2020 Women in Science Forum, Towson University, Towson, MD
- 2018 Smithsonian Environmental Research Center, Edgewater, MD
- 2017 Department of Biological Sciences, Dartmouth College, Hanover, NH
- 2016 Department of Ecology and Environmental Science, Umeå University, Sweden
- 2015 Department of Biology, University of Denver, CO
- 2012 Department of Ecosystem Science and Management, Texas A&M University, College Station
- 2009 Department of Biology, University of Texas Arlington
- 2004 Department of Biology and Biochemistry, University of Houston, TX
- 2004 Environmental Science Program, Southern Methodist University, Dallas, TX
- 2003 Botanical Research Institute of Texas, Ft. Worth, TX
- 2000 Dauphin Island Sea Lab, AL
- 1998 Department of Biology, University of Michigan, Ann Arbor, MI

- 1998 Department of Ecology and Evolutionary Biology, Brown University, Providence, RI
- 1997 International Tundra Experiment Annual Workshop, Royal Holloway College, England
- 1997 Kellogg Biological Station, Michigan State University, Hickory Corners, MI
- 1997 The Ecosystems Center, Woods Hole, MA
- 1995 Department of Botany, University of Reading, England
- 1995 Ness Botanic Gardens, University of Liverpool, England

## Examples of Professional Development Activities Focused on Faculty and Student Success in STEM

Mentoring Working Group, Root & Shoot, January-October 2024, <a href="https://rootandshoot.org/mentoring-working-group/">https://rootandshoot.org/mentoring-working-group/</a>

Entering Mentoring, Long-Term Ecological Research Network, Spring 2024

Undergraduate Mentoring Course, National Research Mentoring Network, April 2024

Council on Undergraduate Research, Learn to Leverage Research and Creative Inquiry as a Career-Readiness Tool, September 2023

NSF ASPIRE Summer Institute, June 2023, <a href="https://sites.google.com/wisc.edu/aspire-summer-institute-2023/">https://sites.google.com/wisc.edu/aspire-summer-institute-2023/</a>, participated as member of RISE UPP Alliance, <a href="https://www.riseupp.org/">https://www.riseupp.org/</a>

QUBES Faculty Mentoring Network, UNVEIL-ing: Applying to Undergraduate Summer Research Experiences, Fall 2022.

Council on Undergraduate Research, Building Equity-Centered Undergraduate Research, Scholarship, and Creative Inquiry Programs, June 2022

Multiple workshops as part of Principal Investigator meetings for HHMI Inclusive Excellence grants, 2017-2022

Multiple workshops as part of South Peer Implementation Cluster meetings as part of HHMI Inclusive Excellence grants, 2018-2023

Dialogue@TU Level 1 and Level 2 Training, Spring 2021

AAC&U Advancing Diversity and Inclusivity Through Multilevel Strategic Leadership, 2018

Women Evolving Biological Sciences (WEBS) Symposium Mentor, NSF-funded workshop to retain women in EEB fields, 2010 and 2011

#### Invited Symposium and Organized Session Papers

- Gough, L., A. Koltz, J.R. McLaren, and R. Rowe. Herbivory research near Toolik Field Station: A brief review. Toolik Field Station All Scientists Meeting, Santa Barbara, CA, January 2025.
- Gough, L., et al. Progress on the Arctic LTER's efforts towards long-lasting inclusion and equity. American Geophysical Union, Annual Meeting, Washington, DC, December 2024.
- Boelman, N., L. Gough, K.L. Griffin, J.R. McLaren, E. Rastetter, and R.J. Rowe. Adding animals to the equation: Trophic interactions mediate carbon cycling in arctic tundra. Ecological Society of America Annual Meeting, Baltimore, MD, August 2015.
- Gough, L. Ecological monitoring at Toolik Field Station: lessons learned and challenges ahead. Arctic Biodiversity Congress, Trondheim, Norway, December 2014.
- 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).

- 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.

## **Contributed Papers and Posters**

- Gough, L., M. Hemm, L. Norman, J. Doyle, K. Elkins, B. Jara, and R. Miranda. A professional development program to develop CUREs and promote inclusive undergraduate research opportunities. ConnectUR, Council on Undergraduate Research Annual Meeting, College Park, MD, June 2024.
- Motes, J., R. An, N. Boelman, L. Gough, K.L. Griffin, J. Laundre, E. Rastetter, and D. Menge. Seasonal differences in canopy greenness and soil nutrient availability in a long-term fertilization gradient experiment in northern Alaska. American Geophysical Union, San Francisco, CA, December 2023 (poster).
- Crowhurst, I.†, S. Kramer\*, V. Beauchamp, and L. Gough. Exotic seed dispersal in urban streams. Ecological Society of America, Mid-Atlantic Regional Meeting, Newark, DE, April 2023 (poster).
- Kramer, S.\*, V. Beauchamp, and L. Gough. The impact of floodplain reconnection on hydrochory in Baltimore County. Ecological Society of America, Mid-Atlantic Regional Meeting, Newark, DE, April 2023 (poster).
- DeBoy, C., L. Gough, A. Raimer, J. Sible, and S. Kennedy. Sustaining inclusive excellence through communities of practice. AAC&U Transforming STEM Higher Education Conference, Arlington, VA, November 2022 (workshop).
- Gough, L., M. Hemm, and R. Miranda. Outcomes from an inclusive excellence project focused on CURE development. AAC&U Transforming STEM Higher Education Conference, November 2022 (poster).
- McLaren, J., L. Min, A. Roy, J. Steketee, M. Suchocki\*, N. Williamson\*, L. Gough, K. Griffin, E. Rastetter, R. Rowe, and N. Boelman. Arctic small mammal herbivores and their impacts on nutrient cycling. LTER All Scientists Meeting, Asilomar, CA, September 2022.
- 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. Snyder, C. Warren, M. Hemm, T. Atuobi and L. Gough. Teaching research courses on-line during a pandemic: challenges and lessons learned. AAC&U Transforming STEM Higher Education Conference, November 2020 (poster).
- Hemm, M., R. Miranda, T. Atuobi, V. Beauchamp, H. Beck, J. Doyle, C. Oufiero and L. Gough. Lessons Learned: CUREs Beyond Cell and Molecular Biology at Towson University. AAC&U Transforming STEM Higher Education Conference, Chicago, IL, November 2019 (poster).

- Suchocki, M.\*, J. Sheppy†, M. Muller-Girard†, and L. Gough. The effects of fertilizer on a tundra plant community and plant-vole interactions. Ecological Society of America, Mid-Atlantic Regional Meeting, Bowie, MD, April 2019. (poster)
- Park, M.\* and L. Gough. Invasion ecology of *Miscanthus sinensis*. Ecological Society of America, Mid-Atlantic Regional Meeting, Bowie, MD, April 2019.
- Grow, D.\*, V. Beauchamp, and L. Gough. Short-term plant community impacts of an invasive tree removal. Ecological Society of America, Mid-Atlantic Regional Meeting, Bowie, MD, April 2019.
- Sible, J., J. Wojdak, L. Gough, P. Moss, and N. Mouchrek. Sustaining institutional change for inclusive excellence. Thematic Symposium. ASCN Transforming Institutions Conference, Pittsburgh, PA, April 2019.
- Moore, J.C., P. Budy, L. Gough, A. Huryn, A. Koltz, S.M. Parker, Y. Pressler, G.R. Shaver, and S. Simpson. The different responses of arctic terrestrial and aquatic food webs to long-term nutrient additions. American Geophysical Union Annual Meeting, Washington, DC, December 2018.
- Gough, L., R. Miranda, T. Atuobi, M. Hemm and C. Oufiero. Towson University Research Enhancement Program: Providing Authentic Research Experiences in the College Classroom to Better Educate All STEM Majors. AAC&U Transforming STEM Higher Education Conference, Atlanta, GA, November 2018 (poster).
- Grow, D.\*, V. Beauchamp, and L. Gough. Escaping arboreta: Understanding the ecological impact of an invasive tree recently escaping cultivation. Ecological Society of America Annual Meeting, New Orleans, LA, August 2018 (poster).
- Gough, L. and J.R. McLaren. Long-term nutrient addition in arctic tundra alters decomposition rates through multiple mechanisms. Ecological Society of America Annual Meeting, New Orleans, LA, August 2018 (poster).
- Ghent, C., L. Gough, T. Atuobi, R. Miranda and M. Hemm. Towson University's Research Enhancement Program (TU REP). Network of STEM Education Centers National Conference, June 2018 (poster).
- Grow, D.\*, V. Beauchamp, and L. Gough. Ecological impacts of an invasive tree recently escaping arboreta. Ecological Society of America, Mid-Atlantic Regional Meeting, Rutgers, NJ, April 2018.
- Gough, L., T. Atuobi, R. Miranda, C. Ghent and M. Hemm. TU REP: Providing authentic research experiences in the college classroom to better educate all STEM majors. Capitol Project Kaleidoscope Regional Network Conference, Stevenson University, MD, March 2018.
- Asmus, A.L.\*, A.M. Koltz, J.R. McLaren, G.R. Shaver, and L. Gough. Bottom-up effects of experimental nutrient addition on arthropod assemblages in arctic tundra mediated by plant traits. Ecological Society of America, Annual Meeting, Portland, OR, August 2017.
- Pressler, Y., A.M. Koltz, A.L. Asmus\*, R.T. Simpson, L. Gough, G.R. Shaver and J.C. Moore. Recovery and recoupling of above- and belowground food webs after an unprecedented arctic wildfire. Ecological Society of America, Annual Meeting, Portland, OR, August 2017.
- Green, M.L.\* and L. Gough. Urbanization and nitrogen deposition in North Texas: Effects on the native prairie grass, little bluestem (*Schizachyrium scoparium*). Ecological Society of America, Annual Meeting, Ft. Lauderdale, FL, August 2016.
- Krause, J.S., J.H. Perez, H.E. Chmura, S.L. Meddle, K.E. Hunt, L. Gough, N. Boelman and J.C. Wingfield. Breeding in an extreme environment: the effects of interannual variation in snow cover and snow storms on the timing of arrival and stress physiology in Lapland longspurs. Society for Integrative and Comparative Biology, Annual Meeting, Portland, OR, January 2016.
- Perez, J.H., J.S. Krause, H.E. Chmura, S. Bowman, M. McGuigan, A.L. Asmus\*, S.L. Meddle, K.E. Hunt, L. Gough, N.T. Boelman and J.C. Wingfield. Growing up in the Arctic: Nestling growth rates in two species of passerines. Society for Integrative and Comparative Biology, Annual Meeting, Portland, OR, January 2016.

- Boelman, N., L. Gough, J.C. Wingfield, J.S. Krause, H.E. Chmura, J. Perez, A.L. Asmus and S. Sweet. Arctic breeding songbirds cope with variability in the timing of spring onset. Ecological Society of America, Annual Meeting, Baltimore, MD, August 2015.
- McGuigan, M.A., J.S. Krause, H.C. Chmura, J.H. Perez, L. Gough, N.T. Boelman, M. Ramenofsky, and J.C. Wingfield. Spatial habitat use post-breeding: A radio-telemetry study in Gambel's White-crowned sparrows. Society for Integrative and Comparative Biology, Annual Meeting, Sacramento, CA, January 2015.
- Sweet, S., N.T. Boelman, K.L. Griffin, H. Steltzer, and L. Gough. Greater deciduous shrub abundance extends tundra peak season and increases modeled net carbon dioxide uptake. American Geophysical Union Annual Meeting, San Francisco, CA, December 2014.
- Asmus, A.L.\*, L. Gough, N. Boelman, J. Wingfield, S. Sweet and others. Bugs in shrubs: arthropod community response to shrub expansion in the Alaskan Arctic. Arctic Biodiversity Congress, Trondheim, Norway, December 2014.
- McLaren, J.R.‡ and L. Gough. Effects of increasing shrub abundance on litter production and decomposition in arctic tundra. Ecological Society of America, Annual Meeting, Sacramento, CA, August 2014.
- Chmura, H.E., J.S. Krause, J.H. Perez, S.K. Sweet, A.L. Asmus\*, N.T. Boelman, L. Gough, and J.C. Wingfield. Interannual variability in arctic phenology and reproductive success in the Whitecrowned sparrow (*Zonotrichia leucophrys gambelii*) and Lapland longspur (*Calcarius lapponicus*). . Society for Integrative and Comparative Biology, Annual Meeting, Austin, TX, January 2014 (poster).
- Asmus, A.L.\*, L. Gough, N.T. Boelman, J.C. Wingfield, S.K. Sweet, J.S. Krause, J.H. Perez, and H.E. Chmura. Multi-trophic impacts of shrub dominance on arctic arthropod assemblages in arctic tundra. Society for Integrative and Comparative Biology, Annual Meeting, Austin, TX, January 2014 (poster).
- McLaren, J.R.‡, M.J. van de Weg, L. Gough and G.R. Shaver. Increasing shrub abundance and N addition in arctic tundra affect leaf and root litter decomposition differently. American Geophysical Union Annual Meeting, San Francisco, CA, December 2013.
- Asmus, A.L.\* and L. Gough. Poleward range expansion of jumping plant lice (Psyllidae) in Alaska. Entomological Society of America, Annual Meeting, Austin, TX, November 2013 (poster).
- Grover, J.P., H.V. Kojouharov, L.D. Mydlarz, L. Gough, and C. Kribs-Zaleta. A model for research-oriented education at the intersection of biology and mathematics: The undergraduate training in theoretical ecology research (UTTER) program. Ecological Society of America, Annual Meeting, Minneapolis, MN, August 2013 (poster).
- Gough, L., N.D. Bettez, and K.A. Slavik. Effects of long-term resource additions in arctic lake, stream, and tundra environments: Beyond NPP. Ecological Society of America, Annual Meeting, Minneapolis, MN, August 2013.
- McLaren, J.R.‡, M. van de Weg, L. Gough, and G.R. Shaver. Effects of increasing shrub abundance on leaf and root litter decomposition in arctic tundra. Ecological Society of America, Annual Meeting, Minneapolis, MN, August 2013.
- Buckeridge, K.M., J.R. McLaren‡, M.J. van de Weg, L. Gough, G.R. Shaver and J.P. Schimel. The impact of shrub encroachment and litter mixing on microbial exoenzyme activity. Ecological Society of America, Annual Meeting, Minneapolis, MN, August 2013.
- Krause, J. S., J.H. Perez, S.K. Sweet, A. Asmus\*, K.R. Word, M.E. Rich\*, J. Schas, J.C. Wingfield, L. Gough, and N. Boelman. Impacts of changing seasonality and the potential for trophic mismatches in the Arctic. Society for Integrative and Comparative Biology, Annual Meeting, San Francisco, CA, January 2013.
- 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.‡ and L. Gough. Shrub abundance and seasonal variation in ecosystem properties across a fertilization chronosequence in moist acidic tundra. Ecological Society of America, Annual Meeting, Portland, OR, 2012.
- McLaren, J.R.‡ and L. Gough. Shrub abundance and seasonal variation in ecosystem properties across a fertilization chronosequence in moist acidic tundra. International Polar Year 2012 Conference, Montréal, Canada (poster).
- Cavallo, A.M.L., Hale, G., Mydlarz, L., Jorgensen, T., Gough, L., Lopez, R., Hoke, K., & Mergele, J. High School Earth and Life Science, and Middle Level Science and Mathematics: Preparing Teachers to Teach the Next Generation. Robert Noyce Teacher Scholarship Program Conference of the National Science Foundation and American Association for the Advancement of Science, Washington, DC. May 2012.
- Grover, J.P., H.V. Kojouharov, B. Scarbrough, A. Prieto Langarica, L.D. Mydlarz, L. Gough, D.L. Hawkins, C. Kribs-Zaleta and B. Chen-Charpentier. Research-oriented education at the intersection of biology and mathematics: The undergraduate training in theoretical ecology research (UTTER) program. Ecological Society of America, Annual Meeting, Austin, TX, 2011 (poster).
- Gross, K.L., L. Gough, K.N. Suding, and E.E. Cleland. Moving beyond growth form: Predicting species responses to nutrient addition. Ecological Society of America, Annual Meeting, Austin, TX, 2011
- Cavallo, A.M.L., Hale, G., Mydlarz, L., Jorgensen, T., Gough, L. & Lopez, R. Expanding the Effort: Recruitment, Preparation and Induction of Middle Level Science and Math, and Secondary Earth and Life Science Teacher Candidates in the NSF Noyce Program II. Robert Noyce Teacher Scholarship Program Conference of the National Science Foundation and American Association for the Advancement of Science, Washington, DC, July 2011.
- Gough, L., J.C. Moore, G.R. Shaver, R.T. Simpson, and D.R. Johnson\*. An aboveground and belowground test of EEH in Alaskan arctic tundra. Ecological Society of America, Annual Meeting, Albuquerque, NM, 2009.
- Spasojevic, M.J., S.C. Pennings, S.L. Collins, C. Clark, E. Cleland, L. Gough, K.L. Gross, and K.N. Suding. Predicting community response to N-enrichment with SLA: a multisystem test. Ecological Society of America, Annual Meeting, Albuquerque, NM, 2009.
- Watson, C. M.\* and L. Gough. Comparative thermal biology of three morphologically similar syntopic lizards of the genus *Plestiodon*. Evolution Meeting, Minneapolis, MN, 2008.
- Collins, S., K. Suding, E. Cleland, M. Batty, S.C. Pennings, K.L. Gross, J.B. Grace, L. Gough, J.E. Fargione, and C. Clark. Rank clocks and plant community dynamics. Ecological Society of America, Annual Meeting, San Jose, CA, 2007.
- Cleland, E., K. Suding, C. Clark, S. Collins, J. Fargione, L. Gough, J. Grace, K. Gross, and S. Pennings. Crashing the party: non-native plant species have different traits than native species in a cross-site synthesis of fertilization studies. Ecological Society of America, Annual Meeting, Memphis, TN, 2006.

- 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*: the possible role of allelopathy. Ecological Society of America, Annual Meeting, Montreal, 2005.
- Cherry, J.A.\* and L. Gough. The effects of herbivory on growth, production, and resource allocation in *Nymphaea odorata*. Ecological Society of America, Annual Meeting, Portland, OR, 2004.
- Gough, L. Can we predict plant response to nitrogen based on clonality? LTER All Scientists Meeting, Seattle, WA, 2003.
- Gough, L. Ongoing research in populations and communities at the Arctic LTER. LTER All Scientists Meeting, Seattle, WA, 2003.
- Goldberg, D.E., L. Gough and C. Hershock. Traits determining competitive ability in clonal plants. Seventh Clonal Plant Workshop, Kuusamo, Finland, 2003.
- Hobbie, S. E. and L. Gough. The influence of glacial history on ecosystem processes in arctic Alaskan tundra. Carey Conference X, Ecosystem Function in Heterogeneous Landscapes, Institute for Ecosystem Studies, Millbrook, NY, 2003 (poster).
- Gough, L. and S.E. Hobbie. Effects of four years of warming and fertilization on species-rich moist non-acidic tundra in Alaska. Ecological Society of America, Annual Meeting, Tucson, AZ, 2002.
- Cherry, J.A.\* and L. Gough. Changes in emergent plant community composition after a natural substrate disturbance in an Alabama lake. Ecological Society of America, Annual Meeting, Tucson, AZ, 2002 (poster).
- Cherry, J.A.\* and L. Gough. The effects of herbivory on the growth and production of *Nymphaea odorata*. Society of Wetland Scientists, Annual Meeting, Lake Placid, NY, 2002.
- Pauliukonis, N.\* and L. Gough. The effects of rhizome severing on growth of four clonal sedges that differ in ramet aggregation. Society of Wetland Scientists, Annual Meeting, Lake Placid, NY, 2002.
- Cherry, J.A.\* and L. Gough. The effects of herbivory on the growth and production of *Nymphaea odorata*. Association of Southeastern Biologists, Annual Meeting, Boone, NC, 2002.
- Gough, L., S.E. Hobbie, and G.R. Shaver. Understanding arctic ecosystem response to climate change: the role of individual species. NSF Arctic System Science All-Hands Meeting, Seattle, WA, 2002 (poster).
- Hobbie, S.E., L. Gough, and G.R. Shaver. Contrasting responses of plant production and biomass to nutrient addition on landscapes with different glacial histories. NSF Land-Atmosphere-Ice Interactions All-Hands Meeting, Salt Lake City, UT, 2001 (poster).
- Gough, L. Response of arctic tundra to nutrient addition and warming: the role of clonal plant growth form. Ecological Society of America, Annual Meeting, Madison, WI, 2001.
- Pauliukonis, N.\*, L. Gough, and D.E. Goldberg. The role of clonal integration in the survival and growth of four wetland plant species. Ecological Society of America, Annual Meeting, Madison, WI, 2001
- Gough, L. Understanding plant community and ecosystem dynamics through insights from clonal plant biology. Clone 2000: Current Progress and Developments in Clonal Plant Research, Obergurgl, Austria, 2000.

- Pauliukonis, N.\*, L. Gough, and D.E. Goldberg. The effects of clonal integration and community competition on the growth of four clonal sedges in a calcareous fen of southwestern Michigan. 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 nonacidic Alaskan arctic tundra, Ecological Society of America, Annual Meeting, Spokane, WA,
- 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,
- 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; Educational and Career

Planning for the Biologist

Undergraduate/Graduate: Urban Ecology, General Ecology (lecture and

laboratory), Plant Ecology (lecture and laboratory)

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 Undergraduate: General Ecology, Introductory Biology for Non-Majors

UA

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

Hailey Mark, M.S. candidate, Environmental Science, TU, 2024- (co-advised with V. Beauchamp)

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. Hélène Barthelemy, student of Professor Johan Olofsson, Department of Ecology and Environmental Science, Umeå University, Sweden, June 2016

#### Additional Graduate Committees Outside TU since 2015

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

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

Dr. Jess Steketee, Ph.D. student of Professor Rebecca Rowe, Department of Natural Resources and the Environment, University of New Hampshire, 2017-2024

## 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

## Selected Departmental, College and University Service

2025-	Member, Student Success Council Mentoring Working Group, TU
2024-	Member, Student Success Council Course Working Group, TU
2024-2025	Chair, DEIJ Committee, Fisher College of Science and Mathematics, TU
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	Chair, Greenhouse Committee, Biology Department, UTA
2003-2015	Appointed Member, Graduate Studies Committee, Environmental and Earth Sciences
	Program, UTA
2002-2015	Member, Graduate Studies Committee, Biology Department, UTA
2013-2014	Member, College of Science Promotion and Tenure Committee, UTA
2004, 2007,	Judge, Annual Celebration of Excellence by Students, undergraduate and graduate
2009, 2013	student oral sessions, UTA
2012	Organizer, Biology Undergraduate Research Symposium, UTA
2007-2008,	Graduate Advisor, Biology Department, UTA
2009-2011	
2006-2007,	Member, Advisory Committee, Biology Department, UTA
2009-2010	
2007-2008	Member, Science, Technology, Engineering and Mathematics Gender Equity Committee,
	UTA
2006-2008	Chair, Graduate Studies Committee, Biology Department, UTA
2005-2008	Faculty Mentor, Biology Department, UTA; mentoring three assistant professors in the
	Biology Department
2004-2005	Faculty Advisor, National Science Teachers Association, UTA Chapter
2004	Faculty Mentor, McNair Scholars Program, to Elizabeth Ramsey, Biology major, UTA
1999-2001	Initiated and coordinated the Teaching Advancement Program (TAP), Department of
	Biological Sciences, UA; mentoring program for graduate students to teach several
	lectures in introductory biology courses
2000-2001	Member, Curriculum Committee, Department of Biological Sciences, UA
2000	Initiated and organized Department of Biological Sciences undergraduate research poster
	session, UA

# Selected Professional Service and Outreach

2025 2020-2024	Student Presentation Judge, Mid-Atlantic Ecological Society of America Meeting Chair (and Founder), Arctic LTER DEI Committee
2020-2024	Arctic LTER Representative, LTER Network Diversity and Inclusion Committee
2011-2024	Member, Executive Committee, Arctic LTER (Long-Term Ecological Research)
2023	Panelist, Discussion of Research and Internship Opportunities, sponsored by Hill-Lopes
2023	Scholars Program, Towson University
2023	Panelist, Discussion of <i>Picture a Scientist</i> , sponsored by Hill-Lopes Scholars Program, Towson University
2020	Invited Speaker, Women in Science Forum, Towson University
2017	Panel Participant, Million Women Mentors Maryland, Women in STEM Summit, Baltimore, MD
2016	Guest Speaker, Tri Beta Induction Ceremony, Towson University
2010-2015	Member, Consortium Board, Lake Lewisville Environmental Learning Area, Lewisville,
2012-2013	TX
2012-2015	Member, Science Advisory Committee, Botanical Research Institute of Texas, Ft. Worth,
	TX
2009-2013	Member, NEON Domain Science and Education Coordination Committee for Domain 11
	(Southern Plains)
2009-2010	Mentor, Society of Wetland Scientists, Women in Wetlands section
2009	Career Panel Participant, SACNAS (Society for the Advancement of Chicanos and
	Native Americans in Science) National Meeting, Ecological Society of America
	sponsored field trip, Dallas, TX
2008-2009	Member, U.S. Climate Change Science Program Carbon Cycle Interagency Working
	Group, representing NSF
2006, 2008	Participant in NSF-funded TREC (Teachers and Researchers Exploring and
	Collaborating) program to match arctic researchers with teachers; sponsored summer
	research experience at Toolik Lake, AK by Ms. Charla Jordan, junior high school science
	teacher, Price, TX and Ms. Cathy Campbell, junior high science teacher, Ann Arbor, MI
2003	Judge, Botany Category, Texas Science and Engineering Fair
1997, 1998	Organized "Toolik Talking Shop," weekly series for investigators to present brief talks
	about arctic research at Toolik Lake, Alaska; organized REU poster session, Arctic LTER
1997-1998	Coordinator, Ecosystems Center Seminar Series, MBL

# Additional Education, Service and Outreach

2016-2022	Career Day Speaker, Ridgely Middle School, Lutherville, MD
2015-2020	Visiting Biologist, Timonium Elementary School and Ridgely Middle School, MD
2015	Visiting Biologist, Coppell Middle School West, Coppell, TX
2010-2015	Visiting Biologist, Cottonwood Creek Elementary School, Coppell, TX
2014	Guest speaker, Sierra Club, Dallas Chapter
2014	Guest speaker, North Texas Master Naturalists
2013	Guest speaker, Dallas Chapter of the Native Plant Society of Texas
2011	Guest speaker on global change in the Arctic in UTA's Contemporary Science course for
	secondary science teachers pursuing a master's degree
2010	Hands-on presentation on seeds and plants to 1st grade students, Austin Elementary
	School, Coppell, TX
2009, 2010	Hands-on science presentation on global warming in the Arctic at Expanding Your
	Horizons in Math and Science conference for junior high school girls, UTA

2009	Science Day volunteer, Bannockburn Elementary School, Bethesda, MD
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	Dean of Students' Safer Campus Committee, LSU, appointed member

# Other Volunteering

2020	Assistant Coach and Head Coach, LTRC Soccer, Timonium, MD
2016	Garden Volunteer, Timonium Elementary, Timonium, MD
2013-2015	Founder/Chair, Sustainability Committee, Cottonwood Creek Elementary, Coppell, TX
2012-2013	Weekly Electronic Newsletter Editor, Cottonwood Creek Elementary PTO, Coppell, TX
2010-2013	Team Parent, Coppell Youth Soccer Association, Coppell, TX