Lauren M Simkins

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Research expertise

Glacial geology, glaciology, geomorphology, marine geology, sedimentology, geochronology

Education

University of California Santa Barbara 2010-2014
Doctor of Philosophy in Geological Sciences (PhD advisers: Alexander Simms and Regina Dewitt)
NSF Louis Stokes Alliance for Minority Participation Bridge to Doctorate Fellow

Oklahoma State University 2005-2009
Bachelor of Science in Geology
NSF Louis Stokes Alliance for Minority Participation Scholar

Professional appointments

Assistant Professor 2018- present
Department of Environmental Sciences, University of Virginia

Postdoctoral Research Associate 2014-2018
Department of Earth Science, Rice University

Research appointments

Graduate Research Assistant 2010-2014
Department of Geological Sciences, University of California Santa Barbara
Department of Physics, Oklahoma State University 2010

Undergraduate Research Assistant 2008-2010
Boone Pickens School of Geology, Oklahoma State University

Teaching (Instructor of Record)

University of Virginia

Polar Environments, EVSC 2850 (formerly EVSC 2559), co-taught with S. Doney
Undergraduate Seminar, EVSC 4002,
Glaciers and Ice Sheets, EVSC 4559/7559
Fundamentals of Geology, EVSC 2800
Fundamentals of Geology Laboratory, EVSC 2801, 5 sections/5 GTAs
Beaches Coasts and Rivers, EVSC 2900, co-taught with P. Wiberg
Supervised Research, EVSC 4995
Senior Thesis Research, EVSC 4999
Research problems, EVSC 9995
Non-Topical Research, Doctoral, EVSC 9999

Rice University

The Cryosphere, ESCI 503, graduate course taught in Spring semester of 2016 and 2018

Research mentorship

University of Virginia

Current: Cesar Garcia (PhD, primary adviser), Allison Lepp (PhD, primary adviser), Marion McKenzie (PhD, primary adviser), Santiago Munevar (PhD, primary adviser), Morgan Shelby (MS, committee member), Emilia Torrellas (MS, committee member) Delaney Buskard (BS, senior thesis adviser), Jacob Slawson (BS, Distinguish Majors Program thesis adviser), Medha Prakash (BS, research adviser)

Former: Hannah Leigh (BS, research adviser), Mackenzie Carter (BS, research adviser), Sarah Lang (BS, research adviser), Catherine Leigh (BS, research adviser), Sean Penaparanda (BS, research adviser), Alan Zhai (BS, research adviser)

Rice University

Former: Christine Kendrick (HS, research adviser), Bethany Fowler (BS, research adviser), Adlai Fonesca (Visiting MS student, research adviser), Kelsey Crocker (BS, research adviser), Brian Demet (MS, as informal mentor), Anna Ruth Halberstadt (MS, as informal mentor), Lindsay Prothro (PhD, as informal mentor)

University of California Santa Barbara

Former: Angela Roman (Santa Barbara City College, research adviser), Adrian Gallardo (Santa Barbara City College, research adviser), Gustavo Muro (Ventura City College, research adviser), Eugene Wang (Santa Barbara City College, research adviser), Richard Mata (Mount San Antonio College, research adviser), Francisco Contreras (Oxnard City College, research adviser), Anna Lovelace (Oxnard City College, research adviser), Masoud Razavi (Oxnard City College, research adviser), Stacia Ott (Oxnard City College, research adviser)

Grants & proposals

Submitted

Landscape feedbacks on the advance and retreat of the southern Cordilleran Ice Sheet (LandCIS), to be submitted to NSF Geomorphology and Land Use Dynamics in January 2021 with a budget of ~$1,500,000 (all to UVA), **Lauren Simkins** (PI) with Julien Seguinot (Senior Personnel) and subawards to Regina DeWitt (East Carolina U) and Brad Rosenheim (U of South Florida).

An integrated and holistic approach to polar environments through research, curricula, and field experience in natural sciences, engineering, and design, to be submitted to the NSF Research Traineeship (NRT) Program in February 2021 with a budget of $2,999,101 (all to UVA), PI: Howard Epstein (PI); Scott Doney, Matthew Jull, **Lauren Simkins**, Caitlin Wylie (Co-Is); Leena Cho, Devin Harris, and Garrick Louis (Senior Personnel).

Awarded, ongoing

Saturday Series: merging hands-on environmental sciences and art for K-6 children in the Charlottesville and Albemarle County areas, Prana Fund, Charlottesville Area Community Foundation ($3,500; none to UVA), 1/2021-12/2021, submitted by Kate Kogge (Science Lead and Teacher, Murray Community School) and Lauren Simkins.

WAIS Workshops 2020 and 2021: A transdisciplinary forum to accelerate NASA-funded research of marine-based ice sheet systems, NASA Cryosphere Program ($125,000; none at UVA), PI: Matthew Siegfried (Colorado School of Mines), Co-Is: Lauren Simkins, Joseph MacGregor, Brook Medley, Indrani Das, Knut Christianson.

WAIS Workshops 2019–2021: A transdisciplinary forum for studies of the West Antarctic Ice Sheet by the next generation of polar scientists, NSF Division of Polar Programs ($125,000; none at UVA), PI: Matthew Siegfried (Colorado School of Mines), Co-Is: Lauren Simkins, Joseph MacGregor, Brook Medley, Indrani Das, Knut Christianson.

NSFPLR-NERC: Thwaites Glacier Offshore Research (THOR), NSF Division of Polar Programs: Antarctic Glaciology ($242,494; all to UVA) 4/2018-3/2023, Subaward to Lauren Simkins (Co-I, as part of international project).

NSF Collaborative Research: Topographic controls on Antarctic Ice Sheet grounding line behavior - integrating models and observations, NSF Division of Polar Programs: Antarctic Glaciology & Earth Sciences ($300,433; all to UVA) 9/2018-8/2021, PI: Lauren Simkins.

Paleo-coastal response to higher-than-present sea level, The University of Virginia Committee on Sustainability ($8,000; internal), 1/2019-present, PI: Lauren Simkins.

Solid Earth-Ice Sheet Interactions, The H.G. Goodell Endowment, University of Virginia ($11,000; internal), 3/2020-present, PI: Lauren Simkins.

Awarded, concluded

CMP1602P: Retreat dynamics of marine-based ice sheets, International Union for Quaternary Research (INQUA) ($9,000; none to UVA), 6/2016-6/2019, Co-Is: Lilja Bjarnadottir, Sarah Greenwood, Lauren Simkins, Monica Winsborrow.

Educational Materials for EVSC 2801, The H.G. Goodell Endowment, University of Virginia ($1,000; internal) 11/2019-1/2020, PI: Lauren Simkins.

Washington State Field Trip for Undergraduate Majors, The H.G. Goodell Endowment, University of Virginia ($4,800; internal), 11/2018-8/2019, PI: Lauren Simkins.

Professional awards

Mead Honored Faculty, University of Virginia 2020-2021

Nominated and awarded for outstanding educational engagement with students in and outside of class, after just two years as faculty at UVA [MeadEndowment.org]

Fellowships

Visiting fellow at Hokkaido University in Sapporo, Japan from August-December 2021, hosted by Dr. Shin Sugiyama. *The pandemic leaves many uncertainties if travel to Sapporo will be feasible. If travel is not possible, an alternate arrangements will be made.*

Invited seminars

British Antarctic Survey, Ice Dynamics & Paleoclimate group (upcoming Feb 2021) University of Texas Institute for Geophysics (upcoming Apr 2021), International Glaciological Society Virtual Seminar (upcoming Apr 2021), WHOI Department of Marine Chemistry and Geochemistry (Dec 2020), Georgia Southern University (Sept 2020), Old Dominion University (Sept 2020), Georgia Tech (Feb 2020), University of Delaware (2019), College of William and Mary (2018), University of Illinois, Chicago (2018), University of Virginia (2018), Scripps Institution of Oceanography (2017), University of Houston (2017), Ohio State University (2017), Houston Museum of Natural Science (2016), Oklahoma State University (2016), Louis Stokes Midwest Center of Excellence Voices of Success Panelist (2016), Occidental College (2016), California State University Fullerton (2014)

Publications

Robel, A., Pegler, S., Catania, G., Felikson, D., Simkins, L.M. Illusory stability of marine-terminating glaciers at bedrock highs. **Nature Geoscience**, in review.

(equal author contributions) Greenwood, S.L., Simkins, L.M., Winsborrow, M.C.M., Bjarnadóttir, L.R., 2021. Exceptions to bed-controlled ice sheet flow and retreat from glaciated continental margins worldwide. **Sciences Advances,** 7, eabb6291. [link]

Hogan, K., Larter, R., Graham, A., Arthern, R., Kirkham, J.D., Minzoni, R.T., Jordan, T., Clark, R., Fiztgerald, V., Anderson, J.B., Hillenbrand, C.D., Nitsche, F.O, Simkins, L.M., Smith, J.A, Gohl, K., Arndt, J.E., Hong, J., Wellner, J., 2020. Revealing the former bed of Thwaites Glacier using sea-floor bathymetry. **The Cryosphere**, 14, 2883–2908. [link]

Majewski, W., Prothro, L.O., Simkins, L.M., Demianiuk, E.J., Anderson, J.B., 2020. Foraminiferal patterns in deglacial sediment in the western Ross Sea, Antarctica: life near paleo-grounding lines. **Paleoceanography and Paleoclimatology**, 35(5), e2019PA003716. [link]

Prothro, L.O., Majewski, W., Yokoyama, Y., Simkins, L.M., Anderson, J.B., Yamane, M., Miyairi, Y. and Ohkouchi, N., 2020. Timing and pathways of East Antarctic Ice Sheet retreat. **Quaternary Science Reviews**, 230, 106166. [link]

Demet, B.P., Nittrouer, J.A., Anderson, J.B., Simkins, L.M., 2019. Sedimentary processes at ice sheet grounding-zone wedges: examples from Antarctica and Washington state. **Earth Surface Processes and Landforms**, 44(6), 1209-1220. [link]

Anderson, J.B., Simkins, L.M., Bart, P.J., De Santis, L., Halberstadt, A.R.W., Olivo, E. and Greenwood, S.L., 2019. Seismic and geomorphic records of Antarctic Ice Sheet evolution in the Ross Sea and controlling factors in its behaviour. **Geological Society of London, Special Publications,** 475, SP475-5. [link]

King, B.L., Simms, A., Simkins, L.M., 2019. The Stratigraphic Architecture of Small Incised Valleys Along an Active Margin: Examples from the Oceanside Littoral Cell of the Southern California Coast. **Journal of Sedimentary Research**, 17(1), 78–86. [link]

Halberstadt, A.R., Simkins, L.M., Anderson, J.B., Prothro, L.O., Bart, P.J., 2018. Characteristics of the deforming bed: Till properties on the deglaciated Antarctic continental shelf. **Journal of Glaciology**, 1-14. [link]

Simms, A., Whitehouse, P., Simkins, L.M., Nield, G., DeWitt, R., Bentley, M., 2018. Late Holocene relative sea levels near Palmer Station, northern Antarctic Peninsula, strongly controlled by late Holocene ice-mass changes. **Quaternary Science Reviews**, 199, 49-59. [link]

Simkins, L.M., Greenwood S.L., Anderson, J.B., 2018. Diagnosing ice sheet grounding line stability from landform morphology. **The Cryosphere**, 12, 2707-2726. [link]

Greenwood, S.L., Simkins, L.M.,Halberstadt, A.R.W., Prothro, L.O., Anderson, J.B., 2018. Holocene reconfiguration and readvance of the East Antarctic Ice Sheet. **Nature Communications**, 9, 3176. [link]

Prothro, L.O., Simkins, L.M., Majewski, W., Anderson, J.B., 2017. Glacial retreat patterns and processes determined from integrated sedimentology and geomorphology records. **Marine Geology**, 395, 104-119. [link]

Simkins, L.M., Anderson, J.B., Greenwood, S.L., Gonnermann, H., Prothro, L.O., Halberstadt, A.R.W., Stearns, L.A., Pollard, D., DeConto, R.M, 2017. Anatomy of a meltwater drainage system beneath the ancestral East Antarctic Ice Sheet. **Nature Geoscience**, 10, 691-697. [link]

Simkins, L.M., Anderson, J.B., Demet, B.P., 2017. Grounding line processes of the southern Cordilleran Ice Sheet in the Puget Lowland. **Geological Society of America Field Guide** 49, 53-65. [link]

Simkins, L.M., Anderson, J.B., Greenwood, S.L., 2016. Glacial landform assemblage reveals complex retreat of grounded ice in the Ross Sea, Antarctica. *in* Dowdeswell, J. A., Canals, M., Jakobsson, M., Todd, B. J., Dowdeswell, E. K. & Hogan, K. A. (eds). Atlas of Submarine Glacial Landforms: Modern, Quaternary and Ancient. **Geological Society of London, Memoirs**, 46, 353–356. [link]

Simkins, L.M., DeWitt, R., Simms, A.R., Briggs, S., Shapiro, R., 2016. Investigation of optically stimulated luminescence behavior of crystalline rock surfaces: A look forward. **Quaternary Geochronology**, 36, 161-173. [link]

Halberstadt, A.R.W., Simkins, L.M., Greenwood, S.L., Anderson, J.B., 2016. Paleo-ice sheet behaviour: retreat scenarios and changing controls in the Ross Sea, Antarctica. **The Cryosphere**, 10, 1003-1020. [link]

Yokoyama, Y., Anderson, J.B., Yamane, M., Simkins, L.M.**,** Miyairi, Y., Yamazaki, T., Koizumi, M., Suga, H., Kusahara, K., Hasumi, H., Southon, J.R., Ohkouchi, N., 2016. Widespread collapse of the Ross Ice Shelf during the late Holocene. **Proceedings of the National Academy of Sciences**, 113(9), 2354-2359. [link]

Simkins, L.M.**,** Simms, A., Regina DeWitt, 2015. Assessing the link between coastal morphology, wave energy, and sea ice throughout the Holocene from Antarctic raised beaches. **Journal of Quaternary Science**, 30, 335-348. [link]

Simkins, L.M., DeWitt, R., Simms, A., 2013. Methods to reduce sample carrier contamination for luminescence measurements. **Ancient TL** 31 (1), 19-27. [link]

Simkins, L.M., Simms, A., Cruse, A., Troiani, T., Atekwana, E., Puckette, J., Yokoyama, Y., 2012. Correlation of early and mid-Holocene events using magnetic susceptibility in estuarine cores from the Gulf of Mexico. **Palaeogeography, Palaeoclimatology, and Palaeoecology**, 346-347, 95-107. [link]

Simms, A., Ivins, E., DeWitt, R., Kouremenos, P., Simkins, L.M., 2012. Timing of the Little Ice Age in the Antarctic Peninsula from optically stimulated luminescence of cobble surfaces within raised beaches. **Quaternary Science Reviews**, 47, 41-55. [link]

Simms, A., Aryal, N., Miller, L., Yokoyama, Y., 2010. The Incised Valley of Baffin Bay, Texas: A Tale of Two Climates. **Sedimentology** 57, 642-669. [link]

Conference presentations

(2010-2021; underline denotes student mentees)

(talk) Simkins, L.M., Greenwood, S.L., Munevar Garcia, S., Prothro, L.O., Anderson, J.B., submitted. A gaining and losing meltwater corridor in the subglacial environment. Session C001: Advances in Glacier Hydrology, American Geophysical Union 2020 (virtual).

(poster) Munevar Garcia, S., Simkins, L.M., Falcini, F. A.M., Stearns, L.A., Rezvanbehbahani, S. Bed roughness impact on streaming ice-flow persistence. Session C034: Sub-Ice-Sheet and Sub-Ice-Shelf Environments: Bridging the Gap Between Modern Observations and Geologic Records, American Geophysical Union 2020 (virtual).

(poster) Lepp, A., Simkins, L.M., Minzoni, R., Wellner, J., Clark, R., Fitzgerald, V., Lehrmann, A., Hillenbrand. C.-D., Smith, J., Anderson, J., Larter, R., Graham, A., Hogan, K., Nitsche, F. Persistent Meltwater Discharge from Thwaites Glacier Recorded in Offshore Sediments. Session C034: Sub-Ice-Sheet and Sub-Ice-Shelf Environments: Bridging the Gap Between Modern Observations and Geologic Records, American Geophysical Union 2020 (virtual).

(poster) McKenzie, M., Slawson, J., Simkins, L.M., Variability in subglacial bedforms at assemblage and regional scales across the deglaciated Puget Lowland, Washington state. Session C034: Sub-Ice-Sheet and Sub-Ice-Shelf Environments: Bridging the Gap Between Modern Observations and Geologic Records, American Geophysical Union 2020 (virtual).

(talk) Robel, A., Pegler, S., Catania, G., Felikson, D., Simkins, L.M., submitted. Illusory stability of marine-terminating glaciers at bedrock highs. Session C010: Controls on Marine-Terminating Glacier, Ice Stream, and Ice Shelf Dynamics in Observations and Models, American Geophysical Union 2020 (virtual).

(talk) Simms, A., Zurbuchen, J., Gernant, C., Theilen, B., DeWitt, R., Garcia, C., and Simkins, L.M., How sensitive are Antarctic Holocene relative sea-level records to late-Holocene glacial fluctuations? Session G004: Linking Cryosphere and the Solid Earth: From Sea Level Changes and Geodetic Timeseries to Earth Rheology, American Geophysical Union 2020 (virtual).

(talk) Wellner, J.S., Larter, R.Graham, A., Hillenbrand, C.-D., Hogan, K., Minzoni, R., Nitsche, F., Smith, J. Anderson, J., Simkins, L.M., Clark, R., Fitzgerald, V., Hopkins, R., Lehrmann, A., Lepp, A., Marschalek, J.,Mawbey, E., Kirkham, J., Munevar, S., Taylor, L., Initial Geologic Results from Thwaites Glacier Offshore Research (THOR) 2019 and 2020 Field Seasons. Geological Society of America Annual Meeting 2020 (virtual).

(invited talk) Simkins, L.M., Greenwood, S.L., Winsborrow, M.C.M., Bjarnadóttir, L.R., 2020. Exceptions to bed-controlled ice sheet flow and retreat from continental margins worldwide. Session T138: Sea Level and Ice-Sheet Changes, Glacial Isostatic Adjustment, and Landscape Evolution, Geological Society of America Annual Meeting 2020 (virtual).

(talk) Munevar Garcia, S., Simkins, L.M., Falcini, F. A.M., Stearns, L.A., Rezvanbehbahani, S., 2020. Bed roughness impact on streaming ice-flow persistence. American Geophysical Union 2020. WAIS Workshop 2020 (virtual).

(talk) Lepp, A., Simkins, L.M., Minzoni, R., Wellner, J., Clark, R., Fitzgerald, V., Lehrmann, A., Hillenbrand. C.-D., Smith, J., Anderson, J., Larter, R., Graham, A., Hogan, K., Nitsche, F., 2020. Persistent Meltwater Discharge from Thwaites Glacier Recorded in Offshore Sediments. WAIS Workshop 2020 (virtual).

(talk) Simkins, L.M., 2020. Glacial landforms as archives of grounding line processes and retreat. WAIS Workshop 2020 (virtual).

(talk) Majewski, W., Bart, P., Prothro, L.O., Simkins, L.M., Anderson, J.B. Sub-fossil foraminifera in the Ross Sea, Antarctica: Life near grounding lines. International Polar Symposium 2020 (virtual).

Majewski, W., Bart, P., Prothro, L.O., Simkins, L.M., Anderson, J.B., 2020. Foraminifera in deglacial sediments: Where can we find in situ calcareous microfossils to date Grounding Zone Wedges? Scientific Committee on Antarctic Research 2020, Hobart, Tasmania (virtual).

(talk) Larter, R., Graham, A., Hogan, K., Minzoni, M., Wåhlin, A., Queste, B., Mazur, A., Boehme, L., Kirkham, V., Fitzgerald, R., Clark, R., Welzenbach, L., Wellner, J., Smith, J., Simkins, L.M., Pettit, E., Nitsche, F., Hillenbrand, C.D., Heywood, K., Anderson, J., and NBP1902 scientific party, 2020, Initial results from International Thwaites Glacier Collaboration cruise, European Geophysical Union (virtual).

(poster) Hogan, K., Larter, R., Graham, A., Arthern, R., Kirkham, J.D., Minzoni, R.T., Jordan, T., Clark, R., Fiztgerald, V., Anderson, J.B., Hillenbrand, C.D., Nitsche, F.O, Simkins, L.M., Smith, J.A, Gohl, K., Arndt, J.E., Hong, J., Wellner, J., 2020, Lessons learnt from the former bed of Thwaites Glacier: a new multibeam-bathymetric dataset, European Geophysical Union (virtual).

Published datasets

Hogan, K. A., Larter, R. D., Graham, A. G. C., Nitsche, F. O., Kirkham, J. D., Totten Minzoni, R., Clark, R., Fitzgerald, V., Anderson, J. B., Hillenbrand, C.-D., Simkins, L.M., Smith, J. A., Gohl, K., Arndt, J. E., Hong, J., Heywood, K. J., Abrahamsen, E. P., Thompson, A., Dunbar, R., & Wellner, J. S. (2020). A multibeam-bathymetric compilation for the southern Amundsen Sea shelf, 1999-2019 (Version 1.0) [Data set]. UK Polar Data Centre, Natural Environment Research Council, UK Research & Innovation. [link]

Service at the University of Virginia

Departmental

Graduate Admissions Committee (2019-present)

H.G. Goodell Endowment Committee (2019-present)

Environmental Science Organization (ESO) Faculty Sponsor (2019-present)

Undergraduate Seminar (EVSC 4002) Co-chair (2020-present)

College & Graduate School of Arts and Sciences

LSAMP Summer Program Panelist (2019, 2020)

College Science Scholars Seminars (4/2019, 2/2020, 4/2020)

Undergraduate Academic Adviser (6/2019-present)

26 students in 2019-2020 academic year

34 students (+ 6 drop-ins) in 2020-2021 academic year

University

Meeting with Racial Equity Task Force for Native American & Indigenous Studies @ UVA (7/2020)

Native American & Indigenous Studies @ UVA Workgroup Member (3/2020-present)

Undergraduate Research Symposium, Judge (4/2019)

Mentor, Mentoring Institute, UVA Diversity Programs (2019 cohort, 2020 cohort)

LSAMP Bridge to Doctorate Mentor, Office for Diversity, Equity, and Inclusion (2019-present)

Other

LSAMP Virginia-North Carolina Alliance Governing Board (2020-present)

Multi-institutional governing board of all LSAMP programs and activities in Virginia and North Carolina under the lead of PI Kevin McDonald and Co-PI Kristin Morgan [website]

UVA-PVCC Geoscience Instruction Collaboration (2020-present)

Letters of support for student internship/job and graduate school applications for **18 students since 2019**

Research community service

Editorial Service: Geological Society of London Books Editorial Committee (2018-present)

Journal Referee: Journal of Quaternary Research, Geology, GSA Today, Physical Geography, Sedimentary Geology, The Cryosphere, Quaternary Science Reviews, Science Advances, Journal of Geophysical Research: Earth Surface, Geophysical Research Letters, Nature Geoscience

Proposal Referee: NSF Geomorphology and Land-use Dynamics Program, NSF Polar Programs: Antarctic Earth Sciences, NSF Polar Programs: Antarctic Glaciology, National Environmental Research Council (NERC)

Review Panel NSF Polar Programs (2019, 2020)

Conference Organization: AGU Outstanding Student Presentation Awards Judge (2018, 2020), WAIS Workshop Organizing Committee (2019-present), AGU 2018 Grant Review for Global Environmental Change student travel, GSA 2017 Session 'Glacier and Ice Sheet Grounding Lines,' GSA 2017 Field Trip Leader 'Grounding line processes of the southern Cordilleran Ice Sheet: Whidbey Island, Puget Lowlands,' AGU 2016 Session 'Geophysical and Geological Records of Glaciated Margins'

Early Career Researcher Mentoring Program, WAIS Workshop, Program Coordinator for over 50 mentee-mentor pairs (2019-present)

Public engagement & education

Co-leader, Saturday Series Workshops, free monthly environmentally focused S.T.E.A.M. workshops for upper elementary school students in the Charlottesville-Albemarle area [link]

Educational Products: Glaciers: an introduction to Earth's icy regions [a lesson plan for upper elementary students, link]

Climate Feedback Review for Media Outlets: The Guardian, The Wall Street Journal, The New York Times, USA Today [link]

Mass Media Commentary: Nature, Popular Science, Phys.org, Mirage News, UVA A&S

Speaker, Nis'to Tribal Youth Organization: Summer 2020 Program, Lake Traverse Reservation of the Sisseton-Wahpeton Oyate Tribe (NE South Dakota)

Co-leader, Saturday Series Workshops, free monthly environmentally focused S.T.E.A.M. workshops for upper elementary school students in the Charlottesville-Albemarle area [link]

Host, Math4Science Program @ UVA, class trip for alternative high school students from Brooklyn to learn about math-science integration, research activities, and university life [link]

Sharing of university teaching materials with faculty at Piedmont Valley Community College, Stanford University, Georgia Tech, Rutgers, Texas AMU Corpus Christi, Auburn University, University of Washington, Worcester State University

Field research campaigns

Puget Lowland, Washington state, 2 weeks in 2020

Puget Lowland, Washington state, 1 week in 2016

Puget Lowland, Washington state, 1 week in 2015

Ross Sea, Antarctica, 8 weeks in 2015

Antarctic Peninsula, Antarctica, 6 weeks in 2010