

Lauren Elizabeth Miller*

Assistant Professor of Environmental Sciences, University of Virginia | lauren.miller@virginia.edu | iceocean.org

EDUCATION

University of California Santa Barbara 2010 - 2014

Doctor of Philosophy in Geological Sciences under the advisement of Drs. A.R. Simms and R. Dewitt)

NSF Louis Stokes Alliance for Minority Participation Bridge to Doctorate Fellow

Oklahoma State University 2005 - 2009

Bachelor of Science in Geology and Spanish, NSF Louis Stokes Alliance for Minority Participation Scholar

PROFESSIONAL APPOINTMENTS

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

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

ELECTED APPOINTMENTS

Secretary of the [American Geophysical Union Cryospheric Sciences Section](#) 2022-2024

Appointed member of the National Academies of Sciences, Engineering, and Medicine [Polar Research Board](#) 2022-2025

TEACHING AT THE UNIVERSITY OF VIRGINIA

Memes on Earth, EGMT 1520; **Fundamentals of Geology**, EVSC 2800; **Fundamentals of Geology Laboratory**, EVSC 2801, supervised 5 graduate student instructors; **Polar Environments**, EVSC 2850 (formerly EVSC 2559), co-taught with S. Doney; **Beaches, Coasts, and Rivers**, EVSC 2900, co-taught with P. Wiberg; **Marine Geoscience**, EVSC 4840/EVGE 7840; **Undergraduate Seminar**, EVSC 4002, co-taught with S. Macko; **Geoscience in the Field**, EVSC 4559/7559, co-taught with A. Limaye; **Undergraduate Research**, EVSC 4995, EVSC 4999; **Glaciology**, EVSC 5880; **Life in Graduate School**, EVSC 7072; **Graduate Research**, EVSC 9995, EVSC 9999

GRANTS & PROPOSALS

Awarded, ongoing

RCN: GOLD-EN: Virtual Ice Community Engagement (VICE Squads), submitted to **National Science Foundation (NSF)**

Research Coordination Network (RCN)/Geoscience Opportunities for Leadership in Diversity (GOLD-EN) with a budget of \$500,000 as a 4-year project starting Sept. 2023) to Lead PI Jeremy Bassis (University of Michigan) and subcontracts to Lauren Miller (UVA, **\$50,567**) and Leigh Stearns (KU, \$45,000).

[Legacy blue carbon](#) – long-term storage in seagrass meadows and potential to mitigate climate change, funded by UVA's

Environmental Institute (CoLab) with a budget of **\$116,700**, for two years starting in May 2023 to Lead PI Peter Berg and Co-I Lauren Miller.

Building an interdisciplinary and interagency collaboration between Department of Energy (DOE) Biological and Environmental Research (BER) and the University of Virginia, funded by **U.S. Department of Energy** with a budget of **\$150,000**, start date of Aug. 2022, and May 2024. Lead PI: Xi Yang; Co-Is: Ajay Limaye, Howard Epstein, Lauren Miller, Kathleen Schiro, Stephen Macko, Todd Scanlon, Lawrence Band, Stephan De Wekker.

Collaborative research: Circum-Antarctic processes from archived marine sediment cores (ANTS), funded by **NSF Office of Polar Programs (OPP) Antarctic Earth Sciences** as a 4-year project (start of Feb 2023) to Lead PI Miller at UVA with a budget of **\$776,963**. Collaborators include Lindsay Prothro (TAMU-Corpus Christi) and Ryan Venturelli (Colorado School of Mines) with external budgets totaling \$1,087,410.

WAIS Workshops 2020-2023: A transdisciplinary forum to accelerate NASA-funded research of marine-based ice sheet systems, funded by **NASA Cryosphere Program** (\$125,000; none at UVA), PI: Matthew Siegfried (Colorado School of Mines), Co-Is: Lauren Miller, Joseph MacGregor, Brooke Medley, Indrani Das, Knut Christianson.

*Formerly Lauren Miller Simkins

WAIS Workshops 2019–2023: A transdisciplinary forum for studies of the West Antarctic Ice Sheet by the next generation of polar scientists, funded by **NSF OPP** (\$125,000; none at UVA), PI: Matthew Siegfried (Colorado School of Mines), Co-Is: Lauren Miller, Joseph MacGregor, Brooke Medley, Indrani Das, Knut Christianson.

Awarded, concluded

NSFPLR-NERC: Thwaites Glacier Offshore Research (THOR), funded by **NSF OPP Antarctic Glaciology**, subaward to Lauren Miller Simkins (Co-I, as part of multi-million-dollar [international project](#)) with **\$242,494** to UVA and end date of Mar. 2024.

NSF Collaborative Research: Topographic controls on Antarctic Ice Sheet grounding line behavior - integrating models and observations, funded by **NSF OPP Antarctic Glaciology & Antarctic Earth Sciences** to PI Lauren Miller with a budget of **\$300,433** to UVA and end date of Dec. 2023.

XRF Equipment Repair, funded by **The H.G. Goodell Endowment**, University of Virginia (**\$6,012**), Nov. 2022 to May 2023 to PI Lauren Miller Simkins.

Geoscience in the Field Course funded by **The H.G. Goodell Endowment**, University of Virginia (**\$10,000**), Nov. 2021 to Nov. 22 to PIs Ajay Limaye and Lauren Miller.

Solid Earth-Ice Sheet Interactions, funded by **The H.G. Goodell Endowment**, University of Virginia (**\$11,000**), Mar. 2020 to Mar. 2023 to PI Lauren Miller.

Saturday Series: merging hands-on environmental sciences and art for K-6 children in the Charlottesville and Albemarle County areas, funded by **Charlottesville Area Community Foundation** (\$3,500; none to UVA), Jan. 2021 to Dec. 2021, PIs: Kate Kogge (Science Lead and Teacher, Murray Community School) and Lauren Miller.

Paleo-coastal response to higher-than-present sea level, funded by **The University of Virginia Committee on Sustainability** (**\$8,000**), Jan. 2019 to Jun. 2021 to PI Lauren Miller.

CMP1602P: Retreat dynamics of marine-based ice sheets, funded by **International Union for Quaternary Research (INQUA)** (\$9,000; none to UVA), Jun. 2016 to Jun. 2019, PIs: Lilja Bjarnadottir, Sarah Greenwood, Lauren Miller, Monica Winsborrow.

Educational Materials for EVSC 2801, funded by **The H.G. Goodell Endowment**, University of Virginia (**\$1,000**), Nov. 2019 to Jan. 2020 to PI Lauren Miller.

Washington State Field Trip for Undergraduate Majors, funded by **The H.G. Goodell Endowment**, University of Virginia (**\$4,800**), Nov. 2018 to Aug. 2019 to PI Lauren Miller.

Submitted, not awarded

Saturday Enviro-Series, submitted to **The Jefferson Trust** in Sept. 2021 (\$55,700; all to UVA) with PI Lauren Miller Simkins. An integrated and holistic approach to polar environments through research, curricula, and field experience in natural sciences, engineering, and design, submitted to the **NSF Research Traineeship (NRT) Program** in February 2021 with a budget of \$2,999,101 (all to UVA), Howard Epstein (PI); Scott Doney, Matthew Jull, Lauren Miller, Caitlin Wylie (Co-Is); Leena Cho, Devin Harris, and Garrick Louis (Senior Personnel).

Landscape feedbacks on the advance and retreat of the southern Cordilleran Ice Sheet (LandCIS), submitted to **NSF Geomorphology and Land Use Dynamics** in Feb. 2021 with a budget of \$1,448,410 (all to UVA), Lauren Miller (PI) with Julien Seguinot (Senior Personnel) and subawards to Regina DeWitt (East Carolina U) and Brad Rosenheim (U of South Florida). Plans to revise and resubmit.

Advancing Cultural Capital through Experiences in STEM and Society (ACCESS), submitted to **NSF Advancing Informal STEM Learning (AISL) Innovations in Development** in Jan. 2022 (budget \$2,978,654; all to UVA) as a 5-year project, PI: Kristin Morgan, Co-Is: Nancy Deutsch, Devin Harris, Lauren Miller. Plans to revise and resubmit.

CAREER: Records of glacial processes along the Pacific continental margins of the Americas (ReGLAM), submitted to **NSF Ocean Sciences Marine Geophysics and Geology (MGG)** in July 2022 with a budget of \$1,029,213 across 5 years to PI Lauren Miller at UVA. Plans to revise and resubmit.

Human resilience to environmental changes in pre-Columbian Bolivia, submitted to UVA's Environmental Institute as a Spark proposal with a budget of \$30,000 to co-lead PIs Lauren Miller (EVSC) and Sonia Alconini (ANTHRO). Plans to revise and resubmit.

In-Draft Manuscripts

- Prakash, M., McKenzie, M., Miller, L.E., Smith, J.W., Limaye, A.B. Morphometrics of terrestrial eskers and martian sinuous ridges reveal persistent pathways of subglacial meltwater drainage.
- Miller, L.E., Stearns, L.A., Riverman, K. Controls on circum-Antarctic grounding line configuration.
- Wiggins, T., Munevar, S., Lepp, A.P., Miller, L.E. Morphometry of glacial and periglacial lakes in Canada.
- Christian, J.E., Robel, A., Catania, G., Stearns, L., Munevar Garcia, S., Miller, L.E. Experiments with a coupled ice-flow and sediment-transport model: grounding-zone wedge formation and effects on ice-stream stability.
- McKenzie, M., Miller, L., Berg, P., Wiman, C., Muñoz, S., Herbet, R., Guo, Z., Wiggins, T., Kuzminski, S. Sedimentary records of blue carbon and environmental change in coastal Virginia: Local variation in terrestrial input and carbon.
- Lepp, A.P., Miller, L.E., Willenbring, J.K., Herbert., L.C., Munevar Garcia, S. Isotopic signals of subglacial meltwater drainage into the Amundsen Sea Sector of West Antarctica.

Submitted

- Lehrmann, A.A., Totten, R.L., Wellner, J.S., Hillenbrand, C.-D., Comas, R.M., Larter, R., Graham, A.G.C., Kirkham, J., Hogan, K., Fitzgerald, V., Clark, R.W., Hopkins, B., Lepp, A.P., Mawbey, E., Rollo, C., Smith, R.V., Miller, L., Smith, J., Nitsche, F. Modern benthic foraminiferal assemblages offshore Thwaites Glacier in the Amundsen Sea, Antarctica: Implications for interpretations of fossil assemblages. Submitted to *Journal of Micropalaeontology*.

Accepted, In-Press, & Published

38. Lepp, A.P., Miller, L.E., Anderson, J.B., O'Regan, M., Winsborrow, M.C.W., Esteves, M., Smith, J.A., Hillenbrand, C.-D., Wellner, J.S., Prothro, L.P., and Podolskiy, E.A. Insights into subglacial hydrology and sediment transport processes from grain micromorphology. Accepted to *The Cryosphere*.
37. McKenzie, M.A., Miller, L.E., Lepp, A.P. Spatial variability of marine-terminating ice sheet retreat in the Puget Lowland. Accepted to *Climate of the Past*.
36. Munevar Garcia, S., Miller, L.E., Stearns, L.A., Falcini, F. Quantifying paleo-subglacial bed roughness on the Antarctic continental shelf. *Journal of Glaciology*, 1-12.
35. Clark, R.C., Wellner, J., Hillenbrand, C.-D., Totten, R., Smith, J.A., Simkins, L.M., Larter, R.D., Hogan, K.A., Graham, A.G.C., Nitsche, F.O., Lehrmann, A.A., Lepp, A.P., Kirkham, J.D., Fitzgerald, V.T., Garcia-Barrera, G., Ehrmann, W., Wacker, L., 2024. Synchronous retreat of Thwaites and Pine Island glaciers in response to external forcings in the pre-satellite era. *Proceedings of the National Academy of Sciences*, 121 (11) e2211711120.
34. Herbert, L., Lepp, A., Munevar Garcia, S., Browning, A., Miller, L.E., Wellner, J., Severmann, S., Hillenbrand, C.-D., Johnson, J., Sherrell, R.M., 2023. Volcanogenic fluxes of iron from the seafloor in the Amundsen Sea, West Antarctica. *Marine Chemistry*, 104250.
33. McKenzie, M.A., Miller, L.E., Slawson, J.S., MacKie, E.J., Wang, S., 2023. Differential impact of isolated topographic bumps on glacial ice flow and subglacial processes. *The Cryosphere*, 17, 2477–2486.
32. Simkins, L.M., Greenwood, S.L., Winsborrow, M.C.M., Bjarnadóttir, L.R., Lepp, A.P., 2023 Advances in understanding subglacial hydrology from past ice sheets. *Annals of Glaciology*, 1-5.
31. Simkins, L.M., 2023. Ice shelves guarded by snow shields. *Nat. Clim. Chang*.
30. Graham, A.G.C., Wahlin, A., Hogan, K.A., Nitsche, F.O., Heywood, K.J., Minzoni, R., Smith, J.A., Hillenbrand, C.-D., Simkins, L.M., Wellner, J.S., Larter, R.D., 2022. Rapid tidally modulated retreat of Thwaites Glacier from a pinning point in the pre-satellite era. *Nature Geoscience*, 15, 706–713.
29. Lepp, A.P., Simkins, L.M., Anderson, J.B., Wellner, J.S., Clark, R., Lehrmann, A., Hillenbrand, C.-D., Smith, Minzoni, R., Graham, A., Hogan, K., Nitsche, F., Larter, R., Wacker, L., 2022. Sedimentary Signatures of Persistent Subglacial Meltwater Drainage from Thwaites Glacier, Antarctica. *Frontiers in Earth Science*, 10.
28. McKenzie, M., Simkins, L.M., Principato, S., 2022. Subglacial bedform sensitivity to bed characteristics across the deglaciated Northern Hemisphere. *Earth Surface Processes and Landforms*.
27. Robel, A., Pegler, S., Catania, G., Felikson, D., Simkins, L.M., 2022. Ambiguous stability of glaciers at bed peaks. *Journal of Glaciology*, 1-8.

26. Simkins, L.M., Greenwood, S.L., Munevar Garcia, S., Eareckson, E.A., Anderson, J.B., Prothro, L.O., 2021. Topographic controls on channelized meltwater in the subglacial environment. *Geophysical Research Letters*, 48, e2021GL094678.
25. Simms, A.R., Bentley, M., **Simkins, L.M.**, Zurbuchen, J., Reynolds, L.C., DeWitt, Regina, 2021. Evidence for a “Little Ice Age” glacial advance within the Antarctic Peninsula – examples from glacially-overrun raised beaches. *Quaternary Science Reviews*, 271, 107195.
24. Greenwood, S.L., **Simkins, L.M.**, Winsborrow, M.C.M., Bjarnadóttir, L.R., [equal authorship] 2021. Exceptions to bed-controlled ice sheet flow and retreat from glaciated continental margins worldwide. *Sciences Advances*, 7, eabb6291.
23. Hogan, K., Larter, R., Graham, A., Arthern, R., Kirkham, J.D., Minzoni, R.T., Jordan, T., Clark, R., Fitzgerald, 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.
22. 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.
21. 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.
20. 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.
19. 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.
18. 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.
17. 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.
16. 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.
15. **Simkins, L.M.**, Greenwood S.L., Anderson, J.B., 2018. Diagnosing ice sheet grounding line stability from landform morphology. *The Cryosphere*, 12, 2707-2726.
14. 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.
13. Prothro, L.O., **Simkins, L.M.**, Majewski, W., Anderson, J.B., 2018. Glacial retreat patterns and processes determined from integrated sedimentology and geomorphology records. *Marine Geology*, 395, 104-119.
12. **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.
11. **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
10. **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.
9. **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.
8. 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.
7. 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.

6. **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.
5. Simkins, L.M., Simms, A., DeWitt, R., 2013. Relative sea-level history of Marguerite Bay, Antarctic Peninsula derived from optically stimulated luminescence-dated beach cobbles. *Quaternary Science Reviews*, 77, 141-155.
4. **Simkins, L.M.**, DeWitt, R., Simms, A., 2013. Methods to reduce sample carrier contamination for luminescence measurements. *Ancient TL*, 31 (1), 19-27.
3. **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.
2. 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.
1. 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.

RESEARCH MENTORSHIP AT THE UNIVERSITY OF VIRGINIA

Current: Wayne Dawson (MS, committee member), Ziwen Guo (MA, committee member), Santiago Munevar Garcia (PhD, primary adviser), Alejandra Vega González (MS, primary adviser), Alexandra Rice (PhD, committee member), Ariana Flournoy (MS, committee member), Vidushi Sharma (PhD, committee member), Natalia Varela Valenzuela (Postdoctoral Research Associate, primary adviser)

Former: Delaney Buskard (BS, senior thesis adviser), Mackenzie Carter (BS, research adviser), Elizabeth Eareckson (BS, research adviser), Cesar Garcia (PhD, primary adviser, left program May 2021), Sarah Lang (BS, research adviser), Allison Lepp (PhD, primary adviser, 2023), Catherine Leigh (BS, research adviser), Hannah Leigh (BS, research adviser), Sean Penaparanda (BS, research adviser), Marion McKenzie (PhD, primary adviser, 2023), Medha Prakash (BS, Distinguished Majors Program, thesis adviser), Morgan Shelby (MS, committee member), Jacob Slawson (BS, Distinguished Majors Program thesis adviser), Jacob Smith (MS, committee member), Mary Stack (MS, committee member), Emilia Torrellas (MS, committee member), Tahí Wiggins (BS, Distinguished Majors Program, thesis adviser), Alan Zhai (BS, research adviser).

NOMINATIONS, AWARDS, FELLOWSHIPS, & RECOGNITION

Visiting Fellow at Hokkaido University in Sapporo, Japan, hosted by Dr. Shin Sugiyama (Dec. 2023 – Jan. 2024)

Award for Excellence in Teaching from the Jefferson Scholars Foundation in 2023.

Elected member of the UVA College of Arts & Sciences **Committee on Educational Policy and the Curriculum** (CEPC; 2023-2025)

Recognition for Nature Geoscience paper at the UVA VPR and President's **Research Achievement Awards** for 2022.

Nominated for the **Sloan Research Fellowship** in 2021.

Mead Honored Faculty (2020-2021), awarded for outstanding educational engagement with students in and outside of class.

Recognized by an unknown number of first- through third-year undergraduate students as "**the one individual who helped them the most with their career development**" through a survey conducted by the UVA Career Center in the 2020-2021 and 2021-2022 academic years.

CONFERENCE PRESENTATIONS (SINCE 2018; UVA ADVISEES ARE UNDERLINED)

Vega González, A., **Miller, L.E.**, Prothro, L.O., Venturelli, R. Ice-rafted debris offshore of the East Antarctic Ice Sheet in the Weddell Sea. Submitted to upcoming Scientific Committee on Antarctic Research (SCAR) 2024 Open Science Conference.

Thrush, A., Sher, E., **Miller, L.E.**, Lepp, A.P., Varela Valenzuela, N., Methods and applications of identifying glacial and marine sediment types and environments. Submitted to upcoming Scientific Committee on Antarctic Research (SCAR) 2024 Open Science Conference.

Miller, L.E., Stearns, L.A., Riverman, K.L., Weiss, M. Expressions and importance of Antarctic grounding line pinning. Submitted to upcoming Scientific Committee on Antarctic Research (SCAR) 2024 Open Science Conference.

Larter, R.D., Hogan, K., Graham, A., Nitsche, F., Wellner, J., Hillenbrand, C.-D., Totten, R., Smith, J., **Miller, L.**, Anderson, J., Mawbey, E., Clark, R., Hopkins, R., Lehrmann, A., Lepp, A., Marschalek, H., Munevar Garcia, S., Taylor, L. How much, how deposited, how old – what can we learn from sediments in Pine Island Bay? Submitted to upcoming European Geophysical Union General Assembly 2024.

(invited) **Miller, L.** The influence of subglacial topography and geology on ice-sheet flow from deglaciated landscapes. 氷河氷床変動の精緻な理解に向けた現地観測-衛星観測-数値モデルの連携 (Integration of field measurement, satellite remote sensing and numerical modeling towards more precise understanding of glacier and ice sheet changes), 2024.

Totten, R.L., Hillenbrand, C.-D., Wellner, J.S., Lehrmann, A.A., Smith, J.A., Clark, R.W., Mawbey, E., Radionovskaya, S., Larter, R.D., **Miller, L.**, Anderson, J.B., Boehme, L., Yager, P., and the Shipboard Scientific Parties of NBP 19-02, NBP20-02, and NBP22-02. Microfloral and microfaunal fingerprints of ocean-ice interactions over decades to millennia in the Amundsen Sea, West Antarctica. American Geophysical Union Ocean Sciences Meeting.

McKenzie, M., **Miller, L.**, Berg, P., Herber, R., Guo, Z., Wiggins, T., Kuzminski, S., Wiman, C., Muñoz, S., Sedimentary Records of Blue Carbon and Environmental Change in Coastal Virginia: An Assessment of Seagrass Meadow Sediment Deposition and Carbon Cycling Variations. American Geophysical Union 2023.

McKenzie, M., **Miller, L.**, Lepp, A., DeWitt, R. Outcrop Perspectives on Spatial and Temporal Effects of Topography on the Marine-terminating Puget Lobe of the Cordilleran Ice Sheet. American Geophysical Union 2023.

Bassis, J., Stearns, L., **Miller, L.**, Mejia, J., Virtual Ice Community Engagement (VICE) Squads: Building Inclusivity and Collaboration in Cryospheric Sciences. American Geophysical Union 2023.

(invited) Siegfried, M., Christianson, K., Das, I., MacGregor, J., Mackie, E., Medley, B., **Miller, L.**, Neff, P. Centering community at scientific meetings: 30 years of the West Antarctic Ice Sheet Workshop. Upcoming American Geophysical Union 2023.

Christian, J.E., Robel, A., Catania, G., Stearns, L., Munevar Garcia, S., **Miller, L.E.** Experiments with a coupled ice-flow and sediment-transport model: grounding-zone wedge formation and effects on ice-stream stability. American Geophysical Union 2023.

Herbert, L., Lepp, A., **Simkins, L.M.**, Wellner, J., Hillenbrand, C.-D., Johnson, J., Severmann, S., Sherrell, R.M. A Potential Benthic Source of Nutrient Iron Driving Productivity in the Amundsen Sea in the Context of Current and Past Glacial Retreat. American Geophysical Union 2022, Session C018 - Holocene to Historical Context of Recent Ice Loss in the Amundsen Sea Embayment and along the West Antarctic Coast.

Comas, R.M., Wellner, J., Hillenbrand, C.-D., Clark, R.C., Smith, J.A., Larter, R.D., Graham, A.G.C., Hogan, K., Nitsche, F.O., Totten, R., Anderson, J.B., **Simkins, L.M.**, Lehrmann, A., Lepp, A., Mawbey, E., Hopkins, B., Marschalek, J. Sedimentary Record of Pre-Satellite Retreat of Pine Island Glacier, Amundsen Sea, Antarctica. Submitted, upcoming American Geophysical Union 2022, Session C018 - Holocene to Historical Context of Recent Ice Loss in the Amundsen Sea Embayment and along the West Antarctic Coast.

Clark, R.C., Wellner, J., Hillenbrand, C.-D., Totten, R., Lehrmann, A., Fitzgerald, V., Smith, J.A., Barnett, L., Comas, R.M., Garcia-Barrera, G., Hambrick, M.C., Hopkins, B., Kirkham, J., Lepp, A., Marschalek, J., Mawbey, E., Munevar Garcia, S., Anderson, J.B., Villafranca, J., Graham, A.G.C., Hogan, K., Larter, R.D., Nitsche, F.O., **Simkins, L.M.**, Wacker, L. Grounding-Zone Retreat and Marine Sediment Transport from Holocene to Present along Thwaites Glacier in the Eastern Amundsen Sea. American Geophysical Union 2022, Session C018 - Holocene to Historical Context of Recent Ice Loss in the Amundsen Sea Embayment and along the West Antarctic Coast.

Prakash, M., Simkins, L.M., McKenzie, M., Smith, J.W., Limaye, A.B. Morphometrics of Terrestrial Eskers and Martian Sinuous Ridges Reveal Persistent Pathways of Subglacial Meltwater Drainage. American Geophysical Union 2022, Session EP024 - Surface Processes on Rocky and Icy Bodies across the Solar System.

Munevar Garcia, S., **Simkins, L.M.**, Falcini, F.A.M., Stearns, L.A. Characterizing Bed Roughness on a Deglaciated Continental Margin and its Impact on Past Streaming Ice Flow. American Geophysical Union 2022, Session C009 - Archives and Observations From Sub-Ice Environments.

Wiggins, T., Munevar Garcia, S., Lepp, A.L., **Simkins, L.M.** Morphometry of Glacigenic and Periglacial Lakes across Canada. American Geophysical Union 2022, Session PP015 - Limnology, Paleolimnology, and Limnogeology - Lakes as Archives of Climate and Environment Variability and Geohazards.

Lepp, A.P., **Simkins, L.M.**, Anderson, J.B., O'Regan, M. Subglacial Processes Inferred from Grain-shape Alteration of Till and Meltwater Plume Deposits from Antarctica and Greenland. American Geophysical Union 2022, Session C009 - Archives and Observations From Sub-Ice Environments.

- Christian, J.E., Catania, G.A., Munevar Garcia, S., Robel, A., **Simkins, L.M.**, Stearns, L.A. Can sedimentation pause marine-ice-sheet retreat over retrograde slopes? A case study on Pine Island Trough. American Geophysical Union 2022, Session PP014 - Ice-sheet variability and behavior through the lens of geologic data and numerical modeling.
- Dellert, C.D., Reynolds, L., McKenzie, M., **Simkins, L.M.**, Kennedy, W. Carbon Content of Coastal Lake sediments from Whidbey Island, Washington State. American Geophysical Union 2022, Session: PP015 - Limnology, Paleolimnology, and Limnogeology - Lakes as Archives of Climate and Environment Variability and Geohazards.
- McKenzie, M., **Simkins, L.M.** Outcrop Perspectives on Spatially Variable Retreat of the Marine-terminating southern Cordilleran Ice Sheet. American Geophysical Union 2022, Session: PP014 - Ice-sheet variability and behavior through the lens of geologic data and numerical modeling.
- (invited)* Mejia, J.Z., Stearns, L.A., Bassis, J.N., **Simkins, L.M.**, Lummus, M.M., Barnett, C.T., Shahin, M.G., Burton, J.W., Goliber, S.A., Duddu, R., Ultee, E., Trunz, C., Stevens, N. CryoCommunity: On the need for strategic goals to guide EDI efforts across the polar sciences. American Geophysical Union 2022, Session C037 - The Cryosphere Is for All: Overcoming Barriers to Participation in the Cryospheric Sciences.
- (invited)* **Simkins, L.M.**, Timm, K., Bassis, J.N., Duddu, R., Stearns, L.A., CryoCommunity. Broadening and evaluating “broader impacts” in Cryospheric and polar sciences proposals and research. American Geophysical Union 2022, Session ED002: Advancing Community, Equity, and Inclusion in the Polar and Alpine Sciences.
- (invited)* **Simkins, L.M.**, Lepp, A.P., Anderson, J.B., Clark, R.W., Wellner, J.S., Hillenbrand, C.-D., Smith, J.A., Lehrmann, A.A., Totten, R., Larter, R.D., Hogan, K.A., Nitsche, F.O., Graham, A.G.C., Wacker, L., 2022. Sedimentary signatures of persistent subglacial meltwater drainage from Thwaites Glacier, Antarctica, American Quaternary Association.
- (invited)* Wellner, J.S., Clark, R.C., Lehrmann, A., Lepp, A.L., Hillenbrand, C.D., Totten, R.L., **Simkins, L.M.**, Comas, R.M., Mawbey, E., Hopkins, B., Smith, J.A., Anderson, J.B., Hogan, K.A., Nitsche, F.O., Graham, A.G.C., Larter, R.D., 2022. Pre-satellite retreat of Thwaites and Pine Island glaciers: Recent results from sediment cores. European Geophysical Union, Session: CL0 - Open Session on Climate: Past, Present and Future.
- (invited)* **Simkins, L.M.**, McKenzie, M., Principato, S., Slawson, J., Munevar Garcia, S., Wang, S., MacKie, M., 2022. Subglacial bedform sensitivity to variable topography and geology across the deglaciated Northern Hemisphere. Nordic Geological Winter Meeting.
- Wiggins, T., Munevar Garcia, S., Lepp, A.L., **Simkins, L.M.**, 2022. Morphometry of glacial lakes in North America. Southeast GSA Annual meeting Abstract, Cincinnati, OH, USA.
- Prakash, M., **Simkins, L.**, McKenzie, M., Smith, J., Limalye, A., 2022. Morphology and process-based implications of martian ridges and terrestrial eskers. Northeast GSA Annual meeting Abstract, Lancaster, PA, USA.
- McKenzie, M., Slawson, J., **Simkins, L.**, Wang, S., MacKie, E., 2022. Influence of bed highs on ice flow as determined by bedform morphology. Northeast GSA Annual meeting Abstract, Lancaster, PA, USA.
- Simkins, L.M.**, Stearns, L.A., Riverman, K., Controls on circum-Antarctic grounding line sinuosity, Session C45C: Boundary Conditions and Earth-Ice Interactions Beneath Ice Sheets and Ice Shelves II Poster, American Geophysical Union 2021.
- Minzoni, R.T., Lehrmann, A., Clark, R.C., Mawbey, E., Wellner, J.S., Hillenbrand, C.D., Smith, J.A., Larter, R.D., Comas, R.M., Hopkins, B., Anderson, J.B., Graham, A.G.C., Hogan, K.A., **Simkins, L.M.**, Lepp, A., Nitsche, F.O., and Tegert, E. Microfossil fingerprints of glacial stability: Using diatoms and foraminifera to reconstruct the history of Thwaites Glacier, West Antarctica, Session C027: Processes involved in the rapid retreat of the West Antarctic Ice Sheet, American Geophysical Union 2021.
- Nitsche, F.O., Hogan, K.A., Graham, A.G.C., Minzoni, R.T., Smith, J.A., Hillenbrand, C.D., **Simkins, L.M.**, Wellner, J.S., Larter, R.D., Anderson, J.B., Clark, R., Mawbey, E., Hopkins, B., Lepp, A., Marschalek, J., Munevar Garcia, S., Dorschel, B., Arndt, J.E., Gohl, K., Lee, W.S. New detailed bathymetry data from Amundsen Sea continental shelf reveal more comprehensive paleo ice flow pattern, Session C011: Boundary conditions and Earth-ice interactions beneath ice sheets and ice shelves, American Geophysical Union 2021.
- (invited)* Catania, G., Stearns, L., Carr, C., Poinar, K., Datta, R.T., **Simkins, L.**, Florentine, C. Increasing Retention of Minoritized Genders in the Cryospheric Sciences, Session C032: The Cryosphere is for All: Towards a more diverse and inclusive cryospheric sciences, American Geophysical Union 2021.
- (invited)* Mejia, J.Z., Barnett, C.T., Bassis, J.N., Duddu, R., Goliber, S.A., Lummus, M., Shahin, M.G., **Simkins, L.M.**, Stearns, L.A., Trunz, C., Ultee, E. Best practices for building a more inclusive glaciology through cryocommunity.org, Session

- C032: The Cryosphere is for All: Towards a more diverse and inclusive cryospheric sciences, American Geophysical Union 2021.
- (*invited*) Herbert, L.C., Lepp, A., **Simkins, L.**, Wellner, J., Severmann, S., St. Laurent, P., Stammerjohn, S., Yager, P., Sherrell, R., 2021. Glacially derived sediment sources of iron fueling productivity in the Amundsen Sea. Upcoming, 2021 WAIS Workshop.
- Herbert, L.C., Lepp, A., **Simkins, L.**, Wellner, J., Severmann, S., Sherrell, R. Sediment biogeochemistry and trace metal fluxes near the Thwaites and Pine Island Glaciers, Amundsen Sea. Session 13a: Marine biogeochemistry: Particle fluxes and dissolved trace element cycling from source to sink, Goldschmidt 2021.
- Simkins, L.M.**, Greenwood, S.L., Munevar Garcia, S., Prothro, L.O., Anderson, J.B. A gaining and losing meltwater corridor in the subglacial environment. Session C001: Advances in Glacier Hydrology, American Geophysical Union 2020.
- 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.
- 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.
- 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.
- Robel, A., Pegler, S., Catania, G., Felikson, D., **Simkins, L.M.**, 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.
- Simms, A., Zurbuchen, J., Gernant, C., Theilen, B., DeWitt, R., Garcia, C., **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.
- 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.
- (*invited*) **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.
- Munevar Garcia, S., **Simkins, L.M.**, Falcini, F. A.M., Stearns, L.A., Rezvanbehbahani, S., 2020. Bed roughness impact on streaming ice-flow persistence. WAIS Workshop 2020.
- 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.
- Simkins, L.M.**, 2020. Glacial landforms as archives of grounding line processes and retreat. WAIS Workshop 2020.
- 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.
- 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.
- Larter, R., Graham, A., Hogan, K., Minzoni, M., Wählin, 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.

- Hogan, K., Larter, R., Graham, A., Arthern, R., Kirkham, J.D., Minzoni, R.T., Jordan, T., Clark, R., Fitzgerald, 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.
- Greenwood, S.L., **Simkins, L.M.**, Winsborrow, M.C.M., Bjarnadóttir, L.R., 2019. Bed controls on the retreat dynamics of marine-based ice sheets. Nordic Geology Winter Meeting, Oslo, Norway.
- Lepp, A., **Simkins, L.M.**, Minzoni, R., Larter, R., Graham, A., Hogan, K., Wellner, J., Hillenbrand, C.D., Smith, J., Anderson, J., Nitsche, F., NBP1902 Science Party, 2019. Thwaites Glacier's recent meltwater history recorded in ice shelf proximal sediment cores. WAIS Workshop, Julian, CA.
- Simkins, L.M.**, 2019. Sinuous grounding lines often point to large retreat events to come. WAIS Workshop, Julian, CA.
- Prothro, L.O., Anderson, J.B., Yokoyama, Y., Majewski, W., **Simkins, L.M.**, 2019. The association of subglacial meltwater with grounding-line retreat. WAIS Workshop, Julian, CA.
- Larter, R., Graham, A., Hogan, K., Minzoni, M., Wählin, 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, 2019. Influence of bathymetry on Thwaites Glacier ice shelf thinning, calving and grounding line retreat from new high-resolution data. FRISP 2019: Forum for Research into Ice Shelf Processes, Oxford, England.
- Simkins, L.M.**, Bjarnadóttir, L.R., Greenwood, S.L., Winsborrow, M.C.M., 2019. Retreat dynamics of marine-based ice sheets: perspectives from diverse high-latitude continental margins. International Union for Quaternary Research, Dublin, Ireland.
- Simms, A., Whitehouse, P., Zurbuchen, J., **Simkins, L.M.**, Nield, G., DeWitt, R., Bentley, M., 2019. Late Holocene increases in the rate of sea-level fall across the Antarctic Peninsula point to a weak Earth rheology. International Union for Quaternary Research, Dublin, Ireland.
- Larter, R., Graham, A., Hogan, K., Minzoni, M., Wählin, A., Queste, B., Mazur, G., Boehme, L., Kirkham, V., Fitzgerald, V., 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, 2019. Insights into controls on Thwaites Glacier retreat from new high-resolution bathymetry and related data. International Symposium on Antarctic Earth Sciences, Songdo Convensia, Incheon, Republic of Korea.
- Simkins, L.M.**, Bjarnadóttir, L.R., Greenwood, S.L. and Winsborrow, M.C.M., 2018, December. Retreat dynamics of marine-based ice sheets: perspectives from diverse high-latitude continental margins. American Geophysical Union 2018
- Prothro, L.O., Majewski, W., Yokoyama, Y., **Simkins, L.M.**, Anderson, J.B., Yamane, M. and Ohkouchi, N., 2018. Duration of the maximum extent of the East Antarctic Ice Sheet grounding line in the Ross Sea, Antarctica, and subsequent complex retreat. American Geophysical Union 2018.
- Hogan, K., Larter, R.D., Nitsche, F.O., Graham, A.G., Wellner, J., **Simkins, L.M.**, Gohl, K., Arndt, J.E., Hillenbrand, C.D., Smith, J.A. and Minzoni, R., 2018. What we know about the bed in front of Thwaites Glacier: existing marine geophysical datasets. The WAIS Workshop 2018.

PUBLISHED DATASETS (AUTHORED BY ADVISEES)

- McKenzie, M.A., **Simkins, L.M.**, & Principato, S.M. (2022). Streamlined subglacial bedforms across the deglaciated Northern Hemisphere, PANGAEA. <https://doi.org/10.1594/PANGAEA.939999>
- Simkins, L.**, Riverman, K., & Stearns, L. (2021) "Circum-Antarctic grounding-line sinuosity" U.S. Antarctic Program (USAP) Data Center. doi: <https://doi.org/10.15784/601484>.
- Simkins, L.**, Anderson, J., Eareckson, E., Greenwood, S., Munevar Garcia, S., & Prothro, L. (2021) "Pennell Trough, Ross Sea bathymetry and glacial landforms" U.S. Antarctic Program (USAP) Data Center. doi: <https://doi.org/10.15784/601474>.
- 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). UK Polar Data Centre, Natural Environment Research Council, UK Research & Innovation.

INVITED SEMINARS (SINCE 2018)

国立極地研究所 (National Institute of Polar Research; 2024), 東京大学大気海洋研究所 (Atmosphere and Ocean Research Institute of University of Tokyo; 2024), 北海道大学 (Hokkaido University; 2023), Virginia Tech (2022), Montclair State University (2022), University of Florida (2022), Appalachian State University (2022), International Glaciological Society Virtual Seminar (2021), University of Texas Institute for Geophysics (2021), British Antarctic Survey, Ice Dynamics & Paleoclimate group (2021), WHOI Department of Marine Chemistry and Geochemistry (2020), Georgia Southern University (2020), Old Dominion University (2020), Georgia Tech (2020), University of Delaware (2019), College of William and Mary (2018), University of Illinois, Chicago (2018)

SERVICE AT THE UNIVERSITY OF VIRGINIA

Department of Environmental Sciences

Undergraduate Academic Review Committee (2022 – present)
Awards Committee (2021 – 2023)
Graduate Academic Review Committee (2021 - 2022)
Geology Instructor Hiring Committee (2021)
Undergraduate Seminar (EVSC 4002) Co-chair (2020 - 2021)
Environmental Science Organization (ESO) Faculty Adviser (2019 - 2021)
Graduate Admissions Committee (2019 - 2020)
H.G. Goodell Endowment Committee (2019 – 2020, 2022, 2023 – present)

College & Graduate School of Arts and Sciences

Committee on Educational Policy and the Curriculum (CEPC; 2023-2026)
LSAMP Summer Program Faculty Mentor (2021)
LSAMP Summer Program Panelist (2019, 2020)
College Science Scholars Seminars (2019, 2020, 2023)
Undergraduate Academic Adviser (2019 – present)
Interdisciplinary PhD in Indigenous Studies STEM Mentor (2023 – present)

University

Faculty Advisor for UVA chapter of Epsilon Eta, an American professional gender-inclusive fraternity for students interested in careers in environmental science
UVA Representative for Environmental Sciences curriculum development for [Transfer Virginia](#)
Co-Chair of Tribal Liaison Search Committee (2022-2023)
Chairs Summit, Native & Indigenous Relations Community representative (2022 – 2023)
Democracy Initiative – Indigenous Studies working group member (2022 – present)
Steering Committee of the Native & Indigenous Relations Community (NIRC; 2023 – present; member since 2021)
LSAMP Virginia-North Carolina Alliance Governing Board (2020 - present)
Native American & Indigenous Studies @ UVA Member (2020 - 2021)
LSAMP Bridge to Doctorate Mentor, Office for Diversity, Equity, and Inclusion (2019 - 2021)
Faculty Mentor, Mentoring Institute, UVA Diversity Programs (2019 - present)
Undergraduate Research Symposium Judge (2019)

RESEARCH COMMUNITY SERVICE

Editorial Service: Geological Society of London **Books Editor** (2018-2022), **Associate Editor** of Special Research Topic “Past Ice Sheet and Ice-Ocean Interactions from Deglaciated Continental Margins” in *Frontiers of Earth Science* (2021-2022), **Associate Editor** of Special Issue “Glaciated landscapes: geomorphology as a tool for understanding past, present and future glacier and ice sheet behaviour” in *Earth Surface Processes and Landforms* (2022-2023), **Review Editor** of *Frontiers in Earth Science Cryospheric Sciences* (2023-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, Nature Communications, Nature Climate Change, Global and Planetary Change, Frontiers in Earth Science, Earth Surface Processes and Landforms

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), Programa Polar Português (PROPOLAR)

Review Panel NSF Polar Programs (2019, 2020)

Conference Organization: AGU 2023 Session Convener, WAIS Workshop Organizing Committee (2019-present), AGU Outstanding Student Presentation Awards Judge (2018, 2020)

Participant in [Unlearning Racism in Geosciences \(URGE\)](#) Glaciology Pod (2021)

Team member of [CryoCommunity](#), a resource hub for Cryospheric sciences students and researchers

PUBLIC ENGAGEMENT & SCIENCE EDUCATION

Co-leader, Saturday Series Workshops, free monthly environmental-focused S.T.E.A.M. workshops for elementary school students in the Charlottesville-Albemarle area (2019-2020) [[link](#)]

Educational Products: Glaciers: an introduction to Earth's icy regions [a workshop lesson plan for upper elementary students, [link](#)]; Antarctic Ice Sheet: Past and Present [an educational module for high-school and introductory college students, [link](#)]

Host, Math4Science Program @ UVA, class trip in 2019 for alternative high school students from Brooklyn to learn about math-science integration, research activities, and university life [[link](#)]

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

Expert source on [Diverse Sources](#) and [Cryo-connect](#), both of which connect journalists with expert sources.

Media Commentary for [Nature](#), [Popular Science](#), [Phys.org](#), [Mirage News](#), National Geographic, UVA Today and A&S News in [2021](#), [2022](#), and [2023](#), [UVA Hoos in STEM podcast](#)

PROFESSIONAL ORGANIZATIONS

American Geophysical Union (AGU), International Glaciology Society (IGS), WAIS Workshop, American Indian Science and Engineering (AISES), American Quaternary Association (AMQUA), National Association of Geoscience Teachers (NAGT)