

EDUCATION

- Massachusetts Institute of Technology, Cambridge, Mass. 2017
Woods Hole Oceanographic Institution, Woods Hole, Mass.
Ph.D., Geophysics: *Influence of meltwater on Greenland Ice Sheet dynamics*.
Advisor: Sarah B. Das (WHOI)
- Wellesley College, Wellesley, Mass. 2011
B.A., Geosciences, *cum laude* with Honors in the major; *Certificate*, Hooprolling.

EMPLOYMENT

- Associate Professor of Climate and Earth Surface Processes, Earth Sciences, Oxford 2020–
Supernumerary Fellow, University College, Oxford 2020–
Adjunct Research Scientist, Seismology, Geology, & Tectonophysics, LDEO 2020–
Postdoctoral Research Fellow, Marine Geology & Geophysics, LDEO 2018–2020
Graduate Research Fellow/Guest Investigator/Summer Student Fellow, WHOI 2011–2017

RESEARCH AIM

To observe and understand the physical processes modulating ice flow on Earth using geophysical, oceanographic, and atmospheric observations; computational modeling; and inverse methods.

PUBLICATIONS († = advisee)

In prep./review/revision

- [18] Banwell, A.F., MacAyeal, D., Willis, I.C., Stevens, L.A. and R.L. Dell (In prep.). Observed and modeled lake-induced flexure of a doline on the George VI Ice Shelf.
- [17] †Zhang, H., Katz, R.F., Stevens, L.A., Davis, T., and D. May (In prep.). Supraglacial lake drainage initiated by tidally induced hydrofracture on Amery Ice Shelf.
- [16] Stevens, L.A., Das, S.B., Behn, M.D., McGuire, J.J., Lai, C.-Y., Joughin, I., Nettles, M., and J. Kingslake (In revision). Stress coupling between supraglacial lakes during rapid drainage. *Journal of Geophysical Research: Earth Surface*.

Published

- [15] Stevens, L.A., Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Hewitt, I.J., and A. Stubblefield (2022). Tidewater-glacier response to supraglacial lake drainage. *Nature Communications*. doi:10.1038/s41467-022-33763-2.
- [14] †Zhang, H., Davis, T., Katz, R.F., Stevens, L.A., and D. May (2022). Basal hydrofractures near sticky patches. *Journal of Glaciology*. First View:1-12. doi:10.1017/jog.2022.75.
- [13] Wearing, M.G., Stevens, L.A., Dutrieux, P., and J. Kingslake (2021). Ice-shelf basal melt channels stabilized by secondary flow. *Geophysical Research Letters*, 48:1-11. doi:10.1029/2021GL094872.
- [12] Stevens, L.A., Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Ahlström, A.P., and T.B. Larsen (2021). Helheim Glacier diurnal velocity fluctuations driven by surface melt forcing. *Journal of Glaciology*, 68(267):77-89. doi:10.1017/jog.2021.74. (+cover photo)
- [11] Lai, C.-Y., Stevens, L.A., Chase, D.L., Creyts, T.C., Behn, M.D., Das, S.B., and H.A. Stone (2021). Hydraulic transmissivity inferred from ice-sheet relaxation following Greenland supraglacial lake drainages. *Nature Communications*, 12:3955. doi: 10.1038/s41467-021-24186-6.
- [10] MacAyeal, D.R., Sergienko, O.V., Banwell, A.F., Macdonald, G.J., Willis, I.C., and L.A. Stevens (2021). Treatment of ice-shelf evolution combining flow and flexure. *Journal of Glaciology*, 67(265):885-902. doi:10.1017/jog.2021.39.

- [9] Banwell, A.F., Datta, R.T., Dell, R.L., Moussavi, M., Brucker, L., Picard, G., Shuman, C.A., and L.A. Stevens (2021). [The 32-year record-high surface melt in 2019/2020 on north George VI Ice Shelf, Antarctic Peninsula](#). *The Cryosphere*, 15:909–925. doi:10.5194/tc-15-909-2021.
- [8] Keisling, B.A., Bryant, R., Golden, N., Stevens, L.A., and E. Alexander (2020). [Does our Vision of Diversity Reduce Harm and Promote Justice?](#) *Geological Society of America (GSA) Today*, 30:64–65. doi:10.1130/GSATG429GW.1.
- [7] Wagner, T.J.W., Straneo, F., Richards, C.G., Slater, D., Stevens, L.A., Das, S.B., Singh, H. (2019). [Large spatial variations in the flux balance along the front of a Greenland tidewater glacier](#). *The Cryosphere*, 13:911–925. doi:10.5194/tc-13-911-2019.
- [6] Chaput, J., Aster, R.C., McGrath, D., Baker, M.G., Anthony, R.E., Gerstoft, P., Bromirski, P., Nyblade, A., Stephen, R.A., Wiens, D., Das, S.B., and L.A. Stevens (2018). [Near-surface environmentally forced changes in the Ross Ice Shelf observed with ambient seismic noise](#). *Geophysical Research Letters*, 45:181–187. doi:10.1029/2018GL079665.
- [5] Stevens, L.A., Hewitt, I., Das, S.B., Behn, M.D. (2018). [Relationship between Greenland Ice Sheet surface speed and modeled effective pressure](#). *Journal of Geophysical Research: Earth Surface*, 123. doi:10.1029/2017JF004581.
- [4] Stevens, L.A., Behn, M.D., Das, S.B., Joughin, I., Noel, B. P. Y., van den Broeke, M., and T. Herring (2016). [Greenland Ice Sheet flow response to runoff variability](#). *Geophysical Research Letters*, 43:11,295–11,303. doi:10.1002/2016GL070414. (+cover photo)
- [3] Stevens, L.A., Straneo, F., Das, S.B., Plueddemann, A.J., Kukulya, A.L., and M. Morlighem (2016). [Linking glacially modified waters to catchment-scale subglacial discharge using autonomous underwater vehicle observations](#). *The Cryosphere*, 10:417–432. doi:10.5194/tc-10-417-2016.
- [2] Carmichael, J.D., Joughin, I., Behn, M.D., Das, S.B., King, M.A., Stevens, L.A., and D. Lizarralde (2015). [Seismicity on the Western Greenland Ice Sheet: Surface Fracture in the Vicinity of Active Moulins](#). *Journal of Geophysical Research: Earth Surface*, 120:1082–1106. doi:10.1002/2014JF003398.
- [1] Stevens, L.A., Behn, M.D., McGuire, J.J., Das, S.B., Joughin, I., Herring, T., Shean, D.E., and M.A. King (2015). [Greenland supraglacial lake drainages triggered by hydrologically induced basal slip](#). *Nature*, 522:73–76. doi:10.1038/nature14480.

Datasets, Commentary, Theses, &c

- [9] Stevens, L.A., Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Hewitt, I.J., and A. Stubblefield (2022). [Tidewater-glacier response to supraglacial lake drainage \(Version v1.0\)](#). *Zenodo repository*. doi:10.5281/zenodo.7023662.
- [8] Stevens, L.A. (2022). Cover photo: [Working on a Harbortronics time-lapse camera system on George VI Ice Shelf, Antarctica, as part of the project Ice-shelf Instability Caused by Active Surface Meltwater Production, Movement, Ponding and Hydrofracture](#). *Journal of Glaciology*, 68(268):f1.
- [7] Stevens, L.A., Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Ahlström, A.P., and T.B. Larsen (2021). [Helheim Glacier diurnal velocity fluctuations driven by surface melt forcing \(Version v1.0\)](#). *Zenodo repository*. doi:10.5281/zenodo.465644.
- [6] Stevens, L.A., Straneo, F., Das, S.B., Plueddemann, A.J., and A.L. Kukulya (2019), [Water, Temperature, Salinity, and others collected from Autonomous Underwater Vehicle in Sarqardleq Fjord, West Greenland from 2012-07-18 to 2012-07-24 \(NCEI Accession 0208235\)](#). *NOAA National Centers for Environmental Information*. <https://accession.nodc.noaa.gov/0208235>.
- [5] MacFerrin, M. & co-signatories from the Next Generation Polar Leadership Symposium (2019), [Next generation of polar researchers agree on three priorities](#). *Nature*, 570:36.
- [4] Stevens, L.A., Hewitt, I., Das, S.B., Behn, M.D. (2018). [Relationship between Greenland Ice Sheet surface speed and modeled effective pressure \(Version v1.0\)](#). *Zenodo repository*. doi:10.5281/zenodo.1299945.
- [3] Das, S.B., Behn, M.D., Joughin, I., and L.A. Stevens (2018), 22 GPS/GNSS datasets associated with [Greenland Fractures 2011-2014](#), UNAVCO, Inc., GPS/GNSS Observations Dataset. doi:10.7283/T55T3J80.
- [2] Stevens, L.A. (2017), [Influence of meltwater on Greenland Ice Sheet dynamics](#). PhD Thesis, MIT, Cambridge, Mass. uri:hdl.handle.net/1721.1/113800.

- [1] Stevens, L.A. (2011), Quantifying the composition of a mixed carbonate-siliciclastic sand matrix: A comparative study between XRD, XRF, and point counting methodology. Undergraduate Thesis, Wellesley College, Wellesley, Mass.

GRANTS

In review

- (0) NSFGE0-NERC Arctic Natural Sciences, NERC Submitted: July 2022
 Proposed Funding Period: September 2023–August 2026
NSFGE0-NERC: Collaborative Research: Understanding surface-to-bed meltwater pathways across the Greenland Ice Sheet using machine-learning and physics-based models
 NSF PI: Ching-Yao Lai (Princeton U.); NSF Co-I: Leigh A. Stearns (U. of Kansas).
 NERC PI: L.A. Stevens (U. of Oxford); NERC Co-I: Ian J. Hewitt (U. of Oxford).
 Total Award Proposed: \$1,011,000. NSF side: \$620,999. NERC side: £299,999.
- (0) NSFGE0-NERC Antarctic Glaciology, BAS Submitted: Sept 2020
 Proposed Funding Period: April 2022–March 2025
NSFGE0-NERC: Investigating the direct influence of meltwater on Antarctic Ice Sheet dynamics
 NSF PI: Jonathan Kingslake (Columbia U.); NSF Co-I: David Porter (Columbia U.)
 NERC PI: Andrew Sole (U. of Sheffield); NERC Co-Is: Jeremy Ely (U. of Sheffield), Stephen Livingstone (U. of Sheffield), and L.A. Stevens (U. of Oxford)
 Total Award Proposed: \$1,169,020. NSF side: \$791,075. NERC side: £299,957.
N.B.: Review decision delayed due to COVID-related logistical considerations.

Active

- [7] Oxford University Press (£37,747) August 2021–July 2026
 Solicitation: John Fell Oxford University Press Fund for Early Career Researchers
Radar and remotely sensed observations of ice-sheet deformation
 PI: L.A. Stevens.
- [6] NSF-ANS 20-03464 (\$722,623) October 2020–September 2023
 Solicitation: NSF Office of Polar Programs, Arctic Natural Sciences
Greenland Ice Sheet dynamic response to inland expansion of a hydrologically-active ice-sheet bed
 PI: L.A. Stevens. Co-Is: Meredith Nettles and Jonathan Kingslake (Columbia U.).
 July 2020: PI Transfer from L.A. Stevens to Meredith Nettles (Columbia U.).
- [5] NSFGE0-NERC, NSF-OPP 18-41739 (\$805,041) June 2019–May 2023
 Solicitation: Antarctic Glaciology (NSF) and British Antarctic Survey (NERC)
NSFGE0-NERC: Ice-shelf Instability Caused by Active Surface Meltwater Production, Movement, Ponding, and Hydro-fracture
 PI: Alison Banwell (U. of Colorado Boulder). Co-Is: L.A. Stevens (Columbia U.), Douglas MacAyeal (U. of Chicago), and Ian Willis (Scott Polar Research Institute)
 July 2020: PI Transfer from L.A. Stevens to Alison Banwell (U. of Colorado Boulder).

Completed

- [4] Lamont-Doherty Earth Observatory Postdoctoral Fellowship (\$135,500) 2018–2020
- [3] Horton Research Grant, AGU Hydrology Section (\$10,000) 2015–2017
- [2] NSF Graduate Research Fellowship Program (GRFP) (\$138,000) 2012–2017
- [1] WHOI Summer Student Fellowship Program (\$6,000) 2011

ADVISING

Department of Earth Sciences, University of Oxford

DPhil Researchers

Hanwen Zhang; ERC DPhil studentship (advised with Prof. Richard Katz) 2020–

University College, University of Oxford*DPhil Researchers*

Rebecca Colquhoun; NERC DTP (advised by Prof. Jessica Hawthorne) 2020–

Lamont-Doherty Earth Observatory, Columbia University*Postdoctoral Researchers*

Stacy Larochele, Ph.D.; postdoc funded majorly by NSF-ANS 20-03464 2022–

(advised with Profs. Jonathan Kingslake and Meredith Nettles)

PhD Researchers

George Lu; funded majorly by NSF-ANS 20-03464 2021–

(advised by Profs. Jonathan Kingslake and Meredith Nettles)

TEACHING**Department of Earth Sciences, University of Oxford***For the first years:*

Modern Climate Processes — Cryosphere Lectures annually in Hilary Term, 2023–

Probability & Statistics annually in Hilary Term, 2023–

For the second years:

Fundamentals of the Climate System beginning annually in Michaelmas Term, 2023–

Co-taught with Profs. Helen Johnson & Rosalind Rickaby

Field Methods in Geologic Mapping annually in assorted terms, 2021–

Localities: Coastal Southwest England, Isle of Skye.

For the third years:

Ice-sheet and Glacier Dynamics annually in Michaelmas Term, 2022–

For the fourth years/MPhils:

Topics in Oceanography & Climate annually in Michaelmas Term, 2022–

Co-taught with Profs. Heather Bouman, Helen Johnson, Samar Khatiwala, & Rosalind Rickaby

DPhil EXAMINATIONS**Department of Earth Sciences, University of Oxford**

Internal Examiner for Dr. Sam Cornish (advised by Prof. Helen Johnson) 2021

■ *Understanding Freshwater Changes in the Arctic Ocean***AWARDS**

- Holiday Party Award: “Always in the Field”, Department of Earth Sciences, Oxford 2021
- Masters of Arts (by resolution), University of Oxford 2021
- Editor’s Citation for Excellence in Refereeing for *Geophysical Research Letters* 2018
- Recommended by Dr. Julienne Stroeve, University College London
- Lamont-Doherty Earth Observatory Postdoctoral Fellowship 2017
- United States Antarctic Service Medal 2016/17
- AGU Hydrology Section Horton Research Grant 2015
- NSF Graduate Research Fellowship Program (GRFP) 2012
- WHOI Summer Student Fellowship (SSF) 2011
- *cum laude*, Wellesley College 2011
- Honors in the major (Geosciences), Wellesley College 2011
- Phi Beta Kappa, Wellesley College 2011
- Sigma Xi, Wellesley College 2011
- Margret D. Thompson Award for Geosciences Scholarship, Wellesley College 2011
- Sara F. Langer Memorial Award in Geology, Wellesley College 2010

DEPARTMENT COLLOQUIA & SEMINARS

- [26] Centre National de la Recherche Scientifique (CNRS), Laboratoire de Géologie Seminar, École Normale Supérieure, Paris, France. Nov. 2022.
- [25] U. of Edinburgh, School of Geosciences Hutton Club Seminar, Edinburgh, Scotland. Mar. 2022.
- [24] U. of Oxford, Atmospheric, Oceanic and Planetary Physics Dept. Seminar, Oxford, UK. Feb. 2022.
- [23] Colby College, Dept. of Geology Seminar, Waterville, ME. Mar. 2021.
- [22] Behn-Olive Geodynamics Seminar Series, Worldwide. Mar. 2021.
- [21] U. of Cambridge, Dept. of Applied Mathematics and Theoretical Physics, Geophysical and Environmental Processes Seminar, Cambridge, UK. Mar. 2021.
- [20] U. of Oxford, Earth Sciences Dept. Brown Bag Seminar, Oxford, UK. Nov. 2020.
- [19] Dartmouth College, Thayer School of Engineering Jones Seminar, Hanover, NH. Nov. 2020.
- [18] Yale U. Climate Symposium, Geology & Geophysics, New Haven, CT. *Postponed*.
- [17] U. of Oxford, Earth Sciences Dept. Seminar, Oxford, UK. Feb. 2020.
- [16] Northwestern U., Earth & Planetary Sciences Dept. Seminar, Evanston, IL. Feb. 2020.
- [15] Smith College, Geosciences Dept. Seminar, Northampton, Mass. Feb. 2020.
- [14] Boston College, Earth & Environmental Sciences Colloquium, Newton, Mass. Jan. 2020.
- [13] Middlebury College, Geology Dept. Seminar, Middlebury, VT. Jan. 2020.
- [12] U. of Wisconsin-Madison, Dept. of Geosciences Colloquium, Madison, WI. Sept. 2019.
- [11] WHOI, Dept. of Geology and Geophysics Seminar, Woods Hole, Mass. June 2019.
- [10] Stanford U., Dept. of Geophysics Seminar, Stanford, CA. Feb. 2019.
- [9] Georgia Institute of Technology, EAS Dept. Seminar, Atlanta, GA. Jan. 2019.
- [8] Rutgers, Dept. of Geography Seminar & Early Career Chat, Piscataway, NJ. April 2018.
- [7] Lamont-Doherty Earth Observatory, Geodynamics Seminar. Nyack, NY. Feb. 2018.
- [6] WHOI, Coastal Ocean & Fluid Dynamics Lab Seminar, Woods Hole, Mass. Aug. 2017.
- [5] Scripps Institution of Oceanography, Polar Seminar, La Jolla, CA. Jan. 2017.
- [4] U. of Chicago, Geophysical Sciences Dept. Seminar. Chicago, IL. Jan. 2017.
- [3] Wellesley College, Geosciences Dept. Seminar. Wellesley, Mass. Feb. 2016.
- [2] Lamont-Doherty Earth Observatory, MGG-SGT Seminar. Nyack, NY. Feb. 2016.
- [1] U. of Oxford Mathematical Institute, Mathematical Geoscience Seminar. Oxford, UK. Nov. 2015.

INVITED TALKS AT CONFERENCES

- [4] **Stevens, L.A.**, Das, S.B., Behn, M.D., McGuire, J.J., Joughin, I., Nettles, M., and J. Kingslake (2021), Stress coupling between Greenland supraglacial lakes during rapid drainage. Presented at the 2021 International Union of Geodesy and Geophysics (IUGG) International Associations Cryospheric Sciences (IACS) Virtual Atmosphere-Cryosphere-Ocean Seminar Series (VACO-21), Worldwide. July 19–23.
- [3] **Stevens, L.A.**, Behn, M.D., McGuire, J.J., Das, S.B., Joughin, I., Herring, T., Shean, D.E., and King, M.A. (2018), Communicating the mechanics of Greenland Ice Sheet supraglacial lake drainages to diverse audiences. Presented at the 2018 UNAVCO Science Workshop, Broomfield, CO. March 11–15.
- [2] **Stevens, L.A.**, Hewitt, I., Das, S.B., and Behn, M.D. (2017), Temporal variations in the relationship between surface speed and modeled effective pressure on the western margin of the Greenland Ice Sheet. Presented at the 2017 Fall Meeting, AGU, New Orleans, LA. Dec 11–15.
- [1] **Stevens, L.A.**, Straneo, F., Das, S.B., Plueddemann, A.J., and Kukulya, A.L. (2016), Linking glacially modified waters to catchment-scale subglacial discharge using autonomous underwater vehicle observations. Presented at Ocean Outlook 2015: Icy Oceans, Woods Hole, Mass. Apr. 7–8.

SERVICE

- Deputy Director of Graduate Studies 2022–
Department of Earth Sciences, University of Oxford
- Faculty Advisor, *Lithoqueers* (LGBTQIA+ Affinity Group)  2021–
Department of Earth Sciences, University of Oxford
- Mental Health First Aider 2021–
Department of Earth Sciences, University of Oxford
- LGBT+ Role Model 2021–
LGBT+ Staff Network, University of Oxford
- Co-organizer with Profs. Julie Cosmidis and Claire Nichols 2020–
Earth Sciences Department Seminar, University of Oxford
- Associate Member Representative for the University of Oxford 2020–
UNAVCO, Inc.
- Committee Member, Workplace & Equality Committee 2020–
Department of Earth Sciences, University of Oxford
- Committee Member, Departmental Committee 2020–
Department of Earth Sciences, University of Oxford
- Proposal Reviews [4] 2018–
NSF Division of Earth Sciences, Postdoctoral Fellowship (EAR-PF)
NSF GRFP Experienced Resource List & Potential Panel Reviewer
NSF Office of Polar Programs, Antarctic Glaciology (OPP-AG)
Royal Society Te Apārangi, Te Pūtea Rangahau A Marsden
- Paper Reviews [30] 2016–
Annals of Glaciology
Cryosphere, The
Earth and Planetary Research Letters
Earth System Science Data
Geology
Geophysical Research Letters
Journal of Geophysical Research: Earth Surface
Journal of Geophysical Research: Oceans
Journal of Glaciology
Nature
Nature Communications
Nature Geoscience
Proceedings of the National Academy of Sciences
Science Advances
- Admissions Interview Panel for “Physical Climate System” focus area 2022
NERC DTP in Environmental Research, University of Oxford
- Co-author with Drs. Chris Carr and Lauren Simkins 2021
Name Change Policy for International Glaciological Society Journals
- Panelist, NERC DTP in Environmental Research, University of Oxford 2021
“LGBTQ+ Voices & Communities: Enabling Inclusivity in Environmental Research”
- Panelist, Earth Science Postdoctoral Scientists, University of Oxford 2021
“Applying to Institutional Postdoctoral Fellowships and Faculty Positions in the US”
- Host Researcher, Polar Horizons 2021 2021
Diversity in Polar Science Initiative, British Antarctic Survey
- Session Co-convener, AGU Fall Meeting 2020 2020
“Advances in Glacier Hydrology”
- Session Co-convener, AGU Fall Meeting 2020 2020
“Controls on Marine-Terminating Glacier, Ice Stream, and Ice Shelf Dynamics in Observations and Models”

- o Session Co-convener, AGU Fall Meeting 2019
“Controls on Tidewater Glacier Terminus Dynamics in Observations and Models” 2019
- o Discussion Leader, LDEO Gender and Diversity Discussion Group 2019
“Retention of women in STEM fields—all career stages”
- o Co-organizer Fall 2018, Spring 2019
LDEO Marine Geology and Geophysics–Seismology, Geology, and Tectonophysics Seminar
- o Postdoc Representative and Committee Member 2018–2019
LDEO Professional Conduct Committee
- o Glacier Goo Demonstration 2018, 2019
Lamont-Doherty Earth Observatory Open House, Palisades, NY
- o “CryoMentor” for AGU Cryosphere Section 2018, 2019
- o Poster Judge 2018
Annual Women in Science at Columbia Graduate Research Symposium
- o Exhibitor, Girls in Science and Engineering Day 2018
Intrepid Museum, New York, NY
- o Secretary and Committee Member, WHOI Women’s Committee 2015–2017
- o Panelist, Wellesley College Summer Science Research Program 2016
- o Panelist, “Women Who Do Extreme Science” 2016
Graduate Women at MIT (GW@MIT) Empowerment Conference
- o Session Co-convener, AGU Fall Meeting 2015 2015
“Hydrology of Glaciers, Ice Caps, and Ice Sheets in Past, Present, and Future Climates”
- o Abstract Chair, Cryosphere Section, Graduate Climate Conference 2015
- o Co-organizer, New England Glaciology Meeting 2015
- o Science–Engineering–Technology Congressional Visit Day 2014, 2015
- o Co-convener, APECS Career Panel, AGU Fall Meeting 2014

WORKSHOPS & INTENSIVE COURSES

- o Crevasse Risk Management and Safety Workshop 2021
NSF Office of Polar Programs (*invited participant*)
- o LGBT+ Role Models Workshop for University Staff 2021
Equality & Diversity Unit, University of Oxford
- o NSF Next Generation of Polar Researchers Leadership Symposium 2019
University of Southern California Wrigley/Boone Center for Environmental Leadership, Catalina Island, CA (*selected participant*)
- o Communicating Science for Impact Short Course 2018
2018 UNAVCO Science Workshop, Boulder, CO
- o NSF Workshop on Antarctic Surface Hydrology and Future Ice Shelf Stability 2018
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- o MIT Kauffman Teaching Certificate Program 2017
MIT Teaching and Learning Laboratory (*selected participant*)
- o MIT Science Policy Initiative Congressional Visit Day 2015
MIT Washington Office, Washington, D.C. (*selected participant*)
- o NSF Workshop on Subglacial Hydrology 2014
Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY
- o MIT Science Policy Initiative Executive Agencies Visit Day 2014
MIT Washington Office, Washington, D.C. (*selected participant*)
- o Advanced Climate Dynamics Course: “Dynamics of the Greenland Ice Sheet” 2014
Arctic Station, Qeqertarsuaq, Disko Island, West Greenland (*selected participant*)

- ComSciCon, Harvard University, Cambridge, Mass. 2014
Communicating Science Workshop for Graduate Students (*selected participant*)
- Stability and Variations of Arctic Land Ice, Subglacial Hydrology Short Course 2013
University of Iceland, Reykjavik, Iceland
- Geologic Field Mapping Course, University of Otago, Dunedin, New Zealand 2010

TRAINING & CERTIFICATIONS

- 1-day Basic Mountaineering Skills Course, 2022
Mooney Mountain Guides, Concord, NH, USA
- Fieldwork Safety Overseas Training, University of Oxford 2022
- British Antarctic Survey Field Training Modules 1–4 2021
- Antarctic Pre-Deployment Training & First Aid Course, British Antarctic Survey 2021
- Mental Health First Aider Certification, Mental Health First Aid England 2021–2024
- British Antarctic Survey Field Training Modules 1–4 2019
- Arctic Field Training, Polar Field Services 2016
- Wilderness First Aider Certification 2016–2018
University of Colorado Emergency and Wilderness Medicine
- 2-day Advanced Mountaineering Skills Course 2015
International Mountain Climbing School, North Conway, NH, USA
- 1-day Basic Mountaineering Skills Course, 2014
International Mountain Climbing School, North Conway, NH, USA
- Expeditionary Mountaineering (35 days) 2012
National Outdoor Leadership School (NOLS), Coyhaique, Chile

MEDIA COVERAGE, selected

- Dewsbery, S. (2022) [Expedition Data Recovery](#). *The Martlet, University College, U. of Oxford*.
- Barnett, E. (2021) [Women's Hour: Women of Snow and Ice; Sheila Watt-Cloutier; Antarctic Women; Nancy Campbell and Cold Water Swimming](#). *BBC Radio 4*.
- Kelly, M. (2021) [Rise and fall of water blisters offers glimpse beneath Greenland's thick ice sheet](#). *Princeton University Press Release*.
- Kroik, J. (2020) [As the World Turns](#). *The New Yorker*.
- Bayer, C. (2020) [This International Women's Day, Meet Four Wellesley Students and Alumnae Advocating for A Gender Equal World](#). *Wellesley College Press Release*.
- Provided commentary for Gramling, C. (2019) [Expanding ice slabs are increasing Greenland's contribution to sea level rise](#). *Science News*.
- Makalintal, B. (2016) [Glacier Pacer](#). *Wellesley Magazine*.
- Lippsett, L. (2015) [Scientists Find Trigger That Cracks Lakes](#). *Oceanus*.
- Chu, J. (2015) [A check on runaway lake drainage](#). *MIT News*.
- Mooney, C. (2015) [Scientists finally have an explanation for why huge lakes atop Greenland are vanishing](#). *Washington Post*.
- Mok, H.-F. (2015) [Wellesley in STEM: Interview with Laura Stevens, PhD Student at MIT and WHOI](#). *Wellesley Underground*.
- Davis, M., (2013) [Source to Sink: Exploring Greenland's Supraglacial Lakes and Sarqardleq Fjord](#). *Polar Field Services Field Notes Blog*.
- Taylor, A. and J. Raedle (2013) [Greenland: A Global Warming Laboratory](#). *The Atlantic*.

FIELD EXPEDITIONS

- LDEO & Oxford: Supraglacial Lakes on the Greenland Ice Sheet 2022(x2), 2023(x2)
Greenland Ice Sheet dynamic response to inland expansion of a hydrologically active ice-sheet bed
 GNSS, pRES, and pressure-sensor installation, maintenance, and removal.
- Colorado, Chicago, LDEO, & Cambridge: George VI Ice Shelf, Antarctic Peninsula 2019, 2021
Ice-shelf instability caused by active surface meltwater production, movement, ponding, and hydro-fracture
 Installation, maintenance, and recovery of GPS array, shallow firn cores, firn-column thermistors, Automatic Weather Stations (AWS), and pressure transducers.
- Scripps Institution of Oceanography & WHOI: Ross Ice Shelf, Antarctica 2016
Dynamic Response of the Ross Ice Shelf to Wave-induced Vibrations
 Recovery of GPS and broadband-seismic arrays.
- WHOI: East African Rift, Botswana 2014
Incipient Continental Rifting in the Okavango Rift, Botswana
 Deployed 800-km-long active seismology line with the SEISORZ team.
- WHOI: Disko Island and the Greenland Ice Sheet 2014
Investigating the influence of sea-surface variability on ice sheet mass balance and outlet glacier behaviour using records from Disko Bugt, West Greenland
 Shallow ice cores, snow-pit sampling, ice-penetrating radar.
- WHOI: Supraglacial Lakes on the Greenland Ice Sheet 2013, 2014
Influence of hydrofracture and surface melt variability on Greenland Ice Sheet flow
 GPS installation, maintenance, and removal; ground survey of hydro-fracture scarps.
- WHOI: Saqardleq Fjord, West Greenland 2013
Seasonal fluxes across submarine ice sheet margins: A pilot study in West Greenland
 Fjord hydrography survey via small boat and helicopter.
- Sea Education Association: WHOI Jake Pierson Summer Cruise 2012
SSV Corwith Cramer, New England Continental Shelf, oceanographic deployments.

PROFESSIONAL AFFILIATIONS

500 [Queer Scientists](#)

A LONG LIST OF CONFERENCE ABSTRACTS

- [37] *Poster*: †Gjerde, G., Behn, M.D., and L. A. Stevens (2022). Western Greenland Ice Sheet response to late season melt events: Implications for the evolution of sub-glacial hydrology. 2022 AGU Annual Meeting, Chicago, IL. Dec 12–16.
- [36] *Poster*: Stevens, L. A., Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Hewitt, I.J., and A. Stubblefield (2022). Tidewater-glacier response to supraglacial lake drainage. 2022 AGU Annual Meeting, Chicago, IL. Dec 12–16.
- [35] *Poster*: †Zhang, H., Katz, R.F., Stevens, L.A., Davis, T., and D. May (2022). Supraglacial lake drainage initiated by tidally induced hydrofracture on Amery Ice Shelf. 2022 AGU Annual Meeting, Chicago, IL. Dec 12–16.
- [34] *Poster*: MacAyeal, D., Banwell, A.F., Dell, R., Willis, I.C., and Stevens, L. A. (2022). Time-Lapse Photography as a Witness to George VI Ice Shelf's record-high melt in the 2019/2020 melt season. International Symposium on Ice, Snow and Water in a Warming World (Cryosphere 2022), International Glaciological Society, Reykjavík, Iceland, Aug 21–26.
- [33] *Poster*: Banwell, A.F., MacAyeal, D., Dell, R., Willis, I.C., and Stevens, L. A. (2022). Preliminary Analysis of Melt-Induced Ice-Shelf Flexure on George VI Ice Shelf Observed with GNSS. International Symposium on Ice, Snow and Water in a Warming World (Cryosphere 2022), International Glaciological Society, Reykjavík, Iceland, Aug 21–26.
- [32] *Talk*: †Zhang, H., Davis, T., Katz, R.F., Stevens, L.A., and D. May (2022). Basal hydrofractures near sticky patches. 2022 EGU General Assembly, Vienna, Austria. EGU22-5140. May 23–27.

- [31] *Poster*: †Gjerde, G., Behn, M.D., and L. A. Stevens (2021). Investigating transient speed-up associated with a late season melting event on the western Greenland Ice Sheet. 2021 Fall Meeting, AGU, New Orleans, LA. Dec 13–17.
- [30] *Invited Talk*: Stevens, L.A., Das, S.B., Behn, M.D., McGuire, J.J., Joughin, I., Nettles, M., and J. Kingslake (2021). Stress coupling between Greenland supraglacial lakes during rapid drainage. Presented at the 2021 International Associations of Cryospheric Sciences (Online) Annual Assembly, Worldwide. July 19–23.
- [29] *Poster*: Stevens, L. A., Das, S.B., Behn, M.D., Nettles, M., Kingslake, J., and I. Joughin (2020). Stress coupling between neighbouring supraglacial lakes during rapid drainage. 2020 Fall Meeting, AGU, San Francisco, D.C., Dec 7–11.
- [28] *Talk*: Lai, C.-Y., Stevens, L. A., Chase, D.L., Creyts, T.C., Behn, M.D., Das, S.B., and H.A. Stone (2020). Seasonally evolving hydraulic transmissivity beneath Greenland supraglacial lakes. 2020 Fall Meeting, AGU, San Francisco, D.C., Dec 7–11.
- [27] *Talk*: Banwell, A.F., Datta, R.T., Dell, R.L., Moussavi, M., Brucker, L., Picard, G., Shuman, C.A., and L. A. Stevens (2020). 32-year record-high surface melt in 2019/2020 on north George VI Ice Shelf, Antarctic Peninsula. 2020 Fall Meeting, AGU, San Francisco, D.C., Dec 7–11.
- [26] *Talk*: MacAyeal, D., Banwell, A.F., Sergienko, O.V., Macdonald, G.L., Willis, I.C., and Stevens, L. A. (2020). A low-order model of ice-shelf evolution combining flow and flexure. 2020 Fall Meeting, AGU, San Francisco, D.C., Dec 7–11.
- [25] *Talk*: Banwell, A.F., MacAyeal, D., Stevens, L. A., Willis, I., Dell, B. and Dunmire, D. (2020). Ice-shelf instability due to surface meltwater systems on the George VI Ice Shelf. 2020 European Geophysical Union General Assembly, Vienna, Austria, May 3–8.
- [24] *Talk*: Stevens, L. A., Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., and A. Stubblefield (2019). Flow response to supraglacial lake drainage events implicates partially channelized subglacial drainage system beneath Helheim Glacier, East Greenland. 2019 Fall Meeting, AGU, San Francisco, D.C., Dec 9–13.
- [23] *Talk*: Lai, C.-Y., Chase, D., Stevens, L. A., Creyts, T.C., and Stone, H.A. (2019). Relaxation of ice-sheet uplift on a porous bed. Bulletin of the American Physical Society, 72nd Annual Meeting of the APS Division of Fluid Dynamics, Seattle, WA, Nov 23–26.
- [22] *Poster*: Wearing, M., Stevens, L. A., Dutrieux, P., Kingslake, J. (2019). Ice-shelf secondary flow counteracts the growth of sub-shelf basal channels. 2019 West Antarctic Ice Sheet Meeting, Julian, CA, Oct 16–18.
- [21] *Talk*: Stevens, L. A., Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Ahlström, A.P., Larsen, T.B. (2019). Melt forcing of Helheim Glacier diurnal velocity fluctuations. 2019 LDEO Postdoc Symposium, Palisades, NY, Sept 11.
- [20] *Talk*: Stevens, L. A., Nettles, M., Davis, J.L., Creyts, T.C., and Kingslake, J. (2018). Role of melt forcing in diurnal velocity fluctuations of Helheim Glacier, East Greenland. 2018 Fall Meeting, AGU, Washington, D.C., Dec 10–14.
- [19] *Poster*: Wagner, T. J. W., Straneo, F., Rickards, C. G., Slater, D., Stevens, L. A., Das, S. B., Singh, H. (2018). Large spatial variations in the frontal mass budget of a Greenland tidewater glacier. 2018 Fall Meeting, AGU, Washington, D.C., Dec 10–14.
- [18] *Poster*: Wearing, M., Stevens, L. A., Dutrieux, P., Kingslake, J. (2018). Ice-shelf secondary flow counteracts growth of sub-ice-shelf channels. 2018 Fall Meeting, AGU, Washington, D.C., Dec 10–14.
- [17] *Talk*: Stevens, L. A., Nettles, M., Davis, J.L., Creyts, T.C., and Kingslake, J. (2018). Role of melt forcing in diurnal velocity fluctuations of Helheim Glacier, East Greenland. West Antarctic Ice Sheet Meeting, Palisades, New York, Sep 16–19.
- [16] *Talk*: Trusel, L.D., Pope, A., Moussavi, M., Das, S.B., and Stevens, L. A. (2018), Water on the Antarctic Ice Sheet: Quantifying surface melt via radar satellites, to be presented at the SCAR/IASC POLAR 2018 Meeting, Davos, Switzerland, June 15–26.
- [15] *Invited Talk*: Stevens, L.A., Behn, M.D., McGuire, J.J., Das, S.B., Joughin, I., Herring, T., Shean, D.E., and King, M.A. (2018), Communicating the mechanics of Greenland Ice Sheet supraglacial lake drainages to diverse audiences. Presented at the 2018 UNAVCO Science Workshop, Broomfield, CO. March 11–15.
- [14] *Invited Talk*: Stevens, L.A., Hewitt, I., Das, S.B., and Behn, M.D. (2017), Temporal variations in the relationship between surface speed and modeled effective pressure on the western margin of the Greenland Ice Sheet. Presented at the 2017 Fall Meeting, AGU, New Orleans, LA. Dec 11–15.

- [13] *Invited Talk: Stevens, L.A., Straneo, F., Das, S.B., Plueddemann, A.J., and Kukulya, A.L. (2016), Linking glacially modified waters to catchment-scale subglacial discharge using autonomous underwater vehicle observations. Ocean Outlook Meeting 2015: Icy Oceans, Woods Hole, Mass. Apr. 7–8.*
- [12] *Talk: Stevens, L. A., Behn, M.D., Das, S.B., Joughin, I., van den Broeke, M., Herring, T., and McGuire, J.J. (2015), The role of meltwater variability in modulating diurnal to inter-annual ice-sheet flow: New insights from a decade of high-temporal resolution GPS observations on the western Greenland margin. Presented at the 2015 Fall Meeting, AGU, San Francisco, California. Dec 14–18.*
- [11] *Talk: Stevens, L.A., Straneo, F., Das, S.B., Singh, H., Plueddemann, A.J., van den Broeke, M., and Morlighem, M. (2015), Evidence of multiple distinct subglacial meltwater plumes observed using the REMUS-100 autonomous underwater vehicle. Abstract 73A1865, International Symposium on Contemporary ice-sheet dynamics, International Glaciological Society, Cambridge, UK. Aug 17–22.*
- [10] *Talk: Stevens, L. A., Behn, M.D., Das, S.B., Joughin, I., McGuire, J.J., Herring, T., van den Broeke, M. (2015), Seasonal ice-flow variability surrounding three Greenland rapid supraglacial lake drainages. Abstract 72A1752, International Symposium on Hydrology of Glaciers and Ice Sheets, International Glaciological Society, Höfn, Iceland. Jun 21–26.*
- [9] *Talk Stevens, L. A., Straneo, F., Das, S.B., Singh, H., Plueddemann, A.J. (2015), Detection and characterization of multiple distinct subglacial meltwater plumes using the REMUS-100 autonomous underwater vehicle. Presented at the New England Glaciology Meeting, Woods Hole, Mass. Apr. 16–17.*
- [8] *Poster: Das, S.B., Evans, M., Frey, K., Osman, M., Smith, B., Stevens, L. A., Trussel, L., York, A., Bingham, M. (2014), Using Coastal Ice Cap Records to Investigate Maritime Climate and Ice Sheet Processes in West Greenland. Abstract C13B-0434. 2014 Fall Meeting, AGU, San Francisco, Calif., Dec 15–19.*
- [7] *Poster Stevens, L. A., Behn, M.D., McGuire, J.J., Das, S.B., Joughin, I., Herring, T., Shean, D.E., and King, M.A. (2014), Hydrologically Induced Basal Slip Triggers Greenland Supraglacial Lake Drainages. Abstract C53B-0302 presented at the 2014 Fall Meeting, AGU, San Francisco, Calif. Dec 15–19.*
- [6] *Talk: Das, S.B., Behn, M.D., Joughin, I.R., Fahnestock, M.A., McConnell, J.R., Stevens, L. A., Straneo, F., Plueddemann, A.J., Singh, H. (2013), The fate of Greenland meltwater: Progress and challenges in understanding the influence of surface melt on ice sheet dynamics and runoff in a highly transient hydrologic system, Abstract C44A-01. 2013 Fall Meeting, AGU, San Francisco, Calif., Dec 9–13.*
- [5] *Poster: Straneo, F., Das, S.B., Singh, H., Plueddemann, A.J., Richards, C., Mankoff, K.D., Stevens, L. A., (2013), Observations of a subglacial discharge plume at the edge of a Greenland tidewater glacier, Abstract OS11A-1635. 2013 Fall Meeting, AGU, San Francisco, Calif., Dec 9–13.*
- [4] *Talk: Stevens, L. A., Behn, M.D., Das, S.B., Joughin, I.R., Herring, T., King, M.A., McGuire, J.J. (2013), Contrasting ice sheet response to early and late summer rapid supraglacial lake drainage events on the Greenland Ice Sheet, Abstract C43D-02 presented at the 2013 Fall Meeting, AGU, San Francisco, Calif. Dec 9–13.*
- [3] *Talk: Stevens, L. A., Behn, M.D., Das, S.B., Joughin, I.R., King, M.A., (2013), Constraining ice sheet visco-elastic response to supraglacial lake drainage events, 7th Graduate Climate Conference, Woods Hole Oceanographic Institution, Woods Hole, Mass. Nov 1–3.*
- [2] *Poster: Stevens, L. A., Behn, M.D., Das, S.B., Joughin, I.R., King, M.A., (2013), Constraining ice sheet visco-elastic response to supraglacial lake drainage events, Program for Arctic Regional Climate Assessment (PARCA) Meeting, Goddard Space Flight Center, Greenbelt, Maryland. Jan 29.*
- [1] *Poster: Stevens, L. A., Ortiz, A.C., Ramachandirane, C.G., Stenquist, A.G., and Argow, B.A., (2010) Transport vs. Source: Quantifying Seasonal Controls on Beach Sediment Characteristics in Vieques, P.R., USA. Geological Society of America Abstracts with Programs, 42(5):100.*