

Laura A. Stevens, PhD *(she/they)*

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| Contact | Department of Earth Sciences University of Oxford South Parks Road Oxford, OX1 3AN UK | laura.stevens@earth.ox.ac.uk ORCID ID: 0000-0003-0480-8018 |
| Education | Massachusetts Institute of Technology , Cambridge, Mass. 2017 Woods Hole Oceanographic Institution , Woods Hole, Mass. <i>Ph.D.</i> , Geophysics <i>Influence of meltwater on Greenland Ice Sheet dynamics</i> Advisor: Sarah B. Das (WHOI) Wellesley College , Wellesley, Mass. 2011 <i>B.A.</i> , Geosciences, <i>cum laude</i> with Honors in the major <i>Certificate</i> , 1 st Place in Hooprolling | |
| Employment | Associate Professor of Climate and Earth Surface Processes 2020– Department of Earth Sciences, University of Oxford Supernumerary Fellow 2020– University College, University of Oxford Adjunct Research Scientist 2020– Seismology, Geology, & Tectonophysics, Lamont-Doherty Earth Observatory Postdoctoral Research Fellow 2018–2020 Marine Geology & Geophysics, Lamont-Doherty Earth Observatory Research Assistant/Guest Investigator/Summer Student Fellow 2011–2017 Geology & Geophysics, Woods Hole Oceanographic Institution | |
| Publications | | |
| In review | Stevens, L.A. , Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Hewitt, I.J., and A. Stubblefield (<i>In review</i>). High meltwater throughput limits Helheim Glacier response to lake drainage. Wearing, M.G., Stevens, L.A. , Dutrieux, P., and J. Kingslake (<i>In review</i>). Ice-shelf basal melt channels stabilized by secondary flow. | |
| Published | [12] Stevens, L.A. , Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Ahlstrøm, A.P., and T.B. Larsen (2021). Helheim Glacier diurnal velocity fluctuations driven by surface melt forcing . <i>Journal of Glaciology</i> , 1-13. doi:10.1017/jog.2021.74. [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 . <i>Nature Communications</i> , 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 . <i>Journal of Glaciology</i> , 1–18. 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.
- [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**
- [7] **Stevens, L.A.**, Nettles, M., Davis, J.L., Creyts, T.C., Kingslake, J., Ahlstrøm, 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.4656442.
- [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. gov.noaa.nodc: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

Pending

- (0) **NSFGEO-NERC Arctic Natural Sciences, NERC** Submitted: Aug 2021
Proposed Funding Period: September 2022–August 2025
Title: *NSFGEO-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) **NSFGEO-NERC Antarctic Glaciology, BAS** Submitted: Sept 2020
Proposed Funding Period: April 2022–March 2025
Title: *NSFGEO-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.
Note: Review decision delayed due to COVID-related logistical considerations.

Active

- [6] **Oxford University Press** (£37,747) August 2021–July 2026
Solicitation: John Fell Oxford University Press Fund for Early Career Researchers
Title: *Radar and remotely sensed observations of ice-sheet deformation*
PI: **L.A. Stevens**.
- [5] **NSF-ANS 20-03464** (\$722,623) October 2020–September 2023
Solicitation: NSF Office of Polar Programs, Arctic Natural Sciences
Title: *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.).
- [4] **NSF-OPP 18-41739** (\$805,041) June 2019–May 2023
Solicitation: Antarctic Glaciology (NSF) and British Antarctic Survey (NERC)
Title: *NSFGEO-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).

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| Completed | [3] | Lamont-Doherty Earth Observatory Postdoctoral Fellowship (\$135,500) | 2017 |
| | [2] | Horton Research Grant , AGU Hydrology Section (\$10,000) | 2015 |
| | [1] | NSF Graduate Research Fellowship Program (GRFP) (\$138,000) | 2012 |
| Academic Advising | | Department of Earth Sciences, University of Oxford Hanwen Zhang, ERC DPhil studentship (advised with Prof. Richard Katz) | 2020– |
| | | University College, University of Oxford Rebecca Colquhoun, NERC DTP in Environmental Research | 2020– |
| DPhil Examinations | | Department of Earth Sciences, University of Oxford Internal Examiner for Dr. Sam Cornish (advised by Prof. Helen Johnson)  <i>Understanding Freshwater Changes in the Arctic Ocean</i> | 2021 |
| Awards | → | Masters of Arts (by resolution), University of Oxford | 2021 |
| | → | AGU Editor's Citation for Excellence in Refereeing <i>Geophysical Research Letters</i> Recommended by Dr. Julienne Stroeve, University College London | 2018 |
| | → | Lamont-Doherty Earth Observatory Postdoctoral Fellowship | 2017 |
| | → | University of Chicago T.C. Chamberlin Postdoctoral Fellowship (<i>declined</i>) | 2017 |
| | → | Scripps Institution of Oceanography Postdoctoral Fellowship (<i>declined</i>) | 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 |
| | → | <i>cum laude</i> , 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 |
| → | American Mineralogist Undergraduate Award, Mineralogical Society of America | 2009 | |
| Department Colloquia & Seminars | [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. <i>Postponed</i> . | |
| | [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] LDEO, 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] LDEO, MGG-SGT Seminar. Nyack, NY. Feb. 2016.
- [1] 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

- o Mental Health First Aider 2021–
Department of Earth Sciences, University of Oxford
- o LGBT+ Role Model 2021–
LGBT+ Staff Network, University of Oxford
- o Committee Member, Workplace & Equality Committee 2020–
Department of Earth Sciences, University of Oxford
- o Co-organizer with Profs. Julie Cosmidis and Claire Nichols 2020–
Earth Sciences Department Seminar, University of Oxford
- o Associate Member Representative for the University of Oxford 2020–
UNAVCO, Inc.

- o 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
- o 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
- o Co-author with Drs. Chris Carr and Lauren Simkins 2021
Name Change Policy for International Glaciological Society Journals
- o Panelist, NERC DTP in Environmental Research, University of Oxford 2021
“LGBTQ+ Voices & Communities: Enabling Inclusivity in Environmental Research”
- o Panelist, Earth Science Postdoctoral Scientists, University of Oxford 2021
“Applying to Institutional Postdoctoral Fellowships and Faculty Positions in the US”
- o Host Researcher, Polar Horizons 2021 2021
Diversity in Polar Science Initiative, British Antarctic Survey
- o Session Co-convener, AGU Fall Meeting 2020 2020
“Advances in Glacier Hydrology”
- o 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 2019
“Controls on Tidewater Glacier Terminus Dynamics in Observations and Models”
- 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

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| | → Panelist, “Women Who Do Extreme Science” Graduate Women at MIT (GW@MIT) Empowerment Conference | 2016 |
| | → Session Co-convener, AGU Fall Meeting 2015 “Hydrology of Glaciers, Ice Caps, and Ice Sheets in Past, Present, and Future Climates” | 2015 |
| | → Abstract Chair, Cryosphere Section, Graduate Climate Conference | 2015 |
| | → Co-organizer, New England Glaciology Meeting | 2015 |
| | → Science-Engineering-Technology Congressional Visit Day | 2014, 2015 |
| | → Co-convener, APECS Career Panel, AGU Fall Meeting | 2014 |
| Workshops and Intensive Courses | → Crevasse Risk Management and Safety Workshop NSF Office of Polar Programs (<i>invited participant</i>) | 2021 |
| | → LGBT+ Role Models Workshop for University Staff Equality & Diversity Unit, University of Oxford | 2021 |
| | → NSF Next Generation of Polar Researchers Leadership Symposium University of Southern California Wrigley/Boone Center for Environmental Leadership, Catalina Island, CA (<i>selected participant</i>) | 2019 |
| | → Communicating Science for Impact Short Course 2018 UNAVCO Science Workshop, Boulder, CO | 2018 |
| | → NSF Workshop on Antarctic Surface Hydrology and Future Ice Shelf Stability Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY | 2018 |
| | → MIT Kauffman Teaching Certificate Program MIT Teaching and Learning Laboratory (<i>selected participant</i>) | 2017 |
| | → MIT Science Policy Initiative Congressional Visit Day MIT Washington Office, Washington, D.C. (<i>selected participant</i>) | 2015 |
| | → NSF Workshop on Subglacial Hydrology Lamont-Doherty Earth Observatory, Columbia University, Palisades, NY | 2014 |
| | → MIT Science Policy Initiative Executive Agencies Visit Day MIT Washington Office, Washington, D.C. (<i>selected participant</i>) | 2014 |
| | → Advanced Climate Dynamics Course: “Dynamics of the Greenland Ice Sheet” Arctic Station, Qeqertarsuaq, Disko Island, West Greenland (<i>selected participant</i>) | 2014 |
| | → ComSciCon, Harvard University, Cambridge, Mass. Communicating Science Workshop for Graduate Students (<i>selected participant</i>) | 2014 |
| | → Stability and Variations of Arctic Land Ice, Subglacial Hydrology Short Course University of Iceland, Reykjavík, Iceland | 2013 |
| | → Marine Resource Studies, School for Field Studies, Turks and Caicos Islands | 2008 |
| Training/ Certifications | → 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 University of Colorado Emergency and Wilderness Medicine | 2016–2018 |
| | → 2-day Advanced Mountaineering Skills Course International Mountain Climbing School, North Conway, NH, USA | 2015 |

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- 2-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**
 - 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 Raedle, J. (2013) [Greenland: A Global Warming Laboratory](#). *The Atlantic*.

 - Fieldwork**
 - LDEO & Oxford, Supraglacial Lakes on the Greenland Ice Sheet 2022, 2023
 GPS, ApRES, and pressure sensor installation, maintenance, and removal.

 - LDEO & U. of Colorado Boulder, George VI Ice Shelf 2019, 2021
Ice-shelf Instability Caused by Active Surface Meltwater
 Installation, maintenance, and recovery GPS array, shallow firn cores, firn column thermistors, Automatic Weather Stations (AWS), pressure transducers.

 - Scripps Institution of Oceanography & WHOI, Ross Ice Shelf 2016
Dynamic Response of the Ross Ice Shelf to Wave-induced Vibrations
 Recovered GPS and broadband seismic array

 - WHOI, East African Rift, Botswana 2014
Rifting in the Okavango: Incipient Continental Rifting in the Okavango Rift, Botswana
 Deployed 800-km-long active seismology line with SEISORZ team

 - WHOI, Disko Island and the Greenland Ice Sheet 2014
 Shallow ice cores, snow pit sampling, ice-penetrating radar

 - WHOI, Supraglacial Lakes on the Greenland Ice Sheet 2013, 2014
 GPS installation, maintenance, and removal; field survey of lake basin hydro-fracture features

 - WHOI, Saqardleq Fjord, West Greenland 2013
 Hydrographic survey of fjord via small boat and helicopter

 - Sea Education Association 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**
- [31] *Submitted:* Gjerde, G., Behn, M.D., and **L. A. Stevens** (2021). Investigating transient speed-up associated with a late season melting event. 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 Stubblefield, A. (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., Ahlstrøm, 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.**, Trusel, 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., Ramatchandirane, 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.