JESSICA SCHEICK, PHD

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Institute for the Study of Earth, Oceans, and Space | University of New Hampshire | Durham, New Hampshire, USA

EDUCATION

University of Maine *Orono, Maine, USA*
PhD in Earth & Climate Sciences; Interdisciplinary Climate Studies Certificate December 2018
Affiliations: School of Earth and Climate Sciences, Climate Change Institute
Dissertation: *Remote sensing of icebergs in Greenland's fjords and coastal waters*
Advisors: Dr. Gordon Hamilton (deceased October 2016), Dr. Ellyn Enderlin (Boise State, formerly University of Maine)

Bryn Mawr College *Bryn Mawr, Pennsylvania, USA*
AB in Geology & Mathematics, *Magna Cum Laude* May 2009
Senior Thesis: *Using Carbon and Nitrogen Isotopes and Loss-on-Ignition to Reconstruct the Land-use History of Block Island, Rhode Island, USA*
Advisors: Dr. Donald C. Barber (Geology) and Dr. Rhonda Hughes (Mathematics)

AT A GLANCE

- Active open-source software developer, educator, and example contributor (`icepyx`, Pangeo, `Binder`, *The Turing Way*, Hackweek organizer)
- Research Assistant Professor at the University of New Hampshire Earth Systems Research Center
- Doctorate from the University of Maine in earth and climate sciences (research focus: glaciology and remote sensing/GIS)
- Studies ice–ocean interactions and glacier dynamics using remote sensing and *in situ* observations
- Software proficiency in more than 10 proprietary and open-source packages (e.g., Python, QGIS, Matlab, ASP, tecq, LaTex), with a focus on scientific computing libraries for geospatial (raster/vector), image, and large-scale data processing (e.g. `Pandas`, `XArray`, GDAL, Dask)
- 3 peer-reviewed publications (2 as first-author)
- Grants/Fellowships awarded totaling over $550,000 (4 as a graduate student; 5 as PI or Co-PI). NASA open-source program had 13% funding rate; NASA Dissertation Fellowship had 16% funding rate.
- Conducted and led fieldwork around the world for nearly 10 years, including in Greenland
- 2 years professional experience in environmental consulting (Geosyntec Consultants) and intern at Asiaq, Greenland Survey
- Actively involved in service, outreach, and supervisory activities

RESEARCH INTERESTS

- Development of remote sensing-based data collection methods and open-source software tools for data and imagery analysis (including ICESat-2 and the Landsat archive)
- Ice–ocean interactions and how changes in oceanic forcing impact glacier flow dynamics
- Icebergs in the nearshore environment and their drift and decay
- Climate change and its impacts on the cryosphere and human–environment interactions
- Applied science, open science, science communication, and academic outreach and partnerships
- Scientific software development, training, and education
- Improving Justice, Equity, Diversity, and Inclusion in geoscience (including fieldwork)

RELEVANT GRANTS AND FELLOWSHIPS

Current

PI: NASA (2021–2023), *Open-source software to support research with ICESat-2 data*, $249,828,

Co-I: NASA E.7 Support for Open Source Tools, Frameworks, and Libraries (2021–2024), *Enhancing analysis of NASA data with the open-source Python Xarray Library*, $556,904, PIs: Scott Henderson (University of Washington) and Deepak Cherian (National Center for Atmospheric Research–NCAR)

Co-I: UNH CoRE (2021–2022), *Developing a Pathway toward Justice, Equity, Diversity, and Inclusion within EOS through Recruitment, Collaboration, and Research (JEDI-EOS)*, Team Lead Co-Is: Katharine Dudarstadt, Danielle Grogan, Shad Zuidema (all UNH)

Pending

Co-I: NSF Arctic Systems Science (2022–2026), *Collaborative RNA: A Regional Approach Toward Linking the Arctic with the North American East Coast*, $867,180, PI: Katharine Dudarstadt, Co-Is: Jack Dibb, Cameron Wake, Ruth Varner (all UNH)

Completed

PI: Oceans Melting Greenland (OMG)–NASA JPL (2017–2018), *Inferring Greenland fjord bathymetry using remote sensing observations*, $5,000, Co-PI: Dr. Ellyn Enderlin (Boise State, formerly UMaine)

Recipient: Travel Support (2016–2019), *Various*, $3800 (approx.), Travel funding provided by conference and workshop sponsors and organizers. Includes the International Glaciological Society, International Arctic Science Committee, Geohackweek, RemoteEx, and ICESat-2 Hackweek.

PI: NASA Earth and Space Science Fellow (2015–2018), *Remote Sensing of Icebergs in Greenland's Fjords and Coastal Waters*, $95,000, 16% funding rate. Co-PI 2015–2016: Dr. Gordon Hamilton (UMaine); Co-PI 2016–2018: Dr. Ellyn Enderlin (Boise State, formerly UMaine)

PI: Maine Space Grant Consortium Fellow (2015), *Tracking icebergs from space*, $6,000, Advisor: Dr. Gordon Hamilton (UMaine)

PI: Graduate Student Government (GSG) Grant (2013–2018), *Various*, $3,163.86, Multiple grants awarded from the UMaine GSG during four separate grant cycles to support traveling to courses, meetings, and conferences to present research (100% success rate in receiving funding)

Fellow: National Science Foundation IGERT Program (2012–2014), *Adaptation to Abrupt Climate Change (A2C2) Integrative Graduate Education and Research Traineeship (IGERT)*, $70,000+, Program Director: Dr. Jasmine Saros (UMaine)

Fellow: 2008–2009 Keck Geology Consortium Undergraduate Research Grant (2008–2009), *Block Island, Rhode Island: A Microcosm for the Study of Anthropogenic and Natural Environmental Change*, Advisors: Dr. Johan Varekamp (Wesleyan University) and Dr. Ellen Thomas (Wesleyan University)

Fellow: Summer Science Research Fellowship, Bryn Mawr College (2007), *History of Mill Creek*, $3600, Advisor: Dr. Catherine A. Riihimaki (Bryn Mawr College)

TEACHING AND OPEN SCIENCE EXPERIENCE

Hackweeks-as-a-service team member 2021–present
University of Washington eScience Institute *Seattle, Washington, USA*

- Generate resources and templates for a general framework for Hackweek events.
- Design surveys and evaluate participant experiences collected via survey results to improve the Hackweek model.
- Assist with planning and executing Hackweek events.
- Develop long-term planning and follow up resources for keeping participants engaged beyond the week long event.

Community Manager 2019–present
ICESat-2/icepyx community *New Hampshire, USA*

- Plan and run twice-monthly icepyx calls.
- Welcome new community members and contributors and provide one-on-one and group onboarding and training.
- Develop resources and educate disciplinary scientists in open-source and open science principles and practices.

ICESat-2 Hackweek Co-lead Organizer and Presenter 2019–present
University of Washington eScience Institute *Seattle, Washington, USA*

- Community lead organizer of multiple events to teach participants about software development tools and ICESat-2 datasets, including leading "hacking" projects to practice using the tools and data introduced.
- Events held in 2020 (virtual, Cryosphere-themed) and 2022 (virtual).
- Co-developed and co-taught a series of tutorials on ICESat-2 data access, focusing on programmatic data access using `icepyx`.
- (2020) Led a project team in collaborative development, contributing, and community building for `icepyx`.
- Assisted project teams with collaborative development projects using ICESat-2 data.
- Provided real-time support for participants using the icepyx and other open-source libraries.
- Shifted (on short notice) the 2020 event to a virtual space due to the COVID-19 pandemic.

Pangeo team member 2019–present
Pangeo community *Lee, New Hampshire, USA*

- Participate in weekly Pangeo sprints to work on scientific and development issues related to the Pangeo ecosystem
- Work with the Pangeo team to increase diversity among contributors
- Present at international meetings on the use of Pangeo and associated open-source tools

Open-source Software Developer for ICESat-2 Data Tools 2019–present
Self-employed/University of New Hampshire *New Hampshire, USA*

- Initiated development of a Python library (`icepyx`), to provide a community and clearinghouse for scientists working with ICESat-2 data to share code and promote open science workflows through the use of example Jupyter Notebooks.
- Develop open-source software, including documentation, testing, and examples, to enable machine learning and big data analyses and cloud/high performance computing with ICESat-2's 1 TB/day datasets.

- Collaborate with software engineers, developers, and cryospheric scientists to ensure software is relevant, directly applicable to scientific investigations, and computationally robust.
- Organize, teach at, and run annual hackweeks focused on ICESat-2 data. Run trainings and workshops at conferences and online to educate disciplinary researchers on these resources.

Ice Core Data Workshop Developer and Organizer 2019
University of Maine *Orono, Maine, USA*

- Developed tools for non-ice core specialists to easily and properly include ice core data in their research. Wrote Jupyter Notebooks in Python to demonstrate example workflows, including incorporation of a Matlab Engine to use pre-existing code libraries. Documented barriers to accessibility and use of ice core datasets.
- Worked with an interdisciplinary team to organize and plan an Ice Core Data Workshop, hosted at the University of Maine, focused on documenting and addressing current challenges associated with the formatting, archiving, access, and applications/use of ice core data.
- Coordinated workshop logistics, including setting up and managing the application, registration, and reimbursement processes, providing travel information and logistics support to attendees, and coordinating room blocks, local transportation, and field trips. Ordered food and catered the event.

Undergraduate research supervisor 2014–2018
University of Maine *Orono, Maine, USA*

- Abigail Bradford, Earth Sciences Major (graduated spring 2015)
- Emily E. Miller, Marine Sciences Major (graduated spring 2019)

Instructor, The Arctic Challenge–Climate Change, Cultures, and Conflicts 2016
University of Maine *Orono, Maine, USA*

Intern 2014 and 2018
Asiaq, Greenland Survey *Nuuk, Greenland*

Instructor, Abrupt Climate Change 2013
University of Maine *Orono, Maine, USA*

Co-organizer, IGERT Colloquium 2012–2013
University of Maine *Orono, Maine, USA*

OPEN-SOURCE SOFTWARE CONTRIBUTIONS

*See **"Teaching and Open Science Experience"** for more details*

Lead-developer and maintainer, `icepyx` 2019–present

Contributor, *The Turing Way* 2021–present
The Turing Institute

- Contributed a JupyterBook chapter on interactive resources for learning git.
- Revised and edited the novice GitHub chapters.
- Participated in the Fall 2021 Book Dash event. I contributed to chapters on peer review and measuring the impact of events.

Contributor, `Binder` 2020

RESEARCH

Fjord Bathymetry from Icebergs, Greenland 2020–2021

- Automated the workflow and expanded the spatial extent of seafloor bathymetry inferred using icebergs as depth sounders (see Fjord Bathymetry from Icebergs, West Greenland). Developed a Python library and set of example notebooks for automatically identifying icebergs in digital elevation models (DEMs) and using them to infer bathymetry. Applied the workflow to nearly 500 GB of DEMs in the Kane Basin region to improve existing bathymetry maps. In collaboration with the NASA–JPL Oceans Melting Greenland (OMG) science team.

Fjord Bathymetry from Icebergs, West Greenland 2016–2019

- Developed novel remote sensing-based methodology to infer bathymetry in several West Greenlandic fjords using icebergs as depth sounders. Inferred relative bathymetry based on iceberg movement patterns, and in regions of relatively shallow water, estimated quantitative bathymetry. Derived water depth estimates from iceberg drafts calculated from iceberg freeboards, which were extracted from digital elevation models constructed from stereo satellite image pairs collected by the WorldView satellites. Validated the newly inferred water depths, derived from over 1 TB of imagery, using regression to compare them to previously existing, gridded datasets. Portions of this project were in collaboration with NASA–JPL's OMG science team, and the resulting data contributed to the internationally used BedMachine gridded data product.

Disko Bay Icebergs, West Greenland 2013–2018

- Analyzed spatial and temporal changes in iceberg size distributions to infer changes in source glacier dynamics and enable safer navigation through Greenland's coastal waters. Extracted iceberg size distributions semi-automatically using a custom computer algorithm to detect icebergs across hundreds of optical satellite images. Building the algorithm included development and implementation of a machine learning-based cloud mask designed to differentiate between clouds and icebergs. The resulting 55 shapefiles contained upwards of 10,000 features each. Compared the iceberg size distributions with point and profile measurements of velocity and ice thickness extracted from publicly available datasets. Portions of this project were in collaboration with Asiaq, Greenland Survey, and developed with input from maritime operators and policymakers.

Past, Present, and Future of Water Resources, Huaraz, Peru 2013–2016

- Investigated past records of water availability and glacier retreat in Quebrada Quilcayhuanca (Cordillera Blanca, Peru). This interdisciplinary investigation included paleolimnologists, an economist, a paleoecologist, and was conducted in partnership with The Mountain Institute (Huaraz, Peru).

Inland Migration of Crevasses, West Greenland 2012–2015

- Investigated the inland migration of crevasses after a series of them appeared at Raven Camp during the summer of 2012. Studied the strain field along the Raven Camp flowline using high rate GPS observations.

Hubbard Glacier, Alaska, USA 2012–2014

- Explored controls on glacier flow rate variability using high rate GPS observations.

Byrd Glacier, Antarctica 2011–2018

- Investigating flow variability and subglacial hydrology of Byrd Glacier using high rate GPS observations collected from almost 50 sites occupied from several months to three years.

Block Island, Rhode Island, USA 2008–2009

- Identified historic land use patterns on Block Island through organic content analysis of lake sediments.

Bryn Mawr, Pennsylvania, USA 2007

- Investigated the effect of historic mill dams on modern day Mill Creek.

FIELD EXPERIENCE AND LEADERSHIP

Raven Camp Flowline, *West Greenland* 2012–2014

- Installed, surveyed, and retrieved cold-weather, high-precision GPS setups along a strain grid and flowline.
- Participated in five field camp (snowmobile) and helicopter-based field campaigns, leading three of them. These efforts included equipment, personnel, and logistics planning and preparation.
- Worked with helicopter pilots to assess safety conditions and land on the ice sheet and trained and oversaw field assistants.

Cordillera Blanca, *Peru* 2014

- Coordinated and participated in a field campaign to collect water samples and map lake bathymetry in several remote, high altitude lakes near the Quebrada Quilcayhuanca for paleolimnological and paleoecological investigations.

Byrd Glacier, *Antarctica* 2013

- Retrieved multi-year cold-weather GPS installations (including power generation and storage) from sites along the glacier trunk and in the catchment area.

Various Sites, *New Jersey, Pennsylvania, West Virginia, USA* 2009–2011

- Organized, planned, led, and participated in field efforts for the collection of a variety of environmental samples across over nine sites. Tasks included field campaign planning, simultaneous management of two or more field teams, and equipment preparation, maintenance, and troubleshooting.
- Oversaw the operation, maintenance, and calibration of multiple types of long-term monitoring equipment and ensured samples and equipment met strict quality control standards.
- Collected and/or processed thousands of surface water, groundwater, sediment, marsh, soil, biota, air, and bedrock samples, including duplicates and blanks, as part of Phase I and Phase II Remedial Investigations.

Block Island, *Rhode Island, USA* 2008

- Collected and processed sediment cores and surface sediment samples using a boat-based vibracorer and grab sampler. Recorded sampling locations.

Powder River Basin, *Wyoming, USA* 2006

- Collected clinker samples, recorded GPS measurements, and mapped sampling locations.

CERTIFICATIONS AND SHORT COURSES

NASA Cloud Hackathon: Transitioning Earthdata Workflows to the Cloud 2021
NASA OpenScapes Mentors cohort *virtual, USA*

ICESat-2 Hackweek 2019
University of Washington eScience Institute *Seattle, Washington, USA*

Expert Witness Training Academy (EWTA) 2017
Mitchell Hamline School of Law *St. Paul, Minnesota, USA*

Geohackweek 2016
University of Washington eScience Institute *Seattle, Washington, USA*

New England Complex Systems Institute (NECSI) Courses, *Boston, Massachusetts, USA* 2013

GPS Processing Short Courses May 2012 and July 2013
UNAVCO *Boulder, Colorado, USA*

Geologist-in-training, *New Jersey and Pennsylvania, USA* 2011

40-hour HAZWOPER Training, *USA* 2009

PUBLICATIONS AND ABSTRACTS

Scheick, J., Bisson, K., Li, T., Leong, W., Arendt, A., (2021). "Collaborative Computational Resource Development around ICESat-2 Data: the icepyx Community and Library". Abstract and poster (presented by Wei Ji Leong). American Geophysical Union Fall Meeting, New Orleans, LA, USA. 13-17 December 2021.

Henderson, S. (July 2021). *SnowEx Hackweek JupyterBook Tutorials*. Version 2021.07.23. DOI: 10.5281/zenodo.5590433.

Arendt, A., **Scheick, J.**, Shean, D., Buckley, E., Grigsby, S., Haley, C., Heagy, L., Mohajerani, Y., Neumann, T., Nilsson, J., Markus, T., Paolo, F. S., Perez, F., Petty, A., Schweiger, A., Smith, B., Steiker, A., Alvis, S., Henderson, S., Holschuh, N., Liu, Z., Sutterley, T., (Aug. 2020). *2020 ICESat-2 Hackweek Tutorials*. Version 1.0.0. DOI: 10.5281/zenodo.3966463.

Scheick, J., Arendt, A., Heagy, L., Paolo, F., Perez, F., Steiker, A., (2020). "icepyx: Developing Community and Software Around ICESat-2 Data". Abstract and eLightning (poster + presentation). American Geophysical Union Fall Meeting, virtual, USA. 1-17 December 2020.

Scheick, J. (2020). "Pangeo for training: Uses, Lessons Learned, and a User Perspective". Earth Science Information Partnership (ESIP) 2020 Summer Meeting, Putting Data to Work, 14-24 July 2020. URL: https://static.sched.com/hosted_files/2020esipsummermeeting/f4/JScheick_ESIP_Pangeo-for-training_2020-07-23.pdf.

Scheick, J., Arendt, A., Heagy, L., Perez, F., (2019). *Introducing icepyx, an open source Python library for obtaining and working with ICESat-2 data*. Abstract and poster. American Geophysical Union Fall Meeting, San Francisco, California, USA. 9-13 December 2019. DOI: 10.1002/essoar.10501423.1.

Scheick, J., Enderlin, E. M., Miller, E. E., Hamilton, G., (2019). "First-order estimates of coastal bathymetry in Ilulissat and Naajarsuit Fjords, Greenland, from remotely-sensed iceberg observations". In: *Remote Sensing* 11 (8), p. 935. DOI: 10.3390/rs11080935.

Scheick, J., Enderlin, E. M., Hamilton, G., (2019). "Semi-automated open water iceberg detection from Landsat applied to Disko Bay, West Greenland". In: *Journal of Glaciology* 65 (251), pp. 468–480. DOI: 10.1017/jog.2019.23.

Scheick, J., Enderlin, E. M., Miller, E. E., Hamilton, G., (2018). "Icebergs as Depth Sounders: Improving Bathymetry Maps in Uncharted Regions". Abstract and poster. American Geophysical Union Fall Meeting, Washington, DC, USA. 10-14 December 2018.

Scheick, J., Enderlin, E. M., Hamilton, G., (2017). "Remote sensing of icebergs in Disko Bay, west Greenland". Abstract and poster. International Symposium on Polar Ice, Polar Climate, Polar Change: Remote sensing advances in understanding the cryosphere. International Glaciological Society. University of Colorado Boulder, Boulder, Colorado, USA. 14-19 August 2017.

Scheick, J., Enderlin, E. M., Hamilton, G., (2017). "Enhancing Greenland fjord bathymetry maps using remotely sensed data". Abstract and talk. International Arctic Science Committee - Network on Arctic Glaciology (IASC-NAG) Workshop. Bethel, Maine, USA. 23-25 January 2017.

Scheick, J., Enderlin, E. M., Hamilton, G., (2016). "Improving Greenland fjord bathymetry maps from space". Abstract and talk. American Geophysical Union Fall Meeting, San Francisco, California, USA. 12-16 December 2016.

Scheick, J., Enderlin, E. M., Hamilton, G., (2016). "Inferring Greenland fjord and coastal bathymetry using icebergs". Abstract, poster, and IGNITE talk. International Symposium on Interactions of Ice Sheets and Glaciers with the Ocean. International Glaciological Society. Scripps Institution of Oceanography, La Jolla, California, USA. 10-15 July 2016.

Stearns, L. A., Hamilton, G., Veen, C. J., Finnegan, D. C., O'Neel, S., **Scheick, J.**, Lawson, D. E., (2015). "Glaciological and marine geological controls on terminus dynamics of Hubbard Glacier, southeast Alaska". In: *Journal of Geophysical Research-Earth Surface* 120, pp. 1065–1081. DOI: 10.1002/2014JF003341.

Scheick, J., Hamilton, G., Butler, M. B., Mätzler, E., Abermann, J., (2015). "Changes in iceberg size and distribution in Greenland's coastal waters". Abstract and talk. Arctic Frontiers 2015 Conference: Climate and Energy. Tromsø, Norway. 22 January 2015.

Scheick, J., Hamilton, G., Butler, M. B., Mätzler, E., Abermann, J., (2014). "Iceberg hazards and maritime traffic in Disko Bay, West Greenland". Abstract and poster. American Geophysical Union Fall Meeting, San Francisco, California, USA. 15-19 December 2014.

Scheick, J., Hamilton, G., (2013). "Using high rate GPS observations to investigate two subglacial lakes under Byrd Glacier, Antarctica". Mini-paper and talk. Harold W. Borns, Jr. Symposium. Climate Change Institute, University of Maine, Orono, Maine USA. 22-23 April 2013.

Scheick, J., Hamilton, G., (2012). "Hubbard Glacier, AK: a brief history and preliminary velocity results from high rate GPS observations". Mini-paper and talk. Harold W. Borns, Jr. Symposium. Climate Change Institute, University of Maine, Orono, Maine USA. 5-6 April 2012.

Varekamp, J. C., Thomas, E., Bartolai, A., Gillig, S., Kravet, E., Neurath, R., **Scheick, J.**, Veeneman, C., (2010). "The Evolution of Great Salt Pond (Block Island, RI) over the last 3500 years". Geological Society of America Abstracts with Programs, Vol. 42, No. 1.

Scheick, J. (2009). "Using Carbon and Nitrogen Isotopes and Loss-on-Ignition to Reconstruct the Land Use History of Block Island, Rhode Island". In: Proceedings of the 22nd Annual Keck Research Symposium in Geology, pp. 297–301.

TALKS WITHOUT ABSTRACTS

Scheick, J. (2021). "icepyx: an ICESat-2 user community and software library". ICESat-2 Applications Quarterly Call, 12 May 2021.

Scheick, J., Kotlinski, N., Steiker, A., (2021). "IceFlow and icepyx: Python tools for harmonizing laser altimetry datasets in an open science framework". NASA Earthdata Webinar, 28 April 2021.

Scheick, J. (2020). "Icebergs, satellites, and open science". Georgia Tech Invited Seminar Series (Ice-T), Ice and Climate Group, 23 July 2020.

Scheick, J. (2020). "Remote sensing, software development, and their applications in cryospheric research". Brown bag, University of New Hampshire Earth Science Research Center. 3 March 2020.

Scheick, J., Enderlin, E. M., Miller, E., (2019). "First-order bathymetry estimates from remotely sensed icebergs". Webinar. NASA Oceans Melting Greenland (OMG) Science Team Meeting. 13-14 June 2019.

Scheick, J., Enderlin, E. M., Hamilton, G., (2018). "Icebergs in Disko Bay: remotely sensed indicators of terminus change and bathymetry". Invited seminar, USACE Cold Regions Research and Engineering Lab (CRREL), Hanover, New Hampshire, USA. 17 September 2018.

Scheick, J., Enderlin, E. M., Hamilton, G., (2018). "Automated iceberg detection using Landsat: method and example application in Disko Bay, west Greenland". Invited seminar, Asiaq Greenland Survey, Nuuk, Greenland. 19 April 2018.

Scheick, J., Enderlin, E. M., Hamilton, G., (2017). "Improving Greenland fjord bathymetry maps from space". Webinar. NASA Oceans Melting Greenland (OMG) Science Team Meeting. 22-23 June 2017.

Scheick, J., Enderlin, E. M., Hamilton, G., (2017). Remote sensing of icebergs in Disko Bay, west Greenland. RemoteEx Workshop, Iceland. 12-17 June 2017.

Scheick, J. (n.d.). Invited opening speaker and talk ("Becoming a glaciologist"). First Lego League State Championship, hosted by Maine Robotics. Augusta, Maine, USA. 10 December 2016.

Scheick, J., Hamilton, G., Butler, M. B., Mätzler, E., Abermann, J., (2015). "Changes in iceberg size and distribution in Greenland's coastal waters". Northeast Glaciology Meeting. Woods Hole Oceanographic Institute, Massachusetts, USA. 16-17 April 2015.

Scheick, J., Belknap, S., (2013). "Abrupt climate change and human well-being in the high-Arctic". INT-500 Seminar Series, IGERT, Climate Change Institute, and School of Policy and International Affairs, University of Maine, Orono, Maine, USA. 23 October 2013.

Scheick, J. (2013). "Changes in glacier flow and adaptation to abrupt climate change". IGERT Annual Retreat, Darling Marine Center, Damariscotta, Maine, USA. 13 September 2013.

Scheick, J. (2012). "Outlet glacier dynamics and adaptation to abrupt climate change". IGERT Annual Retreat, Schoodic Education and Research Center, Winter Harbor, Maine, USA. 14 September 2012.

Scheick, J. (2010). "Berry's Creek Study Area: the View from the Phrag". Geosyntec Consultants Groundwater Action Group Conference, Boston, Massachusetts, USA. 8-10 October 2010.

HONORS AND AWARDS

50 Rising Stars, Geospatial World 2022

The Honor Society of Phi Kappa Phi, University of Maine 2019

School of Earth and Climate Sciences Student Presentation Award, University of Maine 2018

NASA Earth and Space Science Fellowship, University of Maine 2015–2018

Climate Change Institute Borns Symposium Student Presentation Award, University of Maine 2015

Maine Space Grant Consortium Fellow, University of Maine 2015

NSF IGERT Fellow, University of Maine 2012–2014

Keck Geology Consortium Fellow, Bryn Mawr College 2008–2009

Summer Science Research Fellowship, Bryn Mawr College 2007

Girl Scout Gold Award, Delaware-Raritan Girl Scout Council, *New Jersey* 2004

PROFESSIONAL SERVICE AND OUTREACH

Justice, Equity, Diversity, and Inclusion in EOS (JEDI-EOS) council member, Institute for the Observation of Earth, Oceans, and Space (EOS), *University of New Hampshire* 2021–present

Steering Committee Member, EarthCube Annual Meeting Call for Notebooks 2022

Notebook Reviewer, EarthCube Annual Meeting 2021

Undoing Racism in the Geosciences (URGE) Pod member, ESRC-OPAL Pod, *University of New Hampshire* 2021

Manuscript Reviewer, Czech Polar Reports; HardwareX; The Cryosphere; Nature 2019–present

Proposal Reviewer, NASA Proposal Review Panel 2020

Reviewer, IUCN World Heritage Outlook Assessment (Ilulissat Icefjord World Heritage site) 2020

Steering Committee Member, University of Maine Arctic Network 2019

Simulation Leader, World Climate Simulation, *University of Maine* 2018–2019
Lead Maine middle and high school students in simulating a climate change negotiation.

Workshop Presenter, Expanding Your Horizons (STEM workshops for Maine middle school girls), *University of Maine* 2018

Local Organizing Committee Member, International Arctic Science Committee–Network on Arctic Glaciology (IASC–NAG) Annual Meeting 2017

Participant & Climate Change Institute Representative, Arctic Council events 2016
Met with the Council's Sustainable Development Working Group and attended the Maine-Arctic Forum.

Co-facilitator, Glaciology Group, *University of Maine* 2015–2018

Student Representative, Climate Change Institute (CCI) faculty, *University of Maine* 2014–2018
This role included development of official "CCI Graduate Student" definitions (2016).

Organizing Committee Member, CCI Annual Fieldtrip 2017

Student Host/Volunteer, Sustainable Consumption Research Action Initiative (SCORAI) conference, *University of Maine* 2016

Presenter, Challenger Learning Center of Maine 1st STEM Showcase, *Bangor, Maine, USA* 2015

Participant and Local Organizing Committee Member, CCI Climate Adaptation and Sustainability (CLAS) Conference, *University of Maine* 2015

Workshop Coordinator & Host, CCI's Climate Science Day, *University of Maine* 2013–2015

Poster Judge, Upward Bound Math Science STEM Symposium, *University of Maine* 2013

Grant Reviewer, Graduate Student Government, *University of Maine* 2011–2018

Student Representative, IGERT Steering Committee, *University of Maine* 2012–2013

PROFESSIONAL AFFILIATIONS

ICESat-2 Science Team (IS2ST)
International Glaciological Society (IGS)
American Geophysical Union (AGU)
New England Arctic Network (NEAN)
Association of Polar Early Career Scientists (APECS)
Earth Science Women's Network (ESWN)
Interagency Arctic Research Policy Committee (IARPC) Collaborations