Andrew J. Christ

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EDUCATION

2019	Ph.D.	Boston University	Earth & Environment	Boston, MA
2011	B.A.	Hamilton College	Geosciences (Honors)	Clinton, NY
2010	--	University of Otago	International Student	Dunedin, NZ

EXPERIENCE

2019 – Present	Gund Postdoctoral Fellow, *Gund Institute for Environment, University of Vermont*
2019 – 2020	Lecturer, *Department of Geology, University of Vermont*
2018 – Present	Independent Consultant, *MacMillan Publishers, CENGAGE: Digital Learning & Online Textbooks*
2018 – 2019	Visiting Graduate Fellow, Department of Geology, *University of Vermont*
2015 – 2019	Graduate Research Fellow, *National Science Foundation*
2014 – 2015	GK12 STEM Graduate Teaching Fellow, *National Science Foundation*
2013 – 2019	Ph.D. Candidate, Department of Earth & Environment, *Boston University*
2011 – 2012	Environmental Scientist, *URS Corporation, Denver, CO*
2010	Research Fellow, Department of Geosciences, *Hamilton College*
2009	Teaching Assistant, *Hamilton College*
2008 – 2010	Hydrogeologist Intern, *URS Corporation, Denver, CO*

TEACHING

2019 – 2020	**Lecturer**, *Department of Geology, the University of Vermont*. Taught Environmental Geology (GEOL055, 38 students) and Earth System Science (GEOL001, 165 Students). Designed curriculum, field trips, and lab activities; taught environmental field geology methods and mapping skills; advised students on independent research projects; managed and mentored teaching assistants. Transitioned coursework to online instruction during COVID-19.
2018	**Assistant Faculty**, *Governor's Institute of Vermont, Environmental Science and Technology.* Taught environmental field methods related to stream ecology, water chemistry, and fluvial geomorphology. Created teaching materials on the interface of climate change and social justice issues. Mentored motivated high school students from around the state of Vermont during a week-long residential science program at the University of Vermont.

2015 – 2017 **Graduate Teaching Fellow**, *Boston University Research, Education, and Communication of Science Program (funded by the Howard Hughes Medical Institute).* Led and mentored three undergraduates on a research expedition to Antarctica in 2015, and taught them skills related to geomorphologic mapping, sample collection and management, soil pit sedimentology and stratigraphy, and GPS surveying. Advised students on semester-long science outreach media projects. Facilitated classroom discussions and helped organize semester-long invited seminar series. Supervised 15 students on summer internship projects that ranged in topic from creating science animations to geomorphologic mapping of Martian craters using ArcGIS. Presented introductory climate science lectures. Created and taught lab exercises.

2014 – 2015 **NSF STEM GK12 Graduate Teaching Fellow**, *Michael Driscoll School, Brookline, MA.* Served as the Resident Scientist and taught inquiry- and research-based curricula to 6th to 8th grades middle school students in general science classes. Developed a new climate science curriculum for 8th grade classes that integrated atmospheric science, oceanography, surface processes, and renewable energy topics. Designed hands-on laboratory activities to teach surface hydrology, hydrogeology, glaciology, and basic water chemistry for 6th grade classes. Taught 7th grade students the history of life on earth during units on genetics and evolution.

2014 **Teaching Fellow**, *Earth Surface Processes, Department of Earth & Environment, Boston University.* Integrated state-of-the-art visualization technologies to design and teach lab exercises focused on geospatial reasoning and geologic mapping. Created new assignments focused on Quaternary geochronologic techniques using research data from Antarctica. Presented lectures on geologic hazards, glacial geology, and North American geomorphology. Helped lead field trips in eastern Massachusetts.

2009 **Teaching Assistant**, *Hydrogeology, Geosciences Department, Hamilton College*. Graded laboratory assignments, led lab exercises, and assisted with field trips.

FIELDWORK

2015 - 2016 **Expedition Leader**, *McMurdo Dry Valleys and McMurdo Sound, Antarctica.* Responsible for coordinating field logistics, team safety, administering medical care, and executing scientific objectives. Led the scientific expedition to conduct glacial geologic mapping, sampling rocks for cosmogenic nuclide dating, and collection of fossil algae for radiocarbon dating on Mount Discovery, Black Island, the Cotton Glacier, and Olympus Range Mountains. NSF Project: "Collaborative Research: West Antarctic Ice Sheet stability, alpine glaciation, and climate variability: a terrestrial perspective from cosmogenic-nuclide dating in McMurdo Sound".

2014 - 2015 **Field Assistant**, *McMurdo Dry Valleys and McMurdo Sound, Antarctica.* Conducted glacial geologic mapping, sampling rocks for cosmogenic nuclide dating, and collecting short ice cores on Brown Peninsula, the Quartermain Mountains, and Mackay Glacier. NSF Project: "Collaborative Research: West Antarctic Ice Sheet

stability, alpine glaciation, and climate variability: a terrestrial perspective from cosmogenic-nuclide dating in McMurdo Sound".

2013 - 2014 **Field Assistant**, *McMurdo Dry Valleys and McMurdo Sound, Antarctica –.* Sampling clasts for cosmogenic nuclide dating in Taylor Valley, Wright Valley, Victoria Valley. Project: "Collaborative Research: Multi-nuclide approach to systematically evaluate the scatter in surface exposure ages in Antarctica and to develop consistent alpine glacier chronologies". Glacial geologic mapping and sampling clasts for cosmogenic-nuclide dating on Mount Discovery. NSF Project: "Collaborative Research: West Antarctic Ice Sheet stability, alpine glaciation, and climate variability: a terrestrial perspective from cosmogenic-nuclide dating in McMurdo Sound".

2013 **Field Assistant**, *Antarctic Peninsula, RVIB ARAON (Korea) – Field Assistant, Marine Geology & Geophysics.* International, interdisciplinary research cruise in the Antarctic Peninsula to study linkages between cryosphere, biosphere, ocean, atmosphere, and rapid recent climate change. Responsibilities included marine sediment core collection and sub-sampling, multi-beam swath bathymetric survey data editing, collection of rock samples for cosmogenic nuclide dating, physical oceanographic surveys, and sea ice coring. NSF Project: "Abrupt Environmental Change in the Larsen Ice Shelf System, a Multidisciplinary Approach - Marine and Quaternary Geosciences".

2011 - 2012 **Environmental Scientist**, *Western United States, URS Corporation.* Collected thousands of groundwater, surface water, soil, air, and radiation exposure samples at federal, state, and commercial environmental sites. Coordinated site visits and executed sampling events across the western US including former precious metal and uranium mines, Air Force bases, oil and gas facilities, and commercial sites. Managed and shipped thousands of samples according to Department of Energy and Department of Transportation regulations. Collaborated with state and federal agencies to design environmental sampling plans and future remediation services. Major clients: U.S. National Park Service, Kinder Morgan, U.S. National Forest Service, U.S. Air Force, Chevron, Colorado Department of Public Health and Environment.

2010 **Geology field school**, *New Zealand.*, University of Otago, Dunedin, New Zealand. Learned basic geologic field mapping skills on the South Island of New Zealand in the Otago, Canterbury, and Fiordland regions.

HONORS & AWARDS

2019 Gund Postdoctoral Fellowship Competition: Awarded, *Gund Institute for Environment, University of Vermont*

2018 AMQUA-CANQUA Meeting, Student Presentation Competition: 2nd Place, *CANQUA*

2018 Student Travel Award for the AMQUA-CANQUA Meeting, *AMQUA*

2017 Kenneth N. Weaver Student Travel Award, *Geological Society of America*

2017 Outstanding Graduate Seminar, *Dept. of Earth & Environment, Boston University*

2016	Outstanding Graduate Seminar, *Dept. of Earth & Environment, Boston University*
2015	Graduate Research Fellowship: Awarded, *National Science Foundation*
2014	Antarctica Service Medal of the United States, *U.S. Congress/National Science Foundation*
2014	Graduate Research Fellowship: Honorable Mention, *National Science Foundation*
2012	President's Award, *URS Corporation*. *Highest award conferred to employees in the global Infrastructure and Environment Division (>20,000 employees)*
2012	Pyramid Award for Safety, *URS Corporation*. *Regional corporate recognition.*
2011	Roger's Prize in Geology, *Hamilton College*. *Best department record and thesis project*
2011	Geosciences Departmental Honors, *Hamilton College*
2010 - 2011	1812 Leadership Scholar, *Hamilton College*
2008 - 2010	Dean's List, *Hamilton College*

PUBLICATIONS

**Undergraduate advisee*

In press

1. **Christ, A.J.**, Bierman, P.R., Schaefer, J.M., Dahl-Jensen, D., Steffensen, J.P., Corbett, L.B., Peteet, D.M., Thomas, E.K., Steig, E.J., Rittenour, T.M., Tison, J-L., Blard, P-H., Perdrial, N., Dethier, D., Lini, A., Hidy, A.J., Caffee, M., Southon, J., *in press,* "A multi-million-year-old record of Greenland vegetation and glacial history preserved in sediment beneath 1.4 km of ice at Camp Century", *The Proceedings of the National Academies of Sciences of the United States of America*.

2. *Chamberlain, E.J., **Christ, A.J.**, Fulweiler, R.W., *in press,* "Linkages between hydroclimate, landscape evolution, and biogeochemistry in an ice-block lake in McMurdo Sound, Antarctica", *Antarctic Science*.

Published

1. Bierman, P.R., Bender, A.M., **Christ, A.J.,** Corbett, L.B., Halsted, C.T., Portenga, E.W., Schmidt, A.H., 2020 "Cosmogenic Nuclides in Earth Surface Processes", in *Reference Module in Earth Systems and Environmental Sciences,* https://doi.org/10.1016/B978-0-08-102908-4.00124-7, IBSN: 978-0-12-409548-9

2. **Christ, A.J.,** Bierman, P.R., Knutz, P., Corbett, L., Fosdick, J., Thomas, E., Cowling, O., Hidy, A., Caffee, M., 2020. "The Greenland Ice Sheet during the Early Pleistocene was similar to today", G*eophysical Research Letters*, 47, e2019GL085176. https://doi.org/10.1029/2019GL085176

3. **Christ, A.J.**, Bierman, P.R., 2020. "The local Last Glacial Maximum in McMurdo Sound, Antarctica: implications for ice-sheet behavior in the Ross Sea Embayment", *Geological Society of America Bulletin.* v.132, no. 1-2, 31–47. doi: 10.1130/B35139.1

4. Kim, S., Yoo, K.C, Lee, J.I., Khim, B., Bak, Y., Lee, M.K., Lee, J., Domack, E.W., **Christ, A.J.,** Yoon, H., 2018. "Holocene paleoceanography of Bigo Bay, west Antarctic Peninsula: Connections between surface water productivity and nutrient utilization and its implication for surface-deep water mass exchange". *Quaternary Science Reviews*, v.192, p.59-70. doi:10.1016/j.quascirev.2018.05.028

5. **Christ, A.J.,** Talaia-Murray, M., Elking, N., Domack, E.W., Leventer, A., Lavoie, C., Brachfeld, S., Yoo, K., Gilbert, R., Jeong, S., 2015. "Late Holocene Glacial advance and ice shelf growth, Barilari Bay, Graham Land, west Antarctic Peninsula". *Geological Society of America Bulletin*, v.127, no. 1-2. doi:10.1130/B31035.1

CONFERENCE ABSTRACTS, POSTERS, AND PRESENTATIONS

**Denotes student advisee*

1. *Invited* – **Christ, A.,J.,** Bierman, P.R., Schaefer, J.M., Dahl-Jensen, D., Steffensen, J.P., Steig, E.J., Thomas, E.K., Peteet, D.M., Rittenour, T.M., Corbett, L.B., Tison, J.L., Blard, P.H., Perdrial, N., Dethier, D.P., Lini, A., Hidy, A.J., Caffee, M.W., Southon, J., 2020. "A multi-million-year record of vegetation and ice-cover in the basal sediment from the Camp Century ice core, northwestern Greenland". AGU2020

2. **Christ, A.J.,** Bierman, P.R., Schaefer, J.M., Dahl-Jensen, D., Steffensen, J.P., Steig, E.J., Thomas, E.K., Peteet, D.M., Rittenour, T.M., Corbett, L.B., Tison, J.L., Blard, P.H., Perdrial, N., Dethier, D.P., Lini, A., Hidy, A.J., Caffee, M.W., Southon, J., 2020, "Camp Century ice core basal sediments contain a multi-million-year rocrd of ice-cover and vegetation in northwestern Greenland". Online oral presentation Geological Society of America Abstracts with Programs. Vol 52, No. 6. doi: 10.1130/abs/2020AM-357268

3. **Christ, A.J.,** Perdrial, N., Bierman, P.R., Hughes, J., Knutz, P.C., Thomsen, T.B., Hemming, S., Fosdick, J.C., Dahl-Jensen, D., Steffensen, J.P, 2020. "Camp Century basal sediment revisited: a multi-parameter geochemical analysis, northwest Greenland". Online oral presentation. Goldschmidt2020 Abstract.

4. **Christ, A.J.**, Bierman, P., Dahl-Jensen, D., Steffensen, J., Peteet, D., Thomas, E., Cowling, O., Steig, E., Corbett, L., Schaefer, J., Hidy, A., Caffee, M., Rittenour, T., Tison, J.-L., Blard, P.-H., Protin, M., and Southon, J., 2020. "Camp Century ice core basal sediments record the absence of the Greenland Ice Sheet within the last million years", EGU General Assembly 2020, Online, 4–8 May 2020, EGU2020-12243, https://doi.org/10.5194/egusphere-egu2020-12243, 2020

5. **Christ, A.J.,** Bierman, P.R., Knutz, P., Corbett, L., Fosdick, J., Thomas, E., 2019. "Extracting histories of climate, erosion, and vegetation from glacial marine diamict, an under-utilized archive: proof of concept from Melville Bugt, NW Greenland". Oral Presentation. Geological Society of America Abstracts with Programs. Vol. 51, No. 5, Phoenix, AZ doi: 10.1130/abs/2019AM-338462

6. Bierman, P.R., Montgomery, D.R., **Christ, A.J.**, 2019, Key Concepts in Geomorphology – edition 2 of a community-based textbook. Poster presentation. Geological Society of America Abstracts with Programs. Vol. 51, No. 5, Phoenix, AZ, doi: 10.1130/abs/2019AM-336235

7. **Christ, A.J.,** Bierman, P.R., Knutz, P., Corbett, L., Fosdick, J., Thomas, E., 2019. "Developing multi-proxy analyses for an under-utilized archive, glacial marine diamict: a proof-of-concept from west, Greenland". Poster presentation. International Union of Geodesy and Geodynamics Meeting, Montreal, QC.

8. **Christ, A.J.,** Bierman, P.R., Knutz, P., Corbett, L., Fosdick, J., Thomas, E., 2019. "Developing new proxies for an under-utilized archive, glacial marine diamict: a pilot study from West Greenland". Poster presentation. Arctic Workshop, Stockholm, Sweden.

9. **Christ, A.J.**, Bierman, P.R., 2018. "Distribution and sources of scatter in Antarctic exposure age chronologies: a case study from McMurdo Sound". Poster presentation. Geological Society of America Abstracts with Programs. Vol. 50, No. 6, Indianapolis, IN. doi: 10.1130/abs/2018AM-322603

10. *Chamberlain, E.J., **Christ A.J.**, Fulweiler, R.W. 2018. "Exploring the hydrologic and biogeochemical controls on the ecology of Lake Eggers, McMurdo Sound, Antarctica". Poster, Abstract No. #22, 82nd American Society for Microbiology Southern California Branch Annual Meeting, La Jolla, CA.

11. Bierman, P.R., Corbett, L.B., **Christ, A.J.**, Halsted, C., 2018 "You can learn and do cosmogenic Be-10 and Al-26 at the University of Vermont's community sample processing facility". Poster presentation. Joint Meeting of the American Quaternary Association and Canadian Quaternary Association, Ottawa, ON.

12. **Christ, A.J.**, Bierman, P.R., 2018 "Integrating terrestrial and marine records of the LGM in McMurdo Sound, Antarctica: implications for grounded ice expansion, ice flow, and deglaciation of the Ross Sea Embayment". Oral presentation. Joint Meeting of the American Quaternary Association and Canadian Quaternary Association, Ottawa, ON. *Received 2nd place for Best Student Presentation*

13. *Hunter, J.M., *Young, C.A., **Christ, A.J.**, Withers, P., Marchant, D.R., 2018. "Survey of Martian Mid-Latitudinal Craters Containing Possible Glacial Landforms". Poster presentation. Abstract No. #1128. 49th Lunar & Planetary Science Conference, Houston, TX.

14. Dennis, D.P., Marchant, D.R., **Christ, A.J.,** Ehrenfeucht, S., and BURECS Science Team, 2017. "BURECS: An Interdisciplinary Undergraduate Climate Science Program". Abstract No. 241306 (Poster). AGU Fall 2017 Meeting, New Orleans, LA.

15. **Christ, A.J.**, Marchant, D.R., 2017. "Integrating terrestrial and marine records of the LGM in McMurdo Sound, Antarctica: implications for grounded ice expansion, ice flow, and deglaciation of the Ross Sea Embayment". Abstract No. C21E-1167 (Poster). AGU Fall 2017 Meeting, New Orleans, LA.

16. **Christ, A.J.,** Marchant, D.R., 2017. "Glacial geomorphologic map of McMurdo Sound, Antarctica (78°S): a terrestrial record of Late Pleistocene glaciations in the Ross Sea with implications for former ice sheet volume and contribution to deglacial sea level rise." Poster presentation in the Best Student Geologic Map Competition, Geological Society of America Abstracts with Programs. vol. 49, no. 6, Seattle, WA, October, 2017. doi: 10.1130/abs/2017AM-305337

17. **Christ, A.J.,** Marchant, D.R., 2017. "A terrestrial perspective of the LGM in McMurdo Sound, Antarctica: implications for marine ice sheet dynamics, ice flow, and deglaciation of the Ross Sea Embayment" Oral presentation, Geological Society of America Abstracts with Programs. vol. 49, no. 6, Seattle, WA, October, 2017. doi: 10.1130/abs/2017AM-305311

18. Kim, S., Yoon, H.I., Yoo, K., Lee, J.L., Lee, M.K., Khim, B.K., Domack, E.W., **Christ, A.J.**, 2016. "Record of Holocene paleoclimate change in outer Bigo Bay, West Antarctic Peninsula". Scientific Committee on Antarctic Research: Biennial Meetings & Open Science Conference, Kuala Lumpur, Malaysia, August, 2016.

19. Domack, E.W., Shevenell, A., Smith, K., Rosenheim, B., Ishman, S., Leventer, A., Subt, C., Peck, D., Yoon, H., Yoo, K., Wellner, J., Seong, Y.B., Evans, J., **Christ, A.J.**, Jeong, A., 2016 "A high resolution record of trans-Antarctic peninsula ice stream retreat and a comparison of potential forcing mechanisms". Scientific Committee on Antarctic Research: Biennial Meetings & Open Science Conference, Kuala Lumpur, Malaysia, August, 2016.

20. **Christ, A.J.,** Talaia-Murray, M., Domack, E.W., Leventer, A., Lavoie, C., Brachfeld, S., Yoo, K., Gilbert, R., Jeong, S., Wellner, J., 2014. "Late Holocene glacial advance and ice shelf growth in Barilari Bay, Graham Land, west Antarctic Peninsula". Oral presentation, Geological Society of America Meeting Abstract, vol. 46, no. 6, Vancouver, Canada, October, 2014.

21. Domack, E.W., **Christ, A.J.,** Brachfeld, S., 2013. "Chronology of Late Holocene paleoenvironmental variability of Barilari Bay, west Antarctic Peninsula". Oral presentation, Larsen Ice Shelf System (LARISSA) Research Group Meeting. Lamont-Doherty Earth Observatory, Columbia University, NY, May, 2013.

22. Elking, N.C., Talaia-Murray, M., **Christ, A.J**., Domack, E.W., 2012 "Establishing a High Resolution Record of the Little Ice Age in Barilari Bay, Graham Land". Poster presentation at the 12th Scientific Committee on Antarctic Research (SCAR) Meeting. Portland State University, Portland, OR, July, 2012.

23. **Christ, A.J.,** Slape, K.N., URS Corporation, 2012. "Leavenworth Creek Data Gap Analysis Report". Oral presentation to the U.S. Forest Service, U.S. Geological Survey, U.S. Environmental Protection Agency, and Colorado Department of Public Health and Environment regarding stream quality degradation in a high alpine stream due to historic mining activities. United States Forest Service, Region 2 Office, Lakewood, CO, April 2012.

24. Jeong S., Gunter M., Leventer A., Domack, E.W., Vadman, K., Brachfeld, S., Rosenheim, B., Santoro, J., **Christ, A.J.**, 2011. "Diatom-based reconstruction of Holocene oceanographic conditions across the western Antarctic Peninsula shelf." Poster Presentation. 11th International Symposium on Antarctic Earth Sciences, Abstract P07.23, Edinburgh, Scotland, July, 2011.

25. **Christ, A.J.,** 2011. "Late Holocene paleoenvironmental history of Barilari Bay, Graham Land, west Antarctic Peninsula." Oral presentation. Larsen Ice Shelf System Antarctica (LARISSA) Research Group Meeting, National Snow and Ice Data Center, University of Colorado Boulder, June 2011.

26. **Christ, A.J.,** 2011. "Late Holocene paleoenvironmental history of Barilari Bay, Graham Land, west Antarctic Peninsula." Poster presentation. Central New York Earth Science Student Symposium, Syracuse University, April, 2011.

27. Peers, C., Verreydt, W., Kirievskaya, D., Sanchez Cervera, C., Povea de Castro, P., Jeong, S., Gao, S.J., **Christ, A.J.,** Kirshner, A.E., Domack, E.W., and the LARISSA undergraduate Team, 2011. "Ice shelves along the Western Antarctic Peninsula during the Little Ice Age: observations from the LARISSA project in Barilari Bay, Graham Land". Poster presentation. Geophysical Research Abstracts, Vol. 13, EGU2011-12184. European Geophysical Union General Assembly, Vienna, Austria, April, 2011.

28. Kirshner, A.E, **Christ, A.J.**, Allinger, T., Armbruster, G., Crawford, A., Elking, N., Gao, J., Gunter, M., Kirievskaya, D., Jeong, S.M., Peers, C., Castro P., Reardon, D., Sánchez Cervera, C., Talaia-Murray, M., Verreydt, W., Ward, M., 2010. "Evidence for more extensive Ice Shelves along the Western Antarctic Peninsula during the Little Ice Age: observations from the LARISSA project in Barilari Bay, Graham Land". Poster presentation, American Geophysical Union annual meeting, Abstract No. GC43E-1006, San Francisco, December, 2010.

INVITED SEMINARS

1. International Glaciological Society Global Seminar Series, March 2021, , "A multi-million-year-old record of Greenland vegetation and glacial history preserved in sediment beneath 1.4 km of ice at Camp Century".

2. Geology Webinar Series, University of Vermont, October 2020, “Frozen fossils a mile under ice: new insights from Greenland’s first ice core”.

3. School of Earth and Sustainability Seminar Series, Northern Arizona University, September 2020, “A multi-million-year record of glaciation and vegetation preserved beneath 1.4 km of ice at Camp Century, northwestern Greenland”.

4. Public Online Seminar, GFZ-Potsdam, Germany, May 2020, “Revisiting Camp Century: sub-glacial sediments record the absence of the Greenland Ice Sheet in the last million years”.

5. Polar Seminar Series, Scripps Institution of Oceanography, University of California San Diego, May 2020, “Revisiting Camp Century: sub-glacial sediments record the absence of the Greenland Ice Sheet in the last million years”.

6. edWeb.net & Jason Learning online seminar, November 2019, “Antarctic climate change: a polar problem with global consequences”. Broad audience of teachers and students of all ages, >250 attendees.

7. Department of Geology Seminar Series, University of Vermont, January 2018, “Antarctic climate change: a multi-faceted Earth system problem”.

8. Global Awareness Day, Cherry Creek High School, Greenwood Village, CO, February 2017, “From Creek to the Cryosphere: A Journey to Antarctica to Understand Global Climate Change”. Keynote speaker to >800 high school students.

9. Chemistry Department, Cherry Creek High School, Greenwood Village, CO, March 2015, "Antarctic Science: Implications for Our Future in a Warming World".

MENTORING EXPERIENCE

1. **Emily Cummings,** UVM College of Arts & Sciences, Class of 2022.

2. **Emelia Chamberlain**, BU College of Arts & Sciences, Class of 2018. *Now*: NSF Graduate Research Fellow & PhD Student, Scripps Institution of Oceanography & University of California San Diego

3. **Natalie Robinson**, BU College of Arts & Sciences, Class of 2018. *Now*: Orangutan Field Researcher in Borneo, Indonesia with the Boston University Biological Anthropology Lab

4. **Daniel Rybarcyzk**, BU College of Arts & Sciences, Class of 2018. *Now*: Barry Goldwater Scholar and PhD Student, Department of Astronomy, University of Wisconsin-Madison

5. **John Hunter**, BU College of Arts & Sciences, Class of 2019. *Now:* PhD Student, Department of Astrophysics, Purdue University

6. **Chase Young**, BU Undergraduate (Class of 2019)

PROFESSIONAL SOCIETIES

Geological Society of America, American Geophysical Union, Association for Polar Early Career Scientists, American Quaternary Association, European Geophysical Union

PEER-REVIEW SERVICE

Geology, GSA Bulletin, Boreas, Quaternary Geochronology

ACADEMIC ADVISORS

Post-Doc: Paul R. Bierman, University of Vermont (2019 – Present)

Ph.D.: Paul R. Bierman, University of Vermont/Boston University (2018 – 2019)

David R. Marchant, Boston University (2013 – 2017)

B.A.: Eugene W. Domack, Hamilton College (2009 – 2011, *deceased*)

SKILLS

Computer: ArcGIS 10.5, QGIS, GDAL, ENVI, R, MatLab, Python, Adobe Creative Suite (Illustrator & Photoshop), geospatial data management, digital photography

Laboratory: radiocarbon sample preparation, sediment distillation and sampling for volcanic crystals, cosmogenic nuclide sample preparation and extraction, scanning electron microscopy, ice core sampling, Malvern particle size analysis, wet sieving, foraminifera picking for radiocarbon analysis, rock and sediment sample repository organization

Field: cosmogenic nuclide rock sampling, soil pit excavation and sedimentological description, sampling fossil organic matter for radiocarbon dating, ice core hand auger drilling, differential GPS surveys, camp management, field logistics & operations, sample management, domestic and international shipping (including heavy, expensive, frozen, and/or radioactive materials), oceanographic water sampling, marine sediment core collection and sub-sampling (Kasten cores, gravity cores, multi-cores), sediment trap retrieval and subsampling, ground water sampling (passive diffusion bags, hand bailing, well pumping), surface water flow rate measurements, surface water sampling, Geoprobe and hollow stem auger drill logging and sediment sampling, monitoring well and piezometer completion, groundwater level measurement, LNAPL remediation well operation

RELEVANT COURSEWORK

Boston University. GPA: 3.95: Advanced Marine Geology, Micrometeorology, Marine Biogeochemistry, Ice Age Systems, Multivariate Statistics, Quantitative Geomorphology, Digital Image Analysis of Remotely Sensed Imagery, Modes of Climate Variability, Geophysical Fluid Dynamics, Tectonic Geomorphology.

Hamilton College. GPA: 3.66: Environmental Geology, Hydrogeology, Mineralogy, Structural Geology, Sedimentology & Paleoclimate, Paleontology, Industrial Ecology, Glacial Geology, ArcGIS for Geoscientists, Igneous & Metamorphic Petrology, Calculus II, Linear Algebra, Differential Equations, Statistics.

University of Otago. GPA: 4.0: Field studies in New Zealand Geology, Microfossils & Hydrocarbon Basins