

TARYN E. BLACK

Ph.D. Student

teblack@uw.edu • ATG 208B

University of Washington

Department of Earth and Space Sciences, Box 351310

Seattle, WA 98195, United States

EDUCATION

University of Washington, Seattle, WA 2016 – present
 Ph.D. Earth and Space Sciences (ESS)
 Graduate Certificate in Climate Science

Georgia Institute of Technology, Atlanta, GA 2013 – 2016
 M.S. Earth and Atmospheric Sciences (EAS)

University of Washington, Seattle, WA 2009 – 2013
 B.S. Earth and Space Sciences: Geology, with Department Honors, *cum laude*
 B.S. Physics

RESEARCH EXPERIENCE

Graduate Research Assistant Sept. 2016 – present
 Dr. Ian Joughin, Polar Science Center, Applied Physics Laboratory, University of Washington
Greenland outlet glacier changes on sub-seasonal to multi-decadal timescales

- Mapping Greenland outlet glacier terminus positions from satellite imagery.
- Comparing terminus positions with local climate trends to assess drivers of change.
- Mentored a post-baccalaureate student on satellite image processing techniques.

Graduate Research Assistant Aug. 2013 – May 2016
 Dr. Josef Dufek, Physical Volcanology Group, Georgia Institute of Technology
Effects of pulsating flow on eruption column dynamics

- Implemented unsteady flow in numerical models of volcanic eruptions.
- Developed MATLAB scripts to visualize model results and streamline the post-processing workflow.

TEACHING EXPERIENCE

Graduate Teaching Assistant (Primary Instructor)
 College of the Environment, University of Washington
CENV 500: Communicating Science to the Public Effectively Winter 2020

Graduate Teaching Assistant
 Department of Earth and Space Sciences, University of Washington
ESS 101: Introduction to Geology and Societal Impacts Summer 2018
ESS 213: Evolution of the Earth Spring 2018

Professional Development Assistant Instructor June 2015 – May 2016
 Gwinnett County (GA) Public Schools/Georgia Institute of Technology
Math and Science Partnership, K-5 Science Endorsement Program

Graduate Teaching Assistant
 School of Earth and Atmospheric Sciences, Georgia Institute of Technology
EAS 2600: Earth Processes Spring 2014

FIELD EXPERIENCE

Glaciology

Coleman Glacier (Mount Baker, WA); ice-penetrating radar July 2019
 Columbia Glacier (Cascades, WA); mass balance measurements Aug. 2016
 West Antarctic Ice Sheet; rock sampling, ice-penetrating radar, field/traverse support Winter 2012-13

Volcanology

Trans-Mexican Volcanic Belt; rock and ash sampling, remote sensing/ground truthing Mar. 2016
 Mount St. Helens (WA); supervised science projects and field trips for girls' geology camp Aug. 2015
 Aegean Islands (Greece); pumice sampling/analysis, volcanic stratigraphy Apr. 2014

FELLOWSHIPS AND AWARDS

Pacific Science Center Science Communication Fellow 2019
 National Science Foundation Graduate Research Fellowship 2014
 Georgia Tech Graduate President's Fellowship 2013

ACADEMIC SERVICE

Board Member – UW Engage (science communication program) Aug. 2019 – present
 Graduate Rep. – UW-ESS Curriculum Committee Sept. 2018 – present
 Graduate Rep. – UW-ESS Graduate Rep. to the faculty Sept. 2018 – present
 Coordinator – UW-ESS New Student Welcome Guide Aug. 2018 – present
 Coordinator – UW-ESS Graduate Student Housing Survey Feb. 2017 – present
 Peer Mentor – CryoMentoring, AGU Fall Meeting Dec. 2018, 2019
 Panelist – UW-Coll. Environment New Grad Student Orientation Sept. 2019
 Graduate Rep. – UW-Coll. Environment Student Advisory Council June 2017 – June 2018
 Committee Member – UW-ESS Research Gala Jan. 2018 – Apr. 2018
 Coordinator – UW-ESS Glaciology Lunch Jan. 2017 – Mar. 2018
 Committee Member – UW-ESS Prospective Student Open House Jan. 2017 – Feb. 2017
 Committee/Webmaster – Northwest Glaciologists Meeting Oct. 2016
 Co-founder/Organizer – GT-EAS Women in Geosciences Jan. 2014 – May 2016
 Committee Chair – GT-EAS First-Year Mentoring May 2014 – May 2015

PUBLIC SCIENCE COMMUNICATION

Speaking (* indicates invited lecture)

* Rapid Changes: The evolution of ice sheets and how we study them. *Association for Women in Science, Seattle Chapter*, 13 Nov. 2019.

How much, how fast? Deciphering a record of glacier change in Greenland. *Town Hall Seattle*, 2 Apr. 2019. [[watch it here](#)]

* How much, how fast? Building a record of glacier change in Greenland. *Seattle University*, 8 Mar. 2019.

Writing

Mount St. Helens is not acting up. *UW Engage Science Blog*, 20 Mar. 2019. Retrieved from <https://www.engage-science.space/blog/2019/3/20/mt-st-helens-is-not-acting-up>

Building Relationships to Promote Science-Based Decision Making. *Union of Concerned Scientists USA Blog*, 2 Mar. 2018, with M. Diamond and E. Kahle. Retrieved from <https://blog.ucsusa.org/science-blogger/building-relationships-to-promote-science-based-decision-making>

Other Service Activities

Activity Coordinator – Polar Science Weekend (glaciers and ice cores)	Winters 2019 – present
Volunteer – Letters to a Pre-Scientist	Sept. 2019 – present
Volunteer – Polar Science Weekend @ Pacific Science Center	Winters 2017 – present
Volunteer – UW-ESS Rockin’ Out (<i>K12 outreach group</i>)	Sept. 2016 – present
Panelist – Winterfest climate panel, The Northwest School, Seattle, WA	Dec. 2019
Guest Speaker – Honors Earth Science, Timbercrest Middle School, Woodinville, WA	Apr. 2019
Guest Speaker – Freshmen Earth Science, Monroe High School, Monroe, WA	Apr. 2019
Guest Speaker – Skype a Scientist	Mar. 2019
Volunteer – GeoGirls summer camp, Mount St. Helens Institute/USGS	Aug. 2015

PROFESSIONAL SKILLS

Certifications: Wilderness First Aid, Basic First Aid/CPR, PADI Open Water Diver (SCUBA)

Languages: English (native), Italian (intermediate), Spanish (basic)

Scientific Computing: Python, MATLAB, ArcGIS, Git, Bash

SCIENTIFIC PUBLICATIONS

Datasets

Joughin, I., T. Moon, J. Joughin, & T. Black. 2015, 2017. MEaSUREs Annual Greenland Outlet Glacier Terminus Positions from SAR Mosaics, Version 1. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. doi: doi.org/10.5067/DC0MLBOCL3EL.

Journal Articles

Black, T. & Joughin, I. Controls on multi-decadal variability of marine-terminating outlet glaciers in northwestern Greenland. *[In prep]*

SCIENTIFIC PRESENTATIONS

Talks (* indicates invited talk)

Black, T. & Joughin, I. An annual record of outlet glacier termini in northwestern Greenland from 1972 – 2018. Northwest Glaciologists, 5 Oct. 2019.

* Black, T. Observations of Greenlandic marine-terminating outlet glaciers on multiple time scales. Oceanography Graduate & Postdoc Symposium, Seattle, WA, 31 May 2019.

Black, T. A Multidecadal Record of Outlet Glaciers in Northwestern Greenland. ESS Research Gala, Seattle, WA, 4 Apr. 2019.

Black, T. The big ice up top is getting smaller: pictures from a space box. ESS Research Gala, Seattle, WA, 28 – 30 Mar. 2018. [*“Up-Goer 5”-style talk*]

Posters

Black, T. & Joughin, I. Controls on multi-decadal variability of marine-terminating outlet glaciers in northwestern Greenland. Abstract C41C-1475 presented at 2019 Fall Meeting, AGU, San Francisco, CA, 9 – 13 Dec. 2019.

Black, T. & Joughin, I. Multidecadal climate response of outlet glaciers in northwestern and west central Greenland. Abstract C11C-1137 presented at 2018 Fall Meeting, AGU, Washington D.C., 10 – 14 Dec. 2018.

Black, T. & Joughin, I. Multidecadal outlet glacier changes in northwestern and west central Greenland. Graduate Climate Conference, 2 – 4 Nov. 2018.

Black, T. Housing and lifestyle patterns among ESS graduate students. ESS Research Gala, Seattle, WA, 30 – 31 Mar. 2017.