

[Sarah Smith-Tripp](#)

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EDUCATION

University of British Columbia, Vancouver, BC,

Sept. 2021 – Present *PhD Student in Forest Resources Management.*

Advisor: Nicholas Coops

Thesis Research: Satellite monitoring of structural forest regeneration post disturbance

Sept. 2019 – June 2021 *MSc in Geography*

Advisor: Dr. Naomi B. Schwartz

Thesis Research: 3D Models of Forest Structure to Explain Climate within Burned and Regenerating Forests

Wellesley College, Wellesley, MA,

Sept 2015 – May 2019

BA in Geoscience, minor in Biology (Magna Cum Laude w/ dept. honors),

Major GPA: 3.85; Cumulative GPA: 3.76

Advisor: Dr. Jaclyn Hatala Matthes and Daniel J. Brabander

Honors Thesis: Alterations in Stream Flow Associated with Gypsy Moth Outbreaks

SEA Semester Oceans and Climate (S-278) Spring 2018

RELEVANT RESEARCH EXPERIENCES*(denotes field-based position)

Metro Vancouver; Watershed and Environmental Management Division

Remote Sensing Contractor

Summer 2020

***University of New Mexico;** Teakettle Experimental Forest

Forest Inventory Research Assistant

Summer 2019

Albright Institute for Global Affairs

Interdisciplinary Research Fellow

January 2019

***Mongolian American Aquatic Research Initiative**

Socioecological Research Assistant

Feb. – July 2018

Woods Hole Oceanographic Institution

Guest Student in Chemical Oceanography

Jan. – Feb. 2018

Alberta Parks Department

Trail Development and Ecology Intern

May – July 2017

Wendy Paulson 69' Ecology of Place;

Interdisciplinary Research Assistant

Sep. 2016 – April 2019

TEACHING EXPERIENCE (x# = number of terms)

UBC Forestry | 443: Remote Sensing for Ecosystem Management (x3) | 538 Advanced Geomatics (x2)

Jan 2021 – Present

UBC Geography | GEOB 200: Atmospheric Environments | GEOG 314: Environmental Impact Analyses

Sept – Dec. 2020

Wellesley College | GEOS 315: Environmental Geochemistry | ES 100: Science, Systems and Stakeholders

Jan. – May 2019

FIELD EXPERIENCE

MIT Winter Outdoor School; White Mountains, NH, USA

Jan. 2019

Field Geology in the Southwestern USA; Death Valley, CA, USA

Jan. 2017

LEADERSHIP ROLES (*denotes undergrad involvement at Wellesley College)

***Class of 2019 Class President.** Organizes fiscal fundraisers and plans reunion

May 2019 - Current

Geography Grad. Association Home Seminar Committee and Social Committee

Sept 2019 – May 2020

CONFERENCE PRESENTATIONS (*denotes presenting author)'

- ***Smith-Tripp, S.**, Coops, N., White, J., (2022) Combining forest structure measurements with satellite spectral observations for forest recovery monitoring in burned environments of British Columbia, Canada. Forest Disturbance Symposium. Bertchesgarten, GE. Sept 21 – 24. Poster
- ***Smith-Tripp, S.**, Coops, N., Eskelson, B. I., Schwartz, N. B., (2021) T-07: Integrating Remote Sensing as a Tool to Model Canopy Influence on Microclimate Variation in Disturbed Forests. IALE-NA Annual Meeting. Reno, NV (remote). April 12 – 15. Presentation
- ***Smith-Tripp, S.**, Griffith, A. Matthes, J. H., (2019) Responses of ecosystem hydrology to gypsy moth defoliation in streams and watersheds. ESA Annual Meeting. Louisville, KY. August 11 – 16. Poster
- ***Smith-Tripp, S.**, Matthes, J.H., Brabander, D.J., Griffith, A. (2019) 34-8 Gypsy Moth Defoliation Effects on Watershed Hydrology. Northeastern Section – 54th Annual Meeting Geologic Society of America. Portland, ME. March 15 – 19, 2019. Presentation.
- Brabander, D. J., Fitzstevens, M., Sharp, R., Oettgen, H., Passeretti, M., Jackman, M., Chia Yan Min, K., **Smith-Tripp, S.**, Wanzer, L., (2018) GH32A-01: Beyond Citizen Science: Models for Community Engagement, Environmental Justice, and STEM Education (Highlighted). American Geophysical Union Annual Meeting. Washington, DC. December 10-14, 2018. Presentation
- ***Smith-Tripp, S.**, Noelle-Kloeden, Taryn, Mendsaikhan, B.D, Hassan, A., Jensen, O.P., Golden, A., (2018) The Local Experience of Climate Change. New England Symposium on Sustainability and the Environment. Bridgewater, MA. November 17, 2018. Presentation
- *Chia Yan Min, K., **Smith-Tripp, S. M.** (2017) 225-11: Science, Systems, Stakeholders: Using Geosciences for Landscape Sustainability, Enhanced by Ecology of Place. Geologic Society of America Annual Meeting. Seattle, WA. October 22-25, 2017. Presentation

SCIENCE COMMUNICATION PRESENTATIONS

- Smith-Tripp, S.** invited presentation on microclimate dynamics. GC401 Biogeography at Northern Michigan State University. November 3, 2021
- Smith-Tripp, S.** Public talk on Landsat science. Crofton Manor Retirement Facility. February 7th, 2023.

PUBLICATIONS

- Smith-Tripp, S.**, Coops, N., Eskelson, B. I., Schwartz, N. B., (2022) Journal of Agriculture and Forest Meteorology. Canopy height effects on growing season and monthly microclimate in a burned forest of British Columbia, Canada <https://doi.org/10.1016/j.agrformet.2022.109067>
- Lembrechts, J., van de Hoogen, J., Aalto, J., and many others include **Smith-Tripp S.**, (2021) Global Change Biology. Global maps of soil temperature [10.32942/osf.io/pksqw](https://doi.org/10.32942/osf.io/pksqw)
- Smith-Tripp, S.**, Griffith, A., Matthes, J. H, (2021). *Ecohydrology*. Impacts of a regional multiyear insect defoliation event on growing-season runoff ratios and instantaneous streamflow characteristics. <https://doi.org/10.1002/eco.2332>
- Smith-Tripp, S.** (2020). 2020-22 Remote sensing as a tool for efficient forest health and landscape monitoring in Metro Vancouver's water supply areas. UBC Sustainability Scholars Report.

AWARDS AND GRANTS

- 3MT Forestry 1st place, UBC semi-finalist, May 2023
- Nora and Gordon Bailey Fellowship, September 2022 (120,000 CAD)
- Professor Elizabeth K. Fisher Fellowship, May 2022 (\$3,000 USD)
- UBC forestry: Paul Heller Memorial Fellowship in Forestry (\$10,000 CAD)
- IALE-NA Student Travel Award, April 2021 (\$200 USD)
- UBC Arts Graduate Research Award, February 2020 (\$1000 USD)
- Professor Elizabeth K. Fisher Fellowship, May 2019 (\$3,000 USD)
- Wellesley College Geosciences: Margaret D. Thompson Award, May 2019
- Albright Institute of Global Affairs Fellow, January 2019 (\$5,000 USD – *declined*)
- Wellesley College Geosciences: Sara F. Langer Memorial Award, May 2018

American Institute of Professional Geologists (AIPG): Angelo Tagliacozzo Memorial Geological Scholarship, January 2018 (\$1,500 USD)

The Jeniam Foundation Internship Grant, January 2018 (\$500 USD)

Kathryn W. Davis '28 International Internships Grant, March 2017 (\$2,500 USD)

SKILLS

Field	Computer	Analyses	Laboratory
US Commercial Drone pilot	R coding		Instrument calibration
Soil sampling	Python	Mixed linear models	Grain-size analysis
Surveying	ArcGIS / QGIS	Multivariate Analyses	X-ray diffraction
Vegetation and Forest	Agisoft Metashape (photogrammetry)	Machine learning	Scanning Microscope
Inventory	Google Earth Engine	Database management	PCR
Wilderness First Aid (2022)	ENVI		
	Github		

INTERESTS: Ecological modeling, systems thinking, disturbance, backpacking, trail running.

PROFESSIONAL AFFILIATIONS: International Association of Landscape Ecology (IALE), 2021-Current | Ecological Society of America, 2018-2020 | American Institute of Professional Geologists 2018-2019 | Geological Society of America, 2017