

BENJAMIN SCHEIFELE

9-1384 10th Ave West, Vancouver, BC, V6H 2M6 | (604) 442-4303 | bscheife@eos.ubc.ca

Education

- Doctor of Philosophy - University of British Columbia, Canada** **IP, May 2019**
- Program: Physical Oceanography
 - Department of Earth, Ocean and Atmospheric Sciences
 - Thesis: *Ocean Turbulence and Mixing in the Beaufort Sea*
- Master of Science - University of British Columbia, Canada** **2013**
- Program: Physical Oceanography
 - Department of Earth, Ocean and Atmospheric Sciences
 - Thesis: *Double Diffusive Convection in Powell Lake, British Columbia*
- Bachelor of Science, Adv. Maj. - St. Francis Xavier University, Canada** **2011**
- Program: Physics
 - Department of Physics
 - Thesis: *Heterogeneous Nucleation in the Ising Model*

Publications

1. Scheifele, B., Waterman, S., Merckelbach, L., & Carpenter, J. (2018). *Measuring the Dissipation Rate of Turbulent Kinetic Energy in Strongly Stratified, Low-Energy Environments: A Case Study From the Arctic Ocean*. *Journal of Geophysical Research: Oceans*, 19, 1817–22.
2. Scheifele, B., Pawlowicz, R., Sommer, T., & Wüest, A. (2014). *Double Diffusion in Saline Powell Lake, British Columbia*. *Journal of Physical Oceanography*, 44(11), 2893–2908.
3. Scheifele, B., Saika-Voivod, I., Bowles, R. K., & Poole, P. H. (2013). *Heterogeneous nucleation in the low-barrier regime*. *Physical Review E*, 87(4), 042407–6.

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Research Experience

Doctor of Philosophy, Original Research **2014 - 2019**

- Field collection, analysis, and publication of ocean hydrography and turbulence measurements using a robotic ocean glider in the Beaufort Sea.

Research Assistant - University of British Columbia **2014**

- Analysis of ocean hydrography from the Open Ocean to Inner Sea Project (2013)

Research Assistant - University of British Columbia **2013 - 2014**

- Analysis and publication of fine-scale and microstructure measurements of double diffusive convection in Powell Lake, British Columbia

Master of Science, Original Research **2011 - 2013**

- Field collection, analysis, and publication of fine-scale CTD measurements in 11,000 year old relic seawater in Powell Lake, British Columbia

Bachelor of Science, Original Research **2010 - 2011**

- High performance computing simulation of the effects of an impurity on the phase transition of a metastable substance. Analysis of results and publication of results

Research Assistant - St. Francis Xavier University **2008-2010**

- Field sampling of ground-to-air gas fluxes in deforested areas to understand the effects of logging on near surface earth-atmosphere interactions

Academic Awards and Honours

1. NSERC CGS Michael Smith Foreign Study Supplement UBC & HZG, 2017
2. Vanier Canada Doctoral Scholarship UBC, 2015-2018
3. Izaak Walton Killam Memorial Doctoral Scholarship UBC, 2015-2017
4. UBC Four Year Fellowship UBC, 2015-2019
5. NSERC Alexander Graham Bell Canada Graduate Scholarship declined, 2015
6. Northern Scientific Training Program UBC, 2015-2016
7. UBC EOAS W. H. Mathews Departmental Scholarship UBC, 2012-2013
8. NSERC Alexander Graham Bell Canada Graduate Scholarship UBC, 2011-2012
9. NSERC Undergraduate Student Research Award St.FX, 2010

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Recent Conference and Seminar Presentations

1. Scheifele, B., Waterman, S., Carpenter, J. (2018). *Ocean Mixing and Turbulence in the Strongly Stratified Amundsen Gulf, Beaufort Sea*. **Physical Oceanography Dissertation Symposium**. Poster presentation.
2. Scheifele, B., Waterman, S., Carpenter, J. (2018). *Mixing Characteristics in a Weakly Energetic, Strongly Stratified Ocean Environment*. **Gordon Research Conferences: Ocean Mixing**. Poster presentation.
3. Scheifele, B., Waterman, S., Carpenter, J. (2018). *Mixing Characteristics in a Weakly Energetic, Strongly Stratified Ocean Environment*. **Canadian Meteorological and Oceanographic Society Congress**. Poster presentation.
4. Scheifele, B., Waterman, S., Carpenter, J. (2018). *Dissipation and Mixing Rates in the Canadian Arctic from Glider-based Microstructure Measurements*. **Ocean Sciences Meeting, American Geophysical Union**. Poster presentation.
5. Scheifele, B., Waterman, S., Carpenter, J. (2017). *Turbulent Mixing Observations from a Glider in the Amundsen Gulf of the Beaufort Sea*. **Forum for Arctic Ocean Modeling and Observational Synthesis**. Poster presentation, by proxy.
6. Scheifele, B., Waterman, S., Carpenter, J. (2017). *Turbulent Dissipation Rates, Mixing, and Heat Fluxes in the Canadian Arctic from Glider-based Microstructure Measurements*. **Canadian Meteorological and Oceanographic Society Congress**. Oral presentation.
7. Scheifele, B., Waterman, S., Carpenter, J. (2017). *Turbulent Dissipation Rates, Mixing, and Heat Fluxes in the Canadian Arctic from Glider-based Microstructure Measurements*. **The 49th Liège Colloquium on Ocean Dynamics - The 8th Warnemünde Turbulence Days**. Oral presentation.
8. Scheifele, B., Waterman, S., Carpenter, J. (2016). *Turbulent Dissipation Rates, Mixing, and Heat Fluxes in the Canadian Arctic from Glider-based Microstructure Measurements*. **ArcticNet Annual Scientific Meeting**. Oral presentation.
9. Scheifele, B., Waterman, S., Carpenter, J. (2016). *Turbulent Dissipation Rates, Mixing, and Heat Fluxes in the Canadian Arctic from Glider-based Microstructure Measurements*. **VIIIth International Symposium on Stratified Flows**. Oral presentation.

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10. Scheifele, B., Waterman, S., Carpenter, J., Merckelbach, L. (2016). *Dissipation and Mixing Rates in the Canadian Arctic from Glider-based Microstructure Measurements*. Ocean Sciences Meeting, American Geophysical Union. Poster presentation.

Select Teaching Experience

- Teaching Assistant - University of British Columbia** **2018**
- Course: *The Catastrophic Earth: Natural Disasters (EOSC 114)*
 - Number of credits: 3. Number of students: 600
- Sessional Instructor - University of British Columbia** **2016**
- Course: *Global Climate Change (EOSC 340)*
 - Number of credits: 3. Number of students: 145
- Teaching Assistant - University of British Columbia** **2015**
- Course: *The Ocean Environment (EOSC 314) - Distance Ed. Section*
 - Number of credits: 3. Number of students: 80
- Sessional Instructor - University of British Columbia** **2014**
- Course: *Computer Methods in Earth, Ocean and Atmospheric Sciences (EOSC 211)*
 - Number of credits: 3. Number of students: 95
- Sessional Instructor - University of British Columbia** **2014**
- Course: *Global Climate Change (EOSC 340)*
 - Number of credits: 3. Number of students: 145

Science Outreach and Service

- Graduate x Undergraduate Mentorship Program** **2018-2019**
- Volunteer mentor to undergraduate science student, full academic year
- Manuscript Reviewer for Academic Journals**
- Limnology and Oceanography (2015-)
 - Journal of Geophysical Research: Oceans (2016-)
- Greater Vancouver Regional Science Fair** **2012-2018**
- Volunteer Judge for physics and Earth sciences

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Arctic Marine Life Course, Vancouver Aquarium **2015**

- Volunteer Instructor for “Arctic Ocean Currents” session

Teacher Training Workshop, EOAS Department, UBC **2014**

- Volunteer Instructor for hands-on science activities

Let’s Talk Science Outreach Program

- Department representative for EOAS (2015-2016)
- Rural outreach trip: Bella Bella elementary and high schools (2013)
- Mentorship program, Britannia Secondary High School (2011)

References

- 1. Stephanie Waterman (PhD Advisor), Assistant Professor**
Dept. of Earth, Ocean and Atmospheric Sciences,
University of British Columbia, Vancouver, B.C. CANADA V6T 1Z4
email: swaterman@eos.ubc.ca
ph: 604-827-2665
- 2. Jeff Carpenter (PhD Advisor), Department Head**
Small Scale Physics and Turbulence, Institute of Coastal Research
Helmholtz-Zentrum Geesthacht, Germany
email: jeff.carpenter@hzg.de
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- 3. Rich Pawlowicz (MSc Advisor), Associate Professor**
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