Bay Berry

MSc Student - Laboratoire de Dynamique et Gestion Intégrée des Zones Côtières

Université du Québec à Rimouski, Québec

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Education

Université du Québec à Rimouski
Rimouski, QC

MSc Geography
September 2020 - Present

- Sub-seasonal sediment flux from cold-temperate coastal cliffs: the contribution of cryogenic processes to total erosion at Rivière-Saint-Jean, Quebec

Dalhousie University
Halifax, NS

BSc Earth Sciences (Honours)
September 2016 - May 2020

- Quantifying impacts of spatial resolution on pixel and object-based methods of image classification: A case study of identifying estuarine morphology in Cobequid Bay, Nova Scotia, Canada

Experience

Researcher & Field Assistant
Tuktoyaktuk, NT

Hamlet of Tuktoyaktuk
June 2021 - September 2021

- Prepared website content to communicate climate change impacts on the community of Tuktoyaktuk
- Assisted in field outings and training sessions for the Tuktoyaktuk Climate Change Resiliency Project
- Assisted in UAV surveys, water and sediment sampling, and various other field activities in the Mackenzie Delta-Beaufort Sea coastal region
- Prepared submission to the Disaster Mitigation and Adaptation Fund

Teaching Assistant
Halifax, NS

Dalhousie Integrated Science Program
January 2020 - April 2020

- Assisted during labs for the Earth Sciences component of the Dalhousie Integrated Science Program

Research Assistant
Halifax, NS

Dalhousie University Marine Affairs Program
January 2020 - April 2020

- Prepared oyster samples for a range of tests for the investigation of trophic and ecosystem effects via stable isotopes, lipid analyses, and chlorophyll-a extraction and measurement

Research Assistant
Halifax, NS

Dalhousie University Dept. of Oceanography
August 2019 - December 2019

- Prepared seaweed (Chondrus crispus) samples for nitrogen content and isotopic analysis; included subsampling, drying, crushing, weighing, and preparing for submission to lab for analysis
- Assisted with installation and collection of sample growth stations, in the field and lab

GIS Technician & Field Assistant
Dartmouth, NS

Natural Resources Canada
January 2019 - August 2019

- Processed and interpreted historical images, Unmanned Aerial Vehicle (UAV) surveys, and environmental records to produce reports relating to long-term weather and erosion conditions on the Beaufort Sea coast and flood risk in Tuktoyaktuk, Northwest Territories
- Assisted in UAV surveys, geophysical and chemical sampling, and various other field activities in the Mackenzie Delta-Beaufort Sea coastal region
- Assisted individuals with the use of ArcGIS StoryMaps and QGIS

Research Assistant
Halifax, NS

Dalhousie University Dept. of Earth and Environmental Sciences
September 2018 - December 2018

- Planned and conducted collection of mussels (Mytilus edulis) and water samples from coastal sites around mainland Nova Scotia
- Prepared samples for isotopic analysis

Interpreter
Joggins, NS

Joggins Fossil Center
May 2018 - August 2018

- Guided 30-minute and 2-hour tours of the Joggins Fossil Centre museum and fossil site in English and French, with emphasis on the pillars of the site's UNESCO World Heritage Site designation; the fossil record, the value of the cliffs, and the history of scientific discovery
- Communicated with visitors, coordinated tour bookings, and answered inquiries about the site via phone, e-mail, and in person
- Performed transactions for admission and store purchases

Skills

Data Science	R, ArcGIS, QGIS
Research	Coastal geomorphology, permafrost, geospatial analysis
Languages	English/French (bilingual)

Awards

Northern Scientific Training Fund

Polar Knowledge Canada *2020*

Graduate Entrance Scholarship *Rimouski, QC*

Université du Québec à Rimouski *2020*

First Class Honours and University Medal in Earth Sciences *Halifax, NS*

Dalhousie University *2020*

MacEachern-Ponsford Award *Halifax, NS*

Dalhousie University Dept. of Earth Sciences *2018*

Barlow Award *Halifax, NS*

Dalhousie University Dept. of Earth Sciences *2018*

Undergraduate Entrance Scholarship *Halifax, NS*

Dalhousie University *2017*

Publications and Presentations

1. Berry, H. B., Whalen, D., & Lim, M. (2021). Long-term ice-rich permafrost coast sensitivity to air temperatures and storm influence: Lessons from pullen island, northwest territories, canada. *Arctic science*, 7(4), 723-745.

2. Berry, H. B., Whalen, D., Didier, D., Stuckey, S., & Bernatchez, P. (2021). Sub-seasonal thermal regime of eroding permafrost bluffs at tuktoyaktuk island. *Poster presented at the annual scientific meeting of arcticnet*.

3. Howarth, L., Filgueira, R., Haas, S., Berry, H., McKee, A., Steeves, L., & Grant, J. (2020). The effects of incubation time, temperature and nitrogen concentration on the isotopic signature (δ15N) of the macroalga chondrus crispus. *Journal of experimental marine biology and ecology*, *530*, 151431.

4. Lim, M., Whalen, D., J Mann, P., Fraser, P., Berry, H. B., Irish, C., Cockney, K., & Woodward, J. (2020). Effective monitoring of permafrost coast erosion: Wide-scale storm impacts on outer islands in the mackenzie delta area. *Frontiers in earth science*, 454.

5. Lim, M., Whalen, D., Martin, J., Mann, P., Hayes, S., Fraser, P., Berry, H., & Ouellette, D. (2020). Massive ice control on permafrost coast erosion and sensitivity. *Geophysical research letters*, *47*(17), e2020GL087917.

6. Berry, H. B. (2020). Quantifying the influence of spatial resolution in identifying estuarine morphology using remote sensing methods; observations from cobequid bay, n.s. *Paper presented at the colloquium of the atlantic geoscience society*.

7. Berry, H. B., Whalen, D., & Lim, M. (2019). Permafrost coast sensitivity to temperature and storm influence on pullen island, n.w.t. *Poster presented at the atlantic universities geoscience conference*.

8. Berry, H. B., Whalen, D., & Lim, M. (2019). Permafrost coast sensitivity to temperature and storm influence on pullen island, n.w.t. *Poster presented at the annual scientific meeting of arcticnet*.