

Benjamin Richaud

Oceanographer, PhD Candidate

Education

- Since 2018 **Doctorate of Philosophy**, *Dalhousie University*, Halifax, NS, Canada.
PhD Candidate in Oceanography, supervised by Katja Fennel & Eric Oliver
Variability and extreme events of biogeochemical properties and their drivers in the Arctic Ocean via a numerical modelling approach.
- 2015-2016 **MSc Water, Air, Pollution, Environment**, *Polytechnique Graduate School*, Paris, France, *with Honors*.
Physical Oceanography and Renewable Energies.
- 2012-2016 **Engineering Diploma**, *ENSTA Paris*, Palaiseau, France.
Mechanical Engineering, Physical Oceanography and Naval Engineering.
- 2009-2012 **Prépa**, *Lycée du Parc*, Lyon, France.
Preparatory class to competitive exams for Grandes Écoles
- 2009 **Baccalauréat**, *Lycée Descartes*, Antony, France, *with Honors*.
Scientific Baccalauréat

Experience

Vocational

- 2016-2017 **Oceanographic Engineer**, *OpenHydro*, Carlingford, Ireland.
Resource Assessment for tidal turbines (tidal energy)
- 2014-2015 **Guest Student**, *Woods Hole Oceanographic Institution*, Woods Hole, U.S.A..
Research project, Hydrographic Climatologies using CTD and XBT observations.
Supervised by Y.-O. Kwon & T.M. Joyce
- 2014 **Research Internship**, *Hamburg Universitat*, Hamburg, Germany.
(3 months) Freshwater fluxes estimates in Greenland Sea from CTD, uCTD and ADCP data.
Supervised by K. Jochumsen & D. Quadfasel

Miscellaneous

- 2013 **Intern**, Tierra del Fuego, Chile.
(1 month) Operator Intership in an estancia.

Publication

Richaud B., Y.-K. Kwon, T. M. Joyce, P. S. Fratantoni and S. J. Lentz. Surface and bottom temperature and salinity climatology along the continental shelf off the Canadian and U.S. East Coasts. *Continental Shelf Research*. 10.1016/j.csr.2016.06.005

Presentations

- June 2021 **Richaud B.**, K. Fennel, E. Oliver, M. DeGranpre, T. Bourgeois, Y. Lu and X. Hu, The role of sea ice melt in the missing Arctic Ocean carbon uptake. Oral Presentation, CMOS 2021
- March 2021 **Richaud B.**, K. Fennel, E. Oliver, M. DeGranpre, T. Bourgeois, Y. Lu and X. Hu, The role of sea ice melt in the missing Arctic Ocean carbon uptake. Oral Presentation, CDOGS 2021
- December 2020 **Richaud B.**, K. Fennel, E. Oliver, M. DeGranpre, T. Bourgeois, Y. Lu and X. Hu, Estimating the missing Arctic Ocean carbon uptake in numerical models. Poster Presentation, ArcticNet2020
- July 2020 **Richaud B.**, K. Fennel, E. Oliver, M. DeGranpre, Unveiling the Impact of Sea Ice on Carbon Uptake through Numerical Modeling, Oral Presentation, Dalhousie Oceanography Seminar Series
- February 2020 **Richaud B.**, K. Fennel, E. Oliver, M. DeGranpre, T. Bourgeois, Y. Lu and X. Hu, Simulating the Sea Ice Carbon Pump in the Beaufort Gyre. Poster Presentation, Ocean Sciences Meeting 2020
- December 2019 **Richaud B.**, K. Fennel, E. Oliver, M. DeGranpre and T. Bourgeois, Simulating the Sea Ice Carbon Pump in the Beaufort Gyre. Poster Presentation, ASM2019
- May 2019 **Richaud B.**, K. Fennel, E. Oliver, M. DeGranpre, T. Bourgeois, Y. Lu and X. Hu, Analyses of trends, sub-seasonal to interannual variability and extreme events in the Arctic Ocean from a physics-ice-biogeochemistry model. Poster Presentation, OceanPredict'19
- May 2019 Grosse F., K. Fennel, T. Bourgeois, **B. Richaud**, X. Hu, Y. Lu, A model assessment of the effects of Beaufort Gyre circulation changes on nutrient pathways and transport times in the Arctic Ocean. Oral Presentation, OceanPredict'19
- May 2019 Bourgeois T., K. Fennel, **B. Richaud**, X. Luo, X. Hu, Y. Lu, A numerical analysis of effects of contemporary sea ice loss on Arctic primary production. Oral Presentation, OceanPredict'19
- May 2018 **Richaud B.**, Y.-O. Kwon, and T.M. Joyce, Surface and Bottom Temperature and Salinity Climatology and Long-Term Changes along the Continental Shelf of the Canadian and U.S. East Coasts. Oral Presentation, CMOS 2018
- May 2015 **Richaud B.**, Y.-O. Kwon, and T.M. Joyce, Surface and Bottom Temperature and Salinity Climatology and Long-Term Changes along the Continental Shelf of the Canadian and U.S. East Coasts. Oral Presentation, 2015 Joint Assembly for AGU-CGU-GAC-MAC

Sea Time

- July 2014 Research Cruise, R/V Poseidon, Greenland Sea.
High resolution hydrographic and current data along the Iceland-Scotland-Ridge.
- May 2014 Field Time, Helgoland, Germany.
Introduction to in-situ measurements.
- 2008-2018 Several leisure sailing cruises in France and U.K.

Additional Experience

- 2020-2022 **President**, *DOSA*, Halifax, NS.
Association for the Graduate Students of the Oceanography Department
- March 2021 **Guest Lecturer**, *Dalhousie University*, Halifax, NS.
Biogeochemistry of Sea Ice
- Winter 2020 **Teaching Assistant**, *Dalhousie University*, Halifax, NS.
Marine Modelling
- 2012-2016 **Numerous extracurricular involvement**, *ENSTA Paris*, Palaiseau, France.
Sailing club, solidarity association, environmental association, brass band,...
- Summer 2010 **Volunteer**, Togo, Africa.
Animation in an orphanage

Awards

- Kathy Ellis Memorial Book Prize, 2019
- Best PhD talk, CDOGS conference, 2019
- Elevator pitch, 3rd place, ASM2019

Languages

Français	Mother tongue
English	Fluent
Spanish	Conversational
German	Basic

Interests

- Sailing Leisure and competition in keel boats and dinghies
- Other sports Volleyball, squash, soccer
- Music Piano, flute, slide trombon
- Travels Chili, Peru, Bolivia, U.S.A., Canada, India, Togo, Senegal, Europe,...