



Sandra Angers-Blondin

CCSF Award Winner 2017-2018, Air Canada Scholarship

A passionate commitment to the natural world since childhood led Sandra to study biology at Quebec's prestigious Laval University for her first degree. In her second year, Sandra worked as a field assistant on a research project in Northern Quebec. Sandra was hooked and fell in love with the Arctic. The professor supervising the research became her mentor, and ultimately her Masters supervisor.

While completing her Masters, Sandra continued to spend her summers in the Arctic where she collaborated with several other students, exposing her to a variety of research related to vegetation change in the Arctic. For this she spent two summers in Kuujuarapik, an Inuit village in Northern Québec, where she studied the expansion dynamics of crowberry shrubs, the results of which were published earlier this year.

A change of scene to the University of Edinburgh has created the perfect scenario for Sandra. The move has allowed her to be supervised by another Canadian scientist who shares her research

interests, and who took Sandra on as one of her first PhD students. It is also satisfying her fascination with the Scottish landscape, gained during a backpacking trip many years earlier.

Sandra's research however remains focused on Northern Canada, a region of environmental, cultural and economic importance facing potentially drastic transformations. As temperatures increase in the Arctic, plants grow taller and faster, and colonise places where they could not previously survive. Sandra is interested in how the growth of tundra shrubs is influenced by climate and other ecological factors like competition. Understanding the drivers and

controls of shrub expansion is critical, as these plants are involved in complex vegetation-atmosphere feedbacks that could promote further warming at the regional and global scale.

Sandra spent the last two summers working at four different sites in the Yukon Territory and in Northern Québec, gathering stem samples to measure the annual growth rings in the wood. She has been processing these samples at the Edinburgh Botanical Gardens and is currently finishing up lab work and excited about analyzing the data and answering her questions. Sandra expects her findings to

highlight the importance of species interactions in controlling the response of organisms to climate change, and to contribute to increasing the accuracy of predictive models of future vegetation change.

Sandra is truly captivated by northern ecosystems and is keen to understand them through a career in research. She is hopeful her research will be of interest and relevance to Canada by improving our understanding

of how the tundra is changing in the Arctic. She is also committed to sharing her passion through other channels like photography and science outreach. During the Edinburgh International Science Festival, she curated a photo exhibition focused on her research group's work in the Arctic and ran a workshop where participants could manipulate her samples and observe them under the microscope.

Sandra is an avid and very talented photographer. You can view a collection of Sandra's beautiful Canadian landscapes on the CCSF website.



Sandra Angers-Blondin