

Partnership for Freshwater Resilience Year in Review 2023

A Message from Dr. Julia Baird, Associate Professor, Brock University

It's hard to believe that it's been four years since we launched the Partnership for Freshwater Resilience. This partnership emerged from the shared focus between us at the Environmental Sustainability Research Centre and WWF-Canada on the increasing threats to freshwater from climate change and other sources, and our shared commitment to make progress on addressing these threats. It's amazing to look back and take stock of what we have accomplished so far, from mapping the network of flood planning in the entire Wolastoq /Saint Jean/St. John River Basin to engaging several groups of undergraduate students in assessing watershed governance for the Basin, to drawing on new tools to support scaling up implementation of nature-based solutions. As we enter our final year of the Partnership, we are thrilled to welcome doctoral student Hannah Marlen Lübker, who will focus her research on freshwater resilience and empathy. While the formal partnership may be coming to a close, Hannah's continued research focus in the Wolastoq Basin will ensure a lasting and impactful legacy.

It's important to mention that the Partnership for Freshwater Resilience has enabled other opportunities. Of particular note is WWF-Canada's role as a collaborator on a SSHRC Insight Grant in 2023, which will focus on empathy and self-efficacy as pathways to sustainable and resilient water governance. The whole project team convened in person in February 2023, and made important progress on the focus and practical outputs from work. This project runs until 2025 and is yielding important insights that will have practical relevance for those working on restoration and conservation initiatives at all levels. You can learn more about this project at www.empathyforsustainability.com.

I hope you enjoy reading more about what we have accomplished in 2023 in our Partnership for Freshwater Resilience!



Research & Knowledge Mobilization Activities

In September, Julia Baird and Hannah Marlen Lübker flew to New Brunswick to participate in the annual Wolastoq/St. Jean/St. John River Summit. The event included presentations from Simon Mitchell, and representatives from the Canadian Rivers Institute, the Nashwaak Watershed Association, the NB Invasive Species Council, and others. Hannah wrote about the experience in a [blog post](#).



In addition to the event presentation at the annual Wolastoq/St. Jean/St. John River Summit, the following additional knowledge mobilization activities have been undertaken:

- Former partnership Research Assistant, Bridget McGlynn, published a paper from her Master of Sustainability thesis, [“Assessing social-ecological fit of flood planning governance”](#)
- McGlynn et al. have a paper in review for Environmental Science and Policy: “Investigating the risky dilemma of regional flood planning: the case of the St. John River Basin, Canada”
- Julia Baird spoke on a panel discussion titled “Social-ecological fit for water governance” with the Society of Canadian Aquatic Sciences.
- Students in GEOG/TOUR 4P83 at Brock engaged in case-based learning focused on WWF-Canada’s leadership role in the Wolastoq/St. John River Summit. Students considered how collaborative governance might be enhanced in the case and prepared recommendations.

Brock University Student Research

Hannah Lübker, PhD in Sustainability Science Candidate

Hannah joined Brock’s second cohort of PhD in Sustainability Science students in September 2023. Her research will focus on ecological empathy and human-nature reconnection.



Hannah’s research aims to understand the role that ecological empathy plays in processes of human-nature reconnection. Hannah and Simon Mitchell are both involved in the “empathy for sustainability” project, and she will further assess empathy qualitatively and establish a grounded theory of ecological empathy; ecological empathy understands humans as one of many equal components of an ecosystem and thus, empathy can be extended to non-human beings as well. Stakeholders in Hannah’s research include people from WWF Canada, the Nashwaak Watershed Association, and others. She hopes that her work will contribute to sustainable and just futures in the Wolastoq river basin.

Hannah is in the early stages of the research process. She has a rough idea for a 3 study PhD project, with a photovoice study being the first one. Hannah plans to move to New Brunswick in May 2024, to spend time with the Wolastoq and its stewards. She looks forward to this experience!

Natalie Seniuk - Master of Sustainability Candidate

Natalie is in her second year of the Master of Sustainability program at Brock University. Her research will focus on how to improve implementation of nature-based solutions. Natalie is specifically focused on how to improve implementation of nature-based solutions, using implementation science (a science which came out of public health) and leverage points theory to think about implementation of environmentally-focused solutions in new ways.



Natalie will draw on the knowledge and expertise of multiple organizations, agencies, and individuals who have been involved in implementing nature-based solutions. Her efforts will be focused on improving implementation in New Brunswick, where we anticipate all will benefit. Natalie is finalizing her proposal and will begin research in January!