

## Counting Nature's Contributions to People Across Canada

Come join our cluster of 2-3 postdocs working together in a multi-university-NGO collaboration to map nature's contributions to people in Canada!! Canada has ambitious conservation goals but national-scale data and the methods to model ecosystem services (ES) that are necessary for monitoring change and prioritizing actions and locations for conservation are largely lacking. Our team of postdocs will work collaboratively with [NSERC ResNet](#), the [Nature Conservancy of Canada](#), multiple universities, and government agencies to explore data and develop models and methods to monitor changes in ES and natural capital at multiple spatial and temporal scales across Canada.

We are currently advertising two postdoctoral positions, and likely looking to add a third shortly. While each postdoctoral project is distinct, there is substantial potential for collaboration and conceptual integration. Thus the postdocs hired will become part of a team working together to tackle these projects. Both positions are one year contracts, with the potential of renewal for a second year, depending on performance.

### **1. Improving current national ES layers and expanding ES data and maps for Canada.**

While we now have initial layers for three ES across Canada ([Mitchell et al. 2021](#): carbon storage, freshwater provision, and wilderness-based recreation) and additional global projects mapping other ES across Canada (e.g., pollination, coastal protection, soil erosion control, nutrient retention), Canada-specific layers for many key ES are currently missing. This means that conservation decisions are not fully informed and could lead to suboptimal outcomes. This project would focus on taking broader-scale ES mapping approaches (e.g., [Chaplin-Kramer et al. In Review](#), [Chaplin-Kramer et al. 2019](#)) and adapting them for Canada with nationally-specific data. In particular, it will focus on effectively and accurately quantifying the capacity of ecosystems across Canada to supply a range of ecosystem services, the human demand for these different benefits, and the actual delivery of ecosystem services to people. Additional work on quantifying and mapping current and future threats to ES provision at a national-scale could also occur.

This postdoc will be based at the University of British Columbia in Vancouver and co-supervised by Dr. Matt Mitchell and Dr. Richard Schuster. Expected starting Salary: \$60,000 per annum

**2. Monitoring and managing ES across spatial scales.** This postdoc will work on developing a conceptual framework to understand how the measurement (and governance) of ecosystem services should, and could, change across scales. For example, how can information about ecosystem service provision at the scale of landscapes be used to understand national trends? How can policies designed to meet national and international goals (e.g. SDGs) for ecosystem services (e.g. nature-based solutions) be guided by the joint consideration of different human needs and the biophysical processes acting at different scales? The postdoc will link conceptual frameworks developed by IPBES (nature's contributions to people) and GEO BON (monitoring of Essential Ecosystem Service Variables) to measurement frameworks such as the United Nation's SEEA to identify appropriate indicators for understanding ES at multiple scales to guide Canadian policy and decision-making. In particular, we envision realizing the ResNet monitoring framework in the context of a mixed periurban and agricultural landscape and developing a learning and knowledge-sharing toolkit that could be rolled-out for use in other working landscapes.

This postdoc will be based at McGill University's Macdonald Campus, and co-supervised by Dr. Elena Bennett and Dr. Andy Gonzalez. Expected starting salary: \$50,000 per annum

We recognize that diversity is central to strong and innovative teams and that scientific labs in academia are often lacking in diversity. We therefore particularly encourage candidates to apply if they identify as a woman, a non-binary person, an Indigenous person, a person with a disability, and/or as racialized or a member of a visible minority group.

To apply, please send the following information to [resnet.nrs@mcgill.ca](mailto:resnet.nrs@mcgill.ca):

1. A cover letter of no more than two pages that clearly describes your interest in the project and the position and why you are the right fit. This letter should specify which project you are applying for (or both).
2. A list of three references with contact information in case you are short-listed
3. A CV

To help us with managing applications, please use the subject line of your email to indicate which position you are applying for (1, 2, or both).

We will begin reviewing applications on January 28.  
Only short-listed candidates will be contacted.