



Weston Family Boreal Research Fellowships 2022 Application & Eligible Projects



*Ruth Greuel
2016
University of Saskatchewan*



*Guilherme Verocai
2011
University of Calgary*



*Nicole Balliston
2020
University of Waterloo*



*Matthew Scrafford
2014
University of Alberta*

About the program

With generous support from the Weston Family Foundation, Wildlife Conservation Society (WCS) Canada is pleased to offer one-year Boreal Research Fellowships to graduate students pursuing their Master's or Doctoral degree. Successful applicants will receive financial support for their projects along with mentorship from WCS Canada scientists and an opportunity to network with other Fellows and Fellowship alumni.

Application Deadline: 25 February 2022, 5pm (EST).

Weston Family Boreal Research Fellowships support field-based research that contributes to WCS Canada's conservation objectives or priority research projects in the Ontario Northern Boreal and the Northern Boreal Mountains of BC and Yukon. We encourage research that [partners with Indigenous communities in these regions](#). Research that takes place outside of these areas and supports WCS Canada's [vision and mission](#) may also be eligible.

New for 2022

Recipients of Weston Family Boreal Research Fellowships are encouraged to participate in mentorship opportunities on science communication, policy, conservation, and knowledge sharing and co-creation with Indigenous communities. Fellows will also report on their projects through an online seminar series.

In addition to our regular Fellowship awards, we are broadening allowable project expenses to support engagement and partnership with Indigenous communities. We will also accept proposals for projects that aim to discuss research ideas and priorities with Indigenous communities or share the results of research in ways that are meaningful to the communities.

Application

Who can apply?

Weston Family Boreal Research Fellowship applicants must be pursuing a graduate degree in conservation science, or in a related social or natural science field. Fellows may reapply for continued project support for a maximum of three years. Applications from past Fellows for new projects will also be considered. For example, a student that received a Fellowship award for Master's research may submit an application to support their PhD research.

2021 Fellows with projects that have been extended beyond one year in response to COVID-19 may also re-apply for 2022.

What makes for a great project?

- High quality social and ecological scientific research that addresses the conservation objectives or priority research projects of WCS Canada in the Ontario Northern Boreal and the Northern Boreal Mountains.
- A clear study design and appropriate methodology.
- Projects that consider whether the research is relevant to the Indigenous communities where it is taking place and provides a plan outlining how the research will be developed and shared with these communities.
- A project that aims to discuss research ideas with Indigenous communities or share the results of research that has recently been completed within these communities.

How much are the awards?

WCS Canada will award one-year Fellowships of between \$3,000 and \$20,000 each. The amount of funding awarded will be determined by the quality and financial needs of the project, the degree of knowledge co-creation and sharing with local Indigenous communities, and the number of applications received.

Fellowship awards are available for project activities beginning on or after April 1, 2022.

What are eligible expenses?

- Lab fees and other analytical costs.
- Research equipment, material and supplies.
- Travel to, from, and around research sites.
- Travel in support of collaborative activities with partners and attending and presenting at conferences.
- Shipping and postage costs.
- Stipends and salary costs for hiring field assistance & support, including from local communities.
- Expenses that support knowledge co-creation with Indigenous communities, including honoraria, consulting with the community before the research begins, and returning the results to the community in ways that are meaningful (e.g., translation, plain-language materials, photos, video and other visuals).
- Training that supports cross-cultural competency before engaging with Indigenous communities.
- Costs to ensure research results are published in open-access journals.
- Other costs related to the needs of the research project or that have the potential to expand the impact of the research project.

Stipends for graduate students are not eligible for Fellowship support.

How can I apply?

Applications must include the following:

1. **Applicant Information Form** can be downloaded [here](#);
2. **Cover Letter** outlining how the proposed research addresses the conservation objectives or priority research projects of WCS Canada;
3. **Curriculum Vitae** of the student;
4. **Project Description** (max 3 pages) including project goals, objectives, methods, and conservation relevance;
5. **Working with Indigenous Communities** (1 page). Identify the Indigenous communities and the relevant land claim area(s), treaties, and governance institutions where you will be conducting research. Describe any existing regional or local research priorities identified by Indigenous communities that your work may complement or support. Outline how you will communicate your research project and results with these Indigenous communities. For community-based research and monitoring, indicate if you are seeking ethical review and how the partnership with the community will be established.
6. **COVID-19 Risk Assessment** listing how ongoing COVID-19 conditions and restriction might impact the project and how you plan to respond/adapt, including possible mandatory quarantine for traveling;
7. **Summary of Research Permits** including status or outline of plans to apply;
8. **Project Budget** using the [budget template](#) which must include the amount requested from WCS Canada and the complete budget for the project, with committed or pending support from other sources itemized;
9. **Letter of Support** from the student's academic supervisor.

We ask that all documents consolidated into one PDF file.

Applicants must ensure that their proposed research follows accepted ethical guidelines for research in the North before submitting proposals. Examples include the [First Nations Information Governance Centre's Ownership, Control, Access, and Possession \(OCAP®\) standards](#), [First Nations Ethics Guide on Research and Aboriginal Traditional Knowledge](#), [Principles of Ethical Métis Research](#), [Tri-Council Policy Statement \(2018\) - Chapter 9, entitled "Research Involving the First Nations, Inuit, and Métis Peoples of Canada](#), [ACUNS Principles for Conduct of Research in the North](#), and the [Inuit Tapiriit Kanatami and Nunavut Research Institute Guide for Researchers](#).

Fellowship awards will be conditional upon applicants providing copies of approved permits for research and evidence of compliance with necessary animal and/or human ethics review and welfare protocols.

Applications should be submitted by email to wcsCanada@wcs.org with the subject "**2022 Weston Family Boreal Research Fellowship Application**". **Application Deadline: 25 February 2022, 5pm (EST)**.

What are the reporting requirements?

[Reporting requirements](#) include providing photos and video footage of implementing the research, with an emphasis on fieldwork activities. [Examples of videos submitted by previous Fellows can be found on the WCS Canada YouTube channel.](#)

Questions?

General: Gillian Woolmer (gwoolmer@wcs.org)
Ontario's Northern Boreal: Dr. Connie O'Connor (coconnor@wcs.org)
Northern Boreal Mountains: Dr. Hilary Cooke (hcooke@wcs.org)

Other Weston Family Foundation Programs Supporting the Next Generation of Scientists

The Weston Family Foundation is a generous contributor to other programs that support and mentor young scientists in Canada.

[The Weston Family Awards in Northern Research](#) supports young scientists in Canada pursuing research in Canada's north.

[The Weston Family Conservation Science Fellowship Program](#) supports and trains graduate students conducting Nature Conservancy of Canada priority research.

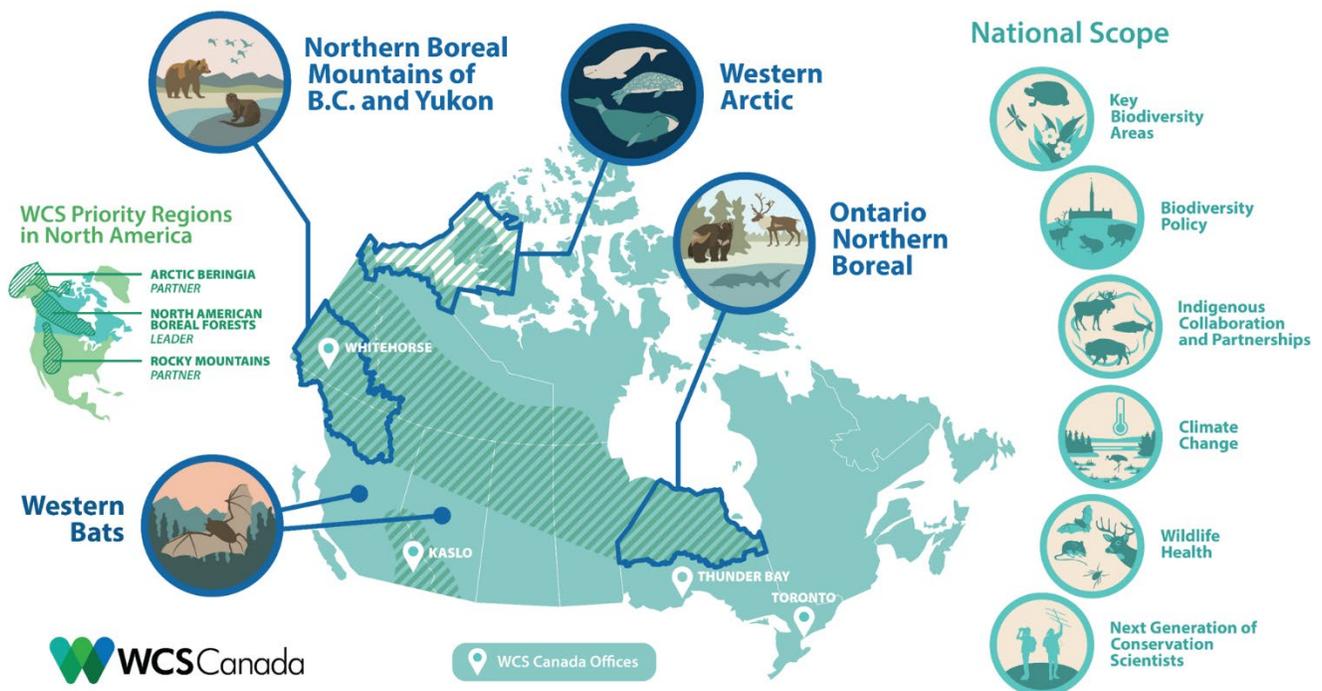
Eligible Projects

Weston Family Boreal Research Fellowships are an opportunity for graduate students to contribute to conservation in Canada by generating scientific research that can be used in decision-making to support nature and communities.

The boreal forest in North America is one of the [Priority Regions](#) for global conservation identified by Wildlife Conservation Society. WCS Canada's work to conserve the boreal is focussed on the Ontario Northern Boreal and the Northern Boreal Mountains of BC and Yukon. These represent some of the last intact wild areas remaining on Earth, and it is our goal to work with local communities to advance conservation.

Weston Family Boreal Research Fellowships prioritize field-based research that supports WCS Canada's work the Ontario Northern Boreal and the Northern Boreal Mountains. Applicants are encouraged to develop research questions based on WCS Canada conservation objectives or address priority research questions identified by WCS Canada scientists.

Research that takes place outside of these sites and supports WCS Canada's [vision and mission](#) may also be eligible.



Ontario Northern Boreal (ONB)

The boreal forests in northern Ontario represent one of the world's largest remaining intact forests, and contain the second-largest peatland in the world (the Hudson Bay Lowland). This massive area starts about 300 km north of Thunder Bay, and stretches all the way to the shores of Hudson and James Bay. The area is a homeland for *Anishnaabeg* and Cree Nations, many of whom currently live in 31 remote communities established under the [Indian Act](#) and [Treaty No. 9](#). The [Ontario Northern Boreal](#) has seen little of the industrial resource development and urban settlement that has transformed areas to the south. However, climate change is already causing disruptions to the landscape, and there is growing interest in resource development in this globally unique region, particularly to exploit the Ring of Fire, a mineral-rich crescent about 400 km northeast of Thunder Bay. Building all-season roads and extracting minerals from the Ring of Fire will disturb irrecoverable carbon-rich peatlands that are playing a globally important role in combatting the climate crisis. It will also require building roads and transmission lines through intact forests and peatlands, impacting rivers, lakes, and wildlife.

Our vision is that Ontario's Northern Boreal Landscape remains the largest intact boreal landscape in the world with thriving populations of iconic fish and wildlife species within a dynamic landscape, supporting healthy and resilient communities of First Nations pursuing traditional resource use and limited industrial development.

Ontario Northern Boreal Conservation Objectives:

- To use conservation principles to inform regional and community-based conservation planning and environmental assessment processes.
- To use scientific information to inform conservation of fish and wildlife.
- To provide information to First Nations communities to support their vision for a good life and respect their inherent and Treaty rights-based traditional economies and food sovereignty.
- To develop and encourage best practices in industrial development that addresses conservation and First Nations inherent and Treaty rights-based traditional economies and food sovereignty.
- To advance the science necessary to support climate change adaptation and mitigation.

Priority Research Projects:

- Understanding carbon stores and fluxes, especially how these may be affected by climate change and future development.
- Understanding population status and trends of species that are of conservation concern or culturally important to Indigenous Peoples. This could include studies that investigate how species or species assemblages may be affected by climate change, management practices, and future development.
- Understanding abiotic and biotic cycling of contaminants in both aquatic and terrestrial ecosystems, particularly in relation to environmental monitoring practices and values that are important to Indigenous Peoples (e.g., drinking water, subsistence fishing).
- Understanding the combined impact of roads, forestry, mines, and climate change on ecological systems as well as social values and priorities of First Nations, other rightsholders, and stakeholders
- Transforming conservation practice by working with Indigenous Peoples on Indigenous Protected and Conserved Areas, community-based monitoring, and co-created research that also addresses community priorities.

Northern Boreal Mountains (NBM)

The [Northern Boreal Mountains](#) of British Columbia and Yukon encompass approximately 855,000 sq. km in northwestern Canada, incorporating diverse boreal, taiga, and tundra ecosystems. Resident Indigenous Peoples rely on their harvests of wildlife and fish, including the longest-distance migration of salmon in the world, for food and cultural and spiritual values. Much of the region is still wilderness, supporting robust populations of barren-ground and mountain caribou, grizzly bear, wolverine, and lynx, and significant breeding populations of many boreal bird species. Much of the region was part of the Beringian refugium during the last ice age, and that geographic isolation led to significant speciation and currently endemic wildlife. Lowland forests, riparian areas, and diverse aquatic ecosystems support the majority of the region's biodiversity but these habitats are poorly covered by existing conservation lands. WCS Canada is focusing on the NBM because of the mix of conservation opportunity and threat the region currently faces. Major threats include mineral extraction, timber harvesting, and climate change.

Our vision is that the full suite of wildlife species and ecosystems continues to thrive, with robust populations conserved across the diversity of ecosystems, throughout the boreal mountains of northwest Canada.

Northern Boreal Mountains Conservation Objectives:

- To contribute to, and advocate for, the designation of a full suite of ecologically viable protected areas and key habitats aimed, in part, at the target of 30% of the land base protected by 2030.
- To partner with governments, especially those of Indigenous, and other organizations to enhance the technical and scientific capacity of the partnerships to provide evidence-based inputs and bring different worldviews and Indigenous Knowledge Systems perspectives to planning and ecosystem stewardship.
- To contribute new science or scientific interpretations, and associated policy interventions, to make the conservation future for fish and wildlife more robust in the face of current and future cumulative impacts.
- To quantify the cumulative effects of human activities and climate change, and develop improved management practices, for the integration of wildlife and ecosystem conservation into natural resource management and human uses of wild places.
- To address the challenge of an overheating climate by providing a scientific basis for land and water stewardship that will enhance the ability of nature to adapt to, and accommodate, the rapid changes underway. To expand the public conversation about the global biodiversity and climate change crises through diverse communications that publicize the issues and potential solutions in a regional and local context.

Priority Research Projects:

- Supporting Indigenous-led research and conservation priorities to assist planning processes and Indigenous Protected and Conserved Areas.
- Measuring the full scientific and socio-cultural value of northern wetlands, including peatlands in terms of their ecosystem services for conservation and for mitigating climate change
- Understanding what ecosystem functions and biodiversity benefits can and cannot be reclaimed after mining.
- Evaluating the impact of permafrost thaw and erosion on water, fish, wildlife, and ecosystems.
- Understanding the biodiversity values of recently burned forests and the implications of changing fire regimes under climate change.
- Quantifying drivers and strength of ecosystem-protected and terrain-mediated climate-change refugia.
- Quantifying carbon in forest and wetland ecosystems.

Our Mission: *WCS saves wildlife and wild places worldwide through science, conservation action, education, and inspiring people to value nature.*

Our Vision: *WCS envisions a world where wildlife thrives in healthy lands and seas, valued by societies that embrace and benefit from the diversity and integrity of life on Earth.*

WCS Canada (www.wcscanada.org) was established as a Canadian conservation organization in July 2004. We implement and support comprehensive field studies in Canada that gather information on wildlife needs and then seek to resolve key conservation problems by working with a broad array of stakeholders. We also provide technical assistance and biological expertise to local groups and agencies that lack the resources to tackle conservation concerns. WCS Canada is independently registered and managed, while retaining a strong collaborative working relationship with sister WCS programs in more than 66 nations, including an integrated North America Program.

The Wildlife Conservation Society (www.wcs.org) is a recognized global leader in conservation and for more than a century has worked in North America promoting actions such as bison reintroduction, pioneering field studies, parks creation, and legislation to protect endangered wildlife.

Statement on Racism, Diversity and Inclusion in Canadian Conservation

We at WCS Canada recognize that there are significant barriers to Black, Indigenous and People of Colour in all areas of scientific research and conservation practice. The history of conservation in Canada and many parts of the world has witnessed the direct impacts that racism and discrimination have had on communities as they are continually racialized, having their rights denied, and values marginalized; many still face overt and systemic racism and violence. Addressing threats to the environment that we are currently facing together requires the inclusion of diverse voices and perspectives, and a commitment to strengthening our response in order to develop ecologically-sound and socially-just outcomes.

We at WCS Canada will not accept or ignore any form of racism or discrimination -- in our organization, the environment and the societies where we live and work. We are actively working to bring more diversity into our programs, but fully recognize we have a lot more to do, including within the broader science and conservation sphere in which we operate. We remain committed to our core values of [Diversity and Inclusion, Respect, Collaboration and Integrity](#) and expanding our actions on anti-racism. We are working to increase all forms of representation in our work with [communities](#), in conservation and in our board and leadership. We are reinforcing our commitment to the hiring, advancement, retention and morale of our talented staff and the career development of the next generation of conservation scientists. There is still much to be done to increase diversity in conservation science and in our own hiring and programming. We thank those who are drawing attention to the urgency of making this work happen. We are listening, we are learning, and commit to continuing to act.