



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. 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.

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

APPLICATION PERIOD:

Opens Monday November 7, 2022.

Applications are due Friday, January 13, 2023, at 5pm (EST).



Weston Family Boreal Research Fellowships 2023 Guidelines, Eligible Projects & Reporting



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. You may be currently enrolled or have a letter of offer from the University. Fellows may reapply for continued project support for a maximum of three years per research project. 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 apply to support subsequent PhD research.

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, the Northern Boreal Mountains, and other projects in the boreal (see Eligible Projects).
- 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 & when will I hear back?

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.

Applicants will be notified by mid-March. Fellowship awards are available for project activities beginning on or after April 1, 2023.

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 (we strongly encourage hiring assistants 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.



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How can I apply?

Please access the application on the Wildlife Conservation Society website.

Questions?

General:

[wscanada@wcs.org](mailto:wcsCanada@wcs.org)

subject line: Weston Boreal Research Fellowship

Ontario's Northern Boreal (ONB):

Dr. Connie O'Connor (coconnor@wcs.org)

Northern Boreal Mountains (NBM):

Dr. Hilary Cooke (hcooke@wcs.org)

For boreal projects outside ONB and NBM programs:

Forests, Peatlands, and Climate Change

Dr. Lorna Harris (lharris@wcs.org)

Key Biodiversity Areas

Dr. Ciara Raudsepp-Hearne (craudsepp@wcs.org)

Species at Risk

wscanada@wcs.org

subject line: Weston Boreal Research Fellowship

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.

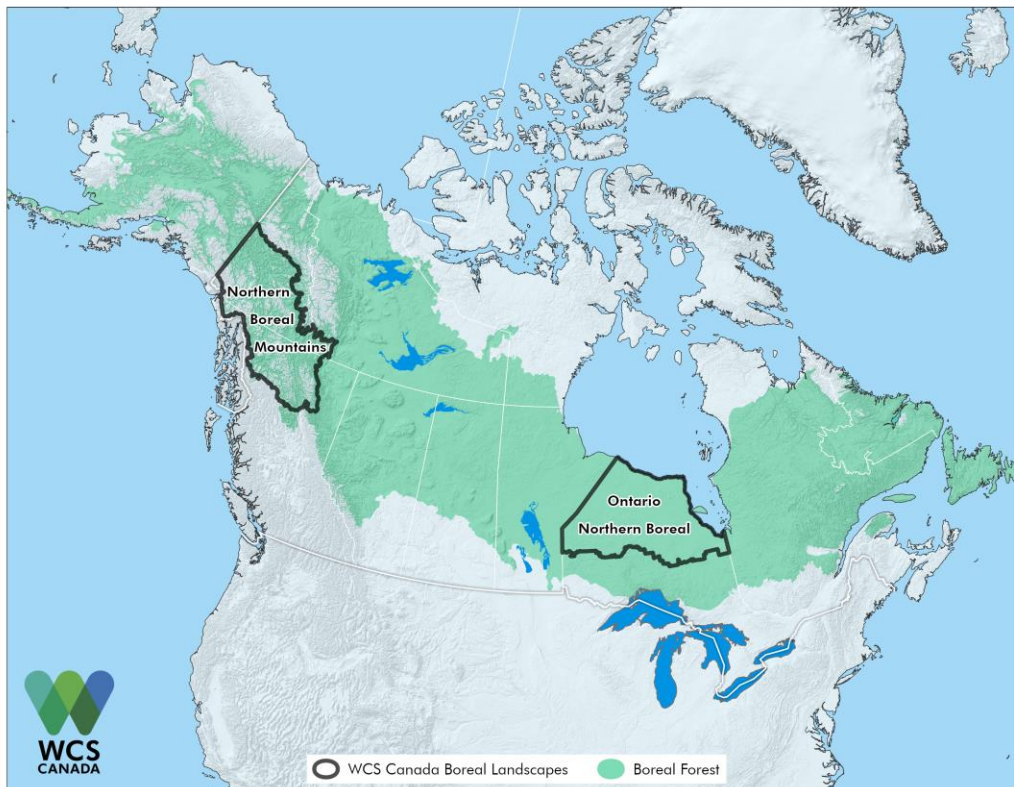
Eligible Projects

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 focused 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 in the Ontario Northern Boreal and the Northern Boreal Mountains (see Figure). 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 in the boreal forest region and supports WCS Canada's national initiatives on 1) Key Biodiversity Areas, 2) Forests, Peatlands and Climate Change, and 3) Species at Risk may also be considered.





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Ontario Northern Boreal (ONB)

The Ontario Northern Boreal is the heart of some of the most intact forests and wetlands in the world. Starting about 300km north of Thunder Bay and stretching all the way to the shores of Hudson and James Bay, this massive area is covered by intact boreal forests, thousands of lakes, free-flowing rivers, and extensive wetlands, including the second-largest peatland complex in the world – the Hudson Bay Lowland – which also extends into Manitoba and Quebec. 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 and is an important refuge for iconic northern wildlife like caribou, wolverine, and lake sturgeon. The Ontario Northern Boreal is also globally important for combatting climate change, with the high-integrity peatlands of the Hudson Bay Lowland storing five times more carbon per square meter than tropical forests.

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 a mineral-rich crescent about 400km northeast of Thunder Bay, called the "Ring of Fire" by mining companies. Building all-season roads and extracting minerals from the Ring of Fire will disturb carbon-rich peatlands and 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 ecosystem that supports healthy and resilient First Nations engaged in sustainable economies.

Ontario Northern Boreal Conservation Objectives:

- To use conservation principles to inform regional and community-based conservation planning and environmental assessment processes, including consideration of climate change and potential impacts to carbon-rich landscapes in planning and environmental assessment.
- To use scientific information to inform conservation of fish and wildlife, and the forest and peatland ecosystems on which they depend.
- 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, in both aquatic and terrestrial ecosystems, and 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.



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- 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, peatlands, 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, and the ecosystems on which they depend, more robust in the face of current and future human activities.
- 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 climate change mitigation and adaptation.



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- 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 different forest types, including recently burned forests, and the implications of changing fire regimes and potential biome shifts under climate change.
- Quantifying drivers and strength of ecosystem-protected and terrain-mediated climate-change refugia using modelling and field-based monitoring.
- Quantifying carbon stored in forest and wetland ecosystems and potential loss due to human activities, such as forestry and mining, and under climate change.

Other projects in the Boreal

Boreal research that takes place outside of the **Ontario Northern Boreal** and **Northern Boreal Mountains** that supports WCS Canada initiatives on [Forests, Peatlands and Climate Change](#), [Key Biodiversity Areas](#) and Species at Risk may also be eligible for funding.

Forests, Peatlands and Climate Change Priority Boreal Research Projects:

- Quantifying the structure (vegetation) and function (hydrological, biogeochemical) of high-integrity (undegraded) peatlands.
- Quantifying the impacts of disturbances (mining, roads, permafrost thaw, wildfire) and/or the effects of climate warming on peatland and forest carbon stores, greenhouse gas fluxes, and water quality.

Key Biodiversity Areas Priority Boreal Research Projects:

- Identifying and implementing indicators of ecological integrity from a Western scientific and/or Indigenous knowledge perspective.
- Identifying and delineating Key Biodiversity Areas in collaboration with Indigenous communities.
- Modelling the abundance and distribution of rare species and ecosystems in boreal landscapes.

Species at Risk Boreal Research Projects:

Priority species include: Woodland Caribou, Wolverine, and Wood Bison.



Weston Family Boreal Research Fellowships 2023 Guidelines, Eligible Projects & Reporting



Reporting

IMPORTANT: Please use the title of your project (corresponding with your grant agreement with WCS Canada) on all documentation associated with the Fellowship.

INTERIM REPORT – Due 21 July 2023

The requirements of the interim report are as follows:

1. Fellows will provide a verbal update by phone (or in person) to the WCS Canada Landscape or national Program Lead. Fellows will be contacted in advance to arrange an appropriate time. Given potential conflict with field activities, verbal interim reports can be arranged up to several weeks in advance of the due date.
2. The submission of 3-5 digital photographs (see Digital Photo Guidelines below) that depict their field site, target species (if possible), fieldwork and/or research methodology. When submitting these photos, Fellows will provide a document that describes each photo, including location information and photo credits (including full name of the person who took the photo).
3. 2-3 ‘Tweets’ that WCS Canada can share on social media about your research.

FELLOW SEMINAR SERIES – Fall 2023

Fellows will share a 5-10 min presentation with other Fellows and WCS staff about their work. The fall seminar series will also include training opportunities for Fellows on science communication, Indigenous-led conservation, and career development.

FINAL REPORT – Due 19 January 2024

The final report should include the following. Note that reporting for grants that were for knowledge co-production and sharing will be customized based on the project.

Part I. A plain language summary for lay audiences (1-2 pages)

Summary of your research that includes:

- A header that includes the logos of WCS Canada logo, the Weston Family Foundation, and your university
- A description of how the research project contributes to conservation
- Examples or anecdotes to illustrate the impact of the work and your experiences in the field or the lab
- 2-3 ‘Tweets’ that WCS Canada can share on social media about your research
- 3-5 high quality images of your work, including at least two images that include people

Part II. A scientific report (5 pages maximum, not including title page, plus maps, images or data if relevant):

1. *Title Page:*
 - Title of the project
 - Name of the research institution
 - Name of the study area where the project is being carried out
 - Names of the research team
 - Time period the report covers
 - Date of submission
 - Logos of WCS Canada, the Weston Family Foundation, your university, and other funders as required



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2. *The research problem*: Description of the rationale and objectives of the project and the research issue being addressed. This should include an analysis of how your understanding of the issue has evolved since the project was approved. Please state any major changes to the objectives.
3. *Research findings*: The main research results to date should be described and interpreted by highlighting the contribution to knowledge that this project represents from a scientific perspective and a policy perspective, if relevant.
4. *Project implementation and management*: Briefly describe the activities supported under the project during the reporting period. Describe and discuss the research methods and analytical techniques used and any problems that arose. Indicate and explain any changes in the project that may have occurred since the initial proposal.
5. *Community engagement in the research* (If relevant), please comment on specific aspects of project design, such as:
 - a. *Engagement with communities such as identifying the project ideas, design and/or implementation, review of results, and utilization*
 - b. *Dissemination of information to communities and community members*
6. *Other Information*:
 - Research partnerships and their benefit to the project
7. *Project outputs and dissemination*: Provide a list of project outputs (if any) to date. Identify any outputs that are planned, but which have yet to materialize (e.g., publications, thesis). Please specify what dissemination efforts were made wherever relevant. General categories of outputs could include:
 - Information sharing and dissemination (talks, meetings, reports, publications, conferences, websites, data repositories, etc.).
 - Knowledge creation (new knowledge embodied in forms other than publications or reports such as new technologies, new methodologies, new curricula, new policies, etc.).
 - Training delivered (short-term training, internships or other fellowships, training seminars and workshops, thesis supervision, etc.).
 - Capacity-building: indicate where you focused capacity-building and what impact the project may have had, especially if your research involves local communities.
8. *Conservation impact*: Describe and assess any conservation impact that the project may have had or might be expected to have. Impact refers to the influence of this research on decisions on conservation and development more generally. Special attention should be paid to the impact on human communities where relevant.
9. *Recommendations*: Include in this section, a summary of any recommendations that you would like to make to WCS Canada that stem from your research experience.
10. *Impact of Fellowship Funding*: Describe the impact of the Fellowship funding on your graduate research. Are there things you have been able to achieve with this funding that would not have been possible otherwise? What would you have done differently if you had not been awarded this Weston Conservation Research Fellowships funding?

Part III. Financial Report

1. Report on total expenditures to date relative to budget (see Financial Report Format below).
2. Where applicable, comment on the variances between actual and budgeted expenses.

Part IV. Video Footage

A one to five-minute video. See Video Guidelines below.



Weston Family Boreal Research Fellowships 2023 Guidelines, Eligible Projects & Reporting



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Reporting for grants that are for knowledge co-production and sharing within Indigenous communities can be customized based on the project. Your reports will need to reflect that Indigenous Peoples have inalienable rights and responsibilities around their Knowledge Systems, including [ownership, control, access, and possession](#) of their Indigenous Knowledge and how this knowledge is documented and shared with others.

FINANCIAL REPORT FORMAT

The financial reports should include actual expenses against the project budget in this format:

	Actual	Approved Fellowship Budget
1. Analyses (including lab fees)		
2. Materials, supplies and equipment		
3. Travel		
4. Postage and shipping		
5. Other (specify)		
Total:		

DIGITAL PHOTOS GUIDELINES

Fellows are asked to submit digital photos, with an emphasis on fieldwork activities, with captions and credits with the Final report. Please ensure you have consent if submitting images of people.

Digital photos submitted by Fellows will be used in the following ways:

1. within reports from WCS Canada to the Weston Family Foundation.
2. within WCS Canada communication materials (website, newsletter reports, presentations, etc.) to promote and communicate about the Weston Family Fellowship program.
3. within WCS Canada communication materials to promote or communicate about WCS Canada's conservation work.

WCS Canada suggests the following compositions are most relevant for the uses above:

1. The Fellow in the field or lab at work.
2. The conservation target (e.g., species, ecosystem, local communities) or issue that is the focus of the Fellows research.
3. Interactions between the Fellow and other researchers or community members (where relevant).



Weston Family Boreal Research Fellowships 2023 Guidelines, Eligible Projects & Reporting



VIDEO GUIDELINES

Fellows are asked to submit digital video footage with credits with their Final reports. [Examples of videos submitted by previous Fellows can be found on the WCS Canada YouTube channel.](#)

Video footage submitted by Fellows will be used in the following ways:

1. submitted to the Weston Family Foundation and shown to the Foundation's Board.
2. used by WCS Canada to promote and communicate about the Weston Family Fellowship program.
3. used by WCS Canada to promote and communicate about conservation in Canada.

The types of footage most relevant for the uses described above include the Fellows at work talking about the goals of their research, how they are conducting their work, any findings so far, and what the impact of having the Fellowship funding has been. Any footage depicting 'bloopers', challenges, or entertaining anecdotes from the field are also encouraged.

Generally:

- The video should be one to five minutes in length. We encourage you to include video footage of the field.
- Introduce your work: Talk briefly about what excites you about your research.
- Explain what this scholarship has meant to you: What, beyond financial gain, this scholarship has enabled.
- Speak in a conversational tone; feel at ease, as if you were having an informal conversation.
- Choose a setting that gives insight into your day-to-day work (e.g., shoot onsite).
- Specifically thank Weston Family Foundation for their support of your work.
- Please do not insert titles, captions, labels, or logos that overlay video footage, and please do not have music overlap with the audio of your voice while speaking about the project. Note that we may edit, curtail, and modify your video to use clips for the various uses outlined above.
- Be creative! To increase the chances of our posting and promoting some of your photos or footage more widely, include a component that is about your experiences in the field. It is important to obtain steady shots in good light. There are lots of tips and tricks to be found on the internet.

REPORT SUBMISSIONS

Fellows will submit reports and digital media electronically to the WCS Canada Fellowship Program Leader for their Fellowship Region.

ACKNOWLEDGEMENT

Fellows should acknowledge the support of WCS Canada and the Weston Family Foundation in all publications (e.g., scientific papers, theses) and all public opportunities (speaking engagements, public announcements of research results in reports and at speaking venues) relating to the Project, as follows:

“With support from Weston Family Boreal Research Fellowship, a program of the Wildlife Conservation Society Canada funded by the Weston Family Foundation.”



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About WCS Canada

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.