

Scientists share in the collective responsibility to feed the fires of reconciliation—to shift the power balance and meet the needs of Indigenous peoples and communities

Summary of a journal article by:

Carmen Wong, Kate Ballegooyen, Lawrence Ignace, Gùdia (Mary Jane) Johnson, and Heidi Swanson.







This summary is based on the article "Towards Reconciliation: 10 Calls to Action to natural scientists working in Canada" by Carmen Wong, Kate Ballegooyen, Lawrence Ignace, Gùdia (Mary Jane) Johnson, and Heidi Swanson. (FACETS | 2020 | 5: 769-783.)

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While their ideas came from experiences working with scientists and Indigenous communities in Yukon, the challenges encountered and recommendations offered are broadly applicable.

These 10 calls to action build on the work of the Truth and Reconciliation Commission's (TRC) 94 Calls to Action. They translate the TRC's calls into concrete actions and approaches scientists can take on an individual level.

Permission was granted by the National Centre for Truth and Reconciliation to use its logo because these calls to action fit with the mandate of its organization.

Logo

Seven fires represent seven teachings: respect, honesty, courage, love, humility, wisdom, and truth.

Two birds represent the many relationships that need to heal and reconcile, including those of scientists and Indigenous people and communities.



Introduction

Reconciliation is a demanding, long and deep process. Everyone has a role. To participate, scientists must face some difficult truths.

- Acknowledge that scientific research has harmed and exploited Indigenous peoples and that this harm continues today.
- Recognize how the power and influence of science contrast greatly with the lack of power and influence of Indigenous knowledge. Indigenous knowledge systems have often been, and continue to be, dismissed as invalid.
- Acknowledge that western science research institutions are steeped in colonialism, racism, and disrespect towards Indigenous people.
- Understand the inter-generational impacts of residential schools and other colonial policies on Indigenous culture, language, and selfdetermination.
- Resist the urge to colonize the process of reconciliation. It must be much more than a series of box-ticking activities.

Reconciliation requires a new way of doing science. Scientists must restructure their relationships with Indigenous peoples and knowledge.

- Build meaningful relationships. Spend time in Indigenous communities, with knowledge holders and with youth and Elders. Explore how your research can benefit from an Indigenous perspective and keep an open mind.
- Learn about, include, and respect Indigenous knowledge and ways of knowing as equally valid but separate from scientific knowledge and ways of knowing. Know and respect Indigenous knowledge holders as experts. Listen. Be aware of western-rooted skepticism and defense of your own ideology.
- Support Indigenous people's rights to selfdetermination and to have their expertise truly heard, recognized, and implemented in decision-making.

In this document, "scientist," "science," and "scientific" are used to reflect people, approaches, and practices that are grounded in western science philosophy.





- Know what Indigenous government or community has jurisdiction over, or interest in, the area where your research takes place. This may include overlapping traditional territories and complex authority and governance structures.
- Form relationships. Understand how the interests and priorities of your proposed research may interact with and serve the interests and priorities of the local Indigenous community. Work together, in partnership. Be aware of your own privileges.
- Be aware of, respect, and follow the requirements of the local Indigenous community. Many Indigenous communities have their own research guidelines, which could include requiring their consent.
- Understand that the priorities and concerns of Indigenous communities and governments may evolve and change over the course of the research. Be flexible and responsive.





Recognize that Indigenous people share the goal to gather and share knowledge about the land.

- · Respect Indigenous knowledge.
- Seek meaningful relationships based on a strong foundation of respect for Indigenous peoples and the land. Listen, adapt, and respond. Be honest, show humility. Admit when you make mistakes.
- Engage early. Consider community priorities before you set the scope of your project. This can strengthen the research and produce better outcomes for everyone.
- Explore shared questions and ways to work together. Be open to how Indigenous and Western knowledge systems can each contribute.
- Recognize that your needs and community needs may be different. You may have to reframe the research question to find a shared space.
- Explore ways to create mutual benefits from publicly funded research. Learn about community priorities and find ways to contribute to them.
- Find a mentor with a history of respectful relationships with Indigenous peoples of the area. Talk with others who worked well there. If appropriate, hire a local liaison.
- Meet face-to-face. Be sensitive to available capacity and technology. Ask for feedback on how often to meet and the best ways to communicate.





- Recognize that sharing knowledge goes two ways. Actively show that you
 respect Indigenous communities and their information needs. Make time and
 space to listen. Share information at every step. Use interpreters.
- Work together to produce new knowledge. Recognize multiple ways of knowing.
- Recognize that the community may need results or data provided in a different way than you are used to data may be used to inform environmental assessments and other management decisions. Communities often don't have capacity to alter or modify data formats or deliverables.
- Share research results with the Indigenous community in accessible formats such as a knowledge-sharing workshop. Use creative media to reach wider audiences, especially youth.
- Hire local people to translate reports into their Indigenous language.
- Share data and results from past research.





Seek Elders' advice on how to respect animals when studying them.

- Recognize that there are different worldviews on ethical ways to treat animals.
- Recognize that there are Indigenous protocols for respecting animals, and these vary across Canada. They may conflict with institutional guidelines which are based on a western science worldview. You may have to choose.
- If possible, meet with and listen to regional or local advisory bodies, which could be an Elder's council. If appropriate, set up a local advisory committee specific to the research.
- Advocate for an Elders' advisory body at your institution, to help guide practices that respect and care for animals.





- Hire youth as field technicians, research assistants, or in some other capacity. Expose them to technology and science on their traditional territory.
- Link research with cultural revitalization.
- Create opportunities for youth to use and learn from Indigenous knowledge and science, including on-the-land work to gather knowledge, and in the lab or community to do analysis and reporting.
- Support and encourage youth to help share research results in their community and elsewhere, such as at a conference.





- Recognize the long history of Indigenous peoples' relationship with the land.
- Know that Indigenous place names mark significant locations. They are tied to knowledge and stories.
- Learn and recognize the stories that go with the place names.
- For maps and other text, consider using the Indigenous place name first, followed by the western name.
- · Work with Indigenous knowledge holders to ensure that you use place names in the correct context and with permission.
- Using Indigenous place names helps reaffirm and revitalize Indigenous languages.





Take a course on Indigenous history and rights.

- Learn about the socio-political landscape of your research area from Indigenous instructors. Include any students and others that work with you.
- As teachers, expose your students to Indigenous knowledge and worldviews in your courses and fieldwork.
- Advocate for a mandatory course for staff and students on Indigenous rights and history at your institution, with Indigenous instructors.



Funding bodies - Change approaches to funding.

- Give priority to research that directly responds to and involves Indigenous communities in meaningful ways. Involve Indigenous reviewers in funding decisions.
- Develop funding programs dedicated to Indigenous applicants that do research, including Indigenous organizations and governments. Use culturally aware program officers.
- Provide proposal templates and review criteria in plain language so that Indigenous organizations and communities, can complete them. Simplify reporting requirements.
- Develop research priorities based on discussions with Indigenous communities and organizations.
- Accommodate financial and socio-economic realities in Indigenous communities. For example, workers and Elders may need daily, immediate cash payments.
- Allow carry-forward in multi-year funding agreements so project teams can adapt to changing capacity and other challenges that come up in remote and underserved communities.
- Value Indigenous knowledge when assessing an applicant's expertise. Assess the merit of Indigenous applicants in ways that are appropriate and respectful.
- Ensure there is always community engagement for research that happens on Indigenous lands.
- Ensure that Indigenous advisors are included in research ethics boards that approve research.





Ensure that respective Indigenous communities review and grant permission before publishing Indigenous knowledge and cultural resources.

- Recognize community ownership of Indigenous knowledge and rights to exert control of the review process when the research relates to cultural resources, uses Indigenous knowledge or data on Indigenous peoples.
- Look to OCAP®¹ and the National Inuit Strategy on Research for guidance. Require an Indigenous knowledge and data sharing agreement which states how knowledge will be used and published.
- During review and before publishing research, ensure there is a process for Indigenous knowledge holders from the relevant Indigenous communities to review articles and give permission to publish. Place equal importance on this review as on the peer review of a western science expert
- Adopt existing Indigenous style guides. Editors and publishers should not make up their own guidelines.

¹ First Nations Principles of Ownership, Control, Access, and Possession. https://fnigc.ca/ocap-training/





- Financially support scientists in developing relationships with Indigenous peoples and communities early on. Encourage scientists to listen and learn.
- Create opportunities for scientists to learn and understand Indigenous worldviews, protocols, and questions.
- Help scientists find ways to work with Indigenous peoples and communities so that everyone can benefit.
- Empower and reward scientists to find ways of conducting science that include reconciliation in their research process. Success will look different than traditional ways of viewing success in science.





Think beyond these 10 Calls to Action:

What can you do to change how science is done?

Here are some places to look for ideas:

- Indigenous Research Methodologies
- Community Based Participatory Research Approach
- Elements of Indigenous Style: A Guide for Writing by and about Indigenous Peoples, by Dr. Gregory Younging www.brusheducation.ca/books/elements-of-indigenous-style
- Living Well Together, a self-directed learning program developed by the GNWT to build awareness about colonization and residential schools and promote cultural sensitivity and the practice of reconciliation. http://www.fin.gov.nt.ca/en/services/diversity-and-inclusion/introduction-living-well*together*
- Beyond Conservation: A Toolkit for Respectful Collaboration with Indigenous People created by the Indigenous Knowledge Circle of the National Boreal Caribou Knowledge Consortium
 - https://ipcaknowledgebasket.ca/resources/beyond-conservation-a-toolkit-forrespectful-collaboration-with-indigenous-people



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https://nwtac.com

Phone: (867) 873-8359

Toll free: 1-866-973-8359

Email: info@nwtac.com



National Centre for Truth and Reconciliation

https://nctr.ca

University of Manitoba, Winnipeg

Phone: (204) 480-1091

Toll free: 1-855-415-4534

Email: NCTR@umanitoba.ca

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