

Our Indigenous world

research



Garnet O'Keese performs a dance as part of a powwow held on Johnston Green at the University of Guelph. PHOTO: MARIKA LI

Reconciliation and research: Finding new ways to nurture healing

Canada is entering a new phase in its relationship with its 1.5 million Indigenous people. After centuries of adversity, the country is reconciling with First Nations, Inuit and Métis people in ways it has not done before. This reconciliation requires a much deeper understanding of the languages, beliefs and cultures that distinguish Indigenous people — an understanding that effective research can help nurture.

Success depends on building relationships, consulting with communities and accepting traditional knowledge. University of Guelph researchers recognize the importance of Indigenous knowledge

of land, animals and people, particularly regarding environmental sustainability, wildlife protection and mental health and well-being.

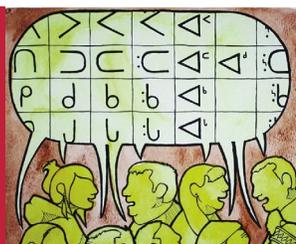
Guelph researchers collaborate with Indigenous communities and their leaders to ensure studies are pertinent, respectful and illuminating. Merging or overlaying traditional practices and wisdom with modern scientific methods breaks new ground. It brings unprecedented value — and excitement — to research findings.

This publication touches on various collaborative projects and partnerships between the University of Guelph and Indigenous communities across Canada and around the world.



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Profs. Kim Anderson (left) and Hannah Tait Neufeld (right) with Katie Meyer-Beck, director of Research Support Services.

PHOTO: MARTIN SCHWALBE

Kimberley Anderson **Knowledge transfer in Indigenous urban communities**

Can Indigenous tradition and culture developed through the centuries be effectively expressed and shared in modern, highly urbanized centres? Indeed, says Prof. Kimberley Anderson. She found that urban environments are not necessarily barriers to traditional knowledge transfer. True, it's more difficult to access land for activities such as hunting and fishing. However, she says, there are ample opportunities for cultural and individual expression in places such as friendship centres or community hubs that provide Indigenous people with access to cultural programs and services.

Robin Roth **How new approaches to conserving natural areas protect treaty rights**

Collaborative efforts by Indigenous leaders, Parks Canada, environmental organizations and university researchers are ushering in a new era of conservation governance. Prof. Robin Roth works with a large group of treaty rights-holders and stakeholders to re-centre Indigenous knowledge and world views into conservation practice. Supporting Indigenous-led conservation can advance nation-to-nation reconciliation by securing land where First Nations, Métis and Inuit can practise their treaty rights, such as hunting and fishing. Integrating Indigenous knowledge into the conservation process also helps build trust among governance participants.

David Danto **How Indigenous communities deal with mental health**

Connections to the land, community and traditional activities as well as openness to diverse spiritual views are key to strength, resilience and positive mental health in one Indigenous community in Canada, and may be a model for others. Guelph-Humber researcher David Danto is looking at how one community, despite a history of trauma and victimization, has positive mental health outcomes. Through interviews with elders, healers and mental health service providers, Danto aims to better understand this community's resilience in the hope that these findings can inform approaches to mental health in other Indigenous communities.

Jen Silver **Oceans governance and Indigenous peoples**

Indigenous peoples around the world rely on oceans for food, cultural expression and commerce. Industrial fishing and aquaculture can impact Indigenous access to marine resources. Prof. Jen Silver works with coastal First Nations in British Columbia to understand and improve community access to marine resources and appropriately incorporate Indigenous knowledge into fisheries management. One initiative that Silver is involved with, called the Clam Garden Network, brings together First Nations and researchers to understand, promote and reconstruct traditional intertidal rock walls that protect and improve shellfish harvest beaches.

Sheri Longboat **Improving First Nations water security**

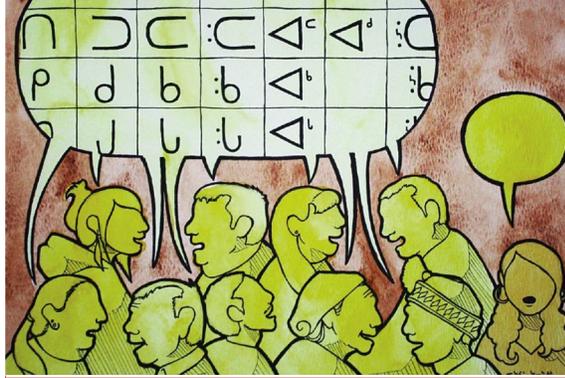
For Indigenous peoples, water is a living entity, a sacred gift — and with it comes inherent responsibilities for protection. Yet many of the 634 First Nations communities across Canada lack access to safe drinking water and, for some, the situation has persisted for years. In addition, First Nations have international and constitutionally protected Aboriginal and treaty rights, many of which relate to water in traditional territories. Prof. Sheri Longboat is a Haudenosaunee Mohawk from Six Nations of the Grand River who is examining the interface between Indigenous and Western institutions (knowledge systems, policy and governance) to address issues of water security, food sovereignty and sustainability in First Nations communities. She believes that solutions for social-ecological challenges require interdisciplinary approaches, collaboration among multiple actors and shared responsibilities.

Hannah Tait Neufeld Land-based education and food sovereignty in southwestern Ontario

Prof. Hannah Tait Neufeld, an applied human nutrition expert, uses land-based learning and other forms of experiential learning to facilitate a four-year project funded by the Canadian Institutes of Health Research. She aims to bridge barriers to the transmission of inter-generational food knowledge. Working with a diverse set of partners on reserves, in cities and on campus, the community-based study uses “photo-voice” methods to capture sources and stories of Indigenous foods in the community of Six Nations and nearby urban environments. Participants will be encouraged to take pictures where foods are harvested, hunted or shared. These photographs will then become the objects of interviews to collect stories. The distribution of study results will involve elders, parents and youth in sharing circles and workshops developed in urban centres and elsewhere. Photographs and digital stories will be displayed at local events to advocate for the continued building of relationships in support of land-based initiatives.

Leah Levac Engaging the perspectives of Northern women

By collaborating with local women, local organizations and Indigenous governments, Prof. Leah Levac is working to understand how the well-being of women with diverse social and economic identities and positions in society is affected by, and affects, the Northern communities in which they live. Some of the issues identified by women include a lack of access to land and difficulties accessing educational opportunities and health services. Researchers will use results to assist governments and other organizations with prioritizing needs and creating solutions.



Benjamin Bradshaw A community measuring mining's impact in its own way

The Naskapi Nation of Kawawachikamach — an Aboriginal community located on the border of Labrador and Quebec — has significant experience with extraction of the region's rich iron deposits, from the 1950s until mining slowed through the 1980s. Now with renewed interest in mining there, community members are concerned about its possible environmental and socio-economic impacts. These concerns have led the Naskapi Nation, in partnership with University of Guelph professor Ben Bradshaw and graduate student Robert Klink, to develop a tool to track community well-being. This project uses indicators of the community's own design and generates outputs that everyone there can understand. Through ongoing surveying using these indicators, the Naskapi can identify and demonstrate changes in their Nation's well-being. For researchers, the study will contribute to a better universal understanding of mining's effects on Indigenous people.

ARTWORK: ELIZABETH JANCEWICZ FOR THE NASKAPI NATION

Jana Levison and Ed McBean Protecting groundwater quality and safety

The Chippewas of Nawash Unceded First Nation have partnered with U of G Profs. Jana Levison and Ed McBean and PhD student Rachael Marshall to assess groundwater quality and safety for their community. The collaborators analyzed the effects of various factors, such as nutrient, bacteria and artificial sweetener concentrations from septic systems, on groundwater quality as part of the initiative to improve source water protection methodologies pertinent for First Nations communities. Community members contributed their traditional knowledge on water to a framework for source water protection. This research demonstrates the need for multi-jurisdictional partnerships (First Nations, federal, provincial and private) and for significant water protection funding for First Nations.

Francois Tardif Managing invasive species in Indigenous communities

Wild parsnip is an invasive species that can cause chemical burns when people come into contact with its sap. To manage its spread and establishment across southern Ontario, Prof. Francois Tardif collaborates with the Chippewas of Nawash Unceded First Nation. This partnership aims to mesh non-chemical weed management strategies and the ancient Indigenous practice of controlled burning with scientists' knowledge of effective chemical control methods to protect the health and well-being of local communities and the environment. Through a respectful and reciprocal relationship with the band council, lands department and community of Nawash, researchers hope to provide meaningful and adequate solutions and knowledge for the eradication of wild parsnip to all peoples within their traditional territory.



Tad McIlwraith **The connections among wind, water and community**

Water and wind play an invaluable role in the lives and everyday activities of the Splatsin First Nations community of Enderby, B.C. Besides its use for nourishment, water is used in ceremonial cleansing, and wind is used for drying fish and preparing animal hides. Through Splatsin oral history, Prof. Tad McIlwraith looks at how community members value, manage and use wind and water in their lives through documentation, photography, discussion and observation in order to help the Splatsin assert their voice in the national conversation about Indigenous land use. PHOTO: TAD MCILWRAITH

Elliott Currie **Nishnabe Aaski Nation** **and troubled food access**

Non-traditional foods such as cheese and milk are shipped to Northern First Nations communities and sold at exorbitant prices. For example, four litres of bagged dairy milk cost \$12.60 in some Northern communities, even though many First Nations people have traditionally relied on wild sources, such as fish and fresh game, for similar nutrients. A team of U of G researchers led by Prof. Elliott Currie collaborates with First Nations communities, including the Nishnabe Aaski Nation, to determine how to connect their needs for nutrition and food supplies with the communities' traditional knowledge. They also aim to help foster job creation in communities that produce and market food, including farmed fish, greenhouse vegetables or raised meat.

Mostafa Elsharqawy **Making drinking water more** **accessible in northern Ontario**

Safe drinking water is fundamental for healthy communities. That's why a team of researchers from the School of Engineering led by Prof. Mostafa Elsharqawy has teamed up with two Indigenous communities in northern Ontario on boil water advisories to improve safe drinking water access. The team has worked to engineer sustainable water system solutions for these communities. The systems improve the brackish water by removing salt, and disinfect it using waste heat from cooking and house heating. Alongside the construction of water cleaning systems, the researchers are also providing an educational outreach program through hands-on workshops that teach communities how to operate and maintain water systems.

Nicolas Brunet, Kelsey Beaton, Clayton Coppaway, Sheri Longboat and Stephen Crawford **Exploring the management of First Nations fisheries in the Great Lakes**

Rural planning and development professor Nicolas Brunet is working with Indigenous communities on the Great Lakes to explore issues and identify innovative solutions to fisheries management. There are currently two distinct approaches to management in this context — one addresses on-reserve commercial fisheries, and the other pertains to subsistence fisheries. Within these two systems, he studies mounting problems of acidification, excess phosphorus, climate change and pollution. Brunet's research team will host a gathering for all Indigenous communities involved in this research to share knowledge about their respective management strategies and facilitate regional approaches to address current and future issues.

Brittany Luby **Anishinaabe creativity and resilience in northwestern Ontario**

Poverty on Anishinaabe reserves in northwestern Ontario has been aggravated by hydroelectric energy production. Prof. Brittany Luby is exploring Anishinaabe resilience after the Whitedog Falls Generating Station caused mass flooding and decreased fishing, hunting and trapping revenue in Anishinaabe communities along the Winnipeg River. Through her research, Luby is highlighting Anishinaabe creativity and resilience by showing others how her ancestors (and contemporaries) survived (and survive) environmental inequality.



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Compiled by Alaina Osborne,
Megan Swim, Marika Li, Alyssa
Logan, Amia Khosla
Editorial Coordination:
Owen Roberts and Liz Snyder

For more information, contact
lsnyder@uoguelph.ca

Design and Layout:
Lind Design