

SUPPORTING INDIGENOUS YOUTH

Why On-The-Land and On-The-Water Programming is Important

TABLE OF CONTENTS

1.	INTRODUCTION	3	
2.	APPROACH AND METHODS	5	
3.	KEY FINDINGS OVERVIEW	7	
4.	WHAT IS THE VALUE IN ON-THE-LAND/WATER PROGRAMMING? IV. Importance of the Connection to Lands and Waters V.Interruptive Colonial Practices VI.Decolonization	9 9	
5. \	WHY ARE THESE PROGRAMS IMPORTANT?	11	
	VII. Indigenous Leadership		
	VIII. Stewardship		
	IX. Climate Change	12	
	X. Food Insecurity	12	
	XI. Health and Wellness	12	
	i. Physical	13	
	ii. Mental	13	
	iii. Spiritual	14	
	iv. Emotional	15	
	v. Intergenerational Trauma and Intergenerational Healing	16	
	vi. Violence Against Women and Girls	16	
	vii. Finding Safe Spaces for Two-Spirit, Non-Binary and LGBTQIA+ Indigenous Youth	17	
	XII. Language Revitalization and Retention		
	XIII. Cultural Revitalization and Retention		
	XIV. Educational Attainment	19	
	XV. Employment	20	
5.	CHALLENGES IN IMPLEMENTING PROGRAMS	21	
7.	LIMITATIONS AND GAPS IN THE LITERATURE	23	
8.	CONCLUSION	25	
RE	FERENCES	27	
	PPENDIX A - INDIGENOUS YOUTH PROGRAM DETAILS		
ΑF	APPENDIX B - PRISMA FLOW CHART34		

Cover: Starfish in a tidepool near Klemtu, British Columbia © Jason Houston Opposite page: Moraine Lake, Albertaa © Christopher Riolo



1. INTRODUCTION

I. Land Acknowledgement

A land acknowledgement is honouring the land you are on and the Indigenous people who have been the caretakers to that land since time immemorial. Speakers in meetings, gatherings or events introduce themselves and state which Indigenous territory they are conducting their work on as a sign of respect. There are many ways to offer a land acknowledgement, but one of the most important things to remember when offering a land acknowledgement is to be sincere. As the two authors of this report, we would like to offer our acknowledgments.

?iy te kwal Ximiq chen skwish a la Nuxalkmc iy te shíshálh. Good day my relatives, my name is Ximiq. I am also known as Dionne Paul. I am from the Nuxalk Nation and the shíshálh Nation. I am an artist, plant medicine woman, and yoga instructor. I reside on the homelands of my father's people the shishall Nation.

Hi there, my name is Holly. I want to acknowledge that all my work for this report was conducted while residing on the traditional unceded territory of the Huron-Wendat Nation. As a new settler to these lands, I am grateful for the opportunity to conduct my work while immersed in the beauty of the surrounding lands of what is commonly referred to as the Québec City region.

II. What is On-The-Land or On-The-Water Learning?

Indigenous way of life pre-contact with Europeans was the original on-the-land learning, meaning it was simply how Indigenous Peoples harmoniously existed with Mother Nature, although it was not defined with the term on-the-land learning or land-based-learning. This term is relatively new and implies a disconnect to the land and water or it suggests a return to the land and water. To use the term on-the-land learning recognizes the colonization of Indigenous Peoples and the forcible displacement of Indigenous People from their lands and waters. It is this disconnection to land and water that is missing in so many youths' lives. Onthe-land learning is more than the physical act of being on the land and in the water. It is a transformational journey to connect with the essence of what it means to be Indigenous by mentally, emotionally, physically, and spiritually experiencing the inherent magic and wisdom the land and water offer Indigenous people and all people. (Dionne Paul)

What this will look like, and entail, will be unique to each nation and community, and therefore one universal definition should not be created. For example, some definitions of what constitutes on-the-land learning include learning in urban spaces.^{1, 2} Some focus less on the geographic environment, such as an Anishinaabe definition of land-based education that defines it as a pedagogy that "must acknowledge and use the storied nature of the landscape to enable students to critically examine their connections to the land, water, animals, and each other." (p.18) Indigenous Peoples across Turtle Island have intimate connections with the natural world and all animals and plants are considered a part of the family. Since what defines an on-the-land or on-the-water experience can be uniquely defined by each community, generalizing this term is impossible.⁴

For this report, commonalities were identified across the definitions in the literature to inform the inclusion criteria used for onthe-land/water programming. Therefore, for this report, it was determined that on-the-land/water programs include those that are informed by Indigenous pedagogy, use the land or water as the main source of knowledge and teaching, and involve cultural teachings and intergenerational knowledge transfer in a rural or nature-based remote location. Importantly, source terminology will be kept where possible in this resource. The programs discussed in this document are therefore referred to as: on-the-land, on-thewater, land-based, water-based, or on-the-water/land programs. Despite the slightly different terminology, all programs referenced in this resource abide by the above criteria. For brevity's sake, when referring to the programs in a general manner, on-the-land/ water programs or programming will be used.

While we are sharing our research into the benefits of on-the-land learning for Indigenous youth, it is important to note that we recognize the destructive impacts of the Canadian Government's legislation and policies focused on Indigenous Peoples and ways of being on the land and water. There is a huge social movement that is directly addressing these injustices through Truth and Reconciliation and the United Nations Declaration of Rights of Indigenous Peoples. On-the-land learning for Indigenous youth are "Actions" we can implement that are directly related to the Truth and Reconciliation's 94 Calls to Action. The Calls to Action that



Students in Kinosao Sipi, Manitoba @ Robert Rideout

on-the-land learning programs for Indigenous youth can respond to are child welfare, education, culture, health, justice, #66 "to establish multi-year funding for community-based youth organizations to deliver programs on Reconciliation," and sports.

III. How to Use This Resource

The intent of this resource is to provide a high-level summary of existing evidence on the value and importance of providing and supporting on-the-land/water programming for Indigenous youth within Canada. This resource can be used to provide evidence for the impact of, to support funding applications for, and to provide examples of on-the-land/water programming for Indigenous youth in Canada. Due to limitations on the search outlined in the "Approach and Methods" section, this report is by no means exhaustive. Therefore, it is recommended that this resource be used as a supportive but not stand-alone document. Being a high-level summary on a variety of programs delivered across varying geographic regions and Indigenous nations, there is the possibility that not all within this report will be relevant to your program. To aid in the interpretation of the findings in this report, a table outlining high level details of the programs described in the resources can be found in Appendix A.

2. APPROACH AND METHODS

First and foremost, as authors we want to acknowledge that we identify as one settler to Canada and Dionne Paul, MAA (Ximiq). In writing this report, it is important to recognize the responsibility we have in continually working against settler-colonial practices in research.

Research journals are inherently colonial and have historically excluded Indigenous voices and traditional Indigenous knowledge from publication. There continue to be many barriers faced by Indigenous scholars, Knowledge Keepers, and communities in using the colonial "peer-review" process highly regarded by the research community. Notably, in the context of land-based education, the definition of "peers" may extend beyond university professors to Elders or community knowledge holders. It may also not make sense for reviewers to remain anonymous in this process. (p.V)

Additionally, conducting research and submitting proposals to journals are financially burdensome, thereby restricting the ability of many to contribute. Furthermore, those Indigenous Peoples who are actively practicing traditional, cultural, and ceremonial ways on the land may not see the same value in contributing to research journals. There is a cultural difference in how this knowledge is disseminated. To aid in decreasing the impact of this publication bias on the findings of this report, grey literature was primarily searched. Additionally, doctoral dissertations and theses were accepted. Although not peer reviewed, dissertations and theses are meant to explore new or under researched areas. They also provide the opportunity for authors to exert more creative control over research topics and methodology. Although the Western educational institutions attached to these publications are inherently colonial, we hope their inclusion will highlight more Indigenous researchers and shed light on a currently under researched and underfunded area.

In terms of the methodology behind this report, a comprehensive search of grey literature and other relevant databases was conducted between January 9-17, 2022, using a wide range of key terms. Six databases were searched including OAlster, Social Sciences Research Network, Canadian Electronic Library, PubMed, Google Scholar, and the National Collaborating Centre for Indigenous Health. Resources were primarily screened based on title and abstract to be further reviewed for inclusion. Secondly, identified articles were given a full-text review to determine their eligibility in contributing to this report. In total, 416 resources were screened and 24 were deemed eligible for inclusion. To be included, resources had to describe a program that was either designed solely for or incorporated Indigenous youth. Although there is no universally agreed upon age range for youth, this report used the United Nations definition for youth, with an age range of up to 24 years old.⁶ Alerts were also created on both PubMed and Google Scholar and were active until February 23, 2022. A PRISMA diagram can be found in Appendix B. Additionally, four resources from an internal library of literature were added due to relevancy to the report with no limitations on publication date. News articles and online reports written about two additional on-the-land programs known to the researchers were also included. Finally, author Dionne Paul, MAA (Ximiq) provided personal reflections and knowledge to the review.



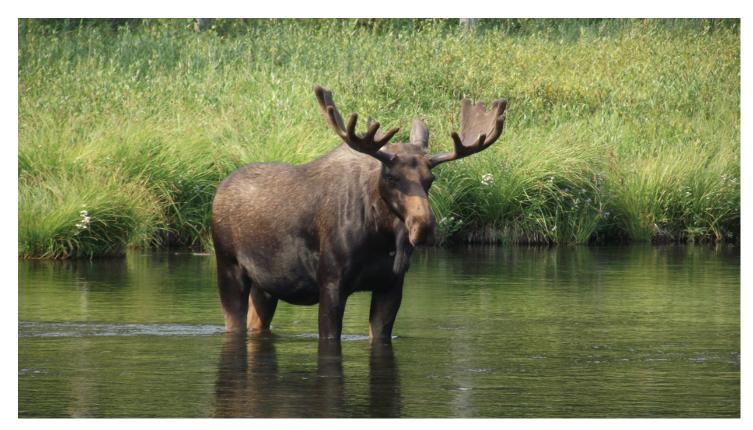
Moose swim the Thelon River in Canada's Thelon Game Sanctuary in Northwest Territories © Ami Vitale



3. KEY FINDINGS OVERVIEW

This literature review was conducted to provide evidence as to why being out on the lands and waters leads to positive outcomes for Indigenous youth. Although each nation has a different relationship with the land and Turtle Island, Indigenous nations have always been out on the lands and waters. Indigenous knowledge systems, languages, and cultures were developed through the relationship with the land, resulting in an interdependent relationship between the two. Harmful colonial practices attempting to dismantle Indigenous ways of being targeted this relationship with land, recognizing its centrality in Indigenous cultures. To work towards decolonization, Indigenous knowledge systems must be supported and valued while simultaneously dismantling colonial systems. Supporting the implementation of on-the-land/water programs for Indigenous youth demonstrates a commitment to decolonization and allows Indigenous youth to deepen connections to their culture, traditional ways of being, and home. The findings from the literature search, alongside empirical knowledge from author Dionne Paul, MAA (Ximiq), highlight the following positive outcomes from on-the-land/water programs for Indigenous youth:

- Indigenous Leadership: Through enhancing the connection to or reconnecting youth back to their communities, these programs support peer-to-peer and intergenerational knowledge exchange and promote character building within participants, giving the youth the tools needed to succeed as leaders in their communities.
- Stewardship: Indigenous worldviews have always viewed the land as sacred, something to be taken care of. By participating in on-the-land/water programs, Indigenous youth can better understand the land and how to take care of it, a principle deeply rooted in Indigenous ways of being, while additionally increasing a sense of responsibility in caring for the land.
- Climate Change: The exploitative view of settlers has led to numerous unsustainable practices across Turtle Island and contributed to climate change. On-the-land/water programs educate youth on environmentally friendly practices, while also providing opportunities for youth to partake in important research designed with Indigenous pedagogies in mind - both of which are important to help curb and understand the full breadth of climate change.
- **Food Insecurity**: The combination of climate change, the displacement of Indigenous communities, and the restriction of traditional Indigenous ways of being completely interrupted traditional Indigenous food systems. This leaves many communities reliant on limited and costly imported foods, while threatening what food systems are in place. On-the-land/ water programs can help educate youth about traditional food systems, a practice that might help fill the gaps left by settlers, especially in communities that were forced to settle in more remote and inaccessible locations.
- Health and Wellness: On-the-land/water programs impact multiple facets of the health and wellness of Indigenous youth including physical, mental, spiritual, emotional, intergenerational healing and trauma, violence against girls, and creating safe spaces for two-spirit, non-binary, and LGBTQIA+ youth.
 - Physical: Being back on the land and water surrounds youth in an environment that supports healthy lifestyles, outdoor lifestyles, and the enjoyment of traditional land-based foods. It also removes youth from environments that may be stressful or unpleasant, which includes environments that are potentially abusive; sources of pain; encouraging to drugs, alcohol, and crime; or may expose youth to cyber bullying.
 - Mental: On-the-land/water programs support Indigenous youth through increasing resiliency against social pressures as well as providing mental support from their communities and culture. To offer these programs brings youth to a space where they are connected with Indigenous ways of being and given space from colonial institutions that often serve as a source of trauma or hurt, working to heal and reduce the burden of mental health concerns on the
 - Spiritual: Being out on the land and water connects youth to traditional practices which maintains Indigenous spirituality, connects youth to ancestors, and provides spiritual protection and cleansing.
 - **Emotional:** Being on the land and water can teach skills and techniques that are relevant and constructive for Indigenous youth in supporting their emotional health in ways that Westernized approaches cannot. This is done through fostering supportive relationships, breaking down the protective mechanisms used by youth, and creating an environment where youth are able to express their emotions in a healthy and productive manner.
 - Intergenerational trauma and healing: One of the most referenced outcomes across the literature was the ability of these programs to provide a space for intergenerational healing to occur. On-the-land/water programs offer traditional ways of healing while disrupting any cycles of abuse that many Indigenous families experience as a direct result of the harmful colonial practices on these communities.
 - Violence against girls: Indigenous women and girls have been inequitably impacted by violence due to colonial practices, as highlighted by the 2019 Inquiry into Missing and Murdered Indigenous Women and Girls.⁷ On-the-land/



Canadian Moose © USFS

water programs are imperative for Indigenous women and girls to have the necessary environment to heal and regain sovereignty over their bodies after generations of colonially induced and targeted gender-based violence. Land- and water-based programs that aim to restore the strength and health that boys and men in communities experienced precontact, functioning as protectors of women, children, and each other, can also contribute to reducing such violence.8

- Safe spaces for two-spirit, non-binary, and LGBTQIA+ youth: Two-spirit, non-binary, and LGBTQIA+ Indigenous youth were also targets of cultural genocide by settler systems. Being back on the land and waters can provide a space where they can feel at home, and at ease with oneself, and away from harmful and stigmatizing colonial practices.
- Language Revitalization and Retention: Numerous reflections of experiences with these programs spoke to the connection of Indigenous languages with the land, and the uniqueness of many Indigenous terms that would otherwise not be used in a Western-colonial system, such as terminology for traditional local foods and cultural practices. Additionally, through onthe-land/water programs, Indigenous youth can share the experience of connecting to language with both their peers and program facilitators in a supportive environment.
- Culture Revitalization and Retention: On-the-land/water programs give the opportunity for recently re-legalized traditional Indigenous practices, such as the Potlatch to be shared intergenerationally in Indigenous communities. This allows youth to explore their cultural heritage in a safe space supportive to Indigenous ways of being and provides more flexibility than Western institutions in offering learning opportunities that are more culturally relevant and informed.
- Educational Attainment: Utilizing Indigenous pedagogies in education through on-the-land/water programs fosters a sense of belonging and confidence in Indigenous youth's ability to succeed, away from stigmatization or discrimination often experienced in Western institutions so closely tied to the extremely traumatic residential schools. Additionally, these programs provide an inclusive approach to different learning styles and the opportunity for Indigenous knowledge systems to be at the forefront, educating youth on important life skills.
- **Employment:** These programs teach youth transferable skills that may lead to employment directly or indirectly related to on-the-land/water programs, that aren't being taught in other local educational systems. These programs can also serve as networking opportunities that can lead to a range of potential career paths for youth.

4. WHAT IS THE VALUE IN ON-THE-LAND/WATER PROGRAMMING?

IV. Importance of the Connection to Lands and Waters

Being connected to the lands and waters on which one resides is central to Indigenous health, well-being, and knowledge systems. 9 Indigenous communities historically, and presently, learned and taught through the lands and waters, resulting in a dependent relationship between them and Indigenous knowledge systems, cultures, and traditions. 2 Indigenous knowledge does not exist without the land, knowledge that was traditionally transmitted intergenerationally. For some cultures, such as the Anishinaabe, stories of creation implicitly define a deep connection between people, ancestors, and the earth. 9 Being out on the land and water, connecting to it, directly impacts Indigenous health and well-being. The land is the source for all resources required to live a healthy and productive life, something that is highly respected across Indigenous cultures. The land is invaluable, as described by an Anishinaabe youth:

I think to me land means life. Like, without the land, there would be nothing, like literally. And like it can bring happiness, sadness, every emotion. It's just a huge influence that I don't think a lot of people realize, like they take it for granted. And I think that land means, I know it means a lot to my culture, and it probably means a lot to so many different cultures that I just don't know. And it's just a really important part of life, a part of everything and anything.9(p.7)

The relationship Indigenous Peoples cultivated and reciprocated with the land, water, plant medicines, supernatural beings, cycles, connection was intentionally obliterated by the Canada Government. The value of on-the-land learning programming recognizes and prioritizes these connections for Indigenous youth. Understanding the harm that the disconnection has had on Indigenous Peoples and actively participating in the reconnection of Indigenous people to the land and water is igniting a powerful sense of cultural self, a sense of cultural identity, and sense of belonging to a place and a meaningful purpose for one's life. These environmental interventions will positively impact the mental well-being and physical health of Indigenous youth by reducing anxiety and stress thereby opening space to explore traditional ways of knowing, which in turn will positively influence one's emotional self and spiritual being.

V. Interruptive Colonial Practices

For the last 150 years, ongoing harmful colonial practices have attempted to dismantle the traditional Indigenous ways of being through systems of purposeful oppression and the removal of many from their homelands. To discuss the legacy of injustice to Indigenous people would be an extensive report. However, to help shape an understanding of why on-the-land/water programs are important it is imperative to remind readers of some of the larger historical events that have displaced Indigenous people from their land.

When settlers came to Turtle Island, many Indigenous cultures were thriving, abiding by their own governance and laws. Seen as a threat to colonial expansion, settlers sought to "assimilate" Indigenous communities through forceful attempts to extinguish their cultures. To do this, settlers had to create laws and systems that ultimately opposed everything Indigenous communities held sacred, attempting to make it nearly impossible to exist without transitioning entirely to what settlers deemed as the way to exist. In 1876, the Canadian Indian Act was introduced into legislature, resulting in the restriction of Indigenous communities to settle on one reserve location and denying them their traditional ways of life, which often involved travelling on the land or water to accommodate access to seasonal foods.¹⁰ Through amendments to this Act, traditional cultural practices such as the Potlatch and other ceremonies were added to the repressive laws as an attempt to further assimilate and abolish Indigenous ways of being. Indigenous women, who were highly respected and often held leadership roles in Indigenous communities, were suddenly told they had no rights and were to be subservient to men. Additionally, through the imposition of residential schools, Indigenous families were forcefully separated and youth were taken from their lands, resulting in a disruption of families, communities, and traditional intergenerational knowledge sharing.^{12,13} The devastating impact of residential schools surged on account of the Sixties Scoop where a mass non-consensual removal of Indigenous children into the child welfare system occurred, many of whom were unable to relocate family, return to their Nations, or survive the experience at all. These colonial practices of legislation and staterun education systematically targeted the dissolution of Indigenous kinship and governance systems, disconnecting Indigenous children from their families and culture.14

The ongoing racist and discriminatory systems in place contribute to the disproportionate presence of social issues, such as poverty and health inequities, amongst Indigenous communities compared to the general population.^{15, 16} Although attempts



Sea asparagus during an internship field trip to Steep Creek near Klemtu, British Columbia in the Great Bear Rainforest © Jason Houston

by governmental bodies to apologize for their racist actions have been made, the deep roots of these colonial policies have led to lasting racist and genocidal impacts on Indigenous Peoples to this day. Experiences for Indigenous Peoples may not have been identical, but the overarching impact of colonial practices attempting to assimilate Indigenous cultures was widely felt, disconnecting peoples from their lands and communities, and directly impacting their health and wellness.

VI. Decolonization

Although the colonial practices discussed above cannot be reversed, the process of decolonization attempts to undo these wrong doings. In a guide published by front-line Indigenous and non-Indigenous post-secondary staff at the University of British Columbia, the authors define decolonization as a process that involves the simultaneous dismantling of structures that perpetuate colonial unbalanced power dynamics, while also valuing and revitalizing Indigenous knowledge and ways of being.¹⁷ Using this definition, programs that return to the land and water work toward decolonization through both methods. As Wildcat, et al. notes, "if colonization is fundamentally about dispossessing Indigenous peoples from land, decolonization must involve forms of education that reconnect Indigenous peoples to land and the social relations, knowledges and languages that arise from land."5(p.I) The inclusion and support of these programs challenge the Eurowestern-centric, colonial education systems in place today while valuing Indigenous pedagogies and ways of being.18, 19 Settler colonialism has impeded the "transmission of knowledge about forms of governance, ethics and philosophies that arise from relationships with the land" by replacing Indigenous education systems with Western ones.5(p.II)

On-the-land/water programs offer Indigenous youth the space to learn outside of the colonially designed classroom, a space that was created for and favoured Western knowledge. By supporting on-the-land/water programs, space and power is given back to Indigenous knowledge, a vital shift for the resurgence of Indigenous knowledge systems. On-the-land/water programs seek to decolonize and revitalize Indigenous ways of being that were disrupted and attempted to be erased through colonial practices. As expressed by Indigenous author Leanne Betasamosake Simpson, decolonization cannot be carried out if a generation of land based, community based intellectuals and cultural producers who are accountable to [their] nations and whose life work is concerned with the regeneration of these systems is not created. The findings from our literature search presented below outline the demonstrated ways that on-the-land/water programs for Indigenous youth are resulting in stronger communities and progress towards decolonization; an argument with demonstrated evidence as to why these programs should be supported.

5. WHY ARE THESE PROGRAMS IMPORTANT?

The policies mentioned above destroyed traditional systems, dispossessed Indigenous people from their homelands, demolished families, erased cultural practices, and violently separated Indigenous Peoples from their sources of strength, the land and water.5(p.II) Therefore, it is imperative to be a part of Reconciliation by funding and supporting programs that enhance existing connections or reconnect Indigenous Peoples with their lands and waters. To support this argument, the following section outlines common themes identified in the literature as areas positively impacted by on-the-land/water programs for Indigenous youth.

VII. Indigenous Leadership

Participation in on-the-land/water programs connects Indigenous youth back to their communities, often leading to a renewed or heightened sense of responsibility, promoting a reconnection to the source energy of Indigeneity.^{1, 4, 21}

The land and the water have a special kind of cell memory or a familial recognition that spans generations that is eternal. When I go into the forest in my homelands all the plants, trees, and mycelia know who I am, they know what family I am from, they know my lineage, they remember me. The water has this recognition too. Water is fused with our tears, our blood, our sweat, our sensual fluids, the vibration of our songs. We are one with water and water is one with us. Water and Water Beings also know who I am. It is some of Indigenous People that don't know or remember them. To be returned to the land and the water is to reunite with my animal and plant family. It's a re-introduction to this ancient network of beings that make up who we are as s-kal-mixw (human beings). To return to the land and the water is to return home. In some cases return to a home we didn't know we had. (Dionne Paul)

After the Restoring Our Roots land-based program one participant shared that they "started volunteering at La PAQ (an organization providing shelter and services to homeless and precariously housed Indigenous people)" which was the first time they had worked with people in their community.¹(p.133) Additionally, an evaluation of the Supporting Emerging Aboriginal Stewards Community Initiative (SEAS) revealed participation in the program led to a major increase in the ability to communicate effectively; willingness to share skills and knowledge; ability to manage, motivate, and organize others; likelihood to inspire others; and compassion.²¹ The development of these leadership skills was similarly reported after an Inuit land-based program, noting that being on the land "gives youth drive, focus, [and] foundation."⁴(p.65) On-the-land/water programs support peer-to-peer knowledge exchange and promote character building within participants, giving the youth the tools needed to succeed as leaders in their communities.

VIII. Stewardship

Indigenous worldviews have always viewed the land as sacred, something to be taken care of. When settlers came to Canada, they viewed the land as something that could be conquered and exploited, often forgetting the necessity to care for our home. Since on-the-land/water programs are direct reflections of Indigenous worldviews and ways of being, they offer the opportunity to learn more about how to honour and take care of Turtle Island. 9, 13, 18, 21-23 Furthermore, Indigenous youth who participate in these programs have reported a heightened sense of responsibility in caring for the land, highlighting that it was the connection to the land that sparked the shift. 13, 18

After a year of participation in an Indigenous land- and water-based learning institute on the homelands of the Lekwungen and WSÁNEĆ Nations, University of Victoria graduate students offered reflections, noting the enhanced sense of stewardship and responsibility for the lands and waters that we live on.¹⁸ One of the Indigenous students, Morgan Mowatt, spoke to the shifted sense of accountability in taking care of the land, noting that "land-based learning fosters the remembering required to become a good ancestor, both on our own territories and as guests on the homelands of others." [p.19] This passion for caring for the lands and waters was echoed in the SEAS Evaluation, where participants were reported to have demonstrated increased advocacy for conservational concerns in their communities after the programs, including kids "supporting their parents and in general [being] really emotional about the conversation aspect" at a local sit-in.²¹(p.12) On-the-land/water programs can serve as a method through which interest in environmental concerns can be facilitated in youth, a connection to traditional Indigenous ways that always involved taking care of the land.²³ By participating in on-the-land/water programs, Indigenous youth can better understand the land and how to take care of it, a principle deeply rooted in Indigenous ways of being.

IX. Climate Change

The exploitative view of settlers has led to numerous unsustainable practices across Turtle Island and contributed to climate change. As discussed above, on-the-land/water programs teach Indigenous worldviews to youth, which fosters an increased sense of responsibility in caring for the land. The increased sense of stewardship fostered through these programs will inspire Indigenous youth to address real concerns of climate change by instilling accountability and a sense of responsibility to the land and waters.

Through being on the lands and waters, Indigenous teachings foster a greater understanding of what the land can provide and how to care for it. 11,22 For example, the IMALIRIJIIT environmental monitoring program uses traditional Indigenous pedagogies including traditional Indigenous knowledge to contribute to important research addressing climate change. 22 Indigenous communities should be at the forefront of research addressing climate change. Indigenous communities have a deep connection with the land, and they can therefore offer great insight into the histories of the lands and waters, critical information in understanding the impacts of climate change. Due to colonial research practices, distrust has been garnered between many Indigenous communities and the realm of research. On-the-land/water programs can work to respectfully rebuild this trust, creating space for Indigenous knowledge to contribute and add imperative knowledge. 22 On-the-land/water programs educate youth on environmentally friendly practices, while also providing opportunities for youth to partake in important research designed with Indigenous pedagogies in mind – both of which are important to help curb and understand the full breadth of climate change.

An on-the-land experience can help shape the future career paths of Indigenous youth, whether they go into environmental science, geology, or Indigenous environmental consulting, these programs will have lasting benefits for Indigenous youth.

X. Food Insecurity

Food insecurity occurs within Indigenous communities for a variety of socio-cultural and environmental reasons. The displacement of Indigenous communities and restriction of traditional Indigenous ways of being completely interrupted traditional Indigenous food systems, leaving many communities reliant on limited and costly imported foods. Additionally, climate change has threatened what food systems are in place, both within and external to Indigenous communities.16 On-the-land/water programs help to reduce the burden of food insecurity for Indigenous youth through the revitalization of intergenerational transmission of Indigenous food knowledge, an experience that often requires being out on-the-land.^{24, 25}

Indigenous food systems are inherently diverse and dependent on the surrounding lands and waters. On-the-land/water programs can teach youth skills in harvesting and procuring local foods, in turn reducing the need to rely on expensive and limited imported foods. Reflecting on their experience in a land-based program through their school, Indigenous student Bradley Thom highlighted that they "wouldn't know how to skin a moose if it wasn't for the Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and land-users who taught [them] all that." Deh Gáh School allowing me to go out on the land with the Elders and

On-the-land learning sparks curiosity in the secrets of the forest. I remember when I was a little girl my dad would come into the house all excited and say "Guess what? The s-tsák-ay is ready! Get your shoes on and let's go get some!" We would rush to get our shoes on and run out the door after him. s-tsák-ay are salmonberry shoots from the salmonberry shrub. In the springtime the stems of the salmonberry bush are soft and edible. The shoots are a kind of purple colour with fine prickles on them. You can pick the shoots and peel the prickly outer layer off. Inside is a succulent stem that is a translucent green and has a fresh leafy, bitter flavour with a rosey aftertaste and slight crunch. They are special because they only come out for a short time. You have to know when to go find them or you will miss them and have to wait another year for them. I remember riding on my dad's shoulders on our way home, eating a handful of s-tsák-ay that my dad peeled thinking, "Wow! My dad knows all kinds of secrets of the forest. I am so lucky he shares these secrets with me." And indeed I was right. I was fortunate to have a dad that brought us out onto the land, brought us out on the water canoeing, taught us which plants and trees were food and medicines, showed us how to paddle out and harvest crabs without a trap, taught us how to hunt grouse, deer, and elk. These experiences sparked curiosity in me. These experiences sparked wonder and amazement in how we, Indigenous People learned to live off the land. Today, I am an Indigenous Artist with a master's degree from Emily Carr University and most of my art practice involves harvesting materials from the forest for my art. I am also a

Plant Medicine Woman, taught by my dad, my aunts, and a hereditary chief from my mom's side Nuxalk Nation. I make teas, salves, and other remedies for people in my Nation and in my community. These experiences on-the-land and on-the-water shaped who I am today. These experiences instilled in me pride, wonder and great respect for our land and our waters. I want these powerful experiences for all Indigenous youth. I want them to feel the ancestral love that land and waters offer us, as original caretakers of the land. (Dionne Paul)

XI. Health and Wellness

On-the-land/water programs have the potential to impact multiple facets of the health and wellness of Indigenous youth. After the Yellowknives Dene First Nation on-the-land research program, the 13 youth involved all identified the land as a major determinant of Indigenous health, where revitalizing youth's connection to the land has the potential to positively impact the health of not only the youth participating but the surrounding communities and environment.²⁷

i. Physica

On-the-land/water programs provide an opportunity to teach Indigenous youth about traditional ways of healing health concerns and taking care of one's physical health.

After the Restoring Our Roots land-based program, one participant expressed that the teachings on medicine plants "was really helpful to [them] for chronic health issues."¹(p.132) Aside from physical treatment, some Indigenous communities experience physical healing through ceremonies and rituals that strengthen the body's natural defences, which can be taught to and experienced by youth through on-the-land/water programs.²8 Furthermore, Indigenous youth partaking in land-based programs have demonstrated an increased interest in being active and eating healthy after participating in programs. Participants of Project George reported a shift to an active lifestyle after the healing program, something they were unable to do before due to overbearing burdens and feelings from intergenerational trauma.¹² Additionally, through being on-the-land, youth can be taught skills and methods that lead them to rely more on land-based rather than processed foods.¹², ²⁴ After the SEAS initiative, participants were reported to have at least a slightly greater interest in being active and a greater awareness in the importance of a healthy diet, depending on their baseline.²¹ Being back on the land and water surrounds youth in an environment that supports healthy lifestyles, a lifestyle outdoors, and the enjoyment of traditional land-based foods.

On-the-land learning programs provide an opportunity for Indigenous youth to leave their physical environments, environments that may be stressful and/or unpleasant. On-the-land learning programs take youth away from their homes (which may be abusive), away from school (which may be a source of pain), away from all the distractions of urban life (which may include drugs, alcohol and crime), away from technology (cyber bullying), and physically places them in a natural environment free from all the comforts of home. It may be difficult to adjust to at first, but this time away from their regular lives is a valuable time to reflect. In many Indigenous cultures there is a Rites of Passage Ceremony youth go through to become adults. Some of these ceremonies include what is known as a vision quest or solo. The initiate spends time alone in the forest fasting, praying, singing, drumming, and challenging themselves – mentally, emotionally, physically and spiritually. This ceremony can last days, and the intention is for the participant to gain a deeper connection to self, culture, purpose in their Nation, and awareness and appreciation of the natural world and the supernatural world. It is the isolation from all the distractions and the forest that is the medicine in the ceremony. I see a parallel between Rite of Passage ceremony or Vision Quest Ceremony and on-the-land learning programs. To offer a secluded space in the wilderness away from Western society may offer them a similar transformative experience as a vision quest ceremony. (Dionne Paul)

ii. Mental

The inequitable burden of mental health concerns amongst Indigenous communities can be tied to colonial practices, including the disconnect of Nations from their lands.²⁹ Indigenous-informed practices including on-the-land/water based programs have been found to help heal and reduce this inequity.

The resilience of Indigenous communities is strengthened through a connection with the lands and waters.²⁹ Through on-the-land/water programs, Indigenous youth have been reported to have an increased resiliency against social pressures, which is complimented by an increased sense of mental support from their communities and culture.^{4, 9, 13, 19, 21} The previously mentioned land-based program Project George aims to increase resilience, specifically by reducing the number



Canoe Trip, Kinosao Sipi, Manitoba © Robert Rideout

of youth suicides occurring amongst the Moose Cree First Nation. After interviewing participants of the program, it was identified that the program helped youth to re-establish cultural connections in a way that might be curative and preventative of mental health problems.³⁰ One participant noted that the program provided them with "a sense of identity...an integral piece of Indigenous culture and way of life. [Being out in the bush] provide[d them] with a sense of pride and esteem."³⁰(p.212) This sense of increased self-esteem was echoed as a result from multiple on-the-land/water programs, supporting the argument that regardless of the design of these programs, many work to improve and support the mental health of Indigenous youth.^{4, 13, 21, 24, 30} Through participation in on-the-land/water based programs, Indigenous youth are connected with Indigenous ways of being and given space from colonial institutions that often serve as a source of trauma or hurt, working to heal and reduce the burden of mental health concerns on the community.

On-the-land learning can improve mental wellbeing by reducing overall stress by releasing all those feel-good hormones through physical exercise, and exposure to better quality fresh air and sunlight. Embedding cultural teachings of Indigenous ways of knowing into on-the-land/water learning programs will help build a healthy cultural self-esteem and open up the possibility of seeing the value of their Indigeneity and in turn the value in themselves. Many urban Indigenous youth don't have regular access to cultural activities in the wilderness or on the water. On-the-land/water programs will bring these urban Indigenous youth into the forest and out on the water and introduces them to internal and external challenges they may not have discovered they could handle in urban life. The profound sense of accomplishment that comes after spending time aligning with the awe-inspiring power of Mother Nature leaves a lasting and life-enhancing memory for each youth. These positive memories can help counterbalance the negative, depressed, and suicidal thoughts and feelings of each youth. (Dionne Paul)

iii. Spiritual

Spiritual health refers to the connection between one's beliefs and their sense of well-being; a connection that was directly disrupted by colonial practices for Indigenous Peoples across Turtle Island. This disruption in spiritual connections has direct impact on many facets of life, noted by a Cree Elder that "[their] personal development was given to [them] in a deep sense as [they were] growing up because it was connected with [their] spirituality."²⁸(p.75)

Indigenous cultures are based on the land, and as Indigenous youth have access to on-the-land/water programs on their homelands, they are given the opportunity to resolidify their spiritual connection to their beliefs.^{1, 9, 14, 19, 28} One participant

in the Restoring Our Roots land-based program reflected that "the more [they are] taught about [their] culture the more [they] learn about, like, not only [themselves] but [their] family." (p.130) Being out on the land and water connects youth to traditional practices, maintaining Indigenous spirituality at both an individual and community level. For some communities, this spiritual connection is central to not only traditional practices but also traditional knowledge systems. For the Nishnaabeg, traditional knowledge originated from the spiritual realm, and therefore is communicated through a spiritual connection, one that requires an alignment with ceremony and rituals. On-the-land/water programs work to resolidify youth's connection to spiritual beliefs, without which many other domains of knowledge and practices rely.

On-the-land/water programs are important for fostering connections between youth and their ancestors, an important connection in Indigenous cultural beliefs. After the Tribal Canoe Journeys, youth reflected on the relationship they developed with their ancestors, feeling like there was "some ancestor just chilling right here, canoeing right beside me." (p.7) Similarly, Keenan Andrew reflected on their experience in a land- and water-based program noting that through sitting still and acknowledging their surroundings, truly opening their heart "to the lands, waters, and ancestors, [they could] see that [their] ancestors [were] with [them], guiding [them]." (p.43) Although not easy to articulate for all, many participants in on-the-land/water programs mentioned a spiritual connection and reinforced well-being.

Indigenous Peoples have developed a complex system of traditional self-care practices through prayer, song, dance, dreamtime, food offerings, traditional art practices, plant medicine wisdom and ceremony. The natural world is paramount in all Indigenous cultures and is lavishly displayed through art, culture, and ceremony. Traditional selfcare practices are rooted in the reciprocity with the natural world and the supernatural world. The land, the water, human beings, and all living beings have the potential to be mystical conduits of universal healing energy. Indigenous Peoples have evolved synergistically with the natural world and supernatural world. This interconnected and ancient relationship has cultivated a library of wisdom of the healing properties of plant medicines, mountain power, water cleansing, dream communication, fasting, seasonal energy forces, and moon magic that Indigenous Peoples have been caretakers of. This knowledge of healing through various ceremonies has been handed down generation to generation. Indigenous spiritual practices know and understand that the land and water offer spiritual protection and cleansing. On-the-land/water learning programing that incorporates ceremony will offer Indigenous youth knowledge of traditional self-care practices that will be tools to help them on their journey. (Dionne Paul)

iv. Emotional

To have good emotional health is to be able to manage and express emotions in a healthy way, which requires a solid foundation of support and resiliency. Being on the land and water through on-the-land/water programs can teach skills and techniques that are relevant and constructive for Indigenous youth in supporting their emotional health that Westernized approaches cannot¹³

After participation in a five-day canoe trip in Quetico Provincial Park, participants reflected on opportunities offered through the experience to increase emotional intelligence, such as resiliency and learning how to express their vulnerabilities in meaningful ways.¹³ This increase in resiliency was reported across much of the literature, highlighting the supportive and curative environment being on the land and water provides.^{12, 14, 21, 30} As described by Indigenous doctoral student Tracy Underwood, "resilience has direct connection to being grounded in who [they are], where [they] come from, [their] ancestors, and [their] roots – all connected to the land."¹⁴(p.44) Many Indigenous youth who display trust issues, often caused by childhood experiences such as foster homes, express their emotions in defensive and survivalist ways. On-the-land/water programs can foster supportive relationships, breaking down the protective mechanisms used by youth, and creating an environment where they are able to express their emotions in a healthy and productive way.¹³

I was raised in a canoe family. My dad is a canoe carver and a canoe skipper. He trained a group of about 15 to 20 youth for traditional war canoe racing tournaments. We trained in the canoe and road work (running) a few times a week. We travelled to other Nations' territories to compete in races. My parents would take 15 to 20 youth from our Nation and we would camp at the site of the races. Some of the youths were in foster care, some were from abusive homes and some had families that didn't bring them out onto the land and water. All the training, travelling, camping, and competing bonded us together and to the land and water. We considered us a canoe family. Being part of a canoe family taught us how to be a contributing member to our canoe family. We had to pull our own weight in the canoe and at camp. We were all assigned chores

and we had canoe rules. We celebrated together, we cried together, we grew up together. There is something magical that happens in the silent moments out on the water sitting in a canoe. Something powerful and indescribable washes over you, leaving you in a state of complete humility. One day, when paddling out on the ocean like any other training day a pod of killer whales breached right next to us. I was at the bow of the 11-man canoe and saw this huge whale shoot up out of the water and glide back into the water so elegantly. It was huge! It was like nothing I had seen or experienced before. I got really scared. I yelled at my dad to take us back to shore. My dad hollered back, "No, keep going! We are fine. Don't be scared. They won't hurt us." I remember feeling so tiny and insignificant, just a speck of a being on this vast ocean so vulnerable and out of my element. I had no choice but to pick up the rhythm of my paddling and lean into trusting my dad, trusting the killer whales, and trusting myself. The killer whales kept breaching near us and we all gasped, screamed, and stumbled on our paddling. It was one of the most intense experiences of my life. That night when I laid down on my bed, I thought about those old time Indigenous whalers and picturing them hunting those gigantic whales from tiny canoes similar to what I experienced that day, and I was in awe of their bravery and courage. On-the-water learning gave me a tiny glimpse into comprehending how magnificent my ancestors were. That tiny glimpse into Indigenous ways of being planted a seed of pride in who I am and where I come from. That tiny glimpse sparked cultural curiosity inside me that now fuels me, feeds me and gives me strength. On-the-land learning programs like this can shift the trajectory of Indigenous youth from a feeling of cultural insecurity to a feeling of gratitude, joy, wonder and belonging. (Dionne Paul)

v. Intergenerational Trauma and Intergenerational Healing

Across most of the literature found, an underlying theme of healing and recovering from trauma came through the stories and recollections of many participants in on-the-land/water based programs. 2^{, 4, 12, 14, 18, 21} Being back on-the-land/water allows Indigenous communities to connect to their ancestors and ways of being, creating the potential to heal from colonial practices. Intergenerational trauma has been built-up and imposed on these communities, creating a dire need to allow spaces where intergenerational healing can be possible.

On-the-land/water programs offer opportunities for Indigenous youth such as Erynne Gilpin to "feel safe," "to rest," and "to [be] allowed to feel." [p.24] Similarly, after the Restoring Our Roots land-based program one participant noted that the Sweat Lodge was "one of the most healing things [they've] ever done." [p.131] In Indigenous culture, the land is often thought of as a helper and a healer. By connecting back to the land, Indigenous youth are given a culturally relevant space to heal and process their traumas. After the land-based program Project George, two of the participants noted that when on the land "[they] didn't even think about drugs and alcohol." [p.184]

Additionally, through the fostering of intergenerational relationships and the re-emergence of important cultural practices, these programs aid not only the youth to heal, but also the community as a whole.²¹ Parents of youth in the SEAS initiative were seen joining at times, suggesting that they were "probably way more interested in coming to school now because of events like [SEAS]."²¹(p.25) Indigenous resiliency requires a connection "to being grounded in who [one is], where [they] come from, [their] ancestors and [their] roots,"¹⁴ all of which are connected to the land and water. Recognizing the role land and water play in Indigenous knowledge systems requires also recognizing the role they play in Indigenous healing systems. Colonial practices that disrupted traditional connections with the land and water led to stigmatization in identifying as Indigenous, leaving many trying to conceal their Indigeneity. The participation in on-the-land/water programs had many participants taking pride in reclaiming their identity, an important part of healing.^{4, 13} Through landand water-based programs, Indigenous youth have demonstrated their heightened ability to process colonially subjected intergenerational trauma, providing space for healing to occur.

By offering on-the-land/water programs we are offering traditional ways of healing and disrupting any cycles of abuse that many Indigenous families experience as a direct result of the harmful colonial practices on these communities, such as the abuse endured while attending residential schools.

vi. Violence Against Women and Girls

Indigenous women and girls have been inequitably impacted by violence due to colonial practices. As highlighted by the 2019 National Inquiry into Missing and Murdered Indigenous Women and Girls, since European settlers arrived in Canada, Indigenous women and girls have been the target of a "deliberate race, identity and gender-based genocide." (p.5)



Little Playgreen Lake, Kinosao Sipi, Manitoba © Robert Rideout

On-the-land/water programs can offer a safe and culturally appropriate space for Indigenous women and girls to heal. Kinship Rising is a land-based arts program offered on the unceded homelands of the Lekwungen and WSÁNEĆ First Nations engaging Indigenous youth and supporting gender well-being.³¹ Through the region-specific programs, Kinship Rising works to regain sovereignty over not only Indigenous bodies, but Indigenous lands. As colonial practices simultaneously exploited both Indigenous lands and Indigenous bodies, the connection to the lands serves as a healing symbol to also connect with one's body.³¹ The close ties between the two sources of colonial exploitation create a dependent relationship between the connection to the land and the healing from violence. On-the-land/water programs are imperative for Indigenous women and girls to have the necessary environment to heal and regain sovereignty over their bodies after generations of colonially induced and targeted gender-based violence.

On-the-land/water programs for boys and young men can also contribute to reducing gender-based violence by engaging male youth in healthy outdoor activities and teaching them about respect, responsibility, discipline and traditional male roles and ways of being in their culture/community.³² The Warriors Program runs in several Nuu-chah-nulth Nations in BC and provides opportunities for youth to spend time together on the land/water (monthly) and in the village helping Elders and the community (weekly).³² Youth involved in this program gain wilderness, leadership, and cultural skills,³³ as well as teachings on topics such as brotherhood, parenthood, wellness, managing emotions, sexual health, and the criminal justice system.

"Through weekly meet-ups and monthly camping trips, the program is challenging the complicated legacies of colonialism by teaching young men to respect their bodies, respect their sexuality and respect each other. While out on the land, they are learning to listen to their ancestors and re-connecting to their culture and language."³⁴

vii. Finding Safe Spaces for Two-Spirit, Non-Binary and LGBTQIA+ Indigenous Youth

Indigenous youth who identify as two-spirit, non-binary, or LGBTQIA+ have also been targets of colonial practices, resulting in inequitable negative impacts on their health and well-being.²⁹ In the National Inquiry into Missing and Murdered Indigenous Women and Girls, Indigenous people who identify as Two-Spirit were also identified as targets of the colonial gender-based genocide.⁷

On-the-land/water programs can serve as a response to this inequitable treatment, offering an inclusive and safe space to heal. Programs such as the Restoring Our Roots land-based program have proven to provide this kind of space, where Indigenous youth can feel welcomed and accepted.1 One participant noted that after the retreat they no longer "[felt] like [they] had to pretend to be something [they're] not in order to participate fully [in ceremony]," with another claiming that the retreat "validated everything that [they] were feeling already" and "made [them] feel a bit more solid." (p.127) Being back on the land and water can provide Two-Spirit, non-binary and LGBTQIA+ Indigenous youth a space where they can feel at home, and at ease with oneself. It can provide a safe space where healing from past traumas can occur, away from colonial stigmatization and harm.

Furthermore, gender and sexual identity are social constructs that are defined and interpreted differently between cultures. On-the-land/water programs can serve as a place for Indigenous youth to learn more about themselves, their gender, and their sexual orientation through the incorporation of Indigenous pedagogies, recognizing the cultural impact Indigenous understandings have on different gender and sexual identities. Through the Queering Indigenous Land-Based Education program out of the University of Saskatchewan, Indigenous students are guided through the destruction of unsettling power relations and taken for granted assumptions using Indigenous epistemologies. Programs like the one taught by Dr. Alex Wilson help Indigenous students explore and challenge gender and sexual identities, and then in turn share their learning and help guide other Indigenous community members through a deeper understanding of their own identities. On-the-land/water programs can serve as inclusive and culturally-informed spaces for members of previously ostracised and targeted groups to learn about Indigenous understandings of gender and sexual identities.

XII. Language Revitalization and Retention

It was also noted in the literature that on-the-land/water programs have been shown to support the revitalization and retention of Indigenous languages. Numerous reflections of experiences with these programs spoke to the connection of Indigenous languages with the land, and the uniqueness of many Indigenous terms that describe experiences, beings, and parts of the land that cannot be adequately conveyed without being on the land.^{9, 18, 19, 24}

Indigenous graduate student Jilleun Tenning reflected on her experience in the land- and water-based learning institute on the homelands of the Lekwungen and WSÁNEĆ nations noting that "languages arise out of Land; language is [their] relative; it speaks to [them] as learners in many different verbal and nonverbal ways."¹⁸(p.20) As Indigenous languages are thought of as "old language[s]" intertwined with the land, Elders tell the youth "if you want to learn your language go back to the land."¹⁹(p.2136) Similarly, these programs expose Indigenous youth to terminology that would otherwise not be used in a Western-colonial system, such as terminology for traditional local foods and cultural practices.²⁴

Additionally, the programs can serve as a safe space and connect Indigenous youth with other community members connecting with their languages.^{1,9} After the Restoring Our Roots land-based program, one participant said that "sometimes [they] feel like [they're] running out of time to learn [their] culture and the language" and seeing how the older organizers and facilitators were still connecting with their cultures and languages "relieved some of the pressure [they] feel." [p.130] Through on-the-land/water programs, Indigenous youth can share the experience of connecting to language with both their peers and program facilitators in a supportive environment.

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XIII. Cultural Revitalization and Retention

Colonial practices banned and separated Indigenous communities from cultural practices through legislation such as the Indian Act and the implementation of residential schools. On-the-land/water programs create safe spaces where communities can share these culturally important events with youth.^{10, 18, 19, 21}

The Potlatch is an example of a previously illegal Indigenous practice that is a specific kind of land-based pedagogy that is a "strength-based, inclusive, Indigenous-led, and community-engaged approach [that] benefits [Indigenous] communities," as described by Pawa Haiyupis. (p.24) On-the-land/water programs give the opportunity for recently re-legalized traditional Indigenous practices such as the potlatch to be shared with younger generations of Indigenous communities, furthering their sustainability. The ban of practices such as the Potlatch as well as the imposition of residential schools severed cultural ties with other practices, such as the building of canoes. On-the-water programs involving canoe journeys serve to revitalize the use of canoes, a historically central spiritual vessel to many Indigenous nations. In on-the-water programs such as Tribal Journeys, Indigenous youth are connected to their own culture through traditional canoe transportation and ceremony. Similarly, the SEAS initiative was reported to have a major impact on the connection to territory and culture, noting that "some of the kids don't have families with opportunities to get out, so SEAS provides that, the [link] to culture and territory. Indigenous ways of being.

Additionally, on-the-land/water programs provide more flexibility than Western institutions in offering learning opportunities that are more culturally relevant and informed. Indigenous Nations across Turtle Island are culturally diverse, and the universal method of education in western institutions inherently restricts the ability of Indigenous cultures to be adequately taught. On-the-land/water programs can be tailored to a nation's environment, highlighting aspects important to their culture and tailoring learning experiences to better teach Indigenous youth about their Nation's way of being.¹⁹

XIV. Educational Attainment

For sustainable and effective practices, it is important that education be community designed and community driven. For Indigenous students, this means ensuring that education provides culturally relevant pedagogy, a core part of on-the-land/water programs. ^{9, 10, 13, 14, 18, 21, 24} The Misipawistik Pimatisimēskanaw program, for example, offers students an opportunity to earn high school credits that are recognized toward graduation by learning about their history, land, language, and culture. ³⁶ Students in this program learn traditional practices, Cree language and build intergenerational connections on the land. ³⁷

Utilizing Indigenous pedagogies in education through on-the-land/water programs allows Indigenous youth to feel as though they belong and can be confident in their ability to succeed, away from stigmatization or discrimination often experienced in Western institutions. Indigenous graduate student Gina Mowatt spoke to the barriers to success in Western learning institutions, noting that "many of [Indigenous learners] navigate post-secondary institutions in survival mode...[which] disrupts [their] cognitive functioning as students and changes [their] relationship with [themselves] and [their] kin."18(p.21) Wildcat, et al. also notes that the imposition of Western education systems on Indigenous communities has led to Indigenous students experiencing lower academic success rates and racism/alienation in the classroom. (p.III) Furthermore, the experience of residential schools has left a valid distrust and discomfort for many in Western institutions, a place associated with such immense trauma. The entire Western education system was built off racism and discrimination, something that is not discontinued so easily.

This is not to say that Indigenous youth cannot succeed in or explore Western educational institutions, but that on-the-land/water programs help youth gain the skills and confidence needed to succeed while providing an inclusive approach to different learning styles. For example, after participating in the SEAS initiative, students were reported to have sought out educational programs they might not have without the program, such as a BA program in Biology. Many students who did not tend to succeed in a conventional classroom setting were also reported as successful out on-the-land, learning about skills and knowledge not typically valued in the Western education system. This increased curiosity to learn was echoed after a land-based program in Nunavut, where students reflected that after the week-long program they felt "like exploring the land and getting to know more about it" and wondered about "how to skin a caribou." (p.80) Importantly, Indigenous education must be taught out on-the-land, in an Indigenous context with Indigenous pedagogies. On-the-land/water programs teach youth about Indigenous knowledge and skills that cannot be taught in Western education systems, offering more inclusive learning opportunities for youth to be successful.

On-the-land/water programs additionally provide opportunity for Indigenous knowledge systems to be at the forefront, educating youth on important life skills. For example, through the Tribal Canoe Journeys, youth are taught about teamwork, communication skills, working in the natural environment, leadership skills, and the importance of discipline and perseverance. Additionally, cultural practices that were threatened with extinction are provided a supportive space to be revitalized through these programs.



Kids building a fire in Kinosao Sipi, Manitob © Robert Rideout

Indigenous practices such as those reflecting seasonal preparing and gathering can be taught to Indigenous youth in a more supportive environment than a Western learning institution, creating a space where youth can learn by doing, as the practices inherently exist. 9,12,14 After the Tribal Canoe Journeys, one youth reflected that they "learned a lot about how [their] people used the river, like [Elder] said about hunting and fishing" which is "a lot more understandable when you can actually see it for yourself." 9(p.6)

XV. Employment

On-the-land/water programs also provide a means for exposing Indigenous youth to potential future careers as well as teaching them valuable employment skills. ^{21, 27} After the YKDFN on-the-land research program held in 2016, all of the 13 Indigenous youth participants reported being somewhat interested in involvement with projects as a researcher, with 46% being very or extremely interested. ²⁷ After their exposure to the on-the-land program, many youth saw a potential future career path, and envisioned ways of being involved in future health research initiatives that may have been unknown without the on-the-land program. This outcome was echoed after the SEAS initiative, where students who came to the program with little sense of direction were reported to have a greatly increased connection to employment and awareness of potential career paths such as local Nation stewardship offices. ²¹ Additionally, on-the-land/water programs teach youth transferable skills that may lead to employment in other areas that aren't being taught in other local educational systems. ^{4, 16} For example, SEAS participants engaged in technical training and earned certificates in areas such as bear safety, swift-water operations, first aid, and wilderness training. ²¹ Similarly, after a weeklong program in Nunavut, students were able to use technology that they couldn't before, such as how to use a GPS or drive a snowmobile. ¹⁶

Furthermore, to run the programs, economic opportunities are created within the communities. If funding can be provided, such as with the SEAS initiative, which hires students as summer interns, local community youth may have the opportunity to acquire in-community jobs.²¹ Depending on the structure of the program, youth may also be exposed to professionals from a variety of fields who they might not have met without the program. This increased networking opportunity can lead to a range of potential career paths for youth.²¹ In addition to economic opportunities for the youth, these programs provide economic opportunities for the community as a whole in order to staff the positions to run them, thereby impacting employment at both the individual and community level.

CHALLENGES IN IMPLEMENTING PROGRAMS

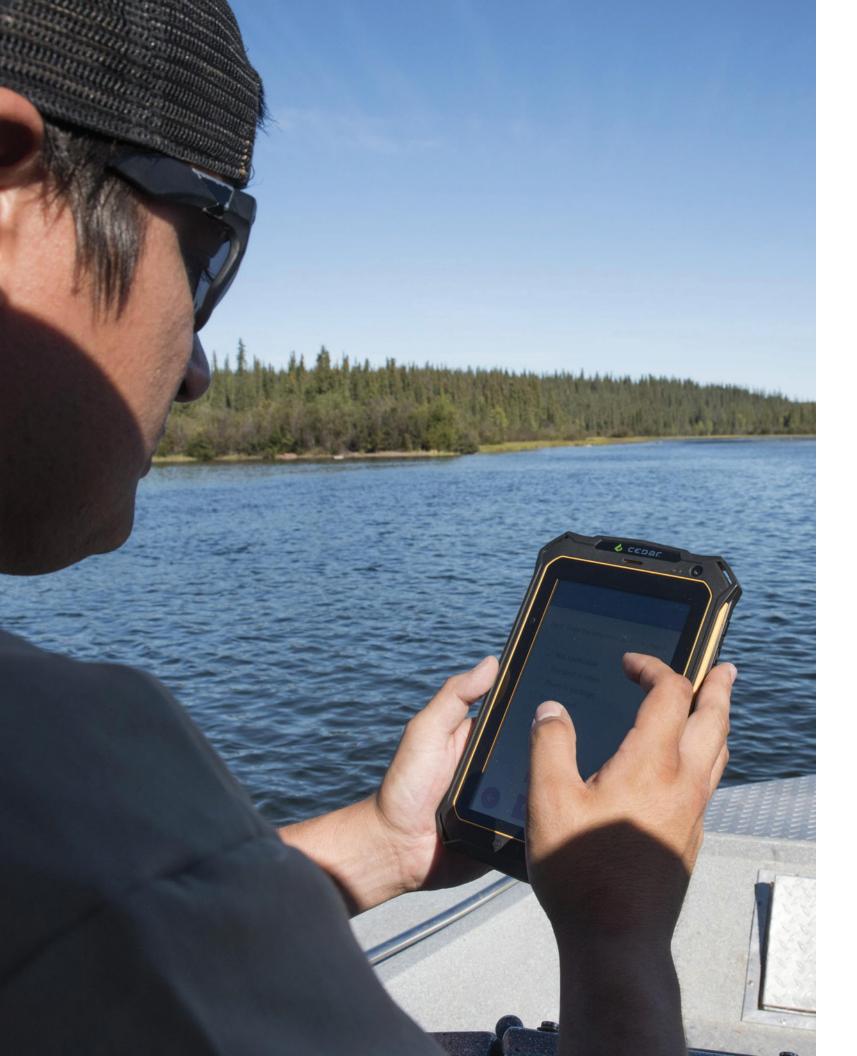
Although on-the-land/water programs have demonstrated several positive influences on Indigenous youth, the literature search highlighted many challenges in implementing the programs. The common themes when discussing challenges were access to funding, a lack of resources, and the colonial disruption of knowledge transmission.^{2,19,24,29}

Running any program costs money, but most funding sources are inherently colonial in their application processes. Those trying to access funding for their programs have experienced frustration in arguing for the importance of the programs, highlighting cross-cultural differences as reasoning for often not receiving support for funding.^{2, 19, 29} Many programs do not have enough resources without extra funding to finance these programs for a variety of reasons. Due to colonial impacts, many Indigenous communities have a much lower average income than nearby towns or cities.²⁴ Furthermore, many communities are now reliant on incorporating costly modern technology as they try to re-establish lost or disrupted practices, such as the dog-sled.²⁴ Funders interested in trying to shift such colonial power dynamics can learn from the unique approaches taken by the Circle on Philanthropy and Aboriginal Peoples in Canada.³⁸ The Circle works with Indigenous and philanthropic organizations to decolonize wealth and advance reconciliation through the creation of spaces of learning, innovation, relationship-building, co-creation and activation.³⁸

I would like to see funders offer abundant and multi-year funding models that promote healthy relationships between Indigenous Peoples and funding organizations. Further, I would encourage funders to join in on activities on the land and water when the opportunity presents itself. Relationships are built on trust and reciprocity. (Dionne Paul)

Additionally, finding enough people to help run the programs can be a barrier. To be adequately run, these programs should be Indigenous led, but can be emotionally taxing on the individuals leading them.^{2, 4} As well, those who could lead these programs are often wearing multiple hats and filling several roles within their communities, meaning they are pulled in many directions and their time and energy are constantly stretched. Thus, their capacity to also support youth on-the-land/water programming can be limited. Stress and burnout are also real challenges. As Jess Ústi, councillor for the Heiltsuk Tribal Council and Director of Traditional Ecological Knowledge for the Qqs Projects Society put it: "Going to work in the morning feels like walking face-first into the full blast of a fire hose most days. It feels like if you don't keep working, keep up the pressure, you'll end up being knocked back farther than where you started from."³⁹

Finally, due to colonization, the traditional intergenerational transmission of knowledge in many communities was interrupted leading to a smaller proportion of individuals who can teach the skills in many of these programs. If there are Elders or other "holders of knowledge" able to run the programs, the language gap between those delivering the program and the youth can also be a challenge, despite the ability of these programs to help revitalize languages.¹⁹



LIMITATIONS AND GAPS IN THE LITERATURE

As mentioned at the beginning, to apply the term "on-the-land" or "on-the-water" learning is something entirely colonial in nature, inherently limiting this research from the beginning. Many Indigenous communities are implementing these programs in their day-to-day life and may not feel the need to define it as anything in particular or publish any research on it. This research looked at more formalized programs offered for Indigenous youth, and therefore does not represent the full scope of on-the-land/waterbased practice(s) of Indigenous Peoples. For those that may want to publish research, the process is expensive and built from a colonial viewpoint, with publication barriers still in place making it difficult to publish non-Western research. Although attempts were made to reduce the impact Western-research systems have on publication bias of Indigenous knowledge, the system itself is inherently racist and discriminatory. That being said, over half the primary authors of the publications included were Indigenous, although not all were from the Nation where the program was located. In terms of limitations in the search structure, the primary researcher screening the literature was non-Indigenous. Furthermore, due to capacity constraints this search was limited to the last five years, up to 2017. As these programs are ongoing in Indigenous communities, there is a chance that a larger search frame would highlight even more literature on these programs. For the list of programs identified, it is by no means a comprehensive list of those in existence. There are several programs being run that are often not publishing work in journal articles or advertising their work in ways captured by this search. Overall, we want to reiterate that the findings in this report should be used to support the further funding and implementation of these programs, and not be interpreted as the entire base of research on these programs out there.

Although this literature search has its limitations, it has highlighted some patterns in on-the-land/water programs being offered on the part of Turtle Island known as Canada. Geographically, programs were identified from across the country. Most programs identified were land-based rather than water-based. For those that were water-based, the main activity identified in the programs was canoeing with research programs second. Most of the programs were for youth over the age of 12. Some of the programs did not define the range of youth in their programs, or only spoke to their ages in terms of level of schooling (elementary or middle). There were also more programs identified as being connected to an educational institution rather than being family or community run. General programs were more common, with fewer programs identified for specific target groups such as women or LGBTQIA+ youth. Finally, the most referenced outcome of these programs was their healing powers - solidifying the evidence that being out on the land and water is to exist in Indigenous worldviews and ways of being, a space where harmful and traumatizing colonization



Fishing on Little Playgreen Lake, Manitoba © Robert Rideout



CONCLUSION

On-the-land/water programs are being implemented widely across the part of Turtle Island known as Canada in a variety of Indigenous Nations. This literature search has highlighted numerous positive impacts of these programs, both for Indigenous youth themselves and the communities as a whole. Indigenous Peoples have been victim to colonial practices that are harmful in a multitude of ways. These on-the-land/water programs have a demonstrated contribution to working to decolonize Canada, something that requires the support of both Indigenous and non-Indigenous Peoples. To decolonize, Western-colonial systems need to give space to and support the inclusion of Indigenous pedagogies.

The healing powers of being on the land and water is imperative to allow Indigenous communities to heal from parasitic colonial interventions from the last 150 years, and to reiterate the powerful words of Dionne Paul:

To return to the land and the water is to return home. In some cases - return to a home we didn't know we had.



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APPENDIX A – INDIGENOUS YOUTH PROGRAM DETAILS

Author(s): Elizabeth Fast, Melanie Lefebvre, Christopher Reid, Brooke Wahsontiiostha Deer, Dakota Swiftwolfe, Moe Clark, Vicky Boldo, Juliet Mackie, Rupert Mackie, and Karen Tutanuak.¹

Year Published: 2021

Geographic Location: Unceded lands of the Abenaki (Southern Quebec)

Description of Program(s):

Restoring Our Roots: Land-Based Retreat for Indigenous Youth

"A four-day land-based retreat, held in July 2018, that focused on (re)connecting Indigenous youth to land-based teachings and ceremony. Led by Elders and in collaboration with artists, community leaders, storytellers, and other youth, the retreat involved several components, including cultural workshops, ceremony, and arts-based activities. Some of these activities were teachings about fire and the four sacred medicines, Sweat Lodge teachings and building with two separate ceremonies, a Sunrise ceremony each day, a fancy-shawl (powwow) dancing workshop, storytelling with Elders, a medicine walk, and the blanket exercise followed by sharing circles. This project has since grown into Land As Our Teacher, a five-year research project funded by the Social Sciences and Humanities Research Council of Canada, that explores benefits of land-based pedagogies for Indigenous youth." (p.125)

Author(s): Jennifer Métisse Redvers.2

Year Published: 2020

Geographic Location: The Northwest Territories, Yukon, and Nunavut.

Description of Program(s): A variety of programs informed this study, of which specific details of programs were not available.

Author(s): Diane Obed.⁴ **Year Published:** 2017

Geographic Location: Nunatsiavut (Labrador)

Description of Program(s): "I have had the privilege of learning from Nunatsiavut youth participants and leaders who took part in the ongoing land-based youth program: Going Off, Growing Strong that is currently operating in the Inuit territory of Nain, Nunatsiavut. I also conducted interviews with land-based facilitators and harvesters who currently lead programs situated in Makkovik, Nunatsiavut. Besides these experiences, I participated in the week-long Inuit Educators' Conference in Nain in February 2017, which provided me with opportunities to speak with a number of elders, parents, educators, and community members about land-based learning in Nunatsiavut." (p. 12)

Author(s): Kathleen Mikraszewicz and Chantelle Richmond.9

Year Published: 2019

Geographic Location: Biigtigong Nishnaabeg territory (Ontario)

Description of Program(s): "Youth between 14 and 18 years of age were hired to work for the community as Traditional Knowledge Gatherers (TKG) for the 2017 canoe journey. The canoe journey was planned for a one-week duration, but TKG positions lasted six weeks, during which time they organized and prepared for the journey, including clearing trails, participating in canoe and outdoor safety training, planning and packing food and equipment. The lead author participated in these events which built trusting and solid relationships with TKGs and adult canoe participants. In total, 13 people participated in the canoe journey (excluding the lead author)." (p.5)

Author(s): Larry (Shucks) Nahanee, Chiaxten Wes Nahanee, Lilia Yumagulova, Kathleen Sperry, Jonathon Reynolds.¹⁰

Year Published: 2021

Geographic Location: Unceded territory of the Skwxwú7mesh Úxwumixw (Squamish Nation, British Columbia)

Description of Program(s):

Tribal Canoe Journeys

"Since 1993, the weeks-long paddle and gathering has brought Canoe Families from different tribes and nations to the host community. Together, they share songs, dances, stories, and teachings." (p.62)

Author(s): Glen Coulthard¹¹
Year Published: 2017

Geographic Location: Yellowknives Dene First Nation (Northwest Territories)

Description of Program(s): Dechinta Bush University

"Dechinta Bush University, an institution that works in collaboration with my Yellowknives Dene First Nation, other Indigenous people in the North and the University of British Columbia (UBC) to offer a post-secondary program of Indigenous land-based education. The curriculum includes colonization and decolonization, Indigenous law and languages, and building sustainable communities. This means not only reading Indigenous political theory, but also learning how to tan moose hides, hunt, trap and collect medicines. You learn in a fire circle with Elders and leaders. Students and faculty bring their children for an outdoor immersive culture/language camp so that families learn collectively, with our children and Elders informing our discussions and actions and our semester communities resembling real communities, with children as young as eighteen months and Elders as old as 94." (p.58)

Author(s): Janice Cindy Gaudet.,12 and Russ Walsh, David Danto, and Jocelyn Sommerfield.³⁰

Year Published: 2020

Geographic Location: Moose Creek First Nation (Ontario)

Description of Program(s):

Project George: An Indigenous Land-Based Approach to Resilience for Youth

A land-based program involving 10 informal fishing trips a year with an average of 10 to 15 youth per excursion. "Project George supports their youth to experience being out on the land, and to reconnect with Cree traditions with an aim to grow personally and to heal from the impacts of colonialism. Project George's methodology involves taking adolescents out on the land, where they learn by doing, observing, and teaching Cree land-based skills such as fishing, trapping, hunting, setting up camp, firearms use, water navigation, food preparation, bush work ethics, community service, and visiting with one another. The program proudly promotes unstructured activities, enjoyment, and leisure." (p.179-18012)

Author(s): Jay Johnson and Adam Ehsan Ali.13

Year Published: 2020

Geographic Location: Quetico Provincial Park (Ontario)

Description of Program(s): "Our research stems from interviews conducted after the five-day portage trip that partnered Indigenous youth from the community-based center with Métis and Indigenous University of Manitoba graduate students who served as their student mentors. Community members, Elders, and the primary researcher also took part in the trip. The youths, who live at a center in the city due to their involvement in the provincial justice system and family services, identify as either Ojibway or Cree. This project took place after we fostered a strong relationship with two Elders and staff at the center over a period of two years to develop a common curriculum. The trip took place in Quetico Provincial Park, located near Atikokan, Ontario on the north-western tip of Lake Superior." (p.209)

Author(s): de Finney, S., Wright Cardinal, S., Mowatt, M., Claxton, N. X., Alphonse, D., Underwood, T., Kelly, L. & Andrew, K.,14 and Morgan Mowatt, Sandrina de Finney, Sarah Wright Cardinal, Gina Mowatt, Jilleun Tenning, Pawa Haiyupis, Erynne Gilpin, Dorothea Harris, Ana MacLeod and Nick XEMFOLTW Claxton¹⁸

Year Published: 2020

Geographic Location: WSÁNEĆ and T'Sou-ke territories (British Columbia)

Description of Program(s): "An Indigenous land- and water-based learning institute hosted by WSÁNEĆ Old One JESINTEN, T'Sou-ke knowledge keepers Jeff Welch and Thor Gauti, and Nuu-chah-nulth artist Denise Williams from House of Winchee. During the institute, we gathered, walked, harvested, feasted, learned, and shared together in special and sacred places: the shores, meadow, trails, and forest at SNIDØEŁ [Tod Inlet] in WSÁNEĆ territory, and between coastlines, sheltered inlets, and old growth on T'Sou-ke territory." (p.1418)

Author(s): Sarah C.E. Desrosiers.16

Year Published: 2017

Geographic Location: Kugluktuk region of Nunavut

Description of Program(s): "I developed and delivered, in partnership with the Kugluktuk High School, a week-long Career and Technologies Studies (CTS) place-based program. Activities included environmental monitoring and Inuit Qaujimajatuqangit, and an optional camping trip to Kugluk/Bloody Falls Territorial Park. These activities involved teachings from Elders, schoolteachers, and scientists. The program was designed to create opportunities for youth in grades 10-12 to connect with the land, develop skills in environmental monitoring and reinforce learning in the classroom." (p.68)

Author(s): David Danto, Russ Walsh, and Jocelyn Sommerfeld.¹⁹

Year Published: 2020

Geographic Location: Mushkegowuk Territory (Ontario)

Description of Program(s): Specific details regarding the land-based program within the community were not provided.

Author(s): EcoPlan International, Inc.21

Year Published: 2017

Geographic Location: Bella Bella (the Heiltsuk Nation), Bella Coola (the Nuxalk Nation), and Klemtu (the Kitasoo/ Xai'xais

Nation). (British Columbia)

Description of Program(s): SEAS School Programs

"SEAS school programs are integrated into classroom activities across multiple grade levels throughout the 10-month school year period. Program coordinators work collaboratively with school administrators, teachers, elders, community leaders, and other mentors and partners working in the Great Bear Rainforest to develop and deliver a mix of field trips and classroom-based learning experiences that align with provincial curriculum requirements while also engaging youth in hands-on learning in their ancestral territories. Program activities are designed to encourage students to build an interest in culture, territory, science, and stewardship. Outdoor and classroom-based lessons led by elders, naturalists, archaeologists, and scientists expand students' horizons while also helping them to build new skills, values, and knowledge." (p.5)

Author(s): José Gérin-Lajoie, et al.²²

Year Published: 2018

Geographic Location: The George River watershed (Nunavik, Quebec)

Description of Program(s):

IMALIRIJIIT Environmental Monitoring Program

"The first science land camp took place on the George River from 22 July to 29 July 2016. The participants included eight students aged from 12 to 17 years (three boys and five girls), two elders, three guides, one assistant, three cooks, one child, and five researchers, including an Inuk water quality researcher from Pond Inlet, Nunavut, making a total of 23 people. Several hands-on presampling workshops were organized on site for the first two days including mapping, satellite imagery, GPS, and water chemistry. The students learned to handle the equipment with care and understood the importance of wearing gloves while sampling water and manipulating chemicals. They also learned to record and compile the data correctly, an essential skill for a scientist, as the noted values needed to be easily associated with the sampling station when compiling the results. In 2017, the science land camp took place from 21 to 30 July. The team included 28 people: six researchers,11 youth aged 13 to 17 years (seven boys and four girls), four guides, two cooks, two elders, one local coordinator, and two children. All youth participants were new recruits." (p.385)

Author(s): Tanjina Tahsin.²³

Year Published: 2021

Geographic Location: Four camps across Manitoba (in Brokenhead Ojibway Nation, Keeseekoowenin Ojibway First Nation, Sagkeeng First Nation, and O-Pipon-Na-Piwin Cree Nation) and in northwestern Ontario (in Couchiching First Nation).

Description of Program(s):

Kis Kin Ha Ma Ki Win: Learning Science Through the Land

"In 2019, a three-year initiative 'Kis Kin Ha Ma Ki Win: Learning Science Through the Land', was undertaken that enabled Indigenous youth to learn and connect with local Elders and knowledge keepers as well as scientists, and university students. Since connecting Indigenous youths to Elders and thus their traditional culture and language is one of the primary objectives of this project, many of the activities in this regard took the form of oral storytelling, sharing circles, fireside talks and ceremony and prayer – all of which enabled participating youth to build the connections to their culture and community. The program also made use of portable scientific labs that enabled youth to test water quality according to the needs, concerns and interests of their communities. Different environmental art projects that are designed around water complemented these other activities... Camps ranged in duration from 3-5 days. Local children and youth aged 8-18 participated in these camps and each camp had no more than 20 participating youth, except for Couchiching where 20 additional children from the community daycare attended and participated in a community feast on the last day of the camp." (p.41-42)

Author(s): Kaylee Michnik.24

Year Published: 2018

Geographic Location: Garden Hill First Nation (Kistiganwacheeng) (Manitoba)

Description of Program(s): "This community-based participatory research project considers how young adults working on a community farm participate in Indigenous food sovereignty through a photo elicitation project with Oji-Cree young adults employed on a 15-acre community farm and interviews with Elders and community food educators." (p.I)

Author(s): Paulina Page Ross.25

Year Published: 2019

Geographic Location: Fort Providence, Northwest Territories.

Description of Program(s):

Land-based procurement and cultural programs directed by the Deh Gáh Elementary and Secondary School

"We start off in our primary programs where the kids spend 3 or 4 weeks [out on the land]. They will do a winter camp for 1-2 weeks. They will do the same in the spring. Those are all day trips, with a focus on land-based foods. The winter focuses on the hunting and trapping program. In the spring, it focuses on the fish camp. In the summer/fall, we're focusing on getting back into school within the language component. Uh, when we get into the elementary / junior high program, it's all overnight camps. They will be out for... on average 2 or 3 weeks." (p.68)

Take-A-Kid Trapping Program

A government supported program that partners with schools across the Northwest Territories to introduce youth to trapping. (p.70)

Author(s): Laurie-Ann Lines, Yellowknives Dene First Nation Wellness Division and Cynthia G. Jardine.²⁷

Year Published: 2019

Geographic Location: Yellowknives Dene First Nation (Northwest Territories)

Description of Program(s):

Yellowknives Dene First Nation (YKDFN) Youth Health On-The-Land Workshop

"Over the period of a week (Monday through Friday) in August 2016, the exploration of youth's health perspectives was interwoven with leadership skill development and YKDFN cultural camp activities through the YKDFN Youth Health Leadership On-the-Land Workshop. On Monday, the youth conducted research activities in the communities. From Tuesday to Friday the youth completed remaining research activities at the on-the-land camp. The fifteen youth participants, aged 13–18 years, were all of YKDFN descent." (p.3-4)

Author(s): Jocelyn Sommerfeld, David Danto, and Russ Walsh.²⁹

Year Published: 2021

Geographic Location: Mushkegowuk Territory (Ontario)

Description of Program(s): "One set of local, family-run, on-the-land initiatives developed by an individual in one Indigenous community in northern Ontario." (p.3)

Author(s): Sandrina de Finney, Kathleen Bennett, and Chantal Adams.31

Year Published: 2021

Geographic Location: Unceded homelands of the Lekwungen and WSÁNEĆ First Nations (British Columbia)

Description of Program(s):

Kinship Rising

"Each of our ten Indigenous partners is located in a distinct region in western Canada with a diverse population, so the needs and priorities of each community and site are deeply situated in their particular cultural and geopolitical realities. Hands-on art- and land-based research workshops are our main vehicle to engage youth participants together with key community members, such as service providers and youth workers, and knowledge keepers such as Elders. Our land- and water-based workshops are generated locally, with and by knowledge and language keepers and people who can teach land-based skills, such as tanning hides, preparing and weaving wool and cedar, food gathering, beading, and drumming." (p.3)

APPENDIX B - PRISMA FLOW CHART

