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Understanding Ecosystems and Protecting Indigenous Knowledge

By: Silverhill Institute for Environmental Research and
Conservation
&
Anishinabe Knowledge Holder
Tim McGregor (Naokwegijig)

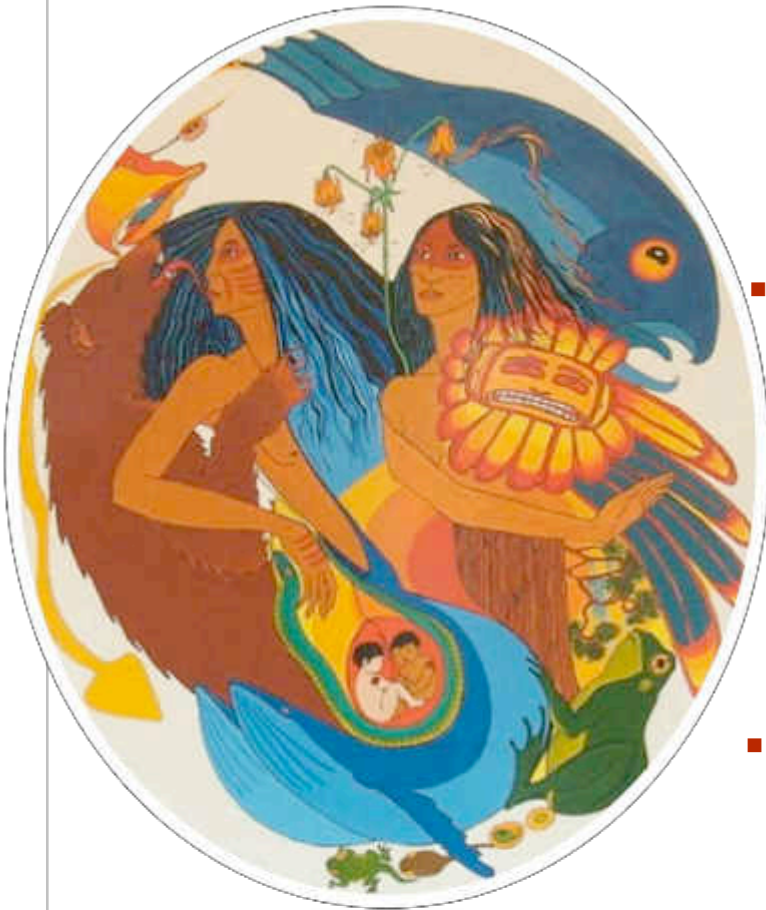


Supported by:
TD Friends of the Environment Foundation

Acknowledgements

- We would like to thank TD's Friends of the Environment Foundation for their generous contribution which allowed us to make this project happen. With their help we were able to have several positive environmental outcomes occur: preserve Indigenous culture, address biodiversity and invasive species, promote ecosystem conservation, engage students in building healthier communities, as well as create opportunities to share information with other communities, both Indigenous and non-Indigenous.
- A special thanks also goes to:
 - Tim McGregor (Naokwegijig) our Knowledge Holder,
 - Maretta Jones (for providing her home as well as preparing lunch for the session participants), and
 - Susan Manitowabi, (a professor at Laurentian University, School of Indigenous Relations, who helped to execute the project).

About This Project



- With the assistance of Aboriginal Knowledge Holder, Tim McGregor (Naokwegijig) this project aimed to document and disseminate Indigenous ecological knowledge through hands-on field excursions with Aboriginal youth.
- The field excursions focused on discussions on the history and cultural significance to Anishinabe life (language - *Anishinabemowin*, prayer, fire ceremonies and other practices); fostering a deeper understanding of the ecological (plant) world which has for generations been important to Aboriginal life and reconstituting the relation between Knowledge Holders and Youth in First Nations communities.
- It is also anticipated that this project and the future phases will encourage positive cross-cultural relationships between Indigenous and non-Indigenous communities and individuals.

Silverhill Institute for Environmental Research & Conservation

- The Institute is committed to providing balanced, reliable, and evidence-based information to individuals and organizations.
- It was established as a charitable foundation in 2004. Since then Silverhill has undertaken research that adheres to its foundational principles and provided internship opportunities and graduate research grants to a number of graduate students engaged in environment-focused and applied research projects from Universities across Canada.
- Details are available on website: <http://www.silverhillinstitute.com/>



Indigenous Ecological Knowledge



TD Canada Trust is one of Canada's largest banks. The Bank funds and supports a number of 'green' initiatives through the TD Friends of the Environment Foundation (FEF).

The TD FEF was founded in 1990 and is a national charity that funds environmental projects across Canada in the areas of; *environmental education, urban greening and enhancing biodiversity energy conservation.*

The Silverhill Institute is grateful to TD Canada Trust for the contribution to our Indigenous Ecological Knowledge project.



*Naokwegiizhig dishnikaas, Mukwa dodem,
Anishinawbek nini, Wiigwaaskiniga doonjiba*

BIOGRAPHY:

Aboriginal Knowledge Holder

Tim W. McGregor is a member of the Anishinawbek Nation residing at Whitefish River First Nation on the shores of Georgian Bay in Lake Huron. After over three decades of service in First Nation governance at First Nation, Tribal Council, Federal, Provincial, and private sector in both the United States and Canada his life is now focussed on the language, traditions, culture and the practices of the Anishinawbek.

Having received lifelong teachings from his parents, elders and veterans specifically as it relates to dance, he and his partner have become teachers and operate a family business called Rolling Thunder Dance Traditions. Dance teachings, dance performances, regalia making, and custom regalia making are the pillars of Rolling Thunder Dance Traditions.

Now having entered into that stage of life as grandparents, elders and teachers - Tim feels that there is a responsibility on his part to transfer the knowledge gained throughout his life experiences to the younger generations. This he does on an ongoing basis.

The handing down of tradition focuses a great deal on language. Language is the foundation for all teachings as it contains the rules necessary to give it understanding of its place in the unique relationship in the circle of life. Maintaining a bond with the youth when providing teachings with the language at the core of the teaching is very important to Tim.

Indigenous Knowledge Hands-on Field Excursion



Field Excursion Process

- Here is an outline of the schedule we used to conduct our Aboriginal Youth Field Excursion. These guidelines may be used to carry-out similar Aboriginal knowledge projects, however you may want to modify these procedures for your own purposes. (A full outline of our project is in the appendix).
- **Session 1 - August 16th, 2014**
 - Began with a smudging session, prayers, and fire ceremony.
 - Followed by nature walk to explore plants, their Aboriginal names, as well as their uses.
- **Session 2 - October 18th, 2014**
 - Began with a smudging session & prayers
 - Followed by nature walk to explore plants, their Aboriginal names, as well as their uses.
- **Session 3 - November 22nd, 2014**
 - Began with a smudging session & prayers
 - Followed by nature walk to explore plants, their Aboriginal names, as well as their uses.

Pkwenezige Pigitinigewin – Smudging

- The four sacred medicines given to the Anishinawbek, semaa (tobacco), mushkadaywashk (sage), giishik (cedar), and wiingashk (sweetgrass) are widely used and generally called smudging.
- It involves burning any of the four medicines and utilizing the smoke in for purification. It is the belief of the Anishinawbek that the smoke from the smudge clears the mind of unhelpful thoughts, assists in sending prayers to the Creator as the smoke arises, and prepares participants for the task that is about to be undertaken. The most commonly used medicines are mushkadaywashk (sage) and wiingashk (sweetgrass).





The hike up to Dreamer's Rock...



Dreamer's Rock Sacred Site

- Dreamer's Rock is a spiritually significant location within the Anishinabek nation. Countless generations of young men seeking to connect with their spirit helpers and receive guidance would fast for four days on top of a tall quartzite hill overlooking Georgian Bay. The young men would lay down at the top in a physical depression formed by the bodies of the young men who preceded them. Today Dreamers Rock is still used for this purpose and visited by many people who make spiritual offerings and pray. The base of the tall rock has many tobacco ties placed there by the visitors and it is proper protocol to leave them undisturbed.



View from the top of Dreamer's Rock



Igniting Shkoodde - Fire



- Shkooddeh is central to the Anishinawbek people and there are many teachings that emanate from it. Whenever it is possible shkooddeh is used when providing teachings to our youth. The origins and importance to the Anishinawbek are taught.

Indigenous Plants Identified

English Name:

1. Wild crab apple tree
2. Wild plum
3. Wild rose
4. White cedar tree
5. Iron wood tree
6. White pine tree
7. Jack pine tree
8. Birch tree
9. Tamarack tree
10. Black ash tree
11. Shield fern
12. Wild strawberry
13. Stinging nettle
14. Spotted touch me not
15. High bush cranberry
16. Golden rod
17. Pussy willow
18. Speckled alder
19. Canadian yew
20. White spruce
21. Balsam fir
22. Hemlock tree
23. White trillium
24. Red oak
25. White oak

Anishinabe Name:

mishiinimaatig
bagesaanaatig
oginiiminagaawanzh
waapschki giizhik
maananoons
zhingwaak
okikaandag
wiigwaasaatig
mashkiigwaatig
aagimaak
ganuck
odemini
mazaanaatig
ozaawashkojibik
aniibiminagaawashk
giiziso-mashkiki
oziisigobimizhiin
wadoopiin
nr'bagandag'
gaawaandagwaatig
aninaandag
gaagaagimizh
baushkindjibgwaun
mashkode-miizhimizh
mitigomizh

Indigenous Plants Identified

English Name:

26. Sugar maple tree
27. Choke cherry tree
28. Black cherry tree
29. Bush honeysuckle
30. Blueberry
31. Wintergreen
32. Labrador tea
33. Sweet grass
34. Boneset
35. Milkweed
36. Cattail
37. Dandelion
38. Blackberry
39. Red Raspberry
40. Squirrel tail
41. Canada thistle
42. Milk weed
43. Burdock
44. Black-eyed susan
45. White sage
46. Bristly buttercup
47. Juniper
48. Bluebell
49. Staghorn sumac
50. Yellow ladyslipper
51. Basswood

Anishinabe Name:

aninaatig ziinzibaakwad
 asaweminagaawanzh
 okwemijig
 wezauskwagmik
 miinagaawanzh
 wiinisiibag
 mashkiigobag niibiish
 wiingashk
 sasabwaksing
 bagizowin
 apakweshk
 doodooshaaboojiibik
 odatagaagominagaawanzh
 miskominagaawanzh
 ajidamoowaanow
 mazaanashk
 ininiwinzh
 gichi-mazaan
 wezawab-gonik
 bebezgigooganzhii-wiingashk
 manwe'gons
 giizhigaandagizi
 odotaaagaans
 baakwaanaatig
 makizin
 wiigibiish

Indigenous Plants & Their Uses

- The following are some of the various plants and trees that were found on the field study, along with their Aboriginal uses whether it be medicinal, cultural, for food, or for crafts and building



*For health and safety purposes please do not try or practice medicinal plant uses without the guidance and supervision of an experienced Aboriginal Knowledge Holder.

Wintergreen // wiinisiibag



- Wintergreen leaves are used to help:
 - Stop bleeding
 - Promoting healing
 - Toothache
 - Diuretic

Wild Rose (Prickly Rose) // oginiiminagaawanzh



- Rose hips - Eaten fresh or made into a jelly, syrup or tea. (The seeds must be removed first because, if swallowed, they irritate the throat or intestinal tract)
- Branches (when boiled) can be used to treat excessive menstruation
- The roots may be used to treat diarrhea, coughs, menstrual irregularity, eye drops, and chest colds (when boiled)
- When roots are boiled, they can also be gargled as a remedy for sore throats and tonsillitis, and the vapor may also be inhaled to treat nose bleeding
- Rose hips maybe used to treat colds and fevers
- Flowers may be used for heart tonic and bee stings
- Flowers - The petals are eaten fresh

Sweet Grass // wiingashk



- Commonly used in prayer, smudging or purifying ceremonies— considered a sacred plant. It is usually braided, dried, and burned.
- Pleasing sweet scent when burned, often done to commence a prayer or ceremony to give positive energy.
- Sweet grass is sometimes chewed on when fasting in order to increase endurance.
- Sweet grass tea can be used to help treat colds and coughs.
- Commonly used in making crafts and baskets.

Blueberry // miinagaawanzh



- Source of food (fresh or preserved)
- Often dried into cakes for the winter
- Can be used in tea flavouring
- Often used as a dye (for example to dye porcupine quills)

White Cedar Tree // waapschki giizhik



- Many qualities and uses (from tea, to smoke and offerings for rituals)
- It's used as a spiritually purifying herb in Midewiwin (Grand Medicine Ceremonies) and prayer.
- Referred to as “Tree of Life” by Ojibwe
- The pith of its twigs can be boiled to make soup
- Inner bark can be cooked, dried, ground into a powder form, and then used with cereal or wheat to make bread
- Used to make canoes; white cedar is easily worked and rot resistant
- Cedar is very versatile—commonly used for making wooden furniture or objects such as cedar chests, closet wood lining, cedar shavings, small carvings, pencils, brooms and fence posts

White Pine Tree // zhingwaak



- Inner bark is used to help heal insect bites and open wounds
- Inner bark can also be utilized as a bandage
- The outer bark can be turned into cough syrup after being steeped with hot water
- White pine needles can be cut up and added to hot water to make vitamin C rich tea.

Labrador Tea // mashkiigobag niibiish



- Leaves brewed for tea; rich source of Vitamin C
- Helps treat diarrhea and stomach flu, chills and headache
- Aids with teething pains and bad breath
- The shrub may also be used to add aroma to sweat lodges by pouring water boiled with tea onto hot rocks.

Wild Strawberry // odemini



- Source of food (fresh or preserved)
- Leaves used for tea
- Leaves & roots have been used as medicine for a variety of diseases
- Roots are sometimes chewed to clean teeth

Birch Tree // wiigwaasaatig



- Sometimes used to make Medicine Rattles
- Leaves can make a tasty tea or infused oil (the oil can be used to treat chronic skin conditions)
- Birch sap can be tapped (similar to maple sap) and mixed with tea or other drinks or drank on its own as well
- Good burning wood for fires
- Used to make canoes and furniture; it is very durable and waterproof—good for shelters
- Birch is also commonly used to make paper
- Used to make all kinds of containers including porcupine quill boxes

Stinging Nettle // mazaanaatig



- Rich in Vitamin A & C, iron, boron and fiber
- Tea from stinging nettle is used as a diuretic, treats bronchitis, seasonal allergies, asthma, and even kidney stones
- Often used by pregnant women to get proper vitamins
- Tea is also used as a remedy for rheumatism; can also treat arthritis when applied to bare skin
- Leaves can be cooked and eaten like spinach

White Spruce // gaawaandagwaatig



- Spruce saplings can be made into bows
- The gum can be heated and used as a glue
- Roots can be used as a string for crafting, for example for lacing birch bark of canoes or sewing baskets
- The wood is often used as lumber or to make oars/paddles
- Spruce needles can be boiled to make tea or eaten directly—rich Vitamin C source

Juniper // giizhigaandagizi



- Can be used to help treat diabetes, arthritis and rheumatism
- Juniper berries have also been used as a female contraceptive
- Juniper berries are also a diuretic
- Can be cooked and used as seasoning, or often Aboriginals used the berries as an appetite suppressant during times of hunger
- Helps treat snakebites and other wounds

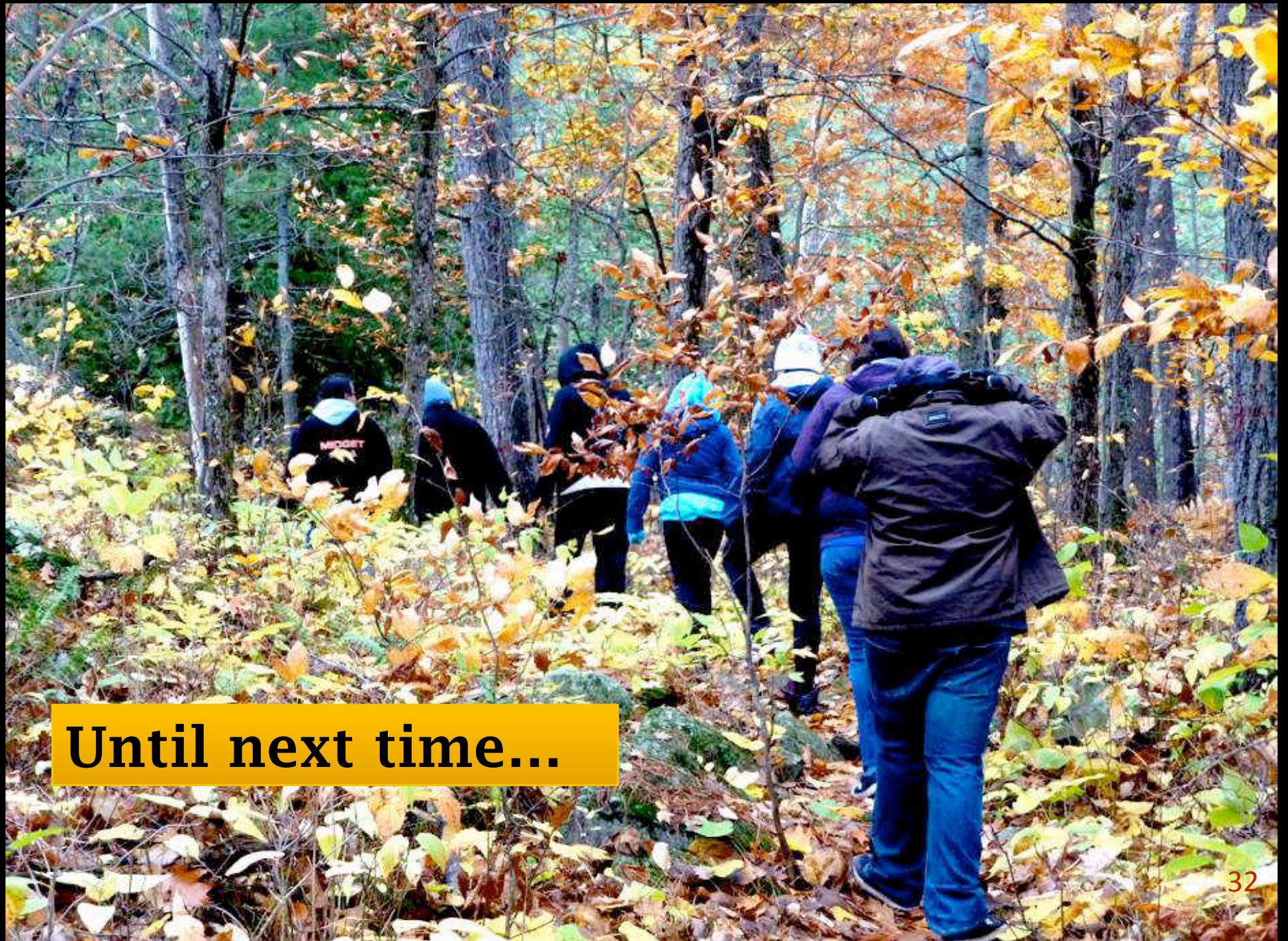
Woodpecker // Pahpahsay



- The tree on the left was found during the nature walk. The large hole in it is the result of a woodpecker. Woodpeckers create these holes in order to feed on the insects in and around the trees; they also nest their babies in these tree holes too. This process helps protect trees from infestations.

Highlights from the Project

- As a result of the TD FEF funding, Silverhill was able to help to reinforce an Aboriginal language as well as the many indigenous uses for these important plants and trees that play a significant part in Ojibwe history.
- “The project met the expectations of Silverhill. The student participants were eager to learn about their indigenous culture. The knowledge holder was a great inspiration to the participants.”
-Peter Homenuck (Director of Silverhill)
- “One of the very positive but unintended consequences was that some students used this time to delve into other Aboriginal issues that they were concerned about, for example the missing Aboriginal women throughout Canada.”
-Tim McGregor (Knowledge Holder)
- “I really liked going up to Dreamers Rock and learning names of trees on our hike.”
- Tanner Southwind (Session Participant)
- “I learned how to make a fire and why its important to the Anishinabe.”
- Damon Tabobondung (Session Participant)



Until next time...

Appendix

- The aim of this project is to document and disseminate Indigenous ecological knowledge through hands-on *field courses in a First Nations community in Northern Ontario* while fostering positive cross-cultural relationships between Indigenous and non-Indigenous communities and individuals. *This project set out to do the following:*
 1. Organize *three daylong field courses (each in a different season)* in a Northern Ontario First Nation community where an Elder or Knowledge Holder will teach Indigenous ecological knowledge to local students.
 2. Facilitate the transfer of Indigenous ecological knowledge from an Elder or Knowledge Holder to Aboriginal youth.
 3. Identify challenges and opportunities for the conservation of Indigenous ecological knowledge.
 4. Collaborate in developing and implementing curriculum focusing on Indigenous ecological knowledge for use beyond the project.
 5. Make all course materials (pending community approval) accessible to Indigenous and non-Indigenous educators in all fields who may be interested.

Long-term impacts beyond the length of TD's FEF support

- We are very confident this project will bring lasting impacts.
- Upon completion of the project some institutional and material resources will exist, allowing the project to be expanded in other communities. The project materials will continue to be made freely available, allowing others to use this information. Silverhill may also provide human resources to groups or communities looking to implement a similar program, if fundraising allows for this.
- The protection and celebration of language and culture are proven requirements for healthy communities. The Royal College of Physicians and Surgeons of Canada recently published an Indigenous health report, affirming that health is not simply the absence of disease, but must also include considerations for spiritual, emotional, cognitive, social, and cultural wellbeing. As the Indigenous ecological knowledge emphasized in this project includes these components, our initiative can contribute to the long-term health of both people and the environment.
- The knowledge gained by Indigenous youth will help to build confidence and renewed understanding of, and respect for, traditional ecological knowledge. This capacity building will contribute greatly to strong future leaders.