

The Team

Paulette Steeves (Cree- Métis)

David Thompson (Rural Agri-Innovation Network RAIN)

Colin Templeton (Food Bank Farm- Field Site)

Niigaaniin (Kinoomaagewin Field Site)

Get Involved

Community members are encouraged to join in creating Terra Preta soils, planting gardens, and attending knowledge-sharing events. Your participation will help revive traditional agricultural practices and improve food security in Northern Ontario. You can follow our progress at:

www.rainalgoma.ca/terrapreta



NIIGAANIIN

Algoma
UNIVERSITY



Ontario



Canada

Pilot Garden Tobacco Plant



**Enhancing Northern
Horticulture through Terra
Preta and Indigenous Wisdom
for Sustainable Soil Health in
Northern Ontario Overview**

Terre Preta

Indigenous Knowledge

Documented by Archaeologists and Indigenous Communities

Rewrite the history of the Indigenous people and great
civilizations in the Amazon.



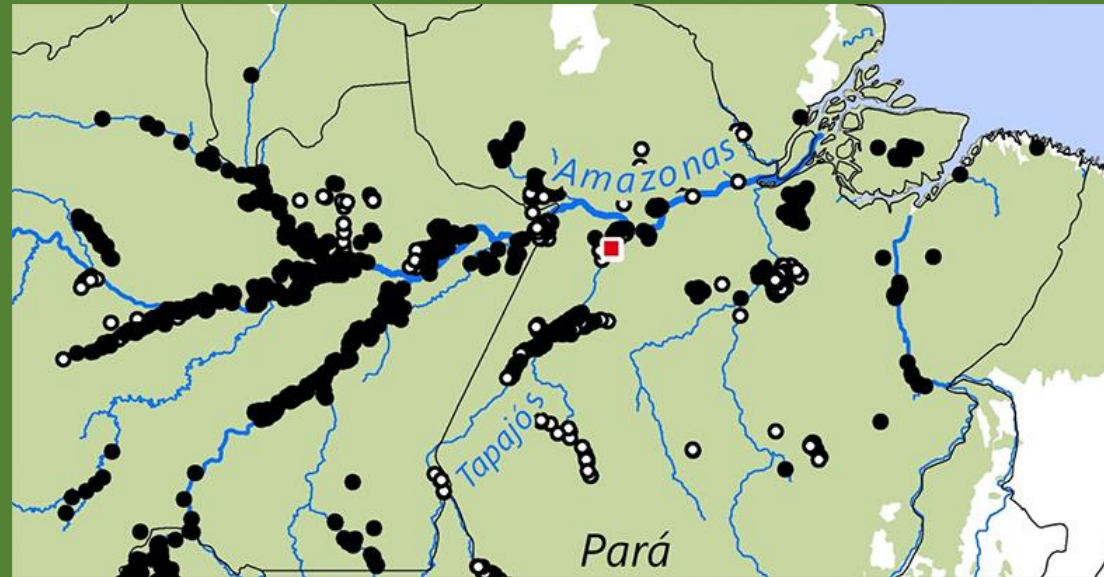
The Secret of El Dorado The discovery of Biochar

<https://www.youtube.com/watch?v=DMi94nILyeM>

Terre Preta

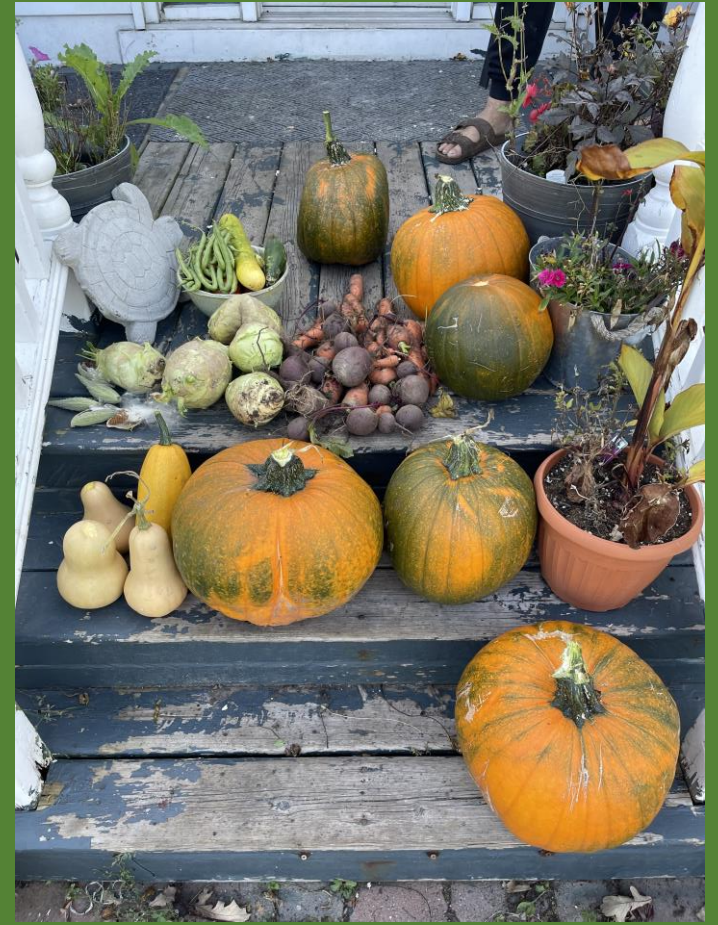
Indigenous Knowledge

Soil type	Nitrogen (%)	Phosphorus (mg/kg)	Calcium (mg/kg)
Dark Earth	0.20 – 0.40	200 – 400	500 – 1000
Surrounding	0.05 – 0.15	30 – 70	200 – 500







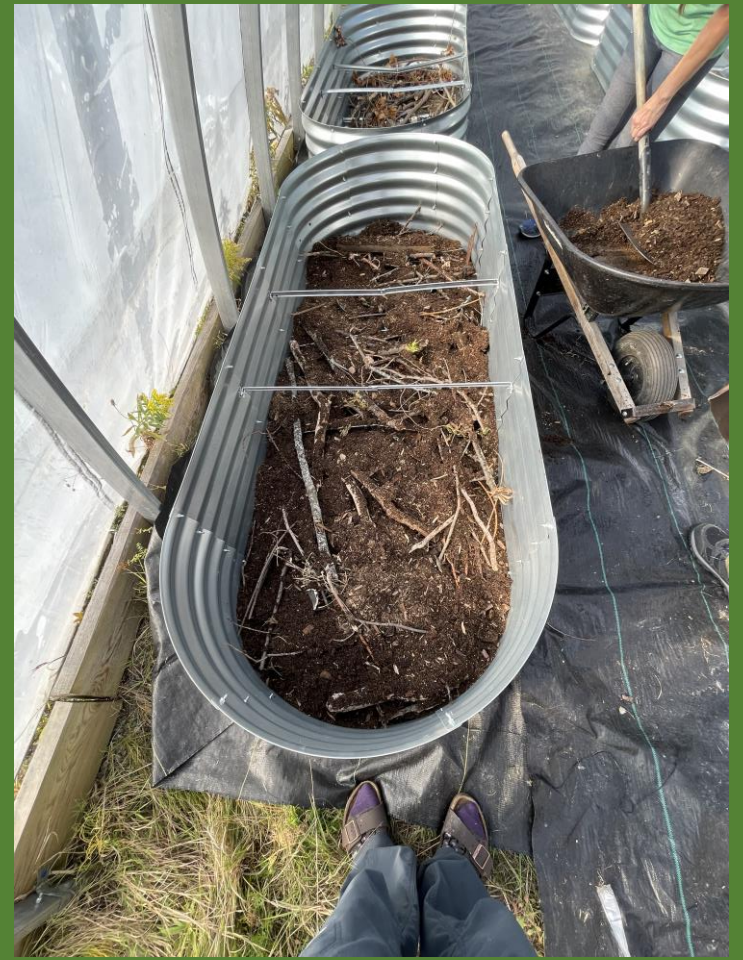






Greenhouse Harvest Algoma















Aaniin! Boozhoo! Tansi!
Wâciye! Hello! Bonjour!



Art by C.Binguis

Food Forest Research

Research on edible food and medicinal plant use.

Recommendations and tips for invasive plant removal and replacement.

In collaboration with Dr. Paulette Steeves and Algoma University.

Our intentions for the food forest is to clear out the invasive plants and replace them with native plants and mushroom species that should be or were growing in the forest pre-contact.

In the summer of 2023, we have created a database that includes the information of the 15 species of invasive plants and 94 native shrubs and tree species. As a part of my research, I have included the Anishinaabe names that I could find that accompany that plant.

The food forest project will continue and if you have any questions about the project, the database or additional information, please email Dr. Steeves at paulette.steeves@algonau.ca.

Forest Project

I am writing to you from the Robinson-Huron Treaty land and I am in the traditional territory of the Anishinaabeg of Bawating / Sault Ste. Marie. Christina Binguis nindizhinakaaz (my name is). I am a dedicated student to learning Anishinaabemowin and traditional medicines at Algoma University.

During the summer of 2023, I have documented the plant life living in the food forest on Algoma University campus. I will share with you some of the plant life that has fed the Anishinaabeg in the past, as well as one of the many invasive plants I found.

Indigenous to Northern Ontario - Bawating

Inininaatig
Acer rubrum
Maple tree



Art by C.Binguis

Maple can be found all over the campus forest. The Anishinaabeg tapped maple trees to make ziinzibaakwad (maple sugar).

Maple syrup has potassium, calcium, iron, phosphorus and vitamin B. It is an important food source. Medicinally, it is great for strengthening your liver and to soothe nerves.

Ingijibinaa
Prunella vulgaris
Self-heal

Art by C.Binguis



Smash the whole plant (not the roots) into a poultice and apply the poultice to injury and cover with a bandage. It can help heal and pull out foreign objects (infection, wood, metal). Reapply as needed.

Asasawemin
Prunus virginiana
chokecherry



Art by C.Binguis

The cherries were eaten fresh or collected, smashed, dried and stored in a makak (box) for winter cooking.

A decoction was made from the inner bark to treat lung hemorrhages, sore throats and lung troubles.

Mina'ig
Picea glauca
White spruce

The spruce's roots were used to make rope and to bind birch bark canoes and rope. The sap was used as an adhesive for canoes and to patch holes because the resin is very strong. The foliage is also good for vitamin C tea.



Art by C.Binguis

Miskomin Rubus idaeus Raspberry



Art by C. Binguis

This plant contains vitamins A, B, C and E along with calcium, iron, phosphorus and potassium. The purpose of this tea is to help prevent miscarriage and complications related to pregnancy including postpartum hemorrhage and premature labor. Drinking this tea will nourish and tone the uterus.

Invasive plant: Periwinkle *Vinca minor*



Photo courtesy of C. Binguis

Periwinkle is an invasive thick vine that grows low to the ground. It has purple flowers that bloom in the spring and dark green, and glossy leaves.

Periwinkle is an invasive vine that carpets the forest floor and blocks the sunlight from other plants and is very competitive. It does not provide any nutrition for small animals as the seeds are too small and the leaves are toxic.

How to remove periwinkle

The best time to pull periwinkle would be after a rainfall, fall, or spring when the ground is soft. Using a shovel or your hands, pull out all parts of the plant and toss it into garbage bags.



Do not compost periwinkle because it will replant itself and invade new areas.

Dispose of all parts of the plant into your garbage bag, if a little bit of root is left behind in the soil, it can grow back into a new plant.

Once the periwinkle is collected, the garbage bags should be left out in the sun for up to five days. This ensures that the plant is dead and won't regrow. You can then dispose of the garbage bags into your local garbage.

If you are looking for a similar plant that is native to North America, try planting these instead:

- Woodland Phlox (*Phlox divaricata*)
- Wild Strawberry (*Fragaria virginiana*)
- Partridgeberry (*Mitchella repens*)



Thank you Miigwetch

I would like to thank Dr. Paulette Steeves and Dr. Nairne Cameron for their unwavering support for this project.

External links

Sault Ste. Marie Leaf and Yard Waste information

<https://saultstemarie.ca/Government/City-Departments/Public-Works-Engineering-Services/Public-Works/Waste-Management/Leaf-and-Yard-Waste.aspx>

Dr. Paulette Steeves PhD (Cree-Métis) Indigenous Archeologist

<https://pauletesteeves22.wixsite.com/drpauletesteeves>

Algoma University

<https://algonau.ca/about/>

Ontario Parks Periwinkle invasive species information

<https://www.ontario.ca/page/invasive-species-ontario>



Art by C. Binguis

La Via Campesina, website section on [food sovereignty](#)

National Farmers' Union, website section on [food sovereignty](#)

Indigenous Food Systems Network, website section on [Indigenous Food Sovereignty](#)

[The People's Food Policy Project: Introducing Food Sovereignty in Canada](#) (08.2012) Cathleen Kneen, Food Secure Canada