

Plants that people in Whapmagoostui use to treat the symptoms of diabetes*

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Brian – heads up! This article has multiple references to both Labrador tea and marsh Labrador tea, and we need to keep the distinction. Labrador tea = *R. groenlandicum* = Kaachepukw. Marsh Labrador tea (a.k.a. northern Labrador tea, small Labrador tea) = *R. tomentosum* = Wiisichipukw.

Purpose

The point of the Anti-diabetic Plant Project is to allow traditional and western medicines to work side by side. The very first step in the project was to talk with elders and healers in Mistissini about the plants they use. In this study, we did the same thing in Whapmagoostui. We wanted to find out:

- Which plants healers in Whapmagoostui are using to treat the symptoms of diabetes
- If people in Whapmagoostui are using the same healing plants as people in Mistissini
- If people in Whapmagoostui are using the same healing plants as other Cree peoples in Canada
- Which of these new plants we should look at first when we do lab tests.

How we did the study

First, we talked about the project with Robbie Dick and some of the other elders and healers in Whapmagoostui. Chief David Masty and the Cree Board of Health also agreed to the project. Then we asked 31 elders and healers what plants they would use to treat the symptoms in the list below. All of these can be signs of diabetes:

* This is a plain-language summary of an article by Marie-Hélène Fraser, Tim Johns, Pierre Haddad, and Alain Cuerrier called “Ethnobotanical investigation of plants used for the treatment of Type 2 Diabetes by two Cree Eeyou Istchee communities (Quebec, Canada).” Draft of October 31, 2008.

- Headache
- Feeling hungry a lot
- Feeling thirsty all the time
- Needing to pee often
- Feeling tired
- Blurred vision
- Sore or numb feet
- Diarrhea
- Abscesses or boils
- Back or kidney pain
- Rheumatism or arthritis
- Infections that are slow to heal
- Inflammation (heat and swelling)
- Heart or chest pain
- Sore or swollen limbs

In summer of 2005, we discussed what we found out with people in the community. In this article, we are writing it down so other scientists can see it.

Plants people use in Whapmagoostui

People in Whapmagoostui have kept a lot of their knowledge about healing plants—more than in other communities. We notice that the healers in Whapmagoostui named more plants, and more different ways to use them. Perhaps this is because Whapmagoostui has less influence from the south. Or maybe the healers have learned some things from the Inuit living in Kuujuaraapik.

All told, the elders and healers showed us 21 plants that they would use to treat the symptoms of diabetes. They included all of the trees that grow around Whapmagoostui. Table 1 (at the end) lists all the plants and what they were used for.

Some of the plants are used for nine or ten different problems. Although each healer has his or her way, there are broad areas of agreement. For instance, most of the healers use juniper to treat urinary problems. They usually use lowbush cranberry to treat blurred vision, and sphagnum to treat fainting or weakness. They say that pitcher plant is a strong medicine, but that you should not take too much of it.

Typically, the medicines are prepared by methods like

- Mashing the plant and then boiling it in water
- Adding boiling water to the plant and letting it steep (like tea)
- Scraping or crushing the plant into powder to make a poultice.

In both Whapmagoostui and Mistissini, the healers mainly use leaves and inner bark for medicines. Bark, gum, roots, or needles are used less often.

Do people in Whapmagoostui and Mistissini use the same plants?

Many of the plants that people use in Whapmagoostui were also named by healers in Mistissini. But other plants were new. Crowberry, juniper, and marsh Labrador tea were not named in Mistissini. Reindeer lichen, American dune grass, and sphagnum were not mentioned by any other Cree group in Canada.

Although people in the two communities use a lot of the same plants, they don't always use them the same way. For instance,

- The two communities use white spruce quite differently.
- In Mistissini, people treat blurred vision with balsam fir. In Whapmagoostui, they use lowbush cranberry (partridgeberry) for this.
- In Whapmagoostui, they use American dune grass and the smoke from sphagnum to treat weakness and arthritis.
- In Whapmagoostui, they use sphagnum as a compress to relieve back pain

Some of the differences reflect what plants are available in each community. American dune grass and marsh Labrador tea don't grow around Mistissini, so people there don't use them. On the other hand, people in Mistissini use plants not found in Whapmagoostui, like creeping snowberry and balsam fir. In the same way, white spruce is uncommon around Mistissini, but very common around Whapmagoostui. So healers in Mistissini rarely mention the tree, whereas healers in Whapmagoostui use it to treat 14 different problems. These differences show us how important it is to study the plants used in each community, even if they are in the same area.

Even within Whapmagoostui, there are differences in what plants are most readily available. The healers who live right along the coast tend to use white spruce, which grows there, while healers who spend more time away from the shore tend to use black spruce. Some people use both white and black spruce, and tell them apart by odour.

Do people in Whapmagoostui use the same plants as other Cree nations in Canada?

We found several articles that describe the plants that other Cree peoples use to treat the symptoms of diabetes. This lets us see if people in Whapmagoostui are using the same healing plants as other Cree groups. It turns out that eleven of the plants used in Whapmagoostui are used by other Cree peoples for the same problems. They also tend to prepare the plants the same way. In short, Cree people across Canada seem to be using a lot of the same plants for the same purposes.

However, there are a few exceptions. Three of the plants that people in Whapmagoostui use are not named anywhere in the articles about other Cree peoples. And some plants that other Cree only use from time to time are used often in Whapmagoostui. For instance, marsh Labrador tea is hardly mentioned in the written articles, but people in Whapmagoostui use it. They say it looks like

Labrador tea, but is smaller. They use the small plant for children, and the larger one for adults.

Which of these plants should we test first?

We cannot do lab tests on all the plants at once, so we'd like to start with the ones that have the most promise for treating diabetes. When we did this study in Mistissini, we chose eight of the plants to begin with. Now we'd like to do the same thing for the plants that healers in Whapmagoostui told us about. As a first step, we ranked the plants based on a mix of three things:

1. How many different people mentioned the plant
2. How many different problems the plant was used for
3. Whether the plant is used to treat symptoms that we know are closely related to diabetes.

For our lab tests, perhaps we should look first at:

- The top three plants from this ranked list, which were Labrador tea, marsh Labrador tea, and tamarack.
- The plants that were used to treat more than nine different problems: sheep laurel, white spruce, black spruce, and tamarack.
- The plant that produced the greatest consensus among the healers: almost all of them agreed that they'd use lowbush cranberry to treat blurred vision.
- Plants that meet one of the criteria above *and* are known to have anti-oxidant effects. (This means they could also be good at fighting problems that go with diabetes, like heart disease).

Conclusions

This study showed us that there are large common areas between the plants that people in Whapmagoostui are using and those used in Mistissini or in other Cree nations. We also notice that the plants the healers are naming are the same ones that our lab tests say have anti-oxidant effects. In short, what the healers are saying fits both with traditional knowledge and with some scientific tests.

The study also helped us think about which plants we would want to test first in the lab. If we can test traditional medicines and then start using them in the clinics in Iiyiyiu Aschii, they may help to lower diabetes rates. Because diabetes is such a serious disease, we need to draw on different kinds of knowledge to deal with it. This is especially true when we already know that traditional medicines work for certain problems.

Table 1: Information about the healing plants and their uses that is included in the original article

Plant	Parts used	Used for these symptoms ^a	Mentioned in ^b
Balsam fir	Inner bark	5 symptoms	Mist.
Speckled alder	Inner bark	4 symptoms	Mist.
Gray reindeer lichen	All	Inflamm	Whap.
Crowberry.	Berries	Urin	Whap., lit.
Creeping snowberry	Berries	1 symptom	Mist.
Common juniper	Root, Leaf, Stem, Berries	Head, Thirst, Diarr, Back, Infect, Inflamm, Heart, Urin	Whap., lit.
Sheep laurel	Leaf, Root	Head, Sores, Diarr, Boils, Back, Arthr, Infect, Inflamm, Heart, Weak, Urin, Limbs	Mist., Whap., lit.
Tamarack	Inner bark	Urin, Limbs	Mist., Whap., lit.
American dunegrass	All	Head, Back, Heart, Weak	Whap.
Stag's horn clubmoss	All	2 symptoms	Mist.
White spruce	Cone, Inner bark, Needle, Stem, Gum	Head, Thirst, Eye, Sores, Diarr, Eat, Back, Arthr, Infect, Inflamm, Heart, Limbs, Weak	Mist., Whap., lit.
Black spruce	Cone, Needle, Stem, Gum	Head, Thirst, Eye, Eat, Sores, Diarr, Boils, Back, Arthr, Infect, Inflamm, Heart, Weak, Limbs	Mist., Whap., lit.
Jack pine	Cone	Eat, Sores, Limbs	Mist., Whap., lit.
Balsam poplar	Inner bark	1 symptom	Mist.
Labrador tea	Leaf	Head, Thirst, Eye, Eat, Sores, Diarr, Boils, Back, Arthr, Infect, Inflamm, Heart, Weak, Urin, Limbs	Mist., Whap., lit.
Marsh Labrador tea (northern Labrador tea)	Leaf	Head, Thirst, Eye, Eat, Sores, Diarr, Boils, Back, Arthr, Infect, Inflamm, Heart, Weak, Limbs	Whap., lit.
Diamondleaf willow	Bark	Infect, Weak, Boils	Whap., lit.
Willow	Inner bark	4 symptoms	Mist.
Pitcher plant	All	2 symptoms	Mist.
Sphagnum	All	Head, Eye, Sores, Back, Arthr, Infect, Inflamm, Weak, Limbs	Whap.

Plant	Parts used	Used for these symptoms ^a	Mentioned in ^b
Showy mountain ash	Stem, Leaf, Bark, Inner bark	Head, Thirst, Eye, Eat, Back, Infect, Heart, Weak, Urin, Limbs	Mist., Whap., lit.
Lowbush blueberry	Berry, Root	2 symptoms	Mist.
Lowbush cranberry	Berry	Eye, Boils, Urin	Mist, Whap.
Bog rosemary ^c	All	Weak	Whap.
Beautiful willow (grayleaf willow) ^c	Leaf	Back, Infect, Heart, Limbs	Whap.
Snow lichen. ^c	All	1 symptom	Mist.
White cedar ^c	Leaf	Infect, Inflamm, Boils	Whap.
Broadleaf cattail ^c	Root	1 symptom	Mist.
Alpine bilberry ^c	Root	1 symptom	Mist., Whap.
TOTAL: 26 species	45 plant parts		18Mist., 21Whap.

^a The abbreviations used in the “symptoms” column are:

Arthr	Arthritis or rheumatism
Back	Back or kidney pain
Boils	Boils, abscesses, toothache
Diarr	Diarrhea
Eat	Increase in appetite
Eye	Blurred vision
Head	Headache
Heart	Heart or chest pain
Infect	Infections
Inflamm	Inflammation
Limbs	Sore or swollen limbs
Sores	Sores/wounds (foot)
Thirst	Thirst
Urin	Urinary, diuretic
Weak	Fainting, weakness (including anemia)

^b The abbreviations for the “mentioned in” column are:

Mist	Mentioned by elders or healers in Mistissini
Whap	Mentioned by elders or healers in Whapmagoostui
Lit	Mentioned in published articles about Cree healing

^c We excluded these last six plants from our analysis due to the ambiguity of answers from the Elders and Healers.