



Gwich'in Ethnobotany

Plants used by the Gwich'in for Food,
Medicine, Shelter and Tools

by Alestine Andre and Alan Fehr

*Covers the Gwich'in Settlement Region in the
Northwest Territories and Yukon Territory*

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Inside

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*“People were always healthy and
there was hardly any kind of illness or
diseases because of the way they
lived in the country.”*

—Sarah Peters (COPE, b)

INTRODUCTION

Human beings have always depended on plants for their survival. In virtually every environment on the planet, we have used plants for food and medicine, and to make tools and build shelters. Over thousands of years, the Gwich'in people living in the subarctic region of North America became highly skilled at making use of the trees, shrubs and berries that the taiga and tundra provided. As skills were developed and improved, this knowledge was passed along from generation to generation.

As the Gwich'in now live in permanent communities, their dependence on local plants has diminished. Many of the skills that they needed to survive on the land now survive only in the memories of their Elders. As they pass away, this knowledge is gradually dying with them. Recognizing that urgent action was needed, in 1996 the Inuvik Research Centre (InRC) of the Aurora Research Institute, and the Gwich'in Social and Cultural Institute began documenting the plants the Gwich'in use and how

they use them. During the summer of 1997, staff from the InRC and GSCI worked with Gwich'in Elders to document their knowledge about the traditional use of plants, including leaves, bark, roots and berries. Elders from Aklavik, Fort McPherson, Inuvik and Tsiigehtchic were interviewed, both in the communities and on the land. Youth from each community also participated in the project.

The result of this research is this book and an associated kit, which are designed to be used by educators, naturalists and the public.

Important Notice:

This is not a plant identification guide. If you are uncertain of a plant's identity or uses **DO NOT USE**. Consult a local plant expert for more information.

GEOGRAPHIC SETTING

The Gwich'in Settlement Region (GSR) was established under the terms of the Gwich'in Comprehensive Land Claim Agreement, which was signed in 1992 by the Government of Canada and the Gwich'in Tribal Council. The GSR is located in the northwest corner of Canada's Northwest Territories, covering the southern half of the Mackenzie Delta and extending south along the Mackenzie River, southwest along the Arctic Red and Peel Rivers, and west into the Yukon (Figure 1: Map of GSR). The communities of Aklavik, Fort McPherson, Inuvik, and Tsiigehtchic are located within the GSR.

The climate of the settlement region is semi-arid and cold. Permafrost occurs throughout. The GSR includes two natural regions: the taiga plain and taiga cordillera. The taiga plain is a vast expanse of open black spruce forest on moist sites, white spruce forest on the drier sites, and numerous lakes and ponds. Trees such as balsam poplar, tamarack and paper birch, are also found in

this region. The Mackenzie Delta is the largest delta in Canada and consists of a maze of lakes and channels, vegetated by white spruce and a variety of shrubs on the uplands, and willows along the banks.

The taiga cordillera, or mountain region, includes the southern end of the Richardson Mountains and the northern end of the Mackenzie Mountains. Black and white spruce forests also grow in this region, although they are generally confined to lower elevations and river valley bottoms. At higher elevations, arctic-alpine tundra grows. Typical tundra species include dwarf willow, cranberry, blueberry, blackberry and numerous lichens and mosses.

Black bear, beaver, muskrat, woodland caribou, moose, lynx, snowshoe hare, marten and mink live in the forest region. Dall sheep are found only in the mountains and barren-ground caribou inhabit the tundra. Grizzly bears, wolves, red foxes, and wolverines are at home in the forest and tundra habitats.

METHODS

Elders were selected to participate in this project based on their expertise and interest in the traditional use of plants. Usually Elders were interviewed during field trips on the land. Youth and staff accompanied Elders on hikes through areas they recommended, occasionally stopping to look at plants, pick berries or discuss a plant's use and name. Photographs were taken and some plants collected for use later in the *Gwich'in Plant Kit*. Because some Elders had difficulty walking in the bush, we spent time with some of them in homes and offices examining freshly picked or dried plants and discussing their names, uses and habitat. Information was also collected from Elders in 1997 during the Gwich'in Science Camp, organized by the GSCI. Ruth Welsh, a Gwich'in Elder now living in the Yukon, also attended the camp. She has a special interest in ethnobotany and worked with the staff and students identifying plants and

passing on information about their preparation and uses. In the fall of 1997 Elders, youth and staff took a field trip down the Dempster Highway to Rock River.

Separate trips were made to collect and photograph plants at different stages of growth. At the Inuvik Research Centre laboratory, the plants we collected were pressed until dry, and then mounted with white glue on herbarium paper. Some plants were laminated for use in the *Gwich'in Plant Kit*. Where possible, berries were dried and mounted with the whole plant; however, they often dropped off, or were not present when the plants were collected. To ensure all plants in the kit had samples for people to see, berries were picked, dried and then bagged and placed in a plastic organizer for display. Ground cone, lichen, moss and fungi were dried and placed in either glass jars or in the organizer.

On November 23 to 25, 1998, the authors and nine Elders, representing all four communities, met to review, discuss, and correct the draft book, plant specimens, and kit. This workshop was video-taped and the tape archived at GSCI.

This book contains all the information gathered from the Elders during the project. The plant species presented are those identified by Elders at the locations they visited. We have also included information about plant use by Gwich'in people that is stored on the Gwich'in Renewable Resource Board's

database of traditional environmental knowledge. The following archives in the database were searched: Hudson's Bay Company, Committee for the Original Peoples Entitlement (COPE), Gwich'in Environmental Knowledge Project (GEKP) and Land Use Planning. Many of the individuals whose quotes and information we used are now deceased. The information they provided has proved to be invaluable.

ABOUT THIS BOOK AND KIT

The *Gwich'in Plant Kit* was developed for use by educators in the Gwich'in Settlement Region. The Inuvik Research Centre, the Gwich'in Social and Cultural Institute, Parks Canada and the five schools in the GSR all have kits that are available for educational purposes. The kit includes a copy of this book, 27 pressed, labelled and laminated plants, an organizer with assorted samples of dried berries and fungi, and two jars of lichens and mosses. The book can be used without the rest of the kit.

The plants presented in this book are grouped into trees, shrubs (lower growing, usually many stemmed, woody plants), berry plants, a collection of miscellaneous vascular plants, mosses and lichens, and fungi. Information on rock and mineral use was collected incidental to the plant data collection and is summarized in the appendix. The English, Latin and Gwich'in plant names are provided. We use both the

Gwichya Gwich'in dialect, spoken in Tsiigehtchic, and the Teet'it Gwich'in dialect used in the Mackenzie Delta communities of Aklavik, Fort McPherson and Inuvik. In cases where only one dialect has a name for a particular plant, we give that name and indicate which dialect by a "T" for Teet'it or "G" for Gwichya. No reference is made to the dialects where they share the same name for a particular plant. It should be noted that some plants have more than one Gwich'in name, including some that may not be included in this book. Not all English names could be listed for each plant; we have included only the names commonly used in this region.

Often in the book, we use the expression "in the old days". While a bit ambiguous, we are referring to a period prior to the 1960s, when dog teams were still the norm and most people lived, at least seasonally, on the land.

Although we provide a general description for most plants, this book is not intended to replace plant identification guides. If you are unfamiliar with these plants and need more information in order to identify them, ask an expert or obtain one of the following plant books:

1. *Plants of the Western Boreal Forest and Aspen Parkland*. 1995. Derek Johnson, Linda Kershaw, Andy MacKinnon, Jim Pojar. Lone Pine Publishing, Edmonton, Alberta.
2. *Wildflowers of the Yukon, Alaska, and Northwestern Canada*. 1988. John G. Trelawny. Sono Nis Press, Victoria, British Columbia.
3. *Discovering Wild Plants: Alaska, Western Canada, and the Northwest*. 1989. Janice J. Schofield. Alaska Northwest Books, Portland, Oregon.

For a more academic and thorough treatment of plant identification, obtain one of the following books:

1. *Flora of the Yukon Territory*. 1996. William J. Cody. National Research Council of Canada, Ottawa.
2. *Vascular Plants of Continental Northwest Territories, Canada*. 1980. Alf Erling Porsild and William J. Cody. National Museums of Canada, Ottawa.

GENERAL COMMENTS ABOUT COLLECTING AND USE

Plants are a renewable resource that will regenerate year after year if taken care of properly. Consider the effects of collecting plants and remember the following:

1. Try not to pick out an area—take only what you need.
2. Do not destroy the whole plant if you do not need it all.
3. Try to collect away from main roads and towns. Plants are cleaner away from these places.
4. When collecting inner or outer bark, do not strip the bark from around the entire tree trunk. Girdling the tree, as it is called, will kill the tree.

Gwich'in Elders say that people must respect the plants they are collecting. People should leave an offering when collecting any part of a tamarack, juniper or ochre (a rock). Suitable offerings include tobacco, matches, tea, rifle or shotgun shells, money, sugar or a prayer. Mary Kendi of Fort McPherson says to pray while you collect and prepare your medicine.

To make medicines, one should use clear creek water, snow or ice, not tap water. Elders say all evergreens, including spruce, juniper and tamarack, promote healing, and that the steam from boiling these plants helps relieve nasal congestion and colds.

Boiling time should generally not exceed five to 10 minutes.

Excessive boiling could result in extremely strong medicines and teas which could be bitter or harmful. Elizabeth Greenland advises to dispose of plants and traditional medicines on the land when finished with them.

Finally, we ask that when collecting plants out on the land, you respect the beliefs and values of Gwich'in Elders.

In olden days, when you're going to use any plant, you have to pay Mother Earth for it. They say that's when it works for you.

—Laura Pascal, (COPE).

A REQUEST FOR FEEDBACK

We urge readers to pass on concerns, corrections or any information they might have about plant use in the Gwich'in Settlement Region. Stories, recipes, collecting locations, plants not listed—all would be appreciated.

Please contact the Gwich'in Social and Cultural Institute in Tsiigehtchic with your information.

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In 1997 William Hurst and summer students Angeline Haynes and Frederick "Ziggy" Maring, all

from the Inuvik Research Centre (InRC), participated in field trips to Aklavik, Inuvik and Tsiigehtchic, and assisted in pressing and mounting the plant specimens. In 1998 InRC summer students Augusto Carriedo and Rebecca Filion assisted with plant collection, pressing, and mounting. Augusto Carriedo laminated most of the plants and assisted with label preparation. Several other InRC staff also assisted: Valoree Walker, Les Kutny, Suzanne den Ouden, Tanya Dorey, Alex Collins and Alex Borowiecka. Ruby Lennie and Leslie Main-Johnson assisted with the plant photography in 1998. Marie-Anick Elie from the Gwich'in Renewable Resource Board helped with the collection of photographs.

The Elders' workshop held in November 1998 to review the draft products included Mary Kendi, Alfred Semple, and Catherine Semple from Aklavik; William Teya, Louisa Robert and Mary Kendi from Fort McPherson; Mabel English and Elizabeth Greenland from Inuvik;

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Culture and Employment

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Field Unit)

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We would like to thank all the photographers who provided the images for this book. (See inside cover for listing.)

SUMMARY OF PLANT USES AND NAMES

English names in brackets are provided for readers familiar with different common names. We have also provided additional English names in the text. Gwich'in names are indicated with a "G" if they are in the Gwichya dialect or "T" if they are in the Teet'it dialect. If there is no "T" or "G" this means that the word is the same in both dialects.

English Names	Gwich'in Names	Latin Names	Uses	Page No.
alpine arnica	at'an tsoo	<i>Arnica alpina</i>	medicine	53
bear root	treh (G) trih (T)	<i>Hedysarum alpinum</i>	food and medicine	53
birch	aat'oo	<i>Betula papyrifera</i>	food, medicine, tools and bait	25
bird's eye (bearberry)	dzhii ndèe' (G) shih jak (T)	<i>Arctostaphylos rubra</i>	food	29
black currant	deetree jàk	<i>Ribes hudsonianum</i>	food	39
blackberry (crowberry)	dineech'ùh (G) dineech'uh (T)	<i>Empetrum nigrum</i>	food and medicine	30
blueberry	jàk zheii (G) jak naalyuu or jak zheii (T)	<i>Vaccinium uliginosum</i>	food and medicine	40
cranberry	nat'at	<i>Vaccinium vitis-idaea</i>	food, medicine and dye	40
dwarf birch	luu t'an (T)	<i>Betula glandulosa</i>	flooring	47
fireweed	no Gwich'in name	<i>Epilobium angustifolium</i>	food and medicine	55
fungus, birch and willow	ediniichii	various	medicine, tobacco, insect repellent, moth ball, fire starter	63
goosefood (horsetail)	kheh dyè' (G) kheh di' (T)	<i>Equisetum arvense</i>	medicine, food and pot cleaner	55
juniper (crowberry)	deetree jàk (G) ts'ivii ch'ok (T)	<i>Juniperus communis</i>	medicine	47
mooseberry (soapberry)	dinjik jàk (G) dinjik jàk (T)	<i>Sheperdia canadensis</i>	food and medicine	45

English Names	Gwich'in Names	Latin Names	Uses	Page No.
moss (sphagnum moss)	nin'	<i>Sphagnum</i> species	diapers and cleaner	60
muskeg tea (Labrador tea)	lidii maskeg/maskig (G) masgit (T)	<i>Ledum palustre</i>	food and medicine	48
northern ground cone	du'iinahshèe (G) doo'iinahshih (T)	<i>Boschniakia rossica</i>	medicine and pipe	54
onions, wild	t'oo drik	<i>Allium schoenoprasum</i>	food	56
poplar	t'oo	<i>Populus balsamifera</i>	medicine, fuel and bait	24
raspberry	ts'eenakal	<i>Rubus acaulis</i> <i>Rubus strigosus</i>	food	42
red currant	eneeyù' (G) nee'uu (T)	<i>Ribes triste</i>	food and medicine	42
red willow (alder)	k'oh	<i>Alnus crispa</i>	medicine, fuel and dye	49
rhubarb, wild	ts'iigyù' (G) ts'ii gyùu' (T)	<i>Polygonum alaskanum</i>	food	56
rose hips	nichh (G) nichih (T)	<i>Rosa acicularis</i>	food and medicine	43
spruce	ts'iivii	<i>Picea mariana</i> and <i>Picea glauca</i>	food, medicine, shelter, fuel and tools	17
stoneberry (kinnikinnick)	dàn daih (G) dandaih (T)	<i>Arctostaphylos uva-ursi</i>	food	44
tamarack	ts'iiteenjùh (G) tsiiheenjoh (T)	<i>Larix laricina</i>	medicine and fuel	23
white moss (reindeer lichen)	uhdeezhù' (G) uudeezhu' (T)	<i>Cladina</i> species	food and cleaner	59
willow	k'aii' (G) k'aii' (T)	<i>Salix</i> species	fuel, medicine, food, 50 tools and shelter	
wormwood	gyùu tsanh (T)	<i>Artemisia tilesii</i>	medicine and insect repellent	57
yarrow	at'àn dagàii (G) at'àn dagàii (T)	<i>Achillea millefolium</i>	medicine	57
yellowberry (cloudberry)	nakàl (G) nakal (T)	<i>Rubus chamaemorus</i>	food	46

SUMMARY OF PLANT USES AND NAMES...CONTINUED

English Names	Gwich'in Names	Latin Names	Uses	Page No.
Rocks and Minerals				
flint	viht'r'ii (G) viht'r'ih (T)	n/a	fire starter	67
ochre	tsaih	n/a	dye	67
sulphur	gwinahkhóo (T)	n/a	medicine	66



Alan Fehr, Louisa Robert and Alestine Andre

TREES

Ts'iivii

Spruce

(see photo on page 37)

G/T

E

Common names: black and white spruce

Latin names: *Picea mariana* and
Picea glauca

Uses: food, medicine, shelter,
fuel and tools

Black and white spruce trees are found throughout the Gwich'in Settlement Region. Except for high alpine areas they inhabit any areas with suitable habitat. White spruce is commonly found on well-drained soils, while black spruce favours wetter areas. In general, the Gwich'in treat the two types of spruce as one type when preparing medicines. Spruce gum is not found in large quantities on black spruce, but small black spruce can be chopped up into small pieces to make medicine, using the same method as described under "cones" or "young spruce tips."

Dineezil/Edineezil (G)

Dineedzil (T)

Cones

Spruce cones are used to make a tea that relieves colds and helps

maintain good health. Of all the parts of the spruce tree, some Elders believe the cones make the best medicine (Andre 1995). Cones are picked year round from the tops of young trees. Usually five to 15 cones are gently boiled for 10 to 15 minutes in a pot of water. The longer they boil, the stronger the medicine becomes. Branches are sometimes put into the pot with the spruce cones. Some people prefer straining the liquid before drinking it. Spruce tea relieves coughing and sore throats and chests. Those who are sick with colds can take it three or

Take cones and branches and boil, cool it and drink one cup in the morning, afternoon and night.

—Annie Norbert describes Julienne Andre's medicine

four times a day for about five days. Some Gwich'in drink between one-quarter cup and one cup of spruce tea every day to stay healthy. You can drink this medicine when it is hot or after it is cooled, though it should never be gulped. Many people keep the medicine in a jar in the fridge for later use.

Dzèh ant' àt (G)

Dzih ant' at (T)

Sticky Gum

Sticky gum is the clear, sticky sap that can be found year round on spruce trees and in green firewood. This is new sap that has recently run from the wood of the tree. The gum can be removed from a tree using a knife, stick or your fingers, and stored in a container. When you are finished, baby oil, lard or butter will help get the remaining gum off your hands.

Sticky gum is used to soothe irritated skin and, when applied

to cuts, helps healing and reduces the chance of infection. It is also used for mouth infections such as cankers, by applying it directly to the sore. When made into a tea, sticky gum can be sipped to soothe sore throats. Sticky gum can also be used as glue to waterproof a canoe.

Sticky gum can be applied just as it is, or it can be made into a salve, by melting the sap at low heat and mixing it with lard or grease (Vaseline, vegetable oil or animal fat will do). Melting sticky or spruce gum tends to spoil the pot so it is best to use just one pot to prepare the medicine.

Mary Kendi, from Fort McPherson, says to spread sticky gum on warm canvas and then stick it on the chest. The dressing is kept on until it drops off by itself. This remedy helps relieve the symptoms of chest colds and tuberculosis (TB).

Making Salve with Sticky Gum

Collect pitch (sticky gum) that's really sticky and clear, even if it's only a couple of tablespoons. Take it and warm it in water until it's melted, and then put an equal or slightly smaller amount of Vaseline or other fat into it. Don't use cold fat though, it should always be room temperature. Use a clean stick and stir it slowly. Make sure the water is always fairly hot and that everything is liquid. Take it off the heat and then pour it into a container.

—Ruth Welsh

Dzèh kwan' (G)

Dzih drinh' (T)

Spruce Gum

This is the hard, older kind of tree sap or pitch, with a red or rose colour. As the quote below suggests, spruce gum forms in breaks in the bark, such as the tooth marks left by a porcupine. Spruce gum is picked year round from the trees with a knife, stick or fingers. It can then be chewed like a piece of gum. Both the gum and the juice it produces can be swallowed as you chew. Spruce gum was

commonly given to children as a treat when out in the bush cutting wood or picking berries.

Porcupines
make spruce
gum.

—William Teya

Spruce gum can also be boiled, strained and cooled to make a tea. Like spruce cone tea, this tea is used to relieve colds and maintain good health. It tends to be very concentrated though, so only small amounts are sipped. Softer spruce gum, like sticky gum, can be put on cuts or sores. It is also used to draw out slivers by applying a mixture of pitch and salve on the wound. After the sliver comes out, or is removed, clear pitch is applied to aid healing. The dressing and the pitch should be changed regularly.

GSCU



Spruce Gum

Ts'eevii ghat (G)

Ts'iivii uudeeghail (T)

Tree Roots

In the old days, people used roots for string, rope and to sew the rims of baskets, and skin and birch bark boats. Roots from any evergreen tree or willow were used; however, tamarack roots were considered the strongest. Alfred Semple described how his grandmother (Caroline Ts'ii gii; d. 1946) collected spruce roots from river banks after spring ice breakup. If the roots had a straight grain they were split and used to make fish nets. When not in use the fish nets were stored in water so that they did not dry up. According to Laura Pascal (COPE), the roots can also be pounded and boiled to make a liquid medicine.

Ts'eevii ch'yìdh (G)

Ineech'uu (T)

Inner Spruce Bark

The inner bark from evergreens, like spruce, and willows, can be used to produce a number of medicines. Bark is stripped off the tree, and the white pulpy layer on the inside of the bark is peeled or scraped. This part of the bark can be chewed to relieve colds or maintain good health. It can also be placed directly on a wound and covered with a bandage. Some people dry strips of the inner bark that can be reconstituted when needed. Nap Norbert recounts that when his sister, Rose, cut her finger with an axe, his step-father, Louis Cardinal, put the inner part of the bark on the wound. Nap said that the injury healed well and left no scar (Andre 1995).

Aatr'ii

Outer Spruce Bark

The outer bark is useful for making smokehouses for drying fish. Large pieces of bark are peeled from trees in the spring when the sap is running and used as shingles and siding for smokehouses. Smokehouses made with bark are preferred because a constant inside temperature is more easily maintained, compared to structures sided with plastic tarps. Splints for broken limbs or braces can also be made from the outer bark.

CSJ



Mary Kendi of Aklavik cutting fish in front of a spruce bark smokehouse

Ts'eevii zhao lè' (G)

Ts'eeviizhuu li' (T)

Young Spruce Tips

Chewing the tips of a young spruce tree helps relieve itchy throats and is good for any kind of flu or cold. The tips, cones, and branches can also be mixed and boiled. Spruce tips can be collected year round and boiled with cones and branches. Mary Kendi, of Aklavik, likes to boil the tips in the house to keep sickness away.

Didich'ajj (G)

Didich'eii (T)

Dried Branches

The dried branches or twigs (gray in colour) found at the base of spruce trees, beneath the boughs, are excellent for starting fires.

Even after rain they remain dry. Branches covered with the hairy or stringy-looking lichen (old man's beard) should be used first if available. When travelling on the land, many people keep some twigs and lichen in their pockets to start a fire if needed.

Building A Fire

It could save your life if you had to make a fire quick when it's 60 below. When you are traveling in the bush and you need to make a fire, break off a bunch of dry twigs from the tree, light a match to it and place it under your wood to start a fire. (Andre 1995)

—Nap Norbert

Troo zheii (G)

Troo gaii (T)

Dry Wood

Ts'iivii leh: green wood (G)

Ts'iivii lih: green wood (T)

Dachan: any kind of wood, including driftwood, birch, willow, spruce

Doo: driftwood

Spruce wood is used for fuel and for building or making the following items:

- log houses,
- smokehouses,
- caches,
- stages,
- axe and ice chisel handles,
- snow shovels (*zhoh ch'ik*), and
- sleds.

Many of these tools are also constructed with birch wood. Mary Kendi, of Aklavik, related how lumber was cut to make the frame of a skin boat. She also said candle sticks can be made from wood such as willow, spruce and birch.

Trappers used spruce trees for a number of purposes. Young green trees, stripped of their bark, were used to make *tsee tr'ill*, or beaver pelt stretchers. If a trapper did not have a spruce pole suitable for a *tsee tr'ill*, he could stretch the pelt by nailing it to a large tree. Ordinarily, snowshoes are made of birch wood; however, in spring, spruce is favoured because it absorbs less water and remains light through this wet season. Alfred Semple recommends using young spruce trees from river banks, because they are strong and flexible, having grown in a windy location. He makes a "disposable" pair of snowshoes by shaping the wooden frames and using shoelaces or string for the lacing. Tony Andre noted that willow can also be used for the frames.

Snow snake poles, used in a winter throwing game called *zhoh chii zak*, were made with straight spruce poles.

Long spruce poles (about five metres or 16 feet long) with the bark removed can be used to set fish nets under the ice.

In the old days, people put coals in rotten wood to start it burning. Then they added moss with rotten wood over top of it, and placed this in a dry bag. In this way they kept the coals alive. Each family had a fire starter kit. The flint was kept in the bag too.

Ah' Spruce Boughs

Thoo' ah: spruce boughs used for flooring

Spruce boughs are used for flooring in tents. Starting at the back of the tent, boughs are positioned so that the needles point toward the ground. For the next row, place the stems of the branches underneath the previous layer. This makes for a warm floor, especially in combination with caribou skins.

When out at camp, the *ah'* should be changed every weekend in both winter and summer.

In addition to being an excellent insulator, spruce boughs are thought to have medicinal value. Many Gwich'in believe that the aroma of the boughs inside a tent keeps people healthy. Small, young trees are considered to be particularly therapeutic. Spruce branches can also be boiled to produce a steam that relieves cold symptoms and maintains good health.

Caribou fur skins were used as a mattress which covered the whole inside where the bedding is. It is placed on top of well laid spruce tree branches. With all this there is no cold under, everything was made from caribou fur skin and it was very warm.

—Mary Husky (COPE).

Building a Fish Trap

The fish trap was something else our ancestors (prior to the turn of the century) used a great deal and perhaps it was the best and easiest method used in catching fish. The following is needed in order to build a fish trap: an eddy, long wooden poles with bark left on, long wooden poles with bark cleaned off. The first thing to do was to choose a good eddy. Directly downstream from this eddy is where the trap was built. The poles with bark are driven into the river bottom with an opening in between. Poles were then put in horizontally, like a fence. The next thing to do was to build a long basket. This was made from the clean wooden poles and set in the opening with the small end closed. Then you waited. The fish would come along and swim straight into the trap in great numbers. The fish were then scooped into the canoe with a large willow dipper with a long handle. A lot of fish were caught this way.

—Elijah Andrew (COPE, a)

Ts'iiteenjùh

G

Tsiiheenjoh

T

Tamarack

E

(see photo on page 37)

Thoo chàh: woody part of branch (G)**Thoo' chan:** woody part of branch (T)**Thoo' chàh:** branch (T)**Thoo' àa:** needles (T)**Troo:** wood

The tamarack tree grows in wet boggy areas and is found sporadically throughout the Gwich'in Settlement Region. Many trees grow along the Dempster Highway between Inuvik and Tsiigehtchic. Unlike other coniferous trees, tamarack needles turn yellowish-orange in autumn and then drop off. Tamarack needles occur in small clusters along the branch, whereas spruce needles occur singly.

The branches and cones can be collected year round. People should leave an offering when collecting any part of a tamarack tree. Caroline Andre of Tsiigehtchic said, "This is real good medicine. They say you have to pay for it, leave sugar or tea behind."

Tamarack tea is good for upset stomachs, colds, fatigue, or for general good health. It is made

Common names: larch**Latin names:** *Larix laricina***Uses:** medicine and fuel

by cutting tamarack branches into 15 centimetre (six inch) lengths, and boiling gently for five to 10 minutes, adding water as it evaporates. One can also add spruce gum to the tamarack stems and boil to make a stronger medicine. Mary Kendi of Fort McPherson makes her special medicine by adding cut up pieces of birch fungus to the tamarack stems and boiling.

Tea made from tamarack cones is good for soothing colds and alleviating headaches. Only four or five cones are needed.

Dry tamarack wood produces a lot of heat when burned. Tamarack roots are very strong, and can be coiled and stored for later use. According to Laura

When you cut tamarack, you want it to be really good and strong and work for you. You have to put something in place of it. In olden days, when you're going to use any plant, you have to pay Mother Earth for it. They say that's when it works for you but if you don't pay for it, it just won't work.

—Laura Pascal (COPE)

Pascal (COPE), the inner bark can be prepared as a poultice for wounds.

Tamarack Tea and Poultice

You cut (branches) up into small pieces or pound it up. Then you put it in a pot and boil it up. After it's done you cool it down. Then you strain it through a white cloth. You drink the juice three times a day. It's good for colds and when you're tired. You drink it for an upset stomach too, or to eat good. They used to use it a lot in the olden days for medicine.

To make a poultice you take all the bark off the outside branch. Rub the white pulp together then put that on a wound, a cut or a big scrape.

—*Laura Pascal (COPE)*



Tamarack tree in summer

T'oo

Poplar

G/T

E

Common names: balsam poplar

Latin names: *Populus balsamifera*

Uses: medicine, fuel and bait

(see photo on page 35)

Poplars are deciduous trees that often grow alongside willows on river banks and lake shores. The buds, which are very sticky, are collected in the spring before they open and then boiled. Drinking the tea relieves cold symptoms. The resin which collects on the side of a pot can be used for cuts. It can also be used as glue, either on its own, or mixed with spruce gum. The sticky buds can be applied to a sore to aid healing.

Poplar driftwood found along the Mackenzie River is good for

drying fish in a smokehouse because it burns longer than other types of wood. Wood that is partly dry and partly green will burn for a long time. Poplar is also good for smoking moose hide as part of the tanning process. Victor Stewart (GEKP) said that poplar, like birch and willows, can be used for baiting beaver traps. William Teya explained that poplar is not a good material for building log houses, as it does not hold heat well. Poplar wood is soft

and easily carved into toys or implements, such as snow shovels.

Long ago, people burned the bark of poplars and then mixed the

ashes into dog food. This helped control worms and kept dogs' fur in good condition.

Making Soap

In the spring, when she was young and living on the land with her family, the men would make a skin boat for going into Fort McPherson. While they were constructing the boat, the women would collect half dry poplar wood, burn it and collect the ashes. These ashes they boiled in a pot until the water evaporated. Then they mixed caribou fat in with the ashes to make soap. Once well mixed, they poured the mixture into a birch dish and let it cool. After cooling they cut the soap into small blocks and gave one to each family to wash clothes and clean up before heading to town.

—Mary Kendi, Aklavik

Aat'oo

Birch

(see photo on page 31)

G/T

E

Common names: paper birch

Latin names: *Betula papyrifera*

Uses: food, medicine, tools and bait

These trees, with their beautiful white bark, grow throughout the GSR in moist soils, often mixed with black spruce. They grow larger and taller in the southern parts of the area, and are not common in the Mackenzie Delta. There are many uses for the bark and wood, making it an important tree for the Gwich'in.

Birch is a hardwood valued for its strength and resistance to cracking. It is a favoured material for making snowshoes. In the past, the Gwich'in also used birch to make the following:

- net needles,
- paddles,

- drum frames,
- chairs and furniture,
- toboggans,
- snow shovels and scoops, and
- handles for knives, axes, awls, slingshots, dog whips and sleds.

Dog whip handles were often dyed with red ochre and decorated with fancy carvings. Birch toboggans are valued for being strong and slippery. The hunting canoes of the Gwich'in were built with birch frames and covered with canvas. Mary Francis (COPE, a) indicated that spoons and forks were also made with birch wood.

Sections of birch wood were used for bait when setting beaver traps under the ice of a lake. Rotting birch wood was considered good for smoking skins.

To make a medicine for stomach ailments, such as heartburn and ulcers, young birch trees can be chopped down, cut into small pieces and boiled in a large pot. The stems, twigs and leaves are all used. The boiled juice, which looks like tea, should be strained before pouring it into jars. Elders advise making only enough medicine for one week, as it will spoil. They recommend drinking one-half cup in the morning before breakfast and another one at night before going to bed. Sticky gum may also be chewed and swallowed with this medicine (Andre 1995).



Birch bark and driftwood

K'ii chų' (G)

K'ii chuu (T)

Syrup

Birch, like willows, are full of sap for one or two weeks in mid-June. To collect the sap, a notch is cut in the bark in the shape of an upside down V. Peel back the bark to make a hook. A bucket is hung from the hook to catch the dripping sap. Instead of a V-notch some people cut a vertical slit in the bark and hang a pail beneath it. The syrup, which is used as a topping for pancakes and other foods, is made by boiling down the sap until it thickens. A lot of sap must be collected to make a small amount of syrup.

Birch Tea

Find a young birch tree, chop it up, place it in a pot of water and boil into tea. Mabel English suggests drinking one-half cup of tea before every meal to alleviate stomach ailments.

K'ii

Birch Bark

CONTAINERS: In the spring, baskets, plates, bowls, and other containers can be made from soft, freshly peeled birch bark. Bark may also be dried for storage and then wet down when it is to be used. A basket is made by first folding fresh, green bark into the

shape you desire. Then a root is laid along the rim. Finally, a second root is sewn around the rim of the basket to make it stiff and hold the shape of the basket. Large roots can be split into smaller sizes, and all roots are kept in water to keep them moist and flexible. Roots are dyed with berries or ochre, although these days lipstick is sometimes used. An awl is used to make holes for sewing the rim. A lid for the basket can also be made with a piece of bark. In the old days, these containers were used for water, soup, and storing berries, dryfish and other foods. Berries stored in baskets were sometimes buried in moss for winter use. The late Mary Vittrekwa made birch baskets.

CANOES: The Gwich'in used to make canoes from smooth birch bark with no knots. Roots were used to sew the pieces together and spruce gum to make it water-tight. Charcoal was added to the spruce gum to give it colour. Tony Andre's father had a birch bark canoe that lasted 15 years.

FIRE STARTER: Birch bark is an excellent fire starter and is carried by many people travelling on the land for this purpose. It can either be peeled from a tree, or collected from among the driftwood along the river shore.

MEDICINE: The inner bark of birch trees is used to make a tea for stomach ailments. It is collected by peeling birch bark away from the tree trunk and collecting the white pulp underneath. The pulp is then boiled to prepare the tea.

On Birch and Beavers

I was sitting on the lake and I took some bark off a birch tree. If I light it, the beaver smells it. It is going to swim to me. So birch and poplar are the main trees that beaver really like. Even when we trap them, we put a piece of birch on the trap. I nail it there and if the beaver smells that, it has to come to that trap. So the best beaver food that I know of is birch.

—Victor Stewart (GEKP)

Roots

Alfred Semple's great grandmother used to make a tea from birch roots for washing the eyes of people afflicted by snow blindness. To prepare the tea, roots were dug up and cleaned with a knife. They were then washed, cut into pieces and boiled. Alfred says that a similar tea for snow blindness can be made using the buds of the tree.

Roots can be used for sewing baskets.

This is how I make a drum:

I go into the bush and find a good piece of willow or birch. A long piece is good to work with. I take it home, clean the bark off, and with a sharp knife, I cut away most of the wood. I cut until there's only a thin slab that is nice and smooth. I work at it until I can bend it easily into a circle. This is then fastened together with a strong piece of twine. Babiche is better to use.

Now that I have a circle, I find a thin piece of caribou hide (not tanned), cleaned of hair and anything lumpy. I stretch this over the frame. I find that the thinner the skin is, the better the drum I make. The skin is tacked on with small tacks. I do not know how it was done before we had tacks to use. Probably it was fastened onto the frame with babiche, too. Now I need something to hold the drum with, so I take babiche again and string it onto the bottom side of the drum. I also put three across the top. This produces a beautiful sound when it is played.

Another important part of the drum is the stick with which you hit it. This should be a small bent piece. Again, this is to make a good sound. If not, you do not produce good music. Now when this drum is played, it should produce a nice, rich sound. While playing it, if you know it starts to sound off, you simply splash some water onto the skin and rub it until you get it nicely dampened. This is all it needs to start it sounding better again.

—*Elijah Andrew (COPE, b)*



Annie Benoit and William Hurst at Mary Kendi's camp near Aklavik

BERRIES

Berry Picking in the Delta

The women used to pick berries. Down they used to go by boat. Sometimes they would stay two or three days. We used to have a lot of fun (and I never picked anything). Us girls used to make the boys mad, then they would spill our berries. One time we were nearly left behind because Mary Kendi (Aklavik) and I and some other girls were so bad. We had to cross three lakes. Everybody took off and left us. When we got down to the lake there was only one canoe—just one woman sitting in it waiting for us to come. We were so happy to see her there. We were good until we got home.

—Sarah Ann Gardlund (COPE)

Dzhii ndèè'

G

Shih jak

T

Bird's Eye

E

(see photo on page 31)

The edible berries of this low-growing (less than 10 centimetres or four inches tall) plant are similar to red currants. The red, shiny berries are juicy but sour. These plants grow in a variety of habitats, preferring moist areas. The leaves of the plant turn red in the fall, and Mary Kendi, of

Common names: birdeye, bearberry

Latin names: *Arctostaphylos rubra*

Uses: food

Aklavik, believes that this is why Red Mountain turns “red.”

Ruth Welsh and Mary Kendi say if you do not have any water these berries and cranberries will quench your thirst. Alfred Semple recommends adding bird's eye berries to meatballs (pemmican).

Dineech'uh

G

Dineech'uh

T

Blackberry

E

(see photo on page 32)

Blackberry is a low-growing (less than 15 centimetres or six inches tall) evergreen with runners that spread throughout the moist, mossy areas in which it grows. Clusters of blackberries sit atop the stem and green, needle-like leaves grow along the stem.

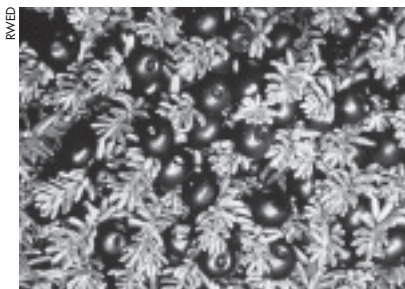
The berries are edible and make good jam. They are ready to be picked in August and September and are tasty when eaten alone or when mixed and eaten with other berries. Blackberries can be mixed with cranberries, for example, and added to *it'suh*, a dessert prepared from pounded dryfish.

Common names: crowberry**Latin names:** *Empetrum nigrum***Uses:** food and medicine

Old Joe Natsie's Medicine

This medicine was considered as good as spruce gum tea for stomach aches and bad colds. This tea was made by collecting and boiling blackberry roots, berries and stems.

—Annie Norbert, *Tsiigehtchic* (COPE)



Blackberry leaves and berries

Blackberries and Fish

Take the fish broth from boiled whitefish, add a pail of blackberries, enough sugar to sweeten it up, and a dipper of fish blood, hearts and liver. Cook this mixture. Then you take it down (off the stove). It is just like jam.

—Effie Francis (COPE)

At'an tsoo
Alpine Arnica

(see descriptions on page 53)

T
E

CHRISTIAN BUCHER



Treh
Trih
Bear Root

(see descriptions on page 53)

G
T
E

CHRISTIAN BUCHER



Aat'oo
Birch

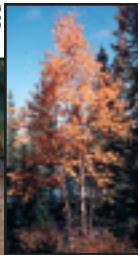
(see descriptions on page 25)

G/T
E

DAVE JONES



GSC



GSC

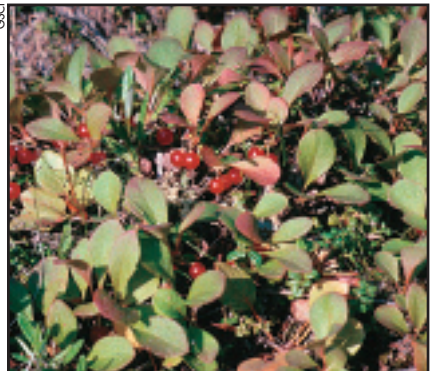


Dzhii ndèè'
Shih jak
Bird's Eye

(see descriptions on page 29)

G
T
E

GSC



DAVE JONES



Deetree jàk
Black Currant

G/T
 E

(see descriptions on page 39)

J. DEREK JOHNSON



Dineech'ùh
Dineech'uh
Blackberry

G
 T
 E

(see descriptions on page 30)

RWED



Jàk zheii
Jak naalyuu or Jak zheii
Blueberry

G
 T
 E

(see descriptions on page 40)

DAVE JONES

GSCI



Nat'at
Cranberry

G/T
 E

(see descriptions on page 40)

DAVE JONES



Luu t'an

Dwarf Birch

(see descriptions on page 47)

T
E

GSC



Fireweed

Note: there is no Gwich'in name for this plant

(see descriptions on page 55)

E

RWED



Edinìichii

Birch and Willow Fungus

(see descriptions on page 63)

G/T
E

GSC



Kheh dyè'

Kheh dì'

Goosefood

(see descriptions on page 55)

G
T

E

JACQUIE BASTICK



Deetrèe jàk

G

Ts'ìivii ch'ok

T

Juniper

E

(see descriptions on page 47)

DAVE JONES



Dìnjik jàk

G

Dinjik jàk

T

Mooseberry

E

(see descriptions on page 45)

GSCI



Nin'

G/T

Moss

E

(see descriptions on page 60)

DAVE JONES



Lidii maskeg/Maskig

G

Masgit

T

Muskeg Tea

E

(see descriptions on page 48)

DAVE JONES

GSCI



Du'iinahshèe

G

Doo'iinahshih or ts'eedichi

T

Northern Ground Cone

E

(see descriptions on page 54)

LESLIE MAIN JOHNSON



Tp'oo drik

G/T

Wild Onions

E

(see descriptions on page 56)

J. DEREK JOHNSON



T'oo

G/T

Poplar

E

(see descriptions on page 24)

JAMES MCCORMICK



JAMES MCCORMICK



Ts'eenakal

G/T

Raspberry

E

(see descriptions on page 42)

MYRNA PEARMAN



CHRISTIAN BÜCHER



Eneeyù'

G

Nee'uu

T

Red Currant

E

(see descriptions on page 43)

MYRNA PEARMAN



K'oh

G/T

Red Willow

E

(see descriptions on page 49)

DAVE JONES

GSCI



Ts'iigyùu'

G

Ts'iigyùu'

T

Wild Rhubarb

E

(see descriptions on page 56)

GSCI



Nichh

G

Nichih

T

Rose Hips

E

(see descriptions on page 43)

RWED

GSCI



Ts'iivii
Spruce

(see descriptions on page 17)

G/T
E

GSCI



Dàn daih
Dandaih
Stoneberry

(see descriptions on page 44)

G
T
E

JACQUIE BASTICK

CHRISTIAN BUCHER



Ts'iiteenjùh
Tsiiheenjoh
Tamarack

(see descriptions on page 23)

G
T
E

DAVE JONES



GSCI

Uhdeezhù'
Uudeezhu'
White Moss

(see descriptions on page 59)

G
T
E

JACQUIE BASTICK



K'aii

G

K'aii

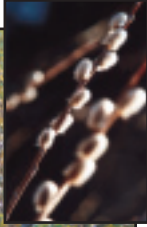
T

Willow

E

(see descriptions on page 50)

GSCI



JACQUIE BASTICK



Nakàl

G

Nakal

T

Yellowberry

E

(see descriptions on page 46)

At'àn dagàii

G

At'àn dagàii

T

Yarrow

E

(see descriptions on page 57)

DAVE JONES



Tsaih

G/T

Ochre

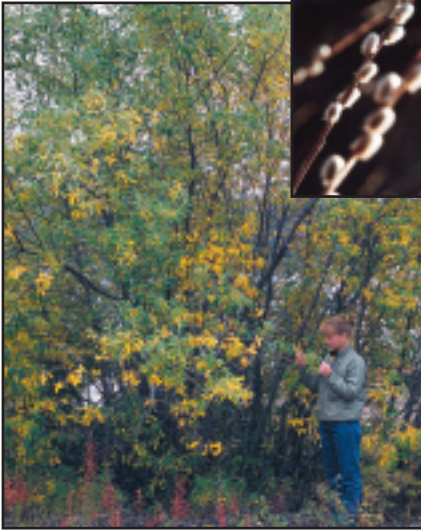
E

(see descriptions on page 67)

ALAN FEHR



JAMES MCCORMICK



JAMES MCCORMICK



Deetree jàk Black Currant

G/T

E

(see photo on page 32)

Black currant shrubs stand less than one metre (three feet) tall, and usually grow in moist areas with willows and roses. They are widespread but not common in the Gwich'in Settlement Region. Some bushes were found at Old Aklavik across the Peel Channel from the present town site, Mary Kendi's camp above Aklavik, and Knut Lang's camp. They are also found in the Husky River area.

The black berries are strong tasting and usually are picked for food in late summer. They make good jam. A tea can also be made using dried leaves and

Latin names: *Ribes hudsonianum*

Uses: food

berries. In winter, one can collect the stems and make tea.



Black currant

Berries and Beads

. . .they had special clothes for the summer. Some of them had different names but I can't say it in English very good, . . .these fancied up clothes were worn for summer and men and children wore these. Sometimes if a family had good workers, they had a good life. They made clothes like buckskin jackets with all kinds of different beads on them. The kinds of beads I'm talking about were different from the beads now. They were made out of ivory bone and they coloured the beads with different kinds of berries. These beads were pretty big and you could see on the shoulders of the jacket the bead work, and on the back of the jacket. Sometimes they would make a pair of overalls out of really good white tanned caribou skin. They also beaded the shoes. They also made fancy garters out of good tanned moose skin or caribou skin and out of fancy bead work or great porcupine quills. These were all different colours and they used that for garters either for men or women. These were made for special summer occasions, like sports day.

—Sarah Peters (COPE, a)

Jàk zheii

G

Jak naalyuu or

T

Jak zheii**Blueberry**

E

(see photo on page 32)

Jak naaluu or inlùh (T) or**anlùh (G):** unripe blueberries**Dindèzri':** ripe blueberries (G)**Dindèzrii:** ripe blueberries (T)

Blueberry bushes are low-growing shrubs, less than one-half metre (1 1/2 feet) high. They are found throughout the GSR, most

Latin names: *Vaccinium uliginosum***Uses:** food and medicine

commonly in willow flats or open forested areas around lakes. The berries are tasty and can be eaten with sugar or used in jam, pies, muffins, and *it'suh* (a dessert made from pounded dry fish). The stems and leaves can be boiled to make a tea for cold symptoms.

Nat'at

G/T

Cranberry

E

(see photo on page 32)

Cranberries are evergreen, low-growing (up to 20 centimetres or eight inches tall) shrubs. The pink flowers develop into bright red, seedless berries by late August. The edible berries are juicier and more tasty than stoneberries, which they resemble. Ripe cranberries are best stored in a box rather than in plastic and can be enjoyed year round. Berries picked before they are ripe will ripen in storage.

Cranberries can be eaten raw, with sugar, or added to breads,

Latin names: *Vaccinium vitis-idaea***Uses:** food, medicine and dye

pies and muffins. Cranberry jam, jelly or syrup can be made by boiling the berries in sugar. A pudding or sauce can be made by adding a paste made of flour or custard to boiled berries.

DAVE JONES



Cranberry leaves and berries

Cranberries can also be enjoyed by mixing them with cooked and mashed loche liver. *It'suh*, a dessert prepared from pounded dryfish, can be made with cranberries, a bit of sugar and fish oil.

Cranberry juice is good for kidney problems. Two to three cups of cranberry juice, made by simmering berries for up to 30 minutes, can help with colds and digestion and improve appetite. Clara Norman, of Tsiigehtchic, used to boil the leaves and drink the juice for coughs. Alfred Semple also recommends this remedy.

Cranberry juice is good for dyeing porcupine quills.

Picking Berries in Winter

She was old enough to work so whenever her father and she stayed with a family, she would do a lot of work. She was willing to work; bring wood, melt snow for water. And while she was filling pails with snow, she would see cranberries on the ground and she would dig and eat frozen berries. She would be away a long time. When she came back, they asked her, "What is wrong, why were you away so long?" She said she found berries on the ground and she was digging all over so she could eat the berries.

—Lucy Rat (COPE)

Loche liver and Cranberries

When you jiggle or set hooks for loche, you get quite a bit of loche. You pack the whole pile of it up to the tent. Then you take all the liver and eggs out. You put all the liver in a big pan. Then you mash the whole liver up. You take all the skin and veins out of it until it is smooth. Only then you put it on to cook. If there is a lot of liver and eggs, you are cooking it all day or all evening. You cook it slowly, then you take it down. You put all the cooked liver to one side of the pan so all the grease drains out. Put the grease into a pot. You could put cranberries in with the eggs too. Also add sugar to it. Nowadays they put sugar and a little flour into it. You put the cooked liver into a good pan to freeze. In the old days, after they washed the loche stomach bag, they put the liver into it. They would put the grease into a separate bag too. The liver does not spoil and tastes fresh over the winter. You can eat it while it's frozen.

—Effie Francis (COPE)

Ts'eenakal Raspberry

(see photo on page 35)

G/T
E

Dwarf raspberries grow less than 15 centimetres (six inches) tall and have pink, edible flowers. The red fruit is also edible and very sweet tasting. Because the plants are widespread and bear few berries the fruit is usually eaten as it is picked. They tend to grow around lakes in shaded, wooded areas.

Tall raspberries grow in open wooded areas, and are most common in the Tsiigehtchic and Fort McPherson areas. These shrubs seldom grow more than 1.5 metres (five feet) tall. William

Common and Latin names: Dwarf Raspberry (*Rubus acaulis*)
Tall Raspberry (*Rubus strigosus*)

Uses: food

Teya says they often grow around old camps where the bush has been cleared. Several locations in the GSR are known to have tall raspberries: around the Northern Store and below Isaac Kunnizzie's place in Fort McPherson; along roadsides in Tsiigehtchic, at Elijah Andrew's camp on Nayook Channel between Aklavik and Fort McPherson, and at Three Cabin Creek on the Dempster Highway. Alfred Semple has never seen them near his camp on the Husky Channel below Black Mountain.

Eneeyù' Nee'uu Red Currant

(see photo on page 36)

G
T
E

Latin names: *Ribes triste*

Uses: food and medicine

This shrub has edible red berries. It is usually less than one metre (three feet) tall and it grows in moist, shaded areas throughout the GSR. Red currant is often found in people's wood lots, burned areas, and tree fall areas.

The berries are picked in late summer, and either eaten raw or made into jam. A tea made from the whole plant (leaves and stems) is used for stomach ailments.

Nichh

G

Nichih

T

Rose Hips

E

(see photo on page 36)

Khòh chan/Khòh dachan (G)**Khòh chan (T)****(Stems)****Khò kak at' an chik (T):** rose plant**Khòh (G):** thorns

Rose bushes grow throughout the area in open woodlands, on dry ground. After the showy pink flowers bloom in June and July, the fruit develop into red berries called rose hips.

Rose hips are best picked and eaten when they are ripe in August and September. Remember to spit out the seeds before swallowing or you will quickly learn why rose hips are called “itchy bums!” Rose hips can also be fried and eaten.

Boiled rose hips can be mashed and strained through a cheese cloth to remove the seeds. The strained juice can then be made

Common names: wild rose, prickly rose, itchy bums**Latin names:** *Rosa acicularis***Uses:** food and medicine

Rosehips

into jam, jelly, or syrup. In early summer, green rose hips can be picked, boiled and strained to make a thickening agent, like Certo. Green rose hip juice can either be used immediately or stored in jars for later use.

Rose hips are an excellent source of vitamin C and make a good cold remedy. Fresh rose hips can be eaten for relief from summer colds. For a winter supply, they can be dried, frozen, or boiled and strained to make a juice that can be stored in jars.

Annie Norbert was told by Louis Cardinal that rose hips are good for the heart.

Storing Berries

They kept berries in birch baskets. When they picked berries they wanted to keep them. They got birch and made it into a basket by sewing it with skinny willow bark from along the shore. After it was finished they put berries in it and made a lid and sewed it on. After that they dug a hole in the ground under moss where there was permafrost. They covered it and in the fall time, when it froze, they dug it up.

—Mary Francis (COPE, d)

Nichih t'àn
Petals

In early July the pink petals can be boiled until the water is pink and stored in a jar with a lid. The medicine can be stored and used for up to a month; however, over time, the water evaporates and the medicine becomes stronger. When the liquid is strained, it can be used as eye drops or an eye wash to remove dirt and infection. In the old days, Laura Pascal (COPE) used boiled petals for heat rash and cuts.

Ruth Welsh puts petals in a jar of cold water, and sets it in the sun for five to seven days, turning the jar upside down every so often. Christie Thompson, of Fort McPherson, pours boiling water over petals and rinses her eyes later with the cooled water. The fluid is also good as a skin softener (e.g. face wash). Rose petals can also be eaten alone, used to make tea, or pressed in books to make decorations.

Dàn daih

G

Dandaih

T

Stoneberry

E

(see photo on page 37)

Common names: bearberry, kinnikinnick

Latin names: *Arctostaphylos uva-ursi*

Uses: food

Stoneberry grows low to the ground (10 to 20 centimetres, or four to eight inches tall) in dry, forested areas. Stoneberry shrubs are evergreens similar in

appearance to cranberries, though stoneberry leaves are not as shiny. The dull pinkish-red or orange-red fruit has seeds inside and a dry, mealy taste. Places where it is

It'suh

(pounded dry fish and berries)

After you make dry fish you take all the good eating dry fish out of the pile. Then you pound all the dry fish. You make lots of pounded up dry fish. It is just like pemmican with meat. Make a big birch bark dish and put all the pounded up dry fish into it. Then you pour fish oil into it, put stoneberries or cranberries in it, and mix it up good. If you're going to use it for winter, sew a bark lid on it using tree roots. Then you put it away where it's cool so it won't get stale. This is how you make use of dry fish too.

—Effie Francis (COPE)

known to grow include the hillside behind Tsiigehtchic, on the hills near Caribou Creek, and in the mountains at the head of the Peel River.

The berries can be mixed with pounded dry fish to make *it'suh*. Mary Kendi of Fort McPherson said her grandmother pounded

dryfish and added this berry to it afterwards. It can also be mashed up and mixed with loche liver or fish eggs. Caroline Andre said, "Old ladies were bad for it a long time ago." Mary Francis (COPE, b) said they used to use stoneberries in pemmican. Alfred Semple adds the berries to meatballs (pemmican). The sweet spring petals can be eaten also.

Dìnjik jàk

G

Dinjik jàk

T

Mooseberry

E

(see photo on page 34)

Mooseberry is a shrub of medium height (one to two metres or three to seven feet tall) that grows in dry, wooded areas. The leaves are green on the upper side and orange underneath. The red berries are edible and can be used to make medicines for a variety of ailments. The berries can be eaten raw for colds or sore throats, though they have a soapy taste. Mooseberry tea can be made by putting berries in a pot, boiling and mixing them until they turn foamy. The foam is then skimmed off the top. Laura Pascal (COPE) said that this tea can be used for sore throats and colds.

Common names: soapberry, buffaloberry

Latin names: *Shepherdia canadensis*

Uses: food and medicine

The stems and roots can be boiled, producing a tea that relieves stomach aches and diarrhea. Annie B. Robert (COPE) said mooseberry roots and juniper berries can be washed and boiled to produce a laxative. She recommended drinking one cup of this mixture before eating. Annie B. also said that the boiled berries can be eaten like any other cooked berry, and that it helps to increase one's appetite. The tea from boiled branches can be used to wash a person's legs for soreness, or to rub on mosquito bites and infections.

Nakàl

G

Nakal

T

Yellowberry

E

(see photo on page 38)

Yellowberries are low plants (less than 20 centimetres or eight inches tall) that grow in open woodlands, on muskeg among spruce and alders, on the tundra north of Inuvik, and in the mountains. The white flowers come out in June and the berries, which resemble orange raspberries, are ready to pick in late July when they are soft and plump. Along with blueberries and cranberries, yellowberries are a favourite in the area. People usually eat them right away, or save them for a special occasion or to give away as a gift.

Common names: cloudberry, knuckles, salmonberry

Latin names: *Rubus chamaemorus*

Uses: food

In the old days people stored yellowberries in birch bark baskets under the moss, where the permafrost kept them from spoiling and, in winter, from freezing too hard.

DAVE JONES



Yellowberry leaves and fruit



Eric Kendi and Mary Kendi of Aklavik holding muskeg tea

SHRUBS

Łuu t'an

T

Dwarf Birch

E

(see photo on page 33)

Dwarf birch is a medium height (about one metre, or three feet tall) shrub that is used for flooring in tents. When it is placed among *ah'* (spruce boughs) the birch keeps the boughs fresh longer. Dwarf birch is widespread in the GSR, and is commonly found growing among cranberries and alders (red willow) on muskeg.

Latin names: *Betula glandulosa*

Uses: flooring

GSC



Dwarf Birch

Deetrèe jàk

G

Ts'ìivii ch'ok

T

Juniper

E

(see photo on page 34)

Juniper is an evergreen shrub with stiff, sharp needle-like leaves. The berries, called crowberries locally, range in colour from white to

Common names: crowberry

Latin names: *Juniperus communis*

Uses: medicine

purplish to dark blue, depending on their age. Juniper grows low (usually one-half metre or 1 1/2 feet tall) to the ground in dry,

open areas. As it grows the spruce-like branches spread out, and may take root some distance from the original plant. In the Gwich'in Settlement Region juniper is found on exposed, open hillsides and in dry open forests. It is known to grow in the mountains, near Campbell Lake, at Caribou Creek, and around Tsiigehtchic.

The blue coloured berries can be picked and used year round. As with tamarack and ochre, the Gwich'in leave an offering, such as matches or tea, when collecting

these berries. Juniper berry tea can be made by washing and boiling the berries (in combination with the branches and roots, if desired). Caroline Cardinal used to boil juniper berries as a medicine for chest pains, bad colds, coughs and congestion. The steam produced by this mixture is also effective against these symptoms. Annie B. Robert (COPE), on the other hand, drank juniper berry tea as a laxative. Use of the tea as a bathing solution has also been documented (Andre and Kritsch 1992).

Lidii maskeg/Maskig

G

Masgit

T

Muskeg Tea

E

Common names: Labrador tea

Latin names: *Ledum palustre*

Uses: food and medicine

(see photo on page 34)

Muskeg tea, as the name suggests, grows on muskeg and is found throughout the area. It is generally less than 30 centimetres (one foot) tall, with evergreen leaves that are green on top and fuzzy orange underneath.

The leaves and stems can be picked year round and boiled into a tea. In the spring, the white flowers can also be collected and used to make tea. Muskeg tea is considered good for children and is known to be

a relaxant and high in vitamin C. Many Elders, including Ida Stewart, add a regular tea bag for flavour. Some Elders recommend drinking one cup of this tea per day for good health. People say that Olive Blake never catches colds because she drinks two to three cups every day. Other people include the root of the plant to make a more concentrated medicinal drink. Inhaling the steam from this tea can help clear congested nasal passages.

The tea can be made, cooled and jarred for later use. Elders advise against keeping muskeg tea for more than a few days. Boiling or steeping the tea for more than 10 minutes is not recommended because of the chemical compound it contains (Walker 1984).

A taller, big-leaved form of muskeg tea (*Ledum groenlandicum*) is also common throughout the area; however, it has a stronger taste and is not generally used. Elizabeth Greenland explained, “The big one is strong good medicine, but the small one is better.”

K’oh

G/T

Red Willow

E

(see photo on page 36)

Common names: alder, mountain alder, green alder

Latin names: *Alnus crispa*

Uses: medicine, fuel and dye

Red willow is highly valued for the medicine and dye it yields. The medicine is considered as valuable as spruce gum tea. It is a common shrub of medium height (one to three metres, or three to 10 feet tall) that is found on muskeg with cranberries and muskeg tea, and in other moist areas. It is easy to recognize because of the two different types of cones on the branches. The long, slender type (male flowers) dangles three to five centimetres (one or two inches) from the branch, and the hard, round cones (female flowers) are found in clusters. The female flowers are often described as “little pine cones.”

Bark

The bark can be collected year round from any size of red willow.

Bark is used to prepare a drink to relieve a variety of illnesses or as a dye for hides. A solution for skin conditions is made by peeling the bark off the stem and boiling it slowly until the liquid turns orange. Two minutes of boiling will produce a weak solution, and five minutes a strong one. Once cooled, the liquid, and the film that forms on the surface, is rubbed on skin to heal sores, scabs, eczema, insect bites, sunburns and rashes. Drinking the liquid, or rubbing it directly on the affected area, will soothe stiff and aching joints. It will also relieve stomach aches. Some Gwich’in eat the bark rather than boiling it. Annie Benoit of Aklavik says that scraping off the dark outer covering of the bark is an option before eating or boiling it.

A boiled bark solution is also used to dye hides, skins, snowshoe frames and fish nets. Animal hides were soaked in the cooled solution for about a day to dye them red. Dyed caribou hides were used as trim for mitts. To soften, wolverine and beaver skins, a pulp mixture made from the inner bark was prepared and rolled up in the skin.

Buds

A person can chew and swallow the juice of the round green cones or buds for colds and spit the buds out afterward. Buds, like bark, can be boiled slowly in warm water, and then strained through a clean

white cloth. Some people drink about one cup of juice three times daily for colds, or apply it to sores. It can also be used for bathing to soothe eczema and rashes (see “bark”).

Roots and Wood

The roots of red willow can be dug up, mashed and eaten to help with stomach aches. Effie Francis (COPE) preferred alder wood for drying fish: “In olden days when you make dry fish you used one kind of wood to burn under dry fish. They used to use only alder wood that is dry. Nowadays they just use any kind of wood they see.”

K'aii

G

K'ài

T

Willow

E

(see photo on page 38)

Willows are common throughout the GSR, especially in wet areas surrounding lakes and along rivers and channels. In many areas they are extremely dense and can grow up to seven metres (20 feet) high. Willow flats (*k'ii chah*) for example, along the Mackenzie River near Tsiigehtchic, are good habitat for rabbits and ptarmigan. Moose also eat young willow buds in this area.

Common names: pussy willow

Latin names: *Salix* species

Uses: fuel, medicine, food, tools and shelter

K'il

Dry willow

The small, dry twigs found among branches on the willow tree are good for starting fires.

K'aii dzhuh

Young Shoots

In the spring, the Gwich'in peel bark from the new shoots and lick the sweet juice, chew the stem or

Making a Fish Net with Willow (1)

To weave a net made of willow, the following are a number of items one must have: fresh willow, a sharp ended instrument, (e.g. ice pick), about three men, and fish oil. The first thing to do was to pick fresh spring willows, then clean the bark off and split the willow into small strands using the ice pick. As soon as you had enough, one or two of the men started to knit the net. As soon as it was long enough, approximately four feet or longer, it was ready to set. When not in use, the net was kept in fish oil. This prevented the net from cracking and breaking. Fish oil keeps it nice and moist. This type of net was very good for fish. Fish seem to like it.

—Elijah Andrew (COPE, a)

eat the tips. Whistles (*k'aii uzhiu* in Gwichya or *k'aii yuuzhuh* in Teet'iit) can be made from the new but harder willow stem. The bark from young shoots can be peeled into strips, wrapped around a cut like a bandage and tied in place with a cloth. The white inner bark from young shoots can be made into a poultice and used as a pain-killer on wounds.

K'aii ah (T) Branches

Willow branches are good among *ah'* (spruce boughs) in a tent. The brush does not dry up as quickly and it smells nice too. Willows can also be used as temporary flooring until spruce boughs can be gathered. Mary Kendi of Fort McPherson said that her grandmother used to knit willows into rugs for around the stove. Willows also make a good mat for outside the tent door.

Young willows (*k'ii loh*) are strong and can be used to tie together five

to 10 whitefish. The willows are strong enough that the fish can then be hung up. In the summer, branches are also collected and used to place fish on next to the fish table. Similarly, a thick bed of willow branches can serve as a place to keep meat clean when butchering a moose or a caribou.

Beaver pelt stretchers are made with willows, and in summer, the spring for high set rabbit snares can be made by bending over a thick willow. In winter the "spring" willow is replaced with a pole. Larger willows can be used for tent poles. Mary Francis (COPE, c) and Roddy Peters (COPE) both indicated that fish traps used to be made with willow poles that were stuck into the bottom of a river or creek. Mary also said that willow was used to make smoke for drying meat, and, in the days before metal cutlery, for making spoons and forks.

Annie B. Robert described a game using rings made from willow

Making a Fish Net with Willow (2)

Fishing is done in creeks or small rivers. Nets and spears are used in catching fish. To make a net, first of all, a large amount of willow bark is gathered. The bark is carefully removed from the willow, then they are cut in thin long strips and placed in hot boiling water. After it has been in the water for some time, it is removed and twisted. The bark is twisted around and around and then brought together with another piece of bark. This then becomes a strong little piece of rope. After producing enough small ropes, the ropes are fastened together and knitted into a net.

—Paul Bonnetplume (COPE)

branches. The ring was thrown into the river, and then children ran along the bank trying to catch the ring with a stick.

When Elijah Andrew (COPE, b) made his drums, he would use willow branches for the frames.

K'àiì t'àn (G)

At'an (T)

Leaves

Any kind of green willow leaves can be crushed or chewed and applied to bee stings and other insect bites, burns, rashes, aches, cuts, and toothaches. Some people prefer to use leaves that are white on the underside.

K'àiì neech'yìdh (G)

K'aiì neech'yuu (T)

Bark

Paul Bonnetplume (COPE) and Elijah Andrew (COPE, a) both described how willow bark was used to make fish nets.

ALAN FEHR



Daniel Fehr standing beside a willow shrub

K'aiì ghàii' (G)

K'aiì chan (T)

Roots

Willow roots were used for mending and constructing snowshoes, smokehouses, canoes and nets.

Pussy willows

Annie Norbert said, “Mrs. Norris used to eat the pussy buds just like that.”



Mary Kendi of Ft. McPherson and Alestine Andre

OTHER PLANTS

At'an tsoo

T

Alpine Arnica

E

(see photo on page 31)

The Elders call this plant “dandelion” because of the large yellow dandelion-like flower that sits atop the stem. It grows in dry, sandy or gravelly areas. The

Latin names: *Arnica alpina*

Uses: medicine

flowers are used to make tea, and the Elders say that it is good for some stomach ailments (Andre 1995).

Treh

G

Trih

T

Bear Root

E

(see photo on page 31)

Bear root is a common plant found throughout the area near creeks and river banks. Places where bear root is known to grow include Jamieson Creek near Aklavik; along stretches of the Peel River, including Knut Lang camp; at Joan Nazon’s camp on the Mackenzie River across from

Common names: liquorice root, roots, Indian carrots, Eskimo potato

Latin names: *Hedysarum alpinum*

Uses: food and medicine

Tsiigehtchic; and on river banks along the Mackenzie River and in the Mackenzie Delta. The flowers are pinkish-purple and are quite conspicuous. The roots of the plant can be collected by digging along the river banks where it is growing.

Although they can be dug up at any time when the ground is thawed, the roots are usually collected in June after the river ice breaks up, or from mid-August to September, before freeze-up. They are not suitable for eating between these times because they harden and are too dry to eat. The roots can be stored for the winter, with the skin on, as they keep well frozen. Annie Norbert's mother used to dig the roots up in September. She would put mud in a box, place the roots inside, and cover them with more mud before storing.

The roots of this plant are juicy and sweet tasting in the spring and fall. Laura Pascal (COPE) described them as being "roots just like carrots." Prior to eating or cooking bear root, the outer

skin is peeled away with a knife, like a potato. The roots may be eaten raw, or some Gwich'in prefer to eat bear root with duck or fish oil. If the root is hard, it is normally boiled. One can then drink the juice. Elders say that bear root can increase a sick person's appetite, or can be eaten raw to relieve diarrhoea.

DAVE JONES



A site showing where grizzly bears have dug for bear root

Du'iinahshèe

G

**Doo'iinahshih
or ts'eedichi**

T

Northern Ground Cone

E

(see photo on page 35)

The Gwich'in name for this plant translates as "uncle's plant" (Andre 1995). It grows in moist shaded areas with red willow, willows and spruce. When mature, ground cone is brown, rugged-looking, and slender in shape. It has a woody appearance

Common names: Indian pipe, broomrape

Latin names: *Boschniakia rossica*

Uses: medicine and pipe

and reaches about 20 centimetres (six to eight inches) in height. Unlike most other plants, ground cone does not make food from the sun's rays. Instead, it parasitizes, or lives off the roots of, spruce and red willow plants.

The white core at the base of the plant is ground into a powder or chewed as a medicine. Alfred Semple's great grandmother used to mix the powder with grease and apply it to skin rashes. New plants have a white part in the middle of the root, referred to as "potatoes." This part can also be boiled and eaten to increase appetite or relieve stomach aches.

Ground cone is sometimes called "pipe" as many Elders remember

using it to make pipes when they were children. Young plants were cut and the dry portion that grows above the ground discarded. The wet, bulb-like portion was dried and had a hole cut into it to serve as a pipe bowl. After drying, it was filled with tobacco or dried willow leaves. Sometimes the ground cone roots were dried, pounded and mixed with the tobacco.

Fireweed

E

Note: there is no Gwich'in name for this plant

(see photo on page 33)

Fireweed is commonly found in new forest fire burns and in disturbed areas. This flower has striking pink and purple flowers and stands up to one metre (three feet) tall.

The whole plant can be boiled as a medicine and the liquid rubbed on the skin for rashes. A poultice

Latin names: *Epilobium angustifolium*

Uses: food and medicine

is made from the leaves and applied to burns, bee stings, aches and swelling caused by arthritis. The pink flowers are edible and can be mixed in with jello and salads. The new shoots can be cooked like asparagus, chopped and eaten as greens, or mixed in with salads.

Kheh dyè'

G

Kheh dì'

T

Goosefood

E

(see photo on page 33)

Goosefood grows close to the ground along the shores of rivers

Common names: horsetail

Latin names: *Equisetum arvense*

Uses: medicine, food and pot cleaner

and on sandbars throughout the area. This green plant is a source

of food for geese, and possibly muskrats as well.

The root tubercles, or *dazho zhii* (translated from Teet'it means "mouse food") can be eaten raw, and the leaves and stems can be steamed for nasal congestion, colds and stomach ailments. The coarse green stems can be gathered and used to scrub pots and clean dishes.

ALAN FEHR



Daniel Fehr holding Goosefood

T'oo drik

G/T

Wild Onions

E

(see photo on page 35)

Wild onions grow in moist grassy areas. Like cultivated onion, wild onion leaves are narrow, tapering and grow erect from the base of the flower-stalk. In spring the flower stalk is generally longer than the leaves and is topped with a pink or purple flower. The leaves and bulb are both edible.

Latin names: *Allium schoenoprasum*

Uses: food

Laura Pascal (COPE) and Sarah Peters (COPE, b) both talked about using onions for food.

Onion Lake (upstream from Inuvik, near Airport Lake) gets its name from a large stand of onions that grows on one of its islands.

Ts'iigyùu'

G

Ts'iigyùu'

T

Wild Rhubarb

E

(see photo on page 36)

Wild rhubarb grows in open areas, disturbed areas and along river banks. The plant is ready to eat in

Common names: rhubarb

Latin names: *Polygonum alaskanum*

Uses: food

mid-June when it is about 20 to 25 centimetres tall (eight to 10 inches).

The picking time for this plant lasts only about two weeks. When the plant is young it can be eaten raw, after first removing the leaves and seedy tops from the

plant, and peeling off the outer skin. It is very crunchy and juicy. Once the plant has gone to seed or has many white flowers, the plant is too dry to eat.

Wild Rhubarb Pudding

To cook the wild rhubarb into a pudding, cut the whole plant including the tops into small pieces and put into a pot of water. Bring this to a slow boil. Whitefish or cony fish pipes (part of the stomach) and eggs can then be mixed in. On the side, mix together a paste of flour and water to make a thick gravy, and add to the rhubarb. Add sugar to sweeten the pudding to the desired level. Extra pieces of raw rhubarb can be stored frozen in plastic bags for later use.

Gyùu tsanh

Wormwood

(see photo on page 38)

Wormwood grows on dry open land, especially in disturbed areas around bush camps, near towns and along roads.

Wormwood tea can be made for colds and sore throats. If the plant

Latin names: *Artemisia tilesii*

Uses: medicine and insect repellent

is boiled, inhaling the steam will clear nasal passages. According to Mary Kendi of Aklavik and Tony Andre, wormwood can be put on a fire to make a strong smelling smudge that repels mosquitoes.

At'àn dagàii

At'àn dagàii

Yarrow

(see photo on page 38)

Yarrow, with the distinctive white-flowered tops and finely divided leaves, is easy to spot in dry, open, and often disturbed, spaces.

Latin names: *Achillea millefolium*

Uses: medicine

The boiled liquid from this plant has many medicinal uses. The whole plant including the white flowers can be boiled to make a tea that provides relief from

coughs or ulcers. Mary Francis used to use this medicine.

A drink that prevents nosebleeds is made by boiling the white flowers in water for a few minutes. Drinking one-quarter cup of this liquid every day is reported to reduce nosebleeds. William Teya said Peter Thompson crushed the white flowers and placed them in his nostrils to stop nosebleeds. The liquid from the boiled flower tops can also be used to soothe infected skin and sunburns, or dry up skin rashes, including eczema.

A paste made from crushed flower tops can be applied to insect bites. Leaves and flowers

can also be crushed into a paste and put on wounds to control bleeding.



Yarrow



Alan Fehr and Mary Kendi of Fort McPherson

MOSESSES AND LICHENS

Uhdeezhù'

G

Uudeezhu'

T

White Moss

E

(see photo on page 37)

This lichen grows in large mats in spruce forests, where it is often eaten by caribou.

According to Alfred Semple, Lazarus Sittichinli said it takes a long time to grow. He also told Alfred that if you eat animals that eat willow, like moose, you will get hungry more quickly than eating animals that eat lichen, like caribou. William Teya said, as children, they were taught to respect the lichen. Children were not supposed to play on it and if you took some you were to pay for it.

White moss can be boiled to make a tea. Mary Kendi of Fort McPherson, and Elizabeth Greenland, agreed that boiling

Common names: lichen, caribou food, reindeer moss, reindeer lichen

Latin names: *Cladina* spp.

Uses: food and cleaner

and drinking the juice (tea) is good for stomach and chest pains. It is especially valuable if people are low on food or dog food. Annie Norbert said that men used to drink this tea before going to the mountains because it helped them keep their wind for walking and climbing. Lichen can be dried and ground and mixed in soups as an extender. The lichen itself can be eaten after being boiled twice and strained. Tony Andre's mother, Julienne, would boil lichen for an hour and then fry it. Eating the fried lichen was like eating cornflakes, he said.

It'rik is the stomach (rumen) contents from a caribou. The

it'rik, which is mostly lichen, can be placed on meat to tenderize it and enhance the taste. The best *it'rik* is obtained from a caribou shot early in the morning before it has begun to eat. *It'rik* from the stomach of a young caribou can be hung to age for a few days to a week, and then mixed with fat, marrow, berries or sugar to make a paste. This paste can be eaten alone or fried with marrow

and fat. *It'rik* can also be boiled and eaten as soup, or added to boiling caribou meat. *It'rik* enhances a person's appetite.

Lichen can also be mixed with dog food or grass from muskrat pushups to rid dogs of tapeworms.

Finally, when out on the land, lichen is good for scrubbing pots and pans.

Nin'
Moss

G/T
E

(see photo on page 34)

Common names: sphagnum moss

Latin names: *Sphagnum* spp.

Uses: diapers and cleaner

Moss, which is yellow, green or brown in colour, is commonly found in wet muskeg areas and was used for several purposes in the old days. Women used to hang it in branches of willows to

dry and to get rid of bugs. (The bugs crawl out or drop from the drying moss.) The dry moss was stuffed and sewn into sugar bags for use as diapers. Strips of cloth were used to tie the diapers on.

Moss Houses in the Old Days

My brother John and I went along when the men went to the lakes to hunt. All the wives would be left at the lake and they would make a fire. The wives, all related to each other, said when they were left behind that they would build a house. They made it out of moss. That night they made a fire on a large piece of land. Even then it was cold. After the house was made, we all went into a nice, hot place. They all laughed at the men who left them behind without a house.

—Julienne Andre (COPE)

Wet moss was used for washing dishes, cleaning hands and wiping off fish and fish tables. It was also put into a dish of water and treated as a house plant. Moss was often used to chink log house walls and roofs, and to bank the sides of tents against the wind. To chink a house, moss was pushed in the cracks and then covered with a coat of soft mud and allowed to dry or freeze. Moss was also hung in trees and shrubs to blaze or mark trails.

According to Julienne Andre and Bella Alexie, before the Gwich'in people settled into communities, they lived from time to time in moss houses, or *neek'an*. They were built as needed, anywhere that moss was abundant. To make the houses, blocks of moss were cut in the fall, just after it started to freeze. In the spring, the blocks were stored away until the next fall when the good ones would be reused. The blocks measured about one metre long, 30 centimetres wide and 20 centimetres thick (three feet long, one foot wide, and eight inches thick). The blocks were packed between peeled poles that came together at the top. The number of poles required depended on the size of the *neek'an*. For a big house (three families) 20 poles were needed and it would take the families a week to build it. For a medium house (two married couples), 15 poles were needed. A



Charlene Blake of Tsiigehtchic holding sphagnum moss and white moss.

single-person dwelling required only 12 poles.

A fireplace was made in the middle of the moss house. Gravel stones were piled up about a foot high. The fire was built on top of this platform. As the ground thawed from the fire, more stones were placed on top of the platform. When a fireplace was carefully built, the smoke lingered about two metres (six feet) above peoples' heads. If a person was careless, the smoke lingered lower. Tony says his mother, Julienne Andre, was really good at making this fireplace. Over the winter the blocks of moss that

made up the wall thawed out part way from the heat.

According to Tony Andre, Paul Niditchie had two or three of these moss houses along his trapline. He stayed two to three nights at each as he moved along his trapline.

Moss for Fuel

Half of this time we did not know where we were going except that we were going back by canoe. Some of the places we went to there was no wood or willow, only dry moss. So we had to burn dry moss to cook a meal for ourselves...

—*Pascal Baptiste (COPE)*



Louisa Robert, Charlie Robert Greenland and Alestine Andre at Rock River

FUNGUS

Ediniichii

Birch and Willow Fungus

G/T

E

Uses: medicine, tobacco, insect repellent, moth ball, fire starter

(see photo on page 33)

Birch fungus is a general term for a type of bracket fungus that grows on birch trees. Similar fungi grow on willow and red willow (alder) shrubs.

Birch fungus was cut up and boiled and used for stomach ailments. Ashes were rubbed gently on skin sores and pimples. The fungus was also cut up and crushed into small pieces, and then mixed with cigarette or chewing tobacco to make it last longer. Fungus could also be burned on a fire until it turned into a white

powder, which was then mixed with tea and tobacco to make snuff (Andre and Kritsch 1992). Pieces of birch or willow fungus were burned on a plate to repel mosquitoes.

A small piece of willow fungus can be used as a moth ball in a closet or drawer. Once dried and pounded, birch fungus makes a good fire starter that can be ignited with a flint and steel.

LITERATURE CITED

- Alexie, Bella. 1976. Early 1900s as I remember it. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Andre, Alestine and Ingrid Kritsch. 1992. The traditional use of the Travaillant Lake Area using trails and place names of the Gwich'ya Gwich'in from Arctic Red River, Northwest Territories. Report prepared under contract for NOGAP Archaeology Project, Canadian Museum of Civilization by Gwich'in Social and Cultural Institute. 67 pp. plus maps.
- Andre, Alestine. 1995. Gwich'in Territorial Park Plant Report. Prepared by the Gwich'in Social and Cultural Institute for Gwich'in Geographics. Inuvik, NWT. 11 pp.
- Andre, Julienne. No date. Life story of Julienne Andre. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Andrew, Elijah. No date (a). A long time ago. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Andrew, Elijah. No date (b). How to make a drum. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Baptiste, Pascal. No date. Travels with Eskimos. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Bonnetplume, Paul. 1974. Hunting and fishing in the fall. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Francis, Effie. No date. Pounded up dry fish. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Francis, Mary. No date (a). A man leaving his wife to die. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.

- Francis, Mary. No date (b). Drymeat. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Francis, Mary. No date (c). Fish. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Francis, Mary. No date (d). Food. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Gardlund, Sarah Ann. No date. Life story. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Husky, Mary. 1973. Life of long ago. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Kritsch, I., S. Jerome, and E. Mitchell. In prep. Teet'it Gwich'in Heritage Places and Sites in the Peel River Watershed. Gwich'in Social and Cultural Institute. Tsiigehtchic, NWT.
- Pascal, Laura. No date. Medicine from plants. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Peters, Roddy. No date. Bushman stories. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Peters, Sarah. 1973a. Life in the old days. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Peters, Sarah. No date (b). The way the people used to live. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Rat, Lucy. No date. Life story. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Robert, Annie B. No date. Games and medicine. Committee for the Original Peoples Entitlement files. NWT Archives. Yellowknife, NWT.
- Stewart, Victor. 1996. Beaver. Tape B 1006961VICTSTEFWM. Gwich'in Environmental Knowledge Project. Gwich'in Renewable Resources Board. Inuvik, NWT.
- Walker, Marilyn. 1984. Harvesting the Northern Wild. Outcrop Publishers Ltd. Yellowknife, NWT. 224 pp.



Charlie Robert Greenland collecting ochre

APPENDIX 1 ROCKS AND MINERALS USED FOR MEDICINE AND DYE

Gwinahkhóo

T

Uses: medicine

Sulphur

E

Sulphur is a mineral found among other rocks. It is green when wet and yellow or white when dry. Sulphur can be collected by scraping it off of rocks and putting the powder in a container. Some people call sulphur “lime.” It can provide relief to people suffering from toothaches, by applying a pinch of powder directly to the sore tooth. Gwinahkóo is found on the side of a hill by *Dèeddhoo Gòonlii* (Scraper Hill) up the Peel

River. It is also found at Caribou River, Stoney Creek, in the Richardson Mountains northwest of Fort McPherson, and Rock River. It is also found at Road River (Kritsch, Jerome, and Mitchell, in prep.) Alfred Semple’s father collected sulphur from cracks in rocks on a bluff along the Hart River. His father made a drink with it and used it to treat heartburn and to help digestion.

Sulphur Medicine

When you move around Rock River, you could find sulphur on the rocks. You just hit a little and it falls off. It’s good for a lot of things, it’s strong. After you collect them, you put it on a piece of cloth, then you pound it up. When you finish that, you take all the little stones out of it. Then you put a little water in it, make it into a paste then put it on a wound or cut. It’s (also) good for bad stomach, I mean, upset stomach. You put one-half teaspoon in lukewarm water, you drink that.

—*Laura Pascal (COPE)*

Vihtr'ii

G

Vihtr'ih

T

Flint

E

Before the age of matches and lighters, flint was used to start fires by striking a metal object against the flint to produce a spark. Natural supplies of flint are found in a variety of places

Uses: fire starter

in the GSR, including the mouth of Thunder River (red shale) and on Joe Callis' River between Thunder River and Little Chicago (Andre and Kritsch 1992).

Tsaih

G/T

Ochre

E

(see photo on page 38)

Uses: dye

According to the Elders, Gwich'in collect ochre from Rock River, up the Arctic Red River and in the mountains. An offering is left when ochre is collected. Suitable offerings include tobacco, shells, tea, wooden matches and even items like spoons and knives (Andre and Kritsch 1992). People believe if an offering is not left, a big wind storm will blow. If the ochre is lumpy it is ground up into a fine,

reddish powder. It is commonly used to "paint" the following:

- snowshoes,
- toboggan handlebars,
- the dried raw caribou hide covering the head of a toboggan,

ALAN FEHR



Collecting ochre

- snow shovels,
 - dog harness traces,
 - dog whips,
 - caribou skin ropes,
 - canoes,
 - porcupine quills,
 - white cotton fishnets, and
 - clothing and hides (e.g. wolverine).
- Some people burned rotten driftwood to make *tsaih*. The red ashes were used to colour similar items (Andre and Kritsch 1992).

Ochre and Caribou Clothing

People living in the country lived mostly on caribou and all other wild meats. They would make their outfit out of caribou skin more than anything else. They made tents out of the caribou skin and they were really good tents. After they finished making the tents, they would have gone through about 20 caribou skins, all tanned. Where the sewing was, each strip would have red paint which was made out of red stones. They made real fancy tents out of caribou skins. They also got a special kind of willow for the tent. During the winter or summer or whenever they moved, they had dogs to pull the bunch of sticks away to put the tent up. They put the tents up and everyone knew that there were no stoves in those days.

—Sarah Peters (COPE, a)



**Gwich'in Social
and Cultural Institute**

The Gwich'in Social and Cultural Institute is a non-profit society whose mandate is to document, preserve and promote the practice of Gwich'in culture, language, traditional knowledge and values.



**Aurora Research
Institute**

The Aurora Research Institute has a mandate to improve the quality of life in the western region of the Northwest Territories by applying scientific, technological and indigenous knowledge to solve northern problems.



**Parks Parcs
Canada Canada**

Parks Canada is a federal government agency whose mandate is to protect and present places which are significant examples of Canada's cultural and natural heritage.