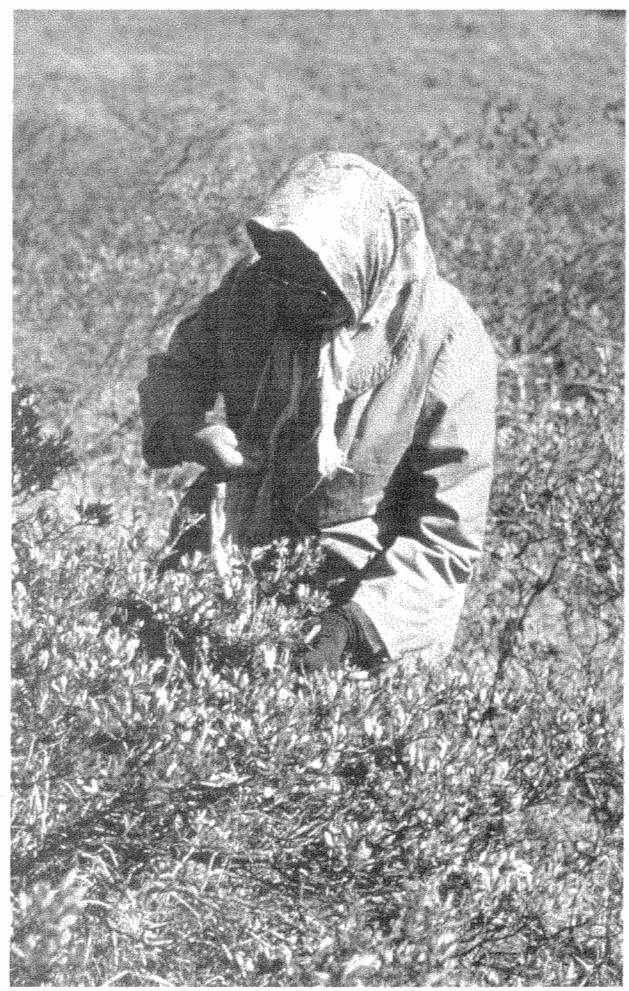
Medicinal Flora *of the* Alaska Natives

by Ann Garibaldi

A Compilation of Knowledge from Literary Sources of Aleut, Alutiiq, Athabascan, Eyak, Haida, Inupiat, Tlingit, Tsimshian, *and* Yupik *Traditional Healing Methods Using Plants*



Alaska Natural Heritage Program

Environment and Natural Resources Institute • University of Alaska Anchorage • 1999

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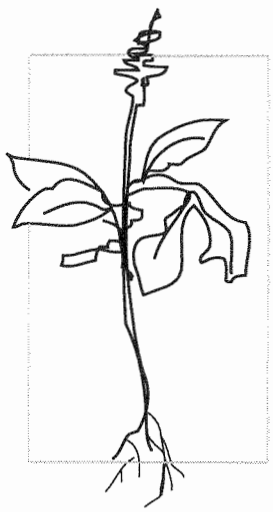

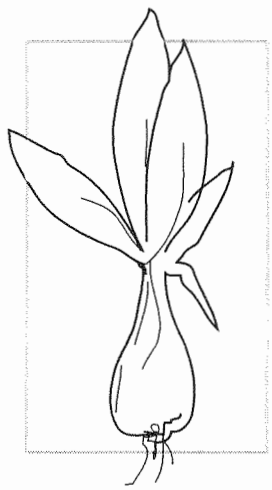

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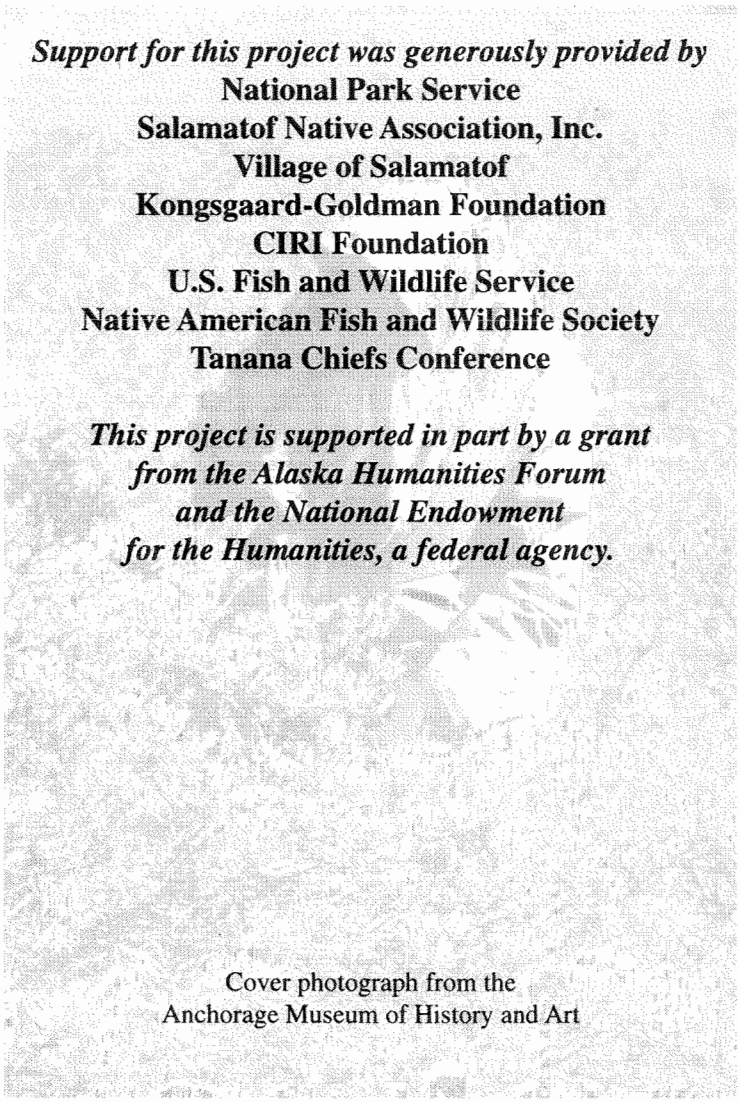

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Alaska Natural Heritage Program
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Historical Settlement Areas of Native Peoples of Alaska

(Adapted from *Native Peoples and Languages of Alaska* (Map, Krauss 1982)

This book is dedicated to the many generations
of Alaska Native peoples
who have intimately relied upon
plant medicines found throughout Alaska.
This work is truly theirs.

Contents

Note: To find flora by common name, use the Names Index.
spp. = *Plural abbreviation for species*
ssp. = *Subspecies*
s. lat. = *"In the broad sense". Used in this book to signify species with unknown subspecies.*
var. = *Variety*
* = *Also referenced in Russell 1991 (see P.S., page 171)*

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5 **Trees and Shrubs**

	Scientific Name	*Most Common Name*
7	*Alnus* spp. *	Alder
9	*Arctostaphylos* spp.	Bearberry
10	*Artemisia frigida*	Fringed wormwood
11	*Betula nana* ssp. *exilis*	Dwarf birch
12	*Betula* spp.	Birch
13	*Chamaecyparis nootkatensis*	Yellow cedar
14	*Cornus* spp.	Bunchberry
15	*Echinopanax horridum* *	Devil's club
19	*Empetrum nigrum*	Crowberry
21	*Juniperus communis* ssp. *nana*	Juniper
23	*Kalmia polifolia* ssp. *polifolia*	Bog laurel
24	*Ledum palustre* s. lat.	Labrador tea
27	*Linnaea borealis*	Twinflower
28	*Loiseleuria procumbens*	Alpine azalea
29	*Myrica gale* var. *tomentosa*	Sweet gale
30	*Oxycoccus microcarpus*	Bog cranberry
31	*Picea* spp.	Spruce
34	*Picea glauca*	White spruce
35	*Picea mariana*	Black spruce
36	*Picea sitchensis* *	Sitka spruce
37	*Pinus contorta*	Lodgepole pine
38	*Populus balsamifera* ssp. *balsamifera* *	Balsam poplar
39	*Populus tremuloides*	Quaking aspen
40	*Potentilla fruticosa* *	Shrubby cinquefoil
41	*Ribes* spp. *	Currant
43	*Rosa* spp.	Rose
44	*Rubus chamaemorus* *	Cloudberry
45	*Rubus parviflorus* var. *grandiflorus*	Thimbleberry
46	*Rubus spectabilis* *	Salmonberry
47	*Salix* spp. *	Willow
49	*Sambucus racemosa* ssp. *pubens* var. *arborescens* *	Pacific red elder
50	*Sheperdia canadensis*	Soapberry
51	*Sorbus sitchensis* *	Sitka mountain ash
52	*Thuja plicata* *	Western red cedar
53	*Tsuga* spp.	Hemlock
54	*Vaccinium parvifolium*	Red huckleberry
55	*Vaccinium vitis-idaea* ssp. *minus*	Low bush cranberry
57	*Viburnum edule* *	Highbush cranberry

59 **Herbs**

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63	*Allium schoenoprasum* var. *sibiricum*	Wild chive
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65	*Angelica* spp. *	Angelica
67	*Arabis hirsuta* s. lat.	Hairy rock cress
68	*Artemsia* spp.	Wormwood
69	*Artemisia tilesii* *	Stinkweed

Herbs (continued)

73	*Artemisia unalaskensis* var. *aleutica*	*Sisikax*
74	*Aruncus sylvester*	Goatsbeard
75	*Aster subspicatus* *	Purple daisy
76	*Boschniakia rossica*	Broomrape
77	*Calla palustris*	Wild calla
78	*Caltha palustris* s. lat.	Marsh marigold
79	*Capsella bursa-pastoris*	Shepard's purse
80	*Chenopodium album*	Lambsquarters
81	*Claytonia sibirica*	Siberian spring beauty
82	*Conioselinum chinense* *	Hemlock parsley
83	*Coptis* spp.	Goldthread
84	*Delphinium glaucum*	Larkspur
85	*Epilobium angustifolium* *	Fireweed
86	*Erigeron peregrinus* ssp. *peregrinus* *	Coastal fleabane
87	*Galium boreale*	Bedstraw
88	*Gentiana* spp.	Gentian
89	*Geocaulon lividum*	Northern comandra
90	*Geranium erianthum* *	Wild geranium
91	*Geum* spp.	Avens
92	*Hedysarum alpinum*	Eskimo potato
93	*Heracleum lanatum* *	Cow parsnip
95	*Heuchera glabra*	Alpine heuchera
96	*Iris setosa* s. lat.	Iris
97	*Leptarrhena pyrolifolia*	Leatherleaved saxifrage
98	*Lysichiton americanum*	Skunk cabbage
100	*Matricaria matricarioides* *	Pineapple weed
101	*Menyanthes trifoliata*	Buckbean
102	*Mertensia paniculata*	Bluebells
103	*Mimulus guttatus*	Yellow monkey flower
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107	*Oxytropis* spp.	Locoweed
108	*Petasites* spp. *	Coltsfoot
110	*Plantago* spp.	Plantain
111	*Polygonum alaskanum*	Wild rhubarb
112	*Rumex* spp. *	Dock
114	*Sedum rosea* ssp. *integrifolium*	Roseroot
115	*Senecio pseudo-arnica* *	Beach fleabane
116	*Smilacina racemosa*	False Solomon's seal
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149 — Moss

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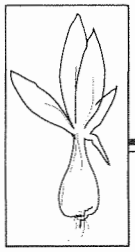
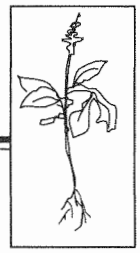


Plant Applications Bookmark



Ash: The powdery residue of matter that remains after burning

Bath: An herbal soak used for either specific parts of the body (such as a foot bath) or the entire body

Chew: An herb eaten either raw or cooked

Compress: An herbal fluid wrapped on the body and kept warm

Decoction: An herbal tea prepared from coarse leaves, stems, roots and barks

Infusion: An herbal tea prepared from flowers and soft leaves

Oil: A method of extracting the active principles of herbs into an oil

Plaster: An herbal mash wrapped in a protective cloth or combined in a thick base material then placed on the skin

Poultice: An herbal pack applied directly on the skin

Powder: A matter reduced to fine, loose particles by crushing, grinding, etc.

Salve: A thick herbal oil that can be put on the skin and left there

Smoke: The visible vapor and gases given off by a burning substance which is most commonly inhaled into the lungs

Snuff: A plant (or plant part) ground to a powder and inhaled through the nose

Steam: Prepared by heating an herb to diffuse the active principles into the air which are thereby absorbed into the body through the skin, nose, and mouth

Switch: A flexible plant shoot used to gently "whip" the body, most frequently done during steambaths

Vapor: The gaseous part of a plant inhaled for therapeutic purposes

This page can be copied and trimmed to provide a bookmark of plant application terms.

Acknowledgments

Many people provided support, encouragement, and time towards the completion of this book. Their thoughts, ideas, and concerns about traditional plant use are threaded throughout this publication.

I would like to extend a heart felt thank-you to David Duffy, former Director of the Alaska Natural Heritage Program and Michelle Davis, Program Coordinator of the Native American Fish and Wildlife Society. Their input was instrumental in the success of this project.

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Many cautionary notes were adapted from *Discovering Wild Plants* by Janice Schofield. Her book does a terrific job of detailing the power and uses of plants. She was gracious in her offer to share comments and cautions for the plants in this book.

Special thanks to Rita Blumenstein for sharing her knowledge and good humor on the subject of medicinal plants and healing.

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Any work of this nature is built upon the previous efforts of people who have provided a foundation on which to perform a literature compilation. Dr. Robert Fortuine, Priscilla Russell, Alix Wennekens, and many others are owed special thanks for their outstanding publications on cultural plant use in Alaska (see the Medicinal Plant Bibliography for a complete list).

Finally, I wish to show my appreciation to all of the people who have helped shape this book through conversations and stories about cultural plant use.

Ann Garibaldi

About This Book

This book is a comprehensive collection of traditional medicinal plant knowledge gathered from literature sources. It is not intended to be guide book or "how-to" for using medicinal plants. It is, however, designed to be a tool for referencing traditional Alaska Native uses of healing with plants and provides baseline data for communities wishing to further enhance their knowledge of cultural plant usage.

Only information found within literature sources was included in this book. No interviews were conducted, nor was Native plant knowledge extracted from oral tape archives. Information is presented as historical (hence, the past tense) and no attempt was made to confirm contemporary medicinal use of the plants.

Plants are presented in chapters according to their growth form: Trees and Shrubs, Herbs, Grasses and Sedges, Ferns and Fern Allies, Mosses and Lichens, Fungi, Seaweeds and Algae, and Miscellaneous References. Plants are then arranged alphabetically by genus. The Miscellaneous References chapter of the book comprises plants which do not clearly fit into one of the other chapters.

In addition, indices are provided. The Names Index includes all common names and scientific names of the plants. The Index to Alaska Native Peoples and Areas of Alaska identifies the Native peoples who use medicinal plants and locations in Alaska. The Species List With Authors is also provided. The Medicinal Plant Bibliography is a compilation of the sources that provided direct documentation of Alaska Native medicinal plant use.

Cautions and toxicity information is included with plants whenever found. However, this information is not comprehensive. Always gather enough information to be sure any plant you ingest is safe to consume.

Information in this book is also available in a database format. A list of places to access the database may be requested from Ann Garibaldi. The address and e-mail of Ms. Garibaldi are available on the back of the title page.

DISCLAIMER

Information contained in this book is NOT intended to be used as a guide for healing or self medication. Historically, medicinal plants were used only by skilled and knowledgable people, such as traditional healers. **Inappropriate medicinal use of plants may result in harm or death.**

Thoughts on Traditional Plant Healing

Wisdom, knowledge, and care should be used when gathering medicinal plants. Alaska Native healers and others throughout the state that gather plants for healing often demonstrate this through their careful sharing of plant knowledge.

A culture's ties to plants and healing are woven into its thoughts on philosophy, spirituality, and ecology. Healing with plants encompasses a person's spirituality, language, and values. It is difficult, if not impossible, to separate medicinal plant knowledge as a self-contained knowledge base from a culture's comprehensive view on healing.

When discussing medicinal plant knowledge, it is important to have a broader context in which to place this information. Ideally, knowledge of plant healing would be shared by observation and stories, from an experienced herbal practitioner, within the cultural setting.

Rita Blumenstein is a widely respected Yupik healer. Her knowledge of plants and healing is a rich resource, which she so generously shares. The following are some thoughts shared by Rita during a discussion on healing.

When Harvesting Plants

- It is important to say what your intentions are when gathering plants and to leave something after you disturb them. Talk to the plants, share your plans for their usage.
- People have traditionally learned how to use plants by going out with someone else who uses them. Always take someone with you that knows the plants.
- All plants are not good for everybody. All bodies are different. You should be aware of this before you ingest a plant.
- The time of the year when you harvest the plants is important. Different parts of the plant are strong at different times of the year. Know your intended use of the plant, and when it is most appropriate to harvest that plant.
- The plants show themselves in abundance when they want to be picked. If plants are scarce in an area, it may be best to search somewhere else rather than pick the few plants that were found.

On Healing

- We are all born connected to the umbilical cord. When the cord is cut, you belong to the earth. You begin to learn about the earth by eating plants, animals, and drinking water. Herbs are one part of healing. Much other knowledge is woven into healing.
- As individuals we need to become balanced to heal. "We have to learn to become us". Sharing and talking in groups helps us to be well.
- The process of mentoring is learning about yourself. And mentoring with a healer is one effective way to learn about traditional healing ways.
- The four directions are our teachers. The creator unites the minerals, plants, animals, and people of the four directions.
- How do our parents feel when we disrespect them? How does the earth feel when we disrespect it?

About Medicinal Plants

- Some things you shouldn't do too much or it can cause harm to the body. Some plants should be taken only in moderate doses or those same healing plants can become harmful.
- Herbs are sacred beings. Rita's grandmother, who shared with her much of what she knows about healing, showed her respect every year with prayer and ceremony to welcome new plants.
- Where Rita was growing up dandelion, fireweed, and nettle were the first plants to come up in the spring. Nettle is a strong plant to help cleanse the body, mind, and soul in the spring.
- What village you are in, what part of the state you are in determines which plants will be used the most. Which plants will be most relied upon. Yupik cultures use much wormwood, yarrow, coltsfoot, fireweed, camomile, raspberry leaves, sourdock, and sorrel. These are just some of the important plants to the Yupik peoples.

Trees and Shrubs

A tree is a woody perennial plant that usually has a single trunk (Little and Jones 1980).

A shrub is a woody perennial plant that usually has several main stems arising from or near the ground; a bush (Little and Jones 1980).

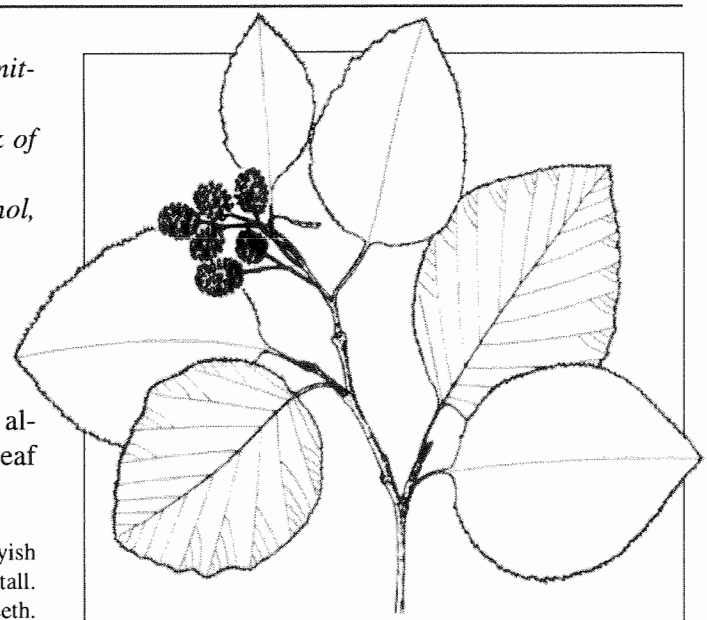
Alnus spp. Alder

The fresh inner bark of Alnus *spp. induces vomiting.*[1]
Lupeol and betulin, isolated from the stem bark of alder, have antitumor activity.[2]
Alder also contains low molecular-weight phenol, neurotoxin, and an insecticide.[3]

Betulaceae (Birch Family)
Alnus crispa ssp. *crispa*
Alnus incana ssp. *tenuifolia*
Common names: Alder (*Alnus* spp.); mountain alder (*Alnus crispa* ssp. *crispa*); river alder, thinleaf alder (*Alnus incana* ssp. *tenuifolia*)

Physical description: *Alnus crispa* ssp. *crispa* has grayish branches with whitish markings and grows up to 9 feet tall. Leaves are round to oval and pointed with fine, sharp teeth. The topside of the leaves are dark green and glabrous. The underside of the leaves have hairs on the veins. It is a fast-growing shrubby tree that loves sunlight and fixes nitrogen in the soil for other plants. Bud scales overlap each other. Cones are on stems that are longer than the cones (Pratt 1991).

Alnus incana ssp. *tenuifolia* also has grayish bark that later turns reddish, especially in exposed sites. Leaves are more oblong than those of *Alnus crispa* ssp. *crispa*. Bud scales do not overlap and cones are on stems that are shorter than the cones (Pratt 1991).



Alnus crispa ssp. *crispa*
Mountain alder
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Uqgwik* (Prince William Sound and Port Graham); *uqwik*; *wainiik* (for parts used during a steambath, Kodiak Island)
Symptoms: Arthritis, diarrhea, sore muscles
Plant applications: Chew, infusion/decoction, switch

Prince William Sound and lower Kenai Peninsula area uses
Arthritis, diarrhea, sore muscles: Mountain alder branches, gathered in the spring when they are sticky, were used as steambath switches and to help alleviate arthritis, sore muscle pain, and prevent skin sores from breaking out. Female alder cones were boiled and the resulting tea drunk for diarrhea (Wennekens 1985).
English Bay and Port Graham area uses *(See P.S., page 173.)*

[1] Dry bark before use unless this reaction is desired (Schofield 1989).
[2] (Viereck 1987)
[3] (Bryant in Viereck 1987)

Athabascan

Names: *Chik'a deldeli* (Upper Inlet Dena'ina for *Alnus incana* ssp. *tenuifolia*); *k'oh, q'esh* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina); *qenq'eya* (Inland, Iliamna, Outer Inlet and Upper Inlet Dena'ina for *Alnus crispa* ssp. *crispa*); *kk'as* (Koyukon for *Alnus crispa* ssp. *crispa*)
Symptoms: Childbirth, colds/flu, fever, stomach troubles, tuberculosis, venereal disease
Plant applications: Bath, infusion/decoction, switch

Dena'ina uses
Fever: The Inland Dena'ina used thinleaf alder (*Alnus incana* ssp. *tenuifolia*) to break a high fever by administering a decoction prepared from the inner bark. "They boil it and give the tea to the patient to drink. Because of its unpleasant flavor, the patient usually vomits, which is said to clean out the patient's system and help the fever go down" (Kari 1995). According to Kari (1995), the Dena'ina also used thinleaf alder branches for steambath switches.
Fever, stomach troubles, tuberculosis: Tea made from the boiled inner bark of mountain alder (*Alnus crispa* ssp. *crispa*) was said to help rid a stomach of too much gas, break a high fever, and treat tuberculosis by the Dena'ina (Kari 1995; Townsend 1965).
Dena'ina, Iliamna area uses
Tuberculosis: The bark of alder was boiled and the red decoction drunk as a treatment for tuberculosis (Townsend 1965).

Fort Yukon area uses

Colds/flu: A tea prepared from the inner bark of thinleaf alder (*Alnus incana* ssp. *tenuifolia*) was used as a treatment for colds (Holloway and Alexander 1990).

Ingalik (Deg Hit'an) uses

Childbirth: For excessive bleeding during post-partum menstruation, a woman was instructed to soak in a bath of willow, cottonwood, and alder bark (Osgood 1958). Species of alder used in this preparation were not noted by Osgood.

Kutchin, Chandalar area uses

Venereal disease: A tea prepared from alder buds (*Alnus* spp.) was drunk to treat venereal disease (McKennan 1965).

Tlingit

Names: *Callkayaan*
Symptoms: Cuts/scrapes, internal pain
Plant application: Infusion/decoction

General uses

Cuts/scrapes, internal pain: Alder bark tea (*Alnus* spp.) was used as treatment for ulcers. The use of alder bark tea may have been for symptoms ulcers produce before diagnosis of ulcers was available. This tea was used for cuts and nosebleeds, both as a wash and taken internally (McGregor 1981).

Tsimshian

Names: No information found
Symptom: Childbirth
Plant application: Infusion/decoction

General uses

Childbirth: Few medicinal plants have been reported to be used by the Tsimshian during childbirth. However, a bed of skunk cabbage (*Lysichiton americanum*) leaves and shredded alder bark (*Alnus* spp.) was placed in a shallow pit into which a woman delivered her baby (McGregor 1981). These plants apparently did not provide any medicinal benefit, but did create a soft, absorbant bed for the newborn. When the new mother returned to the village after delivering the baby she laid in a hole again lined with skunk cabbage and shredded alder bark. Hot rocks were placed in the hole and she was given clam juice, Labrador tea (*Ledum palustre* s. lat.), and alder bark tea to drink.

Yupik

Names: *Chukfu'koak, cuukvaquaq*
Symptom: Cuts/scrapes
Plant application: Poultice

Nelson Island area uses

Cuts/scrapes: Alder leaves, presumably boiled and softened, were placed on cuts until the leaves adhered to the wound. They were then pulled off, "removing the 'poison' with it" (Ager and Ager 1980).

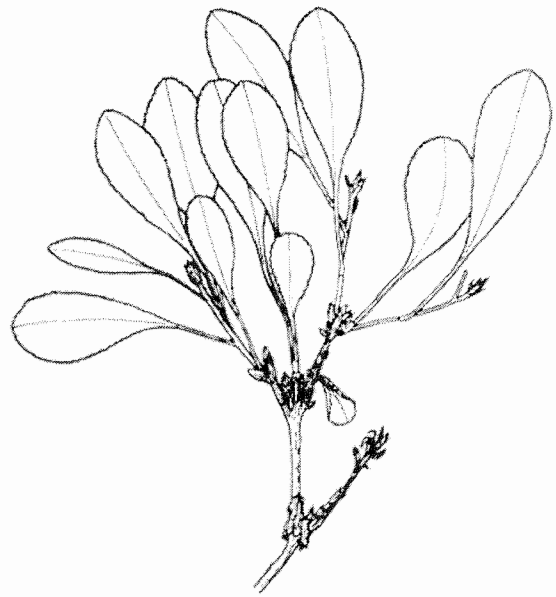
Arctostaphylos spp. Bearberry

Arctostaphylos *spp. contain arbutin, a glycoside that produces diuretic and astringent effects.*[1]
This plant should not be ingested by pregnant women.[2]

Ericaceae (Heath Family)
Arctostaphylos alpina
Arctostaphylos rubra
Arctostaphylos uva-ursi
Common names: Bearberry (*Arctostaphylos* ssp.); arbutus, chipmunk's apples, kinnikinnik, mealberry, uva-ursi (*Arctostaphylos uva-ursi*); mealberry, red alpine bearberry, red bear's grapes (*Arctostaphylos rubra*)

Physical description: *Arctostaphylos rubra* is a very low (up to 4 inches tall) deciduous, branched shrub that forms large mats with spatulate-shaped leaves. Flowers are creamy-white, urn-shaped and bloom as the leaves are opening, or occasionally, before leaves open (Pratt 1991).

Arctostaphylos uva-ursi is a sprawling evergreen shrub, with a main tap root, forming large mats with rounded spatulate leaves that are smooth and leathery above, and rough and lighter colored beneath. Flowers are small, pinkish-white and urn-shaped. Berries are reddish-orange, dry, and mealy (Pratt 1991).



Arctostaphylos rubra
Red alpine bearberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Diniyh* (Koyukon for *Arctostaphylos uva-ursi*); *dinaih, dendaih* (Tetlin); *ndihndaih* (Northway); *ndihndayh* (Nesbesna); *nents'ezi* (meaning "seedy"), *dnes* (for stem), (Dena'ina for *Arctostaphylos uva-ursi*)
Symptoms: Colds/flu, constipation
Plant application: Chew

Dena'ina uses
Constipation: *Arctostaphylos uva-ursi* berries were chewed as a laxative (Kari in Fortuine 1988).
Fort Yukon area uses
Colds/flu: Infrequently, raw berries (*Arctstaphylos rubra*) were eaten to help fight a cold (Holloway and Alexander 1990).

Inupiat

Names: *Tinnik, tinniik, tiniich* (for *Arctostaphylos uva-ursi*)
Symptoms: No information found
Plant application: No information found
Uses: No information found

Tsimshian

Names: No information found
Symptoms: Arthritis, general ill health, stomach troubles
Plant application: Chew

General uses
Arthritis, general ill health: "Bearberries" (*Arctostaphylos rubra*?) were chewed to treat arthritis as well as cure general ill health (McGregor 1981). This treatment may also have been employed by the Haida and Tlingit.
Stomach troubles: *Arctostaphylos rubra*[3] berries were used as a treatment for ulcers, presumably eaten (McGregor 1981). Symptoms produced from ulcers were most likely what was traditionally treated.

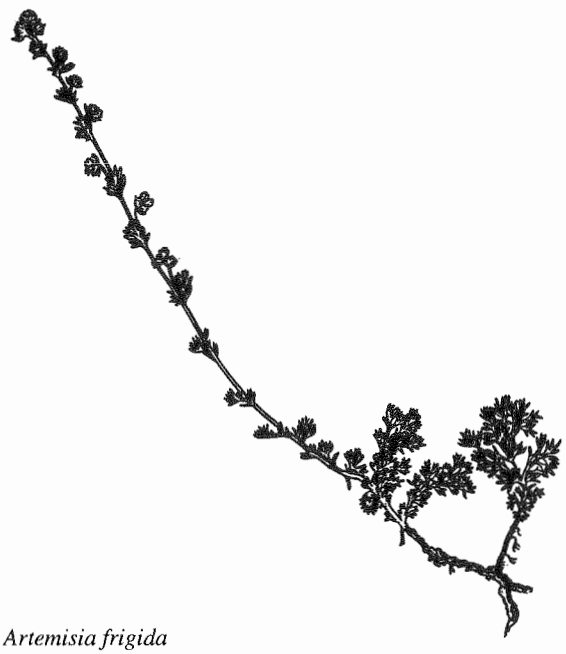
[1] (Fortuine 1988)
[2] (Schofield 1989)
[3] Of the three species of *Arctostaphylos* growing in Alaska, *Arctostaphylos rubra* is the only one abundantly growing in Southeast Alaska.

Artemisia frigida — Fringed wormwood

Species in the genus Artemisia *contain the toxic substance santonin, which can cause headaches, dizziness, nausea, and diarrhea.*[1]

Compositae (Composite Family)
Common names: Fringed wormwood, frigid wormword, prairie sagebrush, prairie sagewort, sage

Physical description: *Artemisia frigida* is a low plant (6 to 14 inches) having a woody base with finely divided, silvery, and silky leaves that are 2 to 3 times divided and stongly aromatic (like sage). The flowers which are on upright stems, are inconspicuous, nodding and look like the center of a daisy (Pratt 1989).



Artemisia frigida
Fringed wormwood
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: X*unatsene* (meaning "ground-squirrel food", Salcha); *thaa shii*; *tthah shii*; ___[2] (Kari 1985); *tthiil tsu'* (Northway); *tthal tsee'* (Nebesna)

Symptoms: Cancer, colds/flu, coughs/chest congestion, cuts/scrapes, diabetes, eye problems, influenza, skin trouble, sore muscles, tuberculosis

Plant applications: Infusion/decoction, powder, salve, steam

Fort Yukon area uses

Colds/flu, coughs/chest congestion, cuts/scrapes, skin trouble, sore muscles: A strong infusion of the leaves was drunk as tea for colds, while the steam was inhaled to relieve congestion. A blend of spruce pitch (*Picea* spp.) and *Artemisia frigida* leaves was placed on cuts and wounds. Sore and aching feet were provided relief by use of an *Artemisia frigida* foot bath. Both stems and foliage were boiled in water prior to soaking feet. *Artemisia* spp. steam baths were used to relieve varicose veins (Holloway and Alexander 1990).

Tetlin area uses

Cancer, colds/flu, coughs/congestion, diabetes, eye problems: An infusion of *Artemisia frigida*, *Artemisia alaskana*, and/or *Artemisia arctica* was drunk by the people of Tetlin for coughs, colds, cancer, and diabetes. It is also used as a wash for the eyes (Kari 1985).

General uses

Colds/flu, influenza, tuberculosis, skin trouble: To prevent colds, flowers were dried, powdered and mixed with hot water before being drunk. It was also used as a treatment for influenza and to temporarily halt tuberculosis. For skin sores, leaves were dried and powdered before being applied to affected area (Andrews 1975).

[1] (Fortuine 1988, 1989)

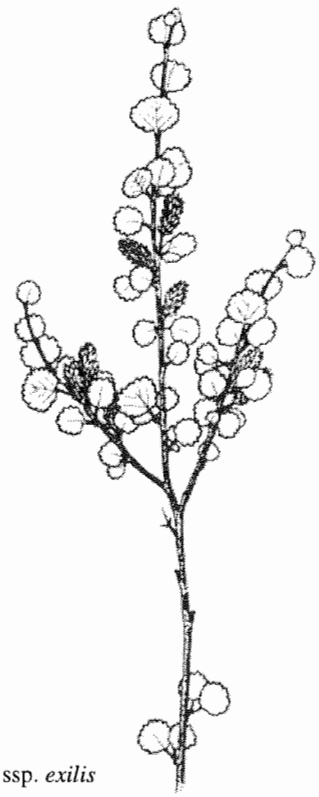
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Betula nana ssp. *exilis* — Dwarf birch

The bark of the Betula *spp. contains salicin, a bitter compound related to aspirin, and betulin (betula camphor).*[1] *Leaves contain betuloresinic acid, essential oil, ether, betuloside, gaultherin, methyl salicylate (sweet birch oil), and ascorbic acid.*[2]

Betulaceae (Birch Family)
Common name: Dwarf birch

Physical description: This low shrub grows to 30 inches. Twigs have resin dots that feel like sandpaper. Leaves are small (dime-sized) in clusters of 3 or 4, and toothed. Leaves turn orange in fall (Pratt 1991).



Betula nana ssp. *exilis*
Dwarf birch

From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Names: No information found
Symptom: General ill health
Plant application: Ash

Atka area uses

General ill health: Birch bark (*Betula* spp.) was burned during the healing of sickness and "when petitioning for luck" by shamans (Black 1984). *Betula nana* ssp. *exilis* grows as far west as Unalaska Island, according to Hulten (1968). No species of birch grow on Atka Island.

Athabascan

Name: ___[3] (Lime Village, Dena'ina) (Kari 1995)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Name: *Chupuaiya'hak*
Symptom: Stomach troubles
Plant application: Infusion/decoction

Nunivak Island area uses

Stomach troubles: The leaves of dwarf birch were boiled and drunk to relieve stomach and intestinal pain (Lantis 1958, 1959).

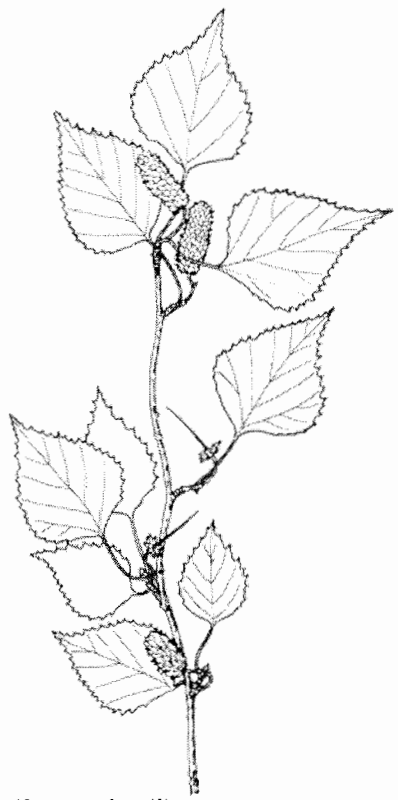
[1] Caution should be taken by individuals allergic to aspirin.
[2] (Fortuine 1988; Merck Index in Viereck 1987)
[3] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Betula spp. Birch

The bark of the Betula *spp. contains salicin, a bitter compound related to aspirin, and betulin (betula camphor).*[1] *Leaves contain betuloresinic acid, essential oil, ether, betuloside, gaultherin, methyl salicylate (sweet birch oil), and ascorbic acid.*[2]

Betulaceae (Birch Family)
Betula kenaica
Betula papyrifera
Common names: Birch, lady birch, lady of the forest (*Betula* spp.); grey birch, Kenai birch (*Betula kenaica*); canoe birch, paper birch (*Betula papyrifera*)

Physical description: *Betula papyrifera* is a medium sized tree (up to 50 ft.) with whitish, peeling bark and horizontal markings. The leaves are coarsely veined, sharply toothed, pointed, and heart-shaped (Pratt 1989).



Betula papyrifera ssp. *humilis*
Paper birch
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Chuq'eya* (Outer Inlet Dena'ina); *q'ey* (Upper Inlet Dena'ina); *q'eytsay* (Inland and Iliamna Dena'ina); *q'iy* (Kuskokwim Ingalik, Deg Hit'an); *kk'eeyh* (Koyukon); *k'ix* (Salcha)
Symptoms: Broken bones, cuts/scrapes, general ill health, skin trouble
Plant applications: Infusion/decoction, poultice

Dena'ina uses

Broken bones, cuts/scrapes, general ill health: Dena'ina Athabascans used birch bark as a cast for broken bones (Kari 1995). The sap from Kenai birch (*Betula kenaica*) and perhaps paper birch (*Betula papyrifera*) was used as a poultice on sores and boils and as a spring tonic (Kari in Fortuine 1988).

Ingalik (Deg Hit'an) uses

Skin trouble: To treat pimples, the Ingalik (Deg Hit'an) prepared a decoction of the inner fibers of birch bark and rubbed it over the afflicted area (Osgood 1958). Although not stated, Osgood was presumably referring to a "birch tree", *Betula kenaica* or *Betula papyrifera*. Both species of birch grew in Dena'ina country.

General uses

Cuts/scrapes: To prevent a cut from becoming infected, birch tree sap was boiled for 15 to 20 minutes and applied to cuts (Hall 1979). It is unclear if this is a traditional treatment and the type of birch was not specified. However, it is presumably a "birch tree", not a "birch shrub".

Yupik

Names: *Elnguq, u'linguk*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] Caution should be taken by individuals allergic to aspirin.
[2] (Fortuine 1988; Merck Index in Viereck 1987)

Chaemaecyparis nootkatensis Yellow cedar

Some people have allergenic reactions to the wood.[1]

Cupressaceae (Cypress Family)
Common names: Yellow cedar, Alaska cedar, Alaska cypress, yellow cypress

Physical description: This medium-sized tree (to 160 feet) with drooping branches is found along the southeast and the southcentral coast of Alaska. Twigs are 4-angled and leaves appear scale-like, are dull green, and appressed (Hultén 1968). Branches hang vertically and appear limp. Leaves are opposite, scale-like, and grow in four rows.

Alutiiq

Name: *Teptuliq* (Prince William Sound and Port Graham)
Symptoms: Burns, skin trouble
Plant application: Ash

Prince William Sound and lower Kenai Peninsula area uses

Burns, skin trouble: In Port Graham, yellow cedar charcoal was ground and applied to burns to prevent scarring. Yellow cedar ashes were also used to treat infected pimples and boils (Wennekens 1985).

Tlingit

Names: No information found
Symptoms: Cuts/scrapes, venereal disease
Plant applications: Powder, salve

General uses

Cuts/scrapes: The inner bark of *Chamaecyparis nootkatensis* was dried and ground into a powder. Wounds were treated with a layer of dogfish oil and then covered with the cedar powder (Emmons 1991).

Venereal disease: Venereal disease was treated with a mixture of Sitka spruce (*Picea sitchensis*) pitch, Siberian spring beauty (*Claytonia sibirica*) leaves, and Alaska cypress (*Chamaecyparis nootkatensis*) bark. This salve was applied externally (Blaschke in Krause 1956; McGregor 1981).

Chaemaecyparis nootkatensis
Yellow cedar
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

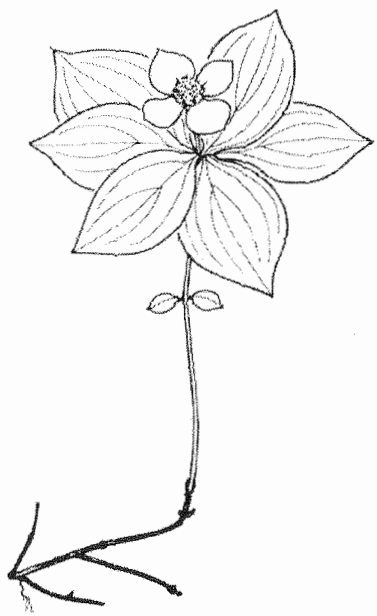
[1] (Turner and Szczawinski 1991)

Cornus spp. Bunchberry

Although generally considered safe, the red fruits of Cornus *spp. have caused nausea and vomiting when eaten in large quantities.*[1]

Cornaceae (Dogwood Family)
Cornus canadensis
Cornus seucica
Common names: Bunchberry, Canadian dwarf cornel, crackerberry, creeping dogwood, dwarf dogwood, Jacob's berry, pigeonberry, pudding berry

Physical description: *(Cornus canadensis)* This low herbaceous shrub, 4 to 8 inches tall, has one small pair of leaves near the base and a whorl of leaves at the top with prominent arched veins. The flowers are in a cluster set off by 4 white bracts, each flower having 4 greenish sepals. A bunch of orange or reddish berries are seen in August and September (Pratt 1989).



Cornus canadensis
Bunchberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq
Name: *Tatangqurhnaq* (Prince William Sound)
Symptom: Cuts/scrapes
Plant application: Poultice

Prince William Sound and lower Kenai Peninsula area uses
Cuts/scrapes: Leaves of dwarf dogwood when placed over a wound was said to help the healing process (Wennekens 1985).

Athabascan
Name: *Dahtsan jege* (Salcha); *sis geega* (Koyukon); ___[2] (Kari 1995)
Symptoms: Eye problems, stomach troubles
Plant applications: Infusion/decoction, poultice

Ingalik (Deg Hi'tan) uses
Stomach troubles: To soothe a stomach, a decoction was prepared from bunch berries and drank while warm (Osgood 1958).

Salcha uses
Eye problems: For swollen and red eyes, a plant that was most likely bunchberry was crushed and placed on eyelids (Andrews 1975). Andrews states that plant identity was not verified, but this plant occurred in birch and spruce forests and was not commonly eaten.

Tlingit
Name: *K'ei kuxétl'k*
Symptoms: Burns, childbirth, cuts/scrapes, eye problems, infections/inflammation
Plant application: Poultice

Yakutat area uses
Burns, eye problems: This plant, described as "deerberry" or "bunchberry" (presumably *Cornus canadensis*) by Frederica de Laguna, was used for multiple purposes by women of the Yakutat Tlingit. They gathered the plants for transplanting near their homes. According to these women, bunchberry was a highly effective treatment for cataracts. By placing heated leaves on the eye overnight, cataracts were able to be removed in the morning; "it draws the poison out" (de Laguna 1972). These heated leaves were also helpful for burns.
Childbirth, cuts/scrapes, infections/inflammation: Bunchberry was a treatment for sore "and spoiled" nipples when breastfeeding, as well as boils, infected cuts, and breast milk problems (de Laguna 1972). The application of bunchberry for these purposes was not reported by de Laguna.

Yupik
Name: *Cenqqullektat* (Nelson Island)
Symptoms: No information found
Plant application: No information found
Uses: No information found

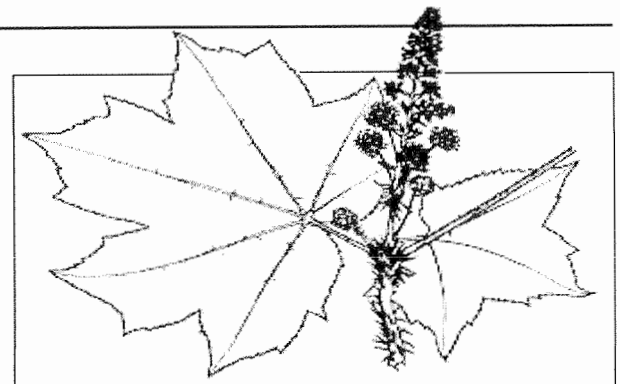
[1] (Schofield 1989)
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Echinopanax horridum — Devil's club

The thorns can cause festering wounds when inbedded in the skin. Devil's club lowers blood sugar and may endanger individuals with hypoglycemia.[1] *Diabetics should use with caution and medical supervision as use of devil's club may radically change insulin dosage.*[2] *The berries contain a toxin and are considered inedible.*[3]
Shamanic uses have been associated with this plant.

Araliaceae (Ginseng Family)
Common names: Devil's club, Alaskan ginseng

Physical description: This shrub, 4 to 8 feet tall, forms dense thickets that are difficult to penetrate. The very large "maple-shaped" leaves have spines on their veins and stems. The greenish flowers are on a dense woody spike and in August are followed by small reddish berries that also have thorns (Pratt 1989).



Echinopanax horridum
Devil's club
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Cukilanarpak* (Prince William Sound and Port Graham, Kodiak Island)

Symptoms: Arthritis, broken bones, burns, colds/flu, coughs/chest congestion, cuts/scrapes, food poisoning, hair problems, infections/inflammation, internal pain, lymph problems, nausea, pneumonia, rheumatism, sore muscles, sore throat, toothaches

Plant applications: Ash, bath, infusion/decoction, poultice

Chugach area uses

Burns: Devil's club ash was used by the Chugach area Natives as a burn treatment (Birket-Smith 1953).

Lymph problems: Dropsy (lymph trouble) was cured by first burning the bark of devil's club into a powdery ash. "The patient was stood up against a wall, his right foot drawn up against his buttock and lashed there. An incision was then made at the heel, in which the powder was placed. The patient had to stand thus till morning. This was 'powerful medicine', Fred Allen asserted, 'cure 'em every time' " (Birket-Smith 1953).

Cordova area uses

Colds/flu, internal pain: Ted Chimivisky of Cordova shared with Alix Wennekens that strong tea from the outer bark was great for colds and to relieve pain. The tea was boiled and taken in spoonfuls daily. According to Ted, it tasted "bitter, sour, all kinds of terrible tastes" (Wennekens 1983).

English Bay and Port Graham area uses *(See also P.S., page 173.)*

Arthritis, toothaches: Nettle (*Urtica lyallii*) roots and devil's club roots were used for toothaches and arthritis by the people of English Bay and Port Graham. Method of use was not documented. A note of caution by village elders warned that the plants should be used cautiously because they could harm the patient if used incorrectly (Stanek 1985).

Prince William Sound and lower Kenai Peninsula area uses

Arthritis, cuts/scrapes: One way to alleviate arthritis pain involved boiling unpeeled devil's club stems in a tub. The patient would then soak in the tub until the water was cool. A root poultice, prepared by cleaning and crushing the root in hot water and using the mash, was also used to treat arthritis. This poultice was also placed on wounds and boils (Wennekens 1985).

Arthritis, colds/flu, coughs/chest congestion, pneumonia, rheumatism: A decoction of the boiled cambium was boiled until it was "strong enough to make your head swim". It was then drunk to treat colds, arthritis, rheumatism, and pneumonia. Another way to prepare this decoction was to boil the cambium for an entire day and then take one teaspoonful a day for colds and arthritis. Another informant shared with Wennekens that the "skin" (outer bark?) and cambium of devil's club was boiled and drunk to loosen chest congestion (Wennekens 1985).

Cuts/scrapes: The outer bark of devil's club was burned to ash and sprinkled on cuts before bandaging. The bandage was changed every other day (Wennekens 1985).

Food poisoning: A root decoction was said to cause vomiting, beneficial in case of food poisoning (Wennekens 1985).

Infections/inflammation: A devil's club root poultice was prepared by cleaning and crushing the root, soaking it in hot water and applying this mash to a wound. This was said to help keep an infection from developing. The outer root bark was place on boils (Wennekens 1985).

Athabascan

Names: *Heshkeghka'a* (Outer and Upper Inlet Dena'ina); *heskhkegh* (Inland and Iliamna Dena'ina)

[1] (Schofield 1989; Turner and Szczawinski 1991)
[2] (Turner and Szczawinski 1991)
[3] (Pratt 1991)

Symptoms: Broken bones, colds/flu, coughs/chest congestion, cuts/scrapes, dandruff, fever, infections/inflammation, stomach trouble, tuberculosis

Plant applications: Infusion/decoction, poultice

Dena'ina uses

Colds/flu, coughs/chest congestion, fever, stomach trouble, tuberculosis: The stems of devil's club were boiled and the resulting tea drunk by the Outer Inlet Dena'ina to help break a fever. A tea prepared from the inner root bark was used by the Upper Inlet people to treat tuberculosis, stomach trouble, coughs, colds, and fevers. It was mentioned that this medicine is very strong and induces sweating.

Cuts/scapes, infection/inflammation: A person from Seldovia shared that devil's club roots were used to treat infections. Applied as a poultice, the inner root bark was used by the Dena'ina for swollen glands, boils, sores and other infections according to Kari (1995). To prepare, the inner bark was baked until dry, rubbed until shredded and soft, placed on the afflicted area, and then covered. The bandange was changed in three to four hours. This application helped draw out infections, but could burn if left on too long (Kari 1995).

Nanilchik area uses

Dandruff: An informant shared with Priscilla Russell Kari that a decoction of devil's club outer bark was a good rinse to condition hair and remove dandruff. This person believed the uses may have been of Aleut origin (Kari 1994).

General uses

Broken bones: For broken bones, a bark splint was placed around the wound and subsequently replaced "with a binding of cloth impregnated with pitch" (Fortuine 1984). Healing was complete when the skin under the bandage began to itch.

Eyak

Names: No information found

Symptom: Coughs/chest congestion

Plant applications: No information found

General uses

Coughs/chest congestion: "When people were sick in spring and were coughing, they put devilclubs in the corners of the house and behind the pillow. They tied a piece around the children's neck to keep sickness away" (Birket-Smith and de Laguna 1938). Yakutat Tlingit had similar practices.

Haida

Names: No information found

Symptoms: Arthritis, broken bones, colds/flu, constipation, cuts/scrapes, infections/inflammation, internal pain, stomach troubles, tuberculosis

Plant applications: Chew, infusion/decoction, salve

General uses

Arthritis, colds/flu, constipation, internal pain, stomach troubles, tuberculosis: Reported by James Justice in 1966 to be used by both the Tlingits and the Haidas, devil's club was a treatment for "general strength, colds, chest pains following a cold, arthritis, black eyes, gall stones, stomach ulcers, constipation" as well as tuberculosis. A decoction of devil's club was prepared by filling a three gallon pot with dried roots and/or stems and pouring water to fill the pot. The mixture was heated and kept just under boiling for three to four hours. It was then strained, cooled, and stored in airtight glass containers. Plant harvest was done anytime of the year, however plant medicine was strongest in the spring (Justice 1966). Haida people also added mountain clover roots (*Trifolium* spp.) or Labrador tea (*Ledum palustre* s. lat.) to the mixture, which was then drunk (1/3 to 1/2 glass a day).

Broken bones: Bone injuries benefited from devil's club by laying the bark in strips (inner side down), which reduced both pain and swelling (Justice 1966).

Cuts/scrapes, infections/inflammation: The fresh inner bark was chewed and spit directly onto a wound. This was done primarily as an emergency measure. Dried and mashed inner bark or roots were mixed with spruce pitch (*Picea sitchensis*) or red cedar "pitch" (*Thuja plicata*) and smeared over the cut. This would begin to harden and protect the wound from dirt and infections (Justice 1966).

Tlingit

Names: *Sauthkt, suxt,* ___ [3] (de Laguna 1972)

Symptoms: Arthritis, broken bones, colds/flu, constipation, cuts/scrapes, eye problems, general ill health, infections/inflammation, measles, menstrual problems, pneumonia, skin trouble, stomach troubles, tuberculosis, venereal disease

Plant applications: Bath, chew, infusion/decoction, plaster, powder, salve, steam

Yakutat area uses

Cuts/scrapes, pneumonia, skin troubles: A large tub infused with devil's club shavings was prepared in which people with pneumonia could soak. Sores were treated with a salve of devil's club shavings mixed with spruce pitch: "The spot is first greased with fresh seal oil. 'It takes the swelling out and gathers the sickness up in one place and takes it out.' A case in which it had been effective would appear to have been shingles, for the patient 'got sores all over, just like a belt on.' The informant also believed that this poultice would be good for impetigo, of which there were a few cases at Yakutat" (de Laguna 1972).

General ill health: The stem bark was scraped of its thorns and chewed as a powerful emetic and purgative (de Laguna 1972). As a testimony to the strength and efficacy of devil's club, a Yakutat resident shared, "Somebody get sick, he eat devil club, you know—good medicine! I eat it myself. That's why I no get sick. Chew raw, just bite it off. Strong that stuff!

[3] A Tlingit name has been recorded, but special characters necessary for spelling are not available in this publication.

Vomit sometimes..Stomach get cleaned, see?...boil it in the water and drink it that way....Good for flu, too" (de Laguna 1972).

Measles: Devil's club was an extremely important plant during epidemics. It was thought to be effective against smallpox, chickenpox, measles, influenza. These were infections that were thought to be caused by spirits, or "things of the world". "Nothing likes devilclubs. Everybody is careful when they go among devilclubs. They think the 'things in the world' is scared of them" (de Laguna 1972). Devil's club was burned on stovetops during the influenza epidemic of 1918-19. Many additional spiritual powers are associated with this plant.

Menstrual problems: If menstruation stopped because a woman became badly chilled, a teaspoon of devil's club infusion was drunk. An alternative treatment involved putting the bark on hot rocks in the bath house, next "the patient pours water on them to make steam, and squats over the hot rocks" (de Laguna 1972). Yarrow was used the same way (see *Achillea borealis*) or yarrow and devil's club are heated together and put on the woman's stomach. "The womb is then open" (de Laguna 1972).

Venereal disease: Venereal disease was contracted from crews at a nearby cannery and treated with a medicine prepared from devil's club bark (Trefzger in de Laguna 1972).

General uses

Arthritis, colds/flu, constipation, internal pain, stomach troubles, tuberculosis: Reported by James Justice in 1966 to be used by both the Tlingits and the Haidas, devil's club was a treatment for "general strength, colds, chest pains following a cold, arthritis, black eyes, gall stones, stomach ulcers, constipation" as well as tuberculosis. A decoction of devil's club was prepared by filling a three gallon pot with dried roots and/or stems and pouring water to fill the pot. The mixture was heated and kept just under boiling for three to four hours. It was then strained, cooled, and stored in airtight glass containers. Plant harvest was done anytime of the year, however plant medicine was strongest in the spring (Justice 1966). Haida people also added mountain clover roots (*Trifolium* spp.) or Labrador tea (*Ledum palustre* s. lat.) to the mixture, which was then drunk (1/3 to 1/2 glass a day). Constipation: Two tablespoons of the bark—which had been scraped, dried over the fire, and reduced to a fine powder—was mixed with water and "drunk before eating in the morning" to treat constipation (Emmons 1991).

Broken bones, cuts/scrapes, infections/inflammation: Used as a treatment for cuts, sprains, and inflammation, the inner bark of devil's club "was cut in long strips and roasted, put in a layer of skin, and pulverized. It was then mixed with the gum of the white pine and a little grease. This was melted, spread on a piece of skin, and put over the parts affected" (Emmons 1991). It is unclear what Emmons was referring to when he mentions "white pine". The only true pine known to grow in Alaska, and in particular in Tlingit country, is lodgepole pine (*Pinus contorta*). Emmons may have been referring to this species or possibly to Sitka spruce (*Picea sitchensis*).

The ash of devil's club was also applied to cuts (McGregor 1981). Although unclear in the report, it may possibly have been mixed with "shark oil", coltsfoot (*Petasites* spp.) , and broomrape (*Boshniakia rossica*).

Also used as an antiseptic, devil's club bark was chewed and applied locally to the wound (Emmons 1991).

For cuts and wounds, the fresh inner bark was chewed and spit directly onto the wound. This was primarily an emergency measure. Dried and mashed inner bark or roots were mixed with spruce pitch (*Picea sitchensis*) or red cedar "pitch" (*Thuja plicata*) and smeared over the cut. This would begin to harden and protect the wound from dirt and infections. Broken bones also benefited from devil's club by laying the bark in strips (inner side down), which reduced both pain and swelling (Justice 1966).

Eye problems: Vision was said to be improved by ingesting devil's club (tea?) or mixing it with pitch (spruce?) and applying externally (McGregor 1981).

Stomach troubles: When in need of a purgative, to cleanse and evacuate the bowels, and an emetic, to induce vomiting, the inner bark of devil's club was "dissolved in water" (Emmons 1991) and presumably drunk. According to Clarence Moy, reported by Suzanne Andersen, Tlingit used devil's club to clear nasal passages, relax the body, and soothe a "bad stomach". To prepare, the stems were picked in the fall and the bark was scraped off, dried, and used for making a tea (Andersen 1996).

Tuberculosis: "A tea made by boiling the scraped bark of the devil's club in salt water, and drunk hot" was used to treat consumption (tuberculosis of the lungs) according to Emmons (1991). Jones, in his 1914 publication, mentions the use of devil's club for scrofula (tuberculosis of the lymphatic glands). Medicinal preparation of the plant was done by drying and grinding the inner bark, mixing it with oil, and then applying this salve to the skin (Jones 1914).

Venereal disease: Two tablespoons of the bark—which had been scraped, dried over the fire, and reduced to a fine powder—was mixed with water and "drunk before eating in the morning" to treat syphilis (Emmons 1991). To treat syphilis and venereal disease, people also bathed in hot springs and drank a decoction of spruce (*Picea sitchensis*) needles, spruce gum, and devil's club bark (Emmons 1991).

Tsimshian

Names: No information found
Symptoms: Constipation
Plant applications: Chew, infusion/decoction

General uses

Constipation: An infusion of devil's club was drunk or the stem chewed raw for constipation (Garfield and Wingert in Fortuine 1988).

Traditional Preparation Methods

Matilda Gamble shared a method of preparing devil's club for medicinal purposes: "after you scrape the needles off, put it into the oven for a short time and grind it into powder [the powder is then boiled in water to brew tea]. You can use it as a medicine-good cold medicine" (Newton and Moss, no date). Her account was part of series of oral interviews on subsistence life among the Tlingit.

Method used by Tlingit, Tsimshian, and Haida

1. Cut a few sticks 5 to 6 feet long. Cut into 18-inch lengths.
2. Scrape off thorns and outer grey bark. Peel off inner green bark.
3. Put 2 handfuls of green inner bark in pot. Cover with 2 gallons cold water. Boil, then simmer 3 hours.
4. To enrich, add 3 different sprouting trees about 8 inches long: spruce, cedar, hemlock. Put in pot, roots and all.
5. Alder bark may be added for color and taste. Dose: 1 cup three times per day.

Note

Devil's club was an extremely important medicinal and spiritually significant plant to most Native peoples who had access to it. This book does not document the shamanic uses of devil's club as it was used to treat spiritual disease and stress. Other sources exist documenting information on the subject.

Empetrum nigrum Crowberry

Empetraceae (Crowberry Family)
Common names: Crowberry, blackberry, mossberry

Physical description: This low, mat-forming, evergreen shrub has small, narrow, needle-like leaves. The early blooming (often as the snow melts) flowers are small, maroon colored, 3-parted, and inconspicuous. They are followed by firm, round, black, juicy (but seedy), edible berries (Pratt 1989).

Empetrum nigrum
Crowberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Shiksha* (Kodiak; possibly Russian origin); *pakik*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Athabascan

Names: *Deenich'uh, gigazhna* (Inland and Iliamna Dena'ina); *gegayna, giyna* (Upper Inlet Dena'ina); *dghilingek'a* (Outer Inlet Dena'ina); *naht'ia* (Upper Tanana); ___[1] (Kuskokwim Ingalik, Deg Hit'an) (Nelson 1983)
Symptoms: Colds/flu, coughs/chest congestion, diarrhea, eye problems, internal pain, kidney trouble, stomach troubles
Plant applications: Chew, infusion/decoction, poultice

Dena'ina uses

Diarrhea, kidney trouble, stomach troubles: Stomach trouble and diarrhea were treated with a tea prepared from the leaves and stems of crowberry by the Dena'ina. According to Kari (1995), cooked berries were eaten by the Outer Inlet Dena'ina for the same ailment. Inland Dena'ina used berry juice to treat kidney trouble.

Eye problems: Sore eyes and growths around the eye were treated with crowberry by the Outer and Upper Inlet Dena'ina. Tea was prepared from the roots, cooled and used as an eye wash (a little sugar was sometimes added to the wash). The stems were also used to treat eye problems. "An Outer Inlet person stated that her grandmother's eyesight was saved with this medicine. For two to three weeks her eyes were washed with a tea made from the stem bark. Each time after the washing, the growth was gently dabbed at with soft spruce pitch. Finally the growth became loose and was removed from her eye. It was said that she saw well until she died" (Kari 1995).

Fort Yukon area uses

Coughs/chest congestion, internal pain, stomach troubles: For pain, *Empetrum nigrum* leaves were traditionally boiled in water and then placed on the painful area. Chest congestion and a "sour stomach" were treated with an infusion prepared by boiling the leaves (Holloway and Alexander 1990).

Upper Tanana uses

Colds/flu, kidney trouble: For colds, an infusion of crowberry leaves and stems combined with Labrador tea, *Ledum palustre* s. lat., and spruce tips was drunk. The Athabascan of Northway drank tea of crowberry leaves and stems for kidney trouble (Kari 1985).

General uses

Eye problems: An Athabascan relief for snow blindness was to squeeze blackberry (*Empetrum nigrum*) juice into the eye (Hall 1979).

Inupiat

Names: *Paungak, paungaq, paungat*
Symptom: Eye problems
Plant applications: Chew, juice

Kotzebue Sound area uses

Eye problems: Crowberry juice was squeezed into the eye to remove cataracts. Other Native peoples used the stem for the same purpose. It was not stated how the stem was prepared. (Graham 1985; Mauneluk Cultural Heritage Program in Fortuine 1988).

General uses

Eye problems: Emily Ivanoff Brown, an Inupiat woman who taught school in Kotzebue, recalls a story in which the use of crowberry could have been an effective treatment against eye problems (Brown 1961):

> ...They had been picking berries all day without food, and were very hungry toward evening. To satisfy their hunger they ate raw conch meat. Within half an hour both were unable to continue walking. They had to sit

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

> until help arrived. They didn't remember to eat crowberries at once. Crowberries can restore normal vision.

Emily also recounted berries causing eye trouble, although the type of berry was not reported:

> The two well known [food taboos] by the Eskimo people of Alaska are a shell fish and a particular type of berry which grows on the tundra. Conch, when eaten raw, affects the eye muscles and can cause the eyes to cross. The berry causes the pupils of the eyes to dilate, just as the familiar bella donna which eye specialists frequently use (Brown 1961).

Tina DeLapp and Elizabeth Ward recorded that the Inupiat used blackberry juice (presumably *Empetrum nigrum*) as a treatment for snow blindness. Although they did not see this treatment being performed, they assumed the juice was topically applied to the eye (DeLapp and Ward 1981).

Yupik

Names: *Tan'gerpak*, *tanu'kupuk* (meaning "blackberry", Nelson Island)

Symptoms: No information found

Plant applications: No information found

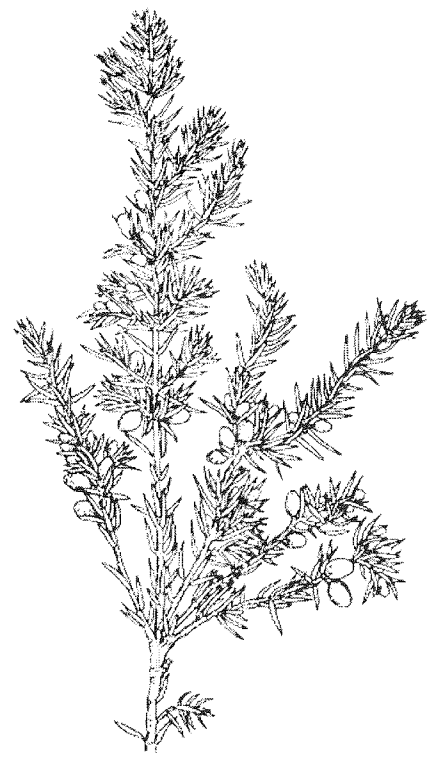
Uses: No information found

Juniperus communis ssp. *nana* — Juniper

When used in moderation by those in overall good health, juniper is generally considered safe. However, juniper contains a volatile oil, oil of sabinal. Renal damage and convulsions may occur if overingested.
Juniper should not be ingested by pregnant women.[1]

Cupressaceae (Cypress Family)
Common names: Juniper, common mountain juniper, low juniper, prickly juniper

Physical description: This low, prostrate shrub has prickly evergreen leaves that are variable in color and form. The oval berry-like cones are green when young and blue to black when the shrub is mature (2 to 3 years) (Pratt 1991).



Juniperus communis ssp. *nana*
Juniper
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Chint'una* (Inland Dena'ina); *shint'una* (Inland and Iliamna Dena'ina); *tsuni ela* (Upper Inlet Dena'ina); *tatsaan al* (Northway); *chint'una* (Lime Village, Dena'ina)
Symptoms: Colds/flu, coughs/chest congestion, general ill health, internal pain, kidney trouble, sore throat, toothaches, tuberculosis, urinary problems
Plant applications: Chew, infusion/decoction, steam

Chalkyitsik Kutchin uses
Colds/flu, internal pain: An infusion of juniper berries and branches was an effective treatment for colds, aches, and pain (Nelson 1973).

Dena'ina uses
Colds/flu, sore throat, tuberculosis, urinary problems: Inhaling the steam produced from boiling juniper branches was good for the treatments of colds, according to the Dena'ina Athabascan. A tea of boiled juniper branches and cones was used to treat colds, sore throats, and tuberculosis (Kari 1995). According to Priscilla Russell Kari, the Outer Inlet Dena'ina helped bring relief to a person who had trouble urinating through the use of juniper. However, methods of harvesting and preparation were not reported.

Tanana area uses
Internal pain, toothaches, tuberculosis: A juniper decoction was used by the Upper Tanana Natives to treat consumption (tuberculosis), toothaches, and sore or raw gums. Chewing raw or cooked juniper berries was said to bring relief to internal pain (McKennan 1959). The Chandalar Kutchin chewed juniper berries for chest pain (McKennan 1965).

Upper Tanana area uses
Colds/flu, cough/chest congestion, kidney trouble: A decoction of juniper branches and berries was drunk or raw berries were chewed for coughs, colds, and kidney trouble by the Upper Tanana Athabascan (Kari 1985).
General ill health, internal pain: This decoction (see above) was also used by Northway Athabascans as a wash for body aches and pain. Ahtna Athabascans drank a decoction of juniper berries for colds, and burn juniper branches on a wood stove to "keep sickness away" (Kari 1985).

General uses
Colds/flu: Berries and leaves were boiled into a tea and drunk 1/2 cup at a time for colds. Colds were also treated by squashing juniper berries in a bucket, boiling the squashed berries, and drinking one cup of the strained liquid. (Hall 1979).

Inupiat

Names: *Tulukkam asriaq* ("Raven's berries")
Symptoms: Arthritis, colds/flu, coughs/chest congestion, gall bladder problems, influenza, internal pain, kidney trouble
Plant applications: Chew, infusion/decoction, vapor

Kotzebue Sound area uses:
Arthritis, gall bladder problems, influenza, kidney trouble: Berries and needles were eaten raw or prepared into a tea to treat influenza, arthritis, gall bladder disease, or kidney trouble (Mauneluk Cultural Heritage Program in Fortuine).

[1] (Schofield 1989)

General uses

Internal pain: Juniper berries were consumed for chest pains (Anderson 1977). Juniper leaves and stems were eaten also, however Anderson does not state whether they were eaten in response to chest pains.

Colds/flu, cough/chest congestion: Berries were picked any time of the year to avoid or cure a cold. They were chewed raw, sucked on, or made into a tea (Jones 1983). Berries were stored by drying or freezing them, but were best when used fresh. The entire twig (leaves, stem, berries) were also made into a tea to relieve coughing or respiratory ailments. The vapors from toasting leaves on a stove were used to prevent family members from contracting the illness. (Jones 1983).

Kalmia polifolia ssp. *polifolia* — Bog laurel

Kalmia *spp. contains the toxic substances andromedotoxin, arbutin, and grayanotoxins.*[1] *Andromedotoxin causes low blood pressure, diarrhea, vomiting, and death.*[2] *Even honey from the flowers is poisonous.*[3]
Ingestion of this plant can be fatal.
*This plant looks similar to Labrador tea (*Ledum palustre *s. lat.). Positively identify any plant before ingesting it.*

Ericaceae (Heath Family)
Common names: Bog laurel, American laurel

Physical description: This plant is found in bogs and wet meadows. Leaves are opposite, lance-shaped, and very light colored on the underside. The flowers are pink to rose in color and disk-shaped.

Kalmia polifolia ssp. *polifolia*
Bog laurel
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Tlingit

Names: No information found
Symptom: Skin trouble
Plant application: Infusion/decoction

General uses

Skin trouble: Skin eruptions were washed with an infusion of bog laurel (McGregor 1981).

[1] (Fortuine 1989)
[2] (Schofield 1989)
[3] (Turner and Szczawinski 1991)

Ledum palustre s. lat. — Labrador tea

This plant contains the toxic substance ledol. More ledol is released through boiling than steeping.[1] *Used in moderation, Labrador tea is generally safe. However, large doses of ledol, a narcotic toxin, causes drowsiness, cramps, heart palpitations, paralysis, or even death. Internal ingestion is not recommended for people with high blood pressure or heart palpitations.*[2]

Ericaceae (Heath Family)
Ledum palustre ssp. *decumbens*
Ledum palustre ssp. *groenlandicum*
Common names: Labrador tea, marsh tea, moth herb, muskeg tea, trappers's tea, (*Ledum palustre* s. lat.); common Labrador tea, Greenland tea, Hudson's Bay tea (*Ledum palustre* ssp. *groenlandicum*); Hudson's Bay tea, narrow-leaf Labrador tea (*Ledum palustre* ssp. *decumbens*)

Physical description: *Ledum palustre* ssp. *groenlandicum* is an evergreen shrub, low to medium in height (10 to 30 inches), with long wooly pubescence on young twigs and the underside of leaves that is rust colored when mature. Leaves are green, long, and oblong with edges rolled under; they are brownish and leathery in the winter. The small flowers are 5-petaled and usually have 10 stamens (Pratt 1989).

Ledum palustre ssp. *decumbens* is similar to *Ledum palustre* ssp. *groenlandicum* except that it is a somewhat smaller plant and has very narrow leaves and sometimes pinkish flowers. It is found in bogs and alpine heaths throughout most of the state (Pratt 1989).

Ledum palustre ssp. *groenlandicum*
Labrador tea
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Caa'uq, nunallaq caa yuq*
Symptoms: Coughs/chest congestion, tuberculosis
Plant application: Infusion/decoction

Kodiak Island area uses

Coughs/chest congestion, tuberculosis: An infusion of *Ledum palustre* ssp. *decumbens* was used to treat chest ailments and tuberculosis (Graham 1985).

Athabascan

Names: *K'I'tladsai* (Salcha); *ch'ilaak'ay* (Upper Tanana); *lediiasket* (Kutchin); *la dee musket* (Kutchin for *Ledum palustre* ssp.); *quchukda* (Outer Inlet and Upper Inlet Dena'ina meaning *grandmother*); *kenhughudza* (Outer Inlet Dena'ina for *Ledum palustre* ssp. *groenlandicum*); *kenqughudze* (Upper Inlet Dena'ina); *k'eluq'ey* (Inland and Iliamna Dena'ina for *Ledum palustre* ssp. *decumbens,* meaning *forked branches*); *k'ilaakk'uyh* (Koyukon)
Symptoms: Arthritis, colds/flu, constipation, coughs/chest congestion, cuts/scrapes, dandruff, general ill health, hangovers, indigestion/gas, infections/inflammation, internal pain, nerves, rheumatism, skin trouble, sore throat, stomach troubles
Plant applications: Ash, chew, infusion/decoction, poultice, powder

Dena'ina, Stony River Village area and Lime Village area uses

Colds/flu: A tea prepared from *Ledum palustre* s. lat. was drunk as a tonic for colds and "weak blood" (Kari 1983, 1985).

Arthritis, constipation, cuts/scrapes, hangovers, indigestion/gas, stomach troubles: Treated with narrow-leaf Labrador tea by the Upper Inlet Dena'ina, one informant shared that it helped relieve hangovers. Narrow-leaf Labrador tea is used as a laxative by the Outer Inlet Dena'ina and as a wash for sores by the Inland Dena'ina (Kari 1995). Dizziness, heartburn, arthritis, and stomach troubles were also treated with narrow-leaf Labrador tea. The Dena'ina used *Ledum palustre* ssp. *groenlandicum* the same way they used *Ledum palustre* ssp. *decumbens* (Kari 1995).

Colds/flu: Peter Kalifornsky described administering Labrador tea as one of a series of steps when treating a cold where the

[1] (Fortuine 1989)
[2] (Schofield 1989)

person has the potential of developing pneumonia (Kalifornsky et al. 1991).

Fort Yukon area uses

Colds/flu, hangovers: Occasionally, a decoction prepared from leaves and stems of *Ledum palustre* ssp. *groenlandicum* was used to treat colds and hangovers by the Athabascans of Fort Yukon (Holloway and Alexander 1990).

Han, Eagle area uses

General ill health:

> Hudson Bay tea they put on open place, they use it soaked in warm water. Sometime they wash it, just use light water, after that they put that warm Hudson Bay tea, drain juice out and put it on. Sometime they drink the tea. They make it, they leave it in birch basket, they drain it. They don't make it strong. They just don't feel like drinking cold water, drink it make them feel good (Scott 1993).

Ninilchik area uses

Cuts/scrapes, infections/inflammation, sore throat: Labrador tea flowers (*Ledum palustre* s. lat.) were infused with water and used as a sore throat gargle by Ninilchik villagers at one time. A moist poultice of dried and powdered leaves was used for cuts, sores, and boils that do not heal. It was said to help with infections (Kari 1994).

Upper Tanana uses

Colds/flu, coughs/chest congestion, dandruff, general ill health, infection/inflammation, internal pain, skin trouble, sore throat: An infusion of Labrador tea leaves was drunk for colds, coughs, sore throats or used as a wash for skin trouble, infections, and dandruff. Labrador tea leaves and stems were also combined with blackberry (*Empetrum nigrum*?) leaves and the inner bark of spruce and boiled into a tea. The decoction was drunk for general sickness. Chewing the leaves (either dried or fresh) helped rid the body of infections, according to Northway villagers, and was effective against congestion and body aches. Dried leaves were also pounded to a powder or burned to ashes which was then placed on sores (Kari 1985).

General uses

Nerves, rheumatism: According to Brenda Hall, drinking 1/2 cup of Labrador tea prepared from an infusion of leaves calmed nerves, 1 1/2 cups treated constipation, and 1 cup treated rheumatism (Hall 1979). It is not clear if these were traditional practices.

Colds/flu: Flowers were gathered, boiled and used as a treatment for colds (Andrews 1975). Dried leaves were also boiled and drunk as a tea, however it was not stated if this was for medicinal purposes.

Inupiat

Names: *Tilaaqiuq*

Symptoms: Coughs/chest congestion, food poisoning, nausea

Plant application: Infusion/decoction

General uses

Coughs/chest congestion, food poisoning, nausea: Although probably *Ledum palustre* ssp. *groenlandicum* (the scientific name was not recorded by Anderson), an infusion of this plant was drunk "when a person's blood does not flow right" (Anderson 1977). The method of preparation was not documented, but presumably the leaves were harvested and boiled. This infusion also was used to treat food poisoning. It was administered after vomiting and apparently suppressed additional episodes. A cough was also suppressed by drinking this infusion (Anderson 1977; Mauneluk Cultural Heritage Program in Fortuine 1988).

Tlingit

Names: *Sick shult, sick-shel-teen, sikshuldéen*

Symptoms: Colds/flu, stomach troubles, tuberculosis, venereal disease

Plant application: Infusion/decoction

Yakutat area uses

Colds/flu, stomach troubles, tuberculosis: Infusions of *Ledum palustre* ssp. *groenlandicum* were drunk as treatments for colds and stomach troubles (de Laguna 1972). De Laguna also stated this infusion was a "substitute tea" (possibly to treat tuberculosis?).

General uses

Colds/flu, tuberculosis, venereal disease: An infusion of the dried leaves and stems was used to treat consumption (tuberculosis) and colds, according to Ketchikan residents (Emmons 1991; McGregor 1981). High blood pressure was also alleviated with Labrador tea. The tea was reported to purify the blood (McGregor 1981). Mixed with devil's club (*Echinopanax horridum*), *Pinus contorta*, and Western red cedar (*Thuja plicata*), it was taken internally for venereal disease. It is assumed that the Tlingit, Haida, and Tsimshian used this treatment, although who reported this information to McGregor is not clear.

Tsimshian

Names: No information found

Symptom: Childbirth

Plant application: Decoction/infusion

General uses

Childbirth: Following childbirth a new mother underwent a cleansing period during which she drank only Labrador tea, clam juice, and alder (*Alnus* s. lat.) bark tea (McGregor 1981). Of the two subspecies of Labrador tea, *Ledum palustre* ssp. *groenlandicum* grows in Tsimshian country.

Yupik

Names: *Ayuq, ai'yut*

Symptoms: Bleeding/hemorrhages, constipation, stomach troubles, tuberculosis,

Plant application: Infusion/decoction

Napaskiak area uses

Although not a medicinal application, it was reported by Napaskiak villagers that the Eskimo of Russian Mission do not make a tea from this plant, believing it would make them weak (Oswalt 1957).

Nelson Island area uses

Bleeding/hemmorrhages, stomach troubles, tuberculosis: An upset stomach was treated with a tea prepared from the leaves of *ayuq* (*Ledum palustre* ssp. *decumbens*). According to Ager and Ager (1980), "it is also said to be a treatment 'for those who spit blood' ", which may be referring to tuberculosis. The plant was gathered all year round.

Nunivak Island area uses

Constipation, stomach troubles: To treat stomach and intestinal pain, Nunivak Islanders would prepare a tea of *Ledum palustre* ssp. *decumbens* from the stems and leaves. Constipation was also relieved with this treatment (Lantis 1958, 1959). This plant was burned as a fumigant if a person was ill, "..and the illness was thrown away with the plant remains" (Oswalt in Lantis 1959).

Linnaea borealis — Twinflower

Caprifoliaceae (Honeysuckle Family)
Common name: Twinflower

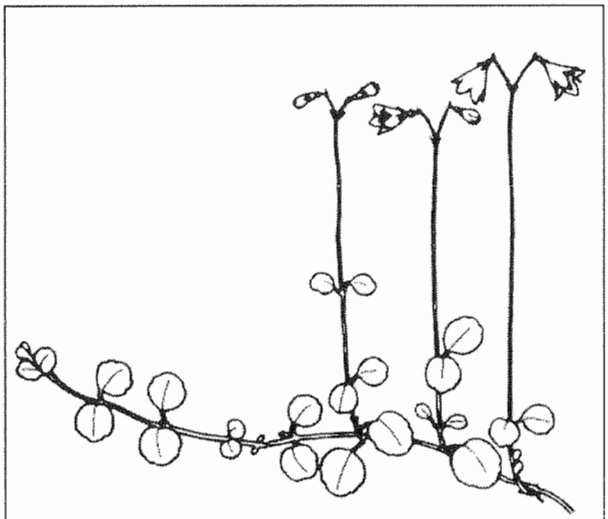
Physical description: This trailing shrub has small, rounded, light green, evergreen leaves placed opposite on the stems, with a few teeth near the tip. The flowering stems have 1 to 2 sets of leaves and usually 2 pinkish white, bell-shaped flowers, borne on 3- to 4-inch stems (Pratt 1989).

Athabascan

Names: *Nan'tl'uul'* (Tetlin); *nan' tth'ogn* (Northway)
Symptom: Headache
Plant application: Poultice

Upper Tanana area uses

Headache: To relieve a headache, twinflower was tied around a person's head. Priscilla Russell Kari also shared that "parents tie it around a child's head to insure him a long life" (Kari 1985).



Linnaea borealis ssp. *borealis*
Twinflower

From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Loiseleuria procumbens — Alpine azalea

Ericaceae (Heath Family)
Common name: Alpine azalea

Physical description: The leaves of this dwarf, mat-forming evergreen shrub are small, oval and opposite on stems. The tiny, light pink, 5-petaled flowers form clusters at the end of the stem. It is frequently found growing with lichen (Pratt 1989).

Tlingit

Name: *Thluk kut*
Symptom: Tuberculosis
Plant application: Infusion/decoction

General uses

Tuberculosis: "For hemorrhage of the lungs, a tea made from the leaves of a small evergreen shrub that grows high up on the mountain, *thluk kut* [probably *Loiseleuria procumbens* (L.) *Desv.*]" (Emmons 1991).

Loiseleuria procumbens
Alpine azalea

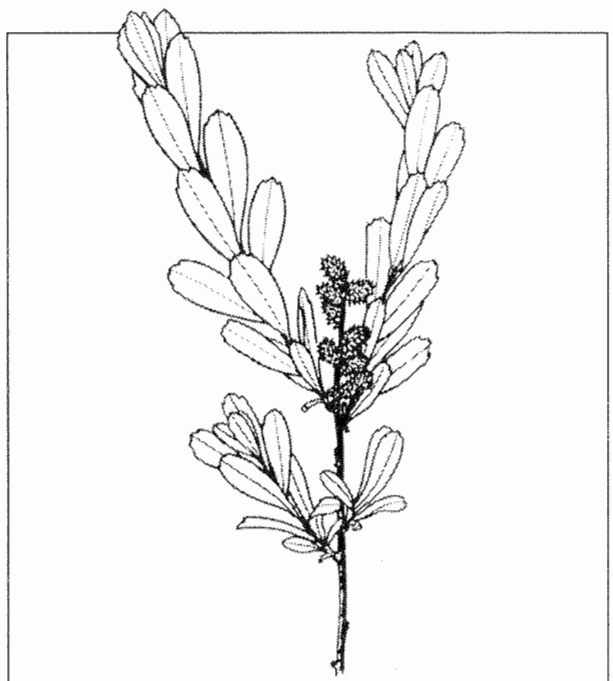
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Myrica gale var. *tomentosa* — Sweet gale

Sweet gale contains a toxic oil that must evaporate during steeping in order for the tea to be safe to drink.[1]

Myricaceae (Myrtle Family)
Common names: Sweet gale, bog myrtle, gale, meadow fern, wax myrtle

Physical description: Sweet gale is a shrub up to 40 inches tall. The grayish-green leaves are oblong, tapering at the base, and have a few teeth at the tip. Male and female flowers are on separate shrubs (Pratt 1991).



Myrica gale var. *tomentosa*
Sweet gale
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Enem tepkegcuutii*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Athabascan

Name: *Dlin'a lu* (Inland and Iliamna Dena'ina)
Symptoms: Cuts/scrapes, skin trouble, tuberculosis
Plant applications: Infusion/decoction, switch

Dena'ina uses

Cuts/scrapes, skin trouble: Inland Dena'ina used an infusion of sweet gale leaves as a wash for boils and pimples. A steambath switch prepared from sweet gale is used by both the Inland and Iliamna Dena'ina (Kari 1995).

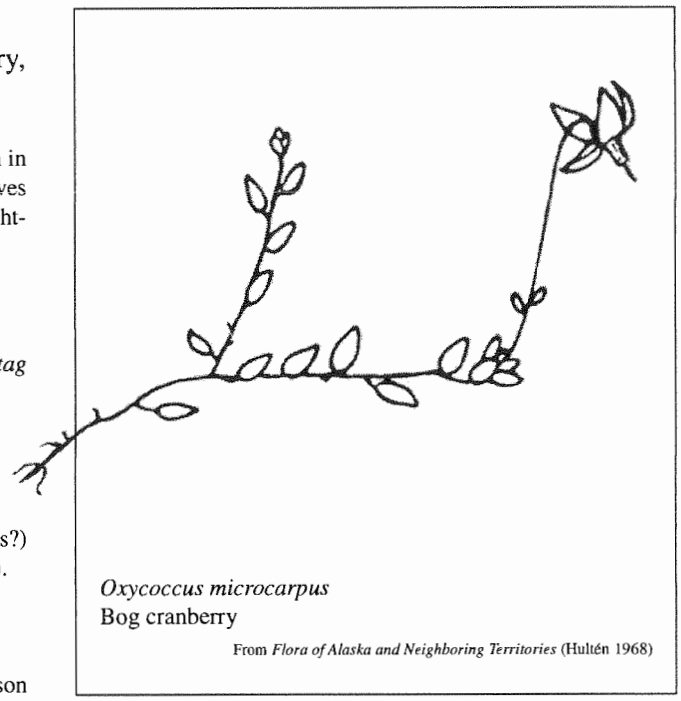
Tuberculosis: Inland Dena'ina used sweet gale as medicine for tuberculosis by preparing a tea from the leaves (Kari 1995).

[1] *Myrica gale* contains a toxic oil which can pose a health threat (causing vomiting or abortion) when a decoction of the plant is steeped in a covered pot. The oil cannot evaporate and remains concentrated in the liquid, rendering the decoction harmful to ingest. However, the tea is safe to consume in moderate amounts when left uncovered, allowing the oil to evaporate (Schofield 1989).

Oxycoccus microcarpus — Bog cranberry

Ericaceae (Heath Family)
Common names: Bog cranberry, moss cranberry, swamp cranberry, true canberry

Physical description: A trailing, evergreen plant, common in boggy areas, the bog cranberry is recognized by its tiny leaves and light pink, reflexed flowers that look like miniature light-colored shooting stars (Pratt 1989).



Oxycoccus microcarpus
Bog cranberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Kislitsa* (Kodiak, possibly Russian origin); *kenegtag* (Kodiak Island)
Symptom: Constipation
Plant application: Powder

Kodiak Island area uses
Constipation: Powdered and cooked, bog cranberry (the leaves?) was used as a laxative and to induce nausea (Black 1977).

Athabascan

Name: *Nan' jign* (Tetlin, Northway); ___[1] (Kari 1995;Nelson 1983)
Symptom: General ill health
Plant application: Infusion/decoction

Salcha uses
General ill health : Both low bush cranberries (*Vaccinium vitis-idaea*) and bog cranberries (*Oxycoccus microcarpus*) were collected during the spring thaw by the Salcha Athabascans living along the Tanana River. These berries were boiled in water and used as a good internal medicine (Andrews 1975). Although not stated by Andrews, it is possible that the infusion was used as a spring tonic.

Inupiat

Names: *Qunmun sanmiruq*, *qunmun asriaq*
Symptom: Skin trouble
Plant application: Poultice

Kobuk River area uses
Skin trouble: Inupiat along the Kobuk River used "cranberry"[2] for 'red-spotted' rashes along the waist. They did this by rubbing raw or cooked, mashed cranberries on the afflicted area. A bandage of caribou, marmot, or rabbit skin was then placed over the poultice (Giddings 1961).

Yupik

Name: *Uwing'e* ("one that never marries"); *tumagliq* (Nelson Island)
Symptoms: Pneumonia, stomach troubles
Plant application: Chew

Kuskokwim area uses
Pneumonia, stomach troubles: Maggie Lind of Bethel shared with two Anchorage physicians much about traditional medical practices of the Yupik for their report *Kuskokwim Medicine*. One final step in a series of procedures to relieve both pneumonia and stomachaches was to give patients cranberries (*Oxycoccus microcarpus*) "or anything that makes water in the mouth" to eat, presumably for slow rehydration (Mills and Kettelkamp 1961).

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

[2] This cranberry was most likely *Oxycoccus microcarpus* (or possibly *Vaccinium vitis-idaea*). Cranberry is also a common name for *Viburnum edule*.

Picea spp. Spruce

Traditional uses described in this listing cannot be attributed to a specific species of spruce.

Pinaceae (Pine Family)
Picea glauca
Picea mariana
Picea sitchensis
Common name: Spruce (*Picea* spp.); *white spruce (Picea glauca)*; black spruce (*Picea mariana*); and Sitka spruce (*Picea sitchensis*)

Physical description: For plant descriptions of *white spruce (Picea glauca)*, black spruce (*Picea mariana*), and Sitka spruce (*Picea sitchensis*), see individual species listing.

Athabascan

Name: See individual species listing.

Symptoms: Bleeding/hemorrhages, burns, childbirth, colds/flu, coughs/ chest congestion, cuts/scrapes, diarrhea, earaches, eye problems, general ill health, heart problems, infections/inflammation, internal pain, kidney trouble, skin trouble, sore muscles, sore throat, stomach troubles, tuberculosis, urinary problems

Plant applications: Bath, chew, infusion/decoction, poultice, salve, steam

Chalkyitsik Kutchin uses

Cuts/scrapes, infections/inflammation: Clear spruce pitch was a strong medicine for infections and wounds (Nelson 1973).

Dena'ina uses

Colds/flu: Peter Kalifornsky described the use of spruce bark tea as one in a series of steps when treating a serious cold with pneumonia potential (Kalifornsky et al. 1991).

Cuts/scrapes, tuberculosis: According to Cornelius Osgood, the Dena'ina "consider white spruce gum efficacious in cases of consumption and for application to cuts" (Osgood 1937).

Dena'ina, Stony River Village area uses

General ill health: Spruce needle tea was a treatment for stomach trouble and spruce pitch was a medicine for unspecified ailments (Kari 1985).

Han uses

Childbirth: After the cord dropped off of a newborn baby, a mixture of spruce gum and charcoal was applied to the navel (Osgood 1971).

Han, Eagle area uses

Sore muscles: Sarah Malcolm of Eagle shared that spruce pitch was a good salve to put on aches and pains anywhere on the body (Scott 1993).

Ingalik (Deg Hit'an) uses

Childbirth: Although the medicinal benefit was unclear, Cornelius Osgood noted that a new born baby was rubbed with spruce charcoal on its navel, under its arms, and between its legs (Osgood 1958).

Burns: Heated spruce pitch was applied to burns and was said to bring relief (Osgood 1958).

Sore throats: The Ingalik (Deg Hit'an) prepared a decoction from the inner bark of spruce and boiled it "until the resultant liquid is thick like soap" (Osgood 1958). This was either taken internally or applied externally for sore throats (Osgood 1958).

Koyukon uses

Kidney trouble, skin trouble: Spruce was boiled and the resulting tea used as wash for dry skin and sores and drunk for kidney problems. It was said that this tea promoted "general good health" (Nelson 1983).

Ninilchik village uses

Bleeding/hemorrhages: Ninilchik villagers used spruce pitch on cuts to stop bleeding (Kari 1994).

Tanana area uses

Cuts/scrapes, general ill health: Upper Tanana Natives boiled and drank spruce pitch "as a remedy for all manner of internal troubles" (McKennan 1959). Pitch was also spread on cuts to keep them free from dirt (McKennan 1959) and therefore infection.

Ten'a, Lower Yukon area uses

Burns, cuts/scrapes, stomach troubles, sore throat: Numerous healing applications for spruce were employed by the Ten'a of the Lower Yukon. Cuts and burns were treated with pitch, a bark decoction was drunk for sore throats, and needles were chewed for stomach pains (Carroll 1972).

Upper Inlet and Inland Dena'ina, Ninilchik village area uses

Burns, cuts/scrapes, eye problems, general ill health, tuberculosis: Chewed fresh as a tonic, Upper Inlet Dena'ina use spruce sap for tuberculosis while the Inland Dena'ina treated burns and cuts with the sap. Ninilchik villagers put pitch on burns to relieve pain (Kari 1994). Outer Inlet Dena'ina placed a small amount in the eye to treat eye growths (Kari 1995).

Burns, colds/flu, cuts/scrapes, earaches, heart problems, kidney trouble, sore throat, stomach troubles, tuberculosis: The white inner bark of spruce (*k'elutuna* in Athabascan) was prepared into a decoction or chewed raw to treat a wide variety of ailments, including earaches, kidney troubles, heart troubles, ulcers and stomach disorders, weak blood, colds, sore throats, mouth sores, and tuberculosis. For cuts, sores, and burns, the inner bark of spruce served as both a medicine and bandage. "To use it for these purposes, the Dena'ina first chew on the bark to soften it before placing it on the afflicated area and gluing it on with pitch" (Kari 1995).

Colds/flu, eye problems, internal pain, tuberculosis: According to Kari (1995):

> The Dena'ina assert that one of the best medicines for bone aches and for thinning one's blood in the spring, is the very top of a young spruce tree, eaten either boiled or raw. They also use this medicine for tuberculosis and colds. The Upper Inlet people also squeeze the juice from raw spruce tops into sore eyes to heal them. Some Dena'ina say that the new growth at the end of the branches is effective medicine when used in the same way as the top.

Cuts/scrapes, heart problems, tuberculosis: Many parts of the spruce were identified and used by the Dena'ina Athabascan. *Jahtl'in* is the Athabascan word for the soft pitch found on outer spruce bark (Kari 1995). It was chewed raw for heart trouble and tuberculosis, as well as serving as a poultice on cuts. Ninilchik villagers also used spruce pitch this way (Kari 1994). It has been noted that many people used it when sustaining injuries far from home (Kari 1995).

Cuts/scrapes, infections/inflammation: Another type of spruce pitch, accoding to Dena'ina Athabascans, was referred to as *jahghan* (Outer Inlet Dena'ina), *kengha* (Inland Dena'ina), and *dkente daltuni* (a close spelling for the Upper Inlet Dena'ina word) and was found in pockets inside spruce wood. Cuts, sores, skin infections were all treated by spreading the pitch on as a salve (Kari 1995).

Earaches: According to Kari, the Dena'ina called the spruce cone *k'elutemisha* (Lime Village), *k'q'ena* (Outer Inlet Dena'ina), *k'eludiya* (Upper Inlet Dena'ina), and *k'elubisha* (Nondalton). "An Upper Inlet person reports that old, dried spruce cones help to dry up the infection that causes running ears. A small amount of the cone's dust is shaken into the ear several times. The dust is said to collect the pus into a ball, making it easier to remove from the ear" (Kari 1995).

Eye problems: According to Kari (1995):

> The Inland Dena'ina use the juice of the spruce root as eye medicine by cutting or biting the end of the root and letting the juice drip into the ailing eye. The Outer Inlet Dena'ina report that a tea made from the spruce root is medicine for any ailment that the inner bark is used for.

General ill health: The Dena'ina name for spruce needles is *eludegga*. A tea prepared from *eludegga* was used as a purgative to clean out a persons system (Kari 1995).

Upper Tanana, Northway area uses

Colds/flu, cuts/scrapes, coughs/chest congestion, sore muscles, sore throat: Spruce cambium was chewed raw for colds and placed on cuts either raw or cooked (Kari 1985). The top of a young spruce tree, the tip of a young birch (*Betula* spp.), and Labrador tea (*Ledum palustre* s. lat.) were mixed and boiled into a tea which was drunk for colds, chest congestion, and body aches. For sore throats, people of Northway also chewed spruce pitch that formed on the outside of the bark (Kari 1985).

Upper Tanana, Tetlin area uses

Coughs/chest congestion, cuts/scrapes, infections/inflammation, skin trouble, tuberculosis: Kari recorded many uses of spruce for healing by the people of Tetlin. Raw spruce cambium was chewed for coughs and tuberculosis or combined with Labrador tea (*Ledum palustre* s. lat.), blackberry (*Empetrum nigrum*) stems, and spruce tips for colds and mouth sores. Although it could be gathered anytime, the cambium was generally harvested in the summer. The cambium was also placed on cuts to facilitate healing. Tetlin villagers also prepared a decoction of spruce tips to be used as a wash for skin rashes and sores. Spruce tips were also combined with cottonwood (*Populus* spp.), boiled into a tea, and drunk for infections. Also to treat sores, the people of Tetlin warmed spruce pitch from the top of the tree with moose fat or warmed the pitch in water and spread on the sore (Kari 1985).

Upper Yukon area uses

Coughs/chest congestion: According to Schmitter, spruce bark was chewed to stop an illness that resulted in coughs (Schmitter 1910). He stated that "originally many kinds of bark were infused in the same mixture, making a sort of general remedy..". This blending of herbs has not been frequently documented and warrants attention.

Yukon River area uses

Cuts/scrapes: Spruce pitch was used as a poultice for cuts and scratches (Carroll 1972). Not only did it relieve infections, but it also helped to keep dirt out of the wound.

General uses

Childbirth: For an infection acquired during childbirth, Lois Tritt describes a procedure of mixing spruce pitch and hot water and placing it "under her bed to draw out the infection" (Tritt 1978). Tritt did not elaborate, and it is unclear if she meant literally under the bed or if the pan was placed closer to the infected area (for example, the patient soaked the infected area in the hot bath).

Colds/flu, cough/chest congestion, skin troubles, urinary problems: Clear sticky white spruce gum helped alleviate chest and head colds when boiled for 5-10 minutes and drunk. Spruce needles were boiled for one hour, the needles removed from the solution, and the skin was washed to clear up hives and rash. To treat a cold, green needles were boiled for 5 to 10 minutes, and 2 to 3 teaspoons of the mixture were drunk 2 to 3 times a day. One cup of this mixture drunk each day purified blood or alleviated urinary problems. Sitting in a diluted solution of boiled spruce needles also helped treat urinary problems. Keeping a pot of spruce needles boiling kept the house "clean" by helping remove germs and infections, according to Brenda Hall (Hall 1979).

Colds/flu, cuts/scrapes, infections/inflammation: As a way to cleanse the house of "germs", women from Nulato gathered spruce boughs and burned them in the house over the course of a day. Spruce boughs were also chopped up and boiled for a few hours. The resulting decoction was used to treat colds. For cuts and sores spruce pitch was collected in small baskets as it ran off spruce trees then placed on the affected area. It helped draw out the infection (Carlo 1978). Pitch also prevented wound infection by keeping out dirt and debris. Martha Demientieff of Nenana says that the villagers there also used spruce pitch for cuts (Denakkanaaga 1996).

Coughs/chest congestion: For coughs, Mary Demientieff described the use of boiled and strained spruce boughs mixed with a little sugar (Denakkanaaga 1996), and presumably drunk. A story shared by Rose Ambrose of Huslia describes the use of "pine". (Although not verified, "pine" probably refers to spruce, as no species of pine grows in interior Alaska):

> ...when they talk about it long time ago, I used to just really boil it hard and I look at the water and it's pretty black. I found out that we didn't have to boil it so hard, we just put it on the stove and warm it up like tea. I think that lots of times we go to the doctor, we go to the clinic

and there's things we can do for our own self (Denakkanaaga 1996).

Cuts/scrapes, headaches, sore muscles, skin trouble, urinary problems: According to Brenda Hall, many medical treatments were found within the spruce tree. Warm, soft pitch (sometimes mixed with grease) was rubbed on a cut, covered with a bandage, and left on for four days. For back aches, "put pitch on a piece of cloth or canvas, wash off the back, and put canvas/pitch poultice on back. To relieve headaches, rub pitch on a large piece of cloth, put some snow in the cloth, then wrap cloth around head." Drinking boiled pitch helped to relieve urinary problems. To treat blood poisoning, pitch on canvas was wrapped around the infected area and the red streaks resulting from poisoning. Pitch rubbed on wart helped remove them (Hall 1979).

Diarrhea: According to Martha Demientieff, the inner bark of spruce, "after a long process, makes a powder that stops diarrhea" (Denakkanaaga 1996). How this plant was prepared and how the powder was utilized was not reported.

Note

Spruce used by Athabascan people was most likely *Picea glauca* or *Picea mariana*.

Inupiat

Names: No information found
Symptom: Cuts/scrapes
Plant application: Salve

Nunamiut uses

Cuts/scrapes: Wounds were treated with seal oil and spruce gum applied directly to the afflicted area. This treatment hastened healing and helped to prevent infection (Gubser in Fortuine 1985).

Note

Spruce used by Inupiat people was most likely *Picea glauca* (or, possibly, *Picea mariana*).

Tlingit

Names: No information found
Symptoms: Coughs/chest congestion, cuts/scrapes, infections/inflammation, stomach troubles
Plant applications: Infusion/decoction, poultice, salve

Yakutat area uses

Coughs/chest congestion: A decoction of spruce bark was said to be a terrific cough medicine (de Laguna 1972).

General uses

Cuts/scrapes: Cuts could also be treated by covering them with a mixture of deer or goat tallow and spruce pitch. The bear has been noted by the Tlingit to use the medicine of devil's club as well. Wounds were treated by the inner bark of spruce (and *Pinus* spp.) pounded "to a fine powder on a hot rock, mixed with oil, and applied as a poultice that was changed every three days" (Emmons 1991).

Infections/inflammation, stomach troubles: "Rotten spruce was rubbed off on a stone, mixed with a little water, and used as a poultice" for inflammations, swellings, and stomach trouble. An additional treatment for stomach trouble was to put the fine particles produced from rubbing rotten wood in oil or water (that was then boiled) and ingested (Emmons 1991).

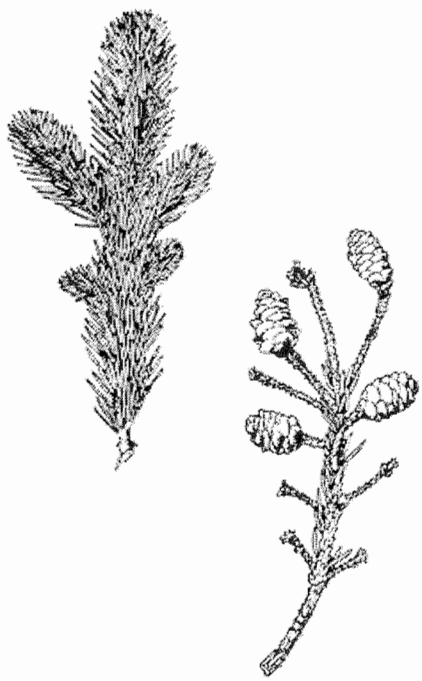
Note

Spruce used by Tlingit people was most likely *Picea sitchensis*.

Picea glauca White spruce

Pinaceae (Pine Family)
Common names: White spruce, Canadian spruce, cat spruce

Physical description: This medium tree (30 to 75 feet in height) is found in woodlands and into alpine areas throughout much of the state. Needles are 3/8 to 3/4 inches long, are 4-angled with stomata on all sides, and have a skunky smell. The medium sized (1 1/4- to 2-inch) elongated cones, which grow on the outer branches, fall off each spring (Pratt 1989).



Picea glauca
White spruce
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Tsebe* (Salcha); *ts'ivii* or *ts'iivii* (Fort Yukon); *ch'vala* (Lime Village, Dena'ina); *didlang* (Kuskokwim Ingalik, Deg Hit'an); *ts'ibaa* (Koyukon)
Symptoms: Arthritis, coughs/chest congestion, cuts/scrapes, eye problems, headache, infections/inflammation, internal pain, toothaches
Plant applications: Chew, infusion/decoction, poultice, salve

Fort Yukon area uses

Arthritis, cuts/scrapes, headache, infections/inflammation, internal pain, toothaches: Pitch from white spruce was an important medicinal to the people of Fort Yukon. Gently heated and then poured onto caribou skin, cloth or bandages, pitch was placed on cuts to prevent infections, on legs to relieve arthritis, or on the chest to reduce pain. Occasionally, spruce pitch was mixed with *Artemisia frigida* (frigid wormwood) before being placed on cuts. Pitch was also chewed like gum and was said to prevent both toothaches and headaches (Holloway and Alexander 1990).

Eye problems: For sore eyes, bloodshot eyes, and "white clouds over the eyes" (cataracts?), fresh watery sap (of *Picea glauca*) was traditionally put into the eye over night according to Holloway and Alexander (1990).

Tanana area uses

Coughs/chest congestion: A treatment by Salcha Indians for coughs was prepared by boiling pitch and bark from white or black spruce (Andrews 1975). This tea was presumably drunk to relieve symptoms.

Inupiat

Names: No information found
Symptoms: Colds/flu, cuts/scrapes, general ill health, influenza
Plant applications: Chew, infusion/decoction, plaster, poultice, vapor

Kotzebue Sound area

Colds/flu, general ill health, influenza: Spruce gum (white?) was chewed for partial facial paralysis, on the afflicted side of the face. An infusion of the needles was drunk for chest colds and general ill health. The spread of influenza was thought to be stopped by inhaling the smoke of burning spruce needles (Mauneluk Cultural Heritage Program in Fortuine 1988).

Norton Sound area

Cuts/scrapes, general ill health: A tea prepared from white spruce needles was an all purpose medicine. The resin was placed on wounds and cuts (Anderson 1939).

Yupik

Names: *Mingkot'moak* ("like a needle wood"), *kevraartuq*
Symptoms: Cuts/scrapes, coughs/chest congestion
Plant applications: Chew, infusion/decoction, salve

Napaskiak area uses

Coughs/chest congestion: For coughs, villagers of Napaskiak boiled green (fresh) white spruce needles and drank the resulting tea or alternatively chewed the raw needles (Lantis 1959; Oswalt 1957).

Norton Sound area uses

Cuts/scrapes: People along Norton Sound used white spruce needles for "medicine", although he didn't state for what ailments. White spruce gum was spread on wounds (Lantis 1959; Oswalt 1957).

Picea mariana Black spruce

Pinaceae (Pine Family)
Common names: Black spruce, bog spruce, swamp spruce, water spruce

Physical description: This small tree (up to 30 feet) is found in bogs or wet areas at low elevations throughout interior Alaska and the Cook Inlet area of Southcentral Alaska. Young branches have rusty-colored hairs. Needles are 4-angled with stomata on all sides, and are short (1/4 to 1/2 inches). The small, 3/4- to 1 1/4-inch, egg-shaped cones, which grow close to the main trunk, remain on the trees for years, usually waiting for the heat of a forest fire to release the seeds. These trees are often found growing in wet, saturated soils, north facing slopes, and with knarled or stunted growth (Pratt 1989).

Picea mariana
Black spruce
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Tsebe* (Salcha); *ch'vala* (LimeVillage, Dena'ina); ___[1] (Nelson 1983); *ts'oo*
Symptoms: Coughs/chest congestion
Plant application: Infusion/decoction

Tanana area uses

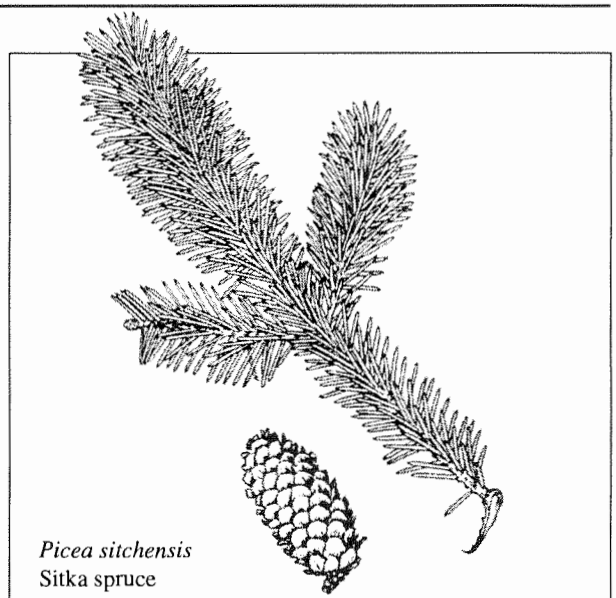
Coughs/chest congestion: A treatment by Salcha Indians along the Tanana River for coughs was prepared by boiling pitch and bark from white or black spruce (Andrews 1975), then presumably drunk to relieve symptoms.

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Picea sitchensis Sitka spruce

Pinaceae (Pine Family)
Common names: Sitka spruce, coast spruce, tideland spruce

Physical description: This tall tree (100 to 200 feet) is found in coastal areas of Southcentral and Southeastern Alaska. Needles are 3/4 to 1-1/8 inches long and slightly flattened with stomata only on the underside and slightly keeled at the ends. Branches tend to droop more than white spruce. The large, long (2- to 3-1/2-inch) cones have rippled bracts and fall off each spring (Pratt 1989).



Picea sitchensis
Sitka spruce
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Anggarnarliq* (Prince William Sound); *napaq* (Port Graham), *naparqiaq*; *arumalineq*; *aumalineq*
Symptoms: Bleeding/hemorrhages, broken bones, colds/flu, coughs/chest congestion, cuts/scrapes, earaches, frost bite, general ill health, infections/inflammation, pneumonia, sore throat, toothaches, tuberculosis
Plant applications: Chew, infusion/decoction, poultice, powder

Chugach area uses
Cuts/scrapes, frostbite, general ill health: Sitka spruce roots were ground into a fine powder, cooked for three days until the mixture became a thick paste, and used when a person was "sick all over". Warmed pitch was spread on frostbite and cuts (Birket-Smith 1953).
English Bay and Port Graham area uses *(See P.S., page 173.)*
Prince William Sound and lower Kenai Peninsula area uses
Colds/flu, coughs/chest congestion, sore throat, tuberculosis: A decoction of Sitka spruce branch tips, gathered in spring, was drunk for colds and tuberculosis (Wennekens 1983, 1985). A bark decoction (bark can be gathered year round) was drunk for coughs and colds. Spruce pitch was chewed for a sore throat or warmed and spread over a wound as a bandage (Wennekens 1985).
Earaches: To stop painful earaches, decayed spruce wood was warmed and poured into the ear, An informant shared with Alix Wennekens that the heat, not the rotten spruce, was the most effect component of the treatment. The crumbled decayed wood was also applied to infected cuts and boils, without being heated (Wennekens 1985).
General uses
Bleeding/hemmorrhages: Cuts, resulting from surgery to remove tumors, were treated with a fine powder of ground up spruce stumps (Gedeon in Pierce 1978)

Tlingit

Names: No information found
Symptoms: Eye problems, toothaches, tuberculosis, venereal disease
Plant applications: Infusion/decoction, plaster, poultice, salve

General uses
Eye problems: According to Emmons wood fern *(Dryopteris dilatata)* leaves, shield fern (*Gymnocarpium dryopteris*) buds, Sitka spruce (*Picea sitchens*is), and large leaved avens (*Geum macrophyllum*), were "mixed together, pounded in a mortar, mixed with human milk, and applied locally" for eye trouble of any kind (Emmons 1991).
Tuberculosis: "A drink made by boiling spruce and hemlock gum in fresh water" was used to treat consumption (Emmons 1991). Warmed seeds of Sitka spruce were held on a sore tooth (see also *Tsuga mertensiana*, mountain hemlock).
Venereal disease: To treat syphilis and other venereal diseases, people bathed in hot springs and drank a decoction of spruce needles, spruce gum, and devil's club bark (*Echinopanax horridum*) (Emmons 1991). Venereal disease was also treated with a mixture of Sitka spruce pitch, Siberian spring beauty (*Claytonia sibirica*) leaves, and Alaska cypress (*Chamaecyparis nootkatensis*) bark. This salve was applied externally (Blaschke in Krasue 1956; McGregor 1981).

Tsimshian

Names: No information found
Symptoms: Constipation, insanity, nausea
Plant applications: Chew, infusion/decoction

General Tsimshian uses
Constipation, nausea: Spruce tips were used for nausea and constipation (McGregor 1981). It was not recorded whether the tips were eaten or made into a tea.
Insanity: An interesting application involved placing skookum root (*Veratrum viride*) on the patient's shaved head and then gently hitting the head with a spruce bough to facilitate medicine being absorbed into the bloodstream (McGregor 1981).

Pinus contorta Lodgepole pine

Pinaceae (Pine Family)
Common names: Lodgepole pine, shore pine

Physical description: This tree grows 20 to 33 feet tall and is very common in dry areas. It is found growing in parts of southeast Alaska and in British columbia and Yukon Territories, Canada. Needles are 2 in a fascicle. Cones are 1-1/2 to 2 inches long, nearly round, and stay on trees for several years (Pratt 1991).

Athabascan

Names: No information found
Symptoms: Colds/flu, coughs/chest congestion
Plant application: Infusion/decoction

General uses

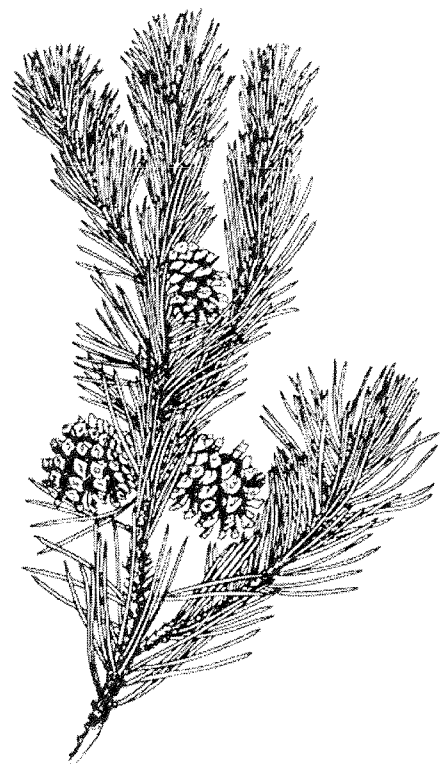
Colds/flu, coughs/chest congestion: Lodgepole pine sap was drunk by Athabascans as a treatment for coughs and colds (Taylor in Smith 1973). This reference requires further attention, as *Pinus contorta* does not grow in Athabascan country in Alaska.

Tlingit

Names: No information found
Symptom: Venereal disease
Plant application: Infusion/decoction

General uses

Venereal disease: An infusion of the bark and "sprouts" was drunk to treat syphilis (Blaschke in Krause 1956).



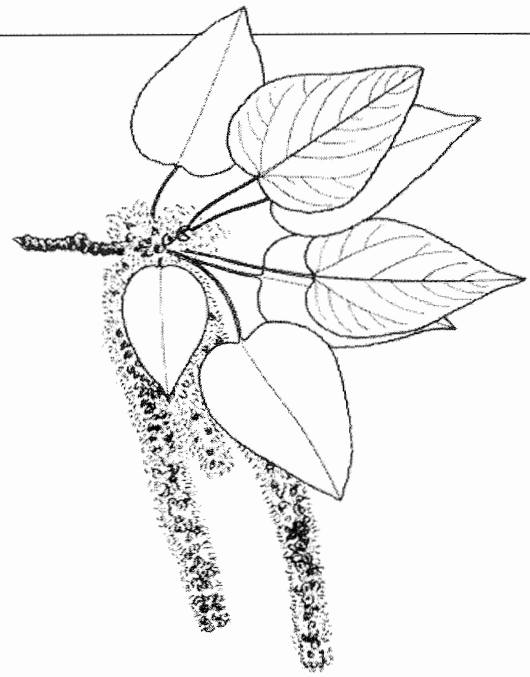
Pinus contorta
Lodgepole pine
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Populus balsamifera ssp. *balsamifera* Balsam poplar

This plant contains the glycosides salicin and populin. It is generally considered safe in moderate doses. However, large, extended doses may be hazardous to your health.[1]

Salicaceae (Willow family)
Populus balsamifera ssp. *balsamifera*
Populus trichocarpa
Common names: Balsam poplar, balm of Gilead, cottonwood

Physical description: Very large trees (40 to 90 feet tall) have deeply grooved, thick bark; young trees have smooth bark. Leaf shape is variable. Young trees often have very large leaves. Most are large pointed, elongated, heart-shaped leaves that turn bright yellow in the fall. It is common near rivers and near stream beds up into the mountains (Pratt 1989).



Populus balsamifera ssp. *balsamifera*
Balsam poplar
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Ciquq* (probably *Populus trichocarpa*)
Symptom: Arthritis
Plant applications: Infusion/decoction, switch

English Bay and Port Graham area uses *(See P.S., page 174.)*

Athabascan

Names: *T'aa, t'uuh* (Upper Tanana); *dagheth* (Salcha); *eseni, esni, t'eghes* (Dena'ina); ___[2] (Nelson 1983)
Symptoms: Childbirth, colds/flu, coughs/chest congestion, cuts/scrapes, hangovers, headache, infections/inflammation, sore muscles, stomach troubles
Plant applications: Bath, infusion/decoction, salve

Ahtna uses
Colds/flu: The Ahtna medicine for colds was prepared by boiling a tea from the mashed buds of balsam poplar (Kari 1985).

Gwich'in, Fort Yukon area uses
Colds/flu, hangovers, headache, stomach troubles: The buds of balsam poplar, whose resin gives off a strong pleasant odor, were boiled in water and drunk in small amounts as a treatment for colds and flus, headaches, hangovers, and stomach aches. This treatment is still in use today, according to Holloway and Alexander (1990).
Cuts/scrapes, infections/inflamation: Boiling balsam poplar buds in grease created a salve that was used to prevent infection on sores and cuts. This mixture was cooled before placing it on the skin (Holloway and Alexander 1990).

Ingalik (Deg Hit'an) uses
Childbirth (post-partum): For excessive bleeding during post-partum menstruation, women were instructed to soak in a bath of willow (*Salix* spp.), balsam poplar, and alder (*Alnus* spp.) bark (Osgood 1958).
Stomach troubles: The outside bark of cottonwood was prepared as a decoction by the Ingalik Athabascans to treat stomachaches.

Upper Tanana uses
Colds/flu, coughs/chest congestion: Colds, "internal ailments", and coughs were treated with a decoction of balsam poplar buds (Kari 1985; McKennan 1959).

General uses
Colds/flu, sore muscles: One tablespoon of a cottonwood leaf infusion alleviated body aches and helped to cure flus. For colds, 1/2 cup of cottonwood bud tea was drunk (Hall 1979). It is unclear if this is a traditional medicine.

Tlingit

Names: No information found
Symptom: Tuberculosis
Plant application: Infusion/decoction

Yakutat area uses
Tuberculosis: Balsam poplar pitch was prepared as a decoction and drunk by a person ill from tuberculosis (de Laguna 1972). The poplar referred to by de Laguna was most likely *Populus trichocarpa*.

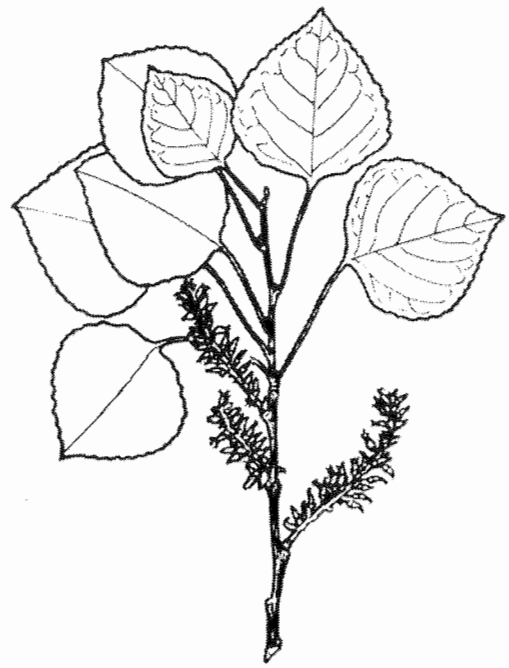
[1] (Schofield 1989)
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Populus tremuloides Quaking aspen

This plant contains the glycosides salicin and populin. It is generally considered safe in moderate doses. However, large, extended doses may be hazardous to your health.[1]

Salicaceae (Willow Family)
Common names: Quaking aspen, American aspen, trembling aspen

Physical description: This medium sized (18 to 40 feet), short lived, tree has smooth, greenish-gray bark that becomes grooved near the base on older trees. The broad, sharply-pointed, heart-shaped leaves, which turn bright yellow in the fall, tremble with the slightest breeze, due to the long delicate petioles. It is found throughout most of Interior and Southcentral Alaska. It prefers dry, sandy or rocky ground from lowlands up to alpine (Pratt 1989).



Populus tremuloides
Quaking aspen
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Esni ggwa* (Outer Inlet Dena'ina); *k'et'un buts'a* (Upper Inlet Dena'ina); *t'eghes* (Inland and Iliamna Dena'ina); *t'uu ch'ihtl'uu* (Tetlin); *taak'et t'uu'* (Nebesna); *t'eghes* (Lime Village Dena'ina)
Symptoms: Colds/flu, coughs/chest congestion, sore throats
Plant applications: Chew, infusion/decoction

Dena'ina uses

Sore throat: Chewing the inner bark or eating the sap of quaking aspen were two methods used by the Upper Inlet Dena'ina to treat sore throats (Kari 1995).

Tetlin area uses

Colds/flu, cough/chest congestion: Coughs and colds were treated with a decoction prepared from the inner and outer bark of quaking aspen mixed with Labrador tea (*Ledum palustre* s. lat.) (Kari 1985).

[1] (Schofield 1989)

Potentilla fruticosa — Shrubby cinquefoil

Potentilla *spp. contain tannins and are astringent. Use in moderation; tannic acid is a kidney toxin and a gastrointestinal irritant.*[1]

Rosaceae (Rose Family)
Common names: Shrubby cinquefoil, bush cinquefoil, tundra rose

Physical description: A shrub 1 1/2 to 3 feet tall, its stems are reddish-brown and have shedding bark. The leaves are thick, bluish-gray green above and 5-parted. The flowers are large (1 to 1-1/2 inches) and the petals rounded. This is a common shrub throughout most of Alaska (Pratt 1989).

Potentilla fruticosa
Shrubby cinquefoil
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Qutul'iiq*, *qutuneskiiq*, *yaakuutaaq* (Port Graham); *qutunirpak*
Symptoms: Colds/flu, pneumonia, sore throat, stomach troubles, tuberculosis
Plant application: Infusion/decoction

English Bay and Port Graham area uses *(See also P.S., page 174.)*
Colds/flu, pneumonia: Cut stems of the tundra rose, *Potentilla fruticosa*, were boiled into a tea and drunk for colds and pneumonia (Stanek 1985).

Prince William Sound and lower Kenai Peninsula area uses
Stomach troubles: *Potentilla fruticosa* was boiled for one hour and the resulting tea was cooled and drunk for intestinal and stomach gas. The entire plant was used (Wennekens 1985).

Athabascan

Names: *Qevechitda* (Inland Dena'ina); *quchukda* (Iliamna Dena'ina); *lahlil tth'aal'* (Nebesna); *ntl'at*; ___[2] (Kari 1985)
Symptoms: Menstrual problems, tuberculosis
Plant application: Infusion/decoction

Dena'ina uses
Tuberculosis: The Dena'ina name for shrubby cinquefoil means "their grandmother", which is the same name the Outer and Upper Inlet Dena'ina call Labrador tea. According to Priscilla Russell Kari (1995), shrubby cinquefoil was used the same way as narrow-leaf Labrador tea. The Chugach Eskimo prepared a tea from the above ground portion of the plant for tuberculosis. Some older Inland Dena'ina have rubbed their faces with the leaves before the flowers grew. However, the effect this has on the person is not stated (Kari 1995).

Upper Tanana uses
Menstrual problems: An interesting use of shrubby cinquefoil was reported from Northway. In the past, during the first menstrual cycle of a young girl, she placed branches under her mattress to lessen bleeding and the number of years she menstruated (Kari 1985).

Tlingit

Name: *Tséit*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

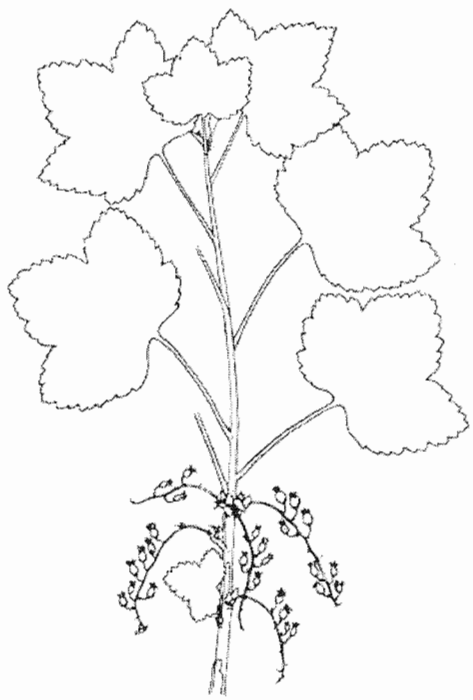
[1] (Schofield 1989)
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Ribes spp. Currant

Saxifragaceae (Saxifrage Family)
Ribes bracteosum
Ribes hudsonianum
Ribes laxiflorum
Ribes triste

Common names: Currant (*Ribes* spp.); American red currant, northern red currant (*Ribes triste*); northern black currant (*Ribes hudsonianum*); trailing black currant (*Ribes laxiflorum*); blue currant, stink currant, trailing northern black currant (*Ribes bracteosum*)

Physical description: (*Ribes triste*) This shrub with shredding bark is usually upright but is occasionally sprawling (2 to 3 feet). Leaves are toothed and 3 to 5-lobed (maple shaped). They are arranged alternately on the branches and turn red in the Fall. The small, brick red flowers are on weak, drooping stems hanging under the leaves. The tasty berries which ripen in July are red and translucent (Pratt 1989).



Ribes triste
Northern red currant
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Qunisiq* (for *Ribes laxiflorum*, Prince William Sound); *uqugnilnguq* (for *Ribes bracteosum*)
Symptoms: Eye problems, weight loss/loss of appetite
Plant applications: Infusion/decoction, switch

English Bay and Port Graham area uses *(See P.S., page 174.)*
Prince William Sound and lower Kenai Peninsula area uses
Eye problems: According to Ted Chimivisky, the outer bark of the trailing northern black currant (*Ribes laxiflorum*) was boiled until the liquid was a dark coffee color. The decoction was stored in a glass container until it settled and became clear. A couple of drops were then placed in eyes to relieve soreness and help remove (?) cataracts (Wennekens 1985).

Athabascan

Names: *Nundghuna* (for *Ribes laxiflorum*), *ggagga giga* (for *Ribes hudsonianum*), *jeghdenghult'ila* (Inland and Iliamna Dena'ina); *nudghin* (for *Ribes laxiflorum*), *nunazk'et'I* (Outer Inlet Dena'ina); *nedghuna* (for *Ribes laxiflorum*), *nunayk'et'I* (Upper Inlet Dena'ina); *nindghuna* (for *Ribes laxiflorum*, Inland Dena'ina); *nanihnuul* (Tetlin), *danihnuul* (Nebesna, Northway); *dotson' geega* (for *Ribes hudsonianum*, Koyukon); *shoh jign* (for *Ribes hudsonianum*, Tetlin, Northway); *nee'yuu* (for *Ribes hudsonianum*, Fort Yukon) ___[1] (Nelson 1983)
Symptoms: Colds/flu, eye problems, general ill health, tuberculosis
Plant applications: Chew, infusion/decoction, plaster

Ahtna uses
Colds/flu: Ahtna Athabascans chewed raw northern black currants (*Ribes laxiflorum*) for colds (Kari 1985).
Dena'ina uses
Colds/flu, tuberculosis: A decoction of the stem and bark was drunk by the Inland Dena'ina for colds, flus, and tuberculosis.
Eye problems: An eye wash for sore eyes was also prepared by cooling the decoction (see above) (Kari 1995). Sore eyes were treated with northern red currants (*Ribes triste*) that were collected, skinned and boiled. This mash was then applied, wrapped, and left on over night (Kari 1995; Osgood 1937).
Tetlin area uses
General ill health: An infusion of the leaves and berries of *Ribes hudsonianum*, northern black currant, was prepared and drunk for "sickness in general" (Kari 1985).

Eyak

Names: No information found
Symptom: Eye problems
Plant application: Infusion/decoction

[1] Athabascan and Inupiat names have been recorded, but special characters necessary for spelling are not available in this publication.

General uses

Eye problems: An infusion of leaves from "a plant like the currant" was used as a wash for sore eyes (Birket-Smith and de Laguna 1938).

Inupiat

Name: ___[1] (for *Ribes triste*)
Symptom: No information found
Plant application: No information found
Uses: No information found

Tlingit

Name: *Cax*
Symptom: Eye problems
Plant application: Poultice

Yakutat area uses

Eye problems: Swanton in de Laguna described the use of blue currant, *Ribes bracteosum* (?), by the Yakutat Tlingit. It was used to remove cataracts by heating pieces of the vine and placing them close to a white spot on the eye. This (white spot?) was then supposed to come out (de Laguna 1972). No additional details were provided by de Laguna or Swanton. The Tlingit name for this plant is very similar to the Tlingit name for "syphilis medicine", possibly suggesting an additional use for this plant (de Laguna 1972).

[1] Athabascan and Inupiat names have been recorded, but special characters necessary for spelling are not available in this publication.

Rosa spp. Rose

Rosaceae (Rose Family)
Rosa acicularis
Rosa nutkana
Common names: Rose (*Rosa* spp.); prickly rose, wild rose (*Rosa acicularis*); Nootka rose (*Rosa nutkana*)

Physical description: *Rosa acicularis* is a very prickly shrub, 1-1/2 to 6 feet tall and, generally, with toothed 5-parted compound leaves with distinct stipules. The large, showy flowers (2 to 3 inches) have 5 rounded, pink, soft, velvet-like petals that are sometimes notched. Twigs are very red in the winter and the leaves turn reddish in the fall (Pratt 1989).

Athabascan

Names: *Hesh* (Inland and Iliamna Dena'ina); *heshkegh* (Inland, Outer Inlet, and Upper Inlet Dena'ina); *nkix* (Lime Village, Dena'ina); *hus dikina'* (Koyukon); *khan t'on, khoh kak ch'at'an* (for *Rosa acicularis*, Fort Yukon); ___[1] (Kari 1985)
Symptoms: Colds/flu, eye problems, fever, menstrual problems, stomach troubles
Plant application: Infusion/decoction

Dena'ina uses

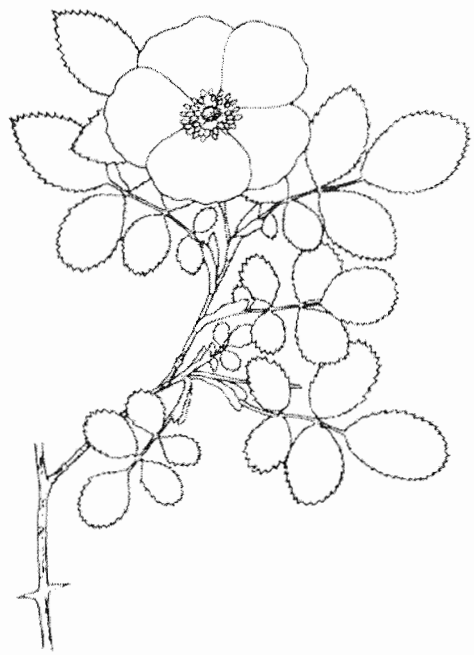
Colds/flu: As part of a treatment for colds, the bark of rose stems was prepared as a tea and drunk. To prepare the tea, the thorns were first burned off the stem, the stem was then scraped, and the inner and outer bark steeped (Kalifornsky et al. 1991). The use of rose tea was one of series of steps to treat serious colds with pneumonia potential. The taxonomy for "rose bush" is not verified. Both *Rosa acicularis* and *Rosa nutkana* grow on the Kenai Peninsula.

Colds/flu, fever, menstrual problems, stomach troubles: To treat colds, fevers, stomach trouble, "weak blood", and menstrual difficulties, a tea was prepared from the stems and branches of both *Rosa acicularis* and *Rosa nutkana*. To prepare the decoction, the thorns were burned off the stems, the stems broken up and boiled "until the water is dark", and the liquid was then drunk (Kari 1995).

Eye problems: An eye wash prepared by soaking rose petals (from both *Rosa acicularis* and *Rosa nutkana*) in hot water and then cooling the liquid was used by the Upper Inlet Dena'ina people for sore eyes.

Inupiat

Name: ___[1]
Symptoms: No information found
Plant applications: No information found
Uses: No information found



Rosa nutkana
Rose
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Tlingit

Name: *K'incheiyee*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Name: *Tutuk'oak*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] Athabascan and Inupiat names have been recorded, but special characters necessary for spelling are not available in this publication.

Rubus chamaemorus — Cloudberry

Dried or fresh leaves are used medicinally. The wilted leaves of Rubus *spp. are mildly toxic.*[1]

Rosaceae (Rose Family)
Common names: Cloudberry, baked appleberry, ground mulberry, knotberry, salmonberry

Physical description: This low, herbaceous plant has coarse veined, long stemmed, leaves with 5 lobes and 1-inch flowers with 5 (sometimes 4) rounded white petals, resembling an apple blossom. The tasty, orange, raspberry-like berries, which ripen in mid-July to early August, are not produced in abundance (Pratt 1989).

Rubus chamaemorus
Cloudberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Moroshka* (Kodiak, possibly Russian origin); *aqagwiik*; *aqagwuj*; ___[2] (Kari 1985)
Symptoms: No information found
Plant applications: No information found

English Bay and Port Graham area uses *(See P.S., page 174.)*

Athabascan

Names: *Nqutl'* (Lime Village, Inner and Upper Inlet Dena'ina); *dondhi'on* (Kusko-kwim Ingalik, Deg Hit'an); *nqitl'* (Outer Inlet Dena'ina); ___[2] (Nelson 1983)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Inupiat

Names: *Aqpik; aqpiik; aqpiich*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: *Né x'w*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Names: *Atsalugpiaq, at'sut* (meaning "berries" or "fruit"); *ahkahavasik* (St. Lawrence Island); *nauhraq* (Nelson Island)
Symptoms: Diarrhea, skin trouble
Plant application: Chew

Lower Kuskokwim and Nunivak-Nelson Island area uses

Diarrhea: *Rubus* spp. berries were eaten for diarrhea (Lantis 1959). The berries were listed as "salmonberry", *Rubus spectabilis*, but this plant does not grow in Yukon-Kuskokwim Delta area. The report may have been referring to cloudberry, *Rubus chamaemorus*.

General uses

Skin trouble: In her book *Discovering Wild Plants,* Janice Schofield shared that a Yupik informant told of relieving hives by drinking seedless cloudberry juice (Schofield 1992).

[1] (Schofield 1989)

[2] Alutiiq and Athabascan names have been recorded, but special characters necessary for spelling are not available in this publication.

Rubus parviflorus var. *grandiflorus* Thimbleberry

Dried or fresh leaves are used medicinally. The wilted leaves of Rubus *spp. are mildly toxic.*[1]

Rosaceae (Rose Family)
Common name: Thimbleberry

Physical description: This shrub has erect branches, no thorns, and is found growing in woods. Leaves are palmate, 3-5 lobes, and twice dentate-serrate. Flowers are white and the edible berries are red (Hulten 1968).

Tlingit

Name: *Ch'éix'*
Symptom: Tuberculosis
Plant application: Infusion/decoction

Yakutat area uses

Tuberculosis: An infusion of thimbleberry was used as a treatment for tuberculosis (de Laguna 1972).

Rubus parviflorus var. *grandiflorus*
Thimbleberry

From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

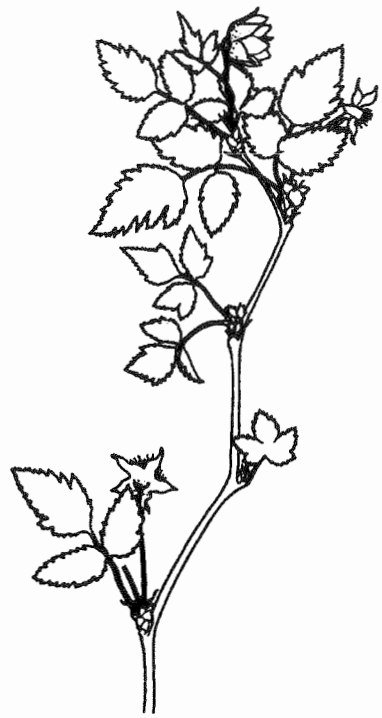
[1] (Schofield 1989)

Rubus spectabilis — Salmonberry

Dried or fresh leaves are used medicinally. The wilted leaves of Rubus *spp. are mildly toxic.*[1]

Rosaceae (Rose Family)
Common names: Salmonberry, muck-a-muck

Physical description: This shrub forms dense thickets in moist woods. Stems are heavily bristled. Leaves are 3-foliate and serrate (toothed). Flowers are reddish-purple and the fruit is red to yellow (Hulten 1968).



Rubus spectabilis
Salmonberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Qimalaa; alagnaq; qateguatagiaq; chughelenuk* (meaning "young shoots", Kodiak Island)
Symptoms: Breathing problems, burns, cuts/scrapes, skin trouble
Plant applications: Infusion/decoction, poultice

Chugach area uses
Burns: A poultice (?) of salmonberries was used for burns (Birket-Smith 1953).
English Bay and Port Graham area uses *(See P.S., page 174.)*
Kodiak Island area uses
Cuts/scrapes: Fresh or dried salmonberry leaves were placed on wounds and infections (Graham 1985).

Athabascan

Names: *Chahma* (Seldovia); ___[2] (Kari 1995)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: *Ch'a anúx tleikw*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] (Schofield 1989)
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Salix spp. Willow

Salicaceae (Willow Family)
Salix arbusculoides
Salix planifolia ssp. *pulchra*
Salix pulchra
Salix sitchensis
Common names: Willow, osier, pussy willow (*Salix* spp.); diamond leaf willow, ptarmigan willow, willow (*Salix pulchra*); littletree willow (*Salix arbusculoides*); silky willow, Sitka willow (*Salix sitchensis*)

Physical description: Viereck and Little identified 33 species of willow occurring in Alaska, however, many people recognize more than that. They range in height from creeping mats to over 20 feet tall.

Salix arbusculoides is a shrub 10 to 15 feet tall and is found along streams and rivers throughout interior Alaska. Leaves are 1 to 3 inches long, toothed along the margin, and are elliptic-lanceolate to oblancelate (Viereck and Little 1972).

Salix pulchra is a shrub generally 3 to 6 feet tall, but may also become prostrate height in alpine and exposed areas. Leaves are elliptic to oblanceolate. Twigs are reddish-brown and shiny. It is found in bogs and other wet sites (Viereck and Little 1972).

Salix arbusculoides
Littletree willow
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Cuaq* (Prince William Sound), *nim'uyaq* (Port Graham)
Symptoms: Arthritis, internal pain
Plant applications: Chew, switch

English Bay and Port Graham area uses *(See P.S., page 174.)*
Prince William Sound and lower Kenai Peninsula area uses
Internal pain: "The cambium layer was chewed to alleviate any sort of pain, but the epidermal layer was considered to be too strong to put to this use". This plant was harvested anytime of the year (Wennekens 1985).

Athabascan

Names: *K'aii, jaak 'aii* (Fort Yukon), *surah; q'eylish* (Outer Inlet Dena'ina), *q'eylu* (Upper Inlet Dena'ina), *ch'etl'* (Inland and Iliamna Dena'ina); *kk'uyh* (Koyukon); *k'i'* (Salcha); ___[1]
Symptoms: Childbirth, cuts/scrapes, headaches, insect bites, skin trouble, stings
Plant applications: Bath, chew, poultice, switch

Dena'ina uses
Skin trouble: Dena'ina people relieved mouth sores by chewing the fresh leaves of willow (Kari 1995).
Fort Yukon area uses
Headaches: Willow was used to cut the skin during bloodletting. "A small willow branch was cut longitudinally through the center for ca. 3-5 cm. A small piece of skin at the temple was inserted into the slit to pinch it and numb the flesh. The pinched skin would then be cut to release blood" (Holloway and Alexander 1990).
Insect bites: To relieve the pain of insect bites, the people of Fort Yukon chewed willow leaves and placed them on the afflicted area (Holloway and Alexander 1990).
Ingalik (Deg Hit'an) uses
Childbirth (post-partum): For excessive bleeding during post-partum menstruation, a woman was instructed to soak in a bath of willow, cottonwood (*Populus balsamifera* ssp. *balsamifera*), and alder (*Alnus* spp.) bark (Osgood 1958).
Ninilchik area uses
Skin trouble: Ninilchik villagers used willow stems as steambath switches and preferred them over alder because the willow is softer on the skin (Kari 1994).

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Upper Tanana uses

Skin trouble: Fresh willow leaves were chewed for mouth sores (Kari 1985).

General uses

Cuts/scrapes: *Salix sitchensis* bark has been pounded and applied to wounds (Viereck and Little in Smith 1973). It is not clear what affect this had on the afflicted area.

Skin trouble, stings: To relieve bee stings willow leaves were chewed and the macerated leaves were placed as a poultice over the sting to reduce swelling. Taking a bath in which willow branches were boiled was an effective treatment for skin infections (Hall 1979).

Note

Brenda Hall states that young tender leaves have been eaten as a vitamin supplement (Hall 1979). However, she does not describe this as a traditional use.

Inupiat

Names: *Uqpik, uqpiik, uqpiich, uqpisugruk*

Symptoms: Burns, childbirth, infections/inflammations, sore muscles, stings

Plant applications: Ash, chew, poultice

Noatak area uses

Burns: Severe burns were sprinkled with powdered willow ash (from Della Keats) (Lucier et al. 1971).

Nunamuit uses

Sore muscles: Backaches were relieved by chewing on green willow bark (Lantis 1958,1959).

Yukon area uses

Stings: Following a bee sting, chewing willow leaves and placing the macerated leaves on the sting provides immediate pain relief according to Poldine Carlo (Carlo 1978).

General uses

Childbirth, infections/inflammation: Della Keats recalls a story of the day she was born: "...She waits for placenta. She put me on her stomach; wiped me with moss. Then wait for second placenta. She cut cord with ulu knife and tie with moose sinew. She used ash from dead willow tree as powder to heal. It never get infected" (Barry & Roderick 1982).

Stings: Willow leaves were chewed and applied as a poultice for insect stings (Mauneluk Cultural Heritage Program in Fortuine 1988; Preston 1961).

Yupik

Names: *Nuwi'longok* (meaning "has no bones"); *kono'holik* (meaning "sour tree"); *okviuk* (St. Lawrence Island)

Symptoms: Bleeding/hemorrhages, cuts/scrapes, eye problems, skin trouble, sore throat

Plant applications: Chew, gargle, infusion/decoction, poultice

Lower Kuskokwim and Nunivak-Nelson Island area uses

Bleeding/hemorrhages: For lung hemorrhages, a strong "liquor" was cooked from willow leaves and bark that was drunk in the morning before eating (Lantis 1959).

Skin trouble: For mouth sores many people shared with Lantis that willow was used, however, the method of administering the willow varied. The first treatment was chewing the inner bark, the second was to prepare a decoction of the inner bark and put the tea in the mouth, and the third was to put the inner bark directly on the sore (Lantis 1959). One of the willows identified was *Salix pulchra* (Lantis 1959).

Napaskiak area uses

Eye problems, skin trouble: Sores were treated with an overnight application of a poultice prepared from the inner bark of littletree willow, *Salix arbusculoides*. Results were said to be noticed after just one application. For mouth sores willow leaves were chewed, and for watery eyes macerated leaves were placed on the corners of the eyes (Oswalt 1957).

Nelson Island area uses

Eye problems, skin trouble: Chewing the bark and leaves of *Salix planifolia* ssp. *pulchra* (possibly other willow as well) was a treatment for mouth sores and was said to have "numbing effect on the mouth and throat". Willow cotton, produced from the seed capsules, "is sometimes used to dry 'moist eyes'" (Ager and Ager 1980).

Nunivak Island area uses

Sore throat: Gargling a decoction of willow bark (both inner and outer bark) was said to bring relief from a sore throat (Lantis 1958, 1959). Willow contains salicylic acid , as does aspirin, and gargling with tea made from the leaves may have provided some analgesic relief (Lantis 1958). Another interesting note concerning the use of willow addressed by Margaret Lantis in her 1958 paper, "Traditional home doctoring and sanitation, Lower Kuskokwim Valley, Nelson and Nunivak Island", is the added medicinal benefit when willow is eaten for food: "...it may be that even the very small doses of the drug that were obtained by frequent eating of the leaves in spring provided a little protection against arthritis and/or respiratory disease.." (Lantis 1958). She mentioned the lack of verification of this statement.

Cuts/scrapes: Willow cotton was also said to be placed on a cuts (Lantis 1959), presumably to soak up the pus.

Sambuscus racemosa ssp. *pubens* var. *arborescens*
Pacific red elder

Ingesting parts of this plant may result in diarrhea and vomiting due to posionous cyanogenic glycoside in the roots, stems, bark, and leaves and, to a lesser degree, in flowers and unripe fruit. Tea made from leaves or branches can cause posioning.[1] *Ingesting too much may result in cyanide poisoning.*[2]

Caprifoliaceae (Honeysuckle Family)
Common names: Pacific red elder, European red elder, false elder, red-berried elder

Physical description: This shrub grows in woods and subalpine meadows. Flowers are yellow to white and the fruit is bright red. The twigs are pithy and soft (Hultén 1968).

Alutiiq

Names: *Angutgwakutaq, qaruckaq, sanuuliiq, cirt'aungkaaq*
Symptoms: Colds/flu, rheumatism, sore muscles
Plant applications: Infusion/decoction, switch

Chugach area uses
Rheumatism: Elder twigs were used as steambath switches for rheumatism (Birket-Smith 1953).
English Bay and Port Graham area uses *(See P.S., page 174.)*
Kodiak Island area uses
Colds/flu: An infusion prepared from the berries and flowers was an effective treatment for colds. The flowers were dried before preparing the tea, which was drunk twice a day until the cold was gone. This was also said to be helpful for chills as it helped induced sweating (Graham 1985; Preston 1961).

Athabascan

Names: *Ch'iht'un* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina); *bik'deltetl'a* (Outer Inlet and Upper Inlet Dena'ina)
Symptoms: Colds/flu, infections/inflammation, fever, tuberculosis
Plant application: Infusion/decoction

Sambuscus racemosa ssp. *pubens* var. *arborescens*
Pacific red elder
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Dena'ina uses
Colds/flu, fever, tuberculosis: Colds, flus, fevers, and tuberculosis were treated by boiling the inner root (prepared by first peeling away its outer bark) and drinking the decoction by the Upper Inlet Dena'ina. It is noted that it was a good idea "to squeeze the root well to remove the juice from it" (before using medicinally?) (Kari 1995).
Infections/inflammation: A decoction prepared from the stem bark was used as a wash for infections (Kari 1995).

[1] (Turner and Szczawinski 1991)
[2] Sambucine, a purgative alkaloid, and hydrocyanic acid are both found in elder seeds, stems, roots, and unripe fruits. Ingesting these parts of the plant may result in diarrhea and vomiting. Caution should be applied when using this plant, as ingesting too much of the plant may result in cyanide poisoning. Berries should first be cooked and seeded before consuming (Schofield 1989).

Sheperdia canadensis Soapberry

Soapberry contains saponins, bitter substances which can cause gastrointestinal irritation and cellular damage when ingested in excess.[1]

Elaegnaceae (Oleaster Family)
Common names: Soapberry, buffaloberry, russet, soopollalie

Physical description: This deciduous shrub grows to 3 feet tall and has distinctive, scurfy, brownish scales (like sandpaper) on young twigs, undersides of leaves, and sepals. This causes the new buds in Spring to look copper colored. The leaves, which start appearing with the early blooms, are ovate, green above and whitish beneath, with the brown scales. Flowers are salverform, yellowish, very small, have 4 petals, and are sessile. They produce small, edible, oval, red, bitter, translucent berries in August. Male and female flowers are borne on separate bushes (Pratt 1989).

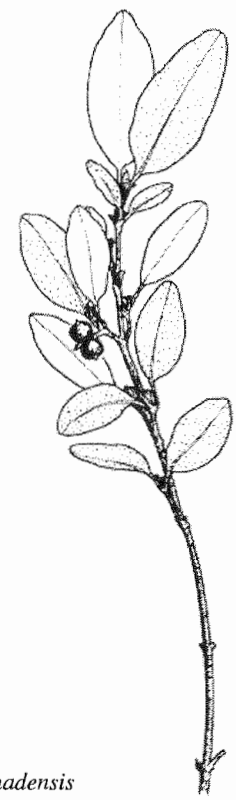
Athabascan

Names: *Dlin'a lu* (Upper Inlet Dena'ina), *ch'anxoh t'aann'* (Nebesna), ___[2] (Kari 1985)
Symptoms: Colds/flu, cuts/scrapes, general ill health, infections/inflammation, tuberculosis
Plant applications: Chew, infusion/decoction

Dena'ina uses
Cuts/scrapes, infections/inflammation, tuberculosis: A tea was prepared from the stems (with or without the leaves), and cooled and used as a wash for cuts and inflammation or drunk as a treatment for tuberculosis (Kari 1995).

Tetlin area uses
General ill health: Soapberries were boiled and the resulting infusion drunk for general sickness (Kari 1985).

Fort Yukon area uses
Colds/flu: Holloway and Alexander (1990) were told by one informant that eating raw soapberries, although not a choice edible, was an effective aid for fighting a cold.



Sheperdia canadensis
Soapberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Tlingit

Name: *Xu'kwl'ee*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

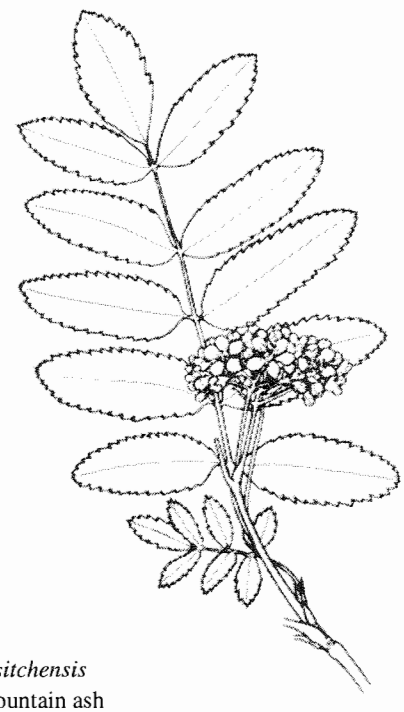
[1] (Hultén 1968; Schofield 1989)
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Sorbus sitchensis Sitka mountain ash

Fruits of Sorbus *spp. are high in tannins and should not be consumed in large or frequent quantities; diarrhea may result.*[1]
Seeds contain a cyanide-producing glycoside.[2]

Rosaceae (Rose Family)
Common names: Sitka mountain ash, western mountain ash

Physical description: This shrubby tree, up to 9 feet tall, has reddish bark. Young twigs have rusty colored hairs. The leaves are arranged alternately on the stems and are pinnately divided into 7 to 11 notched leaflets. The small flowers are 5-petaled and in rounded, rather flat clusters at the ends of branches. Sitka mountain ash has large, round, reddish-orange berries with a bluish bloom (Pratt 1989).



Sorbus sitchensis
Sitka mountain ash
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Esqnaq*
Symptoms: Arthritis, childbirth, colds/flu, coughs/chest congestion, fever, hair problems, sore throat, pneumonia, stomach trouble, tuberculosis
Plant applications: Chew, infusion/decoction, switch
English Bay and Port Graham area uses *(See P.S., page 175.)*

Athabascan

Names: *Vinik* (Tanaina), *shishgguna* (Inland and Outer Inlet Dena'ina), *binik lahi* (Inland, Iliamna, and Upper Inlet Dena'ina)
Symptoms: Colds/flu, constipation, coughs/chest congestion, sore throat, tuberculosis
Plant applications: Chew, infusion/decoction, switch

Dena'ina uses
Colds/flu, sore throat: The inner bark and fresh berries of mountain ash are used by the Upper Inlet Dena'ina for sore throats and tonsillitis. Inland Dena'ina boil leaves of mountain ash and treat the flu with the resulting decoction (Kari 1995). The berries were sometimes soaked before being eaten. Branches of mountain ash were used as steambath switches (Kari in Fortuine 1988).

Dena'ina, Iliamna area uses
Constipation, coughs/chest congestion, tuberculosis: *Vinik* berries, or Sitka mountain ash berries, were eaten for tuberculosis or boiled in water and the resulting juice drunk for coughs (Townsend 1965). For constipation, Iliamna Dena'ina would chew the inner bark of mountain ash prior to boiling it, then drink the resulting tea (Townsend 1965).

Dena'ina, Kenai area uses
Tuberculosis: According to Peter Kalifornsky medicinal parts of mountain ash were the berries (*Sorbus sitchensis* or *Sorbus scopulina*), the inner bark, and the inner wood. Berries were eaten for tuberculosis and "mouth sores". A steambath switch was made out of mountain ash branches (Kalifornsky 1977, 1991). This plant is only referred to as "mountain ash". Both green mountain ash (*Sorbus scopulina*) and Sitka mountain ash (*Sorbus sitchensis*) grow on the Kenai Peninsula.

Tlingit

Names: No information found
Symptom: Tuberculosis
Plant application: Infusion/decoction

Yakutat area uses
Tuberculosis: Roots of Sitka mountain ash were used to make an infusion as a treatment for tuberculosis (de Laguna 1972).
General uses:
Tuberculosis(?): Blaschke reports that a tea of a plant was drunk for pleurisy by the Tlingit (Blaschke in Krause 1956). The plant referred was to as *Pyrus sambucifolius* and "crab apple". *Pyrus sambucifolius* is now referred to as *Sorbus sambucifolia*. However, *S. sambucifolia* is restricted to the tip of the Aleutian chain. It is quite possible that Blaschke was referring to *Sorbus sitchensis* or *Malus fusca* (Oregon crab apple), both which occur throughout Tlingit country.

[1] (Schofield 1989)
[2] (Turner and Szczawinski 1991)

Thuja plicata — Western red cedar

Some people have allergenic reactions to the wood.[1]

Cupressaceae (Cypress Family)
Common name: Western red cedar

Physical description: A large tree, up to 190 feet tall, its branches tend to form a "J-shape". The grey to reddish-brown bark is fibrous and tears off in strips. Leaves are scale-like (Pojar and McKinnon 1994).

Thuja plicata
Western red cedar
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Qar'usiq*
Symptoms: Bleeding/hemorrhages, burns
Plant application: Ash

English Bay and Port Graham area uses
Burns, cuts/scrapes: Cedar charcoal and ashes were placed on cuts to stop bleeding and help relieve burns.

Tlingit

Names: No information found
Symptoms: Broken bones, venereal disease
Plant application: Infusion/decoction

General uses
Broken bones: Cedar was used to set broken bones by binding the afflicted area with splints made from the bark (Emmons 1991). The common name "cedar" was the only identification of this plant, however, Alaska cypress (*Chamaecyparis nootkatensis*) is called "cedar" and may have been the plant used. A person skilled in this practice, a *koolth nook sa tee* or *koolth nuk sah-tee* ("feeling-about expert") , rather than a shaman set the broken bones in Tlingit culture (Emmons 1991).

Venereal disease: A mixture of *Thuja plicata* (listed as *Thuja excelsa*), *Ledum palustre* ssp. *groenlandicum*, and *Pinus inops* (taxonomy unclear), was taken internally for venereal disease, including syphilis (Blaschke in Krause 1956; McGregor 1981).

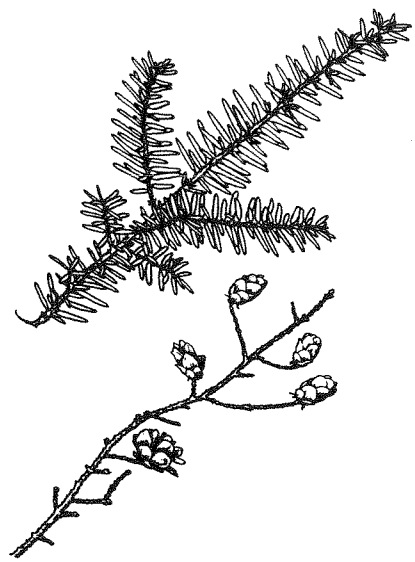
[1] (Turner and Szczawinski 1991)

Tsuga spp. Hemlock

Pinaceae (Pine Family)
Tsuga heterophylla
Tsuga mertensiana
Common names: Hemlock (*Tsuga* spp.); alpine hemlock, black hemlock, mountain hemlock (*Tsuga mertensiana*); Alaska pine, hemlock spruce, Pacific hemlock, west coast hemlock, western hemlock (*Tsuga heterophylla*)

Physical description: *Tsuga heterophylla* is a tree that grows to roughly 190 feet in height with a narrow crown. It has downsweeping branches and delicate feathery foliage. The bark is rough, reddish to brown, scaly, and thick. The needles are short, flat, and blunted, and of unequal length. Two fine, whitish lines of stomata appear on the lower surface of the leaves. It grows in fairly dry to wet sites and is very common from low to middle elevations (Pojar and McKinnon 1994).

Tsuga mertensiana grows to 130 feet in height in subalpine areas. However, tree growth is often stunted in higher elevetions and muskegs. Bark is dark red to brown, deeply furrowed and ridges. The needles are similar to *Tsuga heterophylla* except that they are of equal length and have stomata on both the upper and lower surfaces (Polar and McKinnon 1994).



Tsuga heterophylla
Western Hemlock
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Quntarraaliq* (for *Tsuga heterophylla*); *allcig* (for *Tsuga mertensiana*)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Name: No information found
Symptoms: Burns, diarrhea, skin trouble, toothaches, tuberculosis, venereal disease
Plant applications: Chew, infusion/decoction, poultice, salve

Yakutat area uses

Tuberculosis: Hemlock bark and pitch, prepared as a decoction and drunk, was used as a treatment for tuberculosis by the people of Yakutat (de Laguna 1972).

General uses

Burns, skin trouble: George Davis (whose account was part of series of oral interviews on subsistence life among the Tlingit) shared that boiled hemlock needles were an effective treatment for sores in the mouth. He stated that for burns "...you chew on the needles, then use it for medicine" (Newton and Moss, no date).

Diarrhea: the fresh "juice" of *Tsuga heterophylla* (recorded as *Pinus canadensis*) was mixed with mountain goat tallow and presumably ingested (Blaschke in Krause 1956).

Toothaches, venereal disease: Warmed seeds of mountain hemlock were applied and held on a sore tooth (see also Sitka spruce (*Picea sitchensis*). Venereal disease was treated with a mixture of Sitka spruce pitch, Siberian spring beauty (*Claytonia sibirica*) leaves, and Alaska cypress (*Chamaecyparis nootkatensis*) bark. This salve was applied externally (McGregor 1981).

Tsimshian

Names: No information found
Symptom: Skin trouble
Plant application: Salve

General uses

Skin trouble: Mixed with ooligan oil, warmed hemlock pitch was applied to the skin for eczema. This treatment was repeated for one week (McGregor 1981).

Vaccinium parvifolium — Red huckleberry

Excess of huckleberry tea has been noted to cause "minor symptoms of poisoning", however "normal doses are generally quite harmless".[1]

Ericaceae (Heath Family)
Common name: Red huckleberry

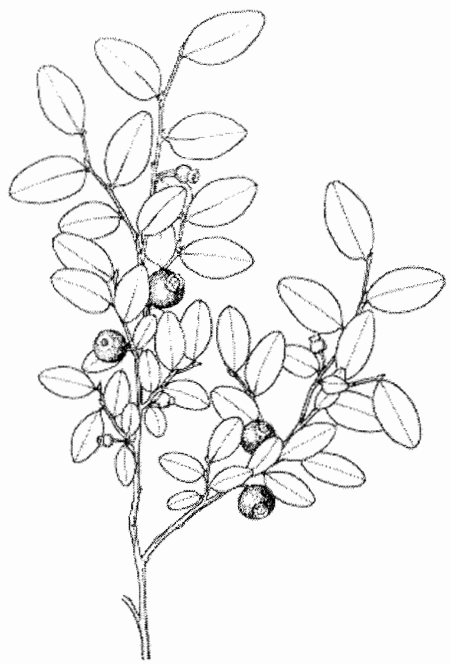
Physical description: A shrub which grows to about 3 ft. in height with distinctly angled branches, its leaves are round and mostly entire, although they can be somewhat serrate in young leaves. Flowers are single and greenish to yellow in color. The fruit is bright red. It is found growing in forests (Hulten 1968).

Tlingit

Names: *Kla-kat-tunk, tleikutunk*
Symptom: Tuberculosis
Plant application: Infusion/decoction

General uses

Tuberculosis: "A tea was made by boiling the leaves of a berry bush, *thlu kut ta*. [Is this possibly the red huckleberry, elsewhere written as *kla-kat-tunk*, or *Vaccinium parvifolium* Sm.?]" (Emmons 1991). Plant identification lacks verification and needs further attention.



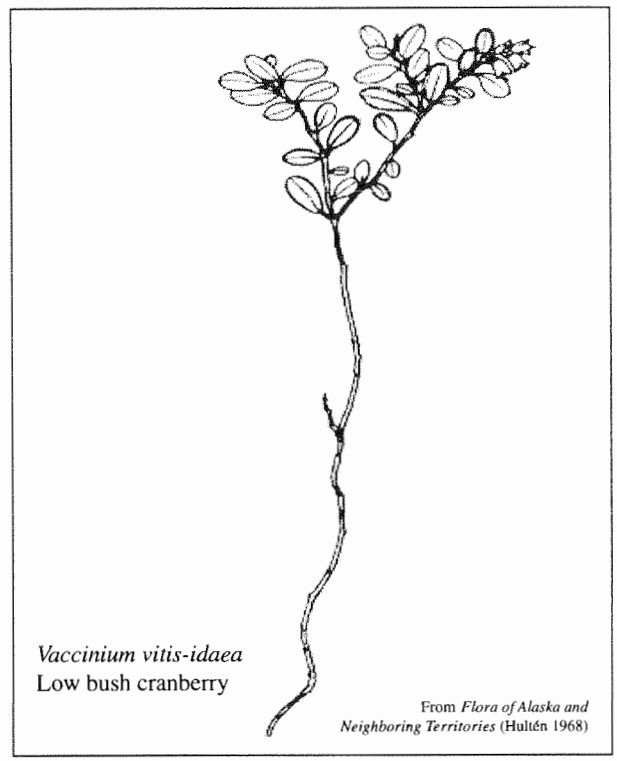
Vaccinium parvifolium
Red huckleberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] (Schofield 1989)

Vaccinium vitis-idaea ssp. *minus* Low bush cranberry

Ericaceae (Heath Family)
Common names: Low bush cranberry, lingonberry, mountain cranberry, cowberry, rock cranberry, partridgeberry, foxberry

Physical description: This low evergreen shrub rises from creeping horizontal roots with 3- to 8-inch upright branches with many shiny, oval, hard, evergreen leaves with rolled-over edges. The pink and white (color is variable) small bell-shaped flowers are clustered at the end of the branches (Pratt 1989).



Vaccinium vitis-idaea
Low bush cranberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Brunsnitsa* (possibly Kodiak, Russian origin); *keneqtag*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Athabascan

Names: *Hey gega* (Upper Inlet Dena'ina), *hey gek'a* (Outer Inlet Dena'ina), *k'inghildi* (Inland and Iliamna Dena'ina), *ntl'at* (Upper Tanana), *nenhtl'i* (Kuskokwim Ingalik, Deg Hit'an); ___[1] (Nelson 1983)
Symptoms: Colds/flu, coughs/chest congestion, general ill health, headache, infections/inflammation, kidney trouble, measles, sore throat, stomach troubles, tuberculosis
Plant applications: Chew, gargle, infusion/decoction, poultice

Dena'ina uses

Headaches, infections/inflammation: Similar to the treatment for measles recorded by Hall, Inland Dena'ina warmed raw low bush cranberries and used the mash as a "hot pack" for headaches, swelling, and tonsillitis (Kari 1995).

Sore throat: Berries were chewed and the juice was gargled or a "hot pack" was placed on the throat (see above) (Kari 1995).

Tuberculosis: A story shared with Priscilla Russell Kari depicts treating tuberculosis with high bush cranberries. "Place a bear-gut raincoat on the floor of the steambath and put cooked or raw, crushed cranberries on the coat. Have the ailing person lay on the berries, and place more berries on top of him. Continue this treatment for three months" (Kari 1995).

Ninilchik area uses

Kidney trouble: An Aleut resident living in Ninilchik shared that low bush cranberries chewed raw or cooked were good to prevent and cure kidney trouble. Low bush cranberry juice drunk two to three times a day for about one week helped relieve kidney related backaches (Kari 1994).

Salcha uses

General ill health: Living along the Tanana River, Salcha Athabascans would collect non-fresh low bush cranberries (*Vaccinium vitis-idaea*) and bog cranberries (*Oxycoccus microcarpus*) during the spring thaw. These berries were boiled in water and used as a good internal medicine (Andrews 1975). Although not stated by Andrews, it is inferred that the infusion was drunk as a spring tonic.

Upper Tanana and Ahtna uses

Colds/flus, coughs/chest congestion: Both raw cranberries and their juice were ingested for colds and coughs (Kari 1985).

General uses

Measles: Boiled and mashed cranberries were rubbed on a rash. The ill person was put to bed, still covered with the cranberry mash, and covered with a warm blanket (Hall 1979). It is unclear if these are traditional healing practices.

Stomach troubles: Upset stomachs, including morning sickness, were relieved by chewing low bush cranberries.

Inupiat

Inupiat Names: ___[1] (Anderson 1971); *kikmiññaq*
Symptoms: Gall bladder problems, headache, sore throat, urinary problems, weight loss/loss of appetite
Plant applications: Chew, poultice

Walakpa Bay area uses

Headache: Loren Potter mentions that elders of the Walakpa Bay area used *Vaccinium vitis-idaea* as a treatment for headaches (Potter 1972). The berries were presumably eaten although method of administering the cranberries was not provided.

[1] An Inupiat name has been recorded, but special characters necessary for spelling are not available in this publication.

General uses

Gall bladder problems: A mix of boiled cranberries and seal oil was given to the patient to eat for gall bladder trouble (Anderson 1977)[1], although symptoms of or methods for detecting this illness were not recorded by Anderson.

Sore throat: Mashed berries of *Vaccinium vitis-idaea* were applied to the neck for sore throats (Mauneluk Cultural Heritage Program in Fortuine 1988).

Urinary problems: Drinking cranberry juice or eating raw cranberries was used as a treatment for urinary tract problems by the Inupiat (DeLapp and Ward 1981).[2] The treatment of cranberry juice for urinary tract problems may have been introduced from non-Native settlers in Alaska.

Weight loss/loss of appetite: To stimulate a poor appetite (producing both weight loss and a weak body), a mix of boiled cranberries and seal oil was given to the patient to eat. Berries were also mashed and mixed with seal or fish oil and boiled to stimulate a poor appetite (Mauneluk Cultural Heritage Program in Fortuine 1988).

Tlingit

Name: *Du'xw*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Names: *Tumagliq*, *kawik'ulik* (meaning "red ones"); *keetmik* (St. Lawrence Island)
Symptoms: Diarrhea, eye troubles
Plant application: Chew

Yukon-Kuskokwim area uses

Diarrhea: "Cranberry" was used for diarrhea (Lantis 1959). Cranberry probably refers to *Vaccinium vitis-idaea*, however "cranberry" is also a common name for *Viburnum edule*, and *Oxycoccus microcarpus*. All three of these plants grow in Yupik country.

Eye troubles: The berry juice was applied to the eyes for snow blindness (Lantis 1959).

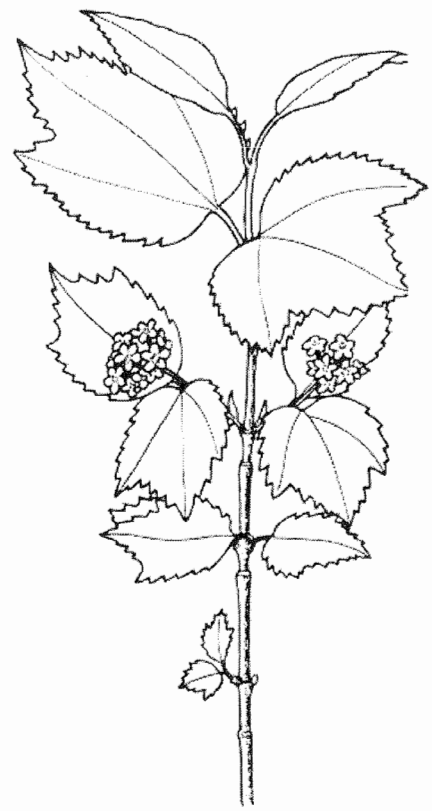
[2] Since the plant was only recorded as "cranberry" by DeLapp and Ward (1981) and Anderson (1977), it is unclear if the reference is to *Vaccinium vitis-idaea*, *Oxycoccus microcarpus*, or *Viburnum edule*, all of which have the common name of "cranberry". *Vaccinium vitis-idaea*, or low bush cranberry, is found throughout the North Slope of Alaska, so it may be likely that this plant was used by the Inupiat.

Viburnum edule — Highbush cranberry

Viburnum *spp. contains the toxic substances viopudiol and coumarin glycosides. However, this plant is generally considered safe for consumption.*[1]

Caprifoliaceae (Honeysuckle Family)
Common names: Highbush cranberry, crampbark

Physical description: Highbush cranberry is usually an upright shrub up to 8 feet tall with smooth branches. Leaves are opposite on the stems, varied in shape, and have very coarse veins. Upper leaves are elliptical while the lower leaves are 3-lobed. All leaves are toothed and turn red to maroon in the fall. The small 5-petaled, white to pinkish flowers are tubular, flare out at the end, and are in clusters above the leaves. The soft, translucent, red to orange berries ripen in August (Pratt 1989).



Viburnum edule
Highbush cranberry
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Qalakuaq* (Prince William Sound and Port Graham); *amaryaq* (Kodiak Island)
Symptoms: Colds/flu, constipation, coughs/chest congestion, cuts/scrapes, infections/inflammation, sore throat, urinary problems
Plant applications: Chew, infusion/decoction, poultice

English Bay and Port Graham area uses *(See also P.S., page 175.)*

Cuts/scrapes, infections/inflammation: Ronald Stanek noted the use of highbush cranberry stems being boiled into an infusion which was used as a soak for sores on the hands and feet. The "inner white pulpy area of the branches was used as a poultice for infected cuts" (Stanek 1985).

Prince William Sound and lower Kenai Peninsula area uses

Colds/flu: To prevent a cold, a Native resident of Cordova recommended drinking a half cup daily of an outer bark infusion (Wennekens 1983, 1985).

Constipation: An infusion of the outer bark of highbush cranberry was drunk for constipation (Wennekens 1985).

Coughs/chest congestion: The fruits were boiled, mixed with sugar, and taken as a cough syrup (Stanek 1985; Wennekens 1985).

Cuts/scrapes: The outer bark of highbush cranberry stems was mixed with warm water and applied to cuts and boils. The poultice was left on for two or three days and the entire process repeated a couple of more times until the wound was healed (Kari 1995; Wennekens 1985).

Cuts/scrapes, sore throat: An infusion of the outer bark of highbush cranberry was a great wash for infected cuts or sore throat gargle (Wennekens 1985). A leaf infusion from highbush cranberry was also used as a sore throat gargle by the Chugach area Eskimo (Birket-Smith 1953). Highbush cranberries when eaten raw have helped heal a sore throat (Stanek 1985; Wennekens 1985).

Athabascan

Names: ___[2] (Lime Village, Dena'ina); *tsaal ttheel* (Nebesna), ___[2] (Salcha); *donaaldloya* (Koyukon); *trahkyaa, trahchyaa, traa kia* (Fort Yukon)
Symptoms: Colds/flu, coughs/chest congestion, cuts/scrapes, sore throat, stomach troubles
Plant applications: Infusion/decoction, switch

Ahtna area uses

Colds/flu, sore throat: Ahtna Athabascans ate highbush cranberries for colds and sore throats (Kari 1985).

Dena'ina uses

Colds/flu, sore throat, stomach troubles: The stem bark was boiled into a tea and drunk as a cure for stomach troubles.

[1] (Fortuine 1989)

[2] Athabascan and Inupiat names have been recorded, but special characters necessary for spelling are not available in this publication.

The Upper Inlet Dena'ina used this tea as a gargle for sore throats, colds, and laryngitis (Kari 1995). Kari also states that the branches of the highbush cranberry made a good steambath switch.

English Bay area uses

Cuts/scrapes: The treatment of washing infected cuts with an infusion of the inner bark of highbush cranberry was shared with Janice Schofield by an English Bay resident (Schofield 1992).

Ninilchik area uses

Colds/flu, coughs/chest congestion, sore throat: An Aleut resident living in Ninilchik has drunk and gargled with high bush cranberry juice for colds and sore throats. It was also mixed with yarrow flowers for cough medicine (see *Achillea borealis* for more detail) (Kari 1994).

Inupiat

Names: ___[2]
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

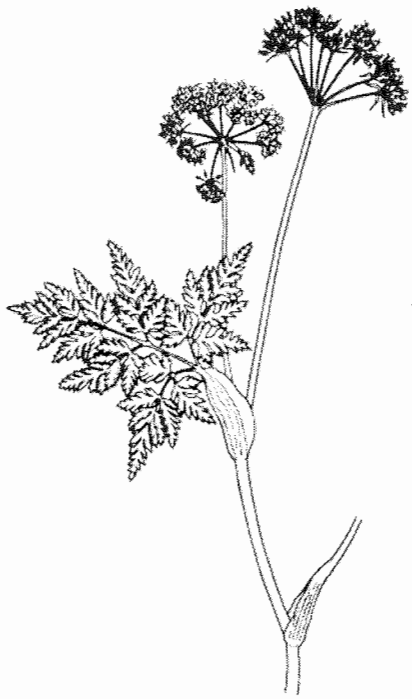
Name: *Al kan-guairth wozee, kuxwéix*
Symptom: Skin trouble
Plant application: Salve

General uses

Skin trouble: A lotion made by boiling the bark of highbush cranberry, or *al kan-guairth wozee* in Tlingit, was used to treat skin diseases by rubbing the lotion on the affected area. (Emmons 1991). Emmons, however, does not state what else was mixed with the highbush cranberry to make this lotion.

[2] Athabascan and Inupiat names have been recorded, but special characters necessary for spelling are not available in this publication.

Herbs



An herb is a nonwoody plant that may be an annual, biennial, or perennial. Its aerial portion naturally dies to the ground at the end of the growing season (Little and Jones 1980).

Achillea borealis — Northern yarrow

Shamanic uses have been associated with this plant.
Achillea millefolium *contains a volatile oil.*[1]

Compositae (Composite Family)
Common names: Northern yarrow, bindwort, devil's plaything, field hop, milfoil, nosebleed, poor man's pepper, sneezeweed, soldier's woundwort, staunchwort, thousandleaf, yarrow, yarroway

Physical description: A very common weedy and sturdy perennial, this plant grows up to 24 inches tall. It has fine, ferny, 2 to 3 times pinnately dissected leaves that are variable in length and width. The leaves are somewhat reduced in size as they move up to the stem. They have a flat-topped cluster of small white flowers (Pratt 1991).

Achillea borealis
Northern yarrow
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Names: *Amikayax* (Atka Island); *cingatudax* (Nikolski)
Symptoms: Colds/flu, cuts/scrapes, internal pain, nosebleeds, sore throat, stomach troubles
Plant applications: Infusion/decoction, poultice

General uses

Colds/flu, cuts/scrapes, nosebleeds, sore throat, stomach troubles: Stomach and throat pains, as well as colds, were treated with an infusion of yarrow leaves (Bank 1953, 1971). Before Russian settlement in Alaska, yarrow was used to treat consumptives (tuberculosis) (Bank 1953). Today "leaves are plucked, rolled between the palms, and placed over open cuts as a coagulant. Leaves are also crushed and stuffed into the nostrils, for nosebleed". It is unclear if this is a traditional treatment.

Internal pain: Chest and muscular pains also benefited from a treatment of yarrow (Bank 1953, 1971). Bank does not specify plant preparation and application of yarrow for this treatment.

Alutiiq

Names: *Caisit* (Prince William Sound); *qanganaruaq* (Kodiak Island)
Symptoms: Arthritis, asthma, bladder infections, bleeding/hemorrhages, childbirth, colds/flu, coughs/chest congestion, cuts/scrapes, hangovers, infections/inflammation, kidney trouble, measles, menstrual problems, skin trouble, sore throat, stomach troubles
Plant applications: Infusion/decoction, plaster, poultice

[1] The volatile oil contains "cineol, a tannin, achilleine, achilletin, ivain, aconitic acid, stachydrin, choline, and glycocoll betaine" (Merck in Viereck 1982). B-sitosterol and achillin (a lactone) have also been isolated from this species (Viereck 1982).

Chugach area uses

Infections/inflammations: Boils were treated with the pulverized root of *Achillea borealis* (Birket-Smith 1953).

English Bay and Port Graham area uses *(See also P.S., page 175.)*

Asthma, sore throat: These were two primary afflications treated with yarrow (presumably *Achillea borealis*) by the Alutiiq of Port Graham and English Bay. Plants were harvested by the people of English Bay and Port Graham in spring, summer, and fall and dried for winter use.

Childbirth (post-partum): A newborn's umbilical cord was also treated with yarrow when it persisted longer than usual (Stanek 1985). Plant preparation guidelines were not documented by Stanek for this treatment.

Kodiak Island area uses

Asthma, bleeding/hemmorrhages, hangovers: Yarrow tea was taken to stop bleeding of the lungs, asthma, and hangovers (Graham 1985).

Prince William Sound and lower Kenai Peninsula area uses

Arthritis, cuts/scrapes, skin trouble: A hot pack or plaster of the leaves was placed on cuts, sores, boils, and pimples. Leaves were dried and stored in a cloth bag which could then be warmed in hot water and placed on the body for arthritis (Wennekens 1985).

Childbirth: A tea of brewed leaves was given to a new mother to force the uterus to clean itself and enhance the flow of milk (Wennekens 1985).

Colds/flu, coughs/chest congestion, sore throat: Leaves of *Achillea borealis* were brewed into a tea and drunk for colds and chest congestion, or used as a gargle for sore throats by the Alutiiq people (Wennekens 1985).

Infections/inflammation: This infusion (see above) was said to be extremely helpful for fighting infections (Wennekens 1985).

Athabascan

Name: *Bask'ilt'uts'I* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina)

Symptoms: Bleeding/hemorrhages, burns, childbirth, coughs/chest congestion, cuts/scrapes, eyes problems, infections/inflammation, internal pain, kidney trouble, measles, skin trouble, sore muscles, sore throats

Plant applications: Ash, infusion/decoction, plaster, poultice, powder, steam

Dena'ina uses

Burns, cuts/scrapes, infections/inflammation: Dried and powdered leaves were placed on sores, cuts, burns, and blisters and help to reduce infections. The leaves were burnt and the remaining ash used the same way as the powder (Kari 1995).

Childbirth: Mothers and new infants were given this tea to drink for internal cleansing by the Upper Inlet people (Kari 1995).

Coughs/chest congestion, internal pain, sore muscles: The steam released from boiling the plant was good for stuffy sinuses. A hot pack, or plaster, was used to treat sore muscles, aches, and pains (Kari 1995).

Eye problems, skin trouble: An infusion of the above ground portion of yarrow was used as a wash for sore eyes and skin trouble by the Dena'ina (Kari 1995).

Kidney trouble: Yarrow was also an effective treatment for kidney troubles and bed-wetting. How the plant is administered for urinary troubles was not reported (Kari 1995).

Measles: A yarrow infusion also was said by the Chugach Eskimo to help measles (Kari 1995).

Gwich'in uses

Bleeding/hemorrhages: Yarrow "flower clusters were rubbed in the hands and inserted into the nose" as a treatment for nosebleeds (Holloway and Alexander 1990). A tea was traditionally prepared from the flowers and leaves, but according to Holloway and Alexander (1990) it appears that in Fort Yukon that remedy is not currently practiced. It was not stated for what ailments, if any, yarrow tea was used.

Nunilchik area uses

Burns, cuts/scrapes, infections/inflammation: A poultice of dried or fresh yarrow flowers was placed on cuts, sores, and other skin infections. An Aleut resident from Nunilchik shared that dried and powdered flowers used to be placed on burns to help them heal (Kari 1994).

Coughs/chest congestion, sore throats: Nunilchik residents still highly value the healing properties of the yarrow plant. An Aleut Nunilchik resident said that yarrow flowers were dried, powdered, mixed with high bush cranberry juice, and taken for coughs (Kari 1994). To prepare, two parts high bush cranberries (*Viburnum edule*), boiled and strained, were mixed with one (?) part yarrow tea and honey. A Russian-Aleut man from Nunilchik remembered people gargling with yarrow tea for sore throats and other sickness (Kari 1994).

Inupiat

Names: No information found

Symptoms: No information found

Plant application: Infusion/decoction

General uses

According to Anderson, *Achillea borealis* was dried and used in an infusion for medicinal purposes. Specific illness' benefiting from this treatment were not stated (Anderson 1939).

Tlingit

Name: *Ka-kuk-tleaty*

Symptoms: Cuts/scrapes, eye problems, infections/inflammation, menstrual problems, rheumatism

Plant applications: Compress, poultice, steam

Yakutat area uses

Eye problems, infections/inflammation, menstrual problems, rheumatism: As a treatment for infections, de Laguna stated that a compress of boiled yarrow leaves placed on the affected area "will draw the bad blood to the surface so that it can be lanced" (de Laguna 1972). This compress was also used for other sores, including the eyes. Rheumatism and menstrual cramps are aided by placing leaves on streambath rocks (de Laguna 1972).

General uses

Cuts/scrapes: Although not verified as *Achillea borealis*, *ka-kuk-tleaty* was "heated on a hot rock, mixed with the milk of a woman of the opposite moiety [from the patient], and applied to the wound" (Emmons 1991). Emmons also noted that "the use of medicinal herbs was generally known, but their gathering and preparation was more confined to older women, who were likewise the midwives, and for their services they were paid accordingly" (Emmons 1991).

Yupik

Name: *Punaiyulinu'kait* (meaning "bumblebee food")

Symptoms: No information found

Plant applications: No information found

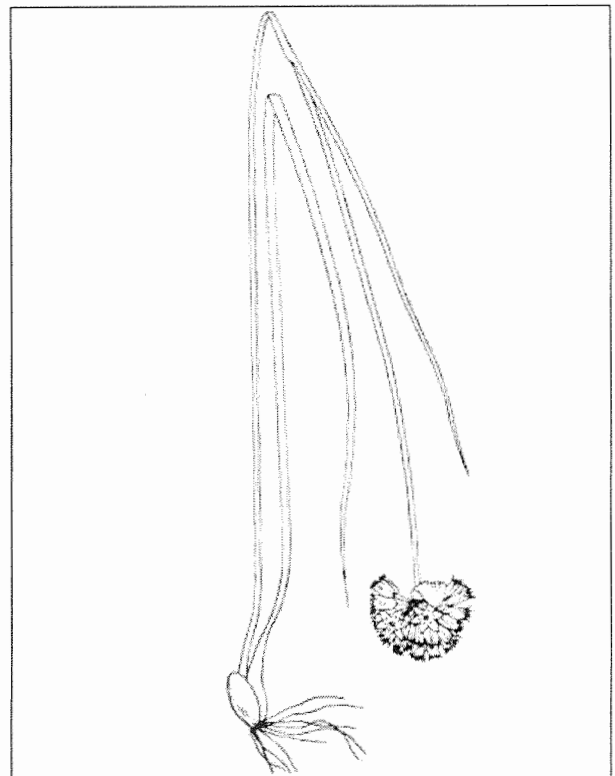
Uses: No information found

Allium schoenoprasum var. *sibiricum* — Wild chive

This herb is safe to ingest. However, many similar looking plants are poisonous; be sure to correctly identify this plant.

Liliaceae (Lily Family)
Common names: Wild chive, garden chive, onion grass, wild onion

Physical description: Wild chive has many rose to lavender-colored flowers on a dense, nearly round, umbel just above the clump of long hollow grass-like leaves (Pratt 1991).



Allium schoenoprasum var. *sibiricum*
Wild chive
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Luk*; *luugat*
Symptoms: No information found
Plant application: No information found
Uses: No information found

Athabascan

Name: *Ch'idzic* (Northway, Nebesna); ___[1] (Kari 1995)
Symptoms: Colds/flu, general ill health
Plant application: Chew

Fort Yukon area uses

Colds/flu: Villagers extracted the juice from wild onions and used it as a cold remedy (Holloway and Alexander 1990). Methods of preparing and administering the plant were not documented.

General uses

General ill health: Wild onions eaten raw or cooked were used to purify blood (Hall 1979). Brenda Hall did not state where this information was collected, so it is unclear if this is a traditional treatment.

Inupiat

Name: *Paatitaaq*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Name: ___[1] (from Sitka area)
Symptoms: No information found
Plant applications: No information found

Sitka area uses

This plant is listed only as a strong medicine of the Tlingit by Andrew Hope III in his book *Raven's Bones* (1982). Referenced only by its common name "wild onion", this citation most likely refers to *Allium schoenoprasum* var. *sibiricum*.

[1] Athabascan and Tlingit names have been recorded, but special characters necessary for spelling are not available in this publication.

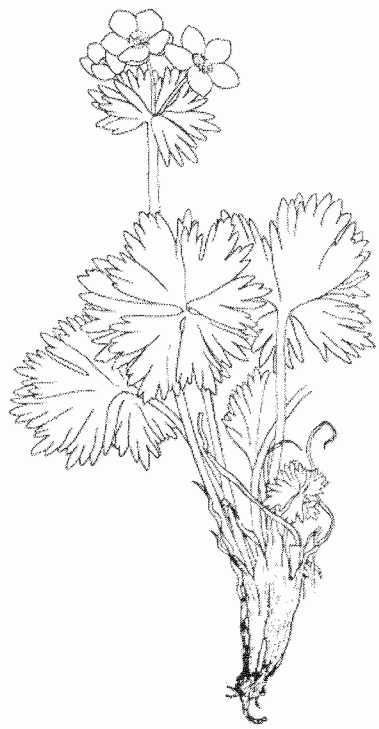
Anemone spp. Anemone

Species in the genus Anemone *contain the poison anemonin*[1]*, and should therefore not be ingested.*

Ranunculaceae (Crowfoot Family)
Anemone narcissiflora ssp. *villosissima*
Anemone parviflora
Common names: Anemone (*Anemone* spp.); narcissus-flowered anemone (*A. narcissiflora* ssp. *villosissima*); pepperplant, windflower (*A. parviflora*)

Physical description: *Anemone narcissiflora* ssp. *villosissima* is a somewhat hairy, clumping perennial plant (8 to 14 inches tall) having deeply dissected, 3- to 5-lobed, hairy leaves on long stems arising from the base of plants. The showy (1-to 2-inch) flowers are on stems above the leaves and are variable. They have 4 to 10 white, somewhat acute sepals usually with a slight bluish cast on the underside. The modified leaf on the stem below the flowers completely surrounds the stem (Pratt 1989).

Anemone parviflora is similar to *Anemone narcissiflora* ssp. *villosissima* except that it has more rounded glabrous leaves, blooms very early and almost always has 5 large (over 1 inch), rounded white sepals that are quite bluish on the underside (Pratt 1989).



Anemone narcissiflora ssp. *villosissima*
Narcissus-flowered anemone
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Name: *Cixudangix* (Unalaska)
Symptom: Bleeding/hemorrhages
Plant application: Infusion/decoction

General uses

Bleeding/hemorrhages: The roots of *Anemone narcissiflora* var. *villosissima* were gathered and "boiled until all of the juice is extracted, and the juice is then given to patients suffering from hemorrahage" (Bank 1953, 1971).

Athabascan

Names: No information found
Symptoms: Cuts/scrapes, tuberculosis
Plant applications: Infusion/decoction, poultice

Chandalar Kutchin uses

Cuts/scrapes: Wounds were treated by boiling macerated *Anemone* spp. leaves and then placing them directly on the afflicted area (Fortuine 1985; McKennan 1965). McKennan added that "this compress is said to be highly astringent and consequently is applied for only a few minutes at a time" (McKennan 1965).

Fort Yukon area uses

Tuberculosis: Ground leaves of *Anemone parviflora* placed in boiling water became a 'peppery-tasting tea' and was traditionally given as a treatment for tuberculosis by the people of Fort Yukon (Holloway and Alexander 1990).

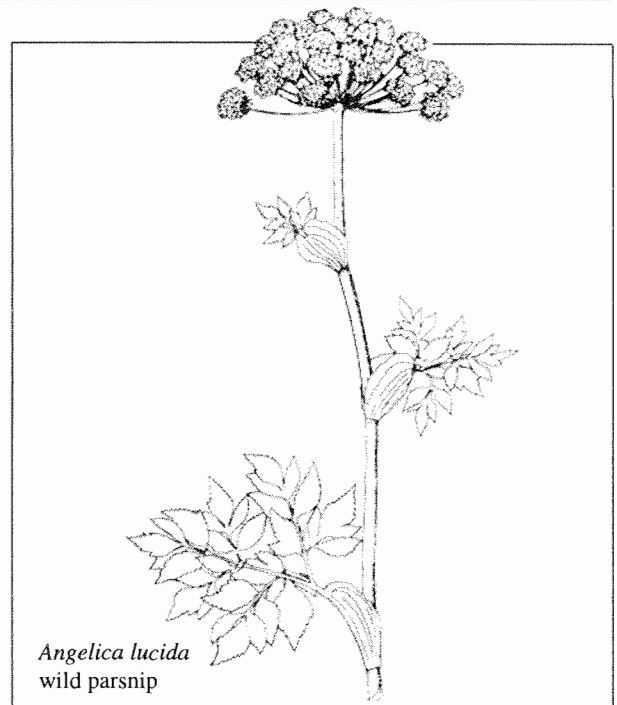
[1] (Pratt 1991)

Angelica spp. Angelica

Positive identification is extremely important with this plant as it has many poisonous and deadly look alikes. Angelica root is toxic.[1]
Shamanic uses of angelica root have been recorded for the Aleut peoples of Atka Island.[2]

Umbilliferae (Parsley Family)
Angelica lucida
Angelica genuflexa
Common names: Angelica, wild celery, (*Angelica* spp.); seacoast angelica, wild parsnip, wild celery (*Angelica lucida*)

Physical description: *Angelica lucida* is a rather stout plant, 18 to 36 inches tall. It is very leafy with serrated leaflets and inflated, almost translucent petioles. Flowers are greenish-white and in an umbel (Pratt 1989).



Angelica lucida
wild parsnip
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Name: *Sakudax*
Symptoms: Colds/flu, cuts/scrapes, internal pain, sore throats
Plant applications: Infusion/decoction, poultice

General uses

Colds/flu, internal pain, sore throats: According to Bank (1953), wild parsnip, *Angelica lucida*, was used in tonics to treat colds and sore throats. In addition leaves were used as a poultice:

> ...older natives would slice the roots into two parts, heat the halves, and place them over the area of the body that hurt. If the pain was deep within the body, merely placing the heated roots over the skin in the general region was supposed to bring relief (Bank 1953).

Cuts/scrapes: Wounds were treated from both internal and external applications of *Angelica* spp. roots (Fortuine 1988; Merck 1980). Method of preparation and administering of the plant was not recorded.

Alutiiq

Names: *Uriisaaq, asaaqgwak*
Symptom: Skin trouble
Plant applications: Poultice, switch

English Bay and Port Graham area uses

Skin trouble: Leafy angelica stalks were used as a steambath switch to treat sores and skin rashes. Fresh, crushed stalks were also rubbed on the afflicted area during or after a steambath. Or, angelica leaves were placed on hot rocks in a steambath and placed on the sore area as a poultice (Russell 1991).

Athabascan

Names: ___[3] (Kari 1995); *k'enaqa ggits'a* (Inland and Iliamna Dena'ina)
Symptoms: Cuts/scrapes, infections/inflammation, internal pain, toothache
Plant applications: Infusion/decoction, poultice

Dena'ina uses

Cuts/scrapes, infections/inflammation, internal pain, toothache: Considered a strong medicine by the Dena'ina, the root of *Angelica* spp. was used to treat aches and pains, cuts, sores, blood poisoning, and infections. To prepare, the root was peeled, cut up, mashed, and then boiled or soaked in hot water. The resulting water was used as a wash or the macerated root was used as a poultice. Some Dena'ina people claimed this treatment "numbs pain and heals afflictions".

A story shared with Priscilla Russell Kari by an Upper Inlet Dena'ina man depicts the value many Dena'ina placed in the healing properties of angelica. He recounted how his finger was saved from amputation following application of angelica root. "When his finger developed blood poisoning, a medical doctor wanted to amputate it. He refused and went home, where he treated the finger with angelica as described above. He also washed the finger with a decoction of angelica

[1] Although dried roots lose some of their toxic properties, they may still adversely affect the central nervous system and heart and blood pressure (Weiner in Schofield 1989).
[2] (Black 1984)
[3] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

and wormwood. By treating his finger in this manner over a period of time, he cured it" (Kari 1995).

Toothache: Outer Inlet and Upper Inlet Dena'ina placed raw angelica root on a toothache until the tooth broke up and fell out (Kari 1995).

Inupiat

Name: *Ikuusuk, ikuusuuk, ikuusuich*
Symptoms: No information found
Plant application: No information found
Uses: No information found

Yupik

Name: *Tepplook* (for *Angelica lucida*, St. Lawrence Island)
Symptom: General ill health
Plant application: Chew

St. Lawrence Island area uses

General ill health: The root of fresh or dried *Angelica lucida* was chewed to treat general feelings of ill-health. The root was also said to act as preventative medicine, if a piece of the root was chewed daily (Young and Hall 1969). Documented Native uses of plants as preventative medicine are rare.

Arabis hirsuta s. lat. Hairy rock cress

Cruciferae (Mustard Family)
Common name: Hairy rock cress
Arabis hirsuta ssp. *eschscholtziana*
Arabis hirsuta ssp. *pycnocarpa*

Physical description: Frequently found on disturbed sites and fields, this annual weed has yellow-green flowers. The stem is hairless and contains both basal and stem leaves. The white flowers are in terminal clusters. The fruits are long, narrow siliques and grow to 3 1/4 inches long. (Pojar and McKinnon 1994).

Tlingit

Names: No information found
Symptom: Cuts/scrapes
Plant application: Poultice

General uses

Cuts/scrapes: Hairy rock cress was macerated with a mortar and mixed with water, before being applied to wounds and cuts to facilitate healing (Emmons 1991).

Arabis hirsuta ssp. *eschscholtziana*
Hairy rock cress
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Artemisia spp. Wormwood

Species in the genus Artemisia *contain the volatile materials thujone, isothujone, cineole, camphor, and artemisia ketones.*[1] *They also contain the toxic substance santonin, a substance which can cause headaches, dizziness, nausea, and diarrhea.*[2]

Compositae (Composite Family)
Common names: Wormwood, stinkweed

Physical description: *Artemisia* is the only genus of the Composite family with woody species in Alaska. Only two species in the genus are considered shrubs: *Artemisia alaskana* and *Artemisia frigida* (Viereck et al. 1972). By far the most commonly used species in thegenus is *Artemisia tilesii.*

Alutiiq

Names: *Caik*
Symptoms: Coughs/chest congestion, infections/inflammation, pneumonia
Plant applications: Infustion/decoction, poultice, switch

English Bay and Port Graham area uses *(See P.S., page 176.)*

Athabascan

Name: *Sudigak*
Symptoms: Arthritis, colds/flu, cuts/scrapes, earaches, eye problems, general ill health, infections/inflammation, internal pain, rheumatism, sore muscles, toothaches
Plant applications: Infusion/decoction, plaster, poultice, switch

Dena'ina uses, Kenai area

Cuts/scrapes, earaches, eye problems, general ill health, infections/inflammation, internal pain, toothache: Peter Kalifornsky listed multiple uses for the leaves and stems of wormwood: toothaches, earaches, blood infections, swollen and painful eyes, foot sores, and other internal pain. To treat these ailments the leaves and stems were wrapped in cloth, the cloth was steeped in hot water, and then the patient soaked in the hot water. For eye problems, the eye was washed with the water. Although some of this infusion was drunk, he cautions that "if you swallow too much, your stomach will be upset" (Kalifornsky 1977; Kalifornsky et al. 1991).

Colds/flu: According to Peter Kalifornsky, a steambath switch was fashioned from wormwood to help treat colds:

> To cure a cold in the lower chest before it gets into the lungs and becomes pneumonia, they first take the sick man into the steambath and switch him all over with a switch made of wormwood [most likely *Artemisia tilesii*]. That switching creates medicine. Whatever medicine is in the wormwood penetrates into his bloodstream (Kalifornsky et al. 1991).
>
> The treatment for colds continued with massages and more steambaths for three days. Additional plants were used during this treatment episode including: rosebushes (*Rosa* spp.), Hudson Bay tea (*Ledum palustre* s. lat.), and spruce (*Picea* spp.).

General use

Arthritis, infections/inflammation: According to Hall, Athabascan people used *sudigak* for sores, arthritis and diaper rash. Dried leaves were moistened and placed on the sore or cuts, or placed over the painful area as a result of arthritis. An infusion of wormwood was made by boiling up a pinch of leaves and drinking 1/2 to 3/4 of a cup a day. Hall did not state what the tonic was used for. She also stated that a bushel of stinkweed (*Artemisia* spp.), once boiled, was a good wash for sores and rashes (Hall 1979).

General ill health, rheumatism, sore muscles: According to Martha Demientieff of Nenana, a poultice of wormwood was used for rheumatic joints and sore muscles. She continued to say, "a tea is also used made from this plant and people drink a little bit every day for good health" (Denakkanaaga 1996).

Inupiat

Names: No information found
Symptoms: Bladder infections, colds/flu, infections/inflammation, internal pain, lung trouble, pneumonia
Plant applications: Infusion/decoction, powder

Kotzebue Sound area uses

Bladder infections, colds/flu, infections/inflammation, internal pain, lung trouble, pneumonia: The leaves (either fresh or dried) of *Artemisia* spp. were boiled into a tea which was drunk for colds, "bad lungs", bladder trouble, and aching bones (Mauneluk Cultural Heritage Program in Fortuine 1988).

General uses

Colds/flu, infections/inflammation: *Artemisia* spp. was used to treat colds by drying the plant and preparing as an infusion. The plant was also powdered and used as a poultice for "injuries and swellings" (Anderson 1939).

Colds/flu, lung trouble, pneumonia: To prevent colds and help offset the effects of colds once they have occurred, the Inupiat boiled *Artemisia* spp. leaves, saved the infusion and periodically took spoonfuls of it (DeLapp and Ward 1981). The effectiveness of stinkweed was further demonstrated by the treatment of pneumonia, "Boil stinkweed for 15-20 minutes, then strain it and have the person drink 1/2 glass (of the boiled water) three times a day" (DeLapp and Ward 1981). Lung hemorrhages were also relieved with *Artemisia* spp. leaves (Lucier et al. 1971).

Note

Wormwood used by Inupiat people was most likely *Artemisia tilesii.*

[1] (Overfield et al. 1980)
[2] (Fortuine 1988, 1989)

Yupik

Names: *Juythuk*; *jikeluk*

Symptoms: Arthritis, colds/flu, cuts/scrapes, dandruff, infections/inflammation, skin trouble, sore muscles, sore throat, stomach troubles

Plant applications: Infusion/decoction, poultice, switch

Kwethluk area uses

Colds/flu, infections/inflammation, sore muscles: Colds and sore throats were treated by harvesting stinkweed leaves after the first fall frost and drinking an infusion. Sore muscles were alleviated with a steambath switch of stinkweed, and a poultice was placed on "infections and aching joints" (Coffing 1991).

General uses

Arthritis, cuts/scrapes, dandruff, skin trouble, stomach troubles: By drinking wormwood tea, digestive tract disorders were alleviated. A woman shares a story of a man who had intestinal cancer: "He began drinking a cup of 'jikeluk' tea every day. When he returned to the medical center (where he was diagnosed) the examining physician found that the cancer was in remission" (Southcentral 1991). A poultice of *Artemisia* spp. leaves was applied to cuts twice daily to prevent or cure infections. Using the infusion as a rinse relieved skin rashes and dandruff. The entire wormwood plant was used in the bathhouse to treat arthritis; it done by "stroking the inflicted area with the leaf end of the plant" (Southcentral 1991). To harvest, *juythuk* plants were picked early in the growing season, when they were most potent, and the leaves were refrigerated in airtight containers. They would last for a long time (Southcentral 1991).

Note

Wormwood used by Yupik people was most likely *Artemisia tilesii.*

Artemisia tilesii — Stinkweed

Species in the genus Artemisia *contain the volatile materials thujone, isothujone, cineole, camphor, and artemisia ketones.*[1] *They also contain the toxic substance santonin, a substance which can cause headaches, dizziness, nausea, and diarrhea.*[2]

Compositae (Composite Family)
Common names: Stinkweed, caribou leaves, sagebrush, wild sage, wormwood

Physical description: *Artemisia tilesii* is a tall plant (2 to 5 feet) with many branched flower spikes with nodding greenish-yellow flowers that look like the center of a daisy. The leafy plant has deeply cut 3-5 lobed leaves that are smooth and green on top and silvery and hairy beneath (Pratt 1989).

Alutiiq

Names: *Apalngaaqutaq*; *caik* (for *Artemsia tilesii*)
Symptoms: No information found
Plant applications: No information found

English Bay and Port Graham area uses: *(see P.S., page 176)*

Athabascan

Names: *Ts'elbeni* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina); ___[3] (Kari 1985); *tl'oh tsann* (Northway and Nebesna); *ts'elveni* (Lime Village, Dena'ina)
Symptoms: Arthritis, burns, childbirth, colds/flu, coughs/chest congestion, cuts/scrapes, earaches, eye problems, infections/inflammation, insect bites, skin trouble, sore muscles, toothaches
Plant application: Chew, infusion/decoction, plaster, poultice, powder, switch

Ahtna uses, Upper Tanana uses

Coughs/chest congestion, eye problems, sore muscles: An infusion prepared from the above ground portion of *Artemisia tilesii* was drunk for sores in the mouth by the people of Tetlin. This infusion was used in Northway as a wash for body aches and eyes. Many Upper Tanana people used wormwood as a steambath switch. Ahtna Athabascans have reported chewing the leaves for coughs (Kari 1985).

Dena'ina uses

Arthritis, cuts/scrapes, infections/inflammation, skin trouble, sore muscles: Priscilla Russell Kari related many uses of the wormwood plant (*Artemisia tilesii* as well as other *Artemisia* species) by the Dena'ina Athabascans. A tea (prepared by boiling or soaking the leaves in hot water) or poultice (prepared by rubbing the leaves on the ailment) was used for rashes, cuts, blood poisoning, sore eyes, infections, arthritis, and swelling. Leaves were heated and wrapped in a cloth and applied as a plaster to treat these ailments.

Arthritis, coughs/chest congestion, cuts/scrapes, infections/inflammation, skin trouble, sore muscles: By using *Artemisia* spp. (possibly *Artemisia tilesii*) as a steambath switch, Dena'ina people relieved arthritis, chest congestion, body aches, sores, swelling, and "blood poisoned areas" (Kari 1995). Plants picked before flowering were said to be preferable.

Burns, cuts/scrapes: Dried and powdered leaves were used for cuts and burns by placing grease on the wound, sprinkling on wormwood powder, and covering the wound with a bandage (Kari 1995).

Childbirth: Pregnant woman in steambaths used wormwood by first soaking the leaves in hot water and then rubbing the leaves on their bodies (including their stomachs). A midwife who used wormwood shared: "Especially in earlier days, a midwife knew how to change the position of a fetus that was not correctly placed. Before she moved the fetus by reaching inside a woman, she sometimes placed wormwood leaves on the woman's stomach as a poultice" (Kari 1995).

The strong medicinal but pleasant smell of *Artemisia tilesii* was noted by most everybody who handled it. Peter

Artemsia tilesii ssp. *elatior*
Stinkweed
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] (Overfield et al. 1980)
[2] (Fortuine 1988, 1989)
[3] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Kalifornsky told Janice Schofield "that you can actually 'taste wormwood in your mouth' after you switch yourself with the herb..." (Schofield 1992).

Colds/flu, cuts/scrapes, infections/inflammation: *Artemisia tilesii* leaves were wrapped on cuts to help with infection or "applied as an abdominal bandage after a hot bath in the sweathouse" to help treat colds by the Tanaina Athabascans (Osgood 1937).

Earaches, eye problems, toothaches: Toothaches, earaches, and sore eyes (resulting from snow blindness) were also treated this way (see above) (Kari 1995).

Skin trouble: According to Kari "a variation of these [see above] methods used especially to treat cuts and snow blindness is to wash the injured part with both wormwood and aged urine. It is reported from the Inland area that a wash made of wormwood and swamp water is effective for treating boils. Frog's urine, which is said to be present in the swamp water, is reported to be a healing agent" (Kari 1995).

Outer Inlet Dena'ina occasionally placed fresh macerated leaves in their footgear to relieve athlete's foot. It was said this helped relieve itching.

Fort Yukon area uses

Arthritis, cuts/scrapes, insect bites, skin trouble, sore muscles: An infusion of the leaves was used for a variety of purposes. It was drunk as a treatment for arthritis, used as a skin wash for insect bites, wounds and rashes, and as a foot soak for sore and aching feet. Sore feet were also relieved by placing fresh leaves in the bottom of shoes (Holloway and Alexander 1990).

Inupiat

Names: *Sargiq, sarigigruaq*

Symptoms: Colds/flu, cuts/scrapes, infections/inflammation, internal pain, lung trouble, skin trouble, stomach troubles

Plant applications: Compress, infusion/decoction, poultice

General Uses

Cuts/scrapes, infections/inflammation, internal pain: A poultice of stinkweed was placed on cuts to help prevent infection and reduce scar tissue build-up. Although the species was not verified, stinkweed probably refers to *Artemisia tilesii* or *Artemisia alaskana.*[4]

Infections/inflammation, internal pain: Della Keats, originally from Noatak, picked *Artemisia tilesii* in September and dried it for later use (Juul 1979). Treatment with stinkweed was given orally (an infusion) or externally (a compress) to clean the blood, remove infections (Barry and Roderick 1982), alleviate cold symptoms and treat athlete's foot (Juul 1979).

DeLapp and Ward (1981) also identified *sargigruaq* (*Artemisia* spp., probably *Artemisia tilesii*) leaves as useful for an infected wound. Boiling the leaves and placing them on the infected area helped draw out the infection and drain the pus. To help with indigestion, an infusion of stinkweed possibly mixed with baking soda or Labrador tea (*Ledum palustre* s. lat.) was drunk. Rashes were treated by soaking the afflicted area in an infusion of stinkweed for 20 minutes three times a day (DeLapp and Ward 1981).

Internal pain: Internal pains, particularly chest pains, were treated with an infusion of stinkweed (Anderson et al. 1977). Anderson did not state the part of the plant used.

Tlingit

Names: No information found

Symptom: Coughs/chest congestion

Plant application: Infusion/decoction

General uses

Coughs/chest congestion: An infusion of *Artemisia tilesii* (identified as *Artemisia vulgaris*) was used both internally and externally in steambaths to treat pleurisy (Blaschke in Krause 1956).

Yupik

Names: *Caiggluk* (Nelson Island); *kanganu'hoak* (meaning "looks like a squirrel")

Symptoms: Arthritis, bleeding/hemorrhages, colds/flu, constipation, coughs/chest congestion, cuts/scrapes, general ill health, infections/inflammation, internal pain, skin trouble, sore muscles, stomach troubles

Plant applications: Infusion/decoction, poultice, salve, steam, switch

Kuskowagamiut uses

Cuts/scrapes, general ill health, infections/inflammation, skin trouble, sore muscles: *Artemisia tilesii* leaves "were dried, pulverized, and mixed with grease to make a salve for skin lesions; the entire plant was used as a switch to flagellate sore limbs and aching muscles in the steam bath" (Mason 1972). It was noted that older men particularly enjoy using *Artemisia tilesii* as a steam bath switch. This highly prized plant was also used to treat cuts, infections, and general pain (Mason 1972).

Lower Kuskokwim and Nunivak-Nelson Island area uses

Internal pain: Joint pain used to be treated by applying leaves of *Artemisia tilesii* to the painful area. One method of preparing the leaves was shared with Margaret Lantis by a couple in Kasigluk. Hot rocks were placed in a water filled wooden bowl. *Artemisia tilesii* leaves (species not verified) were placed on the knees and the bowl with hot water was placed under the knees. The steam would then rise and warm the joints (Lantis 1959).

Heated leaves were applied to the skin to relieve joint pain. Gas and stomach pains were treated with *Artemisia tilesii* in the Unalakleet-Shaktolik area (Lantis 1958). However, Margaret Lantis does not state how the plant was prepared.

Napaskiak area uses

Infections/inflammation, internal pain, sore muscles: A steambath switch was fashioned out of *Artemisia tilesii* stalks and

[4] (Riggins, pers. comm. 1998)

used to aid in the healing of sore or sprained limbs. To help battle infections leaves of wormwood were gathered in the summer, dried, shredded and applied as a poultice to the afflicted area (Oswalt 1957).

Nelson Island area uses

Arthritis, bleeding/hemorrhages, constipation, coughs/chest congestion, general ill health, infections/inflammation: "Fresh or dried leaves are cooked to produce a medicinal tea used as a treatment for arthritis-like ailments. Tops of the plants, including seedheads, are brewed to make a laxative tea. Vapors that the plant releases when boiled in water are said to relieve congestion when inhaled. Some individuals take a daily dose of strong tea made from this plant as a general tonic. Stems are also brewed to make medicine to relieve discomfort of swollen areas. The leaves are sometimes applied to large cuts to stop bleeding" (Ager and Ager 1980).

General uses

Colds/flu, infections/inflammation, skin trouble: An observation of the usefulness of Artemisia tilesii for treating infections best describes the benefits of this remedy:

...fresh leaves of *Artemisia tilesii* were boiled in water until they became a green pulp. This thick, green pulpy solution was used to soak the severely infected hand of a young child. The investigator inquired about the child's infection and the treatment being given. The child was soaking her hand in this solution, three or four times a day. The investigator was delighted to see a native remedy being used, but made a mental note to check on the child in a day or two, to see if antibiotics might be needed. Two days later, the infection had cleared up, much faster probably, than with most antibiotics" (Overfield et al. 1980).

She also observed the plant successfully treating impetigo (a skin disease), an infection on the inside of the nose, and a fingernail bed infection. An informant also shared the method of treating a cold with *Artemisia tilesii*: "boiling the fresh or dried leaves for 30 minutes, straining the mixture and taking a few teaspoonfuls...several times a day" (Overfield et al. 1980).

Artemisia unalaskensis var. *aleutica* — *Sisikax*

Species in the genus Artemisia *contain the volatile materials thujone, isothujone, cineole, camphor, and artemisia ketones.*[1] *They also contain the toxic substance santonin, a substance which can cause headaches, dizziness, nausea, and diarrhea.*[2]

Compositae (Composite Family)
Common name: *Sisikax* (Aleut name)

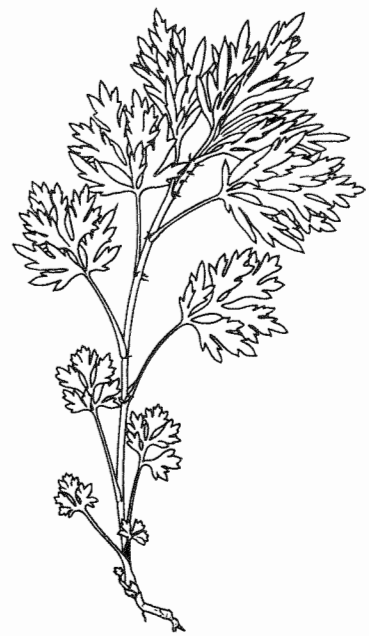
Physical description: The stem of *Artemisia unalaskensis* var. *aleutica* is simple, up to 3 ft. tall, from a long, creeping rootstock. Leaves are green above, white-tomentose beneath with the lower leaves bipinnately cleft into lanceolate, acute. The flower heads are numerous, in a leafy panicle (Hultén 1968).

Aleut

Name: *Sisikax* (Atka Island)
Symptoms: Cuts/scrapes, general ill health, rheumatism, sore muscles
Plant applications: Infusion/decoction, poultice, switch

General uses

During steambaths, switches of *Artemisia unalaskensis* were heated over hot stones then used to beat parts of the body where pain was felt. Rheumatic pain was still treated this way in 1953 according to Bank. The heated plant was also used as a poultice, although Bank does not state what the treatment was for. An infusion of the leaves was used as a tonic and was thought to be particularly beneficial for dying persons (Bank 1953). Leaves were heated and placed on sore muscles and cuts (Bank in Bank 1953).



Artemisia unalaskensis var. aleutica
Sisikax
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] (Overfield et al. 1980)
[2] (Fortuine 1988, 1989)

Aruncus sylvester Goatsbeard

Rosaceae (Rose Family)
Common name: Goatsbeard

Physical description: This perennial plant, 24 to 48 inches tall, has bi-pinnate toothed leaves. Each leaflet looks like an individual leaf—the combined somewhat resembles rose leaves. The cream-colored flowers are tiny and on long branched spikes above the leaves. They are very distinctive in bloom. Male and female flowers are on separate plants. The male (pollen-producing) flowers are larger and more showy (Pratt 1989).

Aruncus sylvester
Goatsbeard
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Tlingit

Names: No information found
Symptoms: General ill health, rheumatism, tuberculosis
Plant application: Infusion/decoction

Yakutat area uses

Rheumatism, tuberculosis: Used to treat tuberculosis and rheumatism, goatsbeard was reported to be "good for everything". Although initially patients feel worse after drinking a decoction of goatsbeard roots, "...in a few hours you feel good". It was important that the roots of goatsbeard were dug in mid-July and boiled fresh. By fall, the medicinal properties of the plant became worthless, according to an informant working with Frederica de Laguna (1972).

General uses

General ill health: A tea prepared from the roots was drunk as a treatment for blood disease (Blaschke in Krause 1956).

Aster subspicatus — Purple daisy

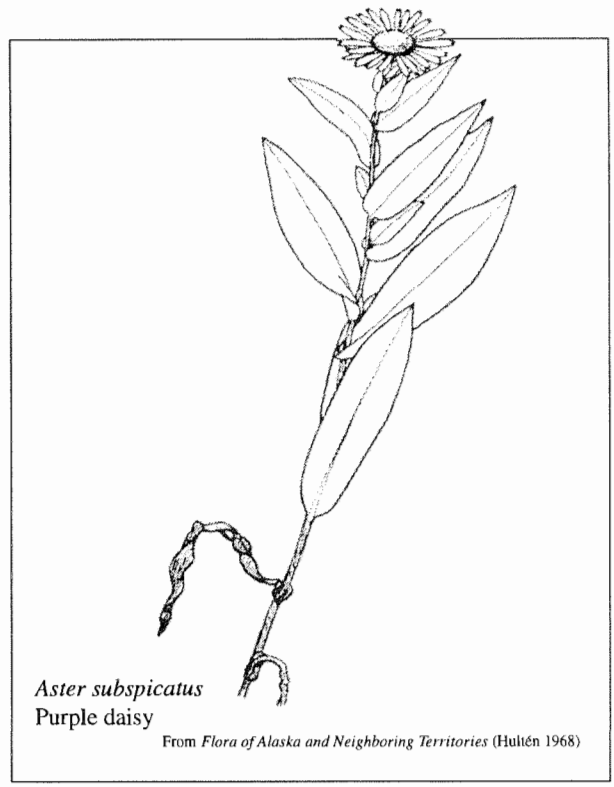
Compositae (Composite Family)
Common name: Purple daisy

Physical description: This perennial herb has leafy, hairy stems, and is found growing in moist sites, particularly beaches, meadows, and stream sides. Leaves are usually toothed, stalked, lance-shaped, and hairless. Flowers are blue to purple and may grow many on a stalk (Pojar and McKinnon 1994).

Alutiiq

Name: *Teptukuil'aq* (Port Graham)
Symptoms: Colds/flu, coughs/congestion, fever, measles, pneumonia
Plant application: Chew, infusion/decoction

English Bay and Port Graham area uses *(See P.S., page 176.)*
Prince William Sound and lower Kenai Peninsula area uses
Colds/flu, fever: The root of *Aster subspicatus* was cleaned and boiled for one hour. The tea was then drunk frequently to treat a cold or fever (Wennekens 1985).



Aster subspicatus
Purple daisy
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Boschniakia rossica — Broomrape

Orobanchaceae (Broomrape Family)
Common names: Broomrape, ground cone, poque

Physical description: This plant is a parasite growing on the roots of mountain alder (*Alnus crispa*). It has tiny reddish-brown flowers that grow on a heavy fleshy spike between glabrous brown bracts. At maturity, the plant is 8-12 inches tall and looks much like a tall, erect, soft, pine cone (Pratt 1989).

Athabascan

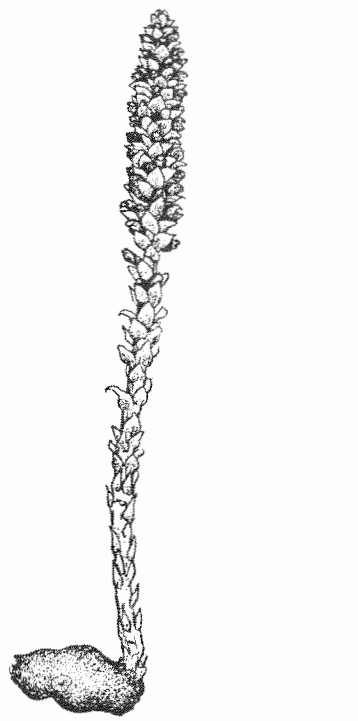
Names: *Shoh tsuu'* (Tetlin, Northway); *qinaz'in* (meaning "that which sticks up", Inland Dena'ina); ___[1] (Kari 1985)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: No information found
Symptom: Cuts/scrapes
Plant applications: No information found

General uses

Cuts/scrapes: The root of *Boschniakia rossica* was used as a treatment for sores (McGregor 1981). The method of application is not clear. It was possibly mixed with "shark oil", coltsfoot (*Petasites* spp.), and devil's club (*Echinopanax horridum*) ash.



Boschniakia rossica
Broomrape
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Calla palustris — Wild calla

Calla *spp. contain oxalate crystals in high quantiies. Intense burning of the mouth and throat can result from eating this plant.*[1] *Ingestion of this plant is not recommended.*

Araceae (Arum Family)
Common names: Wild calla, calla, marsh calla, water arum, water dragon

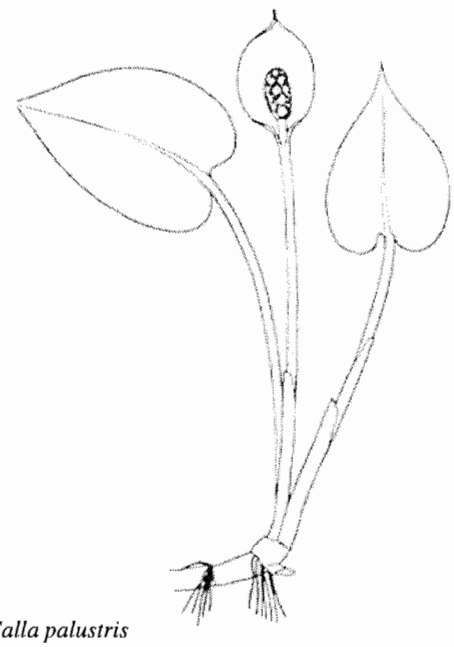
Physical description: Thick stemmed with elongated, thick, shiny, heart-shaped leaves, this plant grows up from a thick creeping rhizome. The tiny greenish flowers surround a short, thick stem arising from a white spathe (modified leaf). They are followed by light red berries (Pratt 1989).

Athabascan

Names: No information found
Symptoms: Arthritis, colds/flu, sore muscles
Plant applications: Infusion/decoction, switch (?)

Dena'ina uses

Arthritis, colds/flu, sore muscles: Howard Luke, an Athabascan elder, shared with Janice Schofield his enthusiasm for wild calla. He collected the leaves in spring before the flowers developed and dried them, before making an infusion. This tea he drank for colds, flus, and arthritis. He also used the leaves externally in a steam bath for aches and pain (Schofield 1989).



Calla palustris
Wild calla
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

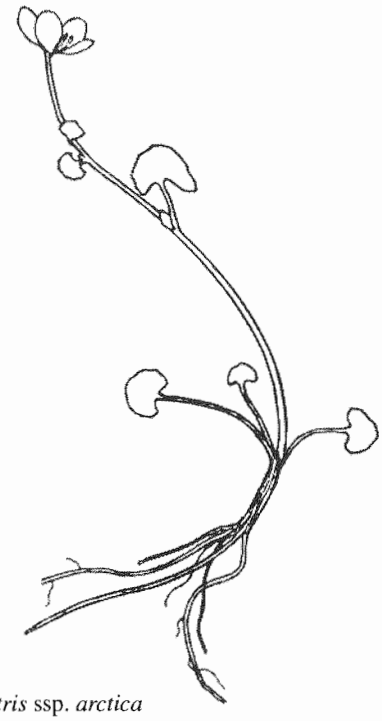
[1] (Schofield 1989)

Caltha palustris s. lat. — Marsh marigold

Caltha palustris *contains a poison.*[1] *The volatile toxin may be broken down by boiling the plant. However, this plant resembles* Calla palustris *whose toxins are* <u>not</u> *removed through boiling. Be sure of species identity.*[2]

Ranunculaceae (Crowfoot Family)
Caltha palustris ssp. *arctica*
Caltha palustris ssp. *asarifolia*
Common names: Marsh marigold, cowslip, yellow marsh marigold

Physical description: *Caltha palustris* ssp. *arctica* is a water plant with hollow stems. Leaves are large (2 to 4 inches), round to somewhat kidney-shaped or heart-shaped, and finely toothed on the edges. Flowers are large (1 to 1-1/2 inches) and have 5 to 7 bright yellow lightly rounded sepals with a greenish cast to the underside (Pratt 1989).



Caltha palustris ssp. *arctica*
Marsh marigold
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Yupik

Names: *Allmaruat*, *taqa'xpit* (Eek); *allmaruat* (Nelson Island)
Symptoms: Constipation, diarrhea
Plant applications: Chew, infusion/decoction

Lower Kuskokwim and Nunivak-Nelson Island area uses
Constipation, diarrhea: An infusion prepared from the leaves of marsh marigold was used to treat constipation. However, the leaves could also be cooked and given to infants for diarrhea (Lantis 1959). This plant apparently acted as a bowel regulator, treating both constipation and diarrhea.

[1] According to Eric Hultén, *Caltha palustris* contains a poison, protoanemonin, which is broken down by boiling (Hultén in Ager and Ager 1980). The genus *Caltha* also contains aconite, which can cause numbness, weak pulse, convulsions, and respiratory paralysis and the poison anemonin (Fortuine 1988).

[2] (Schofield 1989)

Capsella bursa-pastoris — Shepard's purse

This weed, introduced to Alaska, is naturalized from Europe.[1]

Brassicaceae (Mustard Family)

Common names: Shepard's purse, lady's purse, mother's heart, pepper and salt, pickpocket, poor man's pharmacetty, St. James' weed, toywort

Physical description: This introduced weed has a rosette of toothed (dandelion-type) leaves. Stem leaves vary from toothed to entire. Flowers have 4 petals, are very small, and bloom from the bottom up. The stem is 10 to 16 inches. Fruits are somewhat heart-shaped and on a stem (Pratt 1991).

Athabascan

Names: No information found
Symptom: Bleeding/hemorrhages
Plant applications: Infusion, poultice

General uses

Bleeding/hemorrhages: A poultice prepared from shepard's purse and placed on a cut helped stop bleeding. Shepard's purse tea also helped stop internal bleeding when drunk (Hall 1979). It is unclear if this was a traditional treatment.

Capsella bursa-pastoris
Shepard's purse
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] (Hultén 1968)

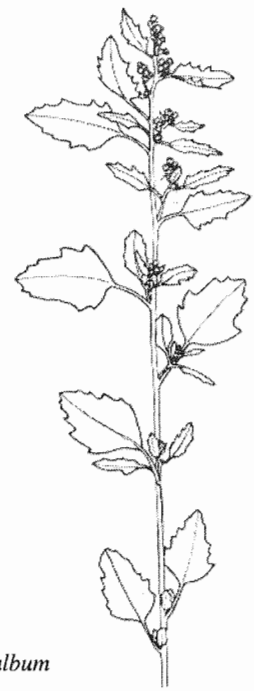
Chenopodium album Lambsquarters

This weed, introduced to Alaska, is naturalized from Europe.[1] Chenopodium *spp. contains oxalic acid, which damages kidneys. Oxalic acid is broken down by cooking or freezing.*[2]

Chenopodiaceae (Goosefoot Family)

Common names: Lambsquarters, fat goose, fat hen, hog's delight, pigweed, white goosefoot, wild spinach

Physical description: This annual plant grows 8 to 40 inches tall. Entire plant is green-gray and mealy. Leaves are diamond shaped, toothed, and alternate. Flowers grow in dense clusters at leaf axils and the stem tip. It is commonly found growing in disturbed sites, including roadsides and gardens (Pojar and McKinnon 1994).



Chenopodium album
Lambsquarters
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Name: *Gwi'tsun*; ___[3] (Kari 1985)
Symptom: Skin trouble
Plant application: Poultice

Fort Yukon area uses

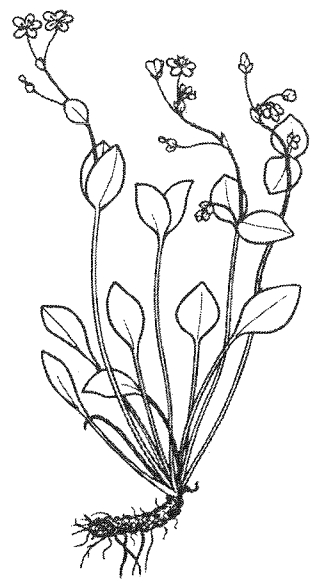
Skin trouble: The Athabascan of Fort Yukon used Lambsquaters for medicinal purposes as well as a gold colored dye. *Gwi'tsun* is the Athabascan word for both lambsquarters and weeds in general. The plant was boiled and applied as a poultice for skin sores (Holloway and Alexander 1990).

[1] (Hultén 1968)
[2] (Schofield 1989)
[3] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Claytonia sibirica — Siberian spring beauty

Portulaceae (Purslane Family)
Common names: Siberian spring beauty, candy flower, Siberian miner's lettuce

Physical description: This annual plant (12 to 20 inches tall) arises from a slender taproot. Leaves are egg-shaped to elliptic and .4 to 2.5 inches long. Stem leaves are opposite and without a stalk. The clustered flowers are white to pink, stalked, and 2.5 to 5 inches long (Pojar and McKinnon 1994). This plant is found growing in moist areas at low elevations in southeastern Alaska, southern coastal areas, and the Aleutian Islands (Pratt 1989).



Claytonia sibirica
Siberian spring beauty
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Tlingit

Names: No information found
Symptom: Venereal disease
Plant application: Salve

General uses

Venereal disease: A salve was made from a mixture of Sitka spruce (*Picea sitchensis*) pitch, Siberian spring beauty (*Claytonia sibirica*) leaves, and Alaska cypress (*Chamaecyparis nootkatensis*) bark. This salve was applied externally (Blaschke in Krause 1956; McGregor 1981).

Yupik

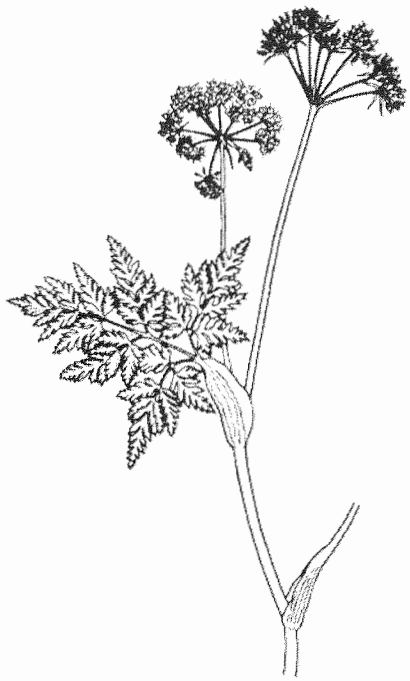
Name: *Ulqit* (Nelson Island)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Conioselinum chinense — Hemlock parsley

This plant has many deadly poisonous look alikes. Be sure of species identity before ingesting.

Umbelliferae (Parsley Family)
Common name: Hemlock parsley

Physical description: This plant arises from a stout taproot, with leaves that are 2 to 3 pinnate. The leaflets are more or less lobed. The petioles have a prominent sheath at the base. The white umbels (flowers) have numerous rays. It is found growing in meadows and sandy shores (Hultén 1968).



Conioselinum chinense
Hemlock parsley
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Name: *Cikigalux* (Atka Island)
Symptoms: Colds/flus, sore throat
Plant application: Infusion/decoction

General uses

Colds/flu, sore throat: Hemlock parsley was used in tonics for the treatment of colds and to sooth sore throats (Bank 1953). Methods of preparation and the part of plant used were not documented by Bank.

Alutiiq

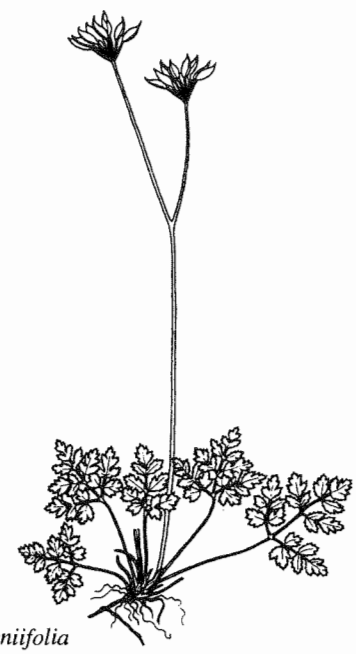
Name: *Cingkaruaq, cingkaq*
Symptoms: Arthritis, colds/flu, skin trouble, pneumonia
Plant applications: Infusion/decoction, switch

English Bay and Port Graham area uses *(See P.S., page 176.)*

Coptis ssp. Goldthread

Ranunculaceae (Crowfoot Family)
Coptis aspleniifolia
Coptis trifolia
Common name: Goldthread

Physical description: The two members of the genera *Coptis* growing in Alaska, *Coptis aspleniifolia* and *Coptis trifolia*, are found in moist places and woods. Both are distributed in southern coastal and southeastern Alaska, with *Coptis aspleniifolia* extending into the Aleutian Islands. *Coptis aspleniifolia* has pale green to white flowers and dissected, fern-like leaves. *Coptis trifolia*, has white to pinkish flowers with less dissected leaves than *Coptis aspleniifolia*.



Coptis aspleniifolia
Goldthread
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Tlingit

Names: No information found
Symptom: Coughs/chest congestion
Plant application: Infusion/decoction

General uses

Coughs/chest congestion: Presumably referring to *Coptis asplenifolia* or *Coptis trifolia*, Blaschke reports that the Tlingit used an infusion of "*Coptis macrosepala*" (goldthread) and *Cornicularia richardsonii*[1] (questionable taxonomy) for inflammation of the lungs (Blaschke in Krause 1956).

[1] *Cornicularia richardsonii* possibly refers to another species in the genera *Cornicularia* (L. Geiser pers. comm. 1998). However, taxonomy remains unclear.

Delphinium glaucum — Larkspur

Delphinium *spp. contain deadly alkaloids causing upset stomach, nervous reactions, chest pain, and weakness.*[1] *Ingestion of this plant is not recommended.*

Ranunculaceae (Crowfoot Family)
Common names: Larkspur, delphinium

Physical description: This very tall, 4 to 6 foot, robust plant has many broad, deeply divided, 5-lobed leaves that are again divided into several sections. The main stem, which is frequently purplish, is topped by many purplish-blue, 5-petaled, spurred flowers (Pratt 1989).

Athabascan

Names: *Eyu ghundi* (Upper Inlet Dena'ina); *ya' vene'* (Ahtna)
Symptoms: Lice, tuberculosis
Plant applications: Infusion/decoction, poultice

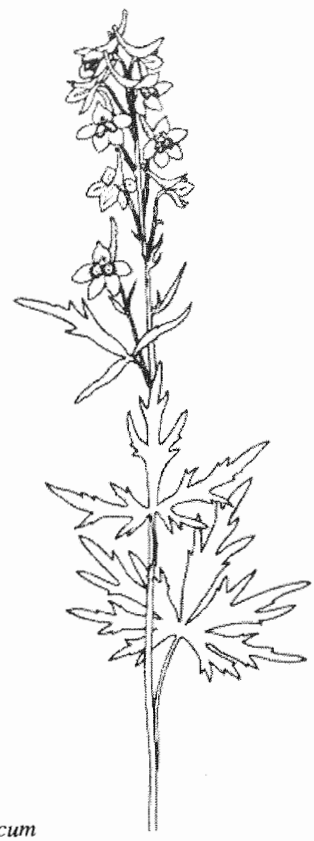
Dena'ina and Ahtna uses

Lice: A root decoction was used as a wash for lice and fleas by the Upper Inlet Dena'ina as well as the Ahtna Athabascans.

Tuberculosis: Upper Inlet Dena'ina drank a small amount of the decoction for tuberculosis or placed a small amount of the raw root on an afflicted area (Kari 1995).

General uses

Lice: According to Brenda Hall, the ground up larkspur plant when placed on head or body has been known to kill lice (Hall 1979). It is unclear if this was a traditional treatment.



Delphinium glaucum
Larkspur

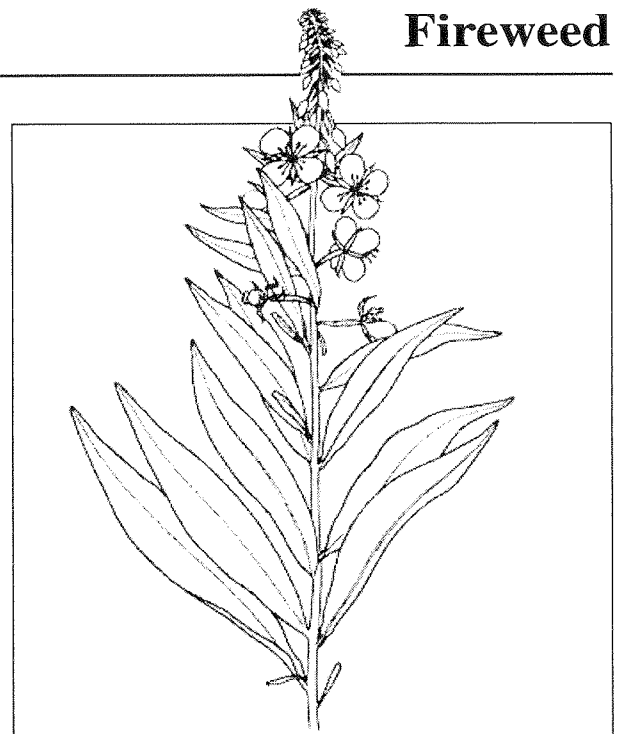
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] The genus *Delphinium* contains elatine and delphinine. Elatine has a paralytic effect on the body and delphinine causes an upset stomach and nervous reactions. (Fortuine 1988; Schofield 1989).

Epilobium angustifolium — Fireweed

Onagraceae (Evening Primrose Family)
Common names: Fireweed, blooming sally, tall fireweed, wild asparagus, willow herb, willow weed

Physical description: *Epilobium angustifolium* is a tall plant, growing 2 1/2 to 5 feet from deep horizontal roots. Leaves are lanceolate and placed alternately on the stem which is simple or occasionally branched. The bright pink flowers have 2 large, rounded petals at the base and 2 slightly smaller rounded petals above. The 4 sepals are long, narrow, pointed, and purplish. The lower flowers on the long graceful raceme are 1 to 1 1/2 inches across and bloom first (Pratt 1989).



Epilobium angustifolium ssp. *angustifolium*
Fireweed
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Cillqaqtaq* ("the plant", Prince William Sound); *cillaq* ("the flower", Prince William Sound, Port Graham, Kodiak Island)
Symptoms: Childbirth, colds/flu, constipation, cuts/scrapes
Plant applications: Infusion/decoction, poultice, switch

Chugach area uses
Childbirth, constipation: An infusion of fireweed tea was drunk by women to stimulate milk secretion or as a treatment for constipation (Birket-Smith 1953).
English Bay and Port Graham area uses *(See P.S., page 176.)*
Prince William Sound and lower Kenai Peninsula area uses
Cuts/scrapes: Boils were treated by first cutting an "x" on the top of the boil. Crushed fireweed roots were then placed on it and the entire wound was bandaged. This was left on for a few days until the core of the boil came out; the boil could then heal-over (Wennekens 1983, 1985). One informant claims *Epilobium glandulosum* (willow herb) roots could be substituted for *Epilobium angustifolium* as a treatment of boils (Wennekens 1985).

Athabascan

Names: *Ch'deshtleq'a* (Inland Dena'ina); *tl'ik'desq'a* (Upper Inlet Dena'ina); ___[1] (Kari 1985, 1995)
Symptom: Cuts/scrapes
Plant application: Poultice

Dena'ina uses
Cuts/scrapes: A poultice prepared from the raw stem of fireweed was used to draw out the infection from boils and cuts and prevent "a cut with pus in it from healing over too quickly" (Kari 1995).

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Inupiat

Names: *Pamiuqtaq, pamiuqtak, pamiuqtat, pautnuq* (meaning "young shoots"); *quppigutaq*
Symptoms: No information found
Plant application: No information found
Uses: No information found

Tlingit

Name: *Lóol* (meaning "fireweed leaves in the fall")
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Name: *Almaruat*
Symptoms: Constipation, stomach troubles
Plant application: Infusion/decoction

Nelson Island area uses
Constipation: Villagers reportedly made a tea from fireweed leaves picked in late summer and early autumn which had a laxative effect when drunk (Ager and Ager 1980).
Nunivak Island area uses
Stomach troubles: Leaves of fireweed were brewed in a tea to treat stomach and intestinal pain (Lantis 1958, 1959).

Erigeron peregrinus ssp. *peregrinus* Coastal fleabane

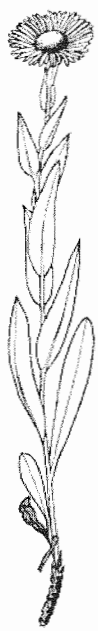
Compositae (Composite Family)
Common names: Coastal fleabane, medicine daisy

Physical Description: This large daisy-type flower has narrow, light pink to lavender-colored ray flowers. The lanceolate, somewhat hairy leaves are placed alternately on the usually unbranched 6- to 14-inch stem (Pratt 1989).

Alutiiq

Name: *Teptukuiraat* (Prince William Sound)
Symptoms: Colds/flu, coughs/chest congestion, measles, pneumonia
Plant application: Chew, infusion/decoction

English Bay and Port Graham area uses *(See P.S., page 177.)*
Prince William Sound and lower Kenai Peninsula area uses
Colds/flu, pneumonia: A decoction of coastal fleabane was prepared by drying and flattening the root before boiling it (Wennekens 1983). One teaspoonful was drunk three times a day for colds or pneumonia (Wennekens 1983, 1985).



Erigeron peregrinus ssp. *peregrinus*
Coastal fleabane
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Galium boreale — Bedstraw

Although generally considered safe, it has been noted that continued use can cause mouth and tongue irritation.[1]

Rubiaceae (Madder Family)
Common names: Bedstraw, baby's breath, northern bedstraw

Physical description: Bedstraw is an erect, branched perennial (12 to 20 inches tall) having square stems with intervals of 4 leaves in whorls around stem. The leaves are long and pointed with 3 linear veins that appear parallel. Flowers are numerous and very small, and have 4 white petals (Pratt 1989).

Athabascan

Names: ___[2]
Symptoms: Colds/flu, internal pain
Plant applications: Infusion/decoction, plaster, poultice

Dena'ina uses

Internal pain: Kari reports that the Dena'ina viewed bedstraw (*Galium boreale*, *Galium tridifum*, *Galium triflorum*) as a relative of wormwood (*Artemisia* spp.). They believed the two plants had similar uses. A hot pack, or plaster, of bedstraw was used for aches and pains (Kari 1995).

Fort Yukon area uses

Colds/flu: Young shoots were placed in boiling water and drunk to treat colds (Holloway and Alexander 1990).

Internal pain: Although no longer used, according to Holloway and Alexander (1990), aches and pain were treated with a poultice prepared from the young shoots of bedstraw.

Galium boreale
Bedstraw
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] (Viereck in Schofield 1989)

[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

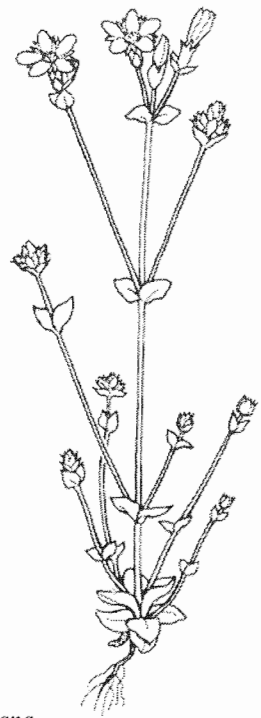
Gentiana spp. Gentian

Gentianaceae (Gentian Family)
Gentiana douglasiana
Gentiana platypetala
Gentiana propinqua
Common names: Gentian (*Gentiana* spp.); swamp gentian (*Gentiana douglasiana*); mountain gentian (*Gentiana platypetala*); four-parted gentian, gentian (*Gentiana propinqua*)

Physical description: *Gentiana douglasiana* grows in bogs and wet meadows. The flowers are white with purple spots or streaks and are tubular or funnel shaped (Pojar and McKinnon 1994).

Gentiana platypetala grows on grassy slopes. Flowers are mostly solitary and are purple-blue in color (Hultén 1968).

Gentiana propinqua is a spindly plant, which has violet to pinkish tubular (salverform) 4- to 5-petaled flowers that bloom in mid-summer. It is common in fields and woodlands (Pratt 1989).



Gentiana douglasiana
Gentian
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: No information found
Symptoms: Colds/flu, coughs/chest congestion
Plant application: Infusion/decoction

Tetlin area uses

Colds/flu, coughs/chest congestion: Leaves, stems, and flowers of *Gentiana propinqua* were boiled and the resulting tea drunk for colds and coughs (Kari 1985).

Tlingit

Name: "Land otter medicine"
Symptoms: Constipation, stomach troubles
Plant applications: Infusion/decoction, poultice

General uses

Constipation: Referred to as "land otter medicine" by the Tlingit, *Gentiana douglasiana* roots "were rubbed off on a rough stone or chewed and spat out, boiled in hot water, and drunk" as a treatment for constipation (Emmons 1991). See *Valeriana sitchensis* for a similar treatment.

Stomach troubles: The leaves of *Gentiana douglasiana* were heated and applied as a poultice possibly for stomach troubles (Emmons 1991). The exact medicinal application of this poultice was unclear.

Emmons mentioned that the root of the mountain gentian (*Gentiana platypetala*) was used medicinally (Emmons 1991), however no specifics were provided.

Geocaulon lividum — Northern comandra

Santalaceae (Sandlewood Family)
Common names: Northern comandra, dogberry, pumpkin berry, timberberry

Physical description: This is an upright plant with alternate, oval leaves on a 3- to 6-inch stem rising from a horizontal root. The tiny green flowers with 5 sepals produce orange berries in the fall (Pratt 1989).

Athabascan

Names: *Dahtsa satthe* (Salcha), *gagga giga* (Inland Dena'ina), *delgga gega* (Upper Inlet Dena'ina), ___[1] (Kari 1995)
Symptoms: Cuts/scrapes, sore throat, stomach troubles, tuberculosis
Plant applications: Chew, infusion/decoction, poultice

Dena'ina uses

Cuts/scrapes: The leaves were macerated and placed on the afflicted area as a poultice (Kari 1995).

Sore throat, stomach troubles, tuberculosis: The Outer Inlet Dena'ina prepared a tea from the roots of northern commandra (*Geocaulon lividum*) or chewed the fresh berries for stomach troubles, sore throats, and tuberculosis (Kari 1995).

Salcha uses

The plant was reported as a "good medicine" for the Salcha Indians living along the Tanana. Unfortunately, no description of this medicine was provided.

Geocaulon lividum
Northern comandra
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Geranium erianthum — Wild geranium

Constipation may result from prolonged ingestion of Geranium erianthum *due to its high tannic acid content.*[1]

Geraniaceae (Geranium Family)
Common names: Wild geranium, cranesbill, sticky geranium, stork's bill

Physical description: This perennial plant is 18 to 30 inches tall. The large, deeply toothed and palmately divided leaves are slightly hairy and appear coarse. The flowers, which are at the top of the stems, have 5 large, rounded lavender-colored petals with dark stripes. The long-beaked, 5-parted, seed capsules curl backward releasing the seeds rapidly with considerable force (Pratt 1989).

Aleut

Name: *Cunusix* (Atka Island)
Symptom: Sore throat
Plant application: Gargle

General uses

Sore throat: Leaves of wild geranium were used as a sore throat gargle by the Aleut (Bank 1953), presumably prepared as a tea. However, harvest and preparation methods were not recorded.

Alutiiq

Name: *Talltaciq* (Port Graham)
Symptoms: Bleeding/hemorrhages, colds/flu, coughs/chest congestion, sore throat, tuberculosis
Plant application: Chew, infusion/decoction

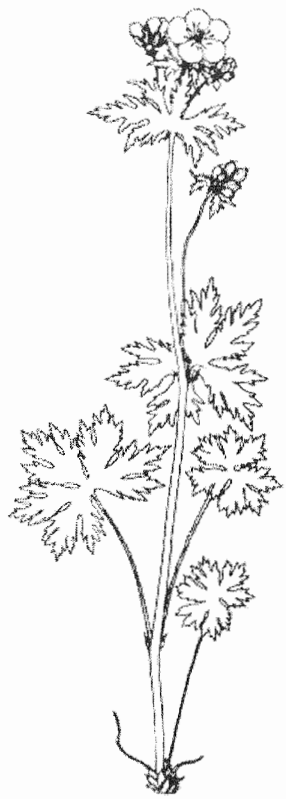
Kodiak Island area uses

Tuberculosis: Geranium roots were chewed for tuberculosis (Preston 1961).

English Bay and Port Graham area uses *(See P.S., page 177.)*

Prince William Sound and lower Kenai Peninsula area uses

Bleeding/hemorrhages: A resident of Port Graham shared with Alix Wennekens that *Geranium erianthum* was once used to stop hemorrhaging. However, a method of preparing and administering the plant was not remembered (Wennekens 1985).



Geranium erianthum
Wild geranium
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Name: ___[2] (Kari 1995)
Symptoms: Childbirth, diarrhea, heart problems, skin trouble, sore eyes, sore throat, stomach troubles, tuberculosis
Plant application: Infusion/decoction

Dena'ina uses

Childbirth, skin troubles: Mothers and newborns were given this tea, in appropriate doses, to cleanse their systems. The root tea was also used as a skin wash (Kari 1995).

Diarrhea, heart problems, sore throat, stomach troubles: A root decoction prepared from wild geranium was drunk or used as a gargle for sore throats, mouth sores, ulcers, diarrhea, and heart problems by the Dena'ina Athabascan.

Sore eyes: The Inland people used it as a wash (Kari 1995).

Stomach troubles, tuberculosis: An infusion prepared from the leaves was drunk for stomach trouble and tuberculosis by the Inland and Upper Inlet Dena'ina (Kari 1995).

[1] (Schofield 1989)

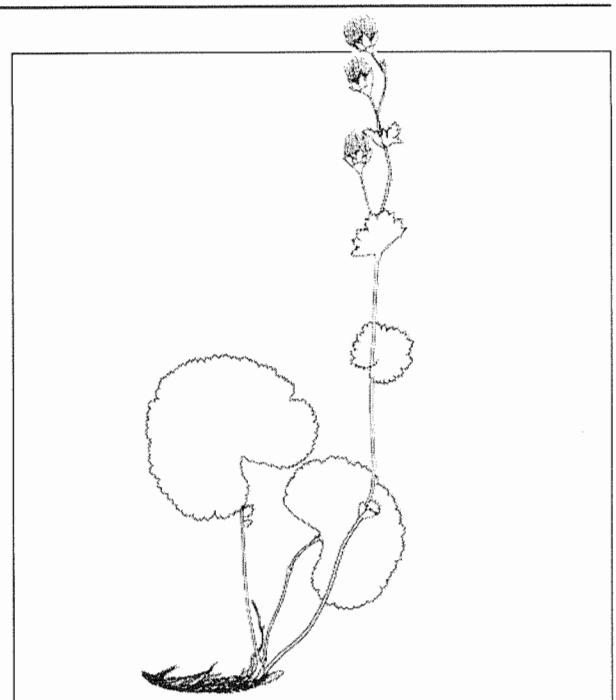
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Geum spp. Avens

Rosaceae (Rose Family)
Geum calthifolium
Geum macrophyllum
Common names: Avens (*Geum* spp.); large-leaved avens (*Geum macrophyllum*); Ross avens (*Geum calthifolium*)

Physical description: *Geum calthifolium* has 1- to 1 1/4-inch flowers that have 5 rounded petals, large leafy sepals and are clustered at the ends of the 6- to 8-inch stems. It also has large round to kidney-shaped leaves that are notched along the margin (Pratt 1989).

Geum macrophyllum ssp. *macrophyllum* is a tall, erect plant (1 1/2 to 2 1/2 feet) with large pinnately divided leaves. The leaflets are toothed, the terminal one lobed and much larger than the rest. Leaves and stems are covered with stiff hairs. The yellow flowers are small (about 1/2 inch) (Pratt 1989).



Geum calthifolium
Ross avens
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Names: *Amiduxix, amidugix* (Atka Island)
Symptoms: Colds/flu, cuts/scrapes, sore throat
Plant applications: Infusion/decoction, poultice

General uses

Colds/flu, sore throat: An infusion prepared by boiling roots of *Geum calthifolium* was used as a tonic for treating colds and sore throats (Bank 1953).

Cuts/scrapes: For slow healing sores, wet or boiled leaves were placed over the wounds and bound in place (Bank 1953, 1971). "It was thought that the plant helped to dry out the sore and aided scab formation" (Bank 1953).

Tlingit

Names: No information found
Symptom: Eye problems
Plant application: Plaster

General uses

Eye problems: According to Emmons, the wood fern (*Dryopteris dilatata*) leaves, shield fern (*Gymnocarpium dryopteris*) buds, Sitka spruce (*Picea sitchensis*), and large leaved avens (*Geum macrophyllum*), were "mixed together, pounded in a mortar, mixed with human milk, and applied locally" for eye trouble of any kind (Emmons 1991).

Hedysarum alpinum — Eskimo potato

Similar looking species may be poisonous; be sure to positively identify this plant.

Leguminosae (Pea Family)
Common names: Eskimo potato, Alaska carrot, licorice root, wild potato

Physical description: This tall plant, up to 2 feet (smaller in alpine areas), is branched and sprawling and grows from a horizontal root. Leaves are pinnately divided with 15-20 ovate leaflets about 1/2 to 1 inches long with obvious middle and branching veins on the under side. Flower stalks are long with many small, narrow light pink to purple, pea-shaped flowers which are up to 1/4 inches wide and 5/8 inches long. The flowers are crowded together and appear to flow down one side of the stem (Pratt 1991).

Hedysarum alpinum
Eskimo potato
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athasbascan

Names: *Tsaath* (Salcha); *tsuuh*; *trih*; *k'tl'ila* (meaning "rope", Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Inupiat

Names: *Masruqutaq* (meaning "the plant", Kobuk River area); *masru* (meaning "the root", Kobuk River area); *masu* (North coastal area)
Symptom: Worms
Plant application: Chew

General uses

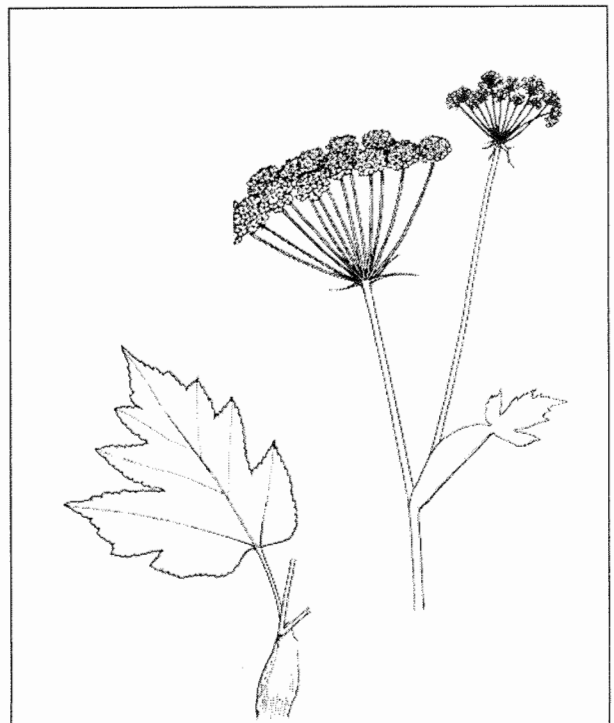
Worms: Eating wild potatoes, *Hedysarum alpinum*, was a treatment for pinworms (DeLapp and Ward 1981).

Heracleum lanatum — Cow parsnip

Handling cow parsnip can cause extreme skin sensitivity to light. Blistering, redness, and skin sores may result.[1]

Umbelliferae (Parsley Family)
Common names: Cow parsnip, cow cabbage, hogweed, Indian celery, Indian rhubarb, masterwort, *putshke* (Russian origin), wild celery

Physical description: The tall (5 to 8 feet) plant has large hollow stems and very large, somewhat palmate, leaves that are deeply divided into threes with deep extra incisions. Leaf stems connect to the main stalk with a clasping sheath. The leaves and stems have conspicuous hairs. The small flowers have 5 petals, are frequently covered with flying insects and are in double umbrels. The seed heads are used for flower-arranging. The seeds are flat and are divided into 2 sections (Pratt 1989).



Heracleum lanatum
Cow parsnip
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Name: *Putschke* (Russian origin)
Symptoms: Colds/flu, cuts/scrapes, sore muscles, sore throat
Plant application: Poultice

Atka uses
Sore muscles: Bill Dirks, Jr. shared with Ted Bank that cow parsnip leaves can be heated and placed on the body to relieve muscle pain (Bank 1971).

General uses
Colds/flu, cuts/scrapes, sore throat: Cow parsnip was used in tonics to treat colds and sore throats. However, preparation and parts of plant used for this treatment were not recorded by Bank. Cow parsnip was also used to relieve sores and cuts by placing heated leaves on affected areas (Bank 1953).

Alutiiq

Names: *Vgyuun* (meaning "dead stalk", Prince William Sound and Port Graham, Kodiak Island); *amuulraaq*; *ammuul'aq*
Symptom: Arthritis, dandruff, infections/inflammation, rheumatism
Plant application: Salve, plaster

English Bay and Port Graham area uses *(See P.S., page 177.)*
Prince William Sound and lower Kenai Peninsula area uses
Dandruff: The outer "skin" of cow parsnip was peeled and placed in seal oil for approximately one week. This oil mixture was then rubbed into the hair to prevent dandruff (Wennekens 1985).

[1] A chemical in the outer hairs and sap of cow parsnip, furanocoumarin, causes extreme skin sensitivity to light. Blistering, redness, and skin sores may result if the plant is handled without gloves (Schofield 1989).

Athabascan

Names: *Ggis* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina); *buchgi* (Outer Inlet Dena'ina)
Symptoms: Arthritis, colds/flu, cuts/scrapes, infections/inflammation, nerves, sore throat, tuberculosis, toothaches
Plant applications: Chew, poultice, infusion/decoction

Dena'ina uses
Arthritis, colds/flu, infections/inflammation, sore throat, tuberculosis: Cow parsnip root was chewed raw or boiled into a tea by the Dena'ina for colds and flus, tuberculosis, mouth sores, and sore throats. Kari notes that to make a very strong medicine, the Inland Dena'ina cooked cow parsnip with beaver castor (sometimes aging the mixture) (Kari 1995).
Arthritis, infections/inflammation, cuts/scrapes: The root was highly valued for body aches, including arthritis, inflammation, and cuts (Kari 1995).
Cuts/scrapes: To help relieve aches and/or draw out the infection on a cut, the afflicted area was either washed with a root decoction or a root poultice was placed on it. Sometimes the root was wrapped in cloth, although this was less effective than placing the root directly on the ailment. Kari also noted that "sometimes the roots are tied together and mashed so that they form a kind of pad, which is placed on the sick area" (Kari 1995).

Toothache: Toothaches were relieved by the Outer Inlet Dena'ina by heating cow parsnip root until very hot and placing the root on the aching tooth. It was said that this helped by killing the nerves causing the ache. Burning cow parsnip roots on a stovetop was said by the Den'aina to "help keep sickness away" from homes (Kari 1995).

General uses

Nerves: According to Brenda Hall (1979), cow parsnip eaten 3 to 4 times a week helped to calm nerves. It is unclear whether or not this was a traditional Athabascan treatment.

Note

Although not for healing human ailments, it is interesting to note that the Upper Inlet Dena'ina have placed raw roots in dog food to help rid a dog of worms (Kari 1995).

Tlingit

Names: *Yana'Et xadi, yanu èit*
Symptom: Arthritis
Plant application: Poultice

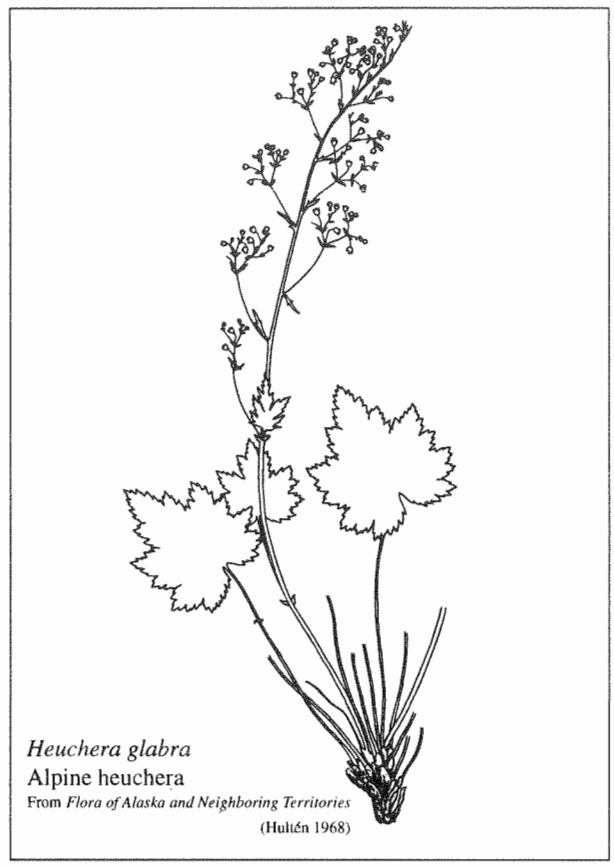
Yakutat area uses

Arthritis: The use of cow parsnip root was used for the treatment of arthritis. To prepare the plant, a woman would "steam the root in water, split it apart, then put it on when it's still steaming. If you don't put grease on first, it will take the skin off. It's pretty strong stuff" (de Laguna 1972). For a continuous application of the root, the boiled root was wrapped in cheesecloth and left on the affected area overnight (de Laguna 1972).

Heuchera glabra — Alpine heuchera

Saxifragaceae (Saxifrage Family)
Common names: Alpine heuchera, alum root

Physical description: *Heuchera glabra* is a clumping, perennial plant with 3 to 5 lobed, toothed, long stemmed, coarse, basal leaves that are slightly hairy beneath and around the edges. Old dead stems are often present at the base. The tiny, white, 5 petaled flowers are grouped in threes along the branched 10 to 16" stem (Pratt 1989).



Heuchera glabra
Alpine heuchera
From *Flora of Alaska and Neighboring Territories*
(Hultén 1968)

Tlingit

Names: No information found
Symptom: Infections/inflammation
Plant applications: No information found

General uses

Infections/inflammation: *Heuchera glabra* was used for testicular inflammation by the Tlingit (Blaschke in Krause 1956; McGregor 1981). Method of plant preparation and application was not reported.

Iris setosa s. lat. — Iris

Iris setosa *is poisonous and extremely allergenic.*[1] *Shamanic uses have been associated with this plant.*

Iridaceae (Iris Family)
Iris setosa ssp. *interior*
Iris setosa ssp. *setosa*[2]
Common names: Iris, wild iris, blue flag, wild flag

Physical description: (*Iris setosa* s. lat.) This plant is 12 to 24 inches tall with broad, thin, swordlike leaves and a thick, round flower stalk. Flowers have 3 large, purple, blue or violet-colored (rarely white) falls (petal-like sepals) and 3 narrow, upright petals. The seed pod is large and divided into 3 sections. This is a large, showy flower, from 2 1/2 to 4 inches across (Pratt 1989).

Aleut

Name: *Nasancagadax* (Unalaska)
Symptom: Constipation
Plant application: Infusion/decoction

General uses

Constipation: The boiled root of *Iris setosa* s. lat. was drunk by Aleutian Islanders as a tea to produce laxative effects according to Ted Bank (Bank 1953, 1971). *Iris setosa* ssp. *setosa* is the only iris growing in the Aleutians.

Athabascan

Name: ___[3] (Inland and Outer Inlet Dena'ina); *wuchistelsai* (Salcha)
Symptoms: Breathing problems, colds/flu, cuts/scrapes, heart problems
Plant applications: Chew, poultice

Dena'ina uses

Colds/flu, cuts/scrapes: Priscilla Russell Kari noted that Dena'ina people chewed small pieces of the fresh iris root to treat colds and sinus problems. Partially chewed or macerated iris roots were also placed on sores and cuts to aid healing (Kari 1995). *Iris setosa* ssp. *setosa* is the only iris growing in the area.

Iris setosa ssp. *setosa*
Iris
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

General uses

Breathing problems, heart problems: The fresh bulb of *Iris setosa* ssp. *interior* when eaten was recorded to be "good for your heart" with results occurring in 3 to 7 days. As a treatment for shortness of breath, immediate results were expected after eating the bulb (Andrews 1975).

Tlingit

Names: No information found
Symptoms: No information found
Plant applications: No information found

Yakutat area use

Vernon in de Laguna (1972) mentioned the use of the iris root as "a medicinal charm." However, no details of use were provided. Presumably the plant is *Iris setosa* ssp. *setosa,* as it is the only iris growing in Tlingit country.

Cautionary Note

Traditionally skilled and knowledgable people administered the plant, yet even then dosage was difficult to control.
Death can result from ingesting this plant and it is not advised for use.

[1] This plant contains oleoresin (iridin), which strongly affects the liver and gastrointestinal tract. Ingestion is not recommended (Pratt 1991; Schofield 1989).

[2] Two subspecies of *Iris setosa* occur in Alaska, *Iris setosa* ssp. *setosa* and *Iris setosa* ssp. *interior.* Identification of wild iris to the subspecific level was often not feasible or documented in reports.

[3] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Leptarrhena pyrolifolia Leatherleaved saxifrage

Saxifragaceae (Saxifrage Family)
Common name: Leatherleaved saxifrage

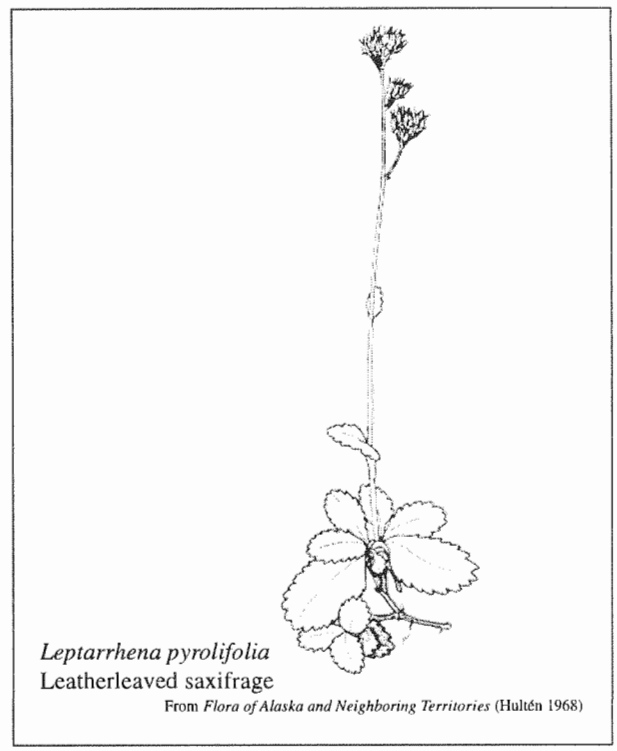
Physical description: This plant has a compressed head of small white flowers arising from a stem that is 6 to 16 inches tall. There are a basal rosette of leathery leaves which are shiny green above and whitish green below. They are obovate with pronounced teeth. The fruits are red.

Aleut

Name: *Alixsisix* (Atka Island)
Symptom: Influenza
Plant application: Infusion/decoction

General uses

Influenza: An infusion was prepared from the leaves and drunk as a treatment for influenza (Bank 1953).



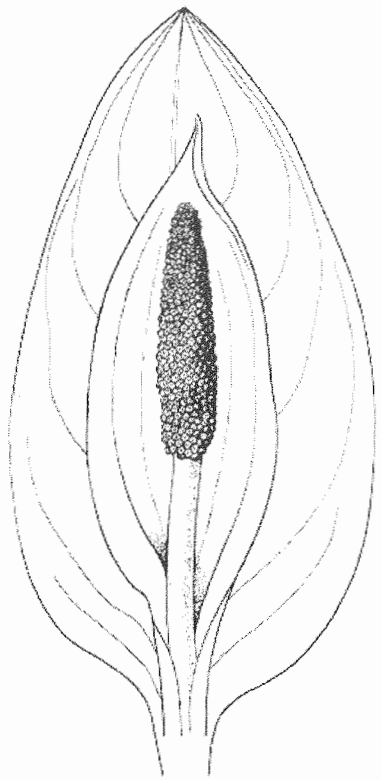
Leptarrhena pyrolifolia
Leatherleaved saxifrage
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Lysichiton americanum — Skunk cabbage

Skunk cabbage contains calcium oxalate crystals. Burning of the mouth can occur unless it has been thoroughly dried.[1]

Araceae (Arum Family)
Common names: Skunk cabbage, meadow cabbage, skunk weed, yellow arum, yellow skunk cabbage

Physical description: This nearly stemless plant arises from a stout rhizome. The leaves are large (up to 3 ft. long) and elliptic. They are glabrous and form from a basal cluster. The spathe is yellow, stalkless, and appears before the leaves. It is found in swampy, wet woods (Hultén 1968).



Lysichiton americanum
Skunk cabbage
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Qaugcaaguaq* (Prince William Sound area)
Symptoms: No information found
Plant applications: No information found

Prince William Sound area uses

A Cordova man shared with Alix Wennekens that he remembered the root of skunk cabbage used as a medicinal but couldn't remember for what sickness (Wennekens 1985).

Athabascan

Names: No information found
Symptom: Colds/flu
Plant application: Infusion/decoction

General uses

Colds/flu: Half of a cup of a skunk cabbage infusion was said to be used for the treatment of colds (Hall 1979). The distribution of skunk cabbage is extremely limited in Athabascan country so this was not likely a common practice throughout the region.

Tlingit

Names: *Xaatl'*, *x̲ál'*
Symptoms: Hair problems, headache, infections/inflammation, lung trouble, stomach troubles, tuberculosis
Plant applications: Infusion/decoction, oil, plaster, poultice, salve, vapor

Yakutat area uses

Headache, tuberculosis: Skunk cabbage has been recorded to bring relief of headaches and even tuberculosis by smelling the root once it has been dried and scraped (de Laguna 1972).

Infections/inflamations: Skunk cabbage roots have been recorded by Frederica de Laguna as being an important treatment for infections. Two stories shared by a Tlingit informant with de Laguna (1972) relate good examples of preparation of skunk cabbage for infections:

> The informant explained how her little brother had a badly infected ear into which a fly had crawled and died. The earache was cured by putting in shavings of skunk cabbage root and warm oil. This was kept up for about 2 days and nights until the abcess broke and the pus and dead fly came out. On another occasion, the same boy cut his knee badly. Boiled skunk cabbage root was mashed on a flat rock, squeezed through a cloth, mixed with seal oil and mountain goat tallow, and heated. This mash was put in or under the bandage, and the cut healed quickly. (Author's note: I'm sure this boy was one person who really appreciated the healing virtues of skunk cabbage!)

Lung trouble: Skunk cabbage root was removed, sliced, and boiled with water and seal oil. Drinking this warm decoction was said to bring relief for "lung trouble" (de Laguna 1972).

General uses

Hair problems: To help strengthen hair, skunk cabbage leaves

[1] "Even when properly prepared, large amounts can trigger nausea and vomiting" (Schofield 1989).

were pulverized and mixed with oil (Emmons 1991) and presumably rubbed into the hair.

Infections/inflammation: It was said that the medicinal properties of skunk cabbage were discovered by the Tlingit through the observation of brown bears (informant in deLaguna 1972):

> Big brown bear digs it up. Stick it to a place where it's wounded. That's how they [people] learn..Bears just use it raw..No matter what place he is, bear always go to that. He [my father] wounded so many brown bears, he see them do it.

Stomach troubles: *Lysichiton americanum* was also used to treat stomach troubles by drying it, scraping off the outer bark (?), then boiling it in water before drinking it (Emmons 1991). The root was also used as a poultice presumably for the same affliction.

Tsimshian

Names: No information found
Symptom: Childbirth
Plant applications: No information found

General uses

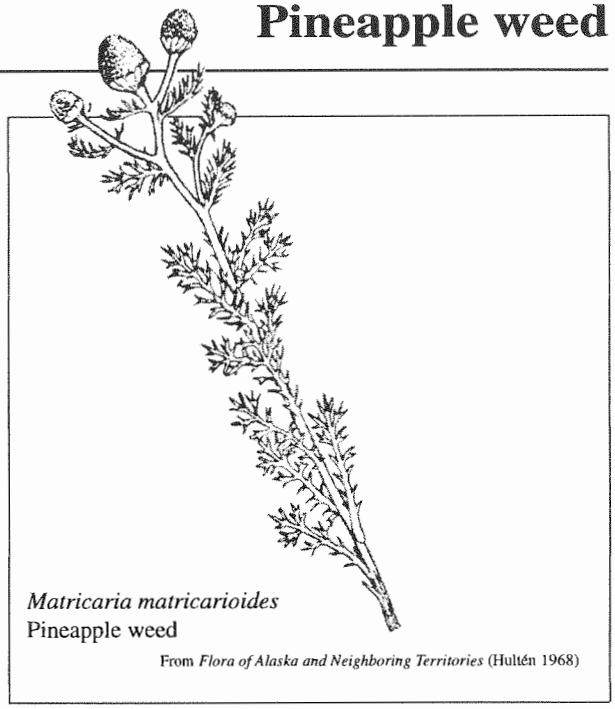
Childbirth: A bed of skunk cabbage leaves and shredded alder (*Alnus* spp.) bark were placed in a shallow pit into which a woman delivered her baby (McGregor 1981). These plants apparently did not provide any medicinal benefit, but they created a soft, absorbent bed for the newborn. When the new mother returned to the village after delivering the baby, she again laid in a hole lined with skunk cabbage and shredded alder bark. Hot rocks were placed in the hole and she was given clam juice, Labrador tea (*Ledum palustre* s. lat.), and alder bark tea to drink.

Matricaria matricarioides — Pineapple weed

Although generally considered safe, large and frequent doses have been reported to cause nausea and vomiting.[1] *This is an introduced weed, naturalized from the Pacific States.*[2]

Compositae (Composite family)
Common names: Pineapple weed, Alaskan chamomile, dog fennel, wild chamomile

Physical description: This small, feathery, annual plant (5 to 8 inches tall) has small yellowish heads that look and smell somewhat like pineapple (Pratt 1989).



Matricaria matricarioides
Pineapple weed
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Name: *Ramaskan* (Russian origin)
Symptom: Stomach troubles
Plant application: Infusion/decoction

General Aleut uses
Stomach troubles: Regarded as a cure-all by both Aleuts and Russians, this plant is still used as a tonic today. Stomach pain, particularly related to stomach gas, was treated with an infusion of the leaves. Laxative effects were felt from this tea (Bank 1953).

Alutiiq

Name: *Alam'aaskaaq* (Port Graham area, Chugach); *aramaaskaag* (Kodiak Island)
Symptom: Childbirth, constipation
Plant applications: Chew, infusion/decoction

English Bay and Port Graham area uses *(See P.S., page 177.)*
Prince William Sound and lower Kenai Peninsula area uses
Constipation: Any part of the plant was chewed or brewed into a tea for use "and small bits of fresh leaves can be given a newborn infant to clean out its intestines" (Wennekens 1985). Wennekens also states that the leaves were soaked in water for half of an hour and the resulting liquid given to a baby (for the same affliction?) (Wennekens 1985).

Athabascan

Names: *Alamishga* (Inland and Iliamna Dena'ina); *unhlashga* (Inland Dena'ina); *ramashga* (Outer Inlet Dena'ina); *k'elbasga* (Upper Inlet Dena'ina)
Symptoms: Childbirth, constipation, eye problems, hangover, menstrual problems, skin trouble, sore throat
Plant application: Infusion/decoction

Dena'ina uses
Childbirth, menstrual problems: Mothers and newborns drank pineapple weed tea to help cleansing and healing following childbirth and to help a mother's milk come in. Mothers drank a cup at a time while infants took only a few drops. This tea was said to be good for menstruating women (Kari 1995).
Constipation, eye problems, skin trouble: This infusion (see above) was also said to have laxative effects and be an effective wash for skin and sore eyes, particularly from snow blindness (Kari 1995).
Fort Yukon area uses
Hangover: Used as a chamomile substitute, an infusion of the flower heads were occasionally drunk as tea. Hangovers were treated by drinking this tea (Holloway and Alexander 1990), a treatment presumably begun by the Athabascan post-settlement of Russian and European peoples.
Ninilchik area uses
Sore throats: A tea was prepared from the flowers and/or entire plant (without roots) and either used as a gargle or drunk; bunches of the plant were preserved by drying (Kari 1994).

Yupik

Name: *Atsu'koak* (meaning: "like fruit")
Symptoms: Colds/flu, stomach troubles, tuberculosis
Plant applications: Chew, infusion/decoction

Napaskiak area uses
Colds/flu, stomach troubles: Villagers cooked seed heads in water and gave this to the ill person for colds and stomach trouble (Oswalt 1957).
Nelson Island area uses
Tuberculosis: Tops of the plant were chewed by those spitting blood (most likely caused from tuberculosis) (Ager and Ager 1980).

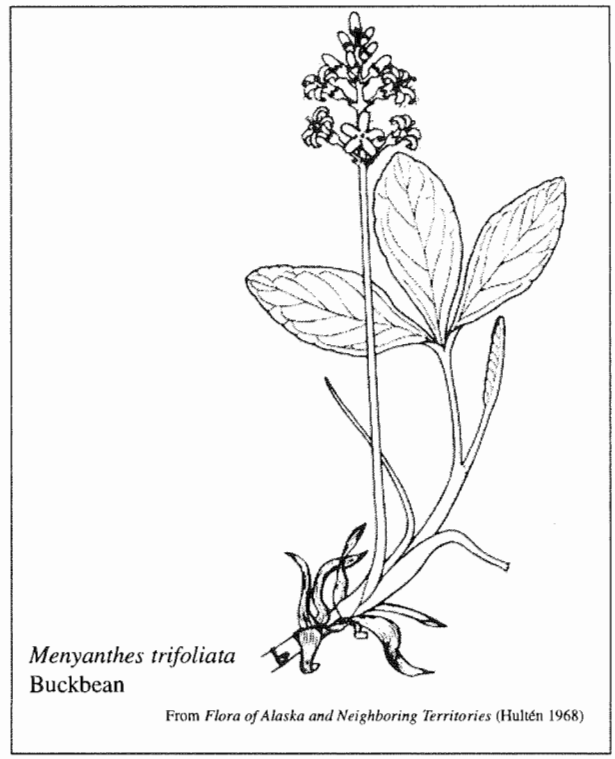
[1] (Schofield 1989)
[2] (Fernald 1950)

Menyanthes trifoliata — Buckbean

Fresh leaves and large amounts of dry leaves may induce vomiting.[1]
Shamanic uses of this plant have been documented.

Gentianaceae (Gentian Family)
Common names: Buckbean, bog bean, bean trefoil, bitterworm, bog hop, marsh clover, marsh trefoil, moon flower, pondweed, water shamrock

Physical description: Buckbean is usually found growing in water with flower spikes above its leaves and the water. Leaves are glabrous, divided into 3 ovate leaflets. Flowers have 5 white to pinkish petals with white hairs along the margins giving it a fringed look (Pratt 1989).



Menyanthes trifoliata
Buckbean

From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Name: *Triliskan* (Russian origin)
Symptoms: Constipation, rheumatism, stomach troubles
Plant applications: No information found

General uses

Constipation, rheumatism, stomach troubles: Roots of *Menyanthes trifoliata* historically were a powerful tonic ingredient. This tonic was used to treat gas, constipation, and rheumatism (Bank 1953). Methods of preparation and use of this plant were not recorded.

Tlingit

Name: ___[2] (Lantis 1972)
Symptom: General ill health
Plant application: Infusion/decoction

Yakutat area uses

General ill health: According to Frederica de Laguna yellow pond lily and buckbean (see *Nuphar polysepalum*) "are perhaps not clearly distinguished by natives, and are on the borderline between ordinary medicine and magical plants" (de Laguna 1972). The following quote from her book, *Under Mount Saint Elias,* describes gathering protocols for both of these plants:

> Thus, the patient will not be cured unless a payment is made to the *Gunetkanayi* (close spelling), specifically a member (or members) of the opposite moiety who is closely related through the paternal line or through affinity. It is such a person who must gather the plant. When you dig it up, talk to it, like you would to Indian doctor, and leave some of your clothes [or money] in its place. Tell them it's for a person we're going to use it for. [Name the patient]. It's medicine..[Say to it] 'No Indian doctor could cure, so we appoint you for a doctor. The person appoint you to cure, that Indian doctor give it up. But you, you do your best to cure it.' They give present to the doctor to make his spirits stronger, so the spirits can cure you or find things out.' That is why, it is implied, the plants must also be paid.

This medicine is "good for hurt of any kind," this woman explained. She said that she had drunk an infusion of the plant when she was sick, and had also given some to a relative of her husband, when he had "poison blood" and sores on his legs which the hospital had been unable to cure. He drank a cupful before meals, and now wants her to supply him with more, for which he offered $5. Angoon people are said to use only the roots, but she boiled all the plant and prefers the buckbean to the yellow pond lily" (de Laguna 1972).

Frederica de Laguna lists this plant as a "medicine with great power". Protocols for plant collecting must be followed to employ full medicinal capabilities of the plant.

Yupik

Names: *Puingai'yulit* (meaning "grows with three"), *choikpu'goak* (meaning "like an iron knife")
Symptoms: No information found
Plant applications: No information found
Uses: No information found

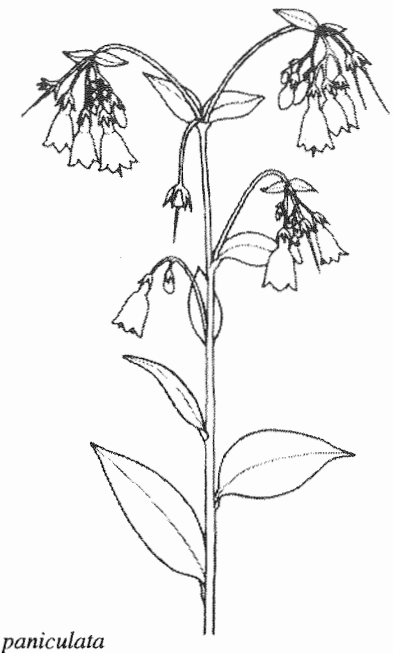
[1] Drying the leaves neutralizes emetic properties (Schofield 1989).

[2] A Tlingit name has been recorded, but special characters necessary for spelling are not available in this publication.

Mertensia paniculata — Bluebells

Boraginaceae (Borage Family)
Common names: Bluebells, chiming bells, languid lady, lungwort, mountain bluebells

Physical description: This plant has many stems, 18 to 30 inches tall, with hairy, dark green leaves that are broad at the base and tapering to a long point. The flowers are tubular (funnel-shaped), and pink in bud, later turning blue; occasionally the flowers are all pink (Pratt 1989).



Mertensia paniculata
Bluebells
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: No information found
Symptom: Heart problems
Plant application: Chew

General uses

Heart problems: According to Brenda Hall, chewing the roots of bluebells (*Mertensia paniculata*?) and swallowing the juice was good for heart conditions (Hall 1979). It was unclear if this was a traditional cure.

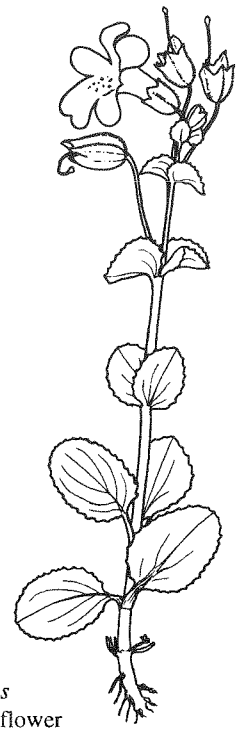
Yupik

Names: *Punaiyulinu'kait* (meaning "bumblebee food"); *choikpu'goak* (meaning "like an iron knife"); *neqnirliar* (for *Mertensia maritima*, Nelson Island)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Mimulus guttatus Yellow monkey flower

Scrophulariaceae (Figwort Family)
Common names: Yellow monkey flower, common monkey flower

Physical description: This is a sprawling plant with upright blooming branches that are 8 to 16 inches tall. The stem leaves are round to oblong, toothed along the edges, dark green, and opposite. The light green calyx is inflated and holds a 5-petaled irregular-shaped tubed flower with flaring petals. The petals are bright yellow with reddish spots in the throat (Pratt 1989).



Mimulus guttatus
Yellow monkey flower
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: No information found
Symptom: Constipation
Plant application: Infusion/decoction

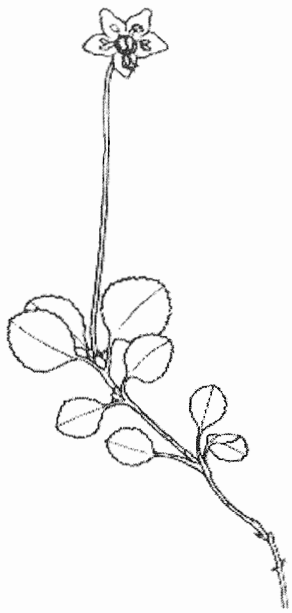
Chugach area uses

Constipation: An infusion of yellow monkey flower was drunk for constipation (Birket-Smith 1953).

Moneses uniflora — Single delight

Pyrolaceae (Wintergreen Family)
Common names: Single delight, Bethlehem star, frog's reading lamp, one-flowered wintergreen, shy maiden, St. Olaf's candlestick, wood nymph

Physical description: This small plant has a rosette of small, light green, roundish leaves (about 1/2 inch) with shallow teeth. The flower is on a leafless stem 2 1/2 to 4 inches high and has 5 pointed, waxy petals. It has a protruding ovary and faces downward. The capsule is round with protruding stigma (Pratt 1989).



Moneses uniflora
Single delight
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Ikignganaq* (Port Graham)
Symptom: Colds/flu, coughs/chest congestion, sore throat
Plant application: Infusion/decoction

English Bay and Port Graham area uses *(See P.S., page 177.)*
Prince William Sound and lower Kenai Peninsula area uses
Sore throat: Chugach Eskimo prepared a decoction from the roots and drank the tea (Kari 1995). The entire plant was collected after the seed pod matured (mid-August) and was dried. It was then steeped for ten minutes to make a tea and drunk. An infusion too strong could injure the throat and one informant recommended that only a couple of leaves be used for children (Wennekens 1985). Stanek also reported this plant was mixed with coltsfoot (*Petasites* spp.), brewed into a tea, and durnk for sore throats (Stanek 1985).

Athabascan

Name: *Qunulggugi* (Outer Inlet Dena'ina)
Symptoms: Cuts/scrapes, sore throats
Plant applications: Infusion/decoction, poultice

Dena'ina uses
Cuts/scrapes: Macerated leaves were placed on cuts to facilitate healing (Kari 1995).
Sore throats: Outer Inlet Dena'ina prepared a decoction from the roots and drank the tea for sore throats (Kari 1995).

Tlingit

Names: No information found
Symptoms: Colds/flu, coughs/chest congestion
Plant applications: No information found

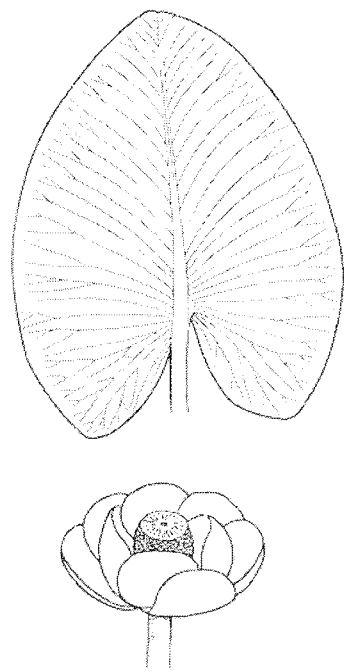
General uses
Colds/flu, coughs/chest congestion: *Moneses uniflora* was used to treat coughs and colds (Alberts in Smith 1973).

Nuphar polysepalum — Yellow pond lily

Shamanic uses have been associated with this plant.

Nymphaeceae (Water Lily Family)
Common names: Yellow pond lily, brandy bottle, cow lily, pond collard, spatterdock, wokas

Physical description: This large plant has small, thin, submerged leaves and large, long-stemmed floating leaves. The large flowers are 3 to 4 inches with 7 to 9 sepals that are green on the underside and are supported by large, fleshy stems. Petals are very narrow and small (Pratt 1989).



Nuphar polysepalum
Yellow pond lily
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Qalltaruaq* (Prince William Sound); *qaltuusaaq* (Port Graham)
Symptom: Skin trouble
Plant application: Ash

Prince William Sound and lower Kenai Peninsula area uses
Roots were once used medicinally, but Alutiiq informants speaking with Alix Wennekens (1985) were not able to remember specific ailments or methods of plant preparation.

Chugach area use
Skin trouble: The water lily (pond lily?) was burnt to a powder and sprinkled on wounds and other skin afflications. The root, stalk leaves, and flowers were used. It was important to leave a gift when harvesting the plant or the medicine was said to have no effect (Birket-Smith 1953).

Athabascan

Names: *Taah dilodzeeda'*; *kelt'uu* (Tetlin, Northway); *xalt'-aadi* (Nebesna); *qalt'ats'a* (Inland, Iliamna, Upper Inlet Dena'ina); *qalt'uts'a* (Iliamna, Outer Inlet Dena'ina)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: No information found
Symptoms: Bruises/sprains, general ill health
Plant applications: Infusion/decoction, poultice

Yakutat area uses
General ill health: According to Frederica de Laguna, yellow pond lily and buckbean (see *Menyanthes trifoliata*) were "perhaps not clearly distinguished by natives, and are on the borderline between ordinary medicine and magical plants" (de Laguna 1972). Yellow pond lily was a "medicine with great power" for the Yakutat Tlingit (deLaguna 1972). Protocols for plant collecting were followed to employ full medicinal capabilities of the plant:

> Thus, the patient will not be cured unless a payment is made to the *Gunetkanayi* [close spelling], specifically a member (or members) of the opposite moiety who is closely related through the paternal line or through affinity. It is such a person who must gather the plant. When you dig it up, talk to it, like you would to Indian doctor, and leave some of your clothes [or money] in its place. Tell them it's for a person we're going to use it for. [Name the patient]. It's medicine..[Say to it] 'No Indian doctor could cure, so we appoint you for a doctor. The person appoint you to cure, that Indian doctor give it up. But you, you do your best to cure it.' They give present to the doctor to make his spirits stronger, so the spirits can cure you or find things out. That is why, it is implied, the plants must also be paid.

This medicine is "good for hurt of any kind," this woman explained. She said that she had drunk an infusion of the plant when she was sick, and had also given some to a relative of her husband, when he had "poison blood" and sores on his legs which the hospital had been unable to cure. He drank a cupful before meals, and now wants her to supply him with more, for which he offered $5. Angoon people are said to use only the roots, but she boiled all the plant and prefers the buckbean to the yellow pond lily" (de Laguna 1972).

General uses
Bruises/sprains: A poultice of crushed pond lily roots was placed on bruises and swellings (Alberts in Smith 1973).

Osmorhiza chilensis — Western sweet cicely

Umbelliferae (Parsley Family)
Common name: Western sweet cicely

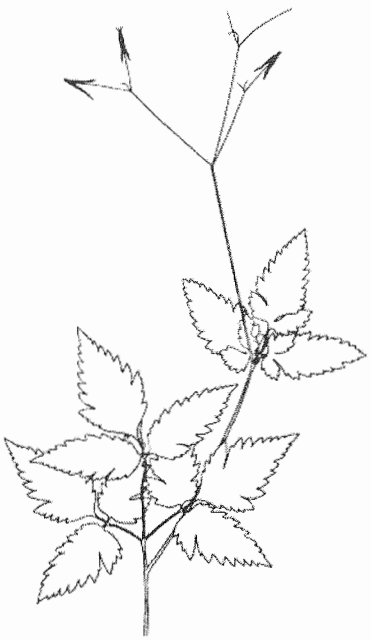
Physical description: No information found

Tlingit

Names: No information found
Symptoms: Coughs/chest congestion, heart problems
Plant applications: Chew, infusion/decoction

General uses

Coughs/chest congestion, heart problems: The root of western sweet cicely was eaten for heart disease (Emmons 1991). *Osmorhiza chilensis* or *Osmorhiza purpurea* (referred to as *Osmorhiza brevistyla* by Blaschke) was brewed into a tea and drunk for coughs (Blaschke in Krause 1956).



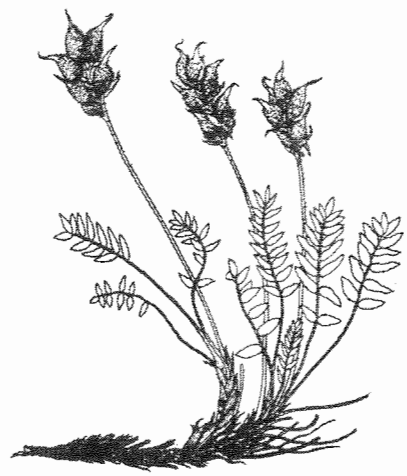
Osmorhiza chilensis
Western sweet cicely
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Oxytropis spp. Locoweed

Some Oxytropis *spp. are poisonous to livestock and humans, especially if consumed in large quantities.*

Leguminosae (Pea Family)
Common name: Locoweed

Physical description: Hultén 1968 lists 19 species of *Oxytropis* found in Alaska. No species name was provided in the medicinal plant reference below. However, *Oxytropis maydelliana* (yellow oxytrope) was eaten in limited quantities by the Inupiat of Sealing Point, Anaktuvuk Pass, and Canada (Uhl and Kaplan in Jones 1983). The most common species in the genus *Oxytropis* are *Oxytropis maydelliana*, *Oxytropis nigrescens*, and *Oxytropis campestris*.



Oxytropis maydelliana
Locoweed
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Inupiat

Names: *Aigaq* or *masu aigaq* (for *Oxytropis maydelliana*)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: No information found
Symptom: Colic
Plant application: Infusion/decoction

General uses

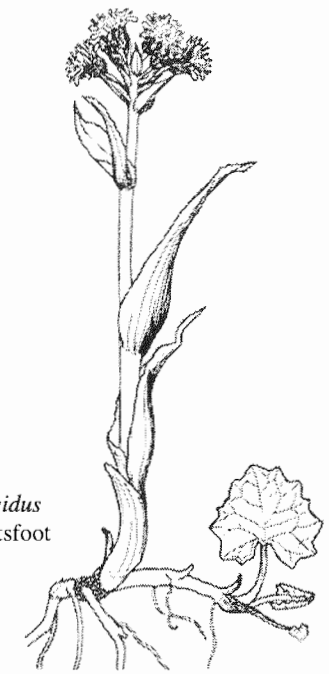
Colic: A decoction of *Oxytropis* spp. roots (also called locoweed by Blaschke) was a treatment for colic (Blaschke in Krause 1956).

Petasites spp. Coltsfoot

Petasites *spp. contains pyrrolizidine alkaloids that can irritate the liver if taken in large and frequent doses. Moderate ingestion of the plant is generally considered safe.*[1] *It has also been noted to cause abortion if taken in high doses.*[2]

Compositae (Composite Family)
Petasites frigidus
Petasites hyperboreus
Common names: Coltsfoot, British tobacco, butterbur, coughwort, flower velure, king's plant, northern coltsfoot, owl's blanket, pestilence-wort, son before father, sarsapareela, sweet colt's foot, wolverine's foot

Physical description: The leaves of *Petasites* are generally toothed and triangular. The underside of the leaf is white with pubescent fuzz. Leaf width ranges from .3 to 12 inches. A central stem bears a single whitish, yellowish, or purplish flower or a cluster of flowers. Coltsfoot is found growing in bogs, wet meadows, creeksides, and other wet places.



Petasites frigidus
Northern coltsfoot

From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Nausak* (Port Graham)
Symptoms: Colds/flu, coughs/chest congestion, measles, pneumonia, sore throat, stomach troubles, tuberculosis
Plant applications: Chew, infusion/decoction

English Bay and Port Graham area uses *(See also P.S., page 178.)*
Sore throat: Bethlehem stars (*Moneses uniflora*) and "sweet coltsfoot" (*Petasites* spp.) were boiled in water and drunk for sore throats (Stanek 1985).

Prince William Sound and lower Kenai Peninsula area uses
Colds/flu, cough/chest congestion: The roots of coltsfoot were cleaned, dried, cut into inch long pieces, and chewed for bad colds or chest congestion (Wennekens 1985). In addition, "some sort of small gift should be left where coltsfoot roots have been removed, or the medicine won't be strong. This is a way for paying for what you take out of the ground" (Wennekens 1985).

Athabascan

Names: *K'ijeghi ch'da* (Inland Dena'ina); ___[3] (Kari 1995)
Symptoms: Coughs/chest congestion, sore throat, stomach troubles, tuberculosis
Plant applications: Chew, infusion/decoction

Chugach area uses
Tuberculosis: Coltsfoot roots were used to treat tuberculosis (Kari 1995).

Dena'ina uses
Coughs/chest congestion, sore throat, stomach troubles, tuberculosis: Both *Petasites hyperboreus* and *Petasites frigidus* were used by the Dena'ina for tuberculosis, chest ailments, sore throats, and stomach ulcers. To administer, the roots were soaked in hot water and the tea drunk (Kari 1995).
Tuberculosis: Coltsfoot root was chewed or boiled into a tea and drunk to "make the blood soft" when blood in the sputum developed as a result of tuberculosis (Osgood 1937). Osgood labeled the plant *Petasites palmata* which does not grow in Dena'ina country. The species of *Petasites* is not verified.

Inupiat

Names: *Milukutakpak*; ___[3]
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] (Schofield 1989)
[2] (Viereck 1987)
[3] Athabascan and Inupiat names have been recorded, but special characters necessary for spelling are not available in this publication.

Tlingit

Names: No information found
Symptom: Cuts/scrapes
Plant applications: No information found

General uses

Cuts/scrapes: Sores were treated with *Petasites palmata*. This plant has a limited range in Alaska (Blaschke in Krause 1956). Blaschke may have been referring to a coltsfoot more commonly found in Tlingit country, such as *Petasites hyperboreus* (northern coltsfoot).

Yupik

Name: *Plugu'tuk*; *qaltaruaq* (entire plant of *Petasites hyperboreus*, Nelson Island); *qikmiruaq* (seedhead of *Petasites hyperboreus*, Nelson Island)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

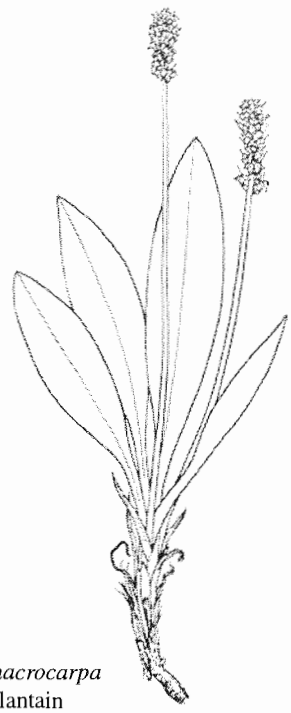
Plantago spp. Plantain

Plantago major *and* Plantago macrocarpa *are naturalized from Europe.*[1]

Plantaginaceae (Plantago Family)
Plantago major
Plantago macrocarpa
Common names: Plantain (*Plantago* spp.); car-track plant, common plantain, dooryard plantain, snakeweed, soldier's herb, waybread, white man's footstep (*Plantago major*); narrowleaf plantain, ribwort, seashore plantain, sheep's herb (*Plantago macrocarpa*)

Physical description: *Plantago major* is found growing in disturbed areas. Leaves are broadly elliptic to cordate-ovate and pubscent (Hulten 1968). Small white flowers grow on a central spike.

Plantago macrocarpa grows in wet meadows, beaches, bogs, and shorelines. Leaves are basal, not fleshy, hairless, and lance-shaped (Pojar and MacKinnon 1994).



Plantago macrocarpa
Common plantain
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Names: No information found
Symptom: General ill health
Plant application: Infusion/decoction

General uses

General ill health: An infusion prepared from the root of *Plantago macrocarpa* was drunk as a tonic (Bank 1953).

Alutiiq

Names: *Uluruaq*; *weguaq* (for *Plantain maritima*)
Symptom: Skin trouble
Plant application: Poultice

Kodiak Island uses

Skin trouble: For bunions and sore cracked feet, *Plantago major* leaves were wrapped around the feet and left on overnight (Graham 1985).

Athabascan

Names: *Nut'aq'i tl'ila* (meaning "goose's rope", Upper Inlet Dena'ina)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] (Hultén 1968)

Polygonum alaskanum — Wild rhubarb

Parts of this plant contain oxalic acid and tannic acid.[1] *Although considered safe in moderate doses, large and frequent ingestion of this plant may cause digestive trouble and kidney damage.*[2]

Polygonaceae (Buckwheat Family)
Common names: Wild rhubarb, Alaska rhubarb

Physical description: This tall (2 to 5 feet) perennial has a thick root and a somewhat woody, branched stem. The oblanceolate leaves are smooth, entire, medium to dark green above and lighter beneath. The tiny flowers are yellowish-white and in a dense branched panicle (Pratt 1989).

Polygonum alaskanum
Wild rhubarb
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: No information found
Symptom: Constipation
Plant application: Infusion/decoction

Chugach area uses

Constipation: Identified only as "wild rhubarb" an infusion of this plant was prepared and drunk for constipation (Birket-Smith 1953). "Wild rhubarb" may also have been referring to a species of *Rumex*.

English Bay and Port Graham area uses *(See P.S., page 178.)*

Athabascan

Name: ___[3] (Kari 1983, 1985; Nelson 1983); *guuth* (Salcha); *ts'iigyuu* (Fort Yukon)
Symptoms: Colds/flu, constipation, coughs/chest congestion, general ill health, heart problems
Plant applications: Chew, infusion/decoction

Healy area uses

Heart problems: "Wild rhubarb" was dried and brewed into a tea and drunk as a treatment for heart conditions (Anderson in Smith 1973).

Ingalik (Deg Hit'an) uses

Constipation: For constipation, the Ingalik (Deg Hit'an) Athabascans prepared a "standard remedy" of fish eggs cooked with *Polygonum alaskanum* leaves. They cooked, strained, and drank this mixture warm (Osgood 1958).

Upper Tanana uses

Colds/flu, coughs/chest congestion: The roots and base of the stem of Polygonum alaskanum were sometimes chewed for coughs and colds by the Upper Tanana Athabascans (Kari 1985).

General uses

General ill health: Although only referred to as "wild rhubarb", which is also a common name for *Rumex* spp., Brenda Hall reports when eaten raw or cooked, wild rhubarb was good to purify the blood (Hall 1979). It is unclear if this is a traditional treatment.

Inupiat

Names: *Qusrimmaq, qusrimmak, qusrimmat, qusimmaq*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Name: *Tl'ak' wúch*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Name: *Angukaq*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] (Fortuine 1989)
[2] (Schofield 1989)
[3] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Rumex spp. Dock

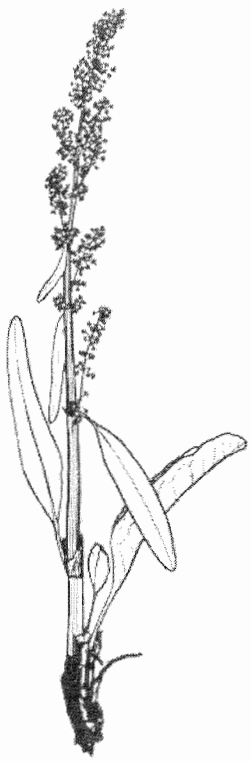
Rumex *spp. contains oxalic acid.*[1] *Large doses of oxalic acid may pose a health hazard. Oxalic acid concentrations increase as the plant ages. Freezing or cooking helps to break down oxalic acid before consumption.*[2]
The dried root is a cathartic (a substance which causes purging or cleansing) and an astringent.[3]

Polygonaceae (Buckwheat Family)
Rumex acetosella
Rumex arcticus
Rumex fenestratus
Common names: Dock (*Rumex* ssp.); arctic dock, sorrel, wild rhubarb, sour dock, (*Rumex arcticus*); Indian rhubarb (*Rumex fenestratus*); sorrel, sheep sorrel (*Rumex acetosella*)

Physical description: Hultén recognizes two subspecies of *Rumex acetosella* occurring in Alaska, *R. acetosella* ssp. *acetosella* and *R. acetosella* ssp. *angiocarpus*. *Rumex acetosella* ssp. has a long, slender stem and thin rootstock. Leaves are long and narrow. Flowers are red to yellow (Hulten 1968).

Rumex arcticus is a large (up to 4 foot tall) heavy-stalked plant with large, glabrous lance-shaped leaves. Most leaves are on the flowering stalk and are reduced in size as they grow upwards. The tiny flowers, which have no petals, have large, colorful red or green bracts beneath them on the branched colorful stalk (Pratt 1989).

Rumex fenestratus is commonly found in wet places. The leaves of *Rumex fenestratus* are lance-ovate. Lower leaves have a long petiole and are cordate at the base. The stem is erect, stout, and grow from a central taproot (Hulten 1968).



Rumex arcticus
Arctic dock
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Names: *Nenelli* (Russian origin?); *tangax uqux* (for *Rumex acetosella*, Atka)
Symptoms: Bruises/sprains, cuts/scrapes, warts
Plant application: Poultice

Unalaska area uses
Cuts/scrapes: Roots and leaves of sorrel *Nenelli* were given internally as a treatment for wounds (Merck 1980). The report does not state how this plant was harvested or administered. Species of *Rumex* is not known.
General uses
Bruises/sprains, warts: For warts or bruised skin, steamed leaves of *Rumex acetosella* were placed on the afflicted area (Bank 1953). Frequency of application and anticipated results of treatment were not stated.

Alutiiq

Name: *Quunarleq* (for *Rumex fenestratus*, Port Graham); *gunnarliiq* (for *Rumex arcticus* or *Rumex fenestratus*)
Symptoms: Constipation, general ill health, headache
Plant applications: Chew, infusion/decoction, snuff

English Bay and Port Graham area uses *(See P.S., page 178.)*
Kodiak Island area uses
General ill health: The leaves of *Rumex* spp. were eaten to "purge the system and clean the blood" (Graham 1985). *Atunat* is a wood sorrel (scientific name not listed) which, crushed and brewed, was used as an emetic (a substance that causes vomiting) and sometimes as a sedative (to help calm or soothe a person) (Pierce 1978).
Prince William Sound and lower Kenai Peninsula area uses
General ill health: Tea resulting from boiling the roots of *Rumex arcticus* was used as a purgative to cleanse the system (Wennekens 1985).
Headache: *Quunarleq* (*Rumex fenestratus*) leaves were picked, dried, ground, and sniffed to stop sneezing and to alleviate a

headache. The leaves were picked June through August (Wennekens 1985).

Athabascan

Names: *Tash'I* (Outer Inlet Dena'ina); *kashi* (Inland, Iliamna, Upper Inlet Dena'ina); *kashi* (Lime Village, Dena'ina for *Rumex arcticus*); ___[4] (Kari 1985)
Symptoms: Colds/flu, constipation, general ill health, hangovers, stomach troubles, tuberculosis, urinary problems
Plant applications: Chew, infusion/decoction

Dena'ina uses

Constipation, hangovers, stomach troubles, tuberculosis, urinary problems: The roots of sour dock (*Rumex arcticus*, *Rumex fenestratus*, *Rumex transtorius*) were made into a tea by boiling or soaking in hot water and was drunk by the Upper Inlet and Inland Dena'ina to treat stomach and bladder problems. Upper Inlet Dena'ina claim sour dock was effective against tuberculosis, constipation, and hangovers. The roots were sometimes given to induce vomiting and cleanse the system (Kari 1995).

Han, Eagle area uses

General ill health: Sarah Malcolm mentioned the eating of "wild rhubarb" for food and medicine (Scott 1993). Specific ailments and methods of plant preparation were not mentioned.

Kutchin, Chandalar area uses

Colds/flu: Colds were treated in part by eating the roots of "arctic dock" (*Rumex arcticus*?) (McKennan 1965). The species of *Rumex* is not verified.

General uses

General ill health: Although only referred to as "wild rhubarb", which is a common name for both *Polygonum alaskanum* and *Rumex* spp., Brenda Hall reported that, when eaten raw or cooked, wild rhubarb was good to purify the blood (Hall 1979). It is unclear if this was a traditional treatment.

Inupiat

Names: *Quagaq*, *quagak*, *quagat* (for *Rumex arcticus*)
Symptoms: Diarrhea, measles
Plant application: Chew

General uses

Diarrhea: Inupiat of the Walakpa Bay area boiled or submersed the leaves of *Rumex arcticus*, "salad plant", in seal oil and ate it as a treatment for diarrhea (Potter 1972).

Diarrhea, measles: According to DeLapp and Ward (1981), eating cooked or raw sourdock and wild rhubarb (the species of *Rumex* not noted) in seal oil helped to relieve diarrhea. This same treatment was given by a woman to villagers during an outbreak of measles while at fish camp. The species of *Rumex* is unclear. However, *Rumex arcticus* was a commonly eaten green by the Inupiat and grows in abundance in Inupiat country.

Tlingit

Names: No information found
Symptom: Cuts/scrapes
Plant application: Salve

Yakutat area uses

Cuts/scrapes: A female informant working with Frederica de Laguna (1972) best described the use and preparation of "dock" or "sorrel" for cuts:

> They cook it, they mash it, they use fresh seal oil and mix it. Then they put it on. All that thing, you know- sometimes it's pussy, you know. They clean it out. It heals quick. It eats up the pus. Boil it and chop it up and put it together with fresh seal oil like vaseline....Put it on cuts, like iodine.

The treatment appeared to be extremely effective.

Yupik

Names: *Kangagatutu'li* (for *Rumex arcticus*); *angu'kuk* (male plant); *koak'chet*; *ahkakuk* (for *Rumex arcticus*, St. Lawrence Island); *qagciq* (for *Rumex arcticus*, Nelson Island)
Symptom: Diarrhea
Plant application: Chew

Napaskiak area uses

Diarrhea: In preparation for winter healing needs, the leaves of sour dock were collected and placed in a small barrel in midsummer. To relieve severe cases of diarrhea, leaves and stems were cooked and eaten before any other food first thing in the morning and again at night (Oswalt 1957). Oswalt notes the plant is most likely *Rumex acetosa* ssp. *alpestris*, but the verification of species was not completed.

[4] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Sedum rosea ssp. *integrifolium* — Roseroot

Over-ingestion of roseroot can cause nausea and headaches.[1]

Crassulaceae (Stonecrop Family)
Common names: Roseroot, king's corn, orpine, scurvy grass, stonecrop

Physical description: This is a fleshy plant with slightly toothed, crowded, glabrous, bluish-green leaves on heavy stems topped by a cluster of small dark reddish (occasionally yellow) 4- or 5-petaled flowers (Pratt 1989).

Athabascan

Names: *Hushtnila* (Inland Dena'ina); *diqus nula* (Upper Inlet Dena'ina)
Symptoms: Childbirth, colds/flu, cuts/scrapes, eye problems, sore throat
Plant applications: Chew, infusion/decoction, poultice

Dena'ina uses

Childbirth: Expectant mothers were given an infusion of roseroot leaves and roots to facilitate childbirth (Kari 1995).

Colds/flu, sore throat: This tea (see above) was also drunk by the Inland Dena'ina for colds, sore throats, and mouth sores. Raw roots were chewed for sore throats (Kari 1995).

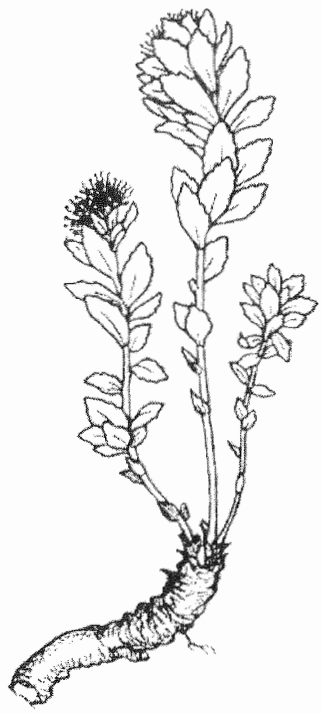
Cuts/scrapes, eye problems: A decoction of roseroot leaves and roots was used as a wash for sore eyes and cuts as well as a bath for sore feet. Raw roots were placed on cuts to encourage healing (Kari 1995).

Lime Village area uses

People of Lime Village also made use of roseroot for medicine, although no details were provided (Kari 1983).

Inupiat

Name: *Likutaq*, ___[2]
Symptoms: No information found
Plant applications: No information found
Uses: No information found



Sedum rosea ssp. *integrifolium*
Roseroot
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Yupik

Name: *Cuqlamcaraat*, *nooneevuk* (St. Lawrence Island)
Symptoms: Internal pain, stomach troubles, tuberculosis
Plant applications: Chew, infusion/decoction

Nelson Island area uses

Internal pain: Leaves were chewed raw and the resulting juice spit out to relieve sores in the mouth (Ager and Ager 1980).

Nunivak Island area uses

Stomach troubles, tuberculosis: Flowers of roseroot were used for stomach pain as well as "intestinal discomfort" (Lantis 1958, 1959). The flowers were also chewed to treat tuberculosis (Lantis 1958).

[1] (Schofield 1989)
[2] An Inupiat name has been recorded, but special characters necessary for spelling are not available in this publication.

Senecio pseudo-arnica — Beach fleabane

Members of the genus Senecio *contain the toxic substances platy-phylline acid, tartrate, and senecionine.*[1]

Compositae (Composite Family)
Common names: Beach fleabane, ragwort

Physical description: This leafy robust plant, 18 to 24 inches tall, has large flowers that are white and wooly in bud. Leaves are large oblanceolate, shallowly toothed, fleshy, and green above and wooly white beneath (Pratt 1989).

Aleut

Name: *Ukcudax* (Atka Island)
Symptom: Cuts/scrapes
Plant application: Poultice

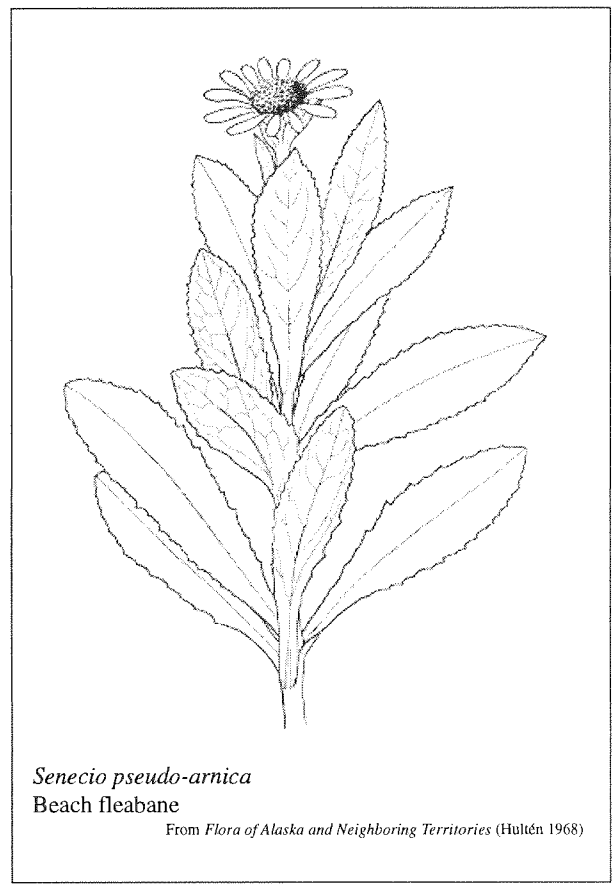
General uses

Cuts/scrapes: Leaves were harvested when plants were flowering, then "placed directly over cuts and boils to aid in drainage" by the Aleut (Bank 1953).

Alutiiq

Name: *Kegtuyaqutaq* (Meaning "mosquito plant")
Symptoms: Infections/inflammation, skin trouble
Plant application: Poultice

English Bay and Port Graham area uses *(See P.S., page 178.)*



Senecio pseudo-arnica
Beach fleabane
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

[1] (Fortuine 1989)

Smilacina racemosa — False Solomon's seal

Liliaceae (Lily Family)
Common name: False Solomon's seal

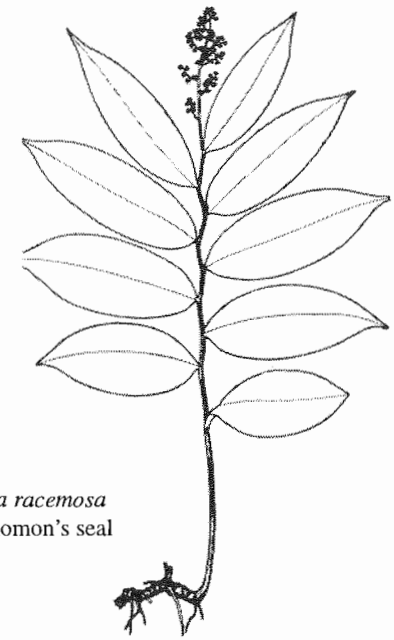
Physical description: This plant arises from a stout, fleshy rootstock. The stem is pubescent (finely hairy) above, and slightly zigzag. The leaves are pubscent beneath. It is found in shaded woods (Hultén 1968).

Tlingit

Names: No information found
Symptoms: No information found
Plant application: Infusion/decoction

General uses

Harvested in spring, the root of *Smilacina racemosa* was rubbed on a stone, infused in boiling water, and ingested to produce vomiting (Emmons 1991).



Smilacina racemosa
False Solomon's seal

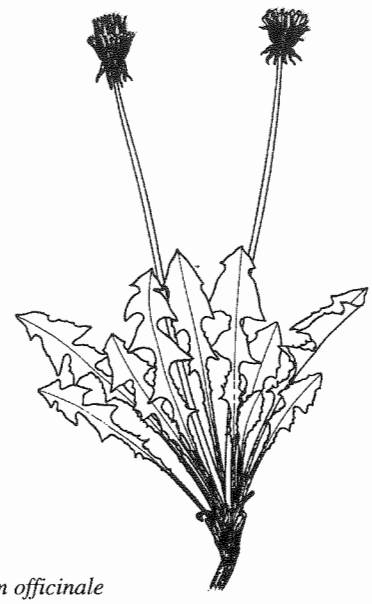
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Taraxacum officinale Dandelion

This is an introduced weed, naturalized from Europe.[1]

Compositae (Composite Family)
Common name: Dandelion

Physical description: Commonly found in disturbed areas and roadsides, dandelion is a highly opportunistic plant. It is a perennial herb with milky juice. Leaves are all basal and mostly toothed. Flowers are yellow and solitary.



Taraxacum officinale
Dandelion
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Names: No information found
Symptoms: Arthritis, sore throat, stomach troubles
Plant application: Poultice

General uses

Arthritis, sore throat, stomach troubles: Dandelion leaves were steamed and wilted before being applied as a poultice for arthritis (Turner in Smith 1973). Sore throats and stomachaches were treated similarly (Alexander in Smith 1973).

Alutiiq

Name: *qutem naanaarua'a*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] (Hultén 1968)

Thalictrum sparsiflorum — Meadow rue

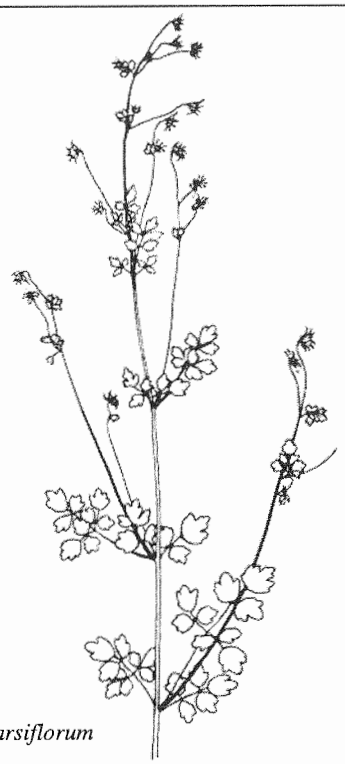
Ranunculaceae (Crowfoot Family)
Common name: Meadow rue

Physical description: The small, inconspicuous male and female flowers of meadow rue, *Thalictrum sparsiflorum*, are found on the same plant. It grows in moist meadows, woods, and thickets.

Alutiiq

Name: *Wasillisaaq* (Port Graham)
Symptoms: Pneumonia, tuberculosis
Plant application: Infusion/decoction

English Bay and Port Graham area uses *(See P.S., page 178.)*
Prince William Sound and lower Kenai Peninsula area uses
Pneumonia: Meadow rue leaves were picked and boiled for one hour. The liquid was then drunk to treat pneumonia (Wennekens 1985).
Tuberculosis: The root was boiled into a tea and drunk for tuberculosis (Wennekens 1985).



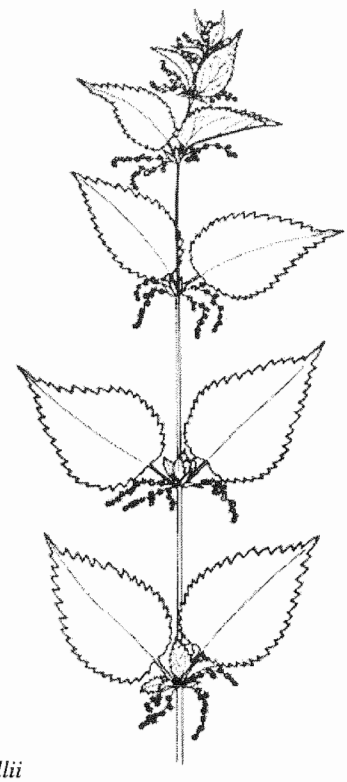
Thalictrum sparsiflorum
Meadow rue
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Urtica spp. Nettle

Old nettle leaves contain cystoliths and can irritate the kidneys. Young plants should be steamed or dried before ingesting.[1]
Gloves should be used when gathering fresh plants to avoid compounds that sting the skin.

Urticaceae (Nettle Family)
Urtica gracilis
Urtica lyallii
Common names: Nettle, burning nettle, common nettle, Indian spinach, seven-minute itch, stinging nettle

Physical description: A tall rigid plant up to 40 inches tall with a slender square stem. The toothed, strongly viened, coarse-looking leaves have short stems and are placed opposite on the stems. They are long and narrow, broader at the base and have stinging hairs. The numerous tiny green flowers are on long drooping chains arising from the junction of the leaves and stem (Pratt 1991).



Urtica lyallii
Nettle
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Paumaq* (Prince William Sound), *uugaayanaq* (Port Graham, Kodiak Island)
Symptoms: Arthritis, constipation, general ill health, toothaches, tuberculosis
Plant applications: Infusion/decoction, poultice

Chugach area uses
Constipation: A nettle infusion was drunk for constipation (Birket-Smith 1953).
English Bay and Port Graham area uses *(See also P.S., page 178)*
Arthritis, toothaches: Nettle roots and devil's club roots were used for arthritis and toothaches by the people of English Bay and Port Graham. The method of use was not documented. A note of caution by village elders warned that the plants should be used carefully because they could harm the patient if used incorrectly (Stanek 1985).
Kodiak Island uses
Tuberculosis: Nettle tea was prepared and given to people suffering from tuberculosis (Graham 1985).
Prince William Sound and lower Kenai Peninsula area uses
Toothaches: Two techniques involving nettles were used to treat toothaches (Wennekens 1985). The first method:

> In English Bay, nettle root was dug, cleaned and crushed, then warmed and placed on a hot rock. The patient for whom this medicine was intended would then drape a blanket over himself and inhale the steam which arose when the hot rock he had taken under the blanket with him was sprinkled with water. After a period of this treatment, the patient was given a bit of the warm nettle root to put on the tooth and sent to bed. The next morning, the tooth could be removed very easily in its entirety.
>
> [The second method:] Another method for treating a diseased tooth in Port Graham consisted of warming a piece of nettle root and placing it directly on the offending tooth. Then a small mat woven of fine nettle roots was placed on the cheek outside the sore tooth. After three or four applications of the mat, the tooth would be crumbly and easy to remove completely.

Athabascan

Name: ___[2]
Symptom: Rheumatism
Plant application: Poultice

Dena'ina uses
Rheumatism: Hot water followed by a wrap of nettle leaves on the afflicted area was used to treat rheumatism (Osgood 1937).

[1] (Schofield 1989)

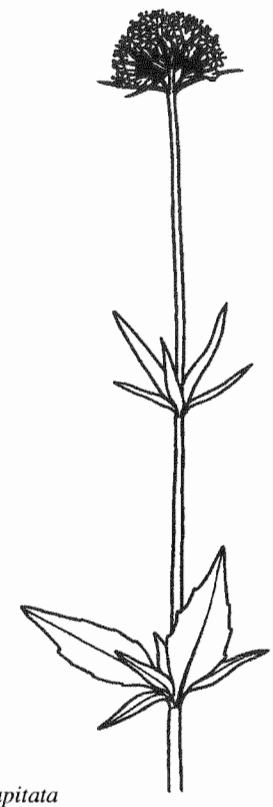
[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Valeriana spp. Valerian

Large and frequent doses of Valeriana *spp. may produce symptoms of poisoning; normal doses are generally considered safe.*[1]

Valerianaceae (Valerian Family)
Valeriana capitata
Valeriana sitchensis
Common names: Valerian, all-heal, fragrant valerian, heliotrope, phu, setwell, tobacco root (*Valeriana* spp.); capitate valerian (*Valeriana capitata*); Sitka valerian (*Valeriana sitchensis*)

Physical description: *Valeriana capitata* is a mostly glaborous plant (5 to 12 inches tall) with dark green leaves. Basal leaves are ovate. The stem leaves are wavy, the lower ones divided into 3 leaflets (the middle one being long and pointed). Upper stem leaves are entire and nearly linear. Bracts in flower heads are glaborous. The tight, round flower head is maroon in bud, turning pink to pinkish-white, and white in full bloom (Pratt 1989).



Valeriana capitata
Valerian
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Tthi'man* (Tetlin); *tthi'mani* (for *Valeriana capitata* and *Valeriana sitchensis*, Nebesna)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: *Ginnee nak, koushta nak*
Symptoms: Childbirth, constipation, cramps, general ill health, sore muscles, stomach troubles
Plant applications: Compress, infusion/decoction, poultice, powder

Yakutat area uses

Childbirth, cramps, sore muscles: The plant (root?) was gathered and ground into a powder to assist in weaning. The strong powder, placed on the mother's breasts, was reported to discourage nursing by slightly burning the baby's mouth. This powder was also mixed with hot water and placed on sore muscles and cramps (de Laguna 1972).

General ill health: When harvesting this plant it was important to address and "pay" the plant before collecting. "Paying" the plant was done by leaving a small token (perhaps clothes or money) at the site. Yakutat Tlingits would make 'medicine that stinks' by rubbing valerian on the body for "any kind of sickness" (de Laguna 1972).

General uses

Constipation, stomach troubles: Referred to as "smelly or stinking medicine" by the Tlingit, *Valeriana sitchensis* roots "were rubbed off on a rough stone or chewed and spat out, boiled in hot water, and drunk" as a treatment for constipation (Emmons 1991). *Valeriana sitchensis* leaves were also heated and applied as a poultice (Emmons 1991) as a treatment for stomach troubles. See *Gentiana douglasiana* for a similar treatment.

Note

Listed only as "valerian", the root of this plant was an important medicine to the Tlingits (McGregor 1981). Of the two species of Valerian found in Southeast Alaska (*Valeriana sitchensis* and *Valeriana capitata*), *Valeriana sitchensis* is more abundant and widespread. According to Dr. Georg von Langsdorff, "all severe diseases were ascribed to the sorcery of their enemies, and the root of a particular species of valerian was considered as the most effectual remedy that can be administered" (Langsdorff in Fortuine 1988)

Frederica deLaguna listed "wild heliotrope or valerian" as being used by the Tlingit. This plant was most likely *Valeriana*

[1] (Schofield 1989)

sitchensis (or possibly *Valeriana capitata).* It was "a medicine with great power" for the Yakutat Tlingit (1972).

Yupik

Name: *Ahseukpuk* (St. Lawrence Island)
Symptom: Stomach troubles
Plant applications: No information found

St. Lawrence Island area uses

Stomach troubles: *Valeriana capitata* was used for stomach trouble (Young and Hall 1969). Parts of plants used and methods of preparation were not stated. This species was also said to be good luck.

Veratrum viride ssp. *eschscholtzii* — False hellebore

Shamanic uses have been associated with this plant. When this plant is used improperly, death by asphyxia can occur.[1] *Ingestion of this plant is not recommended.*

Liliaceae (Lily Family)

Common names: False hellebore, corn lily, green hellebore, Indian poke, itchweed, skookum root

Physical description: This is a large plant (up to 5 feet tall) with very large broadly ovate leaves with obvious linear veins that clasp the thick stalk. The tall flowering stalk has branched, drooping stems of numerous green flowers with 6 tepals (3 petals and 3 sepals that look alike) (Pratt 1989).

Alutiiq

Names: No information found
Symptom: Eye problems
Plant application: Poultice

Kodiak Island area uses

Eye problems: The stem of "skookum root" was burned near the root and mixed with breast milk before being applied to the eye to treat cataracts (Preston in Fortuine 1988).

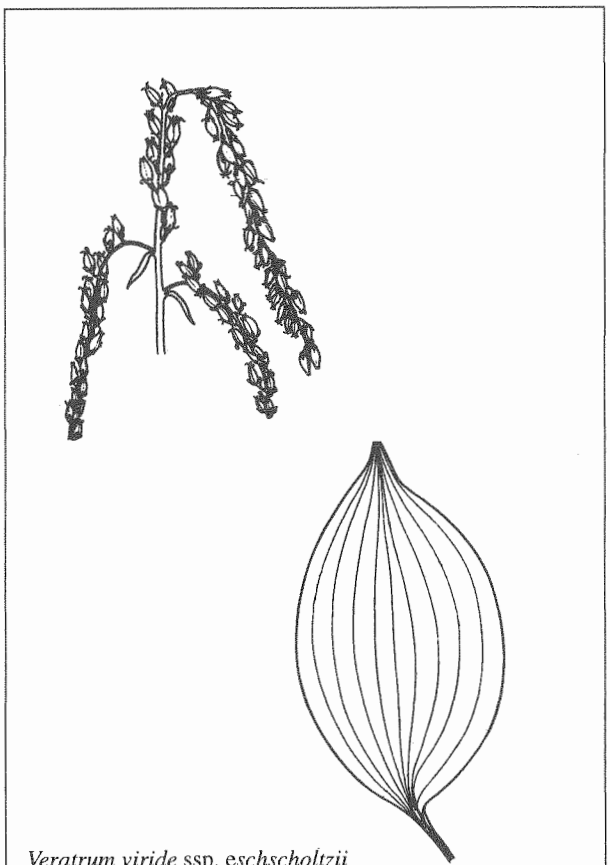
Athabascan

Names: *Ch'ishkena* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina); ___[2]
Symptoms: Cuts/scrapes, internal pain, skin trouble, sore muscles, toothache
Plant applications: Ash, chew, infusion/decoction, poultice

Dena'ina uses

Cuts/scrapes, skin trouble, sore muscles: According to Kari (1995), false hellebore was considered the strongest medicine of the Dena'ina. By mashing, then boiling or soaking the root in hot water, false hellebore was ready to be used as a poultice for aches, blood poisoning, cuts, sores, and rashes. These same conditions were also treated by washing the afflicted area with a root decoction or sprinkling the wound with ashes from the burned root (Kari 1995).

Internal pain: The root was chewed as an emetic. However, correct dosages required extreme skill and caution by the healer (Kari 1995).



Veratrum viride ssp. *eschscholtzii*
False hellebore
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Toothache: To faciliate removal of a rotten tooth, a piece of raw root was placed on the tooth. Caution was taken not to swallow any of the root or its juice, presumably because of the toxic nature of false hellebore (Kari 1995).

Note

The root has also been used as a vermifuge (an agent that kills intestinal worms) for dogs, and, again, dosages were crucial to avoid poisoning.

Haida

Names: No information found
Symptoms: Arthritis, colds/flu
Plant application: Snuff

General uses

Arthritis: This was relieved through the use of skookum root leaves (McGregor 1981). Methods of use were not reported.

Colds/flu: A small amount, presumably powdered, was snuffed up the nose for colds (McGregor 1981).

"The Haida used skookum root for a tranquilizer and painkiller" (McGregor 1981).

[1] *Veratrum* spp. contains many alkaloids: veratridine, veratrine, jervine, cevadine, and veratralbine. Traditionally an important medicinal plant, dosages must be strictly monitored or ingestion of the plant may result in death by asphyxia (Heller 1963). Symptoms of poisoning may be noticed within ten minutes of ingestion (Schofield 1989).

[2] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Tlingit

Names: No information found
Symptoms: Arthritis, colds/flu, dandruff, hair problems, insomnia, menstrual problems
Plant applications: Oil, snuff

Yakutat area uses

This plant was one of the "medicines of great power" of the Yakutat Tlingit people. This plant commanded great respect; it was strong medicine. However, if used in incorrect quantities, it could be fatal (de Laguna 1972).

General uses

Arthritis: This was relieved through the use of skookum root leaves (McGregor 1981). Methods of use were not reported.

Colds/flu: Skookum root tea and fresh seal oil were given to help induce sweating (de Laguna 1972). To treat colds, a small amount, presumably powdered, was snuffed up the nose (de Laguna 1972; McGregor 1981).

Hair problems: False hellebore was employed a number of ways to help hair growth and dandruff by the Tlingit:

> The roots, ground up and mixed with fresh seal oil, will make the hair grow, hence it is called head-hair medicine.

According to one woman, the roots were cut in small pieces and mixed with oil, while fir buds were added to make it smell good. This was rubbed on the head for dandruff. Or, to make:

> good dandruff medicine, when you get your hair falling out, you take the leaves, put it in a little can, and burn it. Just use the ashes of it. [Or?] dry the leaves, make a powder out of it. Put seal oil on, rub it in your hair. Be mighty careful you don't get any on your eyes. It would blind you. It's strong, that's why you can't use it without oil. That's why you never find any old people baldheaded.

The informant went on to tell how 'skookum root' and seal oil quickly restored to a man's head the hair torn out by his jealous wife.

Insomnia: The root of false hellebore was said to produce a "deep sleep like the effect of an intoxicant" (Emmons 1991). Frederica de Laguna noted "it is generally regarded by the Indians as a sovereign remedy, though dangerous" (Emmons 1991).

Menstrual problems: An informant stated:

> Other people make cramp medicine out of it, for when women have their monthlies. People used to get it and dry it and put it away for winter. It's good for pneumonia. Boil the leaves of it, or the roots, with seal oil. Take just a little bit.

De Laguna reported that the informant said that "this was effective in her own case" (de Laguna 1972).

Traditional Preparation Methods
***(see* Cautionary Note)**

According to McGregor, skookum root was prepared for medicinal purposes by: 1) digging up bulbous root and cutting off up to 3 inches; 2) drying on top of stove; and 3) covering with water and simmering 1 hour. The dose was 1 teaspoon in a glass of water. Effects were felt almost immediately. After drying, the root was also ground into powder to be used for snuffing (McGregor 1981).

Tsimshian

Names: No information found
Symptoms: Arthritis, colds/flu, hair problems, insanity
Plant application: Snuff

General uses

Arthritis: This was relieved through the use of skookum root leaves (McGregor 1981). Methods of use were not reported.

Colds/flu: A small amount, presumably powdered, was snuffed up the nose (McGregor 1981).

Hair problems: "Tsimshian today describe use of skookum root for diseases of the scalp such as ringworm and dandruff. It reportedly allows hair to grow back in cases of alopecia" (McGregor 1981).

Insanity: "Tsmishian describe a cure for insanity. The patient's head is shaved and skookum root applied. The medicine is introduced into the bloodstream by gently hitting the head with a spruce bough until blood is drawn" (McGregor 1981).

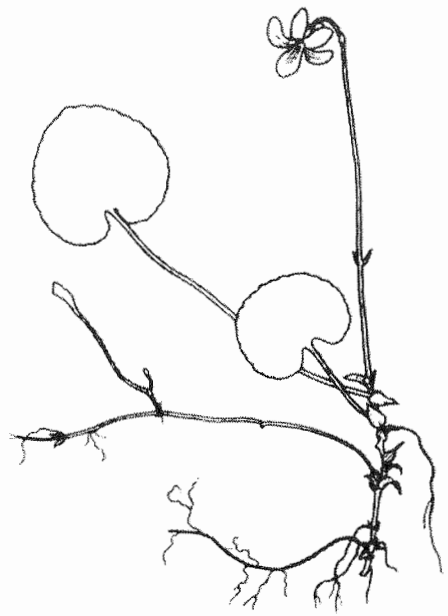
Cautionary Note

Traditionally skilled and knowledgable people administered the plant, yet even then dosage was difficult to control.
Death can result from ingesting this plant and it is not advised for use.

Viola epipsila ssp. *repens* — Marsh violet

Violaceae (Violet Family)
Common names: Marsh violet, violet

Physical description: This loose plant has long stems (up to 8 inches) and heart-shaped leaves with shallow teeth. The 5-petaled, irregular, purple flowers are somewhat square and have long stems (Pratt 1989).



Viola epipsila ssp. *repens*
Marsh violet
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Name: *Tsahduya* (Upper Inlet Dena'ina); *tthi'man* (Tetlin, Northway)
Symptom: General ill health
Plant application: Smoke

Dena'ina uses

General ill health: The long thin roots of the marsh violet, (*Viola epipsila*) were dried and burned by the Upper Inlet Dena'ina to help keep sickness away. Priscilla Russell Kari noted that this was used by shamans as well as the rest of the Dena'ina community (Kari 1995).

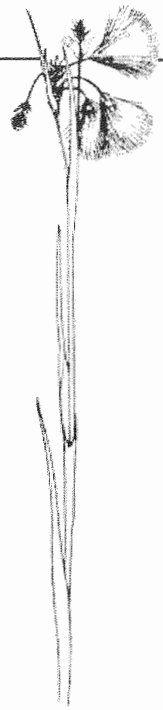
Tlingit

Names: No information found
Symptoms: No information found
Plant applications: No information found

General uses

Emmons mentioned that the root of a yellow violet, assumed to be *Viola glabella* by Frederica de Laguna, was used medicinally (Emmons 1991). He did not provide details on plant use.

Grasses and Sedges

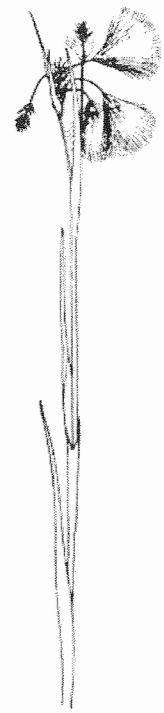


Grasses are members of the botanical family Gramineae, and are characterized by hollow stems that are circular in cross section with bladelike leaves arranged on the culm or stem in two ranks. Sedges are grass-like in appearance, but have solid stems that are often triangular in cross-section (Gabriel and Talbot 1984).

Eriophorum spp. Cottongrass

Cyperaceae (Sedge Family)
Eriophorum angustifolium
Eriophorum russeolum
Eriophorum scheuchzeri
Common names: Cottongrass, Alaska cotton, mouse-nuts, swamp cotton

Physical description: *Eriophorum* spp. are found in wet areas, particularly bogs, meadows, and wet tundra. These sedges have a white, "cottony" looking inflorescence. This white soft flower head was frequently used as an absorbent material for cuts, diapers, and bedding. The more than one dozen species of *Eriophorum* in Alaska are found in a wide range of elevations.



Eriophorum angustifolium ssp. *angustifolium*
Cottongrass
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Culuguaq qii'aq, qinugyuguaq* (for *Eriophorum russeolum*, Chugach)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Athabascan

Names: *Tl'egh lits'a* (meaning "sedge fluffy", Iliamna and Outer Inlet Dena'ina)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Inupiat

Names: *Pikniq, pikniik, pikniich, pitniq, pitniik, pitniich*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Names: *E'tuk* (for plants with flowers); *kalukaiya'hak* ("little thread", for plants without flowers); *tuu shyii*; *eetaluk* (meaning "stems", Nelson Island); *eetuk* (meaning "roots", Nelson Island
Symptoms: Cuts/scrapes, general ill health
Plant applications: Chew, poultice

Lower Kuskokwim and Nunivak-Nelson Island area uses
Cuts/scrapes: An elderly couple shared with Margaret Lantis that *Eriophorum russeolum* or *Eriophorum scheuchzeri* was placed on a boil after it "suppurates naturally" (Lantis 1959). This was done presumably to soak up the pus.
Napaskiak area uses
General ill health: The lower stems of "female" plants of tall cotton grass (*Eriophorum angustifolium*) were chewed raw by "persons in poor general health" (Oswalt 1957). It is unclear what Oswalt meant when he referred to "female plants". He is possibly referring to plants once they have flowered.

Gramineae (Grass Family)
Common Name: Grass

Physical description: Many different species of grass have been used for food, clothing, housing material and more by traditional peoples. Grasses can be found growing in a wide variety of climates. Differences in species are often small, making them difficult to identify.

Alutiiq

Names: No information found
Symptom: Childbirth
Plant applications: No information found

Chugach area uses
Childbirth: Grass was used to tie the umbilical cord of a newborn, presumably to facilitate cutting the cord (Birket-Smith in Fortuine 1988).

Athabascan

Names: *kechan* (Inland, Iliamna, Upper Inlet Dena'ina); *k'enchan* (Outer Inlet Dena'ina); *gidingidz* (Kuskokwim Ingalik [Deg Hit'an]); *k'itsaan'* (Koyukon); *ti'oh*; ___[1] (Ager and Ager 1980)
Symptoms: Stings, stomach troubles
Plant application: Poultice

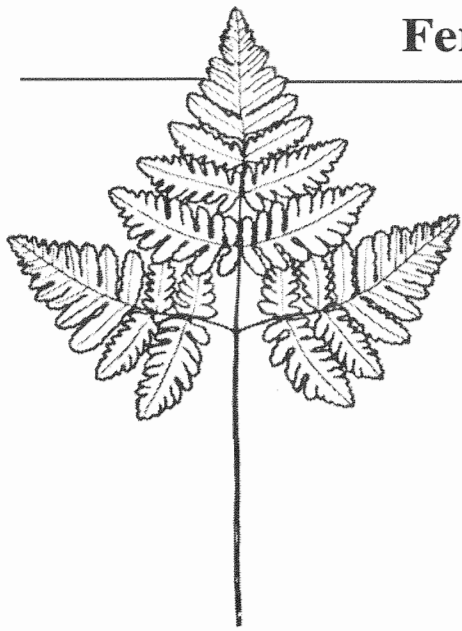
Dena'ina uses
Stings, stomach troubles: According to Priscilla Russell Kari, the Dena'ina partially chewed a blade of grass and placed it on a sting to reduce the pain. Leaves from birch (*Betula* spp.) and cottonwood (*Populus* spp.) trees can be used the same way. For upset stomachs an Upper Inlet Dena'ina person said "to tie five pieces of grass around the throat of a person who has an upset stomach from eating too much greasy food" (Kari 1995).

Yupik

Names: *Canek, evget* (Nelson Island)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Ferns and Fern Allies



Ferns are numerous flowerless and seedless vascular plants having true roots from a rhizome and fronds that uncurl upward. They reproduce by spores. They are usually found in humid soil, sometimes grow epiphytically on trees, and often attain gigantic size in tropical climates (Webster Hypertext Dictionary).

Fern allies are Pteridophytes of other classes than Filicopsida *(Webster Hypertext Dictionary).*

Adiantum pedatum var. *aleuticum* Maidenhair fern

Fern fronds become toxic with age and only young "fiddleheads" should be eaten.[1]

Adiantaceae (Family)
Common name: Maidenhair fern

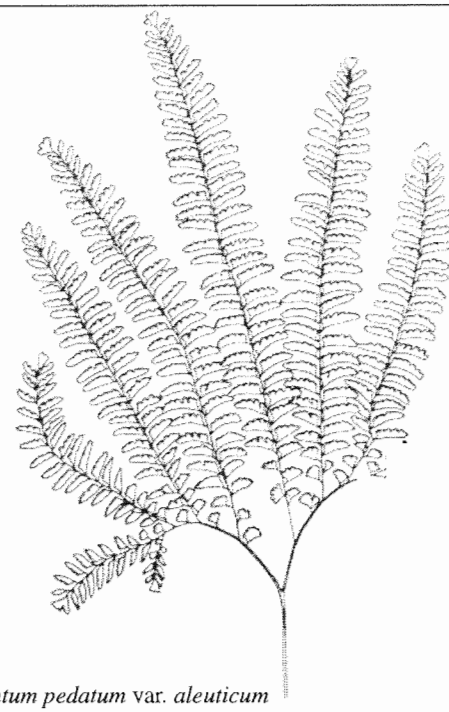
Physical description: This palmately branched fern grows to 20 inches high. Leaves are few or solitary from stout rhizomes. Stipe is dark red to brown. Leaflets are oblong or fan-shaped. It is found growing in moist rocky forest sites, stream banks, and cliffs.

Tlingit

Names: *Shar-ah-thlee-tee, sha yar thleetee*
Symptom: Tuberculosis
Plant application: Infusion/decoction

General uses

Tuberculosis: According to Emmons, a tea made from the maidenhair fern [leaves?] was used to relieve tuberculosis, or *whooh too neekoo* in the Tlingit language (Emmons 1991).



Adiantum pedatum var. *aleuticum*
Maidenhair fern
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

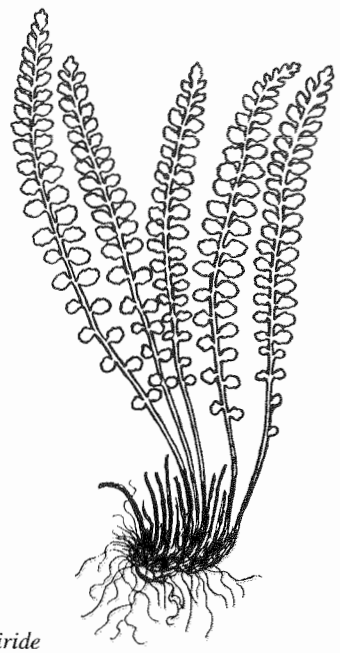
[1] (Schofield 1989)

Asplenium spp. Spleenwort

Fern fronds become toxic with age and only young "fiddleheads" should be eaten.[1]

Aspleniaceae (Spleenwort Family)
Asplenium trichomanes
Asplenium viride
Common name: Spleenwort

Physical description: The two species of *Asplenium* in Alaska grow between 4 to 6 inches tall. They prefer crevices and rock ledges in shadowy areas. They have a short, scaly rhizome. The fronds are tufted and 2/5 to 4/5 inches broad. The stipes of *Asplenium viride* are brown, while the stipes of *Asplenium trichomanes* are chestnut to black (Hultén 1968).



Asplenium viride
Spleenwort
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Tlingit

Names: No information found
Symptoms: Colds/flu, coughs/chest congestion
Plant application: Infusion/decoction

General uses

Colds/flu, coughs/chest congestion: For chest inflammation due to "catarrah" (colds), the Tlingit would prepare an infusion of *Asplenium* spp. (Blaschke in Krause 1956). Of the two species of *Asplenium* that occur in Alaska, *Asplenium trichomanes* and *Asplenium viride*, the latter is more widespread.

Note

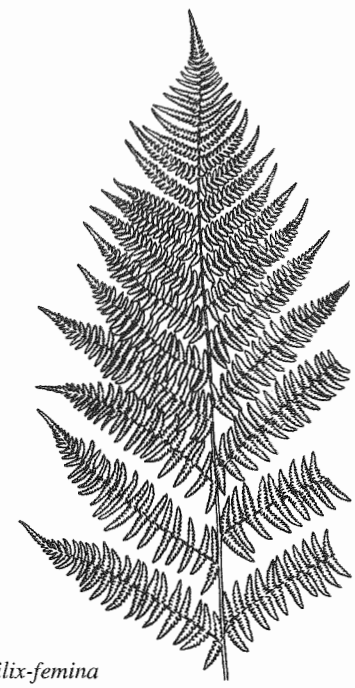
This citation requires further investigation. *Asplenium viride* is a rather small plant and generally not found in large quantities. It may be that this plant was not correctly identified.

Athyrium filix-femina — Lady fern

Fern fronds become toxic with age and only young "fiddleheads" should be eaten.[1]

Athyriaceae (Lady Fern Family)
Common name: Lady fern

Physical description: *Athyrium filix-femina* grows 2 to 4 feet tall in the southern half of Alaska. Leaflets are small near the base of the stipe, longer in the middle, and then taper small again at the end. Spores are produced on the undersides of the leaves (Pratt 1989). This fern resembles *Dryopteris dilatata*, wood fern.



Athyrium filix-femina
Lady fern
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Names: *Kun'aquataq, kunraanguasaaq*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Athabascan

Names: *Uh t'una* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina); *uh* (Inland, Iliamna, Outer Inlet and Upper Inlet Dena'ina)
Symptoms: Breathing problems, cuts/scrapes, eye problems, kidney trouble, tuberculosis
Plant application: Infusion/decoction

Dena'ina uses

Breathing problems, kidney trouble, tuberculosis: Inland Dena'ina used to drink a wood fern infusion for breathing problems (including asthma), kidney trouble, tuberculosis (Kari 1995).

Cuts/scrapes, eye problems: This infusion (see above) was also used as a wash for cuts and eyes. *Dryopteris dilatata* ssp. *americana* was used for the same purposes by the Dena'ina (Kari 1995).

[1] (Schofield 1989)

Blechnum spicant — Deer fern

Fern fronds become toxic with age and only young "fiddleheads" should be eaten.[1]

Blechnaceae (Deer Fern Family)
Common name: Deer Fern

Physical description: *Blechnum spicant* is a medium sized fern with two types of fronds (fern leaves)—sterile fronds and fertile fronds. The sterile fronds are often spreading to appressed to the ground and range in size from 7 to 30 inches tall. The fertile fronds are similar in appearance to the sterile leaves, but grow upright rather than spreading. The leaflets are often much narrower on the fertile fronds. *Blechnum spicant* is found on stream banks and in moist forests from lowlands to middle (and occasionally subalpine) elevations (Pojar and McKinnon 1994).

Blechnum spicant
Deer fern
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Tuquyuilnguq*
Symptom: Skin trouble
Plant application: Switch

Cordova area uses

Skin trouble: Used as a steambath switch by the Native people of Cordova, deer fern was said to be a medicine for the entire body and helped prevent "sores from breaking out" (Wennekens 1983, 1985).

[1] (Schofield 1989)

Dryopteris dilatata ssp. *americana* — Wood fern

Fern fronds become toxic with age and only young "fiddleheads" should be eaten.[1]

Aspidiaceae (Shield Fern Family)
Common names: Wood fern, spreading wood fern

Physical description: This tall fern, up to 2 feet (60 cm), rises from a stout, coarse rootstock covered with bases of old stipes. Stipes are covered with coarse brown scales. Leaflets start about halfway up the stipe, starting broad and tapering to a point at the end (Pratt 1991).

Dryopteris dilatata ssp. *americana*
Wood fern
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Athabascan

Names: *Uh t'una* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina); *uh* (Inland, Iliamna, Outer Inlet and Upper Inlet Dena'ina)
Symptoms: Breathing problems, cuts/scrapes, eye problems, kidney trouble, tuberculosis
Plant application: Infusion/decoction

Dena'ina uses

Breathing problems, kidney trouble, tuberculosis: Inland Dena'ina used to drink a wood fern infusion for breathing problems (including asthma), kidney trouble, and tuberculosis (Kari 1995).

Cuts/scrapes, eye problems: This infusion (see above) was also used as a wash for eyes and cuts. *Athyrium filix-femina*, commonly called lady fern, was used for the same purposes by the Dena'ina (Kari 1995).

Tlingit

Names: No information found
Symptom: Eye problems
Plant application: Plaster

General uses

Eye problems: Wood fern (*Dryopteris dilatata*) leaves, shield fern (*Gymnocarpium dryopteris*) buds, Sitka spruce (*Picea sitchensis*), and large leaved avens (*Geum macrophyllum*), were "mixed together, pounded in a mortar, mixed with human milk, and applied locally" for eye trouble of any kind (Emmons 1991).

Yupik

Name: *Ceturqaaraat* (Nelson Island)
Symptom: Stomach troubles
Plant application: Infusion/decoction

Nunivak Island area uses

Stomach troubles: The wood fern was among the plants brewed into a tea and drunk to treat stomach and intestinal pain by Nunivak Islanders (Lantis 1958, 1959).

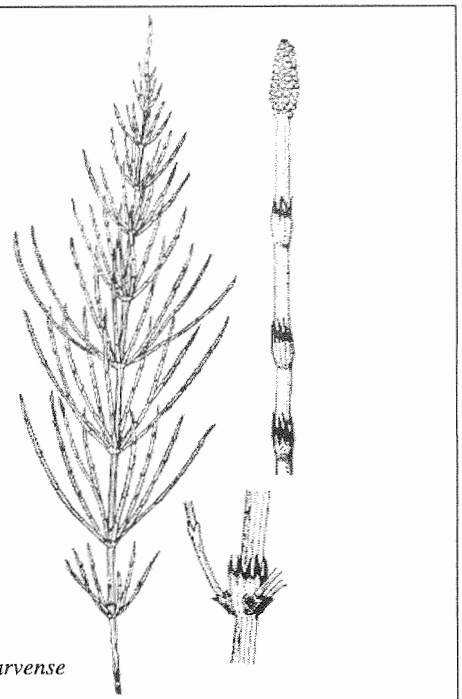
[1] (Schofield 1989)

Equisetum spp. Horsetail

This plant contains thiaminose, which destroys thiamine (vitamin B1) in the body.

Equisetaceae (Horsetail Family)
Equisetum arvense
Equisetum silvaticum
Common name: Horsetail

Physical description: *Equisetum arvense* has hollow stems with vertical ridges. Very narrow, rough feeling, stems in whorls at joints on the main stems. This plant spreads rapidly by horizontal roots, frequently forming lacy (somewhat ferny) carpets in moist woodlands. The sporebearing spring phase dies down after production, and is replaced by the vegetation or leafy phase. The leaf-like stems generally face upwards (Pratt 1991). *Equisetum arvense* is the more common horsetail, and therefore assumed to be the one most frequently used.



Equisetum arvense
Horsetail
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Alutiiq

Name: *Paumnaruaq*
Symptoms: Childbirth, skin trouble
Plant applications: Infusion/decoction, poultice

Kodiak area uses

Childbirth: In *Plant lore of an Alaskan Island* Diedre Bailey share a tea recipe beneficial for nursing mothers to help start milk flow: Combine equal parts horsetail, chamomile, borage, and comfrey. Add one teaspoon for each cup of water and steep for 45 minutes (Graham 1985). Although this recipe is not traditional (only horsetail is native to Kodiak Island), horsetail use by Alutiiq peoples should be further investigated. It is possible that the use of horsetail in this treatment originated from traditional use.

Prince William Sound and lower Kenai Peninsula area uses

Skin trouble: The green, vegetative phase of *Equisetum arvense* was used to treat pimples according to Alix Wennekens (1985). To prepare, plants were mashed to a paste and placed over the pimple. An eagle feather was then placed on the paste and when the feather was removed a few days later the pimple and paste would cling to it (Wennekens 1985).

Athabascan

Names: ___[1](Kari 1995); *jija yelqedi* (Inland and Iliamna Dena'ina); *ndalvay delqadi* (Inland and Iliamna Dena'ina); *klox* (Salcha); *delaxia* (Tetlin)
Symptoms: Cuts/scrapes, toothache
Plant applications: Ash, poultice

Dena'ina uses

Cuts/scrapes: The stems and leaves of horsetail (*Equisetum* spp.) were burnt by the Dena'ina people and the resulting ash was placed on sores (Kari 1995) .

Toothache: According to Peter Kalifornsky (1977), jointed grass (or *Equisetum* spp.) roots were heated and placed against the teeth for toothaches.

Inupiat

Names: *Asiatchiaq* (meaning "little berry"); *asiatchiak, asiatchiat, qaagraq, qaagrat*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Name: *Qetgoq*
Symptom: Bleeding/hemorrhages
Plant application: Infusion/decoction

Nelson Island area uses

Internal bleeding was controlled through the use of both *Equisetum silvaticum* and *Equisetum arvense*. The upper stems and branches of fresh plants were used for an infusion, although a "stronger medicine can be made from plants collected in autumn" (Ager and Ager 1980). The resulting infusion has been said to be bitter and strong.

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Gymnocarpium dryopteris — Oak fern

Fern fronds become toxic with age and only young "fiddleheads" should be eaten.[1]

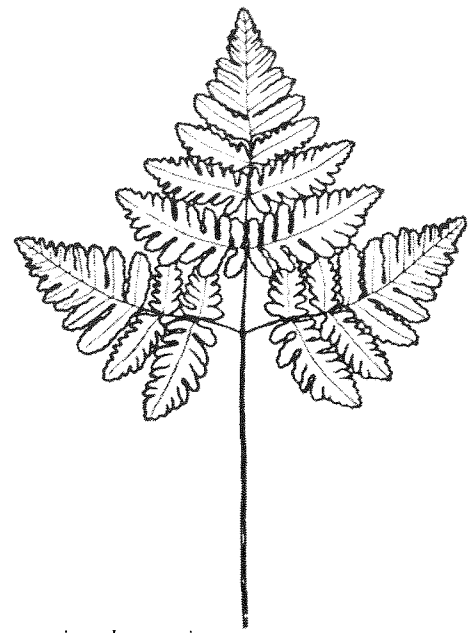
Aspidiaceae
Common name: Oak fern

Physical description: A creeping rhizome sends up individual blades, each having 3 distinct, triangular segments. Each segment is about the same length. Blades, which are light green, frequently open flat about 8 to 12 inches above the forest floor (Pratt 1991).

Tlingit
Names: No information found
Symptom: Eye problems
Plant application: Plaster

General uses

Eye problems: According to Emmons, wood fern (*Dryopteris dilatata*) leaves, shield fern (*Gymnocarpium dryopteris*) buds, Sitka spruce (*Picea sitchensis*), and large leaved avens (*Geum macrophyllum*), were "mixed together, pounded in a mortar, mixed with human milk, and applied locally" for eye trouble of any kind (Emmons 1991).



Gymnocarpium dryopteris
Oak fern
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

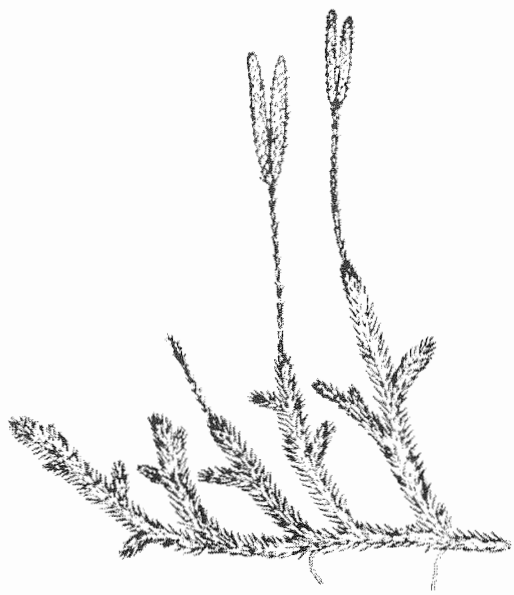
[1] (Schofield 1989)

Lycopodium clavatum — Club moss

Club moss "contains a poisonous alkaloid causing pain in mouth, vomiting and diarrhea".[1]

Lycopodiaceae (Club Moss Family)
Common name: Club moss

Physical description: A fern ally, club moss is frequently seen in mats in dry open areas, often on sandy soils (Vitt et al. 1988).



Lycopodium clavatum ssp. *clavatum*
Club moss
From *Flora of Alaska and Neighboring Territories* (Hultén 1968)

Aleut

Names: No information found
Symptom: Childbirth
Plant application: Infusion/decoction

General uses

Childbirth: For post-partum pain, an infusion of club moss is given for the mother to drink (Bank 1953). Preparation and harvest methods of the plant were not specified.

Athabascan

Names: *Dlin'a kajada* (Inland and Outer Inlet Dena'ina); *dlin'a kala* (Upper Inlet Dena'ina); *nan'tth'og* (Northway)
Symptoms: Eye problems, headache
Plant applications: Infusion/decoction, poultice

Dena'ina uses

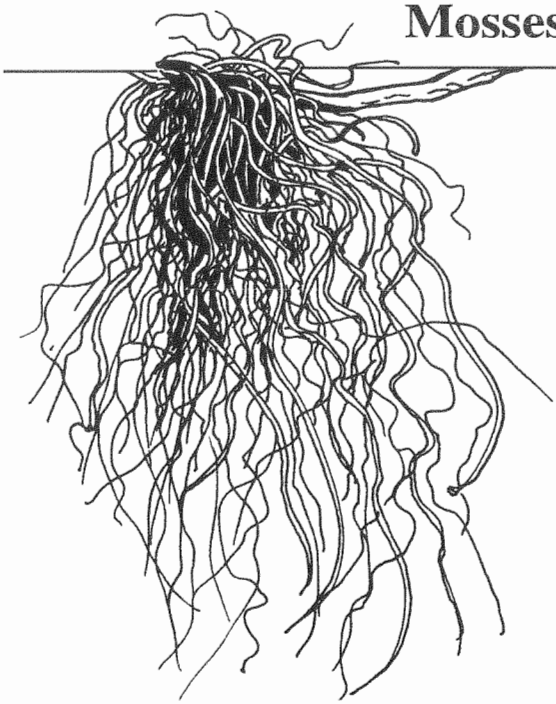
Eye problems, headache: The Outer Inlet Dena'ina boil both *Lycopodium* spp. (club moss) and *Selaginella* spp. (spike moss) and use the cooled infusion as an eye wash. Both members of these genera have the same name, *dlin'a kajada* or "mouse's tail bone", by the Dena'ina according to Priscilla Russell Kari. A poultice of the fresh plants are placed on the head to relieve headaches and worn on the clothes to prevent sickness (Kari 1995).

Northway area uses

Headache: *Nan'tth'og* is the Northway name for *Lycopodium clavatum*, *Lycopodium selago*, and *Lycopodium annotinum*. All three of these club mosses are used as a remedy for headaches by placing the plant on the head until the pain goes away (Kari 1985).

[1] (Pratt 1991)

Mosses and Lichens



Mosses are part of a larger grouping of plants called bryophytes. Members of this group have poorly developed water and food conducting systems and have a different type of life cycle than other green plants (they have a dominant gametophytic generation). They are relatively small and are abundant in moist areas. And like the lichens, they are particularly sensitive to pollution.

Lichens are organisms which have both an algal component and a fungal component. The algae contribute nutrients via photosynthesis, while the fungus protects the algae from environmental elements. Lichens are quite sensitive to pollution and are found in habitats ranging from rocky outcrops to old growth forests and alpine areas. Some lichens are so tiny that they are difficult to see with the plain eye while others cover large areas of land.

Bryoria trichodes ssp. *americana* — Old man's beard

The acid content of lichens may cause an upset stomach if not cooked well.[1]

Parmeliaceae

Common names: Old man's beard, black tree lichen, horsehair lichen

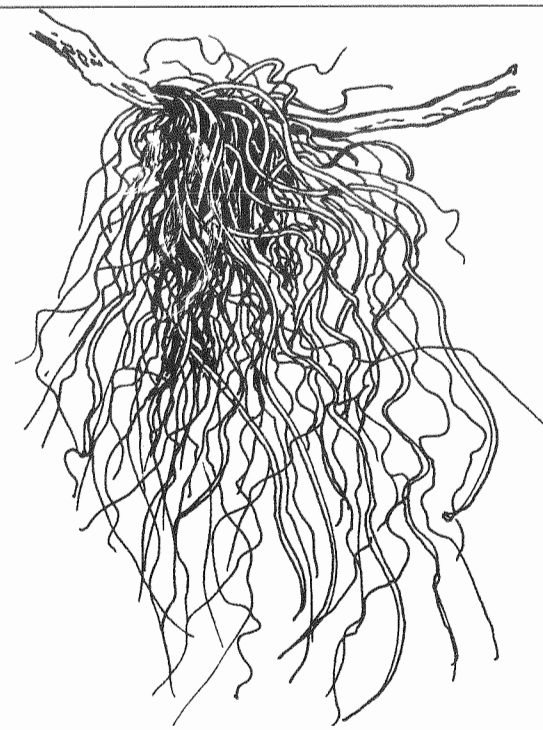
Physical description: *Bryoria trichodes* ssp. *americana* is a hair-like lichen found on the bark or wood of conifers (cone-bearing trees or shrubs) in wet coastal forests (McCune and Geiser 1997).

Alutiiq

Names: *Nakuraartum nuyii, napam ungagua'i*
Symptom: Cuts/scrapes
Plant application: Poultice

Prince William Sound and lower Kenai Peninsula area uses

Cuts/scrapes: People of Port Graham used to pile *Bryoria trichodes* ssp. *americana* on a sick person and place them in a steam bath to retain heat in the body. Blood flow from a wound was stopped by dabbing the wound with this lichen (Wenne-kens 1985). Wennekens has a note that the species *Alectoria ochroleuca* and *Bryoria trichodes* ssp. *americana* may have been collected and used together.



Bryoria trichodes ssp. *americana*
Old man's beard
(W. Seamster)

[1] (Shaffer in Kari 1995)

Cladina spp. Reindeer lichen

The acid content of lichens may cause an upset stomach if not cooked well.[1]

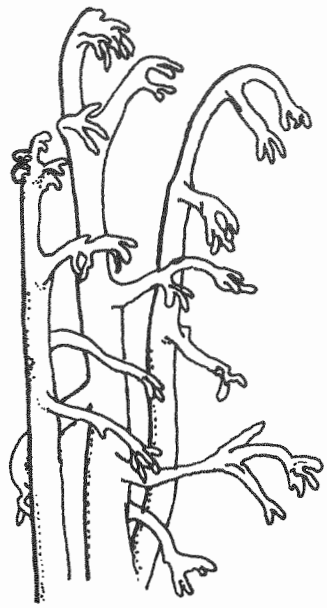
Cladoniaceae

Cladina ragiferina
Cladina stellaris

Common names: Reindeer lichen, caribou moss, reindeer moss

Physical description: Reindeer lichen is found in bogs, forest, and tundra in large quantities. many species of the genus *Cladina* resemble each other. Many species may be referred to as reindeer lichen.

Cladina rangiferina is shrubby and can be whitish, gray, greenish, or yellowish. As its name implies, it is an important food for caribou and reindeer. However, reindeer moss is not a choice edible for many people. To remove the bitter acids, the moss must be boiled with many changes of water. This lichen was formerly called *Cladonia rangiferina*.



Cladina rangiferina
Reindeer lichen
(W. Seamster)

Aleut

Names: *Kinadam aiyukax* (Atka Island)
Symptom: Internal pain
Plant applications: Infusion/decoction, chew

General uses

Internal pain: Tea prepared from reindeer lichen was drunk for chest pains. In addition, hunters when climbing hills to "maintain their wind" chewed reindeer lichen (Bank 1953). Bank referred to this lichen as "reindeer moss", *Cladonia* spp.

Athabascan

Name: *K'udyi*
Symptoms: Colds/flu, diarrhea
Plant application: Infusion/decoction

Dena'ina uses

Diarrhea: An infusion of *Cladina rangiferina* was drunk to treat diarrhea (Kari 1995).

Upper Tanana uses

Colds/flu: A "liquor" prepared from a plant referred to only as "caribou moss" was drunk for colds (McKennan 1959).

[1] (Shaffer in Kari 1995)

Cladonia bellidiflora — Cup lichen

Cladoniaceae (Family)
Common name: Cup lichen

Physical description: The genus *Cladonia* is found growing on soils with mosses and on decaying logs. They are quite common at all elevations. *Cladonia bellidiflora* has bright red fruiting bodies that make this lichen quite noticeable. It is frequently found in acidic soils.

Athabascan

Names: *Bidziyh dona'*; *ch'atshu'* (Tetlin, Northway); *ch'atshyuú* (Nebesna) (All Athabascan names are for the genus *Cladonia.*)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: No information found
Symptom: Eye trouble
Plant applications: No information found

General uses

Eye trouble: A mixture of mother's milk and *Cladonia bellidiflora* was a treatment for eye disease (Blaschke in Krause 1956).

Cladonia bellidiflora
Cup lichen

(W. Seamster)

Hylocomium splendens — Splendid feather moss

Hylocomiaceae
Common name: Splendid feather moss

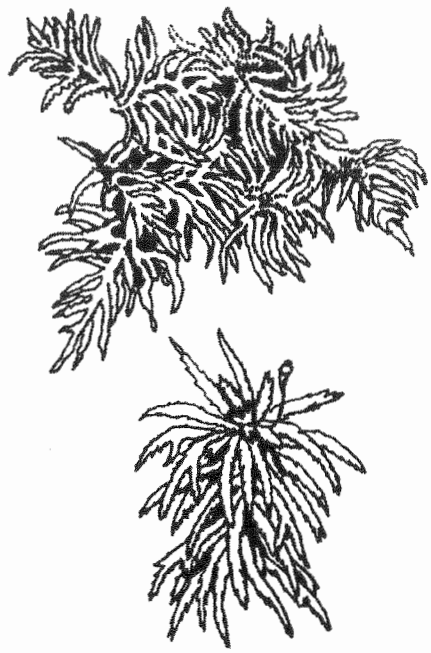
Physical description: A common moss of the boreal forest, *Hylocomium splendens* is often seen forming a continuous mat in coniferous boreal and montane (mountain) forests (Vitt et al. 1988).

Athabascan

Names: No information found
Symptom: Menstrual problems
Plant applications: No information found

General uses

Menstrual problems: Splendid feather moss was used as an absorbent material for menstrual pads by Athabascan women in the Fort Yukon area (Holloway and Alexander 1990). Although not a typical medicinal application of a plant, this reference was included because the type of moss used was specifically identified. This may possibly be due to particular healing properties, in addition to absorbancy, associated with this moss.



Hylocomium splendens
Splendid feather moss
(W. Seamster)

Nephroma arcticum — Arctic kidney lichen

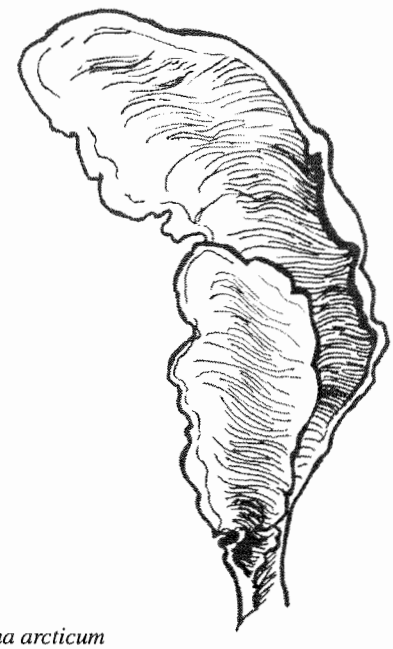
The acid content of lichens may cause an upset stomach if the lichens are not cooked well.[1]

Nyphromataceae
Common name: Arctic kidney lichen

Physical description: *Nephroma arcticum* is a foliose (leaf-like in growth form) lichen that is found in moist subalpine coniferous forests and subalpine communities (Vitt et al. 1988).

Yupik
Name: *Kus'koak*
Symptom: General ill health
Plant applications: Chew, infusion/decoction

Napaskiak uses
General ill health: For a person in "a weak condition", Arctic kidney lichen was cooked in water and fed to the patient. This medicine was noted to be very effective (Oswalt 1957). Oswalt does not mention if the lichen was eaten or a lichen infusion was drunk.



Nephroma arcticum
Arctic kidney lichen
(W. Seamster)

[1] (Shaffer in Kari 1995)

Peltigera aphthosa (A lichen)

The acid content of lichens may cause an upset stomach if the lichens are not cooked well.[1]

Peltigeraceae (Family)
Common name: Lichen

Physical description: *Peltigera aphthosa* is a foliose (leaf) lichen that is bright green in color when wet. It has dark "warts" on the surface. Lower surface is "cottony" due to the lack of lower cortex and is veined. This lichen in common throughout much of Alaska (Hasselbach and Neitlich 1998).

Peltigera aphthosa
Lichen

(W. Seamster)

Tlingit

Names: No information found
Symptom: Burns
Plant application: Powder

General uses

Burns: Burns and scalds, *ka wuh ghon* ("it burned up") in the Tlingit language, were treated with the dried and powdered form of a lichen, most likely *Peltigera aphthosa* according to Emmons (Emmons 1991).

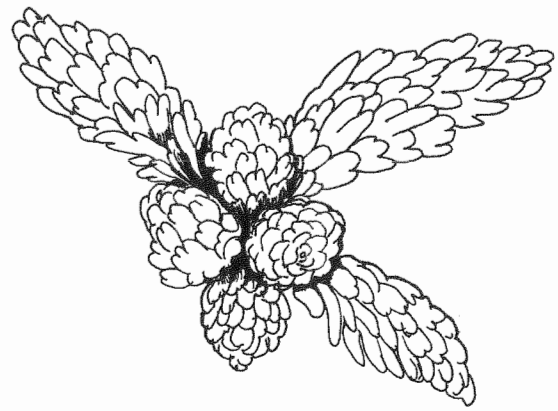
[1] (Shaffer in Kari 1995)

Sphagnum spp. Sphagnum

Sphagnaceae

Common name: Sphagnum, moss, peat moss, red sphagnum

Physical description: Shagnum mosses (peat mosses) are quite common in wet acidic areas throughout much of Alaska. In boggy places where Shagnum grow, they are almost always turgid (inflated or swollen) and densely packed together. They are found in a variety of colors including yellow, green, orange, and red. Peat moss have great absorbent spores.



Sphagnum fuscum
Sphagnum
(W. Seamster)

Athabascan

Names: *Nan dasdeli* (Inland and Iliamna Dena'ina); *nan deldeli* (Upper Inlet Dena'ina); *glaadt* (Salcha)
Symptoms: Broken bones, cuts/scrapes, earaches, eye problems, headaches, infections/inflammation, lung trouble
Plant applications: Poultice, steam

Dena'ina uses

Broken bones, cuts/scrapes, infections/inflammation: Red sphagnum had many medicinal applications used by the Dena'ina. It is used for any injury where swelling may occur: broken bones, dislocations, serious cuts, or blood poisoning. Priscilla Russell Kari described three methods for using red sphagnum medicinally; two methods were used most frequently. The first method was to boil water and place the afflicted area over the steam. Red sphagnum was then placed on top of the wound and covered. This was repeated every day until healing was complete. The second method was to heat the moss and place the warm moss directly on the wound and cover it (Kari 1995).

Earaches: Ear troubles were treated with the third method: "Hot rocks surrounded by wet red sphagnum were placed in a birchbark basket and then placed on the patient's head so that the steam would enter the ears" (Kari 1995).

Eye problems: These were treated only by the second method (see above).

Headaches, lung trouble: Red sphagnum soaked in cool water was placed on heads to relieve headaches or chests to treat lung trouble (Kari 1995).

Yupik

Names: No information found
Symptom: Diarrhea
Plant application: Chew

Lower Kuskokwim area and Nunivak-Nelson Island uses

Diarrhea: One Yupik informant shared with Lantis that eating sphagnum moss was a treatment for diarrhea (Lantis 1959).

Lichen

Common name: Lichen

Physical description: Lichens are organisms which have both an algal component and a fungal component. The algae contribute nutrients via photosynthesis, while the fungus protects the algae from environmental elements. Lichens are quite sensitive to pollution and are found in habitats ranging from rocky outcrops to old growth forests and alpine areas. Some lichens are so tiny that they are difficult to see with the plain eye while others cover large areas of land.

Tlingit

Names: No information found
Symptoms: Iinfections/inflammation, sore muscles
Plant applications: Salve, plaster

Yakutat area uses

Infection/inflammation, sore muscles: According to an informant working with Frederica de Laguna, "Lichens from the ground in the woods are good for sores. Smash it up and heat it on rocks with seal oil and mountain goat tallow" (de Laguna 1972).

Common Name: Moss

Physical description: Mosses are part of a larger grouping of plants called bryophytes. Members of this group have poorly developed water and food conducting systems and have a different type of life cycle than other green plants (they have a dominant gametophytic generation). They are relatively small and are abundant in moist areas. And like the lichens, they are particularly sensitive to pollution.

Athabascan

Name: *Nan* (Lime Village, Dena'ina)
Symptoms: No information found
Plant applications: No information found

Dena'ina uses, Lime Village area

A certain type of moss has been used medicinally by the people of Lime Village (Kari 1983), although no details were provided.

Tlingit

Names: No information found
Symptom: Eye problems
Plant application: Plaster

Yakutat area uses

Eye problems: A good treatment for cataracts was prepared from a light green moss (*Parmelia* spp.?). Once the moss was soaked, mashed, and made into a pad, a Yakutat resident said "take the smash stuff and soak it in breast milk that just comes out fresh from your own breast. My mother used to do that for grandfather when he was getting blind. It help him" (de Laguna 1972).

This specimen was not identified. *Parmelia* is a lichen not a moss. It was assumed that this specimen was a moss and the confusion occurs over the taxonomy, not the growth form.

Yupik

Name: *Kuma'hotit* (meaning "something that makes it light")
Symptom: Cuts/scrapes
Plant application: Poultice

Kuskokwim area uses

Cuts/scrapes: Wounds were occasionally treated by applying oil-soaked moss "then covering it by a wrapping of skin or intestine" (Fortuine 1985). Presumably, the moss provided absorbency for both the oil and blood from the wound. It is unclear whether or not the moss contributed additional healing properties to the wound.

Fungi

Fungi were placed in the plant kingdom for many years. They are now placed in their own kingdom. The part of the fungus we see is the fruiting body. The living body of the fungus is called the mycelium and is usually hidden in soil, wood, or another food source. Fungi feed by absorbing nutrients from the organic material on which they live. (Fun Facts about Fungi, *University of Michigan Herbarium)*

Fomes igniarius — Chew ash fungus

Positive identification is extremely important before ingesting any mushroom; many are poisonous.

Polyporaceae
Common Names: Chew ash fungus

Physical description: This polypore is found on the living trunks of Alaska deciduous trees such as *Betula*, *Populus*, and *Salix*. As with many saprophytic fungi, this species inflicts a destructive heart rot on many of its hosts. These fungi are hard, woody, brown, and generally 1/2 inch thick (Overholts 1953).

Fomes igniarius
Chew ash fungus
No photograph or drawing found

Athabascan

Names: Only names for *Fomes applanatum* were found: *K'vajeghetl'a* (Inland De-na'ina); *k'washggetl'a* (Outer Inlet Denai'ina); *basqetl'a* (Upper Inlet Dena'ina)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Yupik

Names: *Kuma'hak, kuma'kak*
Symptoms: Constipation, stomach troubles
Plant application: Infusion/decoction

Lower Kuskokwim and Nunivak-Nelson Island area uses
Constipation, stomach troubles: An infusion of *Fomes igniarius* was made strong, "almost as strong as black coffee", for constipation, according to a man from Eek. It acted as a laxative. A man from Kasigluk shared that this infusion was also drunk for stomach aches (Lantis 1959).

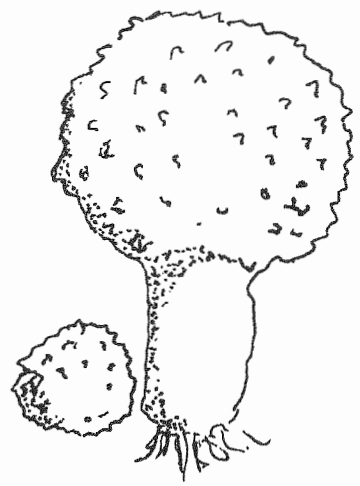
This citation listed the fungus as "...*Poria obliqua*, formerly called *Fomes ignarius*." A report by Lee Overholts (1953), however, mentions that *Fomes igniarius* was often mislabeled as *Poria obliqua*. The confusion arose because *Poria* spp. grew abundantly on the dead snags of trees formerly occupied by *Fomes igniarius*. Based on evidence from this report, it is assumed that the fungus referred to by Lantis is *Fomes igniarius* (Phyllis Kempton pers. comm. 1999).

Lycoperdon spp. Puffball

Positive identification is extremely important before ingesting any mushroom; many are poisonous.

Lycoperdaceae (Stomach Fungi Family)
Common name: Puffball

Physical description: Puffballs are round fungi white to tan in color. They are found in woods, meadows, and tundra throughout much of Alaska. When young, they are generally white and firm inside. However, as they age they become more fragile as they prepare to release spores. When mature puffballs are disturbed, they release a soft "cloud" of brown spores.



Lycoperdon perlatum
Gem-studded puffball

(A. Garibaldi)

Athasbascan

Names: *Ggugguyni deltetl'i* (Outer Inlet Dena'ina); *chulyin deltetl'i* (Inland and Iliamna Dena'ina); *chulyin dasgedi* (Iliamna Dena'ina); *delgga chisha* (Upper Inlet Dena'ina), *tatsaan' tsay* (Northway); ___[1] (Kari 1995); ___[1] (Nelson 1983)
Symptoms: Burns, cuts/scrapes, eye problems
Plant applications: Poultice, powder

Dena'ina uses

Burns, cuts/scrapes: Puffballs were applied directly to burns, cuts, and other wounds by the Outer Inlet and Iliamna Dena'ina (Kari 1995).

Upper Tanana uses

Cuts/scrapes, eye problems: Powder-like spores from puffballs in their later growth stages were mixed with water and placed on cuts and sores. This "powder" was also placed directly into the eyes for eye trouble (Kari 1985).

Cautionary Note
Many mushrooms are poisonous.
Although puffballs are generally considered safe, many mushroom species look alike. Be sure you learn mushroom identification before you begin foraging.

[1] An Athabascan name has been recorded, but special characters necessary for spelling are not available in this publication.

Seaweeds and Algae

Algae are very simple chlorophyll-containing organisms. They are composed of one cell; grouped together in colonies; or organisms with many cells, sometimes collaborating as simple tissues.

Seaweeds are algae that live in the sea or in brackish water. Seaweeds come in three basic colors: red, brown, and green. Red and brown algae are almost exclusively marine, while green algae are found in marine, freshwater, and terrestrial systems (Guiry 1996).

Agarum cribrosum (An alga)

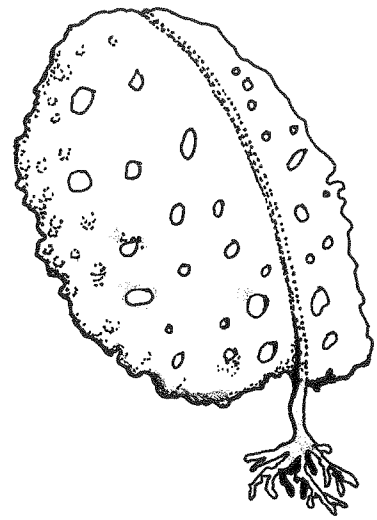
Laminariaceae
Common Name: No information found

Physical description: According to Scagel et al. (1986), two species of *Agarum* live along the Alaska coasts: *Agarum cribrosum* and *Agarum fimbriatum*. *Agarum* spp. belong to the Phaeophyta, brown algae. The thalli (agal bodies) are not filamentous or crustose and are generally not hollow. *Agarum* spp. do not contain air bladders such as in *Nereocystis leutkana* (bull kelp). The blades contain a midrib or midvein and have numerous perforations.

Alutiiq

Name: *Iituk*
Symptom: Colds/flu
Plant application: Infusion/decoction

Prince William Sound and lower Kenai Peninsula area uses
Colds/flu: One way to treat colds was to boil the seaweed *Agarum cribrosum*, and mix the resulting "black juice" with a little seal oil and drink. The mixture was said to taste terrible but worked well (Wennekens 1985).



Agarum cribrosum
(An alga)

(W. Seamster)

Laminaria spp. White seaweed

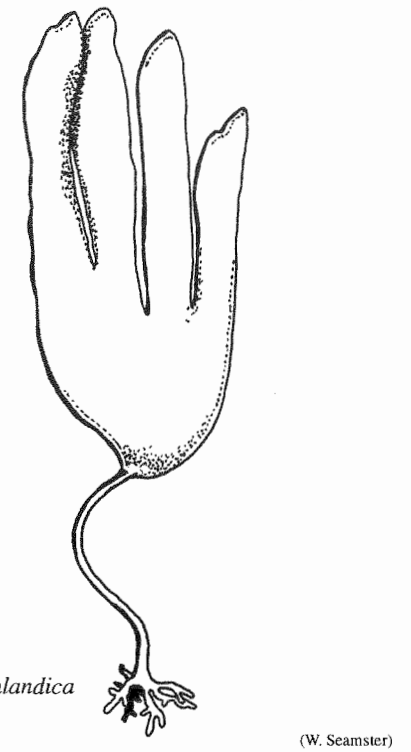
Laminariaceae
Common name: White seaweed, kombu, sugar wrack

Physical description: There are 8 species of the genus *Laminaria* in Alaska. Many *Laminaria* have long blades with no midribs, however species identification is difficult due to the fact that morphology (growth form and appearance) changes with the habitat the plant occupies. Some members of this genus can be aged according to their growth rings (much like an aging tree). The genus *Laminaria* was formerly divided into two groups—those with blades that are subdivided and those that are not subdivided (O'Clair et al. 1996).

Alutiiq

Names: *Sel'aq, cimyaruaq* (for *Laminaria groenlandica*)
Symptom: Skin trouble
Plant application: Poultice

Prince William Sound and lower Kenai Peninsula area uses
Skin trouble: Burning and itching feet were soothed by wrapping them in a blade of *Laminaria* spp. The algae was harvested when it washed up on the beach and after it bleached from exposure to the sun and other elements (Wennekens 1985).



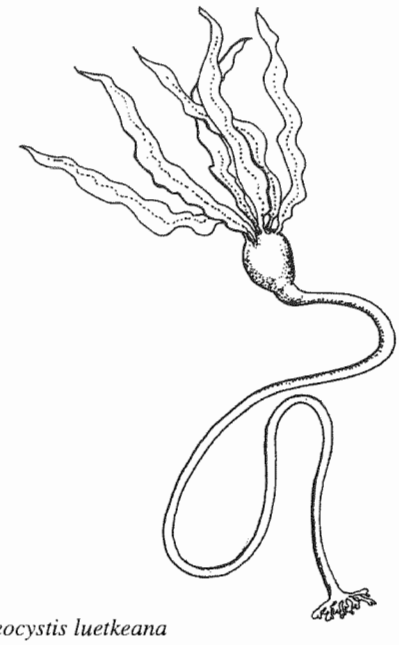
Laminaria groenlandica
White seaweed
(W. Seamster)

Nereocystis luetkeana — Bull kelp

Lessoniaceae

Common names: Bull kelp, bullwhip kelp, giant kelp, horsetail kelp, orange head kelp, ribbon kelp, sea kelp, sea otter's kelp

Physical description: Bull kelp is found in Alaska from Umnak Island in the east Aleutians Islands along the coast through Southcentral Alaska and down through Southeast Alaska. It is primarily in the subtidal zone to depths of 56 feet. The stemlike stipe is usually about 33 feet long, but has been recorded as long as 118 feet. The hollow stipe enlarges at the end to form a float. Up to 64 long blades grown at the end of bull kelp and are often seen floating on the surface of the water (O'Clair et al. 1996)



Nereocystis luetkeana
Bull kelp
(W. Seamster0)

Alutiiq

Name: *Meq'aq, qahnguq*
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Tlingit

Names: No information found
Symptoms: Earaches, headache
Plant application: Steam

General uses

Earaches, headache: "Giant kelp" (no scientific name was provided) was used to treat earaches and headaches by placing one end of the hollow stalk on a hot wet rock and the other in the ear. The steam then entered the ear, relieving the pain (McGregor 1981).

Note

Two species of kelp are referred to as giant kelp—*Nereocystis luetkeana* and *Macrocystis pyrifera*. Both are common along the southeast Alaskan peninsula coast. However, *Nereocystis luetkeana* (otherwise known as bull kelp) is presumably the kelp used medicinally by the Tlingit. Verification of the genus requires further research.

Porphyra spp. Black seaweed

Bangiaceae

Porphyra perforata

Porphyra umbilicalis

Common names: Black seaweed, laver (*Porphyra* spp.); purple laver, red laver, nori (*Porphyra perforata*); black seaweed (*Porphyra abbottae*)

Physical description: *Porphyra perforata* grow on rocks and other algae from the west Aleutian Islands along the coast to Southeast Alaska. It forms a lobed and wavy blade general up to 1 foot wide. The thin blade (only one cell layer thick) is purple (and occasionally greenish) in color (O'Clair et al. 1996).

Note

The taxonomy of *Porphyra* spp. in many citations is unclear. Many members of the genus *Porphyra* are frequently referred to as "black seaweed", so in cases where the common name is all that is provided, it is difficult if not impossible to determine taxomony to the species level. Both *Porphyra abbottae* and *Porphyra torta* are harvested for subsistence purposes in Southeast Alaska (Stekoll pers. comm.). Alix Wennekens is the only known reference to the traditional harvest of *Porphyra perforata* by the Alutiiq. However, Emmons lists *Porphyra perforata* as traditionally used by the Tlingit. Evans (in Smith 1973) lists the only known reference to the medicinal harvest of *Porphyra umbilicalis* by the Tlingit.

Alutiiq

Name: *Caquallqaq*
Symptom: Goiter
Plant application: Chew

Prince William Sound and lower Kenai Peninsula area uses

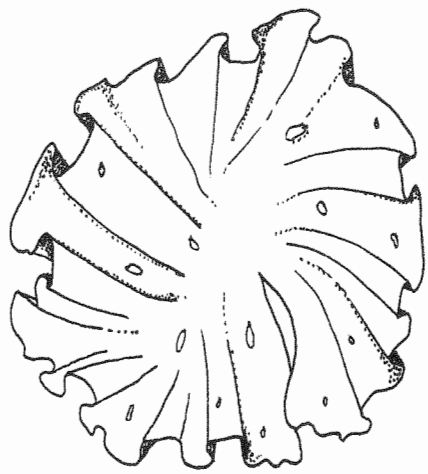
Goiter: Eating *Porphyra perforata* (also identified as black seaweed) was said to help prevent goiter. It was collected May through September (Wennekens 1985). It is unclear if this practice began before Russian or European settlement, but is interesting regardless. Rarely has plant use been recorded as a *preventative* measure for an illness.

Tlingit

Names: *Klark ish, thlakusk*
Symptom: Stomach troubles
Plant applications: Chew, infusion/decoction, powder

General uses

Stomach troubles: Among the treatments for bowel troubles was the use of *klark ish* (identified as *Porphyra perforata*).



Porphyra perforata
Black seaweed

Harvested in spring, the seaweed was cut or chewed into small pieces, boiled in water and eaten. It was also prepared by drying it near a fire, pounding it into a powder, cooking the powder, and then eating it (Emmons 1991).

Thlakusk was dried and compressed into cakes. A tea was then prepared from this dried alga for bowel and stomach troubles (Evans in Smith 1973). *Thlakusk* was identified as *Porphyra lacinaiata* [*Porphyra umbilicalis* (L.) J. Ag.] Scagel et al. does not list *Porphyra lacinaiata* in the marine algae checklist that covers Southeast Alaska—only *Porphyra umbilicalis* (Scagel et al. 1986).

Tsimshian

Names: No information found
Symptoms: Bleeding/hemorrhages, cuts/scrapes, nausea
Plant applications: Chew, poultice

General uses

Bleeding/hemorrhages, cuts/scrapes: New mothers were given boiled black seaweed (presumably *Porphyra perforata*) to cleanse the body of blood clots following childbirth. It is said to be a cure for blood clots and was placed on cuts (McGregor 1981). No scientific name was provided, however black seaweed presumably refers to *Porphyra* spp.

Nausea: Dried black seaweed (as well as "yellow seaweed") was a cure for nausea (McGregor 1981).

Rhodoglossum latissimum Red seaweed

Gigartinaceae
Common name: Red seaweed

Physical description: According to Scagel et al. (1986), five species of *Rhodoglossum* live along the Alaska coast. The thalli (algal body) of *Rhodoglossum* spp. are often found growing in groups. One or more erect blades arise from a disk-shaped holdfast. The blade margins are usually entire and with a smooth surface.

Rhodoglossum latissimum
Red seaweed
No photograph or drawing found

Alutiiq

Names: *Nepuaq*; *sal'aq*
Symptom: Childbirth
Plant application: Chew

Methods:
Prince William Sound and Lower Kenai Peninsula area uses
Childbirth: Dried red seaweed (*Rhodoglossum latissimum*) was given to mothers to promote milk flow (Birket-Smith in Wennekens 1985).

However, according to Scagel et al. (1986), the range for *Rhodoglossum latissimum* does not extend to near-Alaska waters. The direct quote from Birket-smith only refers to this alga as *niupat*: "a kind of dried sea-weed, *niupat*, boiled with salmon roe was believed to give her abundant milk" (Birket-Smith 1953).

Common name: Algae

Physical description: Algae are found in both freshwater and saltwater environments. They are simple organisms (composed of one cell), cells grouped together in colonies, or organisms with many cells. They contain chlorophyll and therefore photosynthesize (convert light into energy).

Aleut

Name: *Uquxlux* (Atka Island)
Symptom: Eye problems
Plant applications: No information found

General uses

Eye problems: According to Bank (1953), Aleuts gathered pond scum and bathed sore and inflamed parts of the eye. Possibly a compress of the algae was placed directly over the eye, however Bank does not state methods of preparation for the algae. Bank points out that the oils from the algae were more often used than the algae itself.

Athabascan

Name: *Tahdluda* (Inland, Iliamna, Outer Inlet, and Upper Inlet Dena'ina)
Symptoms: No information found
Plant applications: No information found
Uses: No information found

Inupiat

Names: No information found
Symptoms: Cuts/scrapes, infections/inflammation
Plant applications: Poultice, salve

General Inupiat uses

Cuts/scrapes, infections/inflammation: In conjunction with other healing techniques employed at hot springs, algae was gathered from streams near the springs for the treatment of cuts and infections. An algal poultice was applied directly to the affected area then covered with a plastic bag, or the algae was mixed with seal oil, which was rich in vitamin A (Book et al. 1983).

Prior to "poking", a practice employed "by Eskimos in Northwest Alaska for the act of piercing the skin with a specialized knife..for medical purposes", algae "jelly" is placed directly on the skin (Dixon and Kirchner 1982). Symptoms or conditions that benefited from the algal packs are not stated. Algae was possibly used to prepare area for lancing or alternatively to treat a separate medical condition. However it appears that many episodes of poking were first treated with an algal pack.

An example of using algae in combination with poking was described by Dixon and Kirchner: "The Eskimo medical practitioner treated the patient first with hot baths, then with a jelly made from algae, then with a seal oil and algae jelly combination". The patient had swollen and inflamed hands, which were subsequently cured by poking (Dixon and Kirchner 1982).

Miscellaneous References

Miscellaneous References includes plants species that cannot be attributed to a specific genus. It includes trees, shrubs, herbs, grasses, sedges, mosses, lichens, fungi, seaweeds, algae, and plants referenced only by Native names.

Miscellaneous References also provides information on the applications and uses of charcoal and plant products introduced through trade with Europeans and Russians, such as tea, tobacco, and black pepper.

These references, which still require further investigation, are taken directly from the original sources, and page numbers are included.

Alutiiq

" In the course of such a terrible operation a fir cone is placed in the patient's mouth, so that he does not bite off his tongue with the unbearable pain" (Pierce 1978, p. 129-130). *Author's note*: The fir tree (*Abies* spp.) does not grow on Kodiak Island. This citation may be referring to spruce (*Picea* spp.).

Athabascan

"Another one is the pitch on trees. They used it for toothaches too. You chew it. I remember that" (Denakkanaaga 1996, p.12). *Author's note*: The type of pitch used was not reported, but was possibly balsam poplar (*Populus balsamifera* ssp. *balsamifera*) or spruce (*Picea* spp.)

" I went home and I take off little green tree. I leave it inside the house, syrup come out of that, a white syrup. And I steam it out. I take the bark off and I put pitch first though. White pitch out of the tree, I put in there. Then I put that bark on. I tied it back on. I sleep good that night. You know what happened? All that bad stuff in my leg, infection, cover that bark in the morning. My flesh is all clean and white, no pain no more" (Denakkanaaga 1996, p.13). *Author's note*: "White syrup" is most likely referring to a type of pitch, possibly from balsam poplar (*Populus balsamifera* ssp. *balsamifera*) or spruce (*Picea* spp.)

"In the 1840's Lavrentii Sagoskin (1967, p. 256) found the people of the middle Kuskokwim taking bilberry (or blueberry) juice as a remedy for practically any illness" (Zagoskin in Fortuine 1988). *Author's note*: The common name "blueberry" refers to many different plants: *Vaccinium ovalifolium, Vaccinium alaskensis*, *Vaccinium caespitosum*, or *Vaccinium uliginosum* ssp. *alpinum.*

"Then she breaks the shoots into pieces, boils them, and gives the infusion to sick children (as a rub or drink) to help cure them." And in reference to plant identification: "I was never able to identify this shrub, which is probably either Greene mountain ash (*Sorbus scopulina*), or resin birch (*Betula glandulosa*)" (Nelson 1983, p. 52).

"The Tetlin people use a plant which is possibly Alaska spiraea [*Spiraea beauverdiana*] for tea by making an infusion of the leaves...leaves may be dried for later use" (Kari 1985, p. 8).

Black Birch Burl

Name: *K'atneitsayi* (Inland and Iliamna Dena'ina); *k'adatsayi* (Upper Inlet Dena'ina)

Symptoms: Toothache (Kari 1995)

Plant application: Poultice (Kari 1995)

Upper Inlet Dena'ina uses

Toothache: A piece of black birch burl is heated and bit on by a person with a sore tooth to help cure a toothache (Kari 1995, p. 188).

Eyak

"Some women are said to have chewed a certain root to prevent conception" (Birket-Smith and DeLaguna 1938, p. 160).

Inupiat

"As a disinfectant for cuts, pitch made from dry wood is used" (Lucier et al. 1971, p. 254). *Author's note*: The type of pitch used was not reported, but was possibly balsam poplar (*Populus balsamifera* ssp. *balsamifera*) or spruce (*Picea* spp.).

"Put crystallized wood sap in the eye" to remove cataracts (DeLapp and Ward 1981, p.14). *Author's note*: The type of pitch used was not reported, but was possibly balsam poplar (*Populus balsamifera* ssp. *balsamifera*) or spruce (*Picea* spp.)

"Apply crystallized wood sap" as a treatment for cuts (DeLapp and Ward 1981, p.29). *Author's note*: The type of pitch used was not reported, but was possibly balsam poplar (*Populus balsamifera* ssp. *balsamifera*) or spruce (*Picea* spp.)

Currant (?)

Names: *Kwuluk, kubluk* (White Mountain area (Brown 1961)

Symptoms: Eye problems

Plant application: Ingestion

GeneralUses

Eye Problems: If eaten in excess the black berries of *kwukuk* (or *kubluk*) cause dilation of the pupils (Brown 1961, p. 21).

Tsmishian

"Blueberry" was used as a treatment for diarrhea (McGregor 1981, p. 66). *Author's note*: The common name "blueberry" refers to many different plants: *Vaccinium ovalifolium, Vaccinium alaskensis*, *Vaccinium caespitosum*, or *Vaccinium uliginosum* ssp. *alpinum.*

Yupik

"Resin" or *aNaXo'yux* taken from a green tree or driftwood was placed on cuts (Lantis 1959, p.6). *Author's note*: This resin may be referring to spruce (*Picea* spp.) pitch.

Aleut

"In fevers they employed decoctions of bitter herbs and guarded the patient carefully from the external air. Herbs were also used in consumption of the first kind, but if the expectoration proved troublesome, the patient was submitted further to the operation of 'pricking' " (U.S. Revenue-Cutter Service 1883, p. 19).

"For diarrhea astringent roots and diet were employed or the root of the *'makarsha'"* (U.S. Revenue-Cutter Service 1883, p. 19). *Author's note*: Fortuine 1988 (p. 201) mentions that *makarsha* probably refers to *Polygonum bistorta.*

Alutiiq

"She gives them roots to eat and they drink juice boiled from the same roots. These roots, according to Baranov, are somewhat similar to sarsaparilla" for venereal disease (Davydov 1977, p. 177). *Author's note*: Sarsaparilla is a common name for the plant *Petasites hyperboreus* (Northern coltsfoot) (Wennekens 1985).

"EM [an informant's initials] was certain that this plant had formerly had a medicinal use, but she did not know the exact nature of the use." (Wennekens 1985, p. 52). *Author's note*: This plant may possibly be referring to *Aster sibiricus* or *Aster subspicatus.*

Athabascan

"Camomile tea: Pick buds from tops of plants and dry them out, boil to your desired strength, drink 1 cup for restlessness due to illness" (Hall 1979, p. 13). *Author's note*: It is unclear if this report is referring to traditional treatments only. "Chamomile" is a common name for *Matricaria matricarioides,* an introduced weed that is now naturalized in Alaska. It also refers to *Anthemis nobiles* or *Matricaria chamomilla,* both common garden herbs which do not grow wild in Alaska.

Tlingit

"As a final note, Dr. Robert White in 1880 reported that the Tlingit pounded the leaves of a *Tanacetum*, or tansy, mixed it with bear gall, and applied it to joints for the treatment of arthritis (White 1880). According to Hultén, this genus does not occur in Alaska" (White in Fortuine 1988, p. 216).

Yupik

"One item not fully explained was the following: to make a pregnant woman bleed, one should use a short plant that has yellow flowers. Unfortunately, specimens could not be obtained for identification" (Lantis 1959, p. 34).

"Wild spinach" was used as a medicinal (Kasak and Andrews 1980). *Author's note*: Wild spinach may refer to lamb's quarters (*Chenopodium album*) or strawberry spinach (*Chenopodium capitatum*).

Peoples Not Identified

"My mother used the peppermint roots when she had upset stomach. Dry the roots and when needed boil and drink the liquid. She also used the roots as sachet" (Southcentral 1991, p. 37). *Author's note*: "Peppermint" is a common name for *Mentha piperita,* which does not grow wild in Alaska but is commonly found in gardens. However, other members of the genus *Mentha* are native to Alaska.

Miscellaneous Grasses and Sedges

Athabascan

"If they have a cough they chew grass roots or spruce bark to stop the illness, and sometimes the old women boil bark, roots, and brush to make tea, which is drunk for all forms of illness" (Schmitter 1910, p.19).

"The Tetlin people report using a kind of sedge as medicine for colds. They dig the underground stem during the summer, boil it, and drink the infusion" (Kari 1985, p. 9).

Athabascan

"Tetlin people report that they use a certain foliase lichen for coughs and sickness in general by boiling it and drinking the decoction. Some Dena'ina note that a large, foliase lichen that grows in the mountains is a medicine for tuberculosis and bleeding that won't stop" (Kari 1985, p. 21). *Author's note*: The Tetlin Athabascan name is *sheh tsadn nde.*

Tlingit

Cornicularia richardsonii is used as a treatment for inflammation of the lungs (Blaschke in Krause 1956, p. 283). *Author's note*: *Cornicularia richardsonii* is most certainly referring to a lichen, however a current taxonomic treatment for this lichen is not known. Some species of Cornicularia do occur in southeast Alaska (L. Geiser, pers. comm. 1998).

Yupik

"This spongy moss was sometimes eaten raw to control internal bleeding following childbirth. It was also soaked in seal oil to form an effective bandage over wounds to help control bleeding" (Ager and Ager 1980, p. 33). *Author's note*: Mosses belong to the division *Bryophyta*, which also includes the hornworts and liverworts. A voucher specimen of the unidentified moss was collected by the author of the report (has it been identified?).

"Put soft yellow moss soaked in seal oil on a wound and wrap it with skin" as a treatment for wounds (Lantis 1959, p.19).

Alutiiq

"Inside downed, dead and decaying trees, fungal mycelium will frequently be present in sheets, somewhat resembling cheesecloth in texture. These sheets were collected and used as bandages (TC; SM)[informants initials]. This mycelium is always available" (Wennekens 1985, p.39).

"The white fungus infested wood of rotten logs was removed and made into a packing which was applied to earaches and infections" (Stanek 1985, p. 194). *Author's note*: This "white fungus" may be referring to the mycelium, the string-like "body" of a fungus.

"Bleeding is stopped by means of rotten fir wood pounded into powder" (Black 1977, p.95, 96). *Author's note*: A footnote to "fir wood" mentions that this was probably referring to *gnilushka*, a fungus which grows on decaying fir wood. However, fir (*Abies* spp.) does not grow on Kodiak Island. Is this fungus referring to *Laetiporus sulphureus*, a shelf fungus which grows on spruce?

Athabascan

"The ashes resulting from burning wood punk, when boiled and drunk, are believed to counteract consumption..." (McKennan 1959, p.109). *Author's note*: "Wood punk" may be referring to *Fomes applanatum*, a shelf fungus found growing on birch trees (*Betula* spp.).

"An unidentified bracket fungus which grows on spruce trees is used as medicine by the Upper Tanana. The Tetlin people cut it into pieces and boil it with Hudson Bay tea [*Ledum palustre* ssp.] and the tip of a young spruce tree. This decoction when taken internally is said to be effective for any kind of ailment. The Northway people cut up the fungus, boil it, and after straining the liquid drink it for colds, flu, tuberculosis, and respiratory problems. The Upper Tanana Athabaskan also use the strained decoction as a wash for sores, infections, and the eyes" (Kari 1985, p.20). *Author's note*: The Northway Athabascan name is *tsat dzagn.*

Yupik

"One man from a tundra village said that for stomach ache he would obtain a certain fungus, yellow on the inside and black on the outside, that grows on a tree trunk" (Lantis 1958, p.136). *Author's note*: This possibly refers to a type of polypore, or shelf fungus.

"For a laxative or just a beverage to make one feel better, a man at Eek, like the aforementioned man orginally from Nunachuk, said that he would use a certain brownish-black fungus (or lichen) that grows shelf-like on a dying or dead tree" (Lantis 1958, p.136). *Author's note*: This possibly refers to a type of polypore, or shelf fungus.

"One man in the Eek-Kwinhagak area said that he used the 'yellow stuff', evidently the spores, from 'puff balls that grow under trees for burns, sores, and cuts' " (Lantis 1958, p.136, 1959 p.6). *Author's note*: Puffball is the common name for fungi in the genus *Lycoperdon.*

Tlingit

Kelp
Names: No information found
Symptoms: Swelling
Plant application: Poultice

General uses
According to Frederica de Laguna, a warm poultice of kelp pulp applied to the skin helped to reduce swelling (de Laguna 1972, p. 656).

Aleut

"Swellings and rheumatisms they treated with various fomentations and ointments, or by poultices made of roots" (U.S. Revenue-Cutter Service 1883, p. 19).

Alutiiq

"For blood spitting a decoction of a certain pulverized plant was drunk, and hot stones were used for applications" (Birket-Smith 1953, p. 117).

Athabascan

"The Peel River Kutchin, nevertheless, make a sort of tea which is good for the kidneys, and smash up and boil a certain root to act as a physic" (Osgood 1936, p. 93).

" Another plant for which no name was known was used as an eye wash. The leaves were boiled and the water used to wash the eye. It was used for any eye problem including snow blindness. This plant also was dried and stored during winter" (Townsend 1965, p. 346).

For cuts/scrapes, "Just one root, called rabbit roots, grow along beach, low bush" was used (Scott 1993, p. 188).

Inupiat

"One or two leaves were boiled for medicinal purposes, specifically to relieve an aching back or joint" (Gubser 1965, p. 239-240).

"Place some special green leaves on the mattress and have the individual lie on them and then cover him up with more leaves and have him stay this way for several days" as a treatment for cancer (DeLapp and Ward 1981, p. 22).

"Put some plants in a bag and soak them in hot water and place the bag on the chest" as a treatment for colds (DeLapp and Ward 1981, p. 24.)

"Apply a plant that is available in the Kotzebue area" as a treatment for cuts (DeLapp and Ward 1981, p. 30).

For general ill health, "Wet some plants down and apply them to the skin. Only leave it on a day or less - if it's on too long, it causes a bad rash" (DeLapp and Ward 1981, p. 52).

Tlingit

"For a cough, drink a tea made from the 'lipidodendron' [unidentified plant. Lepidodendron is a genus of fossil tree ferns that grew in the Carboniferous, named for the scaly surface of its bark where the leaf stalks separated!]" (Emmons 1991, p. 364). Author's note: Does this refer to the genus *Ledum*?

Peoples Not Identified

" The steam bath is considered to be a dubious cure for colds but efficacious in curing sprains and recurring body or limb soreness. Local plants may be prepared and used to treat diarrhea, to form a poultice over an infection, to whip a sore limb in the steam bath, or to build up strength. One plant is reputed to cure any type of disorder" (Oswalt 1957).

Aleut

"This called *Triliskin*, Russian name - strong medicine - use like soup for gas pain in stomach and pain in bones" (Bank 1971, p.75).

"*Ramaskan*-for when stomach all tight and hurt" (Bank 1971, p.75).

Alutiiq

"On the island of Sutkhum the Koniags dig up a root they call 'shishkuk'. This plant has a very short stem with four or five longish leaves. Shishkuk smells quite good; they smoke the leaves, and expectant mothers drink the liquid boiled from it" (Davydov 1977, p. 179).

"Now how do you call "Aramushka" (a local plant)? I remember we used to put those things together and made them like beads. And you know, in those days, they breast fed their babies. They'd pick those orange plants, and they'd brew it like tea or coffee and it was like a laxative, to clean them out." (Mulcahy 1988, p. 103). *Author's note*: This may be the same plant as *alamushka*, cited in Townsend (1965, p. 215). See first entry under "Athabascan".

"The chest pains are attributed to internal boils which, they believe, are caused by uncleanliness of women. When such hypothetical boils are believed to have ripened and burst, they resort to another remedy. They make an infusion from the root of the plant *chikinalyakhpik* which they shred and boil well. This they give to the patient to drink mornings and at night. This infusion in very repulsive and bitter, and some cannot stand its use. In this period of illness, patients eat cod and other lean fish" (Black 1977, p. 95) (Pierce 1978, p. 130). *Author's note*: Both Pierce and Black have translated the work of Hiermonk Gideon [Gedeon], the original source of these plant references.

"*Chinak*, the roots of parsley, when steamed are used as food in combination with oil, powdered, they are used to make hot poultices to relieve swellings".[1] Author's note: Does this refer to *Ligusticum* spp. or *Conioselinum* spp.?

"*Chyvykhyat' – chistiak* [celandine] *(kosichki).* The infusion of the roots serves as the very best laxative; this root is also used raw with great success for relief of constipation, which often is induced by immoderate consumption of raspberries" (Black, 1977, p. 96).

"*Taganak* – bitter *kutagornik* - is a root, which when steamed in powdered form is applied to swellings".[1]

"*Kiuyiukhat* – Only small roots of this plant area used, prepared and applied in the same manner as *taganak*, but it is far more effective than the first".[1]

"*Amagot'* – An infusion prepared from the powdered root of this plant, is drunk mornings and evenings as a remedy against venereal disease, but also most often when one suffers from a sore throat. In the latter case, no food is eaten for a whole day and the throat is warmed by compresses made of the above plant. The last two mentioned grass usually grow on level sandy places near the seashore".[1]

"Shulialiunak—This blood-purifying grass has leaves similar to our *podbel*. It grows on the northern side of the island of Kad'iak near the Karluk *artel'*. Its roots are very similar to a decoction sold in the stores. The Aleuts cook this plant in hermetically sealed vessels and use the decoction as a remedy against venereal disease. A small quantity of the infusion is drunk, and then the sufferer is given, to chew, a root *mzhulingok* [wild-burnet] *(chernogolovnik)* – which does not absorb moisture; the saliva is swallowed, though it tastes bitter and has an astringent quality".[1]

Athabascan

"One woman recalled using a common small weed with white flowers called by the Tanaina *alamushka*. I had no specimens of this plant to identify botanically. The plant was dried and boiled. The woman drank the juice after the baby was born to help her heal inside" (Townsend 1965, p. 215).

"A plant called *nakaxetsa* by the Tanaina is said to have large leaves and grow by creeks. It was used for cuts, boils, and sores and was supposed to numb a fresh cut. A leaf might be placed in the cut for medication. However, the root could also be used. The skin was removed from the roots, the pulp was mashed and applied to the wound. This plant was also dried and stored during the winter for use. In case of its use in winter, water was added to the dried pulp before applying it to the wound. It is said to be used to check infection" (Townsend 1965, p. 346).

"A bush about three feet tall, called by the Tanaina shentona was also used for tuberculosis. The leaves were boiled and the tea consumed" (Townsend 1965, p. 346). *Author's note*: *Shentona* may be referring to the Pacific red elder, *Sambucus racemosa* ssp. *pubens* var. *arborescens*.

Tlingit

"Fever, *yah ta yee neauk*, was treated with the sweat bath, after which the patient was wrapped in blankets. He also chewed the small green leaves of a swamp plant, [which were then] set in cold water. If the leaves floated, the patient would recover; if they sank, he would die. This medicine was call *koo-see yun-nee nak* [unidentified]" (Emmons 1991, p.363)

Yupik

The plant *Nanerluk* was used medicinally in many ways (Kasak and Andrews 1980)

Unanaka is a Yupik word for a plant which is used as a treatment for cuts and wounds to help with an infection (Mills and Kettelkamp 1961, p. 75)

"One woman instructed that leaves and stems of a plant called *ka'yana'xoaq* (not identified because no specimen available) should be boiled and placed on the back at the site of the pain (Lantis 1959, p. 25-26.

[1] (Black 1977, p. 96) (Pierce 1978, p. 130). Both Pierce and Black have translated the work of Hiermonk Gideon [Gedeon], the original source of these plant references.

Alutiiq

"...for diarrhoea charcoal [was] mixed with water" (Birket-Smith 1953, p. 117).

"And they used to let us eat some kind of herb, too, you know, after we get baby so that everything come out all right. Then there was some kind of black powder...they said they used to use it. Like charcoal. They sometimes let them drink it. But real old midwives, when the afterbirth don't come out, an hour or so, they used to put gloves on, I guess, go after it." (Mulcahy 1988, p. 74).

Athabascan

"Crushed charcoal is even better than ashes" for stomach aches resulting from eating too much (Osgood 1958, p. 230).

In Nulato, charcoal was used to draw out the pus from an infected area (Carlo 1978, p. 37).

Plant Products Introduced by Trade

Tea

Alutiiq

"Sore eyes were cured with applications of wet tea leaves, or by bleeding at the root of the nose or at the temples, ear-ache by applications of hot leaves of a certain plant" (Birket-Smith 1953, p. 117).

Athabascan

"Tea leaves: To get rid of diarrhea use leaves that have been used already, pour just enough straight, can [use] milk to moisten leaves so they are easy to swallow, eat leaves and milk. To help snow-blindness, sew leaves in white cloth—enough to cover eye—moisten cloth and leaves, cover eyes with cloth of leaves. Use as directed for red, sore eyes also. Leave on at night for 1 week." (Hall 1979, p. 9). *Author's note*: It is unclear if this is a traditional treatment.

Inupiat

"Place some tea leaves in gauze, soak them in water and have the person sleep with them over his eyelids" as a treatment for snow blindness (DeLapp and Ward 1981, p. 17).

Not identified

"They used to eat tea leaves or to drink strong tea" as a treatment for diarrhea (DeLapp and Ward 1981, p. 32).

Tobacco

Inupiat

"Internal hemorrhaging in the stomach can be cured by chewing and swallowing tobacco" (Lucier et al. 1971, p. 254).

"Sniff tobacco until it makes your eyes water" as a treatment for snow blindness (DeLapp and Ward 1981, p. 16).

"Apply tobacco (either chewed up, soaked in water or soaked in urine)" as a treatment for cuts (DeLapp and Ward 1981, p. 30).

Yupik

"For snow blindness, two types of medicine were mentioned again and again: cranberry juice or alternatively tobacco juice" (Lantis 1958, p. 136).

Black Pepper

Inupiat

"She treats diarrhea with 1/4 tsp. black pepper hidden in piece of bread and swallowed with water." (Juul 1979, p. 70).

P.S. (Postscript Information)

As this publication was going to press, an additional source of information was identified. *English Bay and Port Graham Alutiiq Plantlore* by Priscilla Russell is a booklet written in 1991 detailing uses of various plants by the Alutiiq peoples. It contains information on medicinal uses that were not found in other sources.

In order to prevent substantial changes in publication design and layout, reference to this chapter—noted with the phrase *(See P.S., page ___)*—is indicated in Alutiiq sections for medicinal plants.

Note:
Eight additional plants, as well as further information on other plants, were documented in Russell 1991. These new plants are marked (•) in the P.S. chapter, and are included in the Names Index.

Trees and Shrubs

Alnus spp.

Alnus crispa
Alnus incana
Most Common Name: Alder
Name: *Uqwik*
Symptoms: Arthritis, diarrhea
Plant applications: Chew, infusion/decoction

English Bay and Port Graham area uses

Arthritis: The fresh sticky alder leaves were considered to be helpful in relieving arthritis. The method of using the leaves was not stated.

Diarrhea: For diarrhea raw, green alder cones were sucked and the juice swallowed to treat diarrhea. The number of cones recommended to relieve diarrhea varied from one to many. In addition, the cones were boiled and the resulting tea drunk or the fresh inner bark was chewed and the juice swallowed for the same ailment (Russell 1991). "You put three or four little berries in a pot and boil them for a half hour and then drink 2 or 3 tablespoons anytime....For a child, they would give you a teaspoon of liquid 3 or 4 times a day. If it doesn't stop your diarrhea, make it stronger. Take as much as you want until the diarrhea slows down" (English Bay Students in Russell 1991). It was also noted that brown alder cones were boiled into a tea and drunk for the same ailment (Port Graham Students in Russell 1991).

Echinopanax horridum

Most Common Name: Devil's club
Name: *Cukilanarpak* (for "large plant with needles")
Symptoms: Arthritis, broken bones, burns, colds/flu, cuts/scrapes, hair problems, heart problems, infections/inflammation, nausea, pneumonia, sore muscles, sore throat, toothaches
Plant applications: Infusion/decoction, poultice

English Bay and Port Graham area uses

Devil's club root was gathered and dried for winter use. The people of English Bay and Port Graham gathered the cambium anytime of the year.

Arthritis, colds/flu, heart problems, sore throat: The cambium of devil's club, with or without the stem, was boiled for one half to two hours and drunk for colds, sore throats, arthritis, heart trouble, and cancer. Many people shared that they were cured of cancer with devil's club (Russell 1991). One person who could not move his fingers due to arthritis, was soon chopping wood after being treated with a pad of devil's club (see below) (English Bay Students 1980, 1981 in Russell 1991).

Arthritis, hair problems, pneumonia: One way people treated pneumonia with devil's club was to boil the root, pour the decoction into a bath (using one part decoction to one part water) and have the patient soak in the tub. Soaking in a decoction which was too strong caused blisters. One elder recommended boiling devil's club in three gallons of water for six hours. This treatment was used for arthritis as well as pnuemonia. If this decoction was used as a hair wash it helped the hair grow better. One person with diabetes was able to walk easier and generally felt better after drinking a decoction of devil's club tea and soaking his feet in it (Russell 1991).

Burns, broken bones, cuts/scrapes: Cambium was chewed until soft and placed on cuts, burns, and broken bones. The root was preferably used. Raw roots were tied together and pounded until soft and flat, forming a pad. This pad was then set on hot rocks and then laid in a damp cloth before being placed on the afflicted area. They were left there until the roots cooled. This process was repeated several times (Russell 1991). A person suffering from a broken leg which was swollen and infected was successfully treated with devil's club (English Bay Students 1980, 1981 in Russell 1991).

Nausea: Strong devil's club tea was drunk to induce vomiting (Russell 1991).

Toothaches: A person suffering from a rotten tooth bit down on devil's club root which was pounded and placed in hot water until soft. This process was repeated for several hours and the root was reheated several times (Russell 1991).

Note

Traditionally a piece of devil's club helped keep evil away when placed over a door. Some people say this was practiced in southeast Alaska while others say that also used to be practiced in English Bay and Port Graham (Russell 1991).

Picea sitchensis

Most Common Name: Sitka Spruce
Names: *Napaq* (meaning "tree"); *naparpiaq* (meaning "real tree")
Symptoms: Bleeding/hemorrhages, broken bones, colds/flu, coughs/chest congestion, infections/inflammation, pneumonia, sore throat, toothaches, tuberculosis
Plant applications: Chew, infusion/decoction, poultice

English Bay and Port Graham area uses

Bleeding/hemorrhages, colds/flu, coughs/chest congestion, cuts/scrapes, sore throat, tuberculosis: The people of Port Graham identified three types of spruce pitch: yellow, white, and pink. All three types of pitch were used for sore throats and colds (Port Graham Students in Russell 1991). Hard yellow pitch and hard white pitch were boiled and given to people with colds, coughs, and tuberculosis. For cuts soft yellow pitch was warmed to staunch bleeding. In an emergency any soft pitch (yellow, white, or pink) was used without warming it. It was noted that the pitch should not be softened by chewing before use because wet pitch will not adhere to the skin (Russell 1991).

Broken bones: Spruce roots helped to secure wood used a splint for broken bones (Russell 1991).

Colds/flu, infections/inflammation, pneumonia, sore throat, toothaches: Spruce cambium (boiled for five to fifteen minutes) was drunk for sore throats, colds, and pneumonia (Port Graham Students in Russell 1991). Raw cambium was also chewed for the same ailments or wrapped on cuts to stifle an infection. One person shared that chewing raw cambium cured a tooth infection (Russell 1991).

Populus balsamifera

Most common name: Balsam poplar

Name: *Ciquq* (this word means both cottonwood tree and plate)
Symptom: Arthritis
Plant applications: Infusion/decoction, switch

English Bay and Port Graham area uses

Arthritis: Arthritic pains were relieved by using leafy cottonwood branches for a steambath switch or by placing cottonwood branches in a bath of hot water and soaking their feet in the decoction (Russell 1991).

Potentilla fruticosa

Most common name: Shrubby cinquefoil

Names: *Qutuneskiiq, yaakuutaaq* (Russian origin)
Symptoms: Colds/flu, pneumonia, sore throat, stomach trouble, tuberculosis
Plant application: Infusion/decoction

English Bay and Port Graham area uses

Colds/flu, pneumonia, sore throat, stomach trouble, tuberculosis: Stems, leaves, and flowers were boiled and the resulting tea drunk to treat these symptoms (Russell 1991).

Ribes laxiflorum

Most common name: Trailing black currant

Name: *Qunisiq* (for all currants)
Symptom: Weight loss/loss of appetite
Plant application: Switch

English Bay and Port Graham area uses

Weight loss/loss of appetite: Trailing black currant branches were used as a steambath switch. This was said to be helpful for increasing a person's appetite (Russell 1991).

Ribes triste

Most common name: Northern red currant

Name: *Kawirqaq qunisiq* (for red currants)
Symptom: Eye problems
Plant application: Infusion/decoction

English Bay and Port Graham area uses

Eye problems: The cambium was boiled, cooled, and used as a wash for sore eyes. The outer bark was also used if not enough cambium was available. The juice straight from fresh currants were also squeezed into sore eyes (Russell 1991)

Rubus chamaemorus

Most common name: Cloudberry

Name: *Aqagwik*
Symptoms: No information found
Plant applications: No information found

English Bay and Port Graham area uses

It was noted that eating cloudberries when a person had a stomachache exasperated the symptoms. In addition eating cloudberries was said to cause a cut to become infected (Russell 1991). Rarely has information been documented which discusses plants causing, rather than curing, ailments.

Rubus spectabilis

Most common name: Salmonberry

Name: *Alagnaq*
Symptoms: Breathing problems, skin trouble
Plant application: Infusion/decoction

English Bay and Port Graham area uses

Breathing problems, skin trouble: Salmonberries were said to be helpful for breathing problems. However, the method of plant preparation was not reported. A tea prepared from salmonberry leaves was used as a wash for skin trouble (Russell 1991).

Salix spp.

Most common name: Willow

Name: *Nim'uyaq*
Symptom: Arthritis
Plant applications: Chew, switch

English Bay and Port Graham area uses

Arthritis: Willow branches were employed as steambath switches to relieve arthritic pain. Fresh willow cambium was also chewed for the same purpose (Russell 1991).

Sambucus racemosa

Most common name: Pacific red elder

Name: *Qaruckaq*
Symptoms: Rheumatism, sore muscles
Plant applications: Infusion/decoction, switch

English Bay and Port Graham area uses

Infusion/decoction, switch: Aches and pains were relieved through the use of a pacific red elder switch. They were also used to relieve rheumatism. For this treatment the switch was soaked in hot water before use and the sore area soaked in the water that the switch was placed in. In addition, fresh or dried elder flowers were prepared into a tea and drunk to relieve rheumatism (Russell 1991).

Sorbus spp.

- *Sorbus scopulina*

Sorbus sitchensis

Most common name: Green mountain ash (for *Sorbus sitchensis*); Sitka mountain ash (for *Sorbus sitchensis*)

Name: *Esqunaq* (Dena'ina)

Symptoms: Arthritis, childbirth, colds/flu, coughs/chest congestion, fever, hair problems, sore throat, pneumonia, stomach trouble, tuberculosis

Plant applications: Chew, infusion/decoction, switch

English Bay and Port Graham area uses

Arthritis, colds/flu, coughs/chest congestion, fever, sore throat, pneumonia, stomach trouble, tuberculosis: These ailments were treated with large doses of an infusion of mountain ash leaves and cambium which was simmered for approximately one hour. The leaves were used primarily in the summer and the cambium used during the winter. Eating the raw, fresh berries of the mountain ash treated respiratory trouble (Russell 1991).

Arthritis, colds/flu, coughs/chest congestion, fever, pneumonia: A mountain ash switch was employed to relieve these ailments (Russell 1991).

Childbirth: A mountain ash switch was quite popular with pregnant women who said it helped remove gas from the body which provided more room for the fetus. Using the switch regularly was said to help facilitate the delivery and produce a healthier child (Russell 1991).

Hair problems: Hair growth was said to be accelerated with a treatment of a mountain ash infusion (Russell 1991).

Thuja plicata

Most common name: Western red cedar

Name: *Qar'usiq*

Symptoms: Bleeding/hemorrhages, burns

Plant application: Ash

English Bay and Port Graham area uses

Burns, cuts/scrapes: Cedar charcoal and ashes were placed on cuts to stop bleeding and help relieve burns.

Viburnum edule

Most common name: Highbush cranberry

Name: *Qalakuaq*

Symptoms: Colds/flu, coughs/chest congestion, cuts/scrapes, infections/inflammation, sore throat, urinary problems

Plant applications: Chew, infusion/decoction

English Bay and Port Graham area uses

Colds/flu, coughs/chest congestion, sore throat, urinary problems: Highbush cranberry jelly was eaten by itself or mixed into tea or coffee as a treatment for coughs, colds, and sore throats (Port Graham Students in Russell 1991). Raw berries were also be used for the same purposes and to treat urinary infections (Russell 1991).

Cuts/scrapes, infections/inflammation: The outer bark of highbush cranberry was peeled and the cambium shaved. These shavings were then boiled in hot water (for five to ten minutes), placed on a cut, and the entire area wrapped in a bandage. This was helpful in drawing the pus from a cut. Infected wounds were soaked in the water into which the cambium was placed (Port Graham Students in Russell 1991). The cambium was used fresh, dried, or frozen and the berries were used fresh or frozen. The efficacy of these treatments are supported by the story of a woman who cured an infected breast with these treatments and another person who healed a kidney infection with an infusion prepared from the inner bark of highbush cranberry (English Bay Students in Russell 1991).

Herbs

Achillea borealis

Most common name: Northern yarrow

Name: *Qanganaruaq* (meaning "one that never dies")

Symptoms: Bladder infections, childbirth, colds/flu, infections/inflammation, kidney trouble, measles, menstrual problems, skin trouble, sore throat, stomach troubles

Plant applications: Infusion/decoction, poultice

English Bay and Port Graham area uses

Yarrow was gathered throughout the growing season and dried for use during winter (Russell 1991).

Bladder infections, colds/flu, cuts/scrapes, infections/inflammation, kidney trouble, measles, menstrual problems, sore throat, stomach troubles: The entire plant (without the roots) was boiled or steeped and was drunk for all of these ailments. Some people avoided using the flowers believing them to be poisonous. Women who were menstruating drank this tea instead of black tea to reduce the blood flow (Russell 1991). One method of preparing yarrow tea stated "You put them in boiling water or you boil them for 10-15 minutes. You can put in as much as you want....You will see when it looks strong. You can drink it anytime you want, night or day. Cause

they won't hurt you. It will fix you wherever you are infected" (English Bay Students in Russell 1991).

Childbirth: A mother who drank yarrow tea following childbirth cleansed her system and prevented infection (English Bay Students and Port Graham Students in Russell 1991). A yarrow poultice was applied to a newborn's umbilical cord after washing the umbilical cord with yarrow tea. "When the baby is three or four days old a little piece of the umbilical cord is still attached. It usually falls off at that time, but sometimes it gets smelly and stinky. Use *qanganaruaq* packings if the cord becomes infected. Lay the packings over the cord and wrap something over it" (Port Graham Students in Russell 1991).

Cuts/scrapes, skin trouble: For cuts, rashes, itches, boils, and blisters, "They wash the cut with that (the water that the yarrows were boiled in). Then they put them (the yarrows) where they have a big infection. They drink the juice, too, any amount at a time. It don't [sic] matter how many cups you drink a day" (English Bay Students in Russell 1991).

Angelica genuflexa
Angelica lucida

Most common name: Angelica

Names: *Uriisaaq*, *asaaqgwak*

Symptom: Skin trouble

Plant applications: Poultice, switch

English Bay and Port Graham area uses

Skin trouble: Leafy angelica stalks were used as a steambath switch to treat sores and skin rashes. Fresh, crushed stalks were also rubbed on the afflicted area during or after a steambath. Or, angelica leaves were placed on hot rocks in a steambath and placed on the sore area as a poultice (Russell 1991).

Artemisia tilesii

Most common name: Stinkweed

Name: *Caik*

Symptoms: Coughs/chest congestion, infections/inflammation, pneumonia

Plant applications: Infusion/decoction, poultice, switch

English Bay and Port Graham area uses

Wormwood stalks were primarily gathered in June and July before the flowers and seeds developed and dried. The flowers and seeds were removed if the plant was harvested after they developed, as they became a nuisance during switching (Russell 1991).

Coughs/chest congestion, pneumonia: A highly valued medicine for respiratory troubles, the people of English Bay and Port Graham used stalks of wormwood as a steambath switch when suffering from pneumonia and whooping cough. Following the steambath, the patient returned to a warm house and was tucked into bed. He/she then drank warm water or better yet strong wormwood tea. This tea was prepared by boiling the leafy stalks in hot water for one half to one hour. Drinking this strong tea sometimes caused vomiting which was thought to be helpful in curing pneumonia. It removed unwanted slimy material from the stomach (Russell 1991).

Infections/inflammation: A wormwood poultice was helpful for fighting infections (Russell 1991).

• *Aster sibircus*
Aster subspicatus

Most common name: Purple daisy (for *Aster subspicatus*); Siberian aster (for *Aster sibircus*)

Name: *Teptukui'aq*

Symptoms: Colds/flu, coughs/chest congestion, measles, pneumonia

Plant applications: Chew, infusion/decoction

English Bay and Port Graham area uses

Colds/flu, coughs/chest congestion, measles, pneumonia: *Aster subspicatus*, *Aster sibiricus*, and *Erigeron peregrinus* are identified by the people of Port Graham and English Bay as *teptukui'aq*. They were all used to treat these ailments by drinking a decoction of the roots or chewing the raw roots. The roots were dried or frozen for use during the winter (Russell 1991).

Conioselinum chinense

Most common name: Hemlock parsley

Name: *Cingkaq*

Symptoms: Arthritis, colds/flu, skin trouble, pneumonia

Plant applications: Infusion/decoction, switch

English Bay and Port Graham area uses

Arthritis, skin trouble: Hemlock parsley stalks were soaked in hot water before being used as a steambath switch to treat arthritis, rashes and other skin troubles, and "burning" feet. Wet, crushed leaves were also rubbed on the afflicted area (Russell 1991).

Colds/flu, pneumonia: Leafy stems were boiled for several hours and the resulting tea drunk frequently throughout the day to treat pneumonia and bad colds (Russell 1991).

Epilobium angustifolium

Most common name: Fireweed

Name: *Cillqaq*

Symptom: Colds/flu

Plant application: Switch

English Bay and Port Graham area uses

Colds/flu: Fireweed stems, before flowering or with the flowers removed, were used to switch the chest (while breathing through the mouth) during a steambath. This was said to be quite helpful if a person was getting a bad cold. This process was repeated for three days. It was noted that fireweed stalks produced more heat during switching than many other plants (Russell 1991).

Erigeron peregrinus

Most Common Name: Coastal fleabane

Name: *Teptukui'aq*

Symptoms: Colds/flu, coughs/chest congestion, measles, pneumonia

Plant applications: Chew, infusion/decoction

English Bay and Port Graham area uses

Colds/flu, coughs/chest congestion, measles, pneumonia: *Aster subspicatus*, *Aster sibiricus*, and *Erigeron peregrinus* are identified by the people of Port Graham and English Bay as *teptukui'aq*. They were all used to treat these ailments by drinking a decoction of the roots or chewing the raw roots. The roots were dried or frozen for use during the winter (Russell 1991).

Geranium erianthum

Most common name: Wild geranium

Name: *Talltaciq*

Symptoms: Bleeding/hemorrhages, colds/flu, coughs/chest congestion, sore throat

Plant application: Infusion/decoction

English Bay and Port Graham area uses

Wild geranium was gathered fresh and dried for winter use.

Bleeding/hemorrhages, colds/flu, coughs/chest congestion, sore throat: A root decoction or an infusion of the entire plants was drunk for colds, sore throats, coughs, and hemorrhages (Russell 1991).

Heracleum lanatum

Most common name: Cow parsnip

Name: *Ugyuuteq* (for the entire plant); *kangaaq* (meaning "male, flower-bearing stalks"); *arnaqiitaa* (meaning "female stalks, bearing only leaves and not flowers")

Symptoms: Arthritis, infections/inflammations, rheumatism

Plant application: Plaster

English Bay and Port Graham area uses

Arthritis, infections/inflammations, rheumatism: A cow parsnip poultice was used to reduce swelling and pains caused from arthritis, rheumatism, and cramps. To prepare, a pad of roots the size of the ailment was made by tying the secondary roots together and crushing them. This pad was then heated on hot rocks, a hot stove, or in hot water before being wrapped in cloth and placed on the afflicted area. Another way the cow parsnip root was prepared was to crush and heat the large taproot, wrap it in a cloth, and place it over the wound. One person shared that a badly swollen leg that would not heal in the hospital was cured after returning home and treating the leg with cow parsnip root poultices (Russell 1991).

Matricaria matricarioides

Most common name: Pineapple weed

Name: *Alam'aaskaaq* (from the Russian *romashka*-"camomile")

Symptoms: Childbirth, constipation

Plant application: Infusion/decoction

English Bay and Port Graham area uses

Childbirth, constipation: Port Graham students documented that an infusion of pineapple weed (without the roots) was given to a newborn in teaspoonfuls. Several teaspoonfuls were said to be helpful if a newborn was constipated. Adults also used this remedy. "The belief among Native mothers is that if the baby didn't pass all of that black stool, the baby will always be colicky and have a belly ache" (Port Graham Students in Russell 1991).

Moneses uniflora

Most common name: Single delight

Name: *Ikignganaq* (meaning "something that reminds you of kneeling down")

Symptoms: Colds/flu, coughs/chest congestion, sore throat

Plant applications: Infusion/decoction

English Bay and Port Graham area uses

This plant was used both fresh and dried.

Colds/flu, coughs/chest congestion, sore throat: An infusion of either the leaves or the entire plant was drunk or used as a gargle for these ailments (Russell 1991). Some people stated you could drink as much tea as possible while other stated too much tea will "skin your throat. It will start bleeding" (English Bay Students in Russell 1991).

One person described preparing single delight "...rinse them in clean water, then pull out 2 or 3 leaves and put them in one quart of water. Let it set for 15 or 20 minutes. If you think it's strong, add more water. You can tell if it's strong; it will look like weak tea. It has to be clear. Then take a mouthful a day or anytime you like. Keep drinking it until your throat feels better. With a baby, they used to use on little leaf in a cup of boiling water. Then they would give them a teaspoonful two or three times a day for little babies" (English Bay Students in Russell 1991).

Petasites hyperboreus

Most common name: Coltsfoot

Name: *Nausak*

Symptoms: Colds/flu, coughs/chest congestion, measles, pneumonia, sore throat, stomach troubles, tuberculosis

Plant applications: Chew, infusion/decoction

English Bay and Port Graham area uses

Colds/flu, coughs/chest congestion, measles, pneumonia, sore throat, stomach troubles, tuberculosis: Prepared as an infusion or chewed raw, *Petasites hyperboreus* roots were used to cure all of these ailments. The infusion was made by cutting the long roots into small pieces, mashing them, then boiling or steeping them in hot water (Russell 1991). These roots were harvested in the summer and frozen or dried for use during the winter. The dried roots were soaked overnight and then boiled, or just boiled for five minutes before use. Roots were also gathered during the winter with an axe (Port Graham Students in Russell 1991).

• *Polygonum viviparum*

Most common names: Alpine meadow bistort, knotweed

Name: No information found

Symptom: Weight loss/loss of appetite

Plant application: Chew

English Bay and Port Graham area uses

Weight loss/loss of appetite: The root of *Polygonum viviparum* was eaten raw by people wishing to lose weight (Russell 1991).

• *Prenanthes alata*

Most common name: Rattlesnake root

Name: No information found

Symptom: Breathing problems

Plant application: Chew

English Bay and Port Graham area uses

Breathing problems: Chewing raw rattlesnake root reportedly relieved breathing problems (Russell 1991).

Rumex arcticus
Rumex fenestratus

Most Common Name: Dock

Name: *Quunarliq* (meaning "makes you sour")

Symptoms: Constipation, general ill health

Plant application: Infusion/decoction

English Bay and Port Graham area uses

Constipation, general ill health: Constipation and general ill health were treated by boiling one root in one gallon of water and drinking the resulting tea (Russell 1991).

Senecio pseudo-arnica

Most common name: Beach fleabane

Name: *Kegtuyaqutaq* (meaning "mosquito plant")

Symptoms: Infections/inflammation, skin trouble

Plant applications: Poultice

English Bay and Port Graham area uses

Infections/inflammation, skin trouble: Warm beach fleabane leaves were placed on boils and other skin infections. The veins on the upper side of the leaves were removed before the upper sides of the leaves were placed against the wound, allowing the sap to run into the infected area (Russell 1991).

Thalictrum sparsiflorum

Most Common Name: Meadow rue

Name: *Wasi'lisaaq* (probably)

Symptom: Pneumonia

Plant application: Infusion/decoction

English Bay and Port Graham area uses

Pneumonia: A decoction of meadow rue (without the root) was boiled for one hour and drunk warm to treat pneumonia (English Bay Students in Russell 1991). One person reported that correct dosage was important as this plant could be dangerous if not used correctly (Russell 1991).

Russell mentioned that *wasi'lisaaq* most likely referred to meadow rue (*Thalictrum sparsiflorum*), however two other plants were also been identified as *wasi'lisaaq*: monkshood (*Aconitum delphinifolium*) and hemlock parsley (*Conioselinum chinense*). "A decoction of hemlock parsley, except for the roots, is said to be medicine for pneumonia. A decoction of monkshood reportedly relieves internal hemorrhaging. Because hemlock parsley is commonly known by a different Alutiiq name, *cingkaruaq*, and monkshood is considered poisonous by Hultén (1974, page 439), *wasi'lisaaq* seems most likely to be meadow rue. On the other hand, possibly more than one plant has traditionally been known as *wasi'lisaaq*" (Russell 1991).

Urtica gracilis
Urtica lyallii

Most common name: Nettle

Name: *Uuqaayanaq* (meaning "something that makes you burn all over")

Symptoms: General ill health, toothaches

Plant application: Poultice

English Bay and Port Graham area uses

Toothaches: Nettle roots were cleaned, pounded, woven together into a small pad, and heated before being placed on the face over where the tooth was rotting. While the nettle root pad was placed on the face, the patient bit down on a heated root with the ailing tooth. The next day the rotten tooth crumbled and fell out (Port Graham Students in Russell 1991). Before using the nettle roots in the method previously described, some people would cover themselves and heated nettle roots with a blanket, presumably to induce sweating and breath in the steam from the heated roots. The nettle roots were prepared by tying them together with a string, crushing them, wrapping them in a cloth, and then putting them in a basin on top of a hot rock (English Bay Students in Russell 1991).

Another method to treat toothaches was to simply bit down on a crushed nettle root. This numbed the area around the tooth and caused the tooth to crumble and fall out (Russell 1991).

General ill health: Heated and crushed nettle roots were also employed to promote healing on an old injury or sprain that was once infected (Russell 1991).

Grasses and Sedges

• *Elymus arenarius*

Most common name: Lyme grass

Name: *Wegpak* (for Elymus arenarius, meaning "grass big"); *weg'et* (for grass in general)

Symptoms: Cuts/scrapes, insect bites

Plant application: Poultice

English Bay and Port Graham area uses

Cuts/scrapes, insect bites: For cuts that would not heal (when the skin is "slimy" and "shiny") the lower portion of fresh lyme grass was rubbed on the skin. When mosquito bites would not stop itching, fresh grass leaves were rubbed on them until the skin turned greenish (Russell 1991).

Ferns and Fern Allies

• *Polypodium vulgare*

Most common name: Licorice fern

Name: *Tuquyuilnuq* (meaning "the one that never dies")

Symptoms: Arthritis, broken bones

Plant applications: Poultice, switch

English Bay and Port Graham area uses

Arthritis, broken bones: Gathered in both winter and summer, licorice fern was used as a steambath switch and a poultice for arthritic pain and bone injuries. One person recounted a story of a badly injured leg when he was six years old. Licorice fern leaves were placed in hot water and then directly on his leg until the leaves cooled. This was repeated for many days until his leg healed (Russell 1991).

Seaweeds and Algae

• *Alaria* spp.

Alaria marginata

Most common name: Ribbon kelp

Name: No information found

Symptoms: Arthritis, sore muscles

Plant applications: Infusion/decoction, poultice

English Bay and Port Graham area uses

Arthritis, sore muscles: Arthritis, legs that "burn", sore feet, and other aches were treated by wrapping warm ribbon kelp around the afflicted area. Feet were also soaked in warm water in which ribbon kelp has steeped. "One person gives the example of her father curing his injured ankle with this medicine. He wrapped the algae around his ankle over which he wore heavy socks that he left on overnight. His ankle eventually healed through the use of this medicine" (Russell 1991).

Supporting Information

Glossary of Botanical Terms
List of Symptoms
Species List With Authors
Names Index (common and scientific names)
Index to Alaska Native Peoples and Areas of Alaska
Medicinal Plant Bibliography
Non-medicinal Bibliography
Evaluation Form

Glossary of Botanical Terms

Achene: Small, dry, indehiscent, single-seeded fruit.
Annual plant: Plant which completes its life cycle in one growing season.
Anther: Pollen bearing part of a stamen.
Anthesis: Time of flowering when flowers are fully expanded.
Apex: Tip of the leaf or top of plant.
Axil: Angle between the stem and any leaf that arises from it.
Basal: Located or forming at the base.
Bract: Small (reduced) leaves.
Caespitose: Growing in tufts or clumps.
Calyx (*pl.* **calyces**): First (outer) whorl of floral parts, *i.e.*, the sepals.
Capitate: Aggregated into a compact cluster.
Catkin: Spike or spike-like inflorescence of unisexual flowers.
Caudex: Stem, referring here particularly to the basal portions at ground level.
Ciliate: Fringed with long, simple hairs.
Corm: Short, solid, thickened, vertical underground stem.
Corolla: Second (inner) whorl of floral parts, *i.e.,* the petals.
Cruciform: Cross-shaped.
Cyme: Flower cluster, often convex or flat-topped, in which the central or terminal flower blooms earliest.
Deciduous: Falling away, not persistent or evergreen.
Decumbent: Lying on the ground, but with the apex ascending, erect.
Entire: Without indentations of any kind, often referring to the margin of a leaf or a petal.
Exotic species: Not native; introduced from another area.
Fascicle: A loose cluster or bundles of flowers, leaves, stems, or roots.
Filament: Any threadlike body; frequently used for that part of the stamen that supports the anther.
Frond: Leaf of a fern.
Glabrous: Without hairs.
Glandular: With secreting organs (glands), which can be stalked (on the summits of hairs) or sessile.
Hyaline: Translucent or transparent.
Indusium (*pl.* **indusia**): Elaboration of the fern frond surface that covers or contains the sori (sporangia).
Inflorescence: Flower cluster or the specific arrangement of the flowers.
Involucre (*pl.* involucrum): One or more whorls of small leaves or bracts close beneath a flower or flower cluster.
Lanceolate: Lance-shaped; long than broad, wide at the base, and tapering to a narrow apex.
Leaflet: Leaf-like division of a single compound leaf.
Linear: Long and narrow; the sides parallel or nearly so.
Linear-lanceolate (*adj.*): Form intermediate between linear and lanceolate.
Naturalized: Nonnative plant that establishes itself after introduction to a new area.
Oblanceolate: Reverse of lanceolate; the structure is broadest at the apex and tapers to the base.
Obovate: Reverse of ovate; broader at the apex than at the base.
Ovary: Part of the pistil containing the ovules.
Ovate: Oval, egg-shaped in outline (term used for plane surfaces.)
Ovoid: Egg-shaped (term used for solid objects).
Ovule: Structure that develops into the seed.
Papilla (*pl.* **papillae**): Minute cone shaped projection.
Pedicel: Stalk of a single flower.
Peduncle: Stalk of a cluster of flowers or of a single flower when it alone is the entire inflorescence.
Perennial: Plant lasting for three or more years; a stem not dying back over winter.
Petal: One of the individual parts of the corolla.
Petiolate: Having a stalk (petiole), referring to the attachment of leaves.
Pinnate: With leaflets or pinnae arranged on either side of a common axis.
Pinnately lobed: With lobes separated by deep indentations and having therefore the appearance of a pinnately compound leaf.
Pistil: Structural unit of stigma, style, and ovary.
Prickle: Small, sharp-pointed outgrowth of plant surface.
Prostrate: trailing or lying on the ground.
Pubescent: Covered with short, soft hairs.
Raceme: Inflorescence with pedicelled flowers borne along a more or less elongated axis with the younger flowers nearest the apex.
Rhizome: Underground stem.
Root: Descending axis of a plant, without nodes and internodes and absorbing moisture from the ground.
Rosette: Cluster of leaves from a crown or center.
Scurfy: Covered with minute, branlike scales
Sepal: One of the parts of the outer whorl of the floral envelope or calyx, usually green in color.
Serrate: With sharp teeth directed forward.
Sessile: Not stalked or petiolate.
S. lat.: Meaning *in the broad sense.* In this book, used to denote when plant identification to the subspecific level is not known.
Sorus (*pl.* **sori**): Cluster of sporangia in ferns.
Spathe: Large bract sheathing or enclosing an inflorescence.
Sporangium(*pl.* **sporangia**): Spore-bearing structure.
spp.: The plural abbreviation for *species.*
Spur: Hollow, sac-like or tubular extension of a floral organ, usually nectariferous.
ssp.: The abbreviation for *subspecies*, which is a taxonomic subdivision of a species.
Stamen: One of the pollen-bearing organs or a flower. Made up of the filament and anther.
Stigma: Part of the pistil that receives the pollen, usually at or near the apex of the pistil and mostly hairy, papillose, or sticky.
Stipe: A supporting stalk; stalk of the fern frond.
Stipule: Appendage at the base of the petiole or leaf at each side of its insertion.

Glossary of Botanical Terms (continued)

Stomate (*pl.* **stomata**): Small opening on the surface of a leaf through which gaseous exchange takes place.

Style: Thin, often attenuated portion of the pistil occurring between the stigma and ovary.

Tepals: Perianth parts undifferentiated into distinct sepals and petals.

Tomentum (*n.*), **tomentose** (*adj.*): Mat of soft, wool-like hairs.

Tube: Hollow cylindrical structure.

Umbel (*n.*) **umbellate** (*adj.*): Flat-topped inflorescence in which pedicels and peduncles arise from a common point.

var.: An abbreviation for *variety*, which is a subdivision of a species.

Whorled: With three or more leaves or other structures arranged in a circle around a stem or some common axis.

Weed: Aggressive plant that frequently colonizes disturbed areas.

Glossary adapted from:

Lipkin, R. and D.F. Murray. 1997. *Alaska rare plant field guide.* Alaska Natural Heritage Program, and U.S. Forest Service. Prepared for the U.S. Fish and Wildlife Service, National Park Service, and Bureau of Land Management (http://www.uaa.alaska.edu/enri/aknhp_web/index.html).

Harrington, H. and L. Durrell. 1957. *How to identify plants.* The Swallow Press, Inc., Chicago, Illinois.

List of Symptoms

Arthritis
Bladder infections
Bleeding/hemorrhages
Breathing problems
Broken bones
Bruises/sprains
Burns
Childbirth (includes postpartum needs of mother and child and breastmilk problems)
Coldness
Colds/flu
Colic
Constipation
Coughs/chest congestion
Cramps
Cuts/scrapes (infected wounds, including boils)
Dandruff
Depression
Diarrhea
Earaches
Eye problems
Fatigue
Fever
Food poisoning
Frost bite
Gall bladder problems
General ill health
Goiter
Hair problems
Hangovers
Headache
Heart problems
Indigestion/gas
Infections/inflammation
Influenza
Insanity
Insect bites
Insomnia
Internal pain
Kidney trouble
Lice
Lung trouble
Lymph problems
Measles
Menstrual problems
Nausea
Nerves
Nosebleeds
Pneumonia
Rheumatism
Skin trouble
Sore muscles
Sore throat
Stings
Stomach troubles (includes bowel troubles)
Swelling
Teething
Toothaches
Tuberculosis
Urinary problems
Venereal disease
Warts
Weight loss/loss of appetite
Worms

Species List With Authors

Trees and Shrubs

Alnus Mill.
Arctostaphylos Adans.
Artemisia frigida Willd.
Betula L.
Betula nana L. ssp. *exilis* (Sukatsch.) Hult.
Chamaecyparis nootkatensis (Lamb.) Spach
Cornus L.
Echinopanax horridum (Sm.) Decne. & Planch.
Empetrum nigrum L.
Juniperus communis L. ssp. *nana* (Willd.) Syme
Kalmia polifolia Wang. ssp. *polifolia*
Ledum palustre L.
Linnaea borealis L.
Loiseleuria procumbens (L.) Desv.
Myrica gale L. var. *tomentosa* C. DC.
Oxycoccus microcarpus Turcz.
Picea glauca (Moench) Voss
Picea mariana (Mill.) Britt., Sterns & Pogg.
Picea Dietr.
Picea sitchensis (Bong.) Carr.
Pinus contorta Dougl. *ex* Loud.
Populus balsamifera L. ssp. *balsamifera*
Populus tremuloides Michx.
Potentilla fruticosa L.
Ribes L.
Rosa L.
Rubus chamaemorus L.
Rubus parviflorus Nutt. var. *grandiflorus* Farw.
Rubus spectabilis Pursh
Salix L.
Sambucus racemosa L. ssp. *pubens* (Michx.) House var. *arborescens* Gray
Sheperdia canadensis (L.) Nutt.
Sorbus sitchensis Roem.
Thuja plicata D. Don
Tsuga Carr.
Vaccinium parvifolium Sm.
Vaccinium vitis-idaea L. ssp. *minus* (Lodd.) Hult.
Viburnum edule (Michx.) Raf.

Herbs

Achillea borealis Bong.
Allium schoenoprasum L. var. *sibiricum* (L.) Hartm.
Anemone L.
Angelica genuflexa Nutt.
Angelica L.
Arabis hirsuta (L.) Scop.
Artemisia L.
Artemisia tilesii Ledeb.
Artemisia unalaskensis Rydb. var. *aleutica* Hult.
Aruncus sylvester Kostel.
Aster sibiricus Nees
Aster subspicatus Nees
Boschniakia rossica (Cham. & Schlecht.) Fedtsch.
Calla palustris L.
Caltha palustris L.
Capsella bursa-pastoris (L.) Medic.
Chenopodium album L.
Claytonia sibirica L.
Conioselinum chinense (L.) BSP.
Coptis Salisb.
Delphinium glaucum S. Wats.
Epilobium angustifolium L.
Erigeron peregrinus (Pursh) Greene ssp. *peregrinus*
Galium boreale L.
Gentiana L.
Geocaulon lividum (Richards.) Fern.
Geranium erianthum DC.
Geum L.
Hedysarum alpinum L.
Heracleum lanatum Michx.
Heuchera glabra Willd.
Iris setosa Pall.
Leptarrhena pyrolifolia (D. Don) Ser.
Lysichiton americanum Hult. & St. John
Matricaria matricarioides (Less.) Porter
Menyanthes trifoliata L.
Mertensia paniculata (Ait.) G. Don
Mimulus guttatus DC.
Moneses uniflora (L.) Gray
Nuphar polysepalum Engelm.
Osmorhiza chilensis Hook. & Arn.
Oxytropis L.
Petasites Mill.
Plantago L.
Polygonum alaskanum (Small) Wight
Polygonum viviparum L.
Prenanthes alata (Hook.) Dietr.
Rumex L.
Sedum rosea (L.) Scop. ssp. *integrifolium* (Raf.) Hult.
Senecio pseudo-arnica Less.
Smilacina racemosa (L.) Desf.
Sorbus scopulina Greene
Taraxacum officinale Weber
Thalictrum sparsiflorum Turcz.
Urtica L.
Valeriana L.
Veratrum viride Ait. ssp. *eschscholtzii* (Gray) Löve & Löve
Viola epipsila Ledeb. ssp. *repens* (Turcz.) Becker

Grasses and Sedges

Elymus arenarius L.
Eriophorum L.

Ferns and Fern Allies

Adiantum pedatum L. var. *aleuticum* Rupr.
Asplenium L.
Athyrium filix-femina (L.) Roth
Blechnum spicant (L.) Roth
Dryopteris dilatata (Hoffm.) Gray ssp. *americana* (Fisch.) Hult.
Equisetum L.

Gymnocarpium dryopteris (L.) Newm.
Lycopodium clavatum L.
Polypodium vulgare L.

Mosses and Lichens

Bryoria trichodes ssp. *americana* (Mot.) Brodo & D. Hawksw.
Cladina spp. (L.) Nyl.
Cladonia bellidiflora(Ach.) Schaerer
Hylocomium splendens (Hedw.) B.S.G.
Nephroma arcticum (L.) Torss.
Peltigera aphthosa (L.) Willd.
Sphagnum L.

Fungi

Fomes igniarius (L. ex Fries) Kickx
Lycoperdon Tourn.:Pers.

Seaweeds and Algae

Agarum cribrosum Bory
Alaria marginata Postels et Ruprecht
Laminaria Lamouroux
Nereocystis luetkeana (Mertens) Postels & Ruprecht
Porphyra C.A. Agardh
Rhodoglossum latissimum J.G. Agardh

Taxonomic References

Trees and Shrubs	Hultén 1968
Herbs	Hultén 1968
Grasss and Sedges	Hultén 1968
Ferns and Fern Allies	Hultén 1968
Mosses and Lichens	Vitt et al. 1988 (mosses) McCune and Geiser 1997 (lichens)
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Lycoperdon ssp.	Phillips 1991
Seaweeds and Algae	Scagel et al. 1986

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Medicinal Bibliography

Ager, T.A., and L.P. Ager. 1980. Ethnobotany of the Eskimos of Nelson Island, Alaska. *Arctic Anthropology.* 17(1):27-48.

*Alberts, H.W.C. 1930. *Uses of plants by Indians and Eskimos in Alaska.* University of Alaska Extension Service. Unpublished manuscript.

Andersen, S. 1996. Soothing tradition. *Anchorage Daily News.* October 20. 1 p.

Anderson, D.D., et al. 1977. *Kuuvanmiit subsistence: traditional Eskimo life in the latter twentieth century.* U.S. National Park Service, Washington, DC. 775 pp.

**Anderson, L. 1956. *According to mama.* Espiscopal Guild, Fairbanks, AK. 33 pp.

Anderson, J.P. 1939. Plants used by the Eskimo of the northern Bering Sea and arctic regions of Alaska. *American Journal of Botany.* 26(9):714-6.

Andrews, E.F. 1975. *Salcha: an Athapaskan Band of the Tanana River and its culture.* M.S. Thesis. University of Alaska, Fairbanks, AK. 173 leaves.

Bank, T.P. II. 1951. *Botanical and ethnobotanical studies in the Aleutian Islands: I. Aleutian vegetation and Aleut culture.* Michigan Academy of Science, Arts and Letters. 37:13-30.

**_____. 1952. Health and medical lore of the Aleuts. *Papers of the Michigan Academy of Science, Arts and Letters.* 38:415-431.

_____. 1953. *Botanical and ethnobotanical studies in the Aleutian Islands: II. Health and medical lore of the Aleuts.* Michigan Academy of Science, Arts and Letters. 38:415-31.

_____. 1971. *People of the Bering Sea.* MSS Educational Publishing Company, Inc., New York, NY. 101 pp.

Barry, D., and L. Roderick. 1982. The hands of a healer. *Alaska Woman.* 1:24-8.

Birket-Smith, K. 1953. *The Chugach Eskimos.* Nationalmuseets Publikationsfond, Copenhagen, Denmark. 261 pp.

Birket-Smith, K., and F. de Laguna. 1938. *The Eyak Indians of the Copper River Delta, Alaska.* Levin and Munksgaard, Copenhagen, Denmark. 591 pp.

Black, L.T. 1977. The Konyag (the inhabitants of the island of Kodiak) by Iosaf [Bolotov] (1794-1799) and by Gideon (1804-1807). *Arctic Anthropology.* 14(2):79-108.

_____. 1984. *Atka: an ethnohistory of the western Aleutians.* Limestone Press, Kingston, Ontario. 219 pp.

Book, P.A., M. Dixon, and S. Kirchner. 1983. Native healing in Alaska. Report from Serpentine Hot Springs. *Western Journal of Medicine.* 139(6):923-7.

Brown, E.I. 1961. There are few cross-eyed Eskimos. *Alaska Sportsman.* 27(9):21.

Carlo, P. 1978. *Nulato: an Indian life on the Yukon.* Fairbanks, AK. 94 pp.

Carrol, G. 1972. Traditional medical cures along the Yukon. *Alaska Medicine.* 50-3.

*Christiansen, C. 1982. Health remedies. *Kodiak Area Native Association Newsletter.*

Coffing, M.W. 1991. *Kwethluk subsistence: contemporary land use patterns, wild resource harvest and use, and the subsistence economy of a lower Kuskokwim River area community.* Subsistence Division, Alaska Dept. of Fish and Game. Technical paper 157. 201 pp.

Coxe, W. 1966. *Account of the Russian discoveries between Asia and America.* Third edition. J. Nichols, London, England.

Davydov, G. I. 1977. *Two voyages to Russian America, 1802-1807.* Limestone Press, Kingston, Ontario. 257 pp.

de Laguna, F. 1972. *Under Mount Saint Elias: the history and culture of the Yakutat Tlingit, Part 1.* Smithsonian Institution, Washington, DC. Smithsonian Contributions to Anthropology 7.

Delapp, T., and E. Ward. 1981. *Traditional Inupiat health practices.* Health and Social Services Agency, North Slope Borough, AK. 80 pp.

Denakkanaaga Elders Conference. 1996. *Denakkanaaga: the spirit of our ancestors.* 16 pp.

Dixon, M., and S. Kirchner. 1982. "Poking", an Eskimo medical practice in northwest Alaska. *Etudes/Inuit/Studies.* 6(2):109-25.

Emmons, G. T. 1991. *The Tlingit Indians.* Edited by F. De Laguna. Anthropological Papers of the American Museum of Natural History 70. 488 pp.

English Bay Elementary/High School. 1980-1981. English Bay in its traditional way. *Alexandrovsk Magazine.* Kenai Peninsula Borough School District (No. 2).

**Evans, W.H., B. Killin, and S. Jackson. 1898. *A report to congress on agriculture in alaska.* U. S. Dept. of Agriculture, Office of Experimental Stations. Bulletin 48. 36 pp.

Fortuine, R. 1984. Traditional surgery of the Alaska Natives. *Alaska Medicine.* 26(1):22-5.

_____. 1985. Lancets of stone: traditional methods of surgery among the Alaska Natives. *Arctic Anthropology.* 22(1):23-45.

Fortuine, R., ed. 1988. Glimpses of Alaskan medical history: a primer of Aleut medicine. *Alaska Medicine.* 30(4):139.

Fortuine, R. 1988. Use of medicinal plants by Alaska Natives. *Alaska Medicine.* 30(6):189-226.

_____. 1989. Skookum root 'powerful medicine' for variety of ills. In *All-Alaska Weekly.* Oct. 6, 1989. 1 p.

**Garfield, V.E., and P. Wingert. No date. *The Tsimshian Indians and their arts.* University of Washington Press, Seattle and London.

Giddings, J. L. 1961. *Kobuk River people.* Department of Anthropology and Geography, University of Alaska. Studies of Northern Peoples 1. 166 pp.

Graham, F. K., and Ouzinkie Botanical Society. 1985. *Plant lore of an Alaskan island.* Alaska Northwest Publishing Company, Anchorage, AK. 194 pp.

Gubser, N. J. 1965. *The Nunamiut Eskimos: hunters of caribou.* Yale University Press, New Haven, CT. 384 pp.

Hall, B. 1979. Traditional medicinal practices. Tanana Chiefs Conference, Inc. *The Council.* 9:13pp.

*Hall, E.S., Jr. 1961. *Eskimo-Aleut ethnobotany.* Unpublished manuscript.

Holloway, P.S., and G. Alexander. 1990. Ethnobotany of the Fort Yukon region, Alaska. *Economic Botany.* 44(2):214-25.

Hope, A. III, ed. 1982. *Raven's bones.* Sitka Community Association, Sitka, AK. 144 pp.

Hrdlicka, A. 1944. *The anthropology of Kodiak Island.* The Wistar Institute of Anatomy and Biology, Philadelphia, PA. 486 pp.

*Jack, M. 1971. *Uses of plants by Alaskan Natives.* Unpublished report, special topics. Fairbanks, Alaska.

Jones, A. 1981. Plants and trees. In *The Kotzebue Basin.* The Alaska Geographic Society. Vol. 8 (No. 3).

_____. 1983. *Nauriat niginaqtuat=Plants that we eat.* Maniilaq Association, Kotzebue, AK. 150 pp.

Jones, L. 1914. *A study of the Thlingets of Alaska.* Felming H. Revel Co., New York, NY. 261 pp.

Justice, J.W. 1966. Use of devil's-club in southeast Alaska. *Alaska Medicine.* 8(2):36-9.

Juul, S. 1979. Portrait of an Eskimo tribal health doctor. *Alaska Medicine.* 21(6):66-71.

Kalifornsky, P. 1977. *Kahtnuht'ana Qenaga: the Kenai people's language.* Edited by J. Kari. Alaska Native Language Center, Fairbanks, AK. 137 pp.

_____. 1991. *A Dena'ina Legacy; K'tl'egh'i Sukdu. The collected writings of Peter Kalifornsky.* Edited by J. Kari and A. Boraas. Alaska Native Language Center, University of Alaska Fairbanks, Fairbanks, AK. 485 pp.

Kari, P.R. 1978. Plant lore of the Dena'inas. *Alaska Magazine.* 44(8):55-7.

_____. 1983. *Land use and economy of Lime village.* Division of Subsistence, Alaska Dept. of Fish and Game. Technical paper 80. 132pp. and appendix.

_____. 1985. *Upper Tanana ethnobotany.* Alaska Historical Commission 182. 23 leaves.

_____. 1985. *Wild resource use and economy of Stony River village.* Division of Subsistence, Alaska Dept. of Fish and Game. Technical paper 108. 162pp. and appendix.

_____. 1994. *Ninilchik plantlore: An ethnobotany of the Ninilchik Tribe of Alaska.* Ninilchik Traditional Council, Ninilchik, AK. 64 pp.

_____. 1995. *Dena'ina K'et'una, Tanaina plantlore.* Adult Literacy Laboratory, Anchorage, AK.

Kasak, A.M, and J. Andrews. 1980. Home remedies. *Ak'a Tamaani.* 1(1):26-32.

Krause, A. 1956. *The Tlingit Indians. Results of a trip to the Northwest coast of America and the Bering Straits.* Translated by E. Gunther. University of Washington Press, Seattle and London. 310 pp.

**Kuhnlein, H.V., and N.J. Turner. 1986 cow-parsnip (*Heracleum lanatum* Michx.): an indigenous vegetable of native people of northwestern North America. *Journal of Ethnobiology.* 6(2):309-324.

**Langsdorff, G. von. 1814. *Voyages and travels in various parts of the world during the years 1803, 1804, 1805, 1806, and 1807.* Reprint 1968. Da Capo Press, Amsterdam, N. Israel, New York. 2 vols.

Lantis, M. 1958. Traditional home doctoring and sanitation: lower Kuskokwim Valley, Nelson and Nunivak Islands. Pages 132-150 in *Science in Alaska 1958. Proceedings of the 9th Alaska Science Conference, Alaska Division, American Association for the Advancement of Science.*

_____. 1959. Folk medicine and hygiene: lower Kuskokwim and Nunivak-Nelson Island areas. *Anthropological Papers of the University of Alaska.* 8(1):1-76.

Lucier, C.V., J.W. VanStone, and D. Keats. 1971. Medical practices and human anatomical knowledge among the Noatak Eskimos. *Ethnology.* 10(3):251-64.

Mason, L.D. 1972. *Disabled fisherman: disease and livelihood among the Kuskowagamiut Eskimos of lower Kalskag, Alaska.* Ph.D. Thesis. University of California, Los Angeles, CA. 225 pp.

**Mauneluk Cultural Heritage Program. 1976. *Timumun Mamirrutit.* Kotzebue, AK.

McGregor, M. 1981. Native medicine in southeast Alaska: Tsimshian, Tlingit, Haida. *Alaska Medicine.* 23(6):65-9.

McKennan, R.A. 1959. *The Upper Tanana Indians.* New Haven, CT. Yale University Publications in Anthropology 55. 226 pp.

_____. 1965. *The Chandalar Kutchin.* Arctic Institute of North America. Technical Paper 17. 156 pp.

Merck, C. H. 1980. *Siberia and northwestern America 1788-1792. The journal of Carl Heinrich Merck, naturalist with the Russian scientific expedition led by captains Joseph Billings and Gavriil Sarychev.* Edited by R.A. Pierce. Translated by F. Jaensch. Limestone Press, Kingston, Ontario. 215 pp.

Mills, W.J.,Jr., and D.B. Kettelkamp. 1961. Kuskokwim medicine (when the minor leagues flourished). *Alaska Medicine.* 3(4):73-6.

Mulcahy, J.B. 1988. *"Knowing women": narratives of healing and traditional life from Kodiak Island, Alaska.* University of Pennsylvani. University Microfilms, Ann Arbor, MI. 279 pp.

**Nelson, E.W. 1899. *the Eskimo about Bering Strait.* Reprint 1979. Johnson Reprint Company, New York.

Nelson, R.K. 1973. *Hunters of the northern forest. Designs for survival among the Alaskan Kutchin.* University of Chicago Press, Chicago and London. 339 pp.

Nelson, R.K. 1983. *Make prayers to the raven. A Koyukon view of the northern forest.* University of Chicago Press, Chicago and London. 292 pp.

*Newcombe, C.F. 1901-1903. *Haida ethnobotany.* Provincial Archives of British Columbia, Victoria. Unpublished field notes.

Newton, R., and M. Moss. No date. *The subsistence lifeway of the Tlingit people.* Excerpts of oral interviews. U.S. Forest Service, Alaska Region. Administrative Document 131. 46 pp.

**Oates, L. No date. *The food, medicine, material use of Pacific North Coast plants, "The Bog Environment".* Unpublished manuscript?

Osgood, C. 1936. *Contributions to the ethnography of the Kutchin.* Yales University Publications in Anthropology 14. Human Relations Area Files Press, New Haven, CT. Reprint 1970. 18 pp.

_____. 1937. *The ethnography of the Tanaina.* New Haven, CT. Yale University Publications in Anthropology 16. 229 pp.

_____. 1958. *Ingalik social culture.* New Haven, CT. Yale University Publications in Anthropology 53. 289 pp.

_____. 1971. *The Han Indians. A compilation of ethnographic and historical data on the Alaska-Yukon boundary area.* New Haven, CT. Yale University Publications in Anthropology 74. 173 pp.

Oswalt, W.H. 1957. *A western Eskimo ethnobotany.* Anthropological Papers of the University of Alaska. 6(1):16-36.

_____. 1961. *Napaskiak, an Eskimo village in western Alaska.* Arctic Aeromedical Laboratory, Alaskan Air Command, Fort Wainwright, AK. Technical Report 57.23. 130 pp.

Overfield, T., W.W. Epstein, and L.A. Gaudioso. 1980. Eskimo uses of *Artemisia tilesii* (Compositae). *Economic Botany.* 34:97-100.

Perkins, D., and J. Woodring. 1992. The devil's-club (plant *Oplopanax horridus*). *Alaska Magazine.* 58:28-9.

**Perkins, G.K. No date. *Ethnobotany of the Tlingits.* Unpublished manuscript?

Pierce, R. A., ed. 1978. *The Russian Orthodox religious mission in America 1794-1837, with material concerning the life and works of the Monk German, and ethnographic notes by the Hieromonk Gideon.* Translated by C. Bearne. Limestone Press, Kingston, Ontario. 186 pp.

**Portlok, N. 1789. *A voyage round the world; but more particularly to the northwest coast of America: performed in 1785, 1786, 1787, and 1788, in the King George and the Quewen Charlotte.* Reprint 1967. Da Capo Press, Amsterdam, N. Israel, New York.

Potter, L.D. 1972. Plant ecology of the Walakpa Bay area, Alaska. *Arctic.* 25(2):115-30.

Preston, E.M. 1961. Medicine women. *Alaska Sportsman.* 27:26-9.

Ramoth, R., trans. 1976. *Timimum Mamirrutit.* Mauneluk Cultural Heritage Program, Kotzebue, AK. 55 pp.

Russell, P.N. 1991. *English Bay and Port Graham Alutiiq plantlore.* Homer Society of Natural History, Chugach Heritage Foundation, Alaska Native Plant Society, AK. 86 pp.

Sarytschew, G. 1969. Account of a voyage of discovery to the north-east of Siberia, the frozen ocean and the north-east sea. *Bibliotheca Australiana* 64. 2 vols. in 1. N. Israel, Amsterdam and Da Capo Press, New York, NY. Reprint of the 1806 edition.

**Schaefer, O. 1957. Eingeborenen-Medizin bei Indianern und Eskimos im aussersten Norden Kanadas. *Munchener Medizinische Wochenschrift.* 99:1833-5.

Schofield, J. 1989. *Discovering wild plants: Alaska, western Canada, the Northwest.* Alaska Northwest Books, Anchorage, AK. 354 pp.

Schmitter, F. 1910. *Upper Yukon native customs and folk-lore.* Smithsonian Miscellaneous Collections. Volume 56, no. 4. Smithsonian Institution, Washington, DC. 30 pp.

Scott, E. 1993. *Historic Eagle and it's people.* Eagle City, Alaska. 235 pp.

Smith, G.W. 1973. Arctic pharmacognosia. *Arctic.* 26(4):324-33.

_____. 1983. Arctic pharmacognosia II: Devil's-club, *Oplopanax horridus. Journal of Ethnopharmacology.* No. 7.

Southcentral Foundation. 1991. *A survey of traditional native healing practices in Alaska.* Project report. 78 pp.

Stanek, R.T. 1985. *Patterns of wild resource use in English Bay and Port Graham, Alaska.* Subsistence Division, Alaska Dept. of Fish and Game, Anchorage, AK. Technical Paper 104. 226 pp.

Swanton, J.R. 1908. *Social condition, beliefs, and linguistic relationship of the Tlingit Indians.* Johnson Reprint Corp., New York, NY. Reprint 1970.

**Taylor, R.F. 1950. *Pocket guide to Alaskan trees.* U.S. Dept. of Agriculture, Forest Service Agriculture Handbook 5. 63 pp.

Townsend, J.B. 1965. *Ethnohistory and culture change of the Iliamna Tanaina.* Ph.D. Thesis. University of California Los Angeles. University Microfilms, Ann Arbor, MI. 424 pp.

Tritt, L. 1978. Midwives of Arctic Village. Dena–the people. *Theata Magazine.*

**Turner, L.M. 1886. *Contribution to the natural history of Alska: results of investigations made chiefly in the Yukon District of the Aleutian Island.* Signal Service, U.S. Army. Pp 61-85.

Turner, N.J. 1982. Traditional use of devil's-club (*Oplopanax horridus*; Araliaceae) by Native peoples in western North America. *Journal of Ethnobiology.* 2(1):17-38.

U.S. Revenue-Cutter Service. 1883. *Cruise of the Revenue-Steamer* Corwin *in Alaska and the N.W. Arctic Ocean in 1881.* Washington, D.C.

Veniaminov, I. 1984. *Notes on the islands of the Unalashka District.* Limestone Press, Kingston, Ontario. 511 pp.

Viereck, E.G. 1987. *Alaska's wilderness medicines: healthful plants of the Far North.* Alaska Northwest Publishing Co., Edmonds, WA. 107 pp.

Viereck, T. 1982. *Medicinal plants of Alaska.* Division of General Education, Tanana Valley Community College, AK. [118 pp.]

Wennekens, A. 1983. Aleut botany in the Prince William Sound. *Alaska Native News.* 1(8):21-3.

_____. 1985. *Traditional plant usage by Chugach Natives around Prince William Sound and on the lower Kenai Peninsula, Alaska.* M.S. Thesis. University of Alaska Anchorage, Anchorage, AK. 111 pp.

**White, R. 1880. Notes on the physical condition of the inhabitants of Alaska. In *Report on Alaska and its people.* G.W. Bailey. U.S. Government Printing Office, Washington. Pp. 41-49.

Young, S.B, and E.S. Hall, Jr. 1969. *Contributions to the ethnobotany of the St. Lawrence Island Eskimo.* Anthropological Papers of the University of Alaska. 14(2):43-53.

**Zagoskin, L.A. 1967. *Lieutenant Zaogoskin"s travels in Russian America. 1842-1844: the first ethnographic and geographic investigations in the Yukon and Kuskokwim valleys of Alaska.* Edited by Henry N. Michael. Arctic Institute of North America. Anthropology of the North Translations from Russian Sources 7.

* These sources were not able to be located. If you have additional information concerning the locations of these citations, please fill out the evaluation form at the end of this book.

** These sources were cited through other literature.

Non-medicinal Bibliography

Fortuine, R. 1989. Some traditional plant medicines potentially dangerous. Pt 6. *All-Alaska Weekly*. August 4. page 7.

_____. 1989. Traditional medicine use tied to availability of plants. Pt. 4 *All-Alaska Weekly*. July 14. Page 17.

Fortuine, R., et al. 1993. *The health of the Inuit of North America. A bibliography from the earliest times through 1990.* University of Alaska Anchorage, Anchorage, AK. 353 pp.

Gabriel, H., and S. Talbot. 1984. *Glossary of landscape and vegetation ecology for Alaska*. U.S. Bureau of Land Management, Alaska Technical Report 10. 137 pp.

Harrington, H.D., and L.W. Durrell. 1957. *How to identify plants*. The Swallow Press, Inc., Chicago, IL. 203 pp.

Hasselbach, L., and P. Neitlich. 1998. *A genus key to the lichens of Alaska.* U.S. National Park Service, Fairbanks, AK. 36 pp.

Heller, C.A. 1963. Poisonous plants in Alaska. *Alaska Medicine*. Dec: 94-99.

_____. 1993. *Wild edible and poisonous plants of Alaska.* Rev. ed. Cooperative Extension Service, University of Alaska Fairbanks. Bulletin F-40. 91 pp.

Hultén, E. 1968. *Flora of Alaska and neighboring territories. A manual of the vascular plants.* Standford University Press, Standford, CA. 1008 pp.

**Langsdorff, G.H. von. 1814. *Voyages and travels in various parts of the world during the years 1803, 1804, 1805, 1806, and 1807.* N. Israel, Amsterdam and Da Capo Press, New York. Reprint 1968. 2 vols.

Lipkin, R., and D.F. Murray. 1997. *Alaska rare plant field guide.* Alaska Natural Heritage Program, University of Alaska, and University of Alaska Museum, University of Alaska Fairbanks. 1 vol. (loose-leaf)

Little, R.J., and C.E. Jones. 1980. *A dictionary of botany.* Van Nostrand Reinhold Company, Inc., NY. 396 pp.

Marsh, G.H., and W.S. Laughlin. 1956. Human anatomical knowledge among the Aleutian Islanders. *Southwestern Journal of Anthropology*. 12:38-78.

*Mason, R. 1995. *The Alutiiq ethnographic bibliography.* Alaska Humanities Forum; KANA.

McCune, B., and L. Geiser. 1997. *Macrolichens of the Pacific Northwest.* Oregon State University Press and U.S. Forest Service. 386 pp.

O'Clair, R.M., S.C. Lindstrom, and I.R. Brodo. 1996. *Southeast Alaska's rocky shores: seaweeds and lichens.* Plant Press, Auke Bay, AK. 149 pp.

Overholts, L.R. 1953. *The Polyporaceae of the United States, Alaska, and Canada.* University of Michigan Press, Ann Arbor, MI. 444 pp. and appendices.

Phillips, R. 1991. *Mushrooms of North America.* Little, Brown and Company, Boston, Toronto, and London. 315 pp.

Pojar, J., and A. MacKinnon, comps. and eds. 1994. *Plants of the Pacific Northwest coast —Washington, Oregon, British Columbia and Alaska.* Lone Pine Pub. 527 pp.

Pratt, V.E. 1989. *Field guide to Alaskan wildflowers.* Alaskakrafts, Pub., Anchorage, AK. 136 pp.

_____. 1991. *Wildflowers along the Alaska Highway. A roadside guide.* Alaskakrafts, Inc., Anchorage, AK. 230 pp.

Scagel, R.F., et al. 1986. *A synopsis of the benthic marine algae of British Columbia, northern Washington and southeast Alaska.* University of British Columbia, Vancouver, Canada. Phycological Contribution 1. 444 pp.

Turner, E. 1989. From shamans to healers: the survival of an Inupiaq Eskimo skill. *Anthropologia*. 31:3-24.

Turner, N., and A. Szczawinski. 1991. *Common poisonous plants and mushrooms of North America.* Timber Press. Portland, OR. 331 pp.

Viereck, L.A., and E.L. Little, Jr. 1972. *Alaska treees and shrubs.* U.S. Forest Service, Washington D.C. Agriculture Handbook 410. University of Alaska Press. Reprint 1986. 265 pp.

Vitt, D.H., J.E. Marsh, and R.B. Bovey. 1988. *Mosses, lichens, and ferns of northwest North America.* Lone Pine Publishing. 296 pp.

**Zagoskin, L.A. 1967. *Lieutenant Zagoskin's travels in Russian America, 1842-1844: the first ethnographic and geographic investigations in the Yukon and Kuskokwim valleys of Alaska.* Edited by H.N. Michael. Arctic Institute of North America. Anthropology of the North. Translations from Russian Sources 7. University of Toronto Press, Toronto.

* These sources were not able to be located. If you have additional information concerning the locations of these citations, please fill out the evaluation questionnaire at the end of this book.

** These sources were cited through other literature.