



Photo by Michelle Andrews

Kodiak Alutiiq Spring Plants by the Native Educators of the Alutiiq Region

The Kodiak Alutiiq employ a wide variety of trees, shrubs, and herbs for medicinal purposes. They use most plant parts including leaves, stems, flowers, fruit, roots, bark and wood. The majority of medicinal plants are harvested in the growing season, but some plants and plant parts are available throughout the year. Women aided by children tend to be the primary gatherers, processors, and preservers of plant medicines.

—Priscilla Russell, Ethnobotanist

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Formatted by Alisha Drabek

Symbols Key



Food



Medicine



Shelter



Tools



Dyes



Fuel



Caution

Introduction

Dear Teachers,

What you have in your hands is the result of many hours of work done by educators, Elders, and community members who are dedicated to developing culturally and environmentally relevant curriculum that illustrates and celebrates the dynamic culture of the Alutiiq from distant time to present day. We honor the fact that we are not the first ones to live on these islands, but rather are responsible to learn how to live well in our place in the world. It is our belief that to do this, we must learn the deeper understandings of our environment from those who have generational knowledge and a rich culture, living cohesively within the environment for millennium. It is our responsibility to learn from those who came before us.

The Native Educators of the Alutiiq Region (NEAR) are a dedicated group of individuals working to promote our Native Elders as the first teachers of their culture. This resource is a direct result of walks on beaches and in the woods, research through oral histories, phone discussions, and many gatherings.

We hope that you will utilize the information enclosed as a supplemental to teach about the plants of the Kodiak Archipelago. The plants chosen for inclusion are ones that you will most likely see during the sprout stage in the month of May. Some of the photos were taken in May to help you and your students more easily identify them. Our Elders chose plants that are significant for their medicinal and food use, hoping that if children are ever in a survival situation, they will have some knowledge of what can be used to help themselves or others.

Note to Teachers:

As teachers explore local plants, it may seem fit to take students outdoors to discover them first hand. Be sure to verify the following in advance:

- Find out who owns the land you plan to visit.
- Call or write a letter requesting permission, including a visit on Native Corporation/Tribally owned land, as this is private property.
- Harvest only portions of plants, reducing the long-term impact. Be sure to mention this as well in your request. Various landowners will feel differently about the taking of natural resources from their lands.
- Do not gather edible plants near roads, as they ingest carbon monoxide.
- Pay special attention to the CAUTION notes as listed.

You will notice the terms Aleut, Alutiiq and Sugpiaq used in this and other locally developed curriculum. In the Native language of our region, the original inhabitants called themselves Sugpiaq “the real people”. The Russian conquerors called all coastal dwellers Aleut, which translates to Alutiiq in the Native language, and is now used by anthropologists to refer to the people of the region from the Aleutian Chain, Alaska and Kenai Peninsulas, Kodiak Islands, and Prince William Sound. It is also commonly used among the local indigenous people because of its common use during the Russian and American periods of occupation. In honor of our ancestors, many use the original name Sugpiaq.

This resource is now available for educational purposes with your students. Please share your thoughts on its usefulness and ideas for additions that could be helpful to include in future printings. We are still collecting more Alutiiq and Russian names. Also, please be aware that the pronunciation guides are subjective check with a speaker to be certain of pronunciations. Thank you for utilizing this resource. In doing so, you are honoring our Elders, their descendants, and the indigenous culture of this region.

Kodiak Alutiiq Cultural Values

Our Elders	Our people: we are responsible for each other & ourselves
Ties to our homeland	Family & kinship of our ancestors and living relatives
Sharing, we welcome everyone	A subsistence lifestyle, respectful of & sustained by the natural world
Stewardship of the animals, land, sky & waters	Faith & a spiritual life from ancestral beliefs to the diverse faiths of today
Learning by doing, observing & listening	Respect for self, others & our environment is inherent in all of these values
Our heritage language	
Trust	
Sense of humor	
Traditional arts, skills & ingenuity	

Copies of the Kodiak Alutiiq Cultural Values poster are available through NEAR. Please call Teri Schneider at 907-486-9276 to request a copy.

Elders in the Classroom

by Roby Littlefield

All students can benefit from intergenerational contacts. In Alaska Native cultures, grandparents were held in high regard as they contributed to the community by passing on knowledge and skills. Children learned by listening to and watching Elders and often didn't realize they were in training. Bringing grandparents in to share personal knowledge when studying subjects like nutrition, customs, plants, biology, and history can benefit the entire class.

To get started, first look to your class members. Send home a note or survey expressing your desire to include parents, grandparents, and Elders in your lessons. Get referrals for possible speakers from organizations that work with Natives and/or the elderly.

The way to ask Native American Elders for help is different from Western customs. Initial and subsequent contact should be subtle. Visit with them, allowing time for the conversation to wander. Allow for extended pauses, giving them time to think and decide. If their hearing is poor, sit on the side of their better ear

**“Elders
do not preserve
culture
They live it.”**

request for help, so you need to recognize that a noncommittal response might mean “no,” or it might mean that the request is being considered. If at some point the Elder changes the subject more than once while you are explaining your request, you should be aware that she or he might be trying to say “no.” Don't force a response; if it is clearly not a “yes,” let it go, or suggest they can contact you after they've thought about it.

It is important to ask before a meeting for permission to make audio or video recordings. Don't show up with the equipment; you may force consent and cause bad feelings. Permission to listen to or tape a story or lecture does not give you any right to rebroadcast or write the story with you as author.

If an Elder has agreed to participate in a classroom, suggest an activity or topic outline so they know what you are expecting. Provide them with optional dates and the logistics. It is helpful to explain the routine, consequences for students' misbehavior, and possible options if problems come up during the lesson. It is your responsibility to ensure discipline is maintained. Be aware, however, that Elders generally do not support strict discipline in a public setting. Discuss how to make a smooth transition to help the Elder leave the class. Agree on some visual signals and ground rules.

When the Elder arrives, properly introduce her or him so the Elder understands your respect for them. The teacher should be alert for visual cues from the Elder during the visit and be prepared to give unspoken signals back. The teacher should stay in the room.

Give the Elder a chance to use traditional discipline. Be prepared to move a child to sit by an adult who can role model how to listen respectfully. If you have problems with students degrading or ignoring an Elder, have a teacher's aide or adult Native quietly intervene.

Most traditional stories are like a round, crocheted pot holder. The story teller goes round and round the subject until it all comes together and finally comes to the lesson or point. Be patient; allow the Elders to share their culture in their own way. Your students are learning how to listen. Students should refrain from interrupting to ask questions. There will be a proper time to ask questions.

(Continued to page 4)

Elders' Concerns & Expectations

- How can I find the room? (transportation, personal guide)
- Will I be respected and appreciated by the students?
- Will I be able to hear the students' questions? (background and noise level)
- Can I speak within the attention span and understanding of the age I am speaking to?

and make sure your lips can be seen. Direct eye contact should be limited. Standing or sitting at an angle can increase an Elder's comfort level. Keep your questions basic and specific.

Begin the request by telling a little about your class and how the Elder could help. If you are not sure if the elder is interested, hint strongly that you would like to have their help and ask if she or he knows of someone who might be willing to participate. Custom teaches that it is rude to give someone a frank “no” to a

Elders in the Classroom (continued)

As a thank-you, Elders usually appreciate student and teacher letters, pictures, and story booklets, which are treasured and shown to friends and relatives. This may also encourage other Elders to participate in classroom projects.

Sometimes you will find a resource person who is available for a wide variety of subjects and projects. If you use an Elder more than once, the school should provide some type of stipend in appreciation of the energy and knowledge the Elder is contributing. Be careful not to burn out your Elders. Whenever you make a request, be sure the Elder understands she is not obligated.

Keep your lessons flexible in case the Elder can't come at the last minute. Once an Elder has agreed on a time to come into your classroom, avoid changing or postponing the visit.

Reprinted from:
Littlefield, R. (1999). Elders in the Classroom. The Tlingit Moon and Tide Teaching Resource. Fairbanks: University of Alaska Sea Grant. pp. 6-8.

Collecting Plants

Two cautions about collecting wild plants: First, never use a plant for food or medicine unless you are sure you have properly identified the plant. And secondly, when gathering wild plants, never take all the plants in the area. Leave some there to repopulate the species, so that you and others may have the pleasure of using the plant again.

In his *Root, Stem and Leaf*, Glen Ray lists nine techniques to use when gathering plants. These techniques are designed to help preserve the natural environment while still using the resources available. They are part of a system called "traditional conservation." We feel these techniques are important for Alaskan foragers to follow, so we have repeated them here:

- 1) Learn the habitat and conditions under which each plant flourishes.
- 2) Know the area in which you live well enough to know where each plant can be abundantly found.
- 3) Take time to ask Native Elders if the locale where you would like to harvest a plant is not already a harvesting spot for a group of people.
- 4) Find a place to harvest not already harvested.

- 5) If the plant seems not to be abundant in the area where it is found, it would be best not to harvest until it can be found growing abundantly. If one feels that some harvesting is possible then take only a few plants or only some portion of several plants.
- 6) Leave the roots of perennials intact along with a portion of the leaves so the plant can regenerate.
- 7) Take only a part of a plant so the plant can flower and reproduce.
- 8) Take only what can be processed and used.
- 9) Take time to enjoy the process and appreciate the surroundings.

Reprinted from:
Graham, F.K. & Ouzinkie Botanical Society. (1985). *Collecting Plants. Plant Lore of an Alaskan Island.* Anchorage: Alaska Northwest Publishing Company. p 5.

Angelica Urisaq

Alutiiq Name	Urisaq	(oo hee' sa ck)
Russian Name	Кутагарник	(Kutagarnik)
Scientific Name	Angelica lucida and A. genuflexa	
Family	Parsley Family (Umbelliferae)	
Other Names	wild celery	

Habitat

Angelica can be found in a variety of places including the beach, stream edges, ditches and wet meadows.

Description

Angelica has a very distinct aroma. It is large and leafy with a stout stalk and fleshy stems. Later in the season it forms green-white flowers that form an umbrella at the top of the plant.

Uses



This is highly valued by Alutiit for use in the banya (steambath). A leafy bunch of 6-10 should be picked just before banya. While taking banya a person holds the stalky ends and allows the leafy ends to soak in a pan of warm water. They perfume the warm air and open sinuses. Taking them out and patting the body with the bunch allows the oils to penetrate the skin and promotes healing throughout the muscles. The oils are said to have a healing and revitalizing value for skin that is broken out, dry or cut. The wet leaves, heated on hot rocks and laid upon affected area, are good for treating rheumatism.



Hikers use the stems to switch away bugs. Hunters use them to rub on their hands before touching animal traps to help hide human scent.

Caution



Positive identification is extremely important with this plant as it has a deadly poisonous look-alike called water hemlock. Angelica root is also toxic.



Photo by Stacy Studebaker

Beach Greens

Southern Yupik Name it'garralek; teptuuyak; ukullegaq

Russian Name

Scientific Name Honckenya peploides

Family Pink family (Carophyllaceae)

Other Names sea chickweed; sea beach sandwort

Habitat

Beach greens grow along rocky beaches above the high tide line.

Description

It has small, succulent, pointed leaves and looks like a lush green, soft mat. When stepped on it smells like lettuce or cabbage, and it crunches.

Uses



The beach greens are edible and were prized by sailors to prevent scurvy. Nutritionally they are high in vitamin A and C. They may be eaten raw or cooked. The raw shoots can be added to salads and steamed shoots are delicious sautéed with garlic and butter. Great additions to stir fry or soups.

They should be eaten in spring, before flowers develop as the plant becomes bitter with age.



Aquatic

Photo by Stacy Studebaker

Beach Loveage

PetRuskaq

Alutiiq Name	PetRuskaq	(puh troos qack)
Russian Name	Петрушка	(Petrushka)
Scientific Name	Ligusticum scoticum L.	
Family	Parsley Family (Umbelliferae)	
Other Names	wild celery, dibdrushga, pidrushga, petrushki and tukaayuk	

Habitat

Found along seashores at the top of the beach. Occasionally, petrushki can be found at the edge of the trees.

Description

They have reddish stalks and bright green, smooth leaves. The stalks split into three stems with three leaves on each, which are outlined in red. Remember these clues so you are sure to distinguish it from the water hemlock! Like all members of the Parsley family, Beach Loveage has an umbrella-shaped cluster of white flowers. These blossoms emerge later in the spring.

Uses



Petrushki can be dried and used like parsley. Cooked, it can be eaten like spinach or added to soups. It tastes great added to onions and rice, stuffed in a salmon and baked. Salads and salad dressings are given flavor when petrushki is used in them. Petrushki seeds can be harvested in the fall and added to stews and soups, too.

Caution



Like all plants in the Parsley Family, it is important that you correctly identify beach loveage. Don't mistake it for poison water hemlock!



Aquatic

Photo by Stacy Studebaker

Beach Peas

Alutiiq Name

Russian Name

Горох морской (Gorokh morskoi)

Scientific Name

Lathyrus maritimus L.

Family

Pea Family (Fabaceae)

Other Names

Seaside Pea, Raven's Canoe

Habitat

Grows along the seashore at the top of beaches with beach greens.

Description

A sprawling plant that has horizontal roots. The almost hairless leaves have 6 to 12 oval leaflets, with tendrils at the end.

Uses



The young shoots of the beach peas may be eaten, as well as the whole, young pea pod. As the pod matures, it should be shelled before eating the tender peas inside. They are high in vitamins A and B.

Caution



Do not confuse the lupine seed pod with the pod of the beach pea. The lupine is about the same size, but fuzzy and poisonous!

Beach peas should also not be eaten in large quantity. Nervous disorders and paralysis can occur from overconsumption.



Aquatic

Photo by Stacy Studebaker

Goosetongue

Weguaq

Alutiiq Name	Weguaq (in Nanwalek) “fake grass; not real; like grass”
Russian Name	Попутник or Подорожник (Poputnik or Podorozhnik)
Scientific Name	Plantago maritima L.
Family	Plantain Family (Plantaginaceae)
Other Names	seaside plantain, ribwort and sheep’s herb

Habitat

Goosetongue can be found along seacoasts and in salt marshes.

Description

It has a compact flower stalk with yellowish stamens. The leaves are fleshy with a pleasant, salty flavor.

Uses



The leaves can be eaten both raw and cooked in salads or steamed.



Mashed goosetongue applied to bug bites will relieve the sting.

Caution



The plant looks very similar to the toxic arrowgrass, which contain cyanide. Arrowgrass often grows next to goosetongue. Mature arrowgrass usually grows taller than goosetongue and bears greenish-white flowers.



Aquatic

Photo by Stacy Studebaker

Horsetail

Paumnaruaq

Alutiiq Name	Paumnaruaq (paw mna' Hwak)
	"like a tail"
Russian Name	Хвощ морской (Khavoshch morskoi)
Scientific Name	Equisetum arvense L.
Family	Horsetail Family (Equisetaceae)
Other Names	scouring rush, jointed grass, pewter-wort, scouring grass, puzzle grass

Habitat

Found mostly in gravelly areas and damp wooded areas.

Description

The spring shoots look similar to asparagus with a brown covering. It is hollow and jointed. This is a hardy plant that has survived to be one of the oldest and most widespread plants in the world!

Uses



In early spring the tiny shoots that look like berries growing from the root can be peeled and eaten for a tasty treat. The peeled plants remain edible until small branches form on the stalk.



This plant contains silica, which makes this plant a great help as a cleanser and polisher.



The roots and green vegetative stems may be used as a yellow, greenish dye.



Horsetail can be used to stop bleeding and heal lesions. It is mineral-rich and good for anemia, and strengthening hair and nails.



Photos by Stacy Studebaker

Oyster Leaf

Alutiiq Name

Russian Name

Медуница (Medinitsa)

Scientific Name

Mertensia maritima

Family

Borage Family (Boraginaceae)

Other Names

oyster plant

Habitat

Thick bunches of oyster leaf can be found at the top of many sandy and gravelly, Kodiak area beaches.

Description

The oyster leaf is a low growing plant that reaches about eight inches in height. It has a trailing stem with flowers that range in color from white, pink to blue. The leaves are blue-gray in color.

Uses



The spring leaves of this plant can be nibbled on raw for a snack or added to soups or salads. As its name indicates, it has a pleasant oyster-like flavor.



Photo by Heather Johnson

Spring Beauty

Naanaaruaq

Alutiiq Name Naanaaruaq or Naanaakaaq
(in Nanwalek)

Russian Name

Scientific Name Claytonia sibirica L.

Family Purslane Family (Portulacaceae)

Other Names Siberian spring beauty

Habitat

They thrive along streams and in moist, shady locations.

Description

The leaves are on a single stem in a basal cluster. The flowers have five white or pink petals.

Uses



All varieties of spring beauty are edible. They can be used in salads, vegetable dishes or as garnish on cakes. The leaves are high in vitamins A and C.



Photo by Stacy Studebaker

Wormwood

Caik

Alutiiq Name	Caik (in Nanwalek)	(Cheye' uk)
	"Tea"	
Russian Name	Полинь	(Polin')
Scientific Name	Artemisia tillesii	
Family	Composite Family (Compositae)	
Other Names	stinkweed, silver leaf, caribou leaves, and Alaskan sage	

Habitat

It grows often in disturbed and rocky areas like on the sides of cliffs. It can also be found on mountainsides and sunny areas.

Description

Priscilla Russell describes it as having “deeply divided, toothed leaves (that) are silvery and hairy underneath and green and smooth above. The small, yellowish-brown flowers form ball-like clusters that bloom late in the summer season.”

Uses



Wormwood makes a great tea when harvested in the summer and dried. It may help to soothe sore throats and headaches. For sores that won't heal, the dry leaves may be rubbed until they are soft like cotton and then applied to the cut to promote healing.

Also good for curing athlete's foot and stinky shoes! Put crushed leaves inside socks or inside rubber boots.



Photo by Priscilla Russell

Nettle

Uuqaayanaq

Alutiiq Name	Uuqaayanaq “the burning thing”	(oo <i>kai’ a nak</i>)
Russian Name	Крапива (Krap’eva)	
Scientific Name	Urtica lyallii; Urtica gracilis	
Family	Nettle Family (Urticaceae)	
Other Names	stinging nettle, burning nettle, seven-minute itch, Indian spinach, and itch-weed	



Photo by Priscilla Russell

Habitat

Nettles may be found in grassy places where people lived years ago. They are often times found in large numbers at old village sites near the homes. Look for fiddlehead ferns and salmonberry bushes, too, because they often thrive in the same area.

Description

Abaa! (It’s hot! It burns!) Be careful when searching for nettles. If you rub up against it, even lightly, you will know by the burning sensation you feel! This is caused by the formic acid released when broken. The *Urtica lyallii* has heart-shaped leaves with jagged edges, while the *Urtica gracilis* has narrow leaves (Russell, p. 58). They may grow from just a few inches to seven feet tall!

Uses



They are edible when they are little. Harvest the stalk and boil for 15 minutes. Eat them like spinach. You can also add them to soups or burn while smoking fish.



Blood coagulant; Internal hemorrhaging; Diabetes, lowers sugar level; Given to those with TB; Treat toothaches; Hair tonic for dandruff as it is cool to the scalp; (Seal hunters may have rubbed themselves with the nettles before going out to sea to keep them alert.) High in iron.



Rope can be made from the long fibers of the stalk.



You can make dyes from yellow to bright green.

Caution



Use gloves when collecting nettles, as they sting!

Devil's Club

Cukilanarpak

Alutiig Name	Cukilanarpak (choo lay lan aH pack) "large plant with needles"
Russian Name	Низаманник or Недотрога (Nizamy'nik or Nedotroga)
Scientific Name	Echinopanax horridum
Family	Ginseng Family (Araliaceae)
Other Names	Alaska ginseng



Habitat

The devil's club is found on the islands among the spruce trees. It is not found on the southwestern portion of the archipelago.

Description

Be careful! You will know it if you rub up against the devil's club. They are large shrubs with large maplelike leaves that have spines on the underside. Bright red, inedible berries grow above the leaves. Sharp spines cover the stalk of the entire plant, as well. (Getting splinters from the spines can be very painful. In a pinch you could use urine to wash an area with embedded spines. It may help dislodge them.)

Uses



Although the plant may be quite harmful when contacted, the root and inner bark are a very useful medicine. Harvested in the spring, the inner bark and root can both be boiled for teas. The tea from the inner bark may alleviate coughing, stomach aches, colds, fevers, promote hair growth and was used by many Alutiit during the TB epidemics. Direct application of the root, mashed and heated as a poultice, can relieve joint pain. A more recent use of the root's tea is to balance blood sugar levels for diabetics.



The root can also be used as a wood source for making hooks, handles and other small utensils.

Caution



The leaves, fermented sap and the berries are poisonous.

Fiddlehead Fern

Qataqutaq

Alutiiq Name Qataqutaq (Kaa taa' koo tock)

Russian Name Папоротник (Paporotnik)

Scientific Name Dryopteris dilatata and
Athyrium filix-femina

Family Shield Fern Family (Aspidiaceae)

Other Names fern; spreading wood fern; lady fern

Habitat

The fiddlehead lives in Kodiak's moist forests as well as along the stream banks and mountain slopes.

Description

Fiddleheads are a coiled edible spring growth variety of fern. Their tops look like the handle of a violin.

Uses

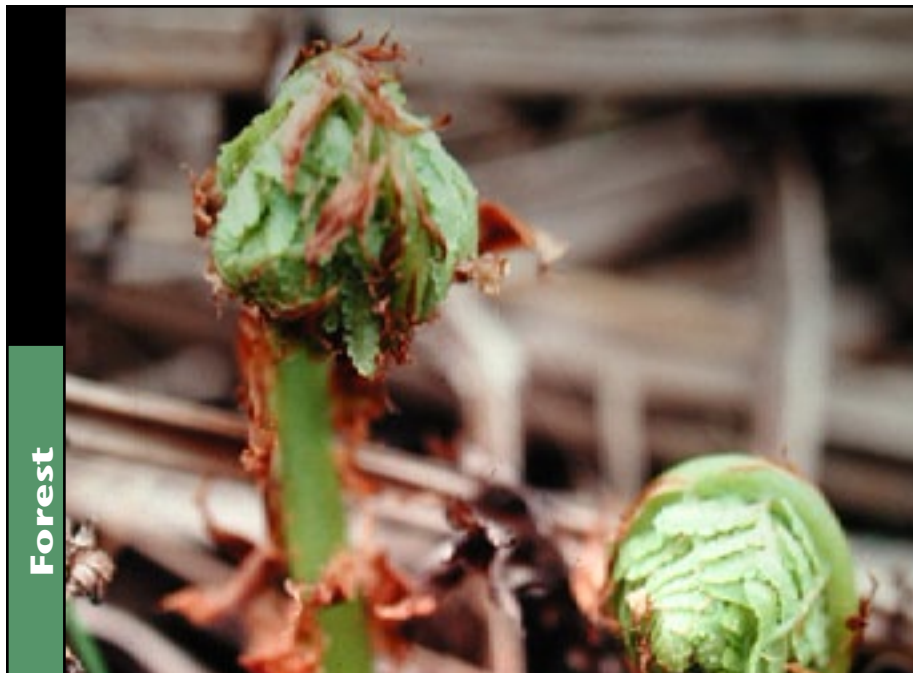


The tightly coiled tops of the young fern shoots (six to eight inches tall) may be harvested, and cooked in butter for a yummy treat! They are rich in iron, potassium, and vitamins A, B and C.

Caution



Mature ferns can be toxic. Make sure you only collect the ferns that are fully coiled.



Forest

Photo by Stacy Studebaker

Old Man's Beard

Nakuraartum nuyii

Alutiiq Name Nakuraartum nuyii (naa kooh' aaH toom nooy ee')
Napamungaguai (naa pam' oo nga' hoo aye)

"Tangled hair"

Russian Name Лишай Бородастый (Lishai borodaty)

Scientific Name Bryoria trichodes ssp. americana or
Usnea ssp.

Family Beard Lichen Family (Parmeliaceae)

Other Names black tree lichen, horsehair lichen

Habitat

It is found hanging from the branches of spruce trees and other shrubs and trees.

Description

The old man's beard is light green and hairlike.

Uses



You can use the old man's beard to help stop a cut from bleeding when prepared as a poultice. A pillow made of the lichen may help a sleeping person who suffers from asthma conditions.



Photo by Stacy Studebaker

Sitka Spruce

Napaq

Alutiiq Name	Нараq (Na pock') cuyam cukii (spruce needles) "Tree"
Russian Name	Ель Ситхинская (Yel Sitkhaiskya)
Scientific Name	Picea sitchensis
Family	Pine Family (Pinaceae)
Other Names	real tree

Habitat

The Sitka Spruce inhabits the northern shores of the Kodiak Archipelago. The villages of Old Harbor, Akhiok, Karluk and Larsen Bay have few spruce trees. They are very tolerant of salt and grow close to the shoreline. They like acidic soil and create their own nutrients as they drop needles. After the Katmai eruption of 1912 (which dropped up to three feet of volcanic ash on the northern shores of the islands), residents saw dramatic growth and progression of the napaq.

Description

The Sitka spruce is the largest Alaskan tree and may grow to be up to 200 feet. A young tree has smooth, gray bark that turns browner and scratchier with age. The wood is considered to be light weight and fairly soft.

Uses



Tender spruce tips are harvested in late spring for a wonderful tea. The core of the spruce tips may be eaten raw after peeling off the needles. The thin layer of the inner bark of the spruce tree may be used as a food source, raw or boiled, as well as an ingredient for a tea.



The sap can be harvested to help heal sores and burns and can be chewed to alleviate headaches. Don't forget to climb it and enjoy the view from the top!



The wood's flexibility and strength make it an excellent source for drums, boats and oars.



Forest

Photo by Michelle Andrews

Cow Parsnip

Ugyutak

Alutiiq Name	Ugyutak or Ugsutak	(oog-you-dack)
Russian Name	Пучки	(Puchki)
Scientific Name	Heracleum lanatum	
Family	Parsley Family (Umbelliferae)	
Other Names	wild celery	

Habitat

It grows along the shoreline in open woods and other sunny places, though it is abundant throughout the archipelago.

Description

You'll smell the sweet aroma of cow parsnip before seeing it. Summer is said to be coming when you smell the cow parsnip after a rainfall. In springtime it has a stout stalk with many stems and large maple-like leaves. As the summer progresses it may grow to six to eight feet in height and grow small, white flowers that forms umbrella-like clusters at the top of the plant.

Uses



It is best eaten in spring after the outer stalk is peeled away; either raw, dunked in seal oil or sprinkled with salt or plain. It may be added to soups or fish dishes to add extra "Kodiak" flavor! The leaves of the ugyudak can be used to flavor fish when rubbed directly on the surface of the meat (Sugtestun sushi!). Wrap fresh fish in the large leaves to steam over a campfire!



Chewed or drank, it's good for sore throats, colds and mouth sores. The Alutiit also used the tea to alleviate symptoms of TB. For toothaches heat a piece of root and smash it into the painful area, to deaden nerves.

Caution



Don't confuse cow parsnip with poison hemlock. Also avoid touching the plant, particularly in the sunlight, as many people get blisters from touching its juices. Vinegar and water can alleviate these blisters.



Meadow

Photo by Michelle Andrews

Dandelion

Saalalraq

Alutiiq Name	Saalalraq (in Nanwaleq)
Russian Name	“always sleeping” (flowers always opening & closing) Одуванчик (Odoovanchik)
Scientific Name	Taraxacum officinale
Family	Composite Family (Compositae)
Other Names	lion’s tooth, blowball, wild endive, cancerwort, yellow gowan

Habitat

Everywhere! Dandelions are found along the roadside, in sunny fields and pop up in our yards frequently.

Description

The French term “dent de lion,” or teeth of the lion describe the leaves and the yellow petals of this plant accurately. Often the first color of spring, it is picked by children and given to moms and grandmas as the excitement of approaching summer arises.

Uses



The dandelion was probably introduced to the islands when the Europeans first visited the area. Residents learned of its quality to provide vitamins and minerals and made it a part of their diet. Dandelion tea revitalizes, while its greens provide flavor and nutritional value to salads. They are an excellent source of calcium, iron, and vitamins A, B and C.

Caution



Make sure you don’t harvest and eat dandelions from lawns treated with weed killers or pesticides.



Meadow

Photo by Michelle Andrews

Fireweed Shoots

Cillqaq

Alutiiq Name	Cillqaq (Chihl'qaq)
Russian Name	Кипрей or Иван Чай (Kipray or Ivan Chai)
Scientific Name	Epilobium angustifolium
Family	Evening Primrose Family (Onagraceae)
Other Names	willow herb, blooming Sally, wild asparagus

Habitat

They grow in sunny meadows and along mountain sides.

Description

Fireweed grow to be quite tall and have long, narrow leaves. Their four-petaled flowers range in color from bright pink to white. The blooming of the uppermost blossoms is a sign that summer is ending.

Uses



Pick fireweed shoots in early spring before the leaves have developed. The shoots are good in soups, or steamed as a vegetable. Later you can harvest the blossoms, which can also be tossed in salads, used to make jelly or as flavor in sweet syrup for pancakes or deserts. The young leaves can be eaten fresh, or dried for a soothing tea. In Nanwalek, the leaves are also cooked in seal oil.



Fireweed leaf tea is also good for settling upset stomachs. The stalks can be used as banya or magi bathing switches.



This plant once served as roof thatching for ciqlluaq or Alutiiq sod houses.



Photos by Stacy Studebaker & Teri Schneider

Meadow

Salmonberry Shoots

Cugelenuk

Alutiiq Name	Cugelenuk (chook ee long ock) Alagnaq (a logh nock)
	“young shoots;” “the berry”
Russian Name	Княжника (Knyazhhika)
Scientific Name	Rubus spectabilis
Family	Rose Family (Rosaceae)
Other Names	muck-a-muck

Habitat

Salmonberry bushes may grow in the woods, as well as in open, sunny areas.

Description

The leaves of the salmonberry are made up of three leaflets that grow on woody stems. The deep pink flowers bloom from April through June before turning into berries that are sometimes ready to harvest in July.

Uses



The berries, blossoms, leaves, and shoots can be eaten raw or made into tea. Chewing on the young, tender shoots may aid in digestion. The shoots can also be sautéed and added to a stir fry. Be sure not to eat too many blossoms as it will reduce the number of berries you will be able to harvest later in the summer.

Fresh or dried salmonberry leaves can also be used to heal wounds, burns or infections.

Caution



Never thrash through the bushes when you are playing outside, as you might damage the berry harvest. If you break a stem, bury it where you would like to have a new berry patch and watch it grow! In some parts of the island you might find a lighter, orange version of the berry. These are called “Russian” berries because of their lighter color.



Photo by Michelle Andrews

Watermelon Berry Shoots

Cugelenuk

Alutiiq Name	Cugelenuk	(chook ee long ock)
	"young shoots"	
Russian Name	Огурецдикий	(Ogooetsdiki)
Scientific Name	Streptopus amplexifolius	
Family	Lily Family (Liliaceae)	
Other Names	twisted stalk; wild cucumber; scoot berry	

Habitat

The watermelon berry is found sporadically in the moist woods.

Description

Full grown, the plant is one to four feet high with alternating leaves that become longer at the base of the plant. Its flowers are greenish-white, with petals that curve back. Each red fruit hangs singly from the stem.

Uses



The young shoots of the watermelon berry, which are cucumber flavored, may be harvested and added to salads or other vegetable dishes.

Caution



Spring shoots of the watermelon berry look like the False Hellebore which is a deadly poisonous plant.



Meadow

Photo by Heather Johnson

Wild Geranium

Talltaciq

Alutiiq Name Talltaciq (Tahl taa' chiq)

Russian Name Герань or Иголка (Geran or Igolka)

Scientific Name Geranium erianthum

Family Geranium Family (Geraniaceae)

Other Names cranesfill; sticky geranium

Habitat

Found mostly in open forests, meadows and where the soil has been disturbed.

Description

The wild geranium is one of the first Kodiak flowers to bloom. Look for it on south facing hillsides and sunny, protected meadows. The plant grows to about 18-30 inches tall with large leaves that appear to be slightly “hairy” and course. The lavender flowers grow on top of the stems and have five rounded petals with darker stripes. Some pink varieties may be found as well.

Uses



Though not usually a favorite because of the plant's odor, the leaves may be used in salads or boiled to make a tea or sore throat gargle. During fall time the roots may be chewed for sore throats, to ease symptoms of tuberculosis, and for coughs and colds. A gargle may also be made from root decoctions for these same symptoms.

Caution



Be careful to distinguish the wild geranium from the deadly poisonous monkshood. You should not harvest the geranium until the flower blooms and becomes distinguishable from the monkshood.



Meadow

Photo by Michelle Andrews

Wild Iris

Alutiiq Name

Russian Name

Ирис (Eris)

Scientific Name

Iris setosa

Family

Iris Family (Iridaceae)

Other Names

wild flag, blue flag, dragon flower, and liver lily

Habitat

Found in moist bogs and wet meadows, as well as along the shore near the tops of beaches.

Description

The wild iris grows one-and-a-half to two feet tall and has upright petals with three petal-like sepals that droop. The flower may be blue or purple. Kodiak also has a variety of white flowered irises that are less commonly seen, but are a treasure to find!

Uses



The roots may be used as a poultice for wounds to clear infection.

Caution



Some are irritated/allergic to the iris. Be careful if you handle this plant! The wild iris is considered to be a very powerful plant medicine, but should not be used by anyone not fully understanding its purpose and potential dangers.



Meadow

Photo by Michelle Andrews

Yarrow

Qangananguaq

Alutiiq Name	Qangananguaq (Qa nga' nang hu aq) "a fuzzy thing, like a squirrel's tail"
Russian Name	Полезная Трава or Тысячелистник (Poleznaya trava or Tysiachelistnik)
Scientific Name	Achillea borealis
Family	Composite Family (Compositae)
Other Names	milfoil, northern yarrow, yarroway, thousand-leaf, nosebleed, bindwort, sneezeweed, poor man's pepper

Habitat

Found in fields, open woods, and meadows.

Description

The yarrow is considered by some to be a weed! But don't be fooled, this "weed" is a remarkable plant! It has fine, fern-like leaves that progressively get bigger from the top to the bottom of the plant. At the top there is a flat cluster of small, white flowers.

Uses



If you were to learn about one plant that you could use in a survival situation, this might be the one! Chewing fresh yarrow leaves may ease a toothache, while rolled leaves placed inside the nose may relieve a nosebleed. Yarrow has blood-clotting abilities. Place crushed or chewed leaves directly on cuts to control bleeding. A hot tea made from the leaves of yarrow may ease a cold. For enhancing your magi (ma gee'), banya or steam bath, put leaves on the rocks then splash with the water. The steam created is soothing and fragrant. Heated yarrow may also ease arthritic areas when placed directly on the aches. Yarrow can also be used as a mosquito repellent if you rub the plant directly on your clothes and exposed skin!



Meadow

Photo by Priscilla Russell

Alutiiq Name	Uqgwik “firewood”	(Ook gwik)
Russian Name	Ольха or Веники	(Olkha or Veyniki)
Scientific Name	Alnus crispa or Alnus sinuata	
Family	Birch Family (Betulaceae)	
Other Names	mountain alder, Sitka alder	

Habitat

The alder grows abundantly, popping up just about anywhere. They may grow in small clusters or into dense thickets along streams, in meadows and on mountain sides, as well as in disturbed areas. Look for rabbits and birds hiding amongst the lower branches as they provide for a wonderful habitat.

Description

It is a medium to large deciduous shrub with stout branches that twist and turn. The bark is grayish with darker spots on it. The leaves are bright green, large and oval.

Uses



The alder is the preferred wood for smoking salmon. Its abundance allowed for it to be used as an emergency wood source when the weather was not good enough to retrieve driftwood.



When carved, the alder branches can be used for tool handles, kayak ribs, snowshoes, spears, and toys.



Alders also make a great addition to an emergency shelter.



Leafy alders are often times used in the banya. One might place the leafy end in a pan of water, then pat the body with the moistened leaves to relieve aches and pains, and to promote general good health.



Photos by Stacy Studebaker and Teri Schneider

Dock

Qu'unarleq

Alutiiq Name	Qu'unarleq (qoo' oo nah luck) "the sour"
Russian Name	Кислица or Щавель (Kislitsa or Shchavel)
Scientific Name	Rumex spp.
Family	Buckwheat Family (Polygonaceae)
Other Names	wild rhubarb, sourdock, sorrel, and wild spinach

Habitat

This plant can be found in roadside ditches, favoring wet and disturbed soil.

Description

Dock has large sour leaves and showy clusters of flowers and seeds. The stock can grow as high as four feet. The plant turns reddish in late summer.

Uses



The leaves and young stems are edible raw or cooked and can prevent scurvy. The leaf stalks can be used to add flavor to dishes. You can also collect the seeds and grind them into a flour.



The leaves can be rubbed directly on the skin, relieving the sting from nettles.



The root can be used as a golden dye.

Caution



Consume in moderation as the leaves contain oxalic acid, which depletes the body of calcium.



Wetlands

Photo by Teri Schneider

Willow

Nimruyaq

Alutiiq Name	Nimruyaq
Russian Name	Ива (eva)
Scientific Name	Salix spp.
Family	Willow Family (Salicaceae)
Other Names	osier and pussy willow

Habitat

They generally grow along streams and rivers or in boggy wetlands.

Description

There are over 33 species of willow in Alaska. They can range in height from low shrub to over 20 feet tall. Willow leaves are one to three inches long and toothed along the margin. Their twigs are reddish-brown and shiny.

Uses



The inner bark or leaves can be chewed to alleviate pain as it is a natural aspirin substitute. For insect stings and bites, chew willow leaves and place the pulp on the irritated area.



Nibble the leaves as a snack or add to salad. The inner bark can also be dried and ground as a flour substitute. Willow leaves are higher in vitamin C than oranges.



Wetlands

Photo by Teri Schneider

Plant Use Chart

	Page	Habitat					Uses						
		Aquatic	Disturbed Soil	Forest	Meadows/Sunny	Wetlands	Food	Medicine	Shelter	Tools	Dye or pigment	Fuel	Caution
Alder	24					■		■				■	
Angelica	2	■					■	■					■
Beach Greens	3	■					■	■					■
Beach Loveage	4	■					■						■
Beach Peas	5	■					■						■
Cow Parsnip	16				■		■						■
Dandelion	17		■		■		■						■
Devil's Club	12			■					■				■
Dock	25					■	■			■			■
Fiddelhead Fern	18			■			■						■
Fireweed Shoots	20				■		■						■
Goosetongue	6	■					■						■
Horsetail	7	■	■				■		■				■
Nettle	11		■				■		■				■
Old Man's Beard	14			■			■						■
Oyster Leaf	8	■					■						■
Salmonberry Shoots	19			■			■						■
Sitka Spruce	15			■			■		■				■
Spring Beauty	9	■					■						■
Watermelon Berry Shoots	20						■						■
Wild Geranium	21				■		■						■
Wild Iris	22				■		■						■
Willow	26					■	■						■
Wormwood	10	■	■				■						■
Yarrow	23				■								■

Vocabulary

Roots keep the plant secure in the ground and take in water and nutrients from the soil.

Fruit is found on some plants. It contains seeds that can be planted.

Some new plants come from seeds. The seeds have hard coatings that protect the tiny new plant parts inside it.

Leaves grow from the stems of plants. They collect sunlight and make food for the plant.

A stem connects the leaves to the roots and helps to hold the leaves up to the sunlight so they can make food for the plant.

Flowers are found on some plants. They produce seeds as well as attract and feed some pollinating birds and insects.

Bark is the outer covering of a tree.

A habitat is a place where plants and animals naturally live.

A Biome or ecosystem is a large habitat such as forests and small habitats such as a single tree.

An Alpine habitat or range is a high mountain where some plants grow above the tree line.

A Forest is a large piece of land covered with...

Trees and bushes. It is made up of many kinds of plants and animals that depend on each other for food and shelter. There are several types of forests. Each type has its own weather and its own kind of plants and animals. There are Deciduous forests, Coniferous forests, and Mixed forests.

Deciduous forests change with the seasons. In autumn the leaves turn bright colors. By winter the trees have shed their leaves. In spring the trees begin to grow

new leaves. By summer the trees are covered in green again.

Coniferous forests have evergreen trees. Conifers keep their needle-like leaves all year. The seeds of conifers are in their cones. The seeds fall out in warm weather.

Mixed forests have deciduous trees that shed their leaves and conifers that keep their leaves all year.

A Meadow is a tract of land under grass, which is in low land with rich, moist ground, near a river.

A Bog is a marsh with wet spongy soil.

Fresh-water habitats have fresh water. This means the water is not salty like the ocean. Most rivers, lakes, and ponds have fresh water. There are plants that live in the water or along the shore.

Salt-water habitats include tide pools, and Kelp forests. Oceans are big and wide. They have salty water. Many plants grow near the ocean.

Tide Pools are along the shore where water moves in and out with the tide. Plants called algae live on the rocks.

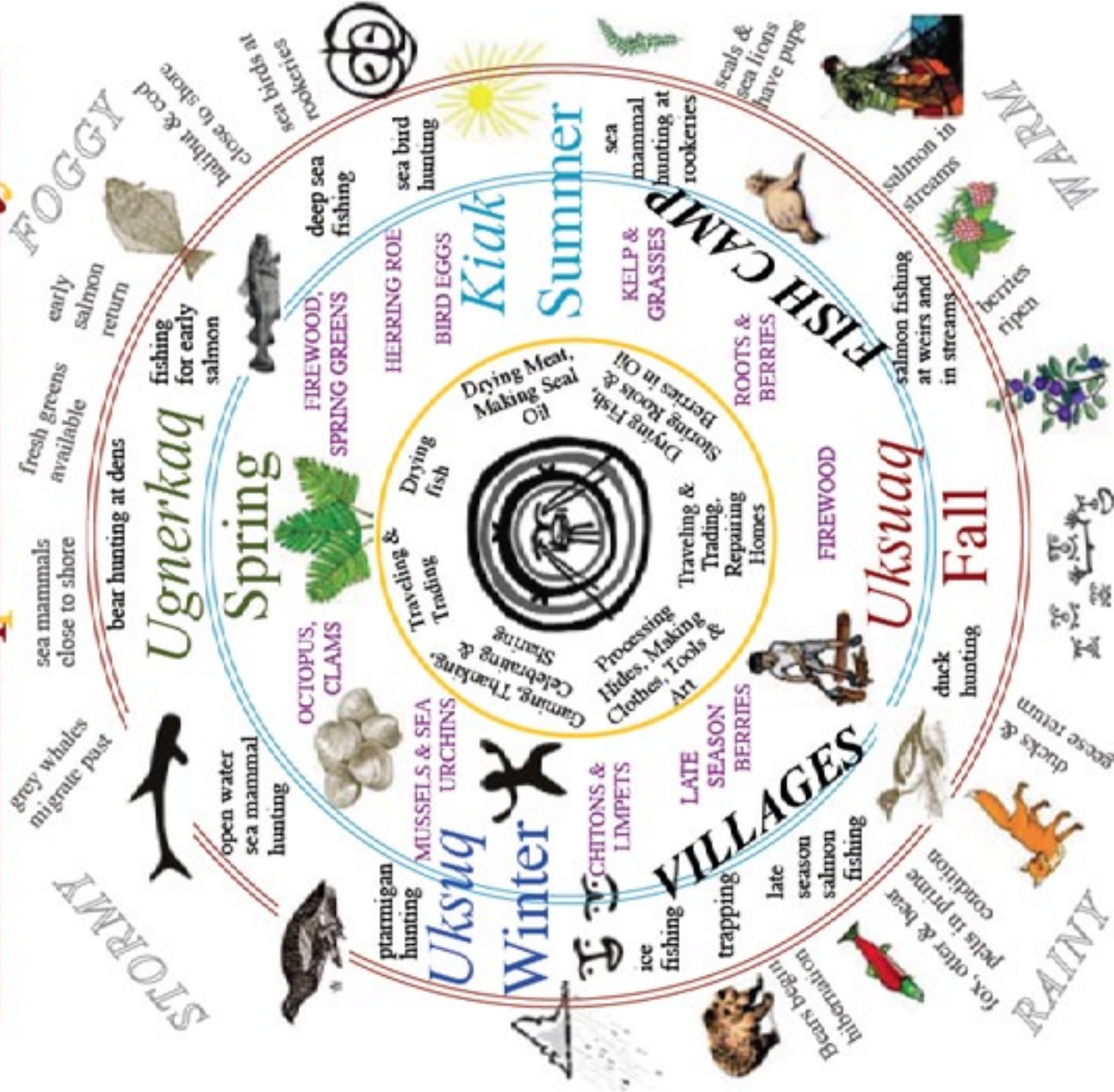
Kelp Forests have large seaweeds that sometimes grow over 100 feet tall. There are three parts to a kelp plant:

1. Holdfast - It looks like a root, but it just holds the kelp to a rock so it won't be swept away by the tide.
2. Stipe - The stipe is like a stem. It is tough, but bends easily. Food moves through the stipe to the bottom of the kelp.
3. Blade - The blade looks like a leaf. It makes food for the kelp plant. It makes spores which produce new kelp plants.

Habitat Ranges



The Alutiq Seasonal Cycle



-Inside the smallest ring: family activities around the year.
 -Inside the middle ring: plants and animals gathered throughout the year.
 -Inside the largest ring: the types of animals hunted at different times of the year.
 -Outside the largest ring: the locations and conditions of various plant and animal resources during the yearly cycle.

This poster was created by the Alutiq Museum and Archaeological Repository, 215 Mission Rd., Suite 101, Kodiak, AK. 99615



ALUTIIQ MEDICINAL PLANTS



Aankhooq (Urtica - Stinging Nettle)
Sophia Katsimantzi, Laramie Bay
Highbush cranberries are grown, valued as a very dense and tough shrub. The plant is also used for cold and other respiratory illnesses such as gonorrhoea. Highbush cranberry substitutes (the stems, bark) can be brewed into a tea for colds, coughs and bronchitis. Although the herb is poisonous, it makes a good tea and is high in Vitamin C.



Uthelutiq (Kalmegh - Fenugreek)
Lucia Davis, Kotik
Aegleia is highly valued as a stimulant, sedative. Sprays with herb Aegleia stem and root it on cheeks to relieve aches, pains and sore muscles. The flowers, lower part of the stem and berries are reduced on charcoal to heal rashes, sores, psoriasis, cuts, dry skin and other skin problems. The plant is used to control all of that beads and infections on skin.



Unganunguq
(The Purple Root - A Native Name: Allium)
Jada Peetmaat, Peot Lanes
The berry stems may be used as a stimulant, sedative, and/or analgesic for aches and pains. A tea made from the berries can be prepared by placing the hot berries and flowers on the cheek immediately outside of the affected tooth. The sedatives are prepared by placing drops of the tea in the affected eyes. Young dogs placed in bed with the berries may heal the infection. The berries soothe, soothe when they are used.



Egigiq (Riprap - Fenugreek)
Karin Etkand, Chuvik
Leaves and stems can be made into a tea and used by those troubled by an upset stomach. The raw stems can be chewed and applied to a hot or hot to draw out the pus, although an injury to heal slowly.



Tempepitiq (Urtica fern)
Albert Akooqa, Oot Shooqa
Thawer fern leaves may be used to relieve severe aches and also for broken bones and sprains. Soak the ferns in hot water in the steam bath and place them in a cloth or directly on the affected area.



Koqtoqutiq (Urtica fucicola)
Myra Peterson, Aksook
The leaves of this herb, green above and white woolly below, can be placed on boils and other skin infections to promote healing. Wash the roots, ground them well crushed, place them in a muslin cloth and bandage the boil with the cloth. Left overnight, the roots draw the pus from the boil and removes the infection.



Images provided by the Alaska Academy of Ethnobotany, Native Herbs, Plants, Herbs, the Alaska Native and Aboriginal Herbarium, the Alaska Native Herbarium, the Alaska Native and Aboriginal Herbarium and the Alaska Native and Aboriginal Herbarium. Information contained on this poster is not intended to be used as a guide for finding or self-administering. Herbs and plants are used only by Alutiq and Koyukuk people, and in traditional ways. Improper use of plants may result in harm or death.

Copies of the Alutiq Medicinal Plants poster are available through NEAR.
Please call Teri Schneider at 907-486-9276 to request a copy.

Sample Plant Cards

Illustrations by Gloria Selby

Make Plant Cards!

Draw Your Own Picture
of Each Plant

Identify Plant Names
List how we can use the plant



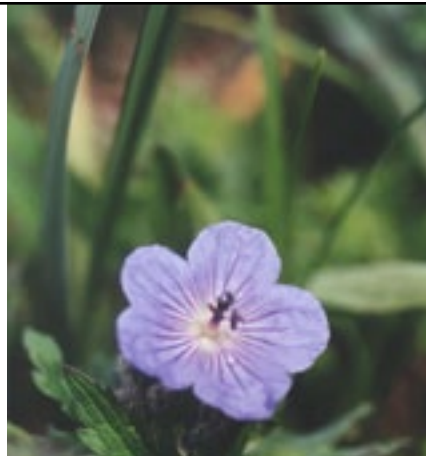
Alder - Uggwik
Some say best wood for smoking salmon



Yarrow - Qangananguaq
Chew it for a sore tooth



Fireweed - Cillqaq
Make tea for upset stomach



Wild Geranium - Talltaciq
Chew roots to ease sore throat



Cow Parsnip - Ugyudak
Peel and eat the stalk

Kodiak Medicinal Plants Collection

1. Common Name _____

2. Scientific Name _____

3. Alutiiq Name _____

4. Russian Name _____

5. I found this plant... _____

6. Describe your plant. (size, color, shape, etc.,) _____

7. What medicinal use(s) does it have? _____

8. Sketch (Draw, trace, or use a real photo of your plant.)

Subsistence Food Recipe Card

Recipe Name _____	
Amounts	Ingredients
Directions	
Name _____	Phone _____

Add your best recipe to the Alutiiq Museum's Subsistence Foods Collection!

Do you have a favorite family recipe that involves the use of a traditional Alutiiq food? The Alutiiq Museum is seeking submissions of recipes for use in handouts, a Native food cookbook, and an educational box. All recipes that use subsistence ingredients will be considered. Recipes must be previously unpublished. If you have questions, call April at the Alutiiq Museum at 486-7004.

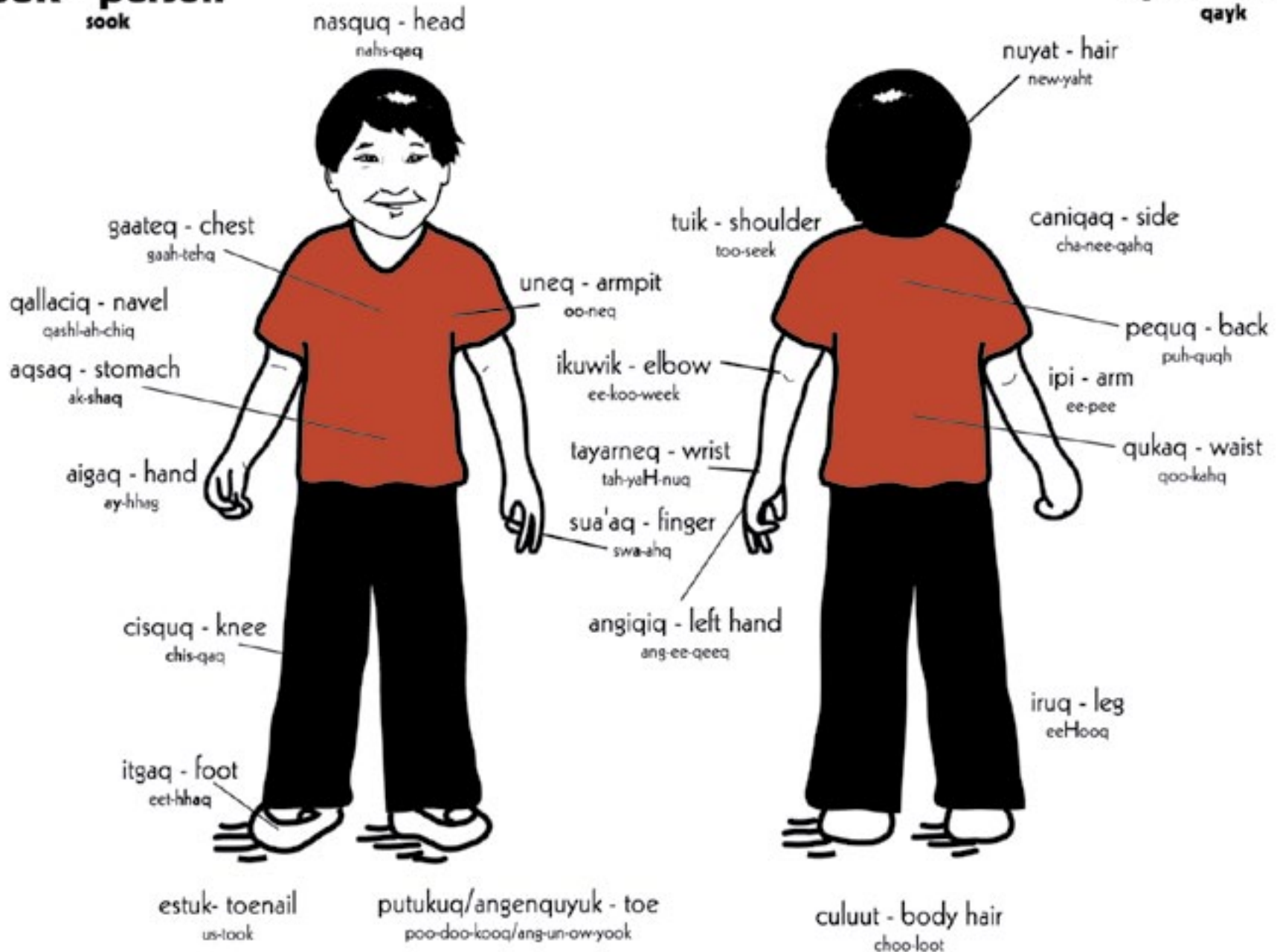
Simply fill in & drop off or mail to the Alutiiq Museum at:

Alutiiq Museum
Attn: Education Department
215 Mission Road, Suite 101
Kodiak, Alaska 99615

Alutiig Body Part Identification

SUK - person sook

qaik - body qayk

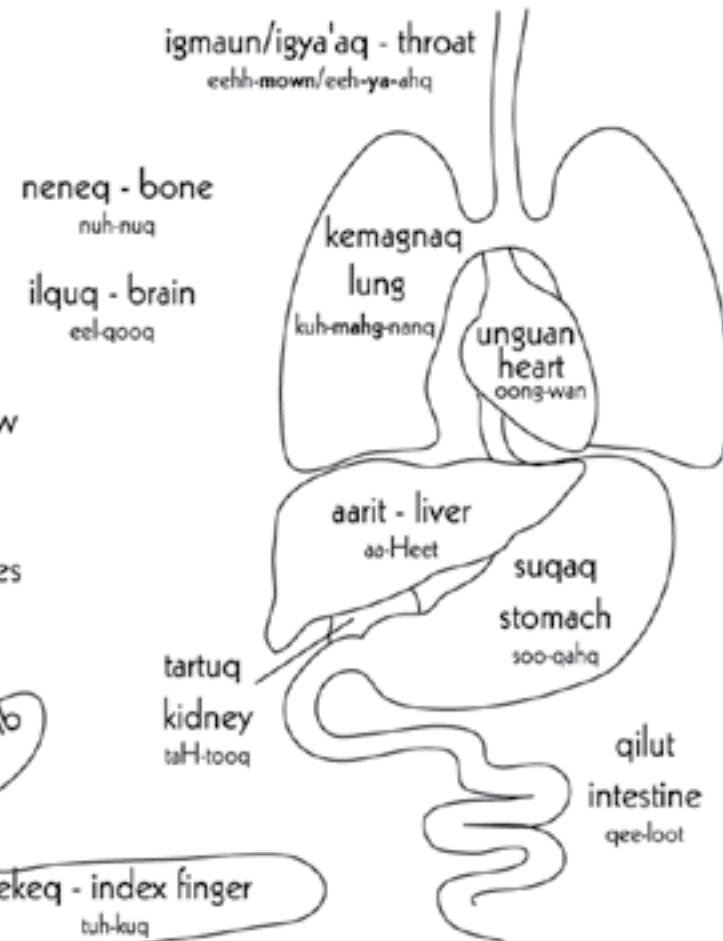


Alutiig Face, Hands & Organs Identification

giinaq - face



organs



aigaq - hand ay-hhaq

angiqiq - left hand ang-ee-qeeq

uluq - tongue - oo-looq
 angruaq - gums - anq-Hweq
 qila'aaq - roof of mouth - qee-lah-aaq
 gun/guuteq - tooth - hhaa/hhoot-uq
 ingliq - missing tooth - ing-liq

tekeq - index finger
tuh-kuq

akulimaq - middle finger
ah-koo-lee-mahq

qilimaq - ring finger
qee-lee-mahq

iqelluq - pinky
ee-gushl-gooq

sua'aaq - finger
swa-ahq

stuk - fingernail
stook

Medicinal Plant Unit

of the Kodiak Alutiiq Archipelago

adapted from Rosa L. Wallace & Victoria N. Woodward
April 2003

Target Level: Grades 3-5

Science Standards:

A15 Use science to understand & describe the local environment.

B1 Use the process of science; these processes include observing, classifying, measuring, interpreting data, inferring, communicating, controlling variables, developing models and theories, hypothesizing, predicting, and experimenting.

Skills and Knowledge:

1. Understand that certain plants possess medicinal properties and food value.
2. Demonstrate scientific skills of observation and classification in the gathering of plants.
3. Interpreting and researching of harvested samples in order to infer, predict, and communicate an understanding of medicinal plants.
4. Be able to identify local plants.

Cultural Standards:

- D1 Acquire in-depth cultural knowledge through active participation and meaningful interaction with Elders.
- E2 Understand the ecology and geography of the bioregion they inhabit.

Skills and Knowledge:

1. Acquire knowledge from Elders about the physical description, habitat and use of medicinal and edible plants.
2. Interactive communication with Elders through Alutiiq and Russian name identification of medicinal plants.
3. Ability to demonstrate traditional harvesting and usage of medicinal and edible plants.

Suggested Lessons for Study:

1. In Class Presentation By Elder
2. Plant Walk With Elder
3. Plant Log And Journal With Elder
4. Kodiak Archipelago Plants Slide Show
5. Medicinal Uses

Overview:

The Kodiak Archipelago is divided into three geographic areas based on social, cultural, and environmental considerations. The northern area extends to the southern limit of the dense spruce forest, which runs approximately from Uganik Bay on the west to Ugak Bay on the east. The southern boundary of the central area is from the mountains directly south of the Sturgeon River on western Kodiak Island, easterly to Kiluda Bay. The southern area includes the region of the Kodiak Archipelago south of the central area.

The Kodiak Alutiiq employ a wide variety of trees, shrubs, and herbs for medicinal purposes and as a food source. They use most plant parts including leaves, stems, flowers, fruit, roots, bark, and wood. The majority of medicinal plants are harvested in the growing season, but some plants and plant parts are available throughout the year. Women aided by children tend to be the primary gatherers, processors, and preservers of plant medicines. If you plan to take the suggested outing to collect plants, be sure to learn who the land-owners are in the area. Any time private property is visited, including Native Corporation lands, secure permission for visiting their lands and harvesting from it (See "Collecting Plants" article on page 4).

Common methods of preparing medicinal plants are boiling, simmering, or steeping the fresh or dried plant. Depending on the plant or ailment, the liquid may be taken internally or used as a wash, while the entire plant or plant parts may be used as a poultice or placed or rubbed directly on the body. Raw plants appear to be administered externally more often than internally (Russell p. 60-62).

Since physicians and pharmacists were not available, Elders learned through the scientific inquiry which plants were effective in healing various ailments.

In this unit students will work with the Elders, Native educators, community members, and their teacher to determine which traditional plants are effective in healing various body parts. Students will employ traditional methods of harvesting medicinal plants under the direct guidance of the Elders and their teacher. After collecting information, journaling, and analyzing, students will communicate their findings to their school peers and demonstrate their understanding of procedures and findings by producing an area poster of some of the local medicinal plants.

This unit targets third grade students emphasizing observation, communication, comparison, and organizational skills. It can be adapted deal with principles concerning interactions such as plant

photosynthesis or making logical conclusions typically addressed in grades five through twelve.

In preparation of teaching this unit, invite an Elder to work with the class throughout the project. This could be a grandparent or perhaps an auntie or parent of one of your own students. Be careful to inform this individual that your context of study is dealing with plants specific to the Kodiak Archipelago and the uses by the local indigenous people of this region. Previous to the unit's start, discuss with them the lesson's goals, objectives, expected outcomes and assessments. This person should be very familiar with traditional plant lore, the gathering process and etiquette, preservation, habitat and range. Be sure to express your reasons for their participation and be sure that they are given the support they need to be successful in working with your students (See article, "Elders in the Classroom" by Robie Littlefield on page 3).

It is a good idea to have students make a "Kodiak Plants" booklet to keep notes, make drawings and write questions throughout the activities, allowing students to see their own growth in knowledge about local plants.

Activity One

Visit with a local Elder

Summary

Students meet with an Elder from the Kodiak Alutiiq region for the purpose of viewing sample collections of local medicinal plants. They will explore the gathering methods encompassing traditional values and beliefs. Students will gain knowledge of the processing, preservation, habitat and range, and medicinal harvesting. Elder(s) will share traditional plant lore with students to allow observation and harvesting of medicinal plants from the perspective of traditional harvesters.

Suggested materials:

- Plant books (see bibliography)
- Kodiak Alutiiq regional map
- Samples of plants
- Sample medicinal plant products

As an introductory activity, go outside in groups of two or three to an area with some vegetation. Have students toss a hula-hoop and explore everything within the circle, naming the plants and their uses. Allow the students' creativity flow with ideas ranging from food to building.

Back in the classroom, ask students to name all of the local plants they know. Can they name any that are edible? Poisonous? Can they name any that have medicinal value? What other name is used for these plants? Where are they collected? When? What stories do they have about times they may have collected plants? Have students complete a K-W-L chart regarding medicinal and food uses of plants from the Kodiak area. Ask, "What do you know about medicinal and edible plants?" and "What do you want to learn about medicinal and edible plants?"

At this time, students will be ready to interview an Elder or another expert, or otherwise research information on the specific uses of a particular plant (chosen or selected randomly from pre-existing set) and share their results with the class. Areas of research should include habitat and range, processing, uses, dangers, and physical description. (See "Kodiak Medicinal Plants Collection" on page 36)

Activity Two

Walk with an Elder/Expert

Summary

This activity will take Elder and students outdoors to collect two medicinal plant samples. Students will preserve plant sample by placing it on a pre-cut 5" by 8" manila folder and cover it with clear contact paper cut 1/2 inch larger to overlap the specimen. (These items should be placed on student's desks and be ready for use.) Elder will present and identify plants to the class. Students will match and identify their samples to Elder's plant.

Suggested materials:

- Medicinal Plants
- Quart size Ziplock bags
- Pre-cut (5" X 8") manila folder for each plant sample collected
- clear contact paper (5 and 1/2" X 8 and 1/2") for each plant collected
- Classroom resources

The Elder and teacher present plant gathering techniques designed to preserve the natural environment and traditional conservation. Students will then spend time outdoors, collecting plant samples as deemed necessary for classroom use and as the local area permits (See "Collecting Plants" on page 4).

Students will preserve medicinal plant samples using the cut folder material and clear contact paper. Students should match each preserved plant to that of the Elder's/teacher's sample. Have each student use their own terms to describe the details of each plant they collected. They should point out characteristics that make each one unique from another.

The student collector should complete a "plant chart" (page 36) for each plant they have collected, including a sketch with color. The Elder may want to review local knowledge of the physical description, habitat, and harvesting time. Students should also use scientific terms to describe each plant sample. This will enable students to accurately record information, integrating local knowledge with the scientific information.

Activity Three Plant Leaf Classification

Summary

This activity will group students with an Elder for the purpose of logging and classifying the medicinal/edible plant sample collection. A review of the observations recorded from the form, "Kodiak Medicinal Plant Collection" (page 36), will be used, as well as the collected samples. The following may be discussed:

How are the leaves similar? How are they different? What do the leaves feel like? Describe the feel? Are they thick or thin? Do they smell? What do the edges look like? Which one is the biggest? Smallest? Thickest? Most thin? Which one is short? Which one is long? How would you describe its color? Do any of them have the same color? What categories of color are there? What patterns do you see in your leaves? Has anything made a meal from your leaf?

Activity Four Slide Show of Medicinal Plants

Summary

Students may use Power Point, or another appropriate computer program, to generate a medicinal/edible plant slide show and/or booklet for the purpose of sharing to a wider audience what they have learned in previous lessons and explorations.

Activity Five Medicinal Uses: Matching Plants to Body Parts

Summary

Indigenous peoples traditionally used plants for medicinal purposes. Since physicians and pharmacists were not available, people learned through the scientific inquiry which plants were effective in healing various ailments. Students can create a body chart to match plants to specific body parts their medicinal qualities may treat.

- Scissors
- Butcher paper
- Markers
- Sticky tape
- Yarn
- Pictures of plants

Teacher driven question: Which plants are effective in healing which body parts?

Activity

1. Create plant illustration cards with descriptions of the healing properties of each plant.
2. Trace a student's body on a large sheet of butcher paper, and tape the body outline to the classroom wall.
3. Students should layout their plant cards. Read a description of a plant's healing power. Ask the students which body part it helps heal.
4. Have the student holding the appropriate plant card tape it to the wall.
5. Have the student connect the card to the body part in which it heals with a strip of yarn. Continue until all the plants are connected with their corresponding body parts. (Students can also learn Alutiiq body parts, see pages 38-39).
4. Have students make warning signs, indicating dangerously poison plants.
5. Have students adopt a small area around the school or their home to observe throughout the school year, noting changes in vegetation, animal presence, etc.
6. Make cards from pressed leaves collected over time.
7. Learn and document local beliefs about plants.
8. Write stories related to emerging plant life on Kodiak Island, their interactions with animals and humans, as well as stories of their use throughout time.

Other resources for further study on plants:

http://www.fastplants.org/home_flash.asp

<http://globe.fsl.noaa.gov>

<http://ankn.uaf.edu>

(Flower Structure Carson-Dellosa Publ. CD 7288)

Other suggested activities:

1. Circle plots and berry picking Predict the amount of berries that can be picked within a one meter diameter circle; pick and measure the amount of berries in several sample plots; find the average; estimate the area of the field; estimate the amount of berries in the field. (from Plants from the Tundra at <http://www.ankn.uaf.edu/Subsistence/plantstundra.html>)
2. Have students prepare a traditional food dish using gathered plants.
3. Have students prepare a traditional medicine from gathered plant items.

Useful assessment resources:

Hein, George E. and Sabra Price. 1994. Active Assessment for Active Science: A Guide for Elementary School Teachers. Portsmouth, NH: Heinemann.

Additional Supplemental Materials

- Matching Plant Parts to Body Parts
- Alaska Science Key Elements
- Ukulaha Edible Plants
- Selected Alutiiq Word of The Week
- Bibliography & Acknowledgments

Bibliography

- Alutiiq Word of the Week. Alutiiq Museum. Retrieved from <http://www.alutiiqmuseum.com/wordoftheweek.htm>
- Bates, R. (1994). *Flowers and Seeds* (pp. 15-17). North Carolina: Carson-Dellosa.
- Matching Plant Parts to Body Parts. Flower Structure. Carson-Dellosa Pub.
- Garibaldi, Ann. (1999). *Medicinal Flora of the Alaska Natives*. Anchorage: University of Alaska Anchorage.
- Garza, Dolly. (1999). *Tlingit Moon & Tide Teaching Resource*. Fairbanks: University of Alaska Sea Grant.
- Graham, F.K. (1985). *Plant Lore of an Alaskan Island*. Anchorage: Northwest.
- Hutchens, Alma. (1992). *A Handbook of Native American Herbs*. Boston: Shambala.
- . (1991). *Indian Herbalogy of North America*. Boston: Shambala.
- Kari, P.R. (1977). *Tanaina Plantlore, Dena'ina K'etuna*. Anchorage: University of Alaska.
- Krochmal, A. & C. (1975). *A Guide to Medicinal Plants of the United States*. New York: New York Times.
- Kasayulie, S., DeGray, Alakanuk, T & J, and Woelflein, L. *Plants from the Tundra*. Retrieved from <http://www.ankn.uaf.edu/Subsistence/plantstundra.html>
- Local Wild and Edible Plants. (1981) Ukulaha: Memorable Days in Ouzinkie, 1.
- Pratt, V.E. (1989). *Field Guide to Alaskan Flowers*. Anchorage: Alaskacrafts.
- Preparing Edible Plants. (1981) Ukulaha: Memorable Days in Ouzinkie, 1.
- Russell, P.N. (1991). *English Bay and Port Graham Alutiiq Plantlore*. Homer, AK: George C. West.
- Russell, P.N. (1995). *Kodiak Alutiiq Plantlore*. (Unpublished manuscript)
- Schofield, J.J. (1993). *Alaska's Wild Plants*. Seattle: Alaska Northwest.
- Schofield, J.J. (1989). *Discovering Wild Plants*. Portland: Alaska Northwest.
- Snyder, J., & Graves, K. (1993). *Plants and Flowers* (p.16). California: Creative Teaching Press.
- Stepens, S. *Handbook for culturally responsive science curriculum*. Fairbanks: Alaska Science Consortium and the Alaska Rural Systemic Initiative.
- Translating Standards to Practice: A Teacher's Guide to Use and Assessment of the Alaska Science Standards. Retrieved from <http://www.ankn.uaf.edu/translating/contents.html>
- Viereck, E.G. (1987). *Alaska's Wilderness Medicines*. Portland: Alaska Northwest Book.

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