Plant Teachings
for Growing Social-Emotional Skills

Cultivating Resiliency and Wellbeing with Northwest Plants

A collaborative project by
GRuB and Northwest Indian Treatment Center

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Funding through Seattle Indian Health Board

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Table of Contents

Introduction 7

Part 1. Plant Teachings

- Alder – *Build Community* 12
- Bigleaf maple – *Willingness* 14
- Camas – *Reciprocity* 16
- Cedar – *GIVE* 18
- Cottonwood – *Wellspring* 20
- Dandelion – *Problem Solving* 22
- Douglas fir – *Adapt* 24
- Fireweed – *Restore* 26
- Hawthorn – *Courage* 28
- Hemlock – *Humility* 30
- Licorice fern – *Find Your Voice* 32
- Mint – *Clarity and Focus* 34
- Nettle – *Build Inner Strength* 36
- Oak – *Patience* 38
- Plantain – *Self–Soothe* 40
- Salal – *Endurance* 42
- Salmonberry – *Interconnectedness* 44
- Usnea – *Practice "Both/And" Thinking* 46
- Wild Rose – *Radical Acceptance* 48
- Wild Strawberry – *Improve the Moment* 50
- Willow– *Flexibility* 52
- Yarrow – *Boundaries* 54

Part 2. Wild Foods and Medicines 57

- Harvesting, Processing and Drying Plants 59
- Wild Foods 62
- Plant Medicines 65
- Herbal Teas 66
- Tea Recipes 69
- Infused Herbal Vinegars 71
- Herbal Honeys 73
- Glycerites 75
- Poultices 77
- Herbal Baths 79
- Infused Herbal Oils 80

Salves 82
Lip Balm 84
Lotions and Creams 85
Aromatherapy 87
Steams 91

Acknowledgements 92
Contributors 92
Editing Team 94
Art and Photo Credits 95
References 95

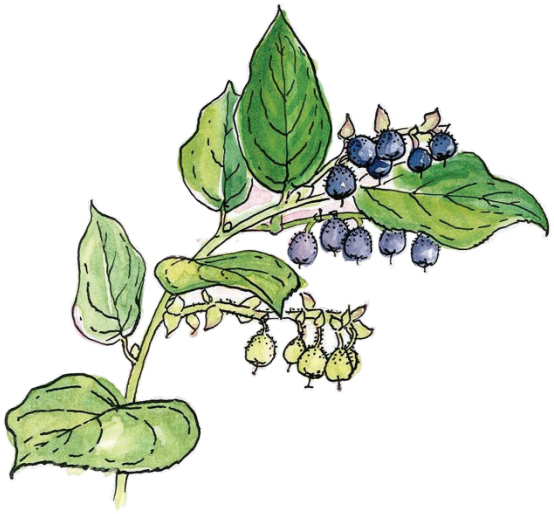
In gratitude to The Plants, our first teachers,
and to the many elders who have kept this work alive
throughout the generations. May this work
honor you and uphold you in the future.

Artwork by Annie Brulé

We call the plants the First People.
They were the first created in our oral tradition
before the animals, before the fish, before the birds,
and their duty was to hold the earth together and live their life as a teaching
for those who would be created in the future.

The plants left many things to us as human beings.
They left the ones who would be our food,
they left the ones that would be our medicine,
they left the ones that would be our building material,
they left the ones that would be our basketry material,
they left the ones that would be the scent and fragrance of the sacred in this universe,
they left beauty and they dressed the earth.
The earth was bare before the plant people were created.

–Bruce Miller (Skokomish), Gifts of the First People



Artwork by Annie Brulé

Introduction

By Chenoa Egawa, Sable Bruce, Elise Krohn, and Lisa Wilson

In this curriculum we focus on the world of plants. Through the stories and experiences of our elders and ancestors, we know that plants are among our very first teachers. They are our allies—each carrying unique wisdom and valuable teachings that can help us learn, grow, and heal. Plants lead through example. Alder demonstrates how to build a healthy community through collaborating with other species and creating a place where many plants and animals can thrive. Yarrow reminds us of the importance of healthy boundaries, while willow shows us how to be flexible, yet strong. As we spend time building relationships with plants, we come to understand the depth of their wisdom, and we connect to important teachings of who we are and how we can be happy, healthy, and resilient.

Unfortunately, in today's modern world, many of us have grown distant from our plant relatives and the natural world. The pace and demands of dominant culture have us living in our minds, over-thinking, and disconnected from fully experiencing our internal and external world. Distance from the natural world can lead to distance from ourselves. We might be aware that something is missing and feel lonely or lost, but might not remember what that is. What does this disconnection mean for our emotional, mental, physical, and spiritual wellbeing? We may feel alone and lose sight of the interconnectedness of life. We may overlook the value of what we have and take things for granted. We may carry the heaviness of our history, but have grown so accustomed to it, we don't realize its weight on our beings. We are searching for the remedy, not realizing it's all around us.

Plants reconnect us with the natural world and ourselves. Spending time in nature, being quiet, and observing and listening to plants brings our hearts, minds, and bodies into alignment. It slows down our thoughts, releases stress, and puts us at peace—helping us to feel what it is like to be truly present in the moment. It soothes us. Think back to a time you were out on the land, perhaps picking berries. Remember the feeling of the earth under your feet, the wind and sun awakening your skin, the smells activating your senses, and the taste of the harvest. Those memories are what it means to be human.

This book is rooted in the plant teachings of the Coast Salish lands and culture. It is part of a toolkit including plant cards, a teaching guide, and activities that weave together plant knowledge, traditional stories, social-emotional skills, reflection questions, mindfulness activities, and movement. The toolkit was developed through a partnership between GRuB, Northwest Indian Treatment Center, and Seattle Indian Health Board. Over two years, a team of plant experts, mental health workers, and cultural experts worked together to synergize and synthesize the plant teachings. The book and cards can be integrated into many different settings, including behavioral health programs, community health and wellness, K-12 social-emotional lessons, and outdoor education programs. Several skillsets are integral to the toolkit, including mindfulness, self-awareness, tolerating stress, and building healthy relationships.

Mindfulness

Mindfulness is a pathway towards reconnecting with ourselves and nature. It is practiced around the world and is part of many spiritual traditions. Practicing mindfulness helps us to be fully present in the moment, to slow down before we act, and to choose skills that help us to move toward our goals. Mindfulness tools include breathing, accessing the six senses of the body (sight, hearing, smell, taste, touch, and thinking), envisioning a resource like a place or person that/who brings us a sense of peace, or practicing reminders of compassion toward ourselves and/or others. Mindfulness also includes inquiry—asking ourselves questions that help us gain greater understanding of our feelings, values, and intentions so that we might access our wisdom and take steps to create the life we want.

When we are mindful, we are in the now, not fixated on the past or thinking about the future. We can be aware of our biases and judgments without needing to act on them. When we are stuck in extremes, like acting from a solely emotional state or using only rational thinking, mindfulness can help us notice our imbalance and move toward a state of inner wisdom. Willow, with its ability to remain flexible in extreme environments, is a remind of this.

Mindfulness is an accessible practice that can be done at any time and enhances the healing impact of resources that are available to us. For example, through waking up our senses, we can more deeply accept the teachings of plants and nature—even a dandelion growing out of a city sidewalk. We can practice mindfulness when strolling in a park, sitting next to a tree, or even feeling the sun on our skin. Mindfulness helps us to embrace the positive things in our lives. Life is always changing, and if we are not in the moment, we miss the gifts that are present now. Mindfulness practices can help reduce suffering, anxiety, and pain through helping us control what we pay attention to and for how long.

Mindfulness can be like a superpower. Imagine running through a forest unmindfully and stepping into a patch of nettles. The sting will remind you to wake up and be aware of your surroundings! Once you slow down you might notice many useful or beautiful things around you, like the strengthening medicine of nettles. If you feel overwhelmed with a task, you can use mint to help bring clarity and focus so you can accomplish your goals more effectively.

Self-Awareness

Plant teachings can help us to be more aware of our inner state. We can learn to identify, understand, and regulate our emotions. Like the deeply rooted cottonwood tree, we can tap into our source and bring our emotions to the surface. We can remember our inner strength and that we belong. As we sit under the bigleaf maple tree, we might notice its willingness to invite many species into its branches. It shows us the importance of celebrating the gifts that diversity brings to our lives. How can we be more open to new experiences, people, and perspectives? Can we willingly let go of judgmental thoughts or assumptions, and be open to change? When we are trying to overcome a challenge, we might learn from dandelion—a common weed that thrives just about anywhere, including mowed lawns and cracks in the sidewalk. How might dandelion's creative solutions to challenges help us to develop our own problem solving abilities?

Tolerating Stress

Pain and stress are a part of life. Yet, when we resist reality and focus on the pain and stress, it can make things even more difficult. Plants show us ways to be resilient in the face of life's challenges. Douglas fir survives fires by making thick bark. It protects itself from insect infestations and makes pitch to heal injuries. What skills might we develop to adapt in stressful situations? Oak grows slowly and invests its energy in making deep roots, hard wood, tough leaves, and nutritious acorns. This patience pays off during drought, storms, and other challenges. By practicing patience and thinking about our long-term goals, we can reduce our own stress as well as others'. Other skills in tolerating stress include accepting reality with grace (wild rose), soothing oneself through smelling, touching, tasting, or listening to something calming (plantain), and finding joy in the moment (strawberry).

Cultivating Healthy Relationships

Plants must develop balanced relationships with other species around them in order to survive. This interdependence is found everywhere in nature and reflecting on it can help us build our own social awareness skills. Trees that are attacked by insects can communicate warning signals through scent to neighboring plants so they can build their own defenses. Trees also build healthy forest communities through root and fungal networks by sharing food and medicine with other trees that are needing support. Salmonberries demonstrate interdependence as they feed insects, birds, deer, and squirrels. They shade streams and keep waters cool for spawning salmon. In return, these animals care for salmonberry through fertilizing the soil, pruning branches, pollination, and seed dispersal. When we share our gifts with others, the whole community grows stronger.

Plants can help us to heal individual and community discord and/or trauma. Fireweed's downy seeds fly on the wind and take root in clear-cuts, burns, and slides. Over time they establish a network of roots that stabilize and regenerate disturbed soil. When we drink fireweed leaf tea, it balances gut bacteria and helps reduce inflammation that can lead to disease. In learning from fireweed, we might find ways to heal ourselves and the land. We might also take action to repair the harm we have caused others. Yarrow, or "warrior plant," contains medicine that stops bleeding and fights infections. It also helps break fevers through opening the skin pores and inducing sweating. Yarrow helps us to establish healthy, positive, and safe boundaries in our physical, emotional, and spiritual being.

Reciprocity is a foundational teaching in social awareness. For thousands of years, Native Peoples have gathered and still gather foods on the prairies, including nutritious bulbs, berries, nuts, and wild greens. In order to keep the prairies open and healthy, people have cultivated optimal environments for preferred species with techniques like burning and pruning. This practice of receiving the gifts of the land and giving back through active stewardship is necessary for upholding camas prairie ecosystems, for example. Reciprocity is also necessary in maintaining healthy relationships with people.

Honoring Plants, Places, and Cultural Knowledge

Adapted from the *Tend, Gather and Grow Teacher Guide*

This book was developed to support Native programs in behavioral health, drug and alcohol treatment and recovery, and wellness. It is also intended to encourage non-Indigenous people to connect with local plants in order to live more healthfully, respectfully, and sustainably. There are inherent tensions in releasing the book to diverse audiences, including concerns of cultural appropriation and misuse of plants. We are living in the context of a painful and persistent history of colonialism, white supremacy, and systematic oppression. Historical and ongoing colonial settler practices negatively impact Native People and their traditional lands. Plant communities have changed drastically and many important cultural foods and ecosystems are diminished and difficult to access. We encourage people who are using this teaching tool to practice honorable harvest ethics and to uphold plant communities (see page 59). This may mean not harvesting rare plants at all. It might also mean taking part in local ecosystem restoration projects and in growing desired native edible and medicinal plants in backyard and community gardens.

Many Native People hold cultural knowledge very close in order to protect plants, places, and cultural traditions. There are multiple reasons for this. In Northwest Coastal Native Culture, knowledge is considered wealth and can be a part of heritage. Harvest sites, plant knowledge, recipes, and spiritual traditions may be passed down through a family or a spiritual community. This may protect the knowledge so it is not misused, and the plants so they continue to thrive. Cultural appropriation and the misuse of knowledge among settler communities has undermined tribal sovereignty in several ways, including non-Indigenous researchers claiming copyright authority over Indigenous knowledge and the overharvest of plant communities. We have intentionally left out plants that are at risk for overharvest. Our project team has collaborated with tribal elders and other tribal culture keepers to ensure that the information provided here is appropriate to share broadly. All stories and plant teachings are included with permission from the storyteller or plant knowledge keeper. When telling a story from this book, it is important to always acknowledge where the story came from and to name the storyteller. Stories are powerful teaching tools, especially if you reflect on them, listen to them multiple times, and retell them. We encourage you to also tell your own plant stories, for we are not only storytellers, we are also story makers.

This book is intended to be a doorway into deepening our human relationships with plants. Perhaps you have different cultural teachings around the plants in this book, or you connect with other plants that are teachers. We hope that this encourages you to engage with your own plant traditions—there is so much precious medicine all around us.

Part 1
Plant Teachings

Artwork by Annie Brulé

Alder – *Build Community*

Alder trees are the first plants to grow in places that have been damaged by landslides, fires, and other environmental disasters. They rebuild the soil and create a forest home where plants and animals can thrive.

Alder (*Alnus rubra)* is a common tree growing up to 100 feet tall along waterways and in wet forests. Seedlings grow as much as three feet per year and form groves. Young trees have smooth, silvery-brown bark while older bark is often spotted with white lichen, moss, and dark patches. The inner bark and wood turn a brilliant reddish-orange when cut. Leaves are toothed on the edges and are sharply pointed at the tip and base. In early spring, red and yellow male flowers, called catkins, hang from leafless branches like fancy tassels and give the treetops a reddish flush—a sure sign that spring is just around the corner. Female flowers grow on the same tree. They mature from green nubs into dark brown cones that resemble small pinecones.

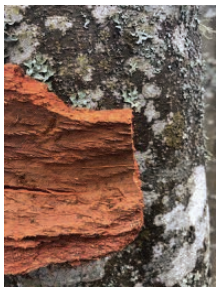
Medicine: Alder reestablishes harmony in our body as well as on the land. The bark is most commonly used for medicine, but the leaf buds, immature male catkins, and immature female green cones are also used. Alder is bitter and promotes healthy digestion. It supports the function of the liver, including breaking down waste products, stimulating digestive juices, and breaking down fats. It is a favorite remedy for when you eat a fatty meal and have indigestion. Alder is also antimicrobial and is used to treat internal and topical infections. It tightens puffy, irritated tissue including an inflamed gut. Skin disorders including acne and boils may respond well to using alder medicine.

Harvest Alder

Alder is a favorite remedy for fighting sore throats and easing indigestion. The bark is best harvested in spring or fall, but still contains medicine the rest of the year. Look for a branch that has recently fallen down, or cut a small branch and strip the bark. If you are harvesting thick bark from the trunk or larger branches, separate the medicinal red inner bark from the tough outer bark, as the inner bark has the strongest medicine. You do not need to separate the branch or twig bark. Watch how quickly it turns reddish-orange! You can suck on the bark, boil a small handful in 2 cups of water for 10 minutes and drink it throughout the day, or dry the bark and save it for making medicine later.

You can pick immature green male catkins or female cones in late spring through early winter and suck on them like lozenges. It is fine to swallow the plant material.

Traditional Technologies: Alder bark makes a beautiful orange-to-red dye. It is harvested in spring to summer at the warmest time of day when the sun is directly on the tree. Alder wood is used in woodworking to make many things including utensils, carvings, and furniture. The wood burns well and is prized for smoking salmon. It burns clean and is non-crackling.



Learning from Alder – Build Community

If possible, take a walk in a forest with alder trees. If not, imagine you are there, noticing how many trees grow together and form a community. See the mosses and lichens that create a patchwork of colors on the tree trunks. Let's explore the history of this place:

Long ago this forest was burned by a fire, or was clear-cut. Alder seeds traveled in on the wind and landed on the barren soil. They grew fast—as much as three feet per year—and developed a partnership with tiny bacteria in the soil. The alder invited the bacteria to live on its roots and use some of their sugary food in exchange for fixing nitrogen—an important plant food—in the soil. This partnership creates fertile soil for plants to grow.

Each autumn, alder leaves fall and break down, forming rich humus on the ground that insects and other animals can live in. As alder trees grow tall, they create a shady home where other plants and animals can live. Alder twigs feed deer, elk, and moose. Small birds eat the seeds and use the trees for cover and nesting. Beavers eat alder bark and use the branches for constructing their dams. Alder protects fish and other wetland species by providing shade over streams, rivers, and ponds.

The seeds of evergreen conifer trees like cedar, hemlock, and spruce are brought into the alder grove by the wind or by animals. These seeds will grow to be trees even taller than alder. They also live longer—alders only live about 100 years, whereas evergreen conifers can live many hundreds to a thousand years. Eventually, evergreen conifer forests replace alder forests. But alder seeds will continue to travel on the wind to another disturbed site, where they can help heal the soil and start a new forest community!

Nature shows us that diversity among plants and animals is a source of strength and resilience. Every living thing requires support from the whole to survive and thrive. Is human diversity also a source of strength and unknown possibility? Skokomish Elder Bruce Miller said, "Don't teach all of our children exactly the same thing. If you teach them everything all the same, they won't need one other and the world will split apart."

- *How can I strengthen my relationships with plants, the land, and spiritual traditions?*
- *How can I support people who are different from myself? What can I learn from our differences?*
- *How can I contribute to the health of my community?*

Bigleaf Maple – *Willingness*

This large, multi-trunked tree offers a home to mosses, lichens, ferns, insects, birds, squirrels, and other animals. Large leaves create a shady, protective canopy. Each autumn, bigleaf maple releases multitudes of leaves and seeds, which fall to the ground and feed the forest floor. Through welcoming many species and sharing its gifts, bigleaf maple makes new life possible.

Bigleaf maple *(Acer macrophyllum)* thrives in wet forests and open fields. Young bark is green and smooth, while mature bark becomes furrowed and gray-brown in color. Older trees are often covered in mosses and licorice ferns. Massive leaves have five tips like a hand and can grow over a foot in diameter. Flowers bloom in March through April before leaves emerge. They are greenish-yellow and hang in clusters. Each flower is bowl-shaped, cupping many pistils with a downy fur at their base, resembling a tiny bird nest. Bees and other insects harvest the sweet nectar. Fruits are shaped like wings attached in a V pattern. They emerge from the flowers looking like bunny ears popping out of a hole. Once fully developed in late summer, they travel like helicopters in the wind.

Bigleaf maple leaves fall in great quantities in the autumn, providing hiding places for insects and eventually breaking down into compost that contributes to healthy soil. Each spring, thousands of seeds germinate, but only a few survive through summer. Bigleaf maple can grow nine feet in a single year and can live as long as 300 years.

Food: Bigleaf maple flowers are harvested in spring when they are budding on the tip and are fully open at the base of the flower cluster. They are full of sweet nectar and pollen. Try eating the flowers straight, using them as a garnish on salads or soups, or add them to baked goods like pancakes. The tasty, young sprouting branch tips can be peeled then eaten straight or added to salads. They become bitter and tough as they get larger. Bigleaf maple leaves are traditionally used for pit roasting and for wrapping food. In early spring, bigleaf maple trees can be tapped to gather sap. This is heated and reduced into maple syrup.

Maple Flower Fritters

These fritters are delicious with maple syrup and cinnamon on top! You can also use pancake or biscuit mix and dip the flower clusters into the batter.

10–15 maple flower clusters
½ cup flour
½ teaspoon baking powder
A pinch of salt
2 eggs
¼ cup milk
¼ cup oil (sunflower, coconut, or another high-heat oil)
Herbs and spices of your choice

Mix flour, baking powder, salt, and herbs or spices in a bowl. In another bowl, whisk eggs with milk. Turn a medium-sized sauté pan on medium-high heat and add oil. Once heated, dip maple flower clusters in the egg mixture, dust them with flour mixture, and place in the pan. When fritters are golden, flip, and let them brown on the other side. Drain on paper towels. Serve hot.

Traditional Technologies: Bigleaf maple wood burns clean and does not spark—making it a preferred wood in summertime to prevent forest fires. It is good for smoking salmon. The inner bark of the branches can be harvested in springtime and used to make strong cordage for rope. Bigleaf maple is called "paddle tree" by many Northwest tribes and has been used for basketry, house construction, cradleboards, bowls, spoons, and other implements.

Learning from Bigleaf Maple – Willingness

Imagine an old bigleaf maple tree that is firmly planted in the ground and reaching high into the forest canopy. All along the trunk and branches, you will see a variety of mosses, lichens, and ferns. If you get up close, you might find insects living in the plants growing on the tree. Golden spring blossoms feed bees and other insects. Squirrels sprint up the trunk for safety and hop through the branches. Birds sing and chirp down at you.

Bigleaf maple is a reminder of willingness. Notice how it invites a community to grow on its trunk and branches—showing us how we can be with others in an open and generous way. We can also "try on" new experiences and perspectives with an open mind.

Bigleaf maple also teaches us to be willing to let go—as it releases little helicoptering seeds and then leaves in autumn, which blanket the forest floor. In winter, the leaves decompose and release nutrients into the soil. This process feeds the next growth of leaves and buds in spring. In contrast to being willing, notice when you are feeling willful. Are you denying, pushing away, or ignoring something? Can letting go of willfulness allow for growth, change, and new opportunities?

- *How can I let go and open to this situation?*
- *Where is my body holding tension? Am I willing to breathe and let go?*
- *In what ways can I become more willing?*

Camas – *Reciprocity*

In springtime, camas prairies bloom in a sea of dense purple flowers. Many Native families historically traveled to prairies and camped for several weeks to harvest camas bulbs, cook them, and preserve them for later use. Cultivation techniques, including burning, aerating the soil with digging sticks, and weeding out unwanted plants, prevented the prairies from becoming forests. Native People have taken care of the prairies and the prairies have taken care of them in return.

Camas has six-petaled, purple flowers and grass-like leaves. Bulbs grow four to eight inches beneath the surface and resemble small potatoes or onion bulbs. Giant camas (*Camassia leichtlinii)* has darker purple flowers and thicker leaves than common camas *(Camassia quamash).* Giant camas blooms a couple of weeks later and is more common east of the Cascades, in the San Juan Islands, and in Southern British Columbia. Camas can be grown in gardens in well-drained soil with full sun.

Camas prairies are open grasslands that would have been taken over by conifer forests thousands of years ago without management by Native People. Many types of food and medicinal plants thrive on prairies. They also provide open hunting grounds for wild game. When Europeans settled in the Pacific Northwest, they prohibited prairie management techniques by Native People, including burning. This, along with land development, has diminished the prairies to less than three percent of their range just 100 years ago.

Food: Camas bulbs are dug in spring to early summer when the flowers or seeds are visible. This helps to distinguish it from a similar-looking poisonous plant, called death camas *(Toxicoscordion venenosum),* which has white flowers and similar-looking leaves and bulbs. Narrow t-shaped digging sticks that are made from hardwood, bone, antler, or metal make it possible to selectively harvest bulbs without damaging them or disturbing large sections of prairie. Harvesting also aerates the soil and allows moisture pockets to form, making it easier for new seeds to sprout.

To clean camas, pinch off the stem where it enters the bulb and the roots from the base of the bulb. The brown outer skin will peel off easily and you will be left with a white bulb that resembles an onion. Rinse remaining dirt from the bulbs. If you are pit-roasting camas, you can leave the outer skin and peel the bulbs once they are cooked.

If camas has gone to seed, sprinkle the seeds back on open soil. Only keep bulbs that are attached to seeds or flowering stalks, since death camas bulbs and leaves look almost identical. The small bulb-like roots can be roasted, boiled, or dried for use as a winter food. When they are roasted slowly and for a long time, they become sweet. A compound in camas called inulin helps to support gut health and provides carbohydrates without raising blood sugar.

Spring Salish Soup

This delicious soup is packed with spring vitality. Nettles are incredibly nutrient-dense and salmon provides essential fatty acids and a protein. White beans can be used as an alternative to the camas and leafy greens like chard or kale can be used in place of nettles.

3 tablespoons olive oil
1 large onion, chopped
3 cloves garlic, minced
6 cups of water
3 cups fresh or frozen camas bulb, or 2 cups dried camas
1 grocery bag full of fresh spring nettles
2 cups of baked, canned, or smoked salmon
Salt and pepper to taste

In a soup pot on medium heat, cook the onions and garlic in olive oil until they become translucent, about 5 minutes. Add water and camas, bring to a boil. Turn down heat, cover with a lid, and simmer for about 20 minutes. While the soup is simmering, wash nettles in a colander then cut them into small pieces with scissors. Once the camas is tender, add the nettles. Cook an additional 5 minutes. Add the salmon and then season with salt and pepper. Cook time 40 minutes. Serves: 4–6.

Learning from Camas – Reciprocity

Camas is one of the most important Native foods or "First Foods" in the Pacific Northwest. First foods have been integral to Indigenous cultures for millennia and are often featured in important teaching stories and ceremonies in Indigenous communities. Camas teaches us how plants care for people and people care for plants. We receive and we give back.

Camas – A Plateau Native Story, as told by Roger Fernandes, Lower Elwha Klallam.
A long time ago in a village, there was a time of great hunger. There was no food to be found–no game to hunt, no plants to gather. The People were very hungry. There was a grandmother who heard her grandchildren crying because they were hungry. She was so sad that she had nothing to give them. She left the village and went up a hill nearby. She began to cry. She cried for her grandchildren. As she cried, she began to sink into the ground. After a while, she was gone. She was under the earth. Her grandchildren missed their grandmother. They wondered where she was and began to look for her. They climbed the hill, and as they reached the top, the granddaughter said, "Grandma is under the ground! I can feel her!" The children dug into the ground and found camas bulbs. Grandmother had become camas, and now the children and the People had food to eat. Camas is a main food of the Native people of the Plateau region. And that is all.

- *Who do I care for, and who cares for me?*
- *I receive and appreciate the gifts of the land. What does this look like for me?*
- *I give back to the land to support future generations. What is my commitment?*

Cedar – *Kindness and Generosity*

In Coast Salish traditions, Western Red Cedar is called Grandmother, Long Life Maker, and Rich Woman Maker. The gifts of cedar include materials for building grand longhouses and swift, rot-resistant canoes, and for making durable clothing, tools, art, and medicine.

Cedar *(Thuja plicata)* is a tall evergreen tree with a drooping top, a wide buttressing base, and a fluted trunk with gray to cinnamon-red bark. Leaves are flat and scale-like. Branches are often J-shaped. Small, round, male cones mature in summer and give the tree a yellowish appearance. They release pollen that makes the air appear hazy and covers everything in golden dust. Cedar seed cones are shaped like rosebuds. Cedar trees can live to be over 1,000 years old. They provide homes to birds, squirrels, and other small mammals. Cedar roots may connect with other trees through mycelia—or fungal networks—and share nutrients with young cedars and other types of trees that are distressed.

Medicine: Cedar leaf can be made into a tea, bath, respiratory steam, or infused oil. Some of the traditional uses include making a cedar bath or topical medicine for painful joints, and the tea for coughs and fevers. The dried leaves make a wonderful incense and are used in smudging for purification.

Cedar is a powerful antimicrobial. Scratch the leaf and you will notice strong smelling oils, which repel insects, molds, fungi, bacteria, and viruses. Cedar also promotes immune function through stimulating white blood cells. Cedar can be used topically as an infused oil for the skin, a bath, a steam, or incense. To use fresh cedar leaves for medicine—just chop them fine with scissors or coarsely chop them and place them in a blender or food processor. Fresh cedar-infused oil can be used for body oil or in salves and creams. To make it, use a double boiler and gently heat it for up to a week until it is deep green and smells like the forest. Dried cedar leaves also have good medicine. Bundle several small branches with a rubber band and then hang them in a place with good ventilation, or dry them in baskets.

<u>Cedar Respiratory Steam</u>

Cedar is one of the most useful medicines for fighting coughs and sinus infections. Place a handful of dried or fresh finely chopped cedar in a medium-sized bowl. Pour boiling water over the cedar until the bowl is half full. Put your face over the bowl at a comfortable distance and cover your head with a towel. Breathe deep! Steam for 3–5 minutes several times a day. You can add 1–2 drops of essential oil like eucalyptus, rosemary, or mint.

<u>CAUTION</u>: Consult an Elder, herbalist, or knowledge keeper on when and how to use cedar internally as it is only used in small amounts and is not safe during pregnancy.

Traditional Technologies: Cedar bark is prized for its durability, flexibility, and water resistance. Soft fibers have been used for clothing, mats, napkins, towels, and even diapers. Weavers create ornate cedar baskets and hats with narrow strands of cedar bark. Long straight cedar roots are split and used in basket-making. Long branches can be split and made into rope, fish traps, binding material, and baskets. Harvesting cedar bark in springtime is a Native tradition that remains vibrant today, although cedar is more challenging to find. Protocols for gathering and honoring the tree are still practiced. Cedarwood is highly rot-resistant and beautiful. Native carvers use it to make masks and welcome figures.

Learning from Cedar – Kindness and Generosity

This abbreviated Coast Salish story from Lower Elwha Klallam storyteller Roger Fernandes speaks to the teachings of cedar:

A long time ago there was a tall and strong Grandma Cedar Tree. One day, a little tree, who was her grandson, began to grow next to her. She happily watched him grow and grow. She also was able to protect him from the wind, the hot summer sun, and the hungry deer. When he was lonely, she called the birds to his branches to keep him company. So he grew healthy and strong until he was bigger than his grandma.

Grandma was getting very old, and she needed protection and care. Grandson Cedar was able to protect Grandmother from the strong wind, the hot sun, and the hungry deer. He was also able to call the birds to her branches when she missed her old tree friends. One day she said, "Grandson, don't worry about me. I am old now. Take care of yourself. Do not worry about me anymore." But he said, "Grandma, when I was little you protected me from the strong wind, the summer's hot sun, and the hungry deer. And when I was lonely, you called the birds to me so I would have company. Grandma, you did all these things for me, and now I will do them for you." And so, Grandson Cedar Tree took care of his beloved Grandmother Cedar Tree.

Take a moment to focus your attention on your inner self. Perhaps you can sit at the base of a cedar tree or smell cedar leaves. What do you need right now? What do others around you need right now? When you have the ability to help and care, you can offer that support and enjoy seeing your gifts help others to thrive. Generosity is not just about giving, it is also about receiving. When we graciously accept help, we are part of an exchange of energy that supports healthy and connected individuals and communities.

- *What does it look like to be gentle and kind?*
- *Can I receive generosity and kindness with an open heart?*
- *How can I practice generosity in my life right now?*

Cottonwood – *Wellspring*

A cottonwood tree can tap into deep sources of water in the earth and bring it to the surface. This wellspring is associated with spirit—the essence of who we are and where we come from. In some Native cultures, cottonwood is also associated with the stars. If you cut a small branch, you can see the star inside.

Cottonwood (*Populus trichocarpa)* grows 150–200 feet tall and towers above groves of willow and alder in river valleys and floodplains. Grey bark becomes deeply furrowed with age. Winter buds are full of fragrant yellow-to-red resin. Leaves are shiny and dark green above, and silvery below. They have rounded to heart-shaped bases and finely-toothed edges. Male and female flowers grow on separate trees. Male catkins are reddish. Female catkins have light green capsules that release seeds with white, fluffy down. Cottonwood fluff flies great distances on the wind and can be so thick that it looks like snow falling in summertime.

Cottonwood is a whole ecosystem within itself. Roots pump water from the ground and carry it up to the massive canopy of leaves, providing shade that keeps the river water cool for salmon and other species. The filtered light and rich leaf mulch created by the canopy also support a vibrant habitat for shorter plants. Insects make homes in soft cottonwood trunks and woodpeckers hammer holes to find them. These cavities become nests for birds, squirrels, and raccoons. Eagles, osprey, and great blue herons make platform nests in the upper branches of cottonwood. Beavers eat the wood and use logs to build dams. Cottonwood resin is sometimes called “bee glue” because bees gather it to make propolis, a sticky brown substance they use to seal their hives against invading insects, microbes, and harsh winds.

Food: Cottonwood catkins are rich in Vitamin C and can be eaten raw or added to soups.

Medicine: *Populus* means “the people” in Latin, and cottonwood is called the people’s tree. It is a beloved plant around the world and is also called “Balm of Gilead.” A compound called salicin, which is found in the leaves, buds, and bark, lowers fevers, reduces inflammation, and eases pain. Cottonwood bud oil is a favorite remedy for swollen arthritic joints and sore muscles. It is also high in antimicrobials and antioxidants that heal and protect skin. Use it for sunburns (use cool water and aloe vera first to cool the burn), chapped lips, wounds, and eczema.

Cottonwood leaves are harvested in spring through mid-summer. They dry well in baskets or paper bags and will keep for about a year. You can use them in teas or herbal baths for reducing pain and inflammation.

Cottonwood bark is made into a decoction for breaking fevers and fighting infection, including coughs and sore throats. It can be harvested in any season but is most potent in spring and fall. To harvest, choose lower or recently fallen branches. Strip bark with a knife, leaving behind the hard inner wood. Dry in a basket or paper bag. The bark has a bitter, yet aromatic, flavor. Use a small handful of peeled bark or a heaping teaspoon of finely cut bark per cup of water. Simmer for 10–15 minutes. Drink ½ to 1 cup up to 3 times a day.

CAUTION: People who are allergic to bees or aspirin should avoid using cottonwood.

Cottonwood Bud Oil

Harvest cottonwood buds in January through March. If you are lucky, a windstorm will knock down tall branches with large buds. Some have catkins inside which do not have as much resin and are not as medicinal. Snap the leaf buds off the branches and place them in a plastic bag.

You Will Need: Extra virgin olive oil (enough to cover the buds), a double boiler, a pressing cloth like muslin, a strainer, a glass jar for long-term storage, and a label.

Place your buds in a double boiler and fill with olive oil until the buds are completely covered. Heat on a very low setting. Do not allow the olive oil to get hot enough to boil! Turn the burner on and off to keep the temperature low. Heat for a day to several days. The oil will become very fragrant. Pour this into a glass jar and let sit for several weeks to several months. Press out the oil through muslin cloth. Let the pressed oil rest for an hour or so. If there is any water or solid material, it will fall to the bottom of your container. Pour your oil (minus any water or solids at the bottom) into a glass storage container with a tight-fitting lid. Label and store in a cool, dark place. Cottonwood oil will last several years.

**Helpful Hint:* Sticky cottonwood resin will adhere to anything else it touches. To remove it, use a high percentage rubbing alcohol. Oil or hand sanitizer will also remove it from your hands.

Traditional Technologies: Native People have used cottonwood resin for waterproofing. The fruit capsules and buds are used to make dye. The wood is soft and lightweight when dry, and is grown in plantations to make pulp for paper.

Learning from Cottonwood – Wellspring

In many cultures around the world, water is associated with our inner emotions and our spirit. Cottonwood is a reservoir of water. A single tree has miles of roots that anchor deep in the earth, drawing massive amounts of water up to the surface. It can hold this water in its trunk and breathe it out through its leaves, thus helping to generate rain. Cottonwood reminds us to dive inside ourselves and access our inner spirit. We are connected to a greater source of strength.

- *When I feel alone, isolated, or overcome with fear, can I bring these emotions to the light without judgement?*
- *What teachings, traditions, or skills do I have to help me tap into my inner source of strength?*

Dandelion – *Problem Solving*

Dandelion is resilient. Each plant produces thousands of seeds that can fly miles in the wind and take root in the most depleted soil, including cracks in the sidewalk, dry fields, and roadsides. Roots grow fast– breaking up hard soil and releasing nutrients. Dandelion provides nutritious food and powerful medicine to people and many other species. It reminds us that gifts are sometimes "weeds" found right under our feet. We too can rise up from difficulty and become medicine.

Dandelion *(Taraxacum officinale)* is a common plant that is surprisingly easy to misidentify. Many look-alike plants have similar leaves, but dandelion leaves are hairless. They have deeply toothed edges, hence the French name: "dent de lion," or lion's tooth. Roots and stems exude a white sap. There is only one flower per stem. Seeds form "wish balls" that are carried away with the slightest breeze or breath. The flowers are pollinated by over 90 insects.

Food: Dandelion leaves can be a gourmet green if you know when to harvest and how to prepare them. While they taste a little bitter, they add flavor variety as well as concentrated nutrients to dishes. They can be steamed, sautéed, or boiled, and incorporated into dips, casseroles, and soups. Boiling older leaves in a pot of water for about five minutes removes some of the bitterness. They are high in vitamins and minerals including potassium, calcium, magnesium, iron, and vitamins A, B, and C.

Dandelion buds can be eaten like capers when they are still tight little buttons. They look like little watermelons and taste best cooked or pickled. Remove sepals (they look like tiny leaves) to decrease bitterness.

Dandelion flowers have a sweet and mild flavor. The base of the flowering head and the green sepals are bitter. You can pull the flowers off and use them straight in salads or add them to cooked foods like quiche, pancakes, muffins, and fritters. They are high in vitamin A.

Medicine: Dandelion is one of the oldest documented medicinal herbs. A European variety was intentionally imported to the Americas on the Mayflower ship (around 1620) as a food crop and a panacea or "cure-all." It spread and was quickly incorporated into American Indian medicine.

Dandelion leaves are used as a simple and safe diuretic, meaning that they help the kidneys to excrete excess water from the body. They can be eaten, dried and made into tea, powdered and placed in capsules, or infused in vinegar. Dandelion flower is a popular addition to facial cleansers and creams because of its high nutrient content. The flower oil is also used topically for inflammation, sore muscles, and arthritic joints. The milky, white sap from the plant inhibits the growth of warts. Try dabbing warts with sap daily for a couple of weeks.

Dandelion root generally helps our body to get rid of waste products. It supports our liver, an organ that is responsible for breaking down dietary toxins, drugs, hormones, and metabolic waste. It also promotes the elimination of excess uric acid, which can cause tissues to become more inflamed and reactive, potentially leading to allergies, hay fever, and gout.

Arthritis, acne, psoriasis, hepatitis, and premenstrual syndrome may be improved by taking dandelion. Dandelion root also acts as a gentle laxative through stimulating bile, which helps us to break down fat, and through promoting the rhythmic contraction of the intestines.

Dandelion root contains up to 25% inulin—a compound it produces to store energy. Inulin helps us to absorb minerals including calcium and magnesium, and is also a prebiotic—meaning that it feeds healthy gut flora. Inulin provides some of the energy of carbohydrates without the need for insulin, making it an ideal plant for diabetics. In addition, diabetics are typically deficient in minerals, and dandelion helps to replenish these.

To receive the optimal anti-inflammatory and liver supportive benefits of dandelion, use fresh roots by eating them or making glycerite or vinegar with them. The dry root tea is boiled as a decoction and is nutritive, good for digestion, and detoxifying.

Dandelion Root Latte

When dried dandelion root is roasted it gets sweeter and is reminiscent of coffee. Place chopped, dried roots on a cookie sheet and roast in an oven for about 30 minutes at 275°. When the roots turn golden brown and begin to smell sweet and roasted, they are done. Place 1 teaspoon per cup in a pan of cold water, bring to a boil, and turn down to simmer for 5–10 minutes with the pot covered. Serve hot with milk and honey.

Learning from Dandelion – Problem Solving

Dandelion is masterful in problem-solving. It can grow just about anywhere and its seeds are known to travel as far as five miles in the wind. If soil is hard and infertile, dandelion roots create pathways for water to enter, break down minerals, and create fertile ground. When mowed, dandelions quickly flower just under where the mower will cut. When weeded, a tiny piece of root left in the soil will grow into a new plant.

Sit with or notice dandelions growing around you. Take a few deep breaths and think about the challenges that you face in your life. Consider how dandelion finds creative solutions to many of its challenges. Think through these steps in problem-solving:

- *What is one challenge you face right now?*
- *What would you like to see happen with this challenge? Name your goal clearly.*
- *What do you think is contributing to the challenge? What are the facts? Looks for as many perspectives as possible.*
- *Brainstorm solutions—be creative and think of as many as you can!*
- *Decide which solution best fits with your goal.*
- *Put your plan into action.*
- *Evaluate how it worked.*
- *What would you change next time?*

Douglas Fir – *Adapt*

Douglas fir has been here for millions of years—adapting to extreme changes in the land, climate, and species living around it. It can take many growth forms, including a scraggly bonsai-looking tree shaped by harsh weather, and a 1,000-year-old giant with a 15–foot trunk and a tall crown surpassing 300 feet. Tough Douglas fir needles withstand cold temperatures without freezing and will hold onto water during drought. Its thick bark protects it from fires.

Douglas fir *(Pseudotsuga menziesii)* is an evergreen conifer, meaning that it keeps its needles all year long and bears woody cones. It is the most common tree in the Pacific Northwest and is the third tallest tree in the world. Young bark is gray and smooth with resin blisters, but when it grows over a foot thick, it begins to turn corky, reddish-brown, and deeply furrowed, making it the "grooviest" tree in the forest. Needles are all the same length, are pointed at the tip (but are not sharp), and are spirally arranged around the branch like a bottlebrush. They smell like citrus and pine when crushed. Woody female cones hang down and have three-pronged bracts that resemble the tail and rear feet of a mouse.

Food: Douglas fir spring tips are edible and are high in Vitamin C and electrolytes. You can eat them fresh, freeze them, or dry them. Both hot tea and sun tea are tasty. Douglas fir tips are also a nice addition to foods like pesto, shortbread cookies, and sauces. The tips can be infused in honey or vinegar and used for flavoring syrups and desserts including ice cream. You can carefully dry them for later use or freeze them. As the needles get older they develop more tannins, become tough, and are less aromatic, but you can still use them for tea.

<u>Nature's Gatorade</u>

In springtime, Douglas fir tips are tender and delicious. They are high in Vitamin C and electrolytes, and are sometimes called "Nature's Gatorade" and "the original energy drink." For generations, Coast Salish People have valued them for warding off hunger and thirst during intense physical activity or travel. You can eat a few tips straight or make them into a hot infusion or a sun tea. The hot tea tastes stronger but is less aromatic. Steep the tea in cool water for several hours or overnight for best results. You can also add the tips to water with lemon, strawberry, cucumber, or other fruits to make refreshing flavored water.

Medicine: Like other evergreen conifers, Douglas fir needles and pitch are high in aromatic resins that fight infection and stimulate immunity. Tea made from fresh young needles or dried older needles is useful for fighting colds and boosting energy. Douglas fir also supports skin health through inhibiting microbes, providing Vitamin C, and acting as a gentle astringent. The dried needles make a nice aromatic bath. Wilted and finely chopped needles are infused in oil to make body oil, lotion, or salve. Soft pitch is used directly on wounds or added to salves.

Traditional Technologies: Douglas fir resin is traditionally used for waterproofing canoes, tools, and implements. The bark and pieces of the rotten wood (punk) from stumps or fallen trees make excellent fire starters and fuel for cooking. It is a good wood for summertime because it burns hot and clean, yet does not spark. This reduces the chance of starting a damaging fire. Douglas fir bark or chunks of wood from a stump light quickly and burn for a long time. The wood is hard and resilient. Big posts and cross beams are made from fir. Timber companies often plant it because it is adaptable and it yields the highest amount of timber of all trees in North America. It is used for lumber, plywood, pilings, marine structures, railroad ties, flooring, furniture, pulp, and many other things.

Learning from Douglas Fir – Adapt

Find a Douglas fir tree. Take a few minutes to relax and open your senses. Notice the thick, groovy bark of the tree, protecting it from fire and other damage. Look closely at its needles. Can you see a thick, waxy coating? This helps the needles to hold onto water when it is hot and to buffer extreme cold. Scratch the needles. What do you smell? Can you find pitch covering any injuries on the tree? Pitch is similar to a Band Aid® and triple-antibiotic in one–protecting the tree from harm. Look closely at the cones and see if you can find the three-pointed bracts sticking out of each scale that resembles the tail and hind feet of a mouse. In a Coast Salish story, it is said that a long time ago, mice were running from a fire and climbed into Douglas fir trees to find refuge. They hid in Douglas fir cones and are still stuck there today. What else do you notice about Douglas fir? Reflect on these questions:

- *What helps me to adapt in challenging situations? (rest, good food, time with family or friends, cultural and/or spiritual activities)*
- *How do I know I am in a harmful situation?*
- *How can I protect myself when I am in a harmful situation?*
- *What can plants teach me about being resilient in times of change?*

Fireweed – *Restore*

Fireweed is often the first plant to return to burned or logged areas. Fluffy seeds fly in the wind and quickly rise up steadfast and strong. Roots form a network that stabilizes and regenerates the soil. Flowers provide nectar to pollinators and add beauty to the barren landscape. Over time, fireweed helps restore a healthy ecosystem.

Fireweed's (*Chamaenerion angustifolium*) purplish-red stems grow up to seven feet tall and are covered with willow-shaped leaves that are dark green above and silvery below, hence the common name "willow herb." The central vein is distinctly light-colored and extends straight out to the tip of the leaf. Lateral leaf veins have a unique quality—they do not extend to the outer edge of the leaf, but loop together near the margin. This makes it easy to identify before it flowers. At the top of the stems, four-petaled purple flowers form spikes and are almost luminescent. Unlike most other flowers, they bloom low on the stem first and work their way up toward the top. Fireweed fruits are long and very narrow. They split open to release hundreds of seeds, each with a white feathery tuft that easily flies in the wind. Fireweed usually grows in large patches. Each above-ground plant may be connected to others by roots. You will find patches along roadsides, forest edges, clear-cuts, and in open fields from low to high elevations.

Food: Fireweed shoots are a nutritious spring food containing Vitamin C, flavonoids, and beta-carotene. They are delicious when eaten fresh or lightly cooked. Sauté them or steam them like asparagus so they still have a little crunch to them. You can detect a little mucilage—a slippery substance that makes your mouth feel smooth. Once the shoots become a little older you may want to peel the fibrous outer skin off. Try pinching young leaves off and eating them like spinach. Larger stalks can be split and the inner pith scraped out and eaten as a sweet treat. This is also high in mucilage and can be used as a thickener for soups and other dishes. Flowers can be used as a garnish and also make a tasty pink jelly.

Medicine: Fireweed is a gentle yet effective anti-inflammatory. Tannins in fireweed act as an astringent, meaning they tighten puffy tissues. Fireweed leaf tea is tonic to the digestive system—creating a healthy environment where beneficial digestive bacteria can flourish, nutrients can flow into the body, and waste products can easily move out. It has antifungal properties and helps to normalize the flora of the gut. Research shows that our guts are an important part of immune function and other aspects of our health. If they are functioning poorly due to imbalanced flora, inflammation, improper food absorption, or food moving through at the wrong speed, many things can go awry. Think of fireweed as a soothing friend to the constant work of digestion. Try using it for imbalances due to a change in diet, when recovering from food poisoning, irritable bowel syndrome, or chronic low-grade diarrhea or

constipation. Fireweed is great at bringing things back to a state of balance, but it is not antibacterial or anti-protozoal. If you have giardia or some other type of gut infection, make sure to treat it, and then use fireweed to help bring things back to a state of balance.

Native People from Alaska all the way down the West Coast use fireweed for food and medicine. Skokomish Elder Bruce Miller recommended fireweed tea for sore throats and lung congestion. Fireweed has antispasmodic properties, making it useful for asthma, coughs, and intestinal spasms. The roots can be dug and mashed to make an anti-inflammatory poultice.

Fireweed Tea

Harvest fireweed leaves for tea around the time the plant flowers. Hold the stem just below the flowers with one hand, with the other, pinch the stem between your thumb and pointer finger, and push down the length of the stem, gathering the leaves that are green and vibrant looking. This way insects can enjoy the flower nectar and the plant can reseed itself. Dry the leaves in baskets or paper bags. Store in glass jars or bags and keep in a cool, dark place. They will remain potent for about a year. Use one small handful of leaves per cup of boiled water and steep for about 15 minutes. Drink 1–3 cups a day. The tea has a pleasant, mild taste and can be mixed with other herbs for flavor.

Traditional Technologies: Seeds can be used as a fire-starter and as a cotton-like stuffing. They are so abundant on stalks that you can easily harvest a large amount from a stand of plants. Salish People wove fireweed fluff with mountain goat wool for making blankets. The fiber from the tall stems is used to make cordage.

Learning from Fireweed – Restore

When land is damaged, it is fireweed that brings the first promise of recovery. It reminds us that nature has her healing cycle, one initiated by this lush, fiery medicine springing up in abundance. Fireweed is not a plant medicine you take just once for positive effects—it is used over the long-term. Often, long-standing imbalances do not show up overnight, but develop over time, and our body takes time to recover. Fireweed represents the promise that beauty and balance will return after bodily illness or environmental destruction.

Think about your own healing journey. Are there things you can do to nurture yourself, both in the present, and with long-term commitments? Perhaps writing in a journal, taking a daily walk, finding time for prayer or personal reflection, preparing food for yourself or others, or making tea on a regular basis will support you.

- *What actions can I take right now to restore my physical and emotional health?*
- *Is there something I can do to repair the harm I have caused others?*
- *What plants, places, and people can help me heal my wounds and support my growth?*

Hawthorn – *Courage*

Hawthorn is a tree with many gifts. Flowers provide sweet nectar to pollinators and animals eat the nutritious berries. Large thorns protect the tree from grazing animals and offer a safe haven for small birds and other creatures to nest and hide. People value hawthorn as medicine for strengthening the heart and blood vessels. It eases pressure on the heart and can be protective in times of physical and emotional stress.

Hawthorn is a medium-sized tree that grows around the world. Branches are armored with large thorns. Leaves are toothed and medium to dark-green colored. Flowers are small and pinkish-white, and bloom in thick clusters. They smell a little fishy and attract pollinators including bees and flies. Berries have large seeds like cherries. Native black river hawthorn has deep green leaves and blue-black berries. European hawthorn has small, deeply lobed leaves and red berries. There are over 100 species of native and cultivated hawthorns in North America, but not all of them are medicinal. You will find black hawthorn growing along rivers and forest edges, while European hawthorn is found in fields, forest areas, and city landscapes.

Food: Hawthorn leaf buds and young leaves are called “pepper and salt” in England and are traditionally eaten in salads. The berries taste sweet but they contain a large seed that is not edible (it contains cyanic acid like cherry pits and apple seeds). You can eat the outer flesh and spit out the seed. Cyanic acid dissipates once the berries are cooked or dried. Hawthorn powder from the berries is added to flour in Northwestern Africa and is high in the trace minerals selenium, which is important for immune function, and chromium, which enhances the function of insulin—a hormone that regulates blood sugar levels. Hawthorn berries are also used to make jelly and are high in a thickening agent called pectin; so only half the generally recommended pectin is required to get a jelly consistency. Pectin content is highest in the early fall and decreases once the berries become very ripe. Crabapples, rosehips, and hawthorn make a delicious jelly.

Medicine: Hawthorn supports our heart and blood vessels. It is used both as a daily tonic for promoting general wellness and as a medicine for treating a wide range of cardiovascular disorders. Antioxidants in hawthorn strengthen blood vessels, help heal damaged vessel walls, and make arteries more pliable. If used regularly, hawthorn can help balance both high and low blood pressure through increasing the heart’s ability to contract, while gently relaxing outer

blood vessels so the heart has less resistance to pump against. It also relaxes smooth muscles of the coronary artery walls and allows more blood to flow into the cells of the heart. Hawthorn may be helpful for those with cardiovascular disease, varicose veins, Alzheimer's disease, cataracts, glaucoma, and the side effects of diabetes, including diabetic retinopathy, kidney damage, and vascular degeneration. Hawthorn is also astringent and helps tighten inflamed tissue. Native hawthorn is traditionally used for sore throats, diarrhea, and upset stomach.

CAUTION: Hawthorn should not be used with cardio-active pharmaceuticals like digoxin or beta-blockers. If you are on heart medicine, consult a doctor before using hawthorn.

Hawthorn Tea

Harvest leaves, flowers, and berries by cutting healthy-looking branches with clippers. You can take a "pruning" approach and improve the shape of the tree. Be careful to avoid the thorns! Dry branches whole in baskets or paper bags, or bundle them with rubber bands and hang them. You can also pick leaves, flowers, or berries off the branches when they are fresh and dry them. A food dehydrator works well at about 100 degrees. Flowers may smell slightly fishy when drying, but this will soon disappear.

Once completely dry, the leaves, flowers, or berries can be carefully removed from the branches. Store in glass jars or paper bags in a dark, dry area. Dried hawthorn will last about a year. To make tea, steep a tablespoon of leaves, flowers, and berries in a cup of boiled water for 15–30 minutes. The berries can also be boiled for ten minutes. Drink 1–3 cups a day.

Learning from Hawthorn – Courage

"Courage is a heart word. The root word of courage is cor—the Latin word for heart. In one of its earliest forms, the word courage meant 'To speak one's mind by telling all one's heart.' Speaking from our hearts is what I think of as ordinary courage." –Brenè Brown

Sitting quietly, you might close your eyes, put a hand on your chest, and sense your heart. Can you feel it beating? Is it relaxed and rhythmic, fast and jumpy, or something else? Can you feel your heartbeat in any other part of your body? Reflect on the medicine of Hawthorn's flowers, leaves, and berries, which strengthen our heart and blood vessels, and also remind us of the compassionate power of our heart. Hawthorn medicine can soothe, strengthen, and bring courage when we most need help. It reminds us to tend and listen to our hearts, particularly in times of distress when we might feel afraid to take another step, or to show up as we really are, not as others would like us to be. Hawthorn reminds us we are not alone, and that we can listen to the kind wisdom of the heart.

- *How can I commit to showing up and facing what I fear?*
- *When I feel isolated, what will nourish my heart and help me feel connected?*
- *How can I love and give attention to the parts of myself that feel shame, guilt, and fear?*

Hemlock – *Humility*

Hemlock trees often begin their life growing on nurse logs and stumps in complete shade. Over time, these tiny saplings mature into tall, resilient trees that can live over a thousand years old.

Hemlock (*Tsuga heterophylla*) is an evergreen tree with a distinctive drooping top, a narrow crown, and feathery, drooping branches. Needle-like leaves are green above, have two fine white lines below, and are blunt at the tip. They are different lengths and protrude out of the sides of twigs—giving them a flat appearance. Twigs are hairy and yellowish-green with peg-like bases where needles have fallen. Hemlock bark is silvery brown and furrowed, but not as deeply furrowed as Douglas fir. Pollen cones are yellow and are only 2–3 centimeters long. Seed cones are egg-shaped and ½ to 1 inch long with rounded scales. Seeds have a wing that can fly half a mile on the wind. Many people mistakenly think the hemlock tree is poisonous because it is confused with "poison hemlock," an entirely different plant in the carrot family.

Hemlock is known as a "climax tree" in the Pacific Northwest because it can grow in full shade and outlives other trees that are dependent on sunlight. If untouched by humans or natural disaster, Northwest forests would be dark woodlands of giant hemlock. It has the densest canopy of any tree species in the west, and few understory plants can grow beneath it. Hemlock has the highest growth rate ever recorded and can reach 180 feet tall. It is the state tree in Washington, and is the most common forest tree in Alaska and on the north coast of British Columbia.

Food: The limey-green spring tips of hemlock are edible and have a refreshing tart flavor. High in vitamin C and electrolytes, they make a good snack, delicious tea, and/or infused water for warding off hunger or thirst. Native Americans have harvested the inner bark of hemlock in springtime and prepared it as a food called "bark bread." The inner bark is rich in sugars, starches, and compounds with immune stimulating properties.

Medicine: Hemlock is an important traditional medicine for Northwest Coastal Native Peoples. The boiled leaves and bark have long been used for treating tuberculosis, rheumatic fever, and hemorrhage. The pitch has antimicrobial and immune stimulating properties and can be used as a poultice on wounds and insect bites. It is also used as a salve for treating chest colds and to prevent sunburn. Hemlock bark tea is astringent and has been used to stop bleeding.

Hemlock Tree Tea

Evergreen tree needles including hemlock, Douglas fir, grand fir, and spruce are high in Vitamin C, antioxidants, and antimicrobial compounds—perfect medicine building resilience during fall and winter. You can use them for making flavored water, dried leaf tea, or infused oil that can be used as a base for body oil, cream, or a chest rub for fighting coughs and colds.

You can harvest hemlock needles any time of year. Bundle branches with rubber bands and hang to dry in a warm place with good air circulation. You can also dry them in baskets or a dehydrator on a low setting. Once completely dry, needles will easily come off the branches. Use 1 tablespoon of tea per cup of boiled water and steep 15–20 minutes. See the tea section on page 69 for a recipe on Forest Medicine Tea with Douglas fir, spruce, rosehips and elderberries.

Traditional Technologies: Coast Salish People use hemlock bark to create a reddish-brown dye for coloring wool and for making fishnets invisible to fish. The branches are traditionally lowered into the ocean near rivers for herring to lay their eggs on them. Later, they can be lifted from the water and the herring eggs collected. Hemlock wood is heavy, durable, and easy to carve.

Learning from Hemlock – Humility

This common Coast Salish story is often adapted based on what behaviors are causing challenges like not paying attention, bullying, or being pushy.

A long time ago, the Creator was giving the first cones to all the evergreen conifer trees with needles. The pines, true firs, hemlocks, and Douglas fir were all there, and they were told to line up. Western hemlock was not paying attention—he was playing by himself. By the time he realized it was time to line up, he was last, and he got the smallest cones of all the trees that were there. See the bent top? He still hangs his head with humility.

Having humility means that we are always learning and growing. Rather than defending ourselves or needing to be "right", we can acknowledge that we make mistakes and are willing to learn new perspectives and skills. We can say, "I don't know" when we don't. Everyone—from children, to powerful leaders, to elders, is always learning. Through being humble, we can grow wiser and build healthy relationships with others.

- *What is a situation when I was able to practice humility?*
- *When have I seen others practice humility? What did that look like?*
- *How can humility help me to learn and grow in my life right now?*

Licorice Fern – *Find Your Voice*

Licorice fern grows on moss-covered tree trunks and branches in shady forests. If you reach beneath the layers of moss, you will find a network of rhizomes growing on the surface of the tree. Scrape off the moss and dirt, and taste the licorice flavor of the rhizomes. These are used to soothe sore throats and give people a strong, clear voice.

Licorice fern (*Polypodium glycyrrhiza*) is a small fern that grows on trees including bigleaf maple and alder, nurse logs, old stumps, and rocks. Each fern frond is about eight to 12 inches long with a fairly long stem. Leaflets are longest about a quarter way to the tip and become shorter toward the base. The entire length of each leaflet is attached to the stem. Leaves appear shiny green on top and have spores on the underside. They are lush in fall through spring but die back in summer during the dry, warm season. The brown rhizomes are long, thin, and knobby with tiny black roots. The inner flesh is whitish-green. Licorice fern grows in coastal rainforests from Northern California up into Alaska.

Medicine: The rhizomes of licorice fern are valued for their ability to soothe sore throats, lung irritation, coughs, and allergies. Some Salish singers suck on small pieces of the rhizome to soothe their throat. In the book *Medicinal Plants of the Pacific West*, herbalist Michael Moore recommends licorice fern when people are experiencing inflammation and hypersensitivity. This might be from something in the environment like a bee sting, touching something you are allergic to, or eating a food that causes you to be reactive. Your skin might be swollen or irritated, you might have diarrhea, or it may cause throat or lung irritability. If the response lingers once you have removed the environmental or food irritant, consider using licorice fern. It will gently calm the over-excited inflammatory response. You can suck on a small piece of fresh rhizome or dry it and make tea. Fresh rhizomes may cause mild nausea in some people whereas dried ones will not. The best time to harvest is late summer to mid-fall, but you can gather it any time of year. Licorice fern can also be added to other medicine as a sweetener.

To harvest, run your fingers under moss and gently remove the rhizomes. Rub moss and dirt off the rhizomes, and pull off the thin black roots. Rinse the roots with water and dry them off with a towel. Dry in a dehydrator on a low setting or in baskets in a warm place with good ventilation. You can chop the rhizomes when they are fresh or once they have dried.

CAUTION: Do not use licorice rhizomes if you have aspirin allergies or if you are on anticoagulant drugs.

Licorice Fern Tea

This licorice-tasting tea can be drunk straight or you can add other herbs like orange peel, ginger, and cinnamon. Use about 1 teaspoon of finely chopped rhizome per cup of cool water. Place in a pan and gently bring to a boil. Turn down heat and simmer for about 10–15 minutes. Strain and enjoy! Drink ½ to 1 cup to 3 times a day.

Licorice Fern Honey

To make licorice fern honey, finely chop the fresh rhizomes and place them in a double boiler. Pour honey over the plant material so it is just covered. Heat gently, turning the stove on and off, for several days. Make sure the honey does not get hot enough to boil. You can also gently heat the honey in a dehydrator for several days to a week. Stir once a day. Strain the honey through muslin cloth and store in a glass jar for up to 2 years. Use a teaspoon straight in tea to ease coughs and sore throats.

Learning from Licorice Fern – Find Your Voice

A Coast Salish story as told by Lower Elwha Klallam storyteller Roger Fernandes:

A long time ago, the People had small voices. They could barely hear each other when they talked. When the People spoke to each other, they couldn't hear one another. Their voices were so quiet and so small that they couldn't always understand one another.

One day, a woman from the village was walking through the woods. As she was walking, she heard a voice that said, "Come here" and the woman asked, "Who is that?" "Over here," the voice said. The woman went towards the voice and there before her was licorice fern.

Licorice fern said "Chop up my roots and taste them." So the woman did as licorice fern instructed, she chopped up licorice fern's roots and tasted them and (in a big voice) said, "Oh, that tastes really good!"

The woman now had a big voice. She returned back to the village and (in a big voice) said, "Hello!" Everyone in the village was amazed and asked where she got this big voice. The woman told the People about the licorice fern and instructed that everyone go to the forest. So the People all went to the forest, they gathered licorice fern, chopped up the roots, and tasted them. And that is how the People got big voices. And that is all.

Licorice fern reminds us of the power of clear communication. When we find our own voice and develop skills in effectively communicating with others, we can move toward achieving our goals while building healthy relationships.

- *Sharing my story is medicine for myself and others.*
- *How can I deliver my message with confidence, clarity, and flexibility?*
- *How can I find positive common ground when communicating with others?*