

Adopt A Tree: Nature Based Climate Change Action



A Program for Communities and Schools

**A single tree produces 260 lbs. of oxygen per year
and absorbs 48 lbs. of carbon dioxide per year**

Introduction

The BC Small Wetlands Association in collaboration with the Switzmalph Cultural Society is planting 7,000 trees and offering trees for adoption in the Shuswap and north Okanagan regions. As well as seedlings there are many 1, 2 and 5 gallon trees in the mix that are available for planting and adoption by schools and community groups. Our first project was on October 5th 2021, when students from Len Wood Middle School in Armstrong, BC, alongside teachers and volunteers including Splats'in Kukpi7 (Chief) Wayne Christian, planted 215 trees at Pleasant Valley Wetland Heritage Park in Spallumcheen to honor the memory of the Kamloops Industrial Residential School Secwepemc children.



We are offering nine species of trees, chosen for their traditional cultural importance, based on the knowledge of revered Secwépemc Elder Dr. Mary Thomas. Mary was a Kamloops Industrial Residential School survivor. Her work as an environmentalist was colored by her respect for mother nature and her understanding that no more should be taken from the earth than is truly needed—a philosophy she tried to pass on to future generations. She was concerned about preserving and protecting traditional plants so they would be there for future generation, but she was also concerned about broader environmental issues as well - protection of the air, the earth, the water and the animals. Mary founded the

Switzmalph Cultural Society in 2001 to create cultural bridges because she recognized that all people, both indigenous and non-indigenous, must work together to deal with conservation and environmental issues regardless of their cultural background, as everyone is equally affected by threats to mother earth.

Paper or White Birch

Secwépemc name: bark: qwlín; tree: qwlínllp



Birch bark is highly valued for its property of easily peeling off from the tree in spring (April and early May) and early summer in large, tough sheets. If properly handled and stored, these sheets can be flattened and dried, then (after soaking in warm water) used in a variety of ways, for canoes, containers of many types, including baby cradles, lining for storage pits, roofing and temporary shelters, splints for broken bones and many other purposes. As well, birch wood is excellent for firewood, and can also be used for construction.

Mary Thomas also stressed the importance of season, and also the importance of cutting the bark carefully so as not to kill the tree: "You can only gather the birch bark, say late May, June, and then it starts to stick back; once it sticks, you can't get it. So you have to get your supply when it's ready . . . when it's ready all you have to do is cut – and you just touch it a little and it just pops right off. According to the weather the old people would know when to do it and you have to be very careful that you don't cut through that thin pulp that covers the tree — if you cut right through the sap will start to come out of it and you deprive the tree of the sap.... Once the bark is taken off it will not grow back but that pulp will turn into a hard surface and that protects the tree; the pulp, the juice will still go up and make leaves and it keeps the tree alive."



Mary with birch bark cradle she made

Birch wood is an excellent fuel, and rotten birch wood is good to use for tanning hides, as it gives a really nice color. Many elders mentioned that the papery shreds from the outside of the bark are good tinder for starting fires.

Ecological requirements

Prefers medium rich, moist soil. Grows in floodplains and upland sites.

Western Red Cedar

Secwépemc name: estqwlip OR astqw



Very culturally-important tree. The wood was used to carve paddles, tools, and a variety of implements. Cedar bark was used to make roofing for homes, and a variety of smaller objects such as bowls, mats, trays, rope, etc. The roots were extremely important as a basket-making material, and were also valued as a trade good for that purpose. Bark sheets were sometimes tied at the ends to make an elongated dish for broth and other foods. The inner bark is then divided into strips and woven into mats, or trays for enclosing

food to be pit-cooked. Whole slabs of cedar bark were used for roofing, both for old-style pit-houses and for temporary shelters and cabins. Cedar root baskets were used for various purposes, such as storing clothing.

Mary Thomas also recalled that her mother used to keep a big pot of cedar or Rocky Mountain juniper tea boiling on the stove all through the winter. This acted as a vaporizer and air freshener, but it was also drunk: "That is drinkable too, lots of vitamins [including vitamin C]." The wood is a good fuel, especially for kindling. Some people say it is good for smoking hides because of its low pitch content. Other traditional uses included construction (where it was available), and raw material for spoons, paddles, river poles, fish spearing poles, and drying racks for meat and fish. Mary Thomas and others used to make cedar shakes from the wood, and these were sold as a source of income. The wood is easily split and rot-resistant, making it ideal for such uses.

Ecological requirements

Moist, wet soils at lower elevations. Prefers rich soil but tolerates shade. Low resistance to drought and frost.

Trembling Aspen

Secwépemc name: meltállp



The trunk is good for scraping hides, because there are hardly any limbs at the bottom.

Aspen wood was used for tent poles, drying racks, fish traps and sweat lodge frames, but the wood rots after only a couple of years. It was used for fuel and as a medicinal tea, made from a mixture of the barks of alder, “red willow”, cottonwood and aspen.

Ecological requirements

Grows best in rich, loamy soils; mid to low elevation, but will not tolerate flooding.

Choke Cherry

Secwépemc name: fruit: tkwlósa7; bush/tree: tkwlose7ellp



More than one variety of choke cherry are recognized, although they are apparently all called by the same name. For example, Mary Thomas notes that there are two kinds; one kind makes the mouth go all cottony inside, whereas others are sweet. "They're all colours. Could be yellow, could be red, could be black." There were also different shades of red. People were selective in their harvesting: "They wouldn't just get any ones; they know where the best ones are." Formerly, choke cherries were gathered in large quantities, and many people still use them today. Mary Thomas recalled that they were dried, seeds and all, then stewed. The person eating them would simply spit out the pits as they were eating. Stewed choke cherries (and broth of the sucker fish) were considered excellent foods for people first starting to eat again after having lost their appetites

due to illness. More recently, people have made jelly and syrup from choke cherries, boiling them and straining off the juice, then mixing it with sugar. Choke cherries are sometimes mixed with apples to make a good pancake topping. Choke cherry juice is considered a healthy and refreshing beverage. Fresh choke cherries are a good gift, and dried choke cherries were formerly a common trade item. Mary Thomas also knew of medicinal uses for the bark, which she said was harvested in late fall or in early spring and could be dried and stored. A tea of the bark was used to treat colds and coughs, and also as a gargle for singers and speakers. (People made general use tonics with sticks of soapberry, juniper, choke cherry and Oregon grape.) Mary Thomas recalled that her father used to take one day a year, with the other men in the community, and ride around the area torching the tent caterpillars on the choke cherry trees.

Ecological requirements

Adapts to a wide variety of soils, drought tolerant. Requires full sun for good fruit production.

Ponderosa Pine or Bull Pine

Secwépemc name: s7átqwílip



The cones were gathered from the ground in November. They were dried out, and the seeds were shaken or picked out and eaten raw as a snack food. The inner bark and cambium tissue of this pine was eaten, like that of lodgepole pine. The wood is also often used as a fuel, and the powdery, rotten wood is used for smoking buckskin.

The boughs or dried needles were used as mattressing by campers, and as floor covering, and the needles were sometimes used in pit cooking, to surround and protect the food being cooked. The needles were used as insulation for cellars, food caches and underground storage pits, and when dry, were used as tinder. They could also be used to make snow melt faster in doorways. The fresh boughs are used for cleansing the body when one is sweat-bathing. A solution of the boughs was used to make a cleansing medicinal wash for newborn babies, as recounted by Palmer (1975: 52). The needles of this and other pines were sometimes mixed with other plants to make soaking solutions for arthritis and other ailments.

Ecological requirements

Ponderosa pine woodlands are savannah-like ecosystems characterized by widely spaced ponderosa pine trees with an understory of grasses and shrubs. Ponderosa pine trees under some conditions can grow so closely together as to create a dense canopy with few grasses and forbs in the understory, taking on the appearance and function of a true forest. Under other conditions, the pine trees can be widely spaced allowing a dense understory of herbs and shrubs, creating a park-like appearance that is classified as rangeland.

Lodgepole Pine

Secwépemc name: qwlit



The main food use for this species is the inner bark, which was formerly eaten in large quantities in the spring, and was recalled fondly by many of the elders. It was harvested in May or June, depending on the elevation, by removing a large, rectangular section of bark from the trunk and scraping away the gelatinous tissue between the bark and the wood, using a special scraping tool. Several people commented that this food is like a spring tonic; it has laxative properties, and would give one "runny stomach" if too much was eaten.

The pitchy wood of "jackpine", as it is often called, is often used as fuel. The old, dried-out grayish cones of this tree were also good for smoking deer hides. Hunters and travelers were used pine boughs for bedding; the needled branches were broken off and laid in a thick layer for a mattress. The hardened or semi-hardened pitch of pine and fir was used for gluing and waterproofing. Mary Thomas described this use: the pitch is broken from the outside of the tree, heated in a can over the stove or fire until runny, strained, and then used for sealing and gluing implements, such as the leather binding at the top of a digging stick. Fir pitch alone tends to crack easily after it dries, but mixed with pine pitch, it works well. Pine and subalpine fir pitch was also mixed with oil and used as a mosquito repellent. When Mary Thomas was young, they never used store-bought insect repellent; they just used to get pitch from young jackpine trees, and her mother would mix it with goose grease or ling cod liver oil. This was also sometimes taken as a tonic medicine, and generally kept the children very healthy.

Ecological Requirements

Lodgepole pine is a highly adaptable tree that can grow in all sorts of environments, from water-logged bogs to dry sandy soils. Lodgepole pine is one of the first trees to invade after a wildfire. Its cones are protected by a seal of pitch, that requires fire or heat to release the seeds. This allows seeds to stay on the tree or on the ground for many years until disturbance provides suitable growing conditions. Lodgepole pine can occur as the only tree in dense, very slow-growing groups of trees (so-called "dog-hair" stands).

Rocky Mountain Maple

Secwépemc name: t'swállten



The inner bark of this maple is tough and stringy. Divided into very thin strips, it was used as a thread for stringing roots to be dried, such as the bulbs of avalanche lily (scwicw). Mary Thomas described this use:

You could make rope - you could braid fine strands of the maple; that was not as strong as the hemp, but you could still use it. And then also for root edibles, the yellow lily or avalanche lily [*Erythronium grandiflorum*] roots . . . my grandma used to lay them out and they'd start to

wilt and they get soft. And then we'd strip the maple bark in little threads and string those roots into big necklaces and hang them to dry, and those were pit-cooked....

Mary Thomas also described how strips of the inner bark are woven in a checkboard fashion into a rectangular tray, used to encase food being pit-cooked; the edges were twined with the inner bark of "green willow." The hard wood of maple was used by some people to make a two-pronged fishing spear for salmon. The wood was also used for snowshoes. Maple wood was also sometimes used for fish traps and scoop net handles, and was considered an excellent fuel. Mary Thomas said that a mixture of maple inner bark and leaves was made into a tea, using one teaspoon to a cup of hot water. A cup of this tea was drunk every hour as a treatment for liver and spleen problems; it was also drunk to quiet the nerves.

Ecological requirements

Mesic to dry forests and rocky slopes in the lowland and montane zones; common throughout BC

Douglas Fir

Secwépemc name: tsq'ellp; boughs: qweltsen



A number of plants were used as scents or cleansing agents, most prominent among them Rocky Mountain juniper, Douglas-fir boughs and wild rose bushes. Such plants played an important role in the handling of the dead and for caring of sick people. Used as a smudge, a washing solution, or as a purifying steam, they served as physical and spiritual disinfectants. Children liked to chew the pitch as "chewing gum". Douglas-fir was an important tree and provided many useful types of materials. The wood was, and still is, a good fuel. The logs were used in construction for houses and temporary lodges. The boughs, which are soft and dense, were a preferred material for bedding. The boughs can also be used for covering the floor of a cabin or sweat lodge, or when you are swimming and do not want to get your feet dirty, as a cushion in a canoe to keep from getting wet,

or for covering a frame as a crude shelter when camping. Douglas-fir poles were used for the shafts of salmon harpoons. Douglas-fir pitch was an important medicine, known to almost everyone. James Teit (1909) recorded important details of the use of fir boughs in ritual purification and cleansing. Fir branches were used to bathe twins, who were believed to be supernaturally powerful for their first four years of life ; twins later continued to wash themselves with water in which fir branches had been dipped.

Ecological requirements

Not usually common in floodplains, prefers dry, well-drained, silty soils. Will tolerate some shade but needs sunlight also.

Black Hawthorn or Thornberry

Secwépemc name: berries: stmuqw OR steʔmúqw;
bush: stmuqwállp, or staqwéllp



The berries, though seedy, were eaten by some people, while others usually left them for the bears. Mary Thomas remembered that the old people would pick them when they were really ripe, put them into a basket, and “squeeze them and squeeze them” until all the seeds were clumped together and could be discarded. Then the pulp was spread out to dry like fruit leather. If any seeds remained, people just spat them out when they ate the fruit.

Hawthorn wood is very strong and tough. Long, straight pieces were used for bows. Old timers used to use it for a pecek, root digging stick; the wood is baked over a fire to make it even harder. The point of the digging stick was burned slightly, to make it even stronger and resistant to breakage.

Ecological Conditions

Grows well in moist areas; low to mid elevations – along rivers, wetlands and in open, deciduous forests. Does not grow in dry, cold climates.

References:

Quotes by Mary Thomas and other references in text, are used with the permission of Dr. Nancy Turner, taken from “Secwépemc People and Plants”, 2016, edited by Nancy J. Turner and Marianne Ignace, and based on many interviews with the late Dr. Mary Thomas from 1990-2007, especially February 14, 2001

Adopt-a-Tree

Trees are available to all people in the Shuswap and North Okanagan through an Adopt-a-Tree program. For more information email barb@smallwetlands.com

This initiative is funded in part by Natural Resources Canada and is project managed by the BC Small Wetlands Association in collaboration with the Switzmalph Cultural Society.



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