

# Use of Trees in Traditional Native Medicine

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### **Introduction**

North American native peoples generally have made extensive use of the nature surrounding them. There exists hundreds of different tribes across the continent, a reflection of the various geographic settings they chose to live in. I will take a close look at a tribe from western Canada (USA) called the Thompson Indians and explain the trees found in their territory and how they made use of these trees for medicinal purposes.

### **Background: The Thomson People and Their Environment**

Southern British Columbia emerged from the latest ice age 11500 years ago and the earliest archeological traces of inhabitation are dated to 9000 BP, at the western edge of present territory and traces of pit houses, permanent winter dwellings from around 4000 BP. Up until 150 years ago, the Thompson people, called in their own tongue, the *Nlakyapamuk*, had not been influenced by the white man. They lived in traditional ways, with all of their food, clothing, household items etc. coming from that which grew around them. This particular tribe is a part of the Salish people, who inhabited the inland in the Pacific North West. They were very sedentary folk, fishing for the main part out of salmon filled rivers, hunting and gathering. The landscape being very dry, they tended to gather foodstuffs rather than growing crops (this trend reversed itself with the coming of the white man and irrigation). However they relied for a large part, some studies even say 60% of their caloric intake, on gathering (Keely et al., 1982).

This area of North America, Figure x., has great diversity in its ecosystems and plant species. I should say that it was not always so diverse, following the last ice age the landscape was more boreal in nature, but an ever-warming climate has favored many species. Recorded are over 350 indigenous and 40 introduced plant species in the Thompson people's territory. Another indicator of the high degree of natural variation, both in climate and vegetation, is the occurrence of six of British Columbia's 14 biogeoclimatic zones in their territory. One can travel from low elevation points in valley and canyon bottoms that are dry and desertlike, too dry for trees, into Ponderosa Pine- Bunchgrass zone, Interior Douglas Fir, Coastal western hemlock, Subalpine mountain hemlock, Engelmann Spruce, Subalpine Fir, and finally Alpine Tundra zones by going on a days hike up a mountain. Rugged mountains, benchlands and rolling hills, upland valleys and forest plus many steep and rocky canyons and hillsides are all included in this area. See Table 1 for more detailed information on these zones.

### **The Place of Medicine in Thompson Society**

It is very hard to isolate medicines from foods and mythological beliefs, just as it is to separate trees from the total ecosystem. There is a danger in only describing the use of particular trees for medicine, however fascinating it may sound, it gives a narrower perspective of the cyclic and complete use these people made of the ecosystems around them. Keep in mind that this is only a tiny sliver of the Thompson people's natural existence.

The Thompson people, like most North American tribes, were generally quite healthy, their medicines comprised mainly of poultices, slaves or washes for wounds, infections, burns and sores (96 medicines). Digestive aids (57 medicines) and respiratory treatments (49) plus many unspecified medicines made up the main part of medicines, many infusions and tonics were taken regularly on a preventative basis, as well as certain foods eaten often for their beneficial effects. Medicines for more serious cases; circulatory system, kidney and urinary troubles and "cancer" were fewer in proportion to the many simple remedies.

## Major Tree Species Used By the Thompson

Tree species the Thompson people used for medicines include: True firs, Black hawthorn, Common and Rocky mountain junipers, Western larch, Lodgepole and Ponderosa pines, Black cottonwood, Trembling aspen, Choke cherry, Douglas-fir, Cascara, Sitka and Western mountain ash, and willows.

- True firs: Grand fir, Pacific Silver fir, Subalpine fir (not differentiated from each other by the Thompson people) (*Abies amabilis* (Dougl. ex Loud.), *grandis* (Dougl. ex D. Don), *lasiocarpa* (Hook.) Nutt.)
  - \*Inner bark eaten to combat tuberculosis, made the patient very sick. One account states, "I was aching all over, just as if I had the flu....but after that I got better..."(Mabel Joe Shulus).
  - \*Pitch mixed with buttercup roots (*Ranunculus* spp.) for an external tuberculosis poultice
  - \*Sweet and aromatic boughs used for washes, perfumes, bear repellent (rub clothes and face with boughs before going to sleep at night).
  - \*Pitch from resin blisters under bark mixed with animal fat and later vaseline in a poultice for sores and cuts.
  - \*Bark boiled and drunk as a decoction to help heal bruises and sprains and clear up a persistent cough or stomach troubles, sore eyes, a little in the corner of each eye every night.
  - \*Bark and resin combined in a strong decoction, against gonorrhoea.
  
- Black hawthorn (*Crataegus douglasii* Lindl.)
  - \*Fruits a "health" food for diarrhoea or general sickness.
  - \*Bark made into a tea for diarrhoea and dysentery. Taken from east side of the tree, that facing the rising sun.
  - \*Sap, wood, bark and roots boiled for a stomach medicine.
  - \*Cambium made into a decoction drunk for pains, specifically chest pains.
  - \*Spines as needles to puncture boils or ulcers.
  
- Common juniper (*Juniperus communis* L.)
  - \*Boughs made into a tea, drunk as a stomach tonic, "for leakage of the heart".
  - \*Infusion of branches drunk for aching muscles, kidney ailments and colds.
  - \*Twig infusion for washing sore eyes.
  - \*Decoction as a body wash for hunters, warriors and widowers and for purification.
  - \*Used as a medicine for high blood pressure, set several branches in a pot of boiling water and taken out when the liquid cooled, then drunk.
  - \*Boughs from a plant growing isolated from others gave effective power for a tuberculosis medicine.
  
- Rocky Mountain juniper (*Juniperus scopulorum* Sarg.)
  - \*Fresh berries (small amounts) eaten for kidney disease, also as a diuretic or bladder medicine.
  - \*Branches and berries in a decoction drunk for colds, tuberculosis, heart trouble, for muscular relaxation before childbirth.
  - \*Decoction of berries as an external wash for bites and stings, rheumatism and stomach ailments.
  - \*Boughs in decoction drunk for "black measles" and chicken pox or applied to kill ticks on horses.
  - \*Disinfectant protection from sickness and death, "It's like Lysol"...(Mabel Joe Shulus). Branches set in a little dish on a stove and the scent could permeate the room. Generally a plant to protect one vulnerable, a widow or sick one from bad luck.

### Western larch (*Larix occidentalis* Nutt.)

\*Dried branches kept in households for diverse medicinal use. Examples: dry coughs, to heal broken bones, one special account of breast cancer case cured by larch medicine.

"An old man went on horseback to the mountains to look for (a larch tree) /caqw-els. He go there, and chopped two potato-sacksful of the tops, and small pieces of the branches in another sack. Then he went home, He got in the house and boiled it, boiled the chopped ones- that's for to drink. He boils the other one- that's really strong, to wash it. The lady, she uses that the whole year and she got better. And she walks around just as good as before". Medicine supposedly stimulates the appetite and "makes you eat, makes you fat" (Hilda Austin).

\*Branches and bark chopped off with an axe, cut into small pieces and boiled, good for ulcers, to drink after childbirth and even for birth control.

- Lodgepole pine (*Pinus contorta Dougl. ex Loud. var latifolia Engelm.*) p.102

\* Resin from cones and bark boiled and with melted deer fat for a poultice for rheumatism, sore muscles and joints, congestion relief, cough, cold, sore throats. Often applied after sweatbathing or in front of a hot fire.

\*Twigs boiled in a pot of water drunk for influenza

- Ponderosa pine (*Pinus ponderosa Dougl.*)p.104

\*Boiled resin and bear grease cooked slowly in a pan and stirred until well mixed then applied hot as an ointment for sores, boils, aches, cuts and inflamed eyes. Most effective ointment came from white pitch.

- Black cottonwood, "poplar" (*Populus balsamifera L. ssp. trichocarpa(T.&G. ex Hook Braysshaw)* p.276

\*Buds mashed and combined with pitch to a poultice for ringworm

\*Four strips of inner bark used for an afterbirth infusion for women, for sores and itchy areas

- Trembling aspen (*Populus tremuloides Michx.*)

\*Stems and branches made into decoction and drunk for syphilis, then same recipe applied as a cold bath for many hours. "Branches of very young trees were boiled about forty hours. When cool, the patient sits in it for several hours at a time, washes his body with it. He also drinks several cupfuls of the fresh liquid each day."( Steedman, p.464). Bathing continued 2-4 days whereas the patient continued with the drink much longer.

\*Wood ashes or powder from the bark rubbed on skin to prevent hair growth: underarms, face, etc.

- Choke cherry (*Prunus virginiana L.*) p.266

\*bark decoction drunk as tonic, for strength after giving birth -also made use of bitter cherry (*Prunus emarginata*).

\*Twigs broken and boiled in a tea for colds and coughs, influenza, diarrhoea and as a laxative.

- Douglas-fir (*Pseudotsuga menziesii (Mirb.) Franco*) p.107

\*Boiled twigs and needles into a tonic ad diuretic tea.

\*Top of young tree peeled and chewed was a mouthwash.

\*Purification through scrubbing oneself with boughs: hunters so that the animals wouldn't smell them, widows to wipe out the smell of death, girls at puberty to have a disease free life.

One account (Bernadette Antoine) tells: "And the real old-timers, they talk to that branch before they break it off and tell it what they're going to do.. And then they bathe, and that's what they use to scrub themselves with... makes you feel fresh and clean. That way you don't smell, don't have any body odour..."

\*First flush shoots set inside moccasins to prevent sweat and athlete's foot.

\*Douglas-fir branches, ash or coals applied hot and with a sweat bath to stiff and sore body parts.

\*Hot branches applied for colic, stomach or bowel cramps.

\*Pitch used as a poultice for injured or dislocated bones, cuts, boils and other skin problems.

\*Leading shoot boiled in a tea for colds.

- Cascara (*Rhamnus purshiana DC.*) p.253

\*Bark or wood decoction used as a physic and laxative.

\*Four bark strips in a pot of water used as a wash for sciatica.

\*Cascara bark and red elderberry (*Sambucus racemosa*) infusion drunk for liver diseases.

\*Cascara bark and flowering dogwood (*Cornus nuttallii*) bark, two strips each, drunk for ulcers.

- Sitka and Western mountain-ash (*Sorbus sitchensis Roemer, S. scopulina Greene*)p.274

\*Heated stick inserted into the ear for an ear-ache.

\*Infusion of branches drunk to improve bladder control.

- Willow (*Salix spp.*) p.279

**Willow is an original source of the active ingredient in aspirin, acetylsalicylic acid.**

\*Bark from large willow species (*Salix lasiandra Benth.*) boiled, decoction used to bathe injuries.

Boiled bark itself often tied onto the injury as a poultice.

\*Fresh bark rubbed on bruises and skin eruptions.

\*Dwarf willow species used as a hot wash for sore feet, pain and swelling reduction.

\*Bark chewed for a toothache.

- Western yew (*Taxus brevifolia Nutt.*)

**Taxol is an extract from this tree much sought after by today's western pharmaceuticals for cancer treatment.**

\*"Bark collected in the morning from the sunrise side of the tree was boiled and the decoction drunk for "any illness" "(Annie York) .

## Discussion

Total use of these tree species was for food, structural implements, medicines and religious/superstitious purposes. Gathering was mainly a task for women, while the men concentrated their efforts on fishing and hunting. In the case of some medicines, the plant /tree must have been growing in the right topographic location, be the right age, have the right appearance, and meet many specifications in order to have the potential potency required for the medicine. Many of these remedies were multi-purpose and even multiple tree species were used to concoct medicines for the same medicinal complaint. As for the pharmaceutical reliability of Thompson medicines, very little research has been carried out to verify one way or the other. Taking a close look at a few examples, we see that they have made use of western yew and salix, among other plants with known value in western medicine.

Other tribes in North America made use of plants to the same extent, the Thompson people provide a specific and in depth example of how trees were rooted in native culture. Tree species composition varies widely over the continent, so that different tribes naturally had different medicines, depending on naturally occurring plants.

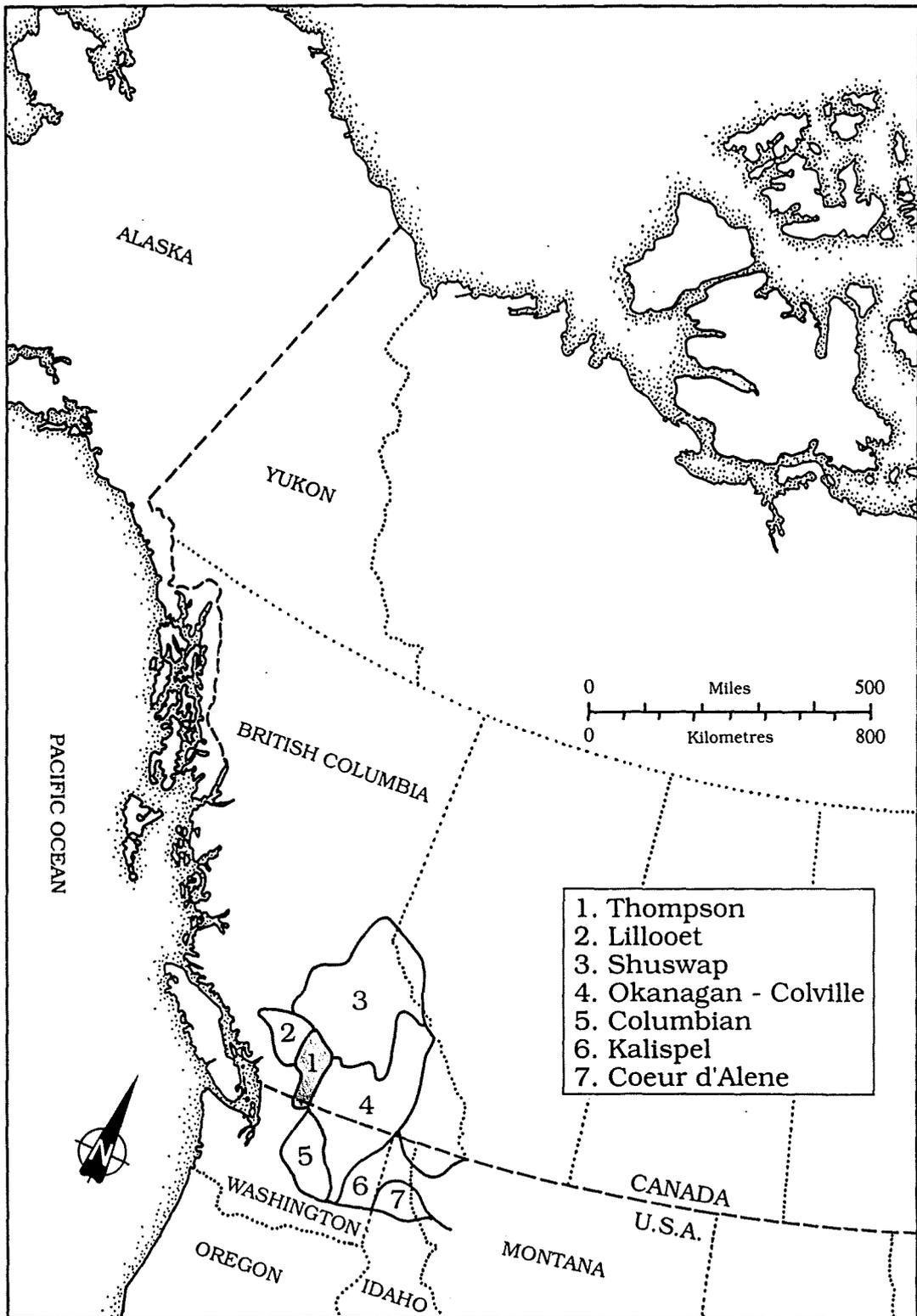
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*Map showing Interior Salish Indian Groups of British Columbia and neighbouring Washington. (Gerald Luxton)*

Table One

## Biogeoclimatic Zones within Thompson Indian Territory

*(Information after Krajina, 1961:3-41)*

Abbreviations: elev. - elevation; ppt. - precipitation; ann. - annual; terr. - territory; n - north; e - east; w - west; s - south; Th. - Thompson

Zone	Location	Climatic notes	Vegetation description
Interior Douglas-fir	lower elev., n & e Lower Th. terr.; middle elev. Upper Th. terr.	summers warm; winters cool; ann. total ppt. 36-56 cm	Forested: Interior Douglas-fir (some ponderosa pine in drier subzone), grand fir, white pine, lodgepole pine, w. red cedar, aspen, black cottonwood, birch, Rocky Mtn. maple
Coastal western hemlock	lower elev., s & w Lower Th. terr.	rel. mild winters; humid to rainy; ann. ppt. 165-665 cm	heavily forested: w. hemlock, Douglas-fir, w. red cedar, some white pine, grand fir, amabilis fir, red alder, bigleaf maple, vine maple, black cottonwood, bitter cherry
Subalpine mountain hemlock	higher elev., w side of Lower Th. terr.	heavy winter snow cover over unfrozen ground; relatively moderate winters; ann. total ppt. 178-432 cm.	closed forests to clumped stands interspersed with treeless meadows, or parklands. Main species: mountain hemlock, amabilis fir, yellow cedar
Ponderosa pine - bunchgrass	lower elev., Upper Th. terr.	hot, dry summers, cold winters; ann. total ppt. 19-36 cm	open woods or treeless sagebrush or grassland; few tall trees: mainly ponderosa pine, some interior Douglas-fir, Rocky Mtn. maple; cedar, cottonwood, willows only along watercourses
Subalpine Engelmann spruce - subalpine fir	higher elev., e side of Lower Th. terr., & mtns. throughout Upper Th. terr.	moderate snow cover over (mostly) frozen ground; severe winters; total ann. ppt. 41-183 cm.	closed forests to parklands; main trees: Engelmann spruce, subalpine fir, lodgepole pine, white-bark pine, alpine larch, mountain alder
Alpine tundra	highest mtn. peaks in Coast range	snow cover and ppt. variable (70-280 cm); severe winters; very short growing season	tree growth none, or very stunted