

This book was compiled for requirements in conjunction with credits through the *Forest for Every Classroom* program by:

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All photos taken by Sonia York, along the Bass Creek Trail on the following dates:

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The Bitterroot Experience

Plant Guide for MT
Assembled by: Sonia York

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Notes

Common Name: trillium

Scientific Name: *Trillium ovatum*

Leaf Form/Shape: Triangular-oval, in whorl of 3 just below flower.

Flower/Fruit: Solitary, 3 broad, white petals and 3 narrow, green sepals beneath; blooms in spring.

Root: Short, stout rhizomes.

Plant Height: Up to 45 cm tall.

Healing Properties/uses/interesting Facts:

The single white flower sitting above the three broad leaves identifies this familiar plant. Ants provide a dispersal mechanism by carrying the oil-rich seeds to their nests. The seeds later germinate after being discarded underground. The Nlaka'pmx used an infusion or powder from the roots as eye medicine.

Trillium



What is a
Conifer?

A conifer is a tree
with needle or
scale-like leaves.

Douglas fir



Common Name: small flower penstemon

Scientific Name: *Penstemon procerus*

Leaf Form/Shape: Deep green, oval to lance-shaped, lacking teeth; stem leaves opposite and without stalks; basal leaves with short stalks.

Flower/Fruit: Flowers are blue-purple sometimes tinged pink 8-12 mm long; corolla small and not strongly 2-lipped; in 1 to several tight clusters arranged in whorls around stem and at the top.

Root: Growing in clumps from a woody base.

Plant Height: Up to 40 cm tall.

Healing Properties/uses/interesting Facts:

Small-flowered penstemon is also known as tall beard-tongue.

Small Flower Penstemon



Common Name: Douglas-fir

Scientific Name: *Pseudotsuga menziesii*

Needle Arrangement: Needles become narrow at base where they are attached to the branchlets; sharper at the end than the true firs. Needles attached to stem by a small leaf stalk or (petiole).

Needle Length or shape: $\frac{3}{4}$ - $1\frac{1}{4}$ inches long, single, flat, slightly grooved above and marked below with light bands. Buds are cigar shaped and pointed.

Cone Description: 2-3 inches long, $\frac{3}{4}$ -1 inch is diameter, ob-long, can be identified by the three-pointed wings or bracts that stick out beyond the cones scales. Cones differ from those of true firs because they hang downward and do not shatter when they mature. Cones are distributed over all of the tree's crown.

Bark: Smooth, gray-brown with resin blisters on young trees; thick, deeply grooved, cork-like and gray-brown on older trees.

Plant Height: Seldom gets taller than 130 feet in Montana.

Healing Properties/uses/interesting Facts:

Douglas-fir is really not a fir at all. They are used extensively for Christmas trees, lumber and plywood. The abundant seeds of the Douglas-fir support large populations of small mammals and birds. Many interior native people ate the seeds. The Nlaka'pmx and Secwepemc made tea from young twigs and needles. The Ktunaxa chewed dried sap, which was said to be good for treating colds. The boughs played a role in many ceremonial functions, including mourning, sweat-baths, and the washing of twins. Occasionally, the Interior native people were able to harvest fir sugar. Douglas-fir has been successfully introduced in the temperate climates of Europe, Australia, and New Zealand. It was also been used to tan leather.

Lodgepole Pine



Common Name: Indian paintbrush

Scientific Name: *Castilleja miniata*

Leaf Form/Shape: Linear to lance-shaped, usually not toothed, but upper leaves sometimes divided into 3 short, unequal lobes.

Flower/Fruit: Flowers are brush-like inflorescences with hairy, bright red to scarlet bracts, partly concealing greenish flowers with red tips, fruits are capsules.

Root: The roots of this plant will grow until they touch the roots of other plants, frequently grasses, penetrating these host roots to obtain a portion of their nutrients. Transplanting paintbrush may kill it.

Plant Height: 0.5 to 3 feet tall.

Healing Properties/uses/interesting Facts:

The Paintbrush evoked the Native American legend of a young brave who tried to paint the sunset with his war paints. Frustrated that he could not match the brilliance of nature, he ask for guidance from the Great Spirit. The Great Spirit gave him paintbrushes laden with the colors he so desired. With these, he painted his masterpiece and left the spent brushes in fields across the landscape. Long ago, parents forbade children to pick red paintbrush because it was considered sacred. Native people referred to it as 'fire-weed.'

Indian Paintbrush



Common Name: lodgepole pine

Scientific Name: *Pinus contorta*

Needle Arrangement: Bundles of two.

Needle Length or shape: 1-3 inches long, yellow-green, pointed, stiff, and often twisted, somewhat square in cross-sections. Seedlings have an initial cluster of 3-6 needles.

Cone Description: 3/4-3 inches long, appear lopsided, are armed with sharp spines. Cones may be open at maturity but often remain closed for many years. Heat from a fire can cause the cone to open and reseed an area.

Bark: About 2/5 inch thick, orange-brown to gray, covered by small, loose scales.

Plant Height: Lodgepole pine is a tall, slender tree, 30-100 feet tall, with the trunk 8-18 inches in diameter. It grows fast and often forms dense stands.

Healing Properties/uses/interesting Facts:

The common name of this tree is derived from the early use made of it by the Native Americans and pioneer settlers from constructing log frameworks and buildings. Lodgepole pine rarely live for more than 300 years. Some Native Americans used them for fishing spears. The sweet, succulent inner bark was an important food of the native people. It can be harvested in late May or June when the sap is running. It was eaten fresh, but Secwepemc also dried it for later use. The bark was also used as a remedy for coughs and tuberculosis.

Ponderosa Pine



Common Name: blue clematis vine

Scientific Name: *Clematis occidentalis*

Leaf Form/Shape: Opposite, divided into 3 oval to lance-shaped, toothed leaflets, thinly hairy.

Flower/Fruit: Flowers are solitary; 4 blue sepals around a cluster of yellow stamens and styles; no petals; on long, leafless stalks arising from leaf axils.

Root: Clematis prefers a cool root run, so lay flat stones at its base, or plant annuals or shallow-rooted perennials around them.

Plant Height: 0.5-5 meters long.

Healing Properties/uses/interesting Facts:

The Nlaka'pmx made a medicine for scabs and skin sores from this plant, but they considered it less effective than white clematis. Blue clematis makes a good garden ornamental for our area.

Clematis Vine



Common Name: ponderosa pine

Scientific Name: *Pinus ponderosa*

Needle Arrangement: Three or two needles in a each bundle, yellow-to gray-green, flexible and slender.

Needle Length or shape: 4-7 inches long in tufts at the end of the branches.

Cone Description: 3-6 inches long, broadly rounded at base, tapered to the tip, short and squat; bright green, becoming reddish brown as they get older. They are armed with small spines, in groups of 1-3. Seeds are quite large with a small wing.

Bark: Dark on small trees, cinnamon-brown to orange-yellow, thick and broken into large, flat, irregular “jig-saw puzzle-shaped” plates on old trees. Easy to flake off.

Plant Height: Grows from 50-180 feet tall. The young trees are often called “black-jacks” or “bull-pine,” and the older trees, “yellow pine.” Straight trunk with slight taper; symmetrical, broad, open crown, and many stout branches.

Healing Properties/uses/interesting Facts:

Ponderosa pine rarely exceeds 400-600 years in age. Mature trees are protected from ground fires by their thick bark and self-pruning, which reduces the risk of fire reaching the canopy. In spring, the Nlaka’pmx, Okanagan, Secwepemc, and Ktunaxa collected and ate the cambium from the young trees. The Okanagan used the reddish pitch as chewing gum. Many Native Americans gathered seeds in autumn and used the wood to produce quick, hot, smokeless fires. Fissures in older bark give off a vanilla-like aroma. Also the Montana state tree.

Subalpine Fir



Common Name: Bitterroot

Scientific Name: *Lewisia rediviva*

Leaf Form/Shape: All basal, linear, round in cross section, usually drying and withering by flowering time.

Flower/Fruit: Flowers are solitary, deep pink to sometimes white; about 15 narrow petals; 6-9 oval sepals; on a short stalk close to soil surface. Fruits are capsules with dark brown, shiny seeds.

Root: Branched taproot and a short stalk close to soil surface.

Plant Height: 1-3 cm tall.

Healing Properties/uses/interesting Facts:

The spectacular 'water-lily' flowers of bitterroot open in the sun. Many southern Interior Peoples ate the roots. They dug them in early spring as the leaves were developing and before the root become bitter. The roots were peeled and cooked or dried for winter use. Bitterroot was considered a valuable plant and it figured prominently in trade. A favorite dish of Interior peoples was a Clark reported that the prepared root was still too bitter for their taste; hence it was called 'bitter-root.' Merewether Lewis first collected it in Montana in 1806.

Bi t t e r r o o t



Common Name: subalpine fir

Scientific Name: *Abies lasiocarpa*

Needle Arrangement: Twisted at the needle base; blue-green in color.

Needle Length or shape: 1/2-1 1/2 inches long, flat, crowned on the branches. Attach to branch with what looks like a suction cup.

Buds: A key to identification is the rounded groups of waxy covered buds.

Cone Description: Borne up-right, 2-4 inches long, cylindrical, purplish; cone scales often are longer than broad; shatter individually, leaving only the spine-like cone axis on the tree.

Bark: Thin, gray, smooth except for numerous resin blisters on young trees; gray to cinnamon-red on old trunks.

Plant Height: Tree reaches 80 feet high and a diameter of 2 feet but becomes much smaller at high elevations and is often shrub-like. Usually has a long, dense, narrow, pyramidal, spire-like crown, with short, thick branches.

Healing Properties/uses/interesting Facts:

Subalpine fir is the most widespread true fir in the western North America and the smallest of the firs. The Secwepemc, Okanagan, and St'at'imc called it the "medicine tree." Like the grand fir, its pitch, extracted from blisters, was taken internally to cure tuberculosis. A tea made from the bark was used as a cough remedy. Commercially, it produces construction materials, plywood, boxes, crates, and pulp. Subalpine fir has a poor reputation because of its low wood density and high moisture content and because much of the wood being used is from old trees with center rot.

Grand Fir



Common Name: baneberry

Scientific Name: *Populus tremuloides*

Leaf Form/Shape: All on stems; 2-3 times divided into 3s; segments coarsely toothed and lobed.

Flower/Fruit: Flowers are small, white, numerous; 5-10 petals and 3-5 sepals soon falling; in rounded clusters at ends of long stalks.

Root: Rhizomatous perennial.

Plant Height: 40-100 cm tall.

Healing Properties/uses/interesting Facts:

The berries, foliage and roots are all highly poisonous. As few as two berries can induce vomiting, bloody diarrhea and finally cardiac arrest or respiratory system paralysis. The rootstock is a violent purgative and emetic. The St'at'imc name for this plant means 'sick.' They used it sparingly as a physic and tonic boiled in water, but anyone taking it had to suffer the consequences of being severely ill. Among the Nlaka'p'mx, it was said to cure rheumatism, arthritis, venereal disease, and other ailments.

Baneberry



Common Name: grand fir

Scientific Name: *Abies grandis*

Needle Arrangement: Stand out directly from two opposite sides of the branches, spreading horizontally at right angles to twig, in flat, comb-like rows.

Needle Length or shape: 1/2-2 inches long, blunt, single notched at ends; dark green and shiny on upper surface, silvery white below; straight, flexible.

Cone Description: 2-3 inches long, cylindrical, light brown, grow upward. Mature in one season. Cones scales shatter in the fall, leaving only the cones axis on the tree.

Bark: Thin, smooth, gray-brown with resin blisters and white blotches on young stems, but 2-3 inches thick, red-brown, hard and rough on older trees. Bright green-purple at maturity.

Plant Height: Grows in damp sites, seldom getting more than 2120 feet in height and 3 feet in diameter in Montana. Conically symmetrical crown; branches sweeping downward and turning upward.

Healing Properties/uses/interesting Facts:

Grand fir is moderately fast growing and fairly short-lived averaging 250-300 years. It is very susceptible to Indian paint fungus. The bark has blisters that contain a fragrant, transparent, resin that has been used on insect bites and small cuts to prevent infection, to clean teeth and as a glue. Native people used grand fir in the same way as subalpine fir.

Engelmann Spruce



Common Name: arrow leaf balsamroot

Scientific Name: *Balsamorhiza sagittata*

Leaf Form/Shape: Mostly basal, arrowhead-shaped, large, long stalked, silvery colored with dense, felt-like hairs; the few stem leaves are much smaller and narrow.

Flower/Fruit: Solitary composite heads, with bright yellow ray flowers and yellow disk flowers, blooms in spring.

Root: Aromatic, woody taproot and a branched stem base, softly hairy throughout.

Plant Height: 20-80 cm tall.

Healing Properties/uses/interesting Facts:

Arrow-leaf balsamroot provides a showy, early-spring splash of color on warm, dry hillsides. All parts of this plant are edible and provided a very important food for Interior native people. The young leaves can be eaten raw or steamed. The Okanagan smoked the leaves like tobacco. The taproots were roasted or steamed, hung to dry and then soaked overnight. The seeds are like small sunflower seeds and native people dried and pounded them to use as a flour.

Arrow Leaf Balsamroot



Common Name: Engelmann spruce

Scientific Name: *Picea engelmannii*

Needle Arrangement: Spreads on all side of the twig, but tending to curve and point upward and toward branch tips.

Needle Length or shape: 1- 1 1/8 inches long, single, sharp-pointed, bluish green to silvery white in color, stiff, square-ish in cross-section.

Cone Description: 1 1/2- 2 1/2 inches long, oblong, with papery soft scale, tapered, and irregular at the outer margins. Light chestnut-brown. Hanging on short stalks; opening in autumn and falling intact later in winter.

Bark: Thin, scaly, grayish-red to purplish-brown in color. Loosely stacked scales, silvery-white inner bark.

Plant Height: 75-120 feet tall, or prostrate shrub at tree line; cylindrical trunk, 30-90 cm diameter, symmetrical, narrow pyramidal crown; twigs finely hairy with residual peg-like structures when needles are removed.

Healing Properties/uses/interesting Facts:

Engelmann Spruce is long-lived to 1,000 years old. Most cold-tolerate species in the world able to survive temperatures down to -60 degrees Celsius. The Nlaka'pmx and Secwepemc made canoes from the bark, used the split roots for sewing baskets. The Nlaka'pmx also boiled the tips of branches and used them as a wash purification. The Carrier chewed the emerging needles as a treatment for coughs. Engelmann spruce is one of the most important commercial species. The wood is uniform and strong. It is used to produce construction lumber, plywood, mine timbers, poles, and ties.

Western Larch



Common Name: heart-leaved arnica

Scientific Name: *Arnica cordifolia*

Leaf Form/Shape: 2-3 pairs of opposite stem leaves with heart-shaped blades and long-stalks; uppermost pair becoming lance-shaped and stalk-less

Flower/Fruit: Yellow composite heads, with both ray and disk flowers, fruits are a pappus of white minutely barbed hairs.

Root: Long rhizome, sparsely hairy.

Plant Height: 10-60 cm tall.

Healing Properties/uses/interesting Facts:

This species occasionally hybridizes with mountain arnica and the intermediate forms are sometimes difficult to identify. Arnicas are a generally montane group of perennial herbs with yellow or orange flower heads that are usually large and showy. The stems of these plants are solitary or sometimes a few in a cluster and the leaves are opposite, an unusual characteristic in the family. The combination of yellow composite flowers, opposite leaves and a bristly pappus (best distinguishes an arnica).

Ar ni ca



Common Name: western larch

Scientific Name: *Larix occidentalis*

Needle Arrangement: Clusters of 15-30 on spur twigs, and slightly along current year's growth.

Needle Length or shape: 1-1 1/3 inches long; triangular, sharp-pointed, but soft to touch. Pale green in color, turn yellow before falling in early autumn.

Cone Description: 1-1 1/2 inches, oblong, purple-red to red-brown, with numerous thin, stiff scales. Seed: 1/4 inch long, each with thin, fragile wing 1/2 inch long. Oval when closed, egg shaped when open on short stalk.

Bark: Thin, dark-colored and scaly on young trees; up to 4-6 inches thick broken into plates, and red-brown to cinnamon-brown on older trees.

Plant Height: Grows 100-200 feet in height. It has a straight trunk with a very open crown.

Healing Properties/uses/interesting Facts:

Western larch loses its needles in the winter, and in this way the larches are different than the rest of our cone-bearing trees. The thick bark and early self-pruning of mature trees provides some fire protection. The Native people used the bark and foliage for medical purposes. It produces a sweet-tasting gum that hardens when exposed. At any time of the year, the Secwepemc, Nlaka'pmx, Okanagan, and Ktunaxa broke off the gum substance and chewed it. Galactan, a natural sugar in the gum, resembles a slightly bitter honey and can be used for medicine and baking powder. The bark contains Arabino galactan, a water soluble gum used for offset lithography and in pharmaceuticals, paint, and ink products.

Pacific Yew



What is a
forb?
Have a showy
flower, plant does
not persist
throughout the
year, do not have a
woody stem.

No t es

Common Name: Pacific yew (Western yew)

Scientific Name: *Taxus brevifolia*

Needle Arrangement: Arranged spirally on twigs but twisted to appear 2-ranked.

Needle Length or shape: 1/2-1 inch long, single, flat, pointed, green from above and paler beneath; tapered at base into a short stalk.

Cone Description: Single seeded of a hard, boney see, surrounded by flashy tissue that is green when young and becomes scarlet when mature. This berry-like structure is a modification of a cone and is not directly comparable to the fruits of flowering plants.

Bark: Very thin, 1/4 inch scaly, dark purple-brown in color. Sources of a drug used in treatment of some kinds of human cancer.

Plant Height: 6-45 feet tall, trunks twisted and fluted; branches spread horizontally.

Healing Properties/uses/interesting Facts:

Western yew lacks the typical seed cone of most other native conifers; instead it bears fleshy berry-like cups enveloping a single seed. Bark of this species is the source of the drug taxol, used to treat ovarian and breast cancer. The seeds are poisonous and the fleshy-berries should be avoided. The foliage is reported to be poisonous to horses and cattle. The heavy, close grained wood was prized to native people. Implements such as bows, wedges, clubs, paddles, digging sticks, axe handles, and harpoons were made from it.

Western Red Cedar



Common Name: Wood's rose

Scientific Name: *Rosa Woodsii*

Leaf Form/Shape: Leaves are deciduous, alternate, odd-pinnately compound, with 5-9 leaflets obovate to ovate or elliptic, up to 2 inches long, coarsely toothed.

Flower/Fruit: Flowers small, pink 1-2 in. long in terminal clusters or singular. Fruit is a fleshy, red, roundish "rose hip" 5-12 mm wide; calyx (flower parts) remains on hips.

Bark: The stems have distinctive straight thorns and are branched and red-brown to gray in color.

Plant Height: Shrub 3-6 feet tall.

Healing Properties/uses/interesting Facts:

Native Americans used the roots, stems, leaves, flowers, and fruits of Woods' rose for foods and therapeutic materials. The hips are a source of vitamin C and are dried for use in flavoring teas, jellies, fruitcakes, and puddings. The inner bark and roots were boiled to treat diarrhea and stomach ailments and a tea was made from the bark to treat muscles.

WOODS ROSE



Common Name: western red cedar

Scientific Name: *Thuja plicata*

Needle Arrangement: Overlap in sequence

Needle Length or shape: Scale-like, 1/8- 1/4 inch long, branchlets form flat sprays. Evergreen, short, blunt, shiny yellowish green; fan-like sprays of small branches.

Cone Description: Leathery or somewhat woody, 1/2 inch long, composed of 8-12 thin, spine tipped scales arranged in opposite pairs. Many, small, elliptic, brown, in cluster at the ends of the branches.

Bark: Thin, 1/2-1 inch, stringy, fibrous, with narrow ridges; cinnamon-red to gray-brown on old trunks.

Plant Height: Grows to about 150 feet in height and 6 feet in diameter. It is evenly tapered from base to top horizontal or drooping branches. Its growth is slow; trees over 1,000 year of age have been reported.

Healing Properties/uses/interesting Facts:

Coastal native people used long strips of the fibrous bark for making baskets, cloaks, blankets, ropes, and mats. The wood was used for dugout canoes, roofing, and siding materials. The wood resists decay, splits easily into planks, is relatively light and free of pitch and resin. Fallen trees remain sound for hundreds of years.

No t es

Common Name: snowberry

Scientific Name: *Symphoricarpos albus*

Leaf Form/Shape: Thick, oval or round, broadly lobed or wavy-margined, mostly smooth above, sometimes hairy below, 1/4 1 1/2 inches long, twigs smooth.

Flower/Fruit: Flowers are pink to white, bell-shaped, in clusters of a few flowers, mostly near the ends of the twigs. The fruits are white, berry-like fruits that persist through winter, considered poisonous.

Bark: Spreading by a few underground rhizomes; branches into very fine, hairless twigs.

Plant Height: Spreading shrub 2-5 feet tall.

Healing Properties/uses/interesting Facts:

Common snowberry is one of the most widespread shrubs in North America. The berries were not eaten by any native people and many considered them poisonous or toxic. In several Interior languages the name for this plant means 'corpse berries' or 'ghost berries.' The Secwepemc hollowed out the twigs to make pipe-stems, the St'at'imc squeezed ripe berries into sore eyes before going to sleep, and the Nlaka'pmx used them as a cure for diarrhea.

Snowberry



What are
Broadleaf
Trees?
A broadleaf tree
has broad, flat
leaves and is usually
deciduous (drops
its leaves every
year).

Mountain Ash



Common Name: shiny-leaf ceanothus (Snowbrush)

Scientific Name: *Ceanothus velutinus*

Leaf Form/Shape: Alternate, broadly oval with toothed edges and 3 main veins, branching from base of leaf, shiny and often sticky above, velvety below; paired stipules on leaf stalk where it joins stems.

Flower/Fruit: Flowers are tiny and white, borne in dense, pyramidal clusters along side branches near end of twigs. Fruits are hard, 3-lobed capsules, containing 3 shiny seeds.

Bark: Green bark, several stems at the base.

Plant Height: 2-5 feet tall.

Healing Properties/uses/interesting Facts:

Ceanothus produce abundant, heat-resistant seeds that appear able to remain dormant in the soil for at least 200 years. This germination is stimulated by fire, which also opens up areas where the plants can grow vigorously. These shrubs are also 'nitrogen fixers.' Bacteria in nodules on their roots absorb nitrogen from the air and convert it into a form useful to plants, which can give these shrubs a real advantage over their associates, but they are eventually over topped by young trees. The Ktunaxa made the leaves into a tea that was said to be good for tuberculosis. The Okanagan used a decoction for eczema, dandruff and skin sores. The Nlaka'pmx used a decoration of the branches for arthritis and rheumatism. In the dry Interior, the lower surfaces of the leaves are covered with a dense silky or velvety covering of hairs.

Shiny Leaf Ceanothus



Common Name: mountain ash

Scientific Name: *Sorbus scopulina*

Leaf Form/Shape: Divided into 9-13 narrowly oblong leaflets, with sharp-pointed tips and sharply toothed edges along most of the length.

Flower/Fruit: Small white flowers, up to 200 showy, flat-topped to rounded cluster. The fruits orange to scarlet and berry-like, without any whitish bloom.

Bark: Light gray, smooth, surface scaly. Branchlets downy at first, later become smooth, brown tinged with red, lenticular, finally they become darker and the papery outer layer becomes easily separable.

Plant Height: Several-stemmed deciduous shrub, 3-15 feet tall; winter buds and young growth white-hairy and sticky.

Healing Properties/uses/interesting Facts:

The Lower Nlaka'pmx ate the fruits of western mountain-ash. Birds eat the berries of both mountain-species, especially after they have fermented. Deer, moose, and other ungulates eat the twigs. Mountain ash are most easily started from seeds sown in late autumn. They are very difficult to propagate from cuttings. The name 'mountain-ash' is a misnomer, as this is not an ash at all; however, it may have acquired the name because its divided leaves resembled those of the ash.

Quaking Aspen



Common Name: serviceberry

Scientific Name: *Amelanchier alnifolia*

Leaf Form/Shape: 3/4-1 1/2 inches long, dark green, woolly or hairy underneath with young, generally becoming smooth with age.

Flower/Fruit: Flowers clusters short and dense; petals are white about 1/2 inch long; flower stems usually hairy or silky; berries 1/4- 3/8 inch, dark purple when mature.

Bark: Bark is reddish brown, greyish when older, branchlets hairy.

Plant Height: 2-15 feet tall.

Healing Properties/uses/interesting Facts:

Serviceberry provides winter browse for many hoofed mammals, and many bird species eat the berries in August. These berries were the most popular and widely used for central and southern native peoples. In the Secwepemc languages they are called 'real' or 'ordinary' berries. Dried berries were a common trading item, especially between the Interior and then Coast. Native people recognized up to eight different varieties based on differences in flowering time and size, texture and sweetness of the fruit. Berries were eaten fresh or fried in cakes or like raisins for storage. Maple and serviceberry sticks were boiled together to make a medical drink for women following childbirth.

Ser vi ceBer r y



Common Name: quaking aspen (trembling aspen)

Scientific Name: *Populus tremuloides*

Leaf Form/Shape: Small and rounded, 1 1/2-3 inches in diameter, with fine, tooth-like margins. Green and shiny above, dull and pale below. Turn golden yellow in autumn. Nearly circular, with abruptly pointed tips.

Flower/Fruit: Slender, cone-shaped capsules containing many tiny, light brown, seeds with white fluffy hairs.

Bark: Smooth, with waxy appearance; greenish gray to white, with black scars where branches previously grew; becoming furrowed at base and grey to blackish with age; does not peel and lacks the dark, horizontal slits typically found on birch species.

Plant Height: 60 feet tall, 50-75 cm in diameter; short, rounded crown; extensive male or female clones formed by root suckers; lacks resinous buds.

Heal ing Properties/uses/interesting Facts:

Aspen reproduces mainly from root suckers following disturbances, such as cutting or fire. Aspen can occur in huge, long-lived clones that may be thousands of years old. Individual clones are best distinguished in autumn and spring, when all trees of a clone leaf out and drop leaves simultaneously. The Carrier used rotten aspen wood as diaper material and as a lining for baby cradles. The Nlaka' pmx sometimes made dugout canoes from this tree, and the Secwepemc used aspen to make tent poles and drying racks. There are records of settlers extracting a quinine-like drug from the intensely bitter-tasting inner bark.

Common Name: Rocky Mountain maple

Scientific Name: *Acer glabrum*

Leaf Form/Shape: 2-4 inches broad, about as long as broad, rounded in outline, distinctly divided into three to five lobes; thin dark green above, paler below. Brilliant red, thickened areas, resulting from mite damage.

Flower/Fruit: Symmetrically double, slightly spreading with elongate, broadened wings 3/4- 1 inch long, often rose-colored in summer.

Bark: Thin, smooth, dark red-brown.

Plant Height: 20-30 feet tall with trunk diameter up to 8 inches. It often grows along mountain streams and on sides of canyons. Rocky Mountain maple, often called dwarf maple, is striking features of mountain sides in autumn after the leaves have taken on their varied coloration.

Healing Properties/uses/interesting Facts:

Native people used the tough, pliable wood of the maple to make a wide variety of goods, especially snowshoe frames. The green wood was soaked and heated before being molded into the desired shape. Other items included throwing stick, bows, rattles, masks, and headdresses. Some native people wove the fibrous inner bark into twine and rope. Interior native people often mistakenly called this shrub 'vine maple.'

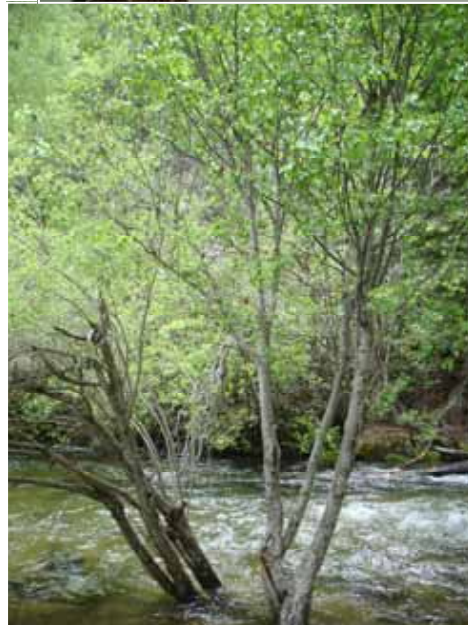
Rocky
Mountain
Maple



What is a
Shrub?

Woody, multi-stem
plant that is less
than 10 meters tall
when mature.

Al der



Common Name: Oregon grape

Scientific Name: *Mahonia aquifolium*

Leaf Form/Shape: Pinnately compound with 5-9 leathery, oblong to egg-shaped leaflets, glossy green above, with prominent spiny teeth along edges.

Flower/Fruit: Flowers are bright yellow in many-flowered erect clusters. Fruits are bluish berries with several large seeds and a whitish bloom, in elongated clusters; edible but sour.

Bark: Evergreen, stiff-branched shrub, yellowish bark and wood.

Plant Height: 20-100 cm tall.

Healing Properties/uses/interesting Facts:

Southern Interior native people extracted from the inner bark of the stems and roots a bright yellow pigment they used to dye basket materials or porcupine quills. Although the berries are tart, some native people ate them and made jelly from them for meats. This species was first introduced to horticulture in 1823.

Oregon Grape



Common Name: mountain alder

Scientific Name: *Alnus incana* ssp. *tenuifolia*

Leaf Form/Shape: Thin and oval, with rounded to somewhat heart-shaped bases, rounded to blunt tips and shallowly lobed, double-toothed edges; green above, pale and hairy below.

Flower: Flowers are small and inconspicuous, in separate male and female catkins developing before leaves; male catkins long and drooping; female catkins short, woody, cone-like.

Fruit: Narrowly winged nutlets in egg-shaped cones on very short stalks.

Bark: Yellow-brown bark with distinct horizontal slits.

Plant Height: Coarse shrub or small deciduous tree, 6-30 feet tall, often grows in clumps; woolly hairy to hairless twigs, club-shaped buds on short stalks.

Healing Properties/uses/interesting Facts:

As with other alders, the leaves of mountain alder remain green through much of autumn. Mountain alder was considered the best for smoking and drying salmon and meat because it has no pitch and does not flavor the food. It was also made into eating utensils and severing dishes. Both the wood and the bark were widely used as a source of dye and to treat animal hides. The Carrier fashioned the bark into fish nets that were dyed black, by boiling them in their own juice, so that fish could not see them. Boiled alder bark was important medicine and was drunk to stop bleeding.

Do gwo o d



Common Name: ninebark

Scientific Name: *Physocarpus malvaceus*

Leaf Form/Shape: Divided into 3-5 lobes with toothed edges and deep veins, shiny dark green above, lighter below, hairy on both surfaces.

Flower/Fruit: Flowers are white with 5 rounded petals, in half-rounded clusters at branch tips. Fruits are in pairs of inflated, hairy, reddish capsules, joined on lower half, each with a shiny yellowish seed inside.

Bark: Arching branches and brown, papery, shredding bark.

Plant Height: Up to 2 meters.

Healing Properties/uses/interesting Facts:

The hairs on the leaf surfaces, calyx lobes and young branches are star-shaped when viewed under 10x magnification. The Okanagan used this plant as a good luck charm to protect their hunting equipment.

Oregon Grape



Common Name: red dogwood

Scientific Name: *Cornus stolonifera*

Leaf Form/Shape: Opposite, oval, and mostly sharp-pointed with 5-7 prominent parallel veins that converge at leaf tip; turning reddish in autumn.

Flower/Fruit: Flowers are small, white to greenish, in dense flat-topped clusters at ends of stem. Fruits are in small clusters of with white berry-like fruits, each with a large, somewhat flattened stone; bitter.

Bark: Branches opposite, with lower braches; often lying on ground and rooting freely., young stems usually bright red, especially after frost.

Plant Height: 5-8 feet tall.

Healing Properties/uses/interesting Facts:

This species is an extremely important moose winter browse. The Ktunaxa naje a sweet-and-sour dish of dogwood berries, saskatoons and sugar. The Secwepeme used the berries as a mouthwash. The boiled inner bark was used for any kind of sickness or applied as a poultice to sores and swellings to kill pain. The branches were used for fish tarps, poles, and salmon stretchers. The Secwepemc made their sweathouses out of the bent braches. Red-osier dogwood is one of our most valuable native shrubs for environmental plantings on moist soil.

Chokcherri

Common Name: kinnikinnick

Scientific Name: *Arctostaphylos uva-ursi*

Leaf Form/Shape: Alternate, oval to spoon-shaped up to 3 cm long, with smooth edges; leathery, dark green and somewhat shiny above, paler below, hairless.

Flower/Fruit: Flowers are small, urn-shaped and pinkish white, drooping in few-flowered clusters at branch tips. Fruits are bright red berries like miniature apples, with large, very hard seeds, edible with white mealy and tasteless pulp.

Bark: Brownish-red bark; long, flexible, rooting branches often form large mats.

Plant Height: Usually not over 20 cm tall.

Healing Properties/uses/interesting Facts:

Kinnikinnick is an alternate host for spruce broom rust. Before Euro-American contact, most southern Interior native groups, smoked kinnikinnick, except the Carrier and other northern Athabaskan peoples. The Nlaka'pmx boiled the leaves to make a tea, used a decoction of the stems and leaves as a diuretic, and fried the berries in salmon or bear fat, or boiled them in soups. The berries ripen late and remain on plants into winter, providing forage for birds, bears, and other wildlife.

Ki nni ki nni ck



Common Name: chokecherry

Scientific Name: *Prunus virginiana*

Leaf Form/Shape: Thin, broadly oval and tapering at both ends, with fine, sharply toothed edges and short pointed tip; dull green above, faintly scented.

Flower/Fruit: Small white, saucer-shaped with 5 rounded petals; in long clusters at the branch tips that resemble bottle-brushed; faintly scented. Shiny, rep to purple or black cherries; edible but with a very astringent aftertaste.

Bark: Trunks are twisted or crooked; bark is smooth, dark reddish to greyish brown, without prominent horizontal slits.

Plant Height: 3-12 feet tall, deciduous , often straggle shrub or occasionally small tree.

Healing Properties/uses/interesting Facts:

The name “chokecherry” is very apt because the fruits produce a choking sensation when eaten. Interior native people enjoyed choke cherries, in spite of the astringency and large stones, and they ate them fresh as a snack or dried for winter use. The cherries make excellent jelly. The Secwepemc consumed choke cherry juice to gain strength after sickness. Jellies and syrups are also favored by all Interior native people. Chokecherry wood was used for handles, especially on root-diggers, and the bark was shredded and used for decorating basket rims.

Huckleberry



Common Name: huckleberry

Scientific Name: *Vaccinium membranaceum*

Leaf Form/Shape: Thin, lance-shaped to elliptic, 2-4 cm long, with finely toothed edges and pointed tips; smooth, paler below, turning red and/or purple in autumn.

Flower/Fruit: Flowers are urn-shaped, with creamy-pink to yellow-pink corollas; borne singly in leaf axils; appearing with or after leaves. Fruits are purplish or reddish-black berries, without bloom; large round, edible; excellent flavor.

Bark: Coarse, densely branched deciduous shrub; young branches yellowish green and somewhat angled; bark on old branches greyish, shredding.

Plant Height: To 1.5 meters tall.

Healing Properties/uses/interesting Facts:

The berries of huckleberry are among the most delicious of the *Vaccinium* species. They are produced in great abundance on some sites, especially old burns at subalpine elevations. Make wonderful desserts and snacks.