

Common Trees and Shrubs Found Along the Lower Flathead River

A Guide to the Some of the More
Common Trees and Shrubs

sx^wex^w?enče (Salish)
kał a'wu'k (Kootenai)
Douglas Hawthorn
(*Crataegus douglasii*)



Black hawthorn is usually a shrub, but when conditions are right it can become a small tree. It has a round-topped crown with spreading branches that slant upward. Usually, it has thorns.



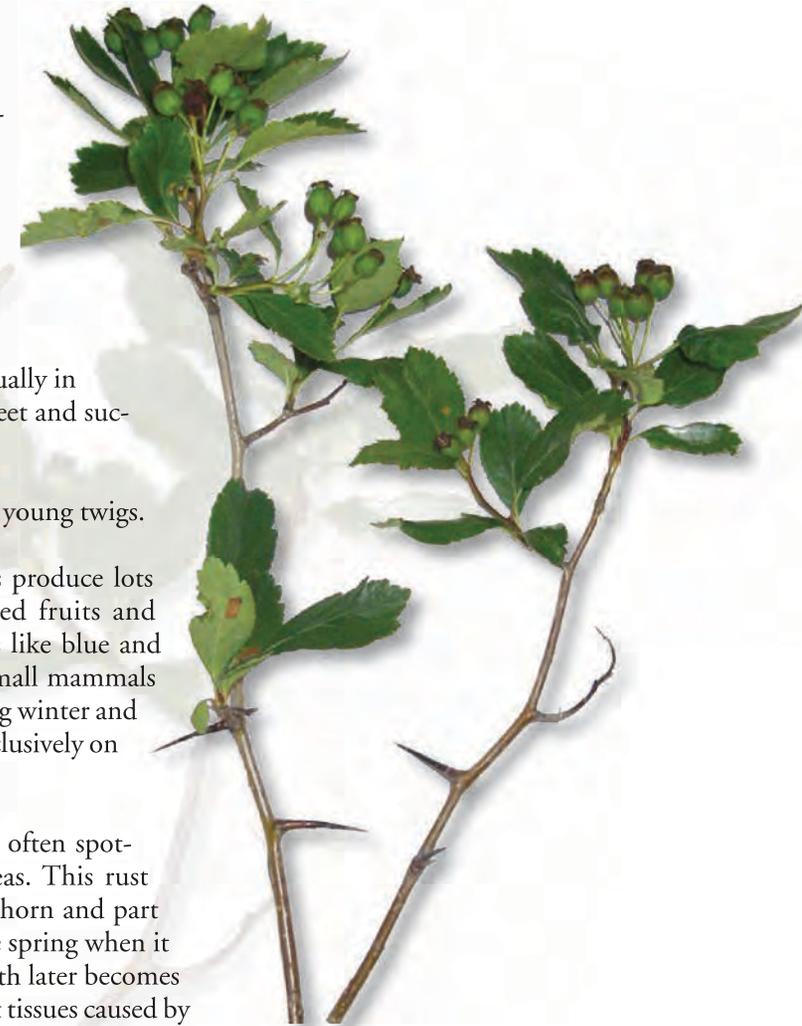
Leaves: Broad, oval, thick, somewhat leathery; round or pointed at the tips; coarsely sawtoothed toward the tips, dark green above, paler below.

Fruit: About 1/2 inch in diameter, usually in clusters of eight or ten, the flesh is sweet and succulent; containing about five seeds.

Bark: Gray, or shiny-red to brown on young twigs.

Wildlife: Douglas hawthorn thickets produce lots of food and cover for wildlife. Dried fruits and stems provide autumn food for birds like blue and sharp-tailed grouse. Mule deer and small mammals eat dry Douglas hawthorn fruits during winter and sharp-tailed grouse sometimes feed exclusively on Douglas hawthorn fruits.

Other: Leaves of black hawthorn are often spotted with orange-colored diseased areas. This rust disease spends part of its life on hawthorn and part on juniper, where it looks slimy in the spring when it is discharging spores. This slimy growth later becomes a gall (an abnormal outgrowth of plant tissues caused by parasites, from fungi and bacteria, to insects and mites).



mulš (Salish)

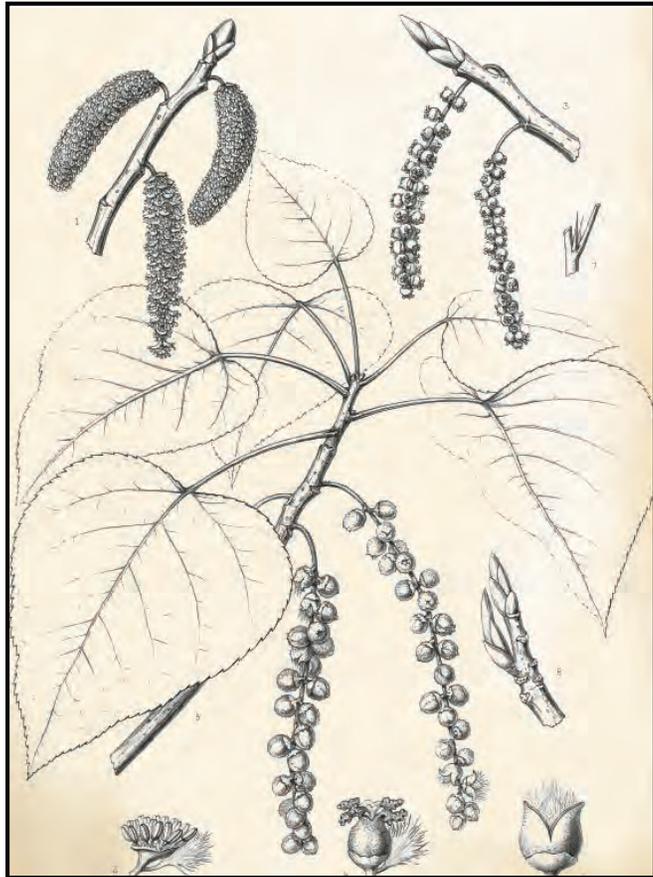
kanuʔ maquʔ aqpiʔk (Kootenai)

Black Cottonwood

(*Populus balsamifera*)



Black cottonwood, which grows up to 120 feet, is the largest of Montana's cottonwoods. Its trunk is commonly free of branches up to one-half its height. It has broad, oval-shaped crowns when grown in open sites. It grows on moist soils along the river.



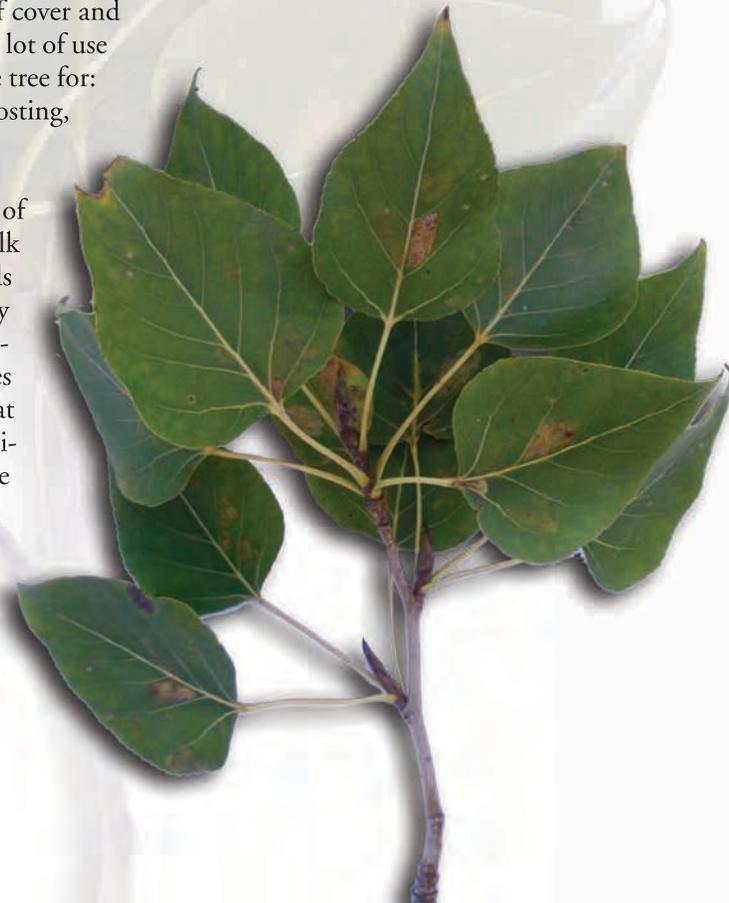
Leaves: 3 to 7 inches long and 3 to 4 inches wide; broad, rounded at base; thick, leathery; deep, shiny green on the upper surface, very veiny and silvery white on lower surface.

Bark: Smooth and greenish on young stems; becomes gray and sharply furrowed, 1 to 2.5 inches thick as the tree ages.

Wildlife: Streamside black cottonwoods contribute to good fish habitat by providing streambank stability and reducing siltation, maintaining low water temperatures through shading, increasing the amount of downed wood in the stream, and providing nutrient-rich litter for aquatic food webs. Black cottonwood is an important source of cover and forage (to a lesser extent) for wildlife. Birds make a lot of use of the tree. Depending on the species, they use the tree for: nesting and/or perching, cavity nesting, nesting, roosting, and foraging.

Black cottonwood is most important as a source of cover rather than forage for big game species. Elk and deer use is high in black cottonwood stands in Montana, particularly when a shrub canopy layer is well developed. White-tailed deer use mature cottonwood forests during winter. These sites provide hiding cover which is needed in areas that are otherwise rather open. A study of habitat partitioning among elk, white-tailed deer, and moose near Glacier National Park, Montana found a significant preference of white-tailed deer for later-successional spruce-black cottonwood communities over early or mid-successional

communities. Elk and moose had significantly preferred mid-successional black-cottonwood communities. None of the 3 ungulates was observed to prefer early successional communities. Black cottonwood is used by beavers for forage and dam building.



puntp (Salish)
'a-kukp# u# a# (Kootenai)
Rocky Mountain Juniper
(*Juniperus scopulorum*)

This tree varies from a bushy shrub to a tree 50 feet tall. The trunk is short and stout, often divided near the ground. The crown is generally dense, although the branches may become long, slender and drooping. These trees often are infected by a rust fungus that forms galls 1/2 to 1 inch in diameter.

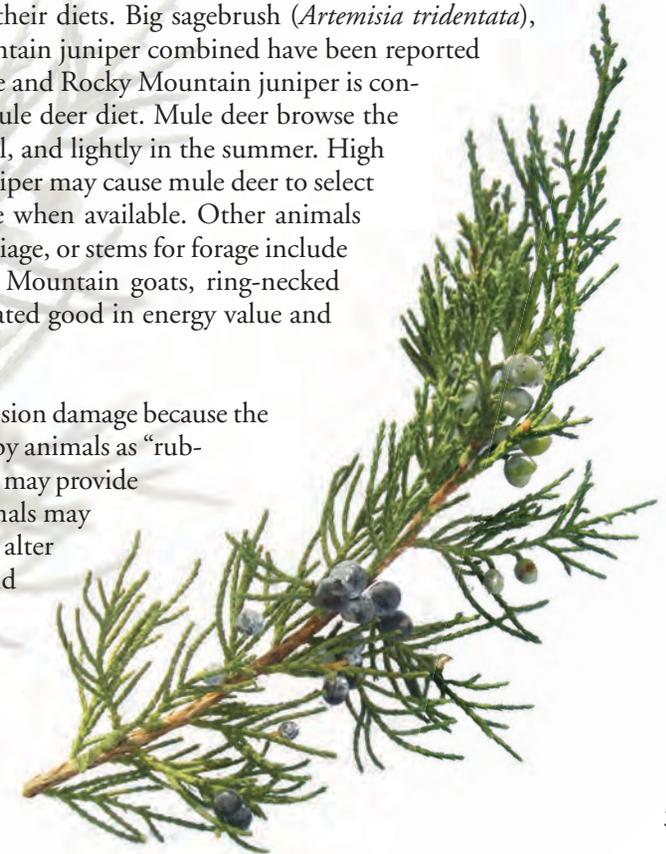
Leaves: Scale-like, about 1/8 inch long, pointed; arranged in opposite pairs along the stems; ashy green on some trees, green or yellow-green on others; branchlets slender. Juvenile leaves awl-shaped.

Cones: Berry-like, one or two seeded, blue-green or green about 1/4 inch in diameter, take two years to mature.

Bark: Thin, fibrous, stringy, red-brown or gray-brown in color.

Wildlife: Rocky Mountain juniper is important forage and cover for many wildlife species. Waxwings are the principal consumers of Rocky Mountain juniper cones (“berries”), but numerous other birds and mammals include the berries in their diets. Big sagebrush (*Artemisia tridentata*), bitterbrush (*Purshia* spp.), and Rocky Mountain juniper combined have been reported to make up 66% of winter mule deer browse and Rocky Mountain juniper is considered a major component of wintering mule deer diet. Mule deer browse the foliage moderately in winter, spring, and fall, and lightly in the summer. High levels of volatile oils in Rocky Mountain juniper may cause mule deer to select against the foliage in favor of other browse when available. Other animals that use Rocky Mountain juniper berries, foliage, or stems for forage include white-tailed deer, black-tailed deer, Rocky Mountain goats, ring-necked pheasant, grouse, and cattle. Overall, it is rated good in energy value and fair in protein value.

Rocky Mountain juniper is susceptible to erosion damage because the species lives on exposed, erodible sites. Use by animals as “rubbing posts” can damage trunks and roots, and may provide an entryway for pathogens. Also, range animals may browse, or “high-line”, crown foliage and alter growth and vigor of trees. In wet years and near springs, use by bison and cattle should be monitored to avoid accelerating the erosion process by overuse.



sʔátqʷłp (Salish)
himu (Kootenai)
Ponderosa Pine

(*Pinus ponderosa*)

Ponderosa pine grows from 50 to 180 feet tall. The young trees are often called “black jack” or “bull pine,” and the older trees, “yellow pine.”



Needles: Three needles or sometimes two in each bundle, usually 4-7 inches long in tufts at the end of the branches.

Cones: 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.

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

Wildlife: Pacific ponderosa pine needles, cones, buds, pollen, twigs, seeds, and associated fungi and insects provide food for many species of birds and mammals. Small mammals that eat stems and roots include deer mice, chipmunks, shrews, voles, and tree and ground squirrels. Large browse mammals include elk, deer, porcupines, hares, and rabbits. Many bird species— junco, Cassin’s finch, pine siskin, evening grosbeak, varied thrush, Clark’s nutcracker, and a host of sparrows, chickadees, and other passerines— eat ponderosa pine seeds. Ponderosa pine provides numerous species of birds and mammals with shelter. As seedlings they provide low ground cover for small birds and mammals. Upon reaching pole size, stands provide good windbreaks and thickets important as hiding cover for larger mammals such as elk and deer. Mature trees and standing snags house arboreal species, while fallen logs and stumps provide many cavity-dwelling species with adequate shelter.

Other: Ponderosa pine is the state tree of Montana. Its bark has a molecule that is very similar in its makeup to the molecule that makes up vanilla, and the bark, especially on a warm sunny day, smells like vanilla.



c̣əɬp (Salish)

ʔu (Kootenai)

Douglas Fir

(Pseudotsuga menziesii)

Although it is a very large tree in coast areas, Douglas-fir seldom grow taller than 130 feet in Montana. Douglas-fir is used extensively for Christmas trees, lumber and plywood in this state. Its terminal buds are pointed.



Needles: .75 to 1.25 inches long, single, flat, slightly grooved above and marked below with two light bands. Needles become narrow at base where they are attached to the branchlets; sharper at the end than the true firs.

Cones: 2 to 3 inches long, 3/4 to 1 inch in diameter, oblong, can be identified by the three-pointed wings or bracts that stick out beyond the cone 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 old trees.

Wildlife: Douglas-fir seedlings are not a preferred browse of mule deer or elk, but can be an important food source for these animals during the winter when other preferred forages are lacking. Douglas-fir seeds are an extremely important food for small mammals like mice, voles, shrews, and chipmunks.

The seeds are also important in the diets of the winter wren, pine siskin, song sparrow, golden-crowned sparrow, white-crowned sparrow, red crossbill,

dark-eyed junco, and purple finch. Squirrels harvest and cache great quantities of Douglas-fir cones for later use. They also eat mature pollen cones, developing inner bark, terminal shoots, and tender young needles. Mature or "old-growth" coast Douglas-fir is the primary habitat of the red tree vole and the spotted owl. Home range requirements for breeding pairs of spotted owls are at least 1,000 acres (405 ha) of old-growth.

Other: Douglas-fir is really not a fir at all. Many things about it are different than the true firs, especially the cones. Because of fire exclusion, this tree has greatly expanded its distribution. It has also increased its density in many areas, which has increased the risk of forest fire and diseases.



słaq (serviceberries) (Salish)
słqé (serviceberry bush) (Salish)
sýeyýe? (juneberry) (Salish)
squmu-wuk (Kootenai)

Serviceberry

(Amelanchier alnifolia)

Serviceberry is a deciduous shrub or small tree that is generally between 3 and 26 feet tall at maturity. Each fruit contains 4 to 10 small seeds, some of which are usually infertile. The seedcoat is leathery in texture.



Leaves: The leaves are 3/4 to 2 inches long and almost as broad. They are elliptical to nearly round and rounded at both ends and have a coarse “toothed” edge above the middle.

Bark: The bark is gray or brown; thin, smooth or slightly fissured, while the twigs are red-brown, slender and hairless.

Flowers and Fruit: The flowers are 3/4 to 1 1/4 inches wide; with 5 narrow white petals; in small, clusters. It blooms in spring. The fruit is a berry, 1/2 an inch in diameter; like a small apple, purple or blackish, very edible—juicy and sweet with several seeds. It is ripe in early summer.

Wildlife: Serviceberry is a valuable wildlife plant. Wild ungulates browse twigs and foliage; fur and game mammals such as black bear, beaver, and hares consume twigs, foliage, fruits, and bark. Upland game birds consume the fruits and buds, and many species of rodents and songbirds eat the fruits.

Other: The berries are great eaten fresh or in pancakes or muffins or dried. The Salish and Kootenai used serviceberry wood to make arrow shafts, spears, and digging sticks.



stmtmniʔá (Salish)
miɔquku# i# na (Kootenai)
Snowberry

(*Symphoricarpos occidentalis*)

Common snowberry is a native, deciduous, shrub that is densely branched and 2 to 4 feet tall.

Leaves: thick, oval or round, broadly lobed or wavy-margined, mostly smooth above, sometimes hairy below, .25 to 1.5 inches long



Twigs and Flowers: Twigs smooth; flowers white or pinkish, the petals densely hairy within, in few to several rather crowded clusters at ends of branches and in leaf axils.

Fruit: Berries white, round or oval, 1/3 to 1/2 inch in diameter.

Wildlife: Common snowberry is an important browse plant for many types of wildlife. Bighorn sheep use common snowberry regularly during the summer. White-tailed deer utilize it regularly during summer and fall. Its forage value to elk is fair. Moose are reported as utilizing common snowberry extensively during winter. Grizzly bears use common snowberry as food.

Common snowberry is also important as both cover and food for bird and small mammal populations. These include sharp-tailed, ruffed, and blue grouse, wild turkey and, several non-game species of bird including the kingbird, western flycatcher, and western bluebird. Among small mammals that rely on common snowberry are squirrels, cottontails, and pocket gophers.

Antelope Bitterbrush

(*Purshia tridentata*)

Bitterbrush is a grayish green, intricately branched shrub 1.5 to 4 feet tall with brown or grayish bark

Leaves: The leaves are small, thick, leathery, wedge-shaped, about 1/4 to 3/4 inch long, finely white-felty below, three-toothed at tip, side margins slightly in-rolled, occurring usually in small bunches on short branchlets



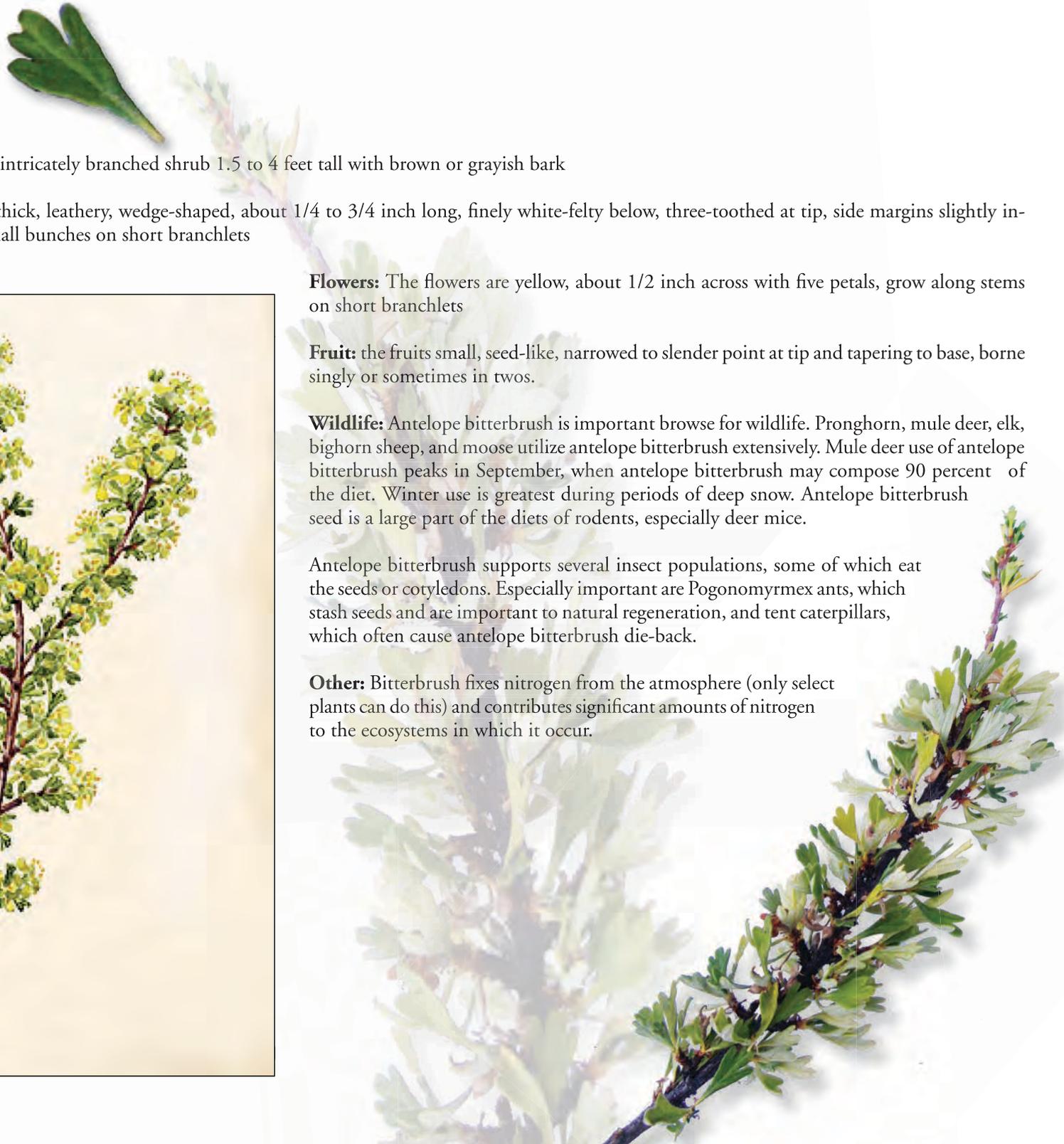
Flowers: The flowers are yellow, about 1/2 inch across with five petals, grow along stems on short branchlets

Fruit: the fruits small, seed-like, narrowed to slender point at tip and tapering to base, borne singly or sometimes in twos.

Wildlife: Antelope bitterbrush is important browse for wildlife. Pronghorn, mule deer, elk, bighorn sheep, and moose utilize antelope bitterbrush extensively. Mule deer use of antelope bitterbrush peaks in September, when antelope bitterbrush may compose 90 percent of the diet. Winter use is greatest during periods of deep snow. Antelope bitterbrush seed is a large part of the diets of rodents, especially deer mice.

Antelope bitterbrush supports several insect populations, some of which eat the seeds or cotyledons. Especially important are *Pogonomyrmex* ants, which stash seeds and are important to natural regeneration, and tent caterpillars, which often cause antelope bitterbrush die-back.

Other: Bitterbrush fixes nitrogen from the atmosphere (only select plants can do this) and contributes significant amounts of nitrogen to the ecosystems in which it occur.



łx^włó (Salish)

ʼa-kiʼ makwuʼk (Kootenai)

Chokecherry

(*Prunus virginiana*)

Chokecherry is found on mountain slopes, stream borders and dry hills throughout Montana. It is more often a shrub than a tree, usually with a crooked trunk and a spreading crown; and often forms dense thickets. It is rarely over 30 feet tall in Montana.

Leaves: Leaves 2-4 inches long, 1-2 inches wide, ovate, sharp or taper-pointed at the tip, rounded at the base; margins finely toothed; dark green above, pale and somewhat hairy beneath, bearing a pair of glandular bumps on the leafstalk just below the base of the blade. The leaves are poisonous to livestock when young, but rarely eaten.

Fruit: Berries are 1/4 to 1/3 inch in diameter, in dense clusters. Bright red, scarlet or nearly black; thick skin, juicy; can be eaten or made into syrup, jelly or wine.

Bark: Bark is thin, red-brown, slightly furrowed with tan marks; very bitter to the taste.

Wildlife: Chokecherry is widely regarded as an important wildlife food plant and provides habitat, watershed protection, and species diversity. Fruits, leaves, and twigs are utilized. Large mammals, including bears, moose, coyotes, bighorn sheep, pronghorn, elk, and deer use chokecherry as browse. Chokecherry is also a food source for small mammals. The fruits are important food for many birds. Chokecherry also provides important cover and habitat for many bird species, small mammals, and large mammals. It is an excellent shrub for providing thermal cover and erosion control in fisheries.



Rabbitbrush or Rubber Rabbitbrush

rubber rabbitbrush (*Ericameria* spp.) sticky rabbitbrush (*Chrysothamnus* spp.)

Rabbitbrush is an upright, usually thigh-high shrub with green stems and small leaves that produce dense, yellow flowerheads at the top of the shrub during fall. Individual species of this plant vary and can have many subspecies or varieties. In general rabbitbrush is a shrub 1.5 to 4 feet tall



Stems: Pale green or white.

Leaves: Narrow to oblong, lance-shaped, 3/4 to 2.5 inches long, often twisted, smooth but sticky.

Flowers: Broad-spreading and form round and flat-topped clusters. The flowering branches can be sticky, and seeds from rabbitbrush usually have dense hair.

Wildlife: In general, wildlife and livestock forage only lightly on this plant during the summer, but winter use can be heavy in some locations. Fall use is variable, but flowers are often used by both wildlife and livestock. A few leaves and the more tender stems are also eaten. In Montana rabbitbrush is considered to be an important fall and early winter food source for mule deer. In north-central Montana, the percentage of rubber rabbitbrush in mule deer diets doubled from September to October, with highest use recorded in December. In some places, like the Missouri Breaks, elk eat the plant, especially during September.

In the fall when the plant flowers, hundreds of insects—from butterflies to bees and wasps to beetles to flies to bugs—can often be found on single plant. The larvae of some butterfly and moths species depend on rabbitbrush.

Other: Certain species of rabbitbrush are sometimes called rubber rabbitbrush, a common name that refers to the rubber content in the plants' sap, which varies by species and subspecies. Rabbitbrush was first tested as a source of high quality rubber during World War II. In recent decades, there has been renewed interest in the plant's potential for production of rubber, resins, and other chemicals. Other compounds in rubber rabbitbrush are being evaluated for nematocides, anti-malarial properties, and as insect repellents.



čk^wik^w (Salish)
yukwu'k (Kootenai)
Black Elderberry

(*Sambucus racemosa*)

Elderberry is a short lived, shade intolerant (or slightly tolerant) shrub or small tree, usually between 6.5 to 13 feet (2 to 4 m) tall, but sometimes reaching 20 feet (6 m). Young twigs are soft and pithy but the wood is quite hard with grayish bark or thin, dark brown irregularly furrowed and ridged bark. There may be a thick taproot with fibrous, spreading, lateral roots.



Leaves: 5 to 7 dark green leaflets, oblong, lance-shaped, 3.5 to 6 inches long, long-pointed, coarsely toothed, hairy below when young, becoming smooth later.

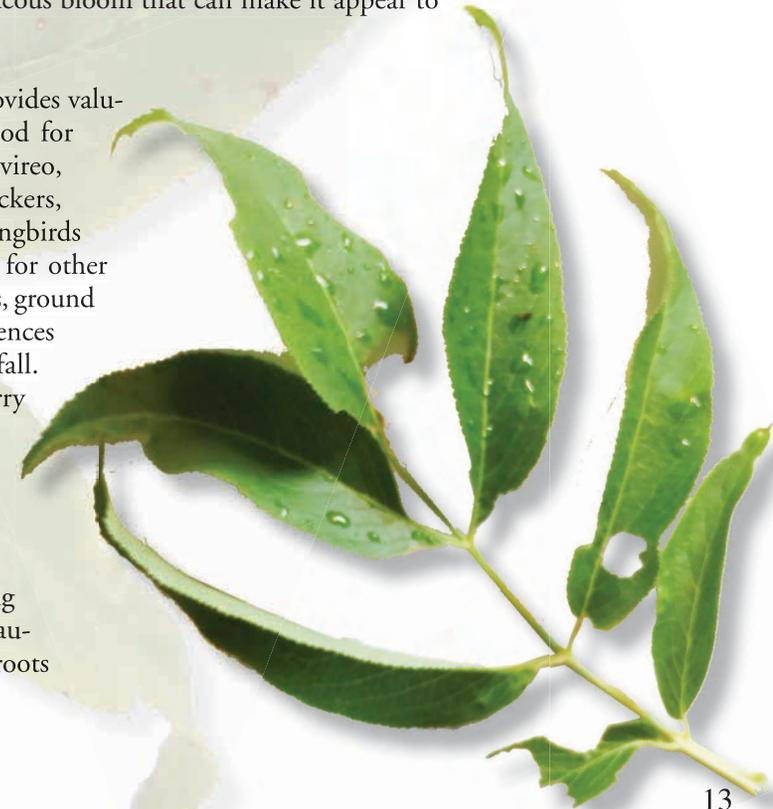
Flowers: The flowers are perfect, white or cream colored, and borne in a cyme. The entire inflorescence is about 1.6 to 5.9 (7.9) inches (4 to 15 cm) across and nearly flat topped.

Fruit: The fruit is globose, edible, and blue-black with a glaucous bloom that can make it appear to be powder blue.

Wildlife: Many wildlife species use elderberry for food. It provides valuable cover, perching, and nesting sites; its fruit provides food for many species of birds including bluebirds, magpies, warbling vireo, western tanager, house finch, green-tailed towhee, woodpeckers, grosbeaks, Townsend solitaire, grouse, pheasant, and hummingbirds who visit flowers for nectar. It also provides cover and food for other wildlife including rabbits, squirrels, foxes, marmots, chipmunks, ground squirrels, woodrats, and mice. Mule deer show seasonal preferences for elderberry. Elk use blue elderberry both summer and fall. Elderberry is a more important deer browse than red elderberry (*Sambucus racemosa*).

Other: The fruit of blue elderberry is frequently gathered for wine, jellies, pies, and sauces, and makes a delicious ice cream. The Salish and Pend d'Oreille made elk whistles and flutes from the stems. Some caution should be used in eating

elderberries since other species in the genus contain a cyanogenetic glycoside and an alkaloid that can cause nausea, vomiting, diarrhea, and gastrointestinal pain. The berries contain very little of these substances, while the roots contain enough to cause death in hogs.



stečcx^w (Salish)
mukwu'k (Kootenai)
Red Oshier Dogwood

(*Cornus sericea*)



Red-osier dogwood is a deciduous, many-stemmed shrub which varies in height from 3 to 19 feet (1-6 m). The young stems and twigs are dark red, gradually fading to gray-green, and becoming red again in the fall and winter.



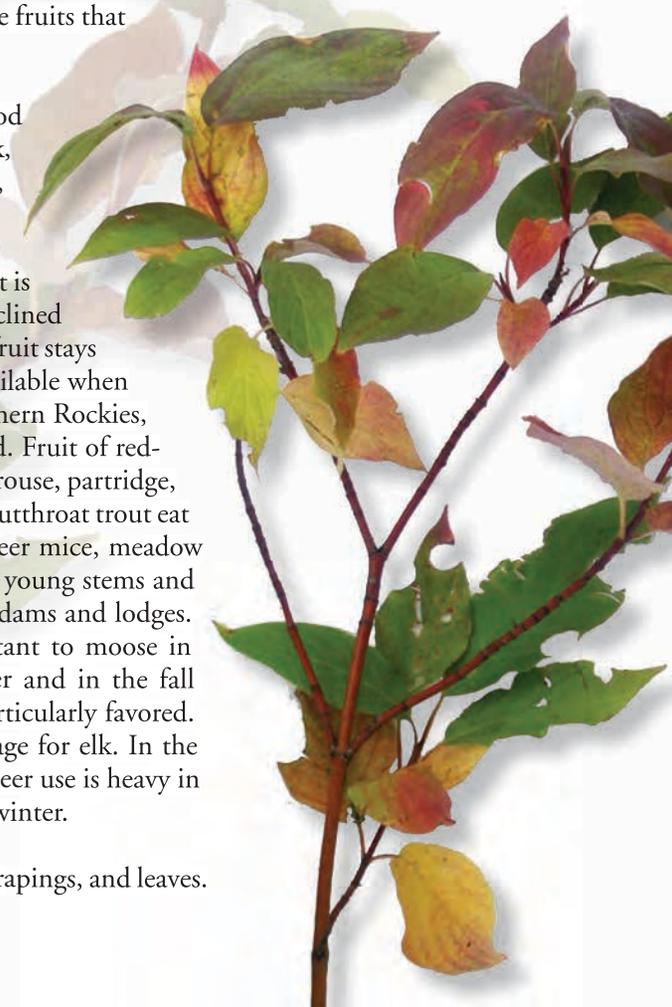
Leaves: The leaves are opposite with prominent lateral veins that curve toward the tip. The edges are smooth.

Flowers: Many, small white flowers are borne in a flat-topped cyme and, unlike many dogwoods, there are no large, showy bracts.

Fruit: The flowers are followed by berrylike fruits that are white or lead colored at maturity.

Wildlife: Red-osier dogwood is used for food and cover by white-tailed deer, mule deer, elk, moose, mountain goats, cottontail rabbits, snowshoe hares, and numerous birds, including pheasants, wild turkeys, and grouse. Red-osier dogwood fruit is low in sugar so it is initially less attractive to wildlife and less inclined to rot than other fruits. Consequently, the fruit stays on the plant through the winter and is available when fruits of other plants are gone. In the northern Rockies, its fruit is a key grizzly and black bear food. Fruit of red-osier dogwood is also eaten by songbirds, grouse, partridge, ducks, crows, mice, and other mammals. Cutthroat trout eat the berries when they fall into streams. Deer mice, meadow voles, and other small rodents feed on the young stems and bark. Beavers use it for food and to build dams and lodges. Red-osier dogwood is particularly important to moose in the winter; it is also used in the summer and in the fall when leaves that have escaped frost are particularly favored. Red-osier dogwood is valuable winter forage for elk. In the western United States and Canada, mule deer use is heavy in the summer and moderate in the fall and winter.

Other: The long slim stems can be used for basket weaving. Early settlers smoked (like cigarettes) the inner bark, stem scrapings, and leaves.



młmłté (Salish)
ʔa-kʔumak (Kootenai)
Quaking Aspen

(*Populus tremuloides*)



A native deciduous tree, it is small- to medium-sized, typically less than 48 feet in height and 16 inches in diameter. It has spreading branches and a pyramidal or rounded crown. The bark is thin. On the river it is found in small stands along springs and seeps.



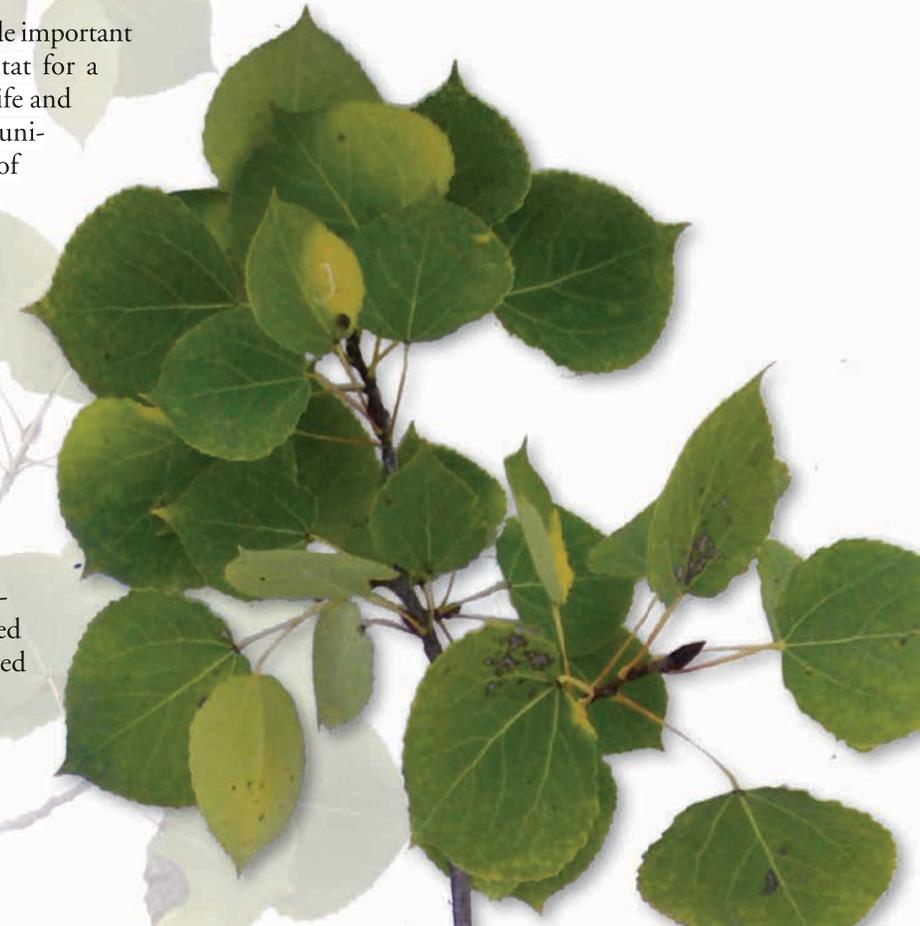
Leaves: Leaves are orb- to ovately shaped and glossy green, dull beneath, and they become golden to yellow, rarely red, in autumn. The leaves on mature trees are nearly round, 1.6–3.1 inches in diameter with small rounded teeth.

Flowers: The flowers are catkins 1.6–2.4 inches long, produced in early spring before the leaves; it is dioecious, with male and female catkins on different trees. The fruit is a 3.9 inch-long pendulous string of capsules, each capsule containing about ten minute seeds embedded in cottony fluff, which aids wind dispersal of the seeds when they are mature in early summer.

Wildlife: Quaking aspen forests provide important breeding, foraging, and resting habitat for a variety of birds and mammals. Wildlife and livestock use of quaking aspen communities varies with species composition of the understory and relative age of the quaking aspen stand. Young stands generally provide the most browse. Quaking aspen crowns can grow out of reach of large deer and elk in 6 to 8 years. Although many animals browse quaking aspen year-round, it is especially valuable during fall and winter, when protein levels are high relative to other forage species.

Other: Quaking aspen is the most widely distributed tree in North Amer-

ica. It is also the most genetically diverse plant ever studied. Quaking aspen forms clones connected by a common parent root system and the clones can be extraordinarily long lived. Some are estimated to be over 10,000 years old (the clone is that old, not the actual wood of the trees).



suláqe? (Salish)
'a-quwuk (Kootenai)
Poison Ivy

(*Toxicodendron rydbergii*)

Caution: there is quite a bit of poison ivy along the river. Always check an area for poison ivy before sitting or picnicking (or otherwise exposing yourself). The stems of poison ivy is thin barked, typically under 3 feet (1 m) high but may grow up to 10 feet (3 m) tall.



Leaves: Poison ivy has alternate, deciduous, compound leaves. Each leaf has 3 leaflets. Leaflets vary greatly in shape and size. Typically they are from 1 to 6 inches (2-15 cm) long and 1 to 4 inches (2-10 cm) wide.

Flowers: Poison ivy flowers have 5 petals and occur in loose clusters from the axils of the leaves. The inflorescence of western poison ivy usually has fewer than 25 flowers.

Fruit: Poison ivy fruit is a small, dry, round drupe (a drupe is a type of fruit with an outer fleshy part surrounded by a shell). Drupes occur in dense, erect or ascending “grape-like” clusters. Each drupe is 3 to 7 mm in diameter and has a single, hard, 3 to 4-mm diameter seed.

Other: Most parts of poison ivy plants contain a resinous oil, urushiol, that causes an irritating rash in about 80% of people. To cause “poisoning”, the oil usually must contact the skin, either directly by touching the plant or indirectly by touching things that have touched the plant. Burning of leaves can release droplets of the oil, which can then be carried by smoke to the eyes, throat, and lungs. Dead plant materials can remain poisonous for many years. Death can occur if large areas of the body are affected by the oil or if plant parts are consumed.

