

TAHOE DONNER ASSOCIATION

SELF-GUIDED Northwoods Nature Trail Loop



Presented by
Tahoe Donner Forestry

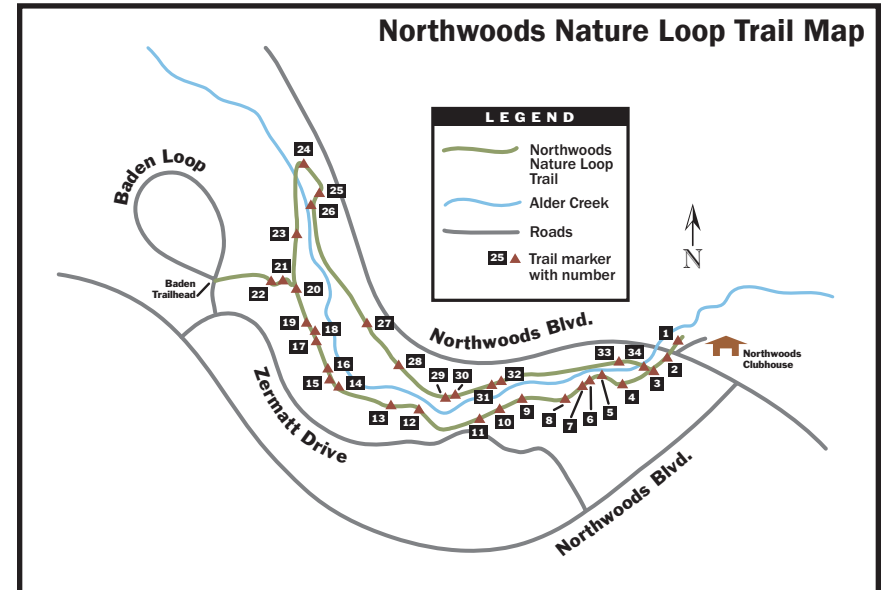
Self Guided Tour of The Northwoods Nature Loop

Welcome to the Tahoe Donner self guided tour of the Northwood's nature loop trail. This trail is marked with numbered stations that will introduce you to various trees, shrubs, and historical sites representative of those located throughout Tahoe Donner.

The following pages will provide detailed information on each station. Please do your part to preserve the integrity of the trail systems throughout Tahoe Donner. Most of the trails in the area are rocky and possibly have steep areas. Remember to dress accordingly and carry water.

Enjoy Your Walk!

Send comments to:
Tahoe Donner Forestry Department, (530) 587-9432



2003
Developed by the Tahoe Donner Association Forestry
Department

1	Jeffrey Pine	1
2	White Alder	2
3	Lodgepole Pine	2
4	Blue Elderberry	3
5	Quaking Aspen	4
6	Serviceberry	5
7	Snowbrush/Tobacco Brush	5
8	Spreading Snowberry	6
9	Western Dogwood	7
10	Thimbleberry	7
11	Mountain Pine Beetle Infestation	8
12	Old Mill Site	8
13	Double-Flowered Honeysuckle	9
14	Sierra Gooseberry	9
15	Wax Current	10
16	Black Twinberry	10
17	Bear Activity	11
18	Corn Lilly	11
19	Alpine Prickly Currant	12
20	Willow	12
21	Red Fir	13
22	White Fir	14
23	Squaw Carpet	15
24	Roads of Early Settlers	16
25	Green Manzanita	16
26	Incense-Cedar	17
27	Pine Rose	18
28	Big Sagebrush	19
29	Red Fir/White Fir	20
30	Bitter Cherry	21
31	Rabbitbrush	22
32	Bitterbrush	22
33	Mountain Mule Ears – Woolly Mule Ears	23
34	Black Cottonwood	24

Station 1

Jeffrey Pine

Pinus jeffreyi

Habit: 80' to 140' tall and 3' to 4' in diameter; thick, straight, cylindrical bole; orange-brown to reddish-brown scaly bark; superficially very similar to ponderosa pine, but much larger cones, redder bark, and pitch with fruity odor.

Needles: 3 per fascicle, 5" to 11" long, dark blue green, often twisted, persisting 5 to 8 years; sheath persistent.

Cones: 5" to 9" long occasionally longer, ovoid shaped, armed with a recurved prickle.

Twigs: New twigs covered with purplish-white bloom. Cut or bruised twigs emit a sweet fruity odor.

Bark: Young bark similar to that of ponderosa pine, brown to nearly black, ridged and furrowed. Mature bark in broad, flat, scaly plated, orange-red to cinnamon-red in color

Habitat & Range: Occurs on wide variety of soils, including serpentine soils. Does best on gravelly to sandy, moist, well-drained sites, either in pure stands or mixed with ponderosa pine, lodgepole pine, sugar pine, white and red firs, and incense cedar. Ranges from south-central Cascade Mountains in Oregon, California and extreme western Nevada, occurs in northern Baja California. Elevation range from 3,000 to 9,500 feet.

Uses: Sold along with and as ponderosa pine

Remarks: Wood contains the hydrocarbon "heptane," which is not found in ponderosa pine. Will endure greater extremes of climate than ponderosa pine. The bark beetle *Dendroctonus jeffreyi* commonly attacks this species but avoids ponderosa pine.

Station 2

White Alder

Alnus rhombifolia

Habit: A tree 40' to 80' tall and 1' to 2' in diameter; with a broad, dome shaped, open crown, and grayish-brown scaly bark.

Leaves: 2" to 3½" long, ovate to oval, margins finely serrate to doubly serrate and indistinctly glandular; apex round to bluntly pointed; base obtuse to broadly wedge-shaped; green to yellow-green and initially slightly sticky above, paled and smooth to somewhat pubescent along the veins on the underside.

Fruit: Winged nutlets, borne in semi-woody cane, ½" to ¾" long; brown in color

Twigs: New twigs slender, light green and somewhat pubescent, but soon becoming smooth, olive-drab to yellow-brown, in color; slightly triangular in cross section.

Bark: On old trunks about 1" thick, whitish to grayish-brown, with flat, plated ridges which are superficially scaly.

Habitat & Range: Found on moist sites along stream bottoms and on lower mountain slopes, from southern interior British Columbia southward to northern Lower California, and in northern Idaho.

Uses: Not commercially important.

Remarks: Intermediate tolerance. Forms pure stands, or is associated with dogwood.

Station 3

Lodgepole pine

Pinus contorta

Habit: A tree 30' to 100' tall and 1' to 2' in diameter. Near the Pacific Ocean this species is often malformed, twisted, and contorted by the winds, and at times is no more than a large, bushy shrub. In the mountains it is often found in pure stands and has a straight, clear, cylindrical bole free of branches for much of its length.

Needles: 2 per fascicle, 1½" to 3" long, green to yellow-green, stiff and commonly twisted; persist 4 to 8 years; sheath persistent. Other than Bishop pine, *P. muricata*, found in the Coast Range of California, it is the only 2 needle pine native to the western United States.

Cones: 1" to 2" long, ovoid-conical; base asymmetrical; with a deciduous prickle. The cones are recurved on the twig. Some of the cones will release their seeds shortly after maturing; others may remain unopened for several years. Both closed and open cones can be found on the tree at all times.

Bark: Thin, dark, scaly (flaky), usually not thicker than 1"

Habitat & Range: Found on moist sandy and gravelly soils, in the dunes near the coast, coastal swamps, and northern bogs and in the mountains at middle and higher elevations. Ranges from the Rocky Mountains to the Pacific Coast, and from the Yukon and southern Alaska southward into northern Baja California; also in the Black Hills. Elevation range: sea level to 11,500 feet. This pine occurs in the greatest range of altitudes and latitudes of any North American conifer.

Uses: Lumber, mine timbers, railroad ties, poles, boxes and crates, log building construction, corral poles, and pulpwood

Remarks: Intolerant. Forms extensive pure stands. Stagnation in dense young stands very common. Associated species include ponderosa pine, Jeffrey pine, western white pine, mountain hemlock and red fir. Important in the protection of the high watersheds. Along the coast it is resistant to salt spray.

Station 4

Blue Elderberry

Sambucus glauca

Habit: Usually a large shrub or small tree from 10' to 20' or more tall

Leaves: Opposite, 6" to 12" long, pinnately compound with 5 to 9 leaflets.

Flowers: White in terminal flat-topped clusters

Fruits: Dark blue-black berries covered with a white powdery bloom. Fruit clusters flat-topped

Stems: Long slender, often with glaucous bloom; pith large, soft, light tan or orange-brown. Opposite branching. New coppice growth makes very rapid initial growth (as much as 15' the first season),

Bark: Rough, grayish-brown to black

Habitat & Range: Found on moist, well-drained sites in the sun; from British Columbia south to California, east through Idaho, Utah, and Nevada. Elevations: sea level to 9,000 feet.

Remarks: The fruit is eaten by birds, mammals, and humans; the latter using for jellies and wines.

Station 5

Quaking Aspen

Populus tremuloides

Habit: Small to medium sized tree 30' to 80' tall and 1' to 2' in diameter; tends to grow in pure stands or in thickets

Leaves: 1½" to 3" in diameter. Broadly ovate or almost round; margins serrate; apex acute; base rounded, shiny light green to yellow-green and smooth above, paler below; turns bright yellow in autumn.

Fruits: A conical capsule about ¼" long; stalk minutely pubescent

Twigs: Moderately slender, shiny, reddish-brown; later becoming grayish

Bark: Smooth silvery-white to greenish or yellow-white, with scattered roughened areas; the base of large trees are dark, ridged, and furrowed.

Habitat & Range: Found along streams and moist benches and mountain slopes, on a variety of soils, but does best on sandy loams. Widespread in Alaska, Canada, the mountains of the western United States, also in northern Mexico. It is the most widely distributed species in North America.

Forage Value: Rated as fair to good browse for sheep and cattle. Highly palatable to many western wildlife species, including deer, elk, moose, beaver, pika, mountain-beaver, snowshoe hare, and porcupine. It is perhaps the most important single woody browse species on the western ranges.

Uses: Paper pulp, lumber, excelsior, matches, boxes, baskets, and crates. Used locally for fuel.

Remarks: Aspen is very intolerant, grows rapidly, sprouts vigorously when cut; and is an often host to many destructive insects and diseases.

Station 6

Serviceberry

Amelanchier pumila

Habit: Shrubs to small trees

Leaves: Deciduous, alternate, simple, 1" to 2" long, oval to oblong-oval; upper ¼" to ¾" of margin serrate; lower part of margin entire; apex rounded; base rounded

Flowers: Perfect. White, with long, strap like petals.

Fruits: Small, red to dark purple pome (apple), up to ½" in diameter

Twigs: Slender, smooth; reddish-brown when young, becoming grayish0brown; buds about ½" long with dark reddish-brown scales that are hairy along margins.

Bark: Thin, light brown and tinged with red, smooth or shallowly fissured

Remarks: Serviceberries are found in North America, Europe, and Asia. Several species are attractive ornamentals. Many species are so similar that it is difficult to distinguish among them. All species are hosts of the cedar apple fungus

Station 7

Snowbrush / Tobacco Brush

Ceanothus velutinus

Habit: Evergreen shrub 2' to 10' tall with light green stems; often forming thickets.

Leaves: Persistent, alternate, thick and leathery, 1½" to 2½" long, broadly ovate dark green (sticky during warm weather) above; underside pale green; margins finely serrate; 3 prominent veins from the base of the leaf; foliage has a sickeningly sweet odor when rubbed or during very warm weather.

Flowers: Small, white, borne in dense clusters 2" to 5" long.

Twigs: Stout, smooth, light green, larger stems green.

Habitat & Range: Found on a wide variety of site and exposures; from British Columbia and Saskatchewan southward through western United States. It is quite likely snowbrush has the most extensive range of the Ceanothuses

Uses:

Remarks: Snowbrush frequently invades cutover or burned-over areas. Seeds retain their vitality for several years. If root crown is not killed by fire, its sprouts vigorously. Fire also appears to stimulate germination of undamaged seeds in the soil. Snowbrush often forms thickets or fields. If the plants are not too dense, serves as an excellent crop bed for true firs. In many cases, brush is so dense as to preclude regeneration.

Station 8

Spreading Snowberry

Symphoricarpos mollis

Habit: A low shrub usually not more than 18" high, or almost prostrate.

Leaves: ½" to 1" long, occasionally longer, elliptical, oval to nearly round, green above, paler below, pubescent on both sides, margins entire.

Flowers: Small pinkish, bell-shaped, often pubescent, clustered.

Fruits: Round, white, waxy berry, up to ¼" in diameter.

Twigs: Very slender or fine, younger twigs usually pubescent, pith hollow; opposite branching.

Habitat & Range: Found on dry to moist sites, usually in the sun; from British Columbia to southern California, including the coast ranges.

Remarks: Many birds feed on the fruit.

Station 9

Red Twig Dogwood

Cornus sericea

Habit: A large, loosely branched shrub with reddish stems, up to 10' tall

Leaves: 2" to 6" long, ovate to ovate-elliptical; dark green and lustrous above, the surface appears somewhat wrinkled because of sunken veins; pale green and slightly pubescent below; margins entire and wavy; apex and base acute; petiole up to 1" long. Leaves turn red in the fall.

Flowers: Small, white, borne in flat-topped, terminal clusters.

Fruits: White or ivory, berry like drupe, about ¼" in diameter.

Twigs: Slender, red to purplish-red in the sun, or green when shaded.

Buds: Naked, slender, dark brown, terminal bud about ¼" long, lateral buds shorter and tightly appressed to twig.

Habitat & Range: Found on moist, well-drained sites, along streams; from Washington to southern California on the Westside.

Remarks: Foliage and twigs browsed by deer

Station 10

Thimbleberry

Rubus parviflorus

Habit: An erect shrub 3' to 6' high, with weak, cane-like, unarmed stems.

Leaves: Deciduous, simple, broad, 3" to 8" in diameter; palmately 3 to 5 lobed and serrate; dark green, minutely hairy on both surfaces.

Flowers: White, or occasionally pinkish-white, borne singly or in clusters

Fruits: Red, flattened hemispherical, aggregate of drupelets

Stems: Light brown or grayish-brown, cane-like, weak, and unarmed; bark thin and papery; new stem green and granular.

Habitat & Range: Widely distributed on moist sites from the Great Lakes westward to the Pacific Ocean, from Alaska southward to Mexico. Elevations ranging from sea level to 9,000 feet.

Remarks: A fair to outstanding browse plant. The fruit is eaten by birds, mammals, and humans.

Station 11 Mountain Pine Beetle Infestation

Looking from this location across Trout Creek you will see a cleared area in the forest. This was once a dense stand of lodgepole pine. As a result of the periods of drought in the 1990's these trees came under attack by the Mountain Pine Beetle. In order to control the spread of the beetles all infected trees had to be cut down and disposed of properly.* As you can see the area is starting to regenerate itself. There are now some scattered small white fir and lodgepole pine trees. This is all part of natural life cycle of the forest.

* In 1996

Station 12 *Old Mill Site*

At this location we have the remains of a historic log mill site here on Trout Creek. As you look down stream a short ways you will see some large timbers on the bank of the creek. If you look closely you will see that one side of these timbers have been sawn flat. The area is now overgrown with willow trees, but upstream was once the log pond. You can still see part of the dirt and rock dam.

Station 13 Double-flowered honeysuckle *Lonicera conjugialis*

Habit: Erect shrub 2' to 4' tall

Leaves: Elliptic to round leaves, opposite, short petioles, margins entire,

2 Perfect; tubular or trumpet shaped, borne in terminal clusters of 2; dark red, 2 lipped flowers.

Habitat & Range: Found along mountain streams, and other wet areas; moist forest openings, rocky slopes.

Station 14 Sierra Gooseberry *Ribes roezlii*

Habit: Loosely branched shrub up to 5' tall.

Leaves: 1½" to 3" in diameter, 3 to 5 lobed; veined; velvety underside

Fruits: Dark purplish-blue berry; berry falls from stalk when ripe. Fruit armed with spines.

Stems: Armed with spines at nodes and often with prickles or bristles between nodes

Habitat & Range: Occurs on dry to moist sites in the sun or shade, in the Cascade and Sierra Mountains from Washington southward through California.

Remarks: Fruit makes great jelly!

Station 15
Wax Current
Ribes cereum

Habit: Much-branched shrub up to 6' tall.

Leaves: Very small round, usually less than 1" in diameter, white waxy upper surface; margin doubly serrate; not distinctly lobed.

Fruits: Red to orange berries.

Flowers: Tubular; greenish-white to pinkish.

Stems: Unarmed; bark smooth, light gray.

Habitat & Range: Dry woods or rocky slopes. Eastern Oregon and Washington, the Siskiyous; also California, British Columbia, and eastward to South Dakota.

Station 16
Black Twinberry
Lonicera involucrata

Habit: Erect shrub up to 10' tall

Leaves: Deciduous, opposite, 1½" to 5" long, ovate, obovate, ovate-elliptical, or oval; dark green and smooth above; paler and pubescent, becoming smooth beneath; margins entire; apex acute; base acute obtuse.

Flowers: Paired, about ½" long, pubescent, surrounded at the bases by 2 bracts which eventually become reddish in color; flowers and bracts pubescent

Fruits: Paired, dark purple or black berries, about ¼" in diameter.

Twigs: Slender, light yellow-green, ridged and pubescent when new, becoming light reddish-brown and smooth. Terminal bud narrow conical, about ¼" long; lateral buds smaller and appressed to the twig. Opposite branching.

Bark: Yellowish-gray or grayish-brown and shreddy.

Habitat & Range: Found on moist sites, usually near streams or bodies of water; from Alaska southward to the Southwest, eastward to the Lake States and Quebec.

Remarks: In the West associated with willows and alders. The best known, most common and widely distributed of the western honeysuckles. In the Rocky Mountains elk are reported to browse the new growth.

Station 17
Beaver Activity

On either side of the trail you will see evidence of gnawed tree stumps and gnawed felled trees. Once a few beavers were active in this area.* Beaver activity can also be in the Alder Creek area of Tahoe Donner.

* In 1999 beavers once again moved into the area as witnessed in the ponds you have just passed.

Station 18
Corn Lily
Veratrum Californicum

Habitat: Plant resembles a cornstalk, height to 5 ft.

Flowers: White

Cycle: Perennial

Stems: Straight; tubular; green at the base of each petal.

Found in moist areas often shaded. Ranges from southern Oregon to lower California, east to the Rocky Mountains.

Station 19

Alpine Prickly Currant

Ribes lacustre

Habitat: Tolerant, moist-site, spiny shrub, up to 4' tall, sometimes trailing.

Leaves: $\frac{3}{4}$ " to 2 $\frac{1}{2}$ " broad; palmately 3- to 5- lobed, deeply incised and serrate. Underside rather velvety.

Stems: Armed with nodes with 3- to several-parted spines; prickles sometimes present between nodes.

Flowers: Greenish, in racemes; saucer-shaped calyx.

Fruit: Purplish-black berry; falls from its stalk when ripe.

Habitat & Range: Moist woods. Widely distributed, from California to Alaska and to Atlantic states. Eastern & western Oregon.

Station 20

Willow

Salix

Habit: Rapidly growing, thicket-forming trees and shrubs.

Leaves: Deciduous, alternate, 5-ranked, simple, stipulate; lanceolate, elliptical, or spatulate in shape; margins entire, wavy, or serrate; apex round, acute or acuminate; sessile or with short petiole. In many species, stipules are persistent.

Flowers: Dioecious; in upcurving aments (catkins); sometimes fragrant.

Fruit: Two-valved, 1-celled capsule, ovate with an acuminate tip; $\frac{1}{4}$ " or less in length; contains several minute, hairy seeds. Fruit matures and disseminates its seed in the late spring or early summer. Seed very short lived. Needs moist mineral soil.

Buds: $\frac{1}{8}$ " to $\frac{5}{8}$ " long, usually closely appressed to the twig; the bud has but a single, cap like scale; scale smooth & pubescent. Terminal bud absent.

Twigs: Slender to moderately stout, flexible, smooth or occasionally pubescent; green, red, brown, yellow, orange or purple in color; lenticels usually prominent; twig scar evident in late summer or early fall on the side of the twig opposite the last lateral bud; pith round and solid. Phyllotaxy 2/5.

Habitat & Range: On moist, well drained sites in the sun. On all continents except Australia and Antarctica, but most abundant in the Northern Hemisphere, where it will be found growing as far north as the Arctic Circle.

Remarks: Very intolerant. Occurs on many types of soil. Comparatively short lived, but prolific sprouters. Easily propagated by cuttings. Useful for erosion control.

Willows are very good to excellent browse plants for game animals and domestic stock. Grouse and quail feed on the buds. Twigs are used for basketry.

There are many species, varieties, and hybrids, often very difficult to distinguish. In some instances both male and female specimens are essential if the species is to be identified.

Station 21

Red Fir

Abies magnifica

Habit: A large conifer, 125' to 200' tall, and 2 $\frac{1}{2}$ ' to 5' in diameter; with thick, coarse, dark reddish-brown to purplish-black bark.

Leaves: $\frac{3}{4}$ " to 1 $\frac{1}{4}$ " long, linear; spirally arranged, but massed on the upper side of the twig, pointing upward; silvery-green to blue-green, with white stomata bloom on all surfaces; apex round or blunt; leaves on lower branches slightly thickened; higher up they are 4-angled in cross section; the leaf is shaped like a hockey stick, and its base tends to parallel the twig for a short distance.

Cones: 6" to 9" long, 2" to 3" in diameter, cylindrical; dark purple to purplish-brown or brown at maturity; bracts of the main species shorter than the cone scales.

Twigs: Moderately stout; yellow-green to olive-brown or light brown and lightly pubescent, later glabrous, reddish-brown and eventually ashy-gray in color; buds small, usually less than ¼" long, brown, mostly non resinous.

Bark: Ashy-white to chalky-white on pole and small saw-timber size trees; on old trees thick, coarse, deeply ridged and furrowed, dark-reddish brown to purplish-black; the ridges are broken into plates; inner bark dark reddish-brown.

Habitat & Range: Intermediate tolerance. Grows best on moist, well-drained soils in subalpine situations. The range of the main species is limited to California and extreme western Nevada. The species is most abundant in the Sierra-Nevada Mountains as far south as Sequoia National Park at elevations of 7,000 to 9,000 feet. It has been found as low as 4,000 feet. It occurs in the northern part of the California Coast Range and in the northern and central Sierras.

Uses: General Construction, boxes and crates, and mill works.

Remarks: Forms, large pure stands or occurs in mixture with white fir, mountain hemlock, western white pine, sugar pine, ponderosa pine and Douglas-fir. Red fir makes premium priced Christmas trees.

Note: A small Red Fir can be found at Station 27.

(Please walk up the trail ahead of you about 50 feet to see a white fir.)

Station 22

White Fir

Abies Concolor

Habit: Coniferous tree up to 200' tall and 3' to 5' in diameter.

Leaves: 1 ½" to 3" long, linear, flat to slightly rounded on the upper surface; yellowish-green to green, with a white line of bloom in a groove on the top side, and 2-ranked; or silvery blue-green and tending to turn upward like the ribs of a boat; apex round or bluntly pointed.

Cones: 3" to 5" long, oblong to barrel-shaped; olive-brown in color; bracts shorter than the scales.

Twigs: Moderately slender, yellowish-green to olive-brown and smooth; buds usually in 3's, the center bud is the most prominent, covered with a light gray pitch.

Habitat & Range: Occurs on moist, well-drained, coarse soils, or on dry soils, in the mountains. Primarily a tree of southwestern United States, most common in the Rocky Mountains and Sierras. Ranges from Northeastern and central Oregon southward into Lower California, eastward to western Wyoming and southern New Mexico. Elevation range: 3,000 to 10,000 feet in California.

Uses: General construction, boxes and crates, millwork, and pulpwood.

Bark: On young trees greenish-gray, thin and smooth, with resin blisters; on old trees ashy-gray and thick, with roughened, flattened ridges and irregular furrows; the inner bark is two-tones, with alternating layers of dark reddish-brown and light tan cork. The inner bark resembles that of Douglas-fir.

Remarks: The thick bark near the base of the tree makes it somewhat fire-resistant. White fir requires less moisture than any of the other western true firs. The seeds germinate satisfactorily on a variety of sites. It is very susceptible to diseases from pole size to maturity. It is very tolerant, especially in younger stages, hence it frequently replaces less tolerant pines in mixed stands. Seldom occurs in pure stands, but found associated with ponderosa, Jeffrey, and sugar pines, Douglas-fir, alpine and California red firs, incense cedar and aspen.

Note: A small white fir can be found at Station 27.

(Please return back down trail the trail to the nature loop.)

Station 23

Squawcarpet

Ceanothus prostrates

Habitat: A low, prostrate, evergreen shrub with leathery, holly-like leaves and creeping branches, which frequently take roots at the nodes.

Leaves: Persistent, opposite, thick & leathery; ¼" to 1" long, obovate or obvate elliptical; dark green glabrous and lustrous above, paler and grayish-green beneath; sparse, almost spinose teeth along the upper margin, entire below; base wedge-shaped.

Flowers: Small, blue, borne in loose terminal clusters.

Fruit: Subglobose capsule about ¼" broad, each lobe with a wrinkled, dorsal horn or boss.

Twigs: Lateral twigs usually not over 6" long, or commonly spur-like; new twigs reddish to reddish-brown, initially hairy but becoming smooth.

Habitat & Range: On dry site in the sun; in the Cascade Mountains from Washington southward into northern California, eastward into Idaho and Nevada.

Remarks: Found in mixed-conifer or ponderosa pine stands. Squawcarpet provides some protection against soil erosion and may act as a nurse crop for coniferous reproduction. Forage value low.

Station 24

Roads of Early Settlers

This linear feature which looks like a ditch is actually an old road from the late 1800's. The rocks and boulders stacked along the road were deposited there to smooth the road bed for the wagons. Similar type roadbeds can be found at various locations throughout Tahoe Donner. These roadbeds, as well as other locations bearing signs of early settlers, are not to be disturbed for archeological reasons. The Forestry Department of Tahoe Donner welcomes any information regarding other Tahoe Donner locations indicating early settler or Native American activity.

Station 25

Green Manzanita

Arctostaphylos patula

Habit: Evergreen shrub up to 6' in height.

Leaves: 1" to 2" long, ovate to elliptical; light green and glossy on both surfaces, or at times with a very sparse, minute pubescence; margins entire; apex and base both rounded.

Flowers: Pinkish white, urn-shaped, borne few to a cluster.

Fruit: Round, chestnut-brown to black, berry-like drupe, about ¼" in diameter.

Habitat & Range: Found on dry, well-drained sites in the sun; in the mountains and on the eastern slopes and foothills from Mt. Hood south to southern California, Nevada, and Arizona. Elevation range: 2,500 to 6,000 feet.

Remarks: A good browse for mule deer.

Station 26

Incense-Cedar

Calocedrus decurrens

[Please Do Not Touch]

Habit: Evergreen trees 70' to 110' tall, and 3' to 5' in diameter, with a conical crown of frond-like branches.

Leaves: Persistent, whorles, scale-like. ¼" to ½" long (up to ⅞" on some older twigs); yellow-green; closely appressed to the twig, with only the tip sticking out; the facial scales are flattened, the lateral scales are folded or keeled; the overlapping of the lateral scales on the facial scales results in a wineglass outline on the latter: aromatic when crushed. Foliage arranged in flattened, elongated, finger-like sprays, dead leaves fall in sprays.

Flowers: Staminate cones oblong-rectangular and yellowish; yellowish-green with 6 scales.

Cones: Pendent, ¾" to 1 ¼" long, ovoid, somewhat flattened; leathery or semi-woody in texture; yellowish-brown; appear to be composed of 3 scales, but actually have 6; the two basal ones are aborted, the central pair is fused together, and the two large remaining scales are the only ones which are fertile; mature in one season. The closed cone resembles a ducks bill, and the open cone resembles a flying goose.

Twigs: Moderately stout, at first flattened but eventually becoming round; reddish-brown on the outside; furrowed, with long interlacing ridges.

Habitat & Range: Does best on moist porous soils, but is able to adapt itself to various soil types. Although available moisture determines its locale in the southern part of its range, it apparently is less moisture demanding than the other “cedars.” Found on both slopes of the Cascades in Oregon; the northern Coast Range and the length of the Sierra Nevada Mountains in California; also lower California. Elevation range: 1,000 to 6,600 feet in Oregon; 1,000 to 8,000 feet in California; above 7,500 feet in lower California.

Uses: Extensive use of incense-cedar for lumber is impaired by a fungus which attacks the heartwood, producing the condition known as “pecky cedar” or “peck.” This condition does not impair the great durability of the wood, and makes it excellent fence posts. Has limited use for lumber, ties, mothproof chests, venetian blinds, grape stakes, and shakes, also pencil slats.

Remarks: The thick bark at the base of old trees makes the species less susceptible to fires that may often kill its thinner barked associates. Essentially a drought-resisting tree, incense-cedar occurs in the pine-oak mixed forest of the dry foothill country in California And southern Oregon; found in the pine-white fir mixed forest of the Sierras and Cascades; also encroaches into the drier sites in the Douglas-fir western hemlock types. It is a vigorous seed producer, seedlings grow well on a wide variety of sites.

Station 27

Pine Rose

Rosa pinetorum

Habit: Finely branched, tolerant, moist-site shrub up to 4' tall; stems armed with fine prickles.

Leaves: 2" to 3 ½" long, with 5 to 7 oval or elliptical-ovate leaflets which are ½" to ¾" long; dark green and smooth above paler and smooth beneath; margins doubly serrate.

Flowers: pink, borne singly or up to 4 in a cluster.

Fruit: Hip (containing achenes) is orange-red, glabrous, elliptical or flask-shaped, edible.

Stems: Armed with numerous straight, slender prickles, or rarely with few prickles.

Habitat & Range: Occurs on moist sites in the woods or in the open. Widely distributed throughout the West from the Rocky Mountains to the Pacific Coast, and from British Columbia to southern California.

Remarks: The most important of the native roses on western ranges.

Station 28

Big Sagebrush

Artemisia tridentate

Habit: Small to large silvery-green shrub up to 15' high, occasionally arborescent and much branched; bark shreddy.

Leaves: Persistent, alternate, simple, but usually several leaves at a node, ½" to 1 ½" long, longcuncate; silvery-green on both surfaces; margins smooth, except for the apex which is 3-lobed; base wedge-shaped. Strong-scented.

Fruit: Very small achene, 4 to 5-sided.

Twigs: New twigs slender, silvery-gray and pubescent, becoming grayish-brown.

Bark: Grayish-brown, splits lengthwise, shreddy.

Habitat & Range: Found on a variety of soils from the Cascades and Sierra-Nevada Mountains eastward to the Dakotas and Nebraska, from British Columbia south to the Southwest, also northern lower California.

Remarks: Big sagebrush is perhaps the most abundant shrub in the semi-arid portions of the western United States, and certainly the most common and widely distributed sagebrush. An important browse for game animals and sheep. It is the state flower for Nevada.

Station 29

Red Fir

Abies Magnifica

[Facing post 29 on the left we see a small Red fir and on the right a small white fir)

Needles: Single needles $\frac{3}{4}$ " to $1\frac{1}{4}$ " long, massed on the upper side of the twig, pointing upward, silvery-green to blue-green in color.

Cones: 6" to 9" long, cylindrical, located on the top of branches.

Bark: Dark reddish-brown, deeply ridged and furrowed.

Habitat: In the central Sierra, this tree is found between 6,500 and 9,000 feet. It can be found throughout Tahoe Donner.

Note: A large Red fir can be found at Station 21. For more details see Station 21.

White Fir

Abies concolor

Needles: Single needles $1\frac{1}{2}$ " to 3" long, yellowish-green in color.

Cones: 3" to 5" long. Cylindrical, located on top of branches.

Bark: Ashy-gray, rough flattened ridges with irregular furrows.

Habitat: In the central Sierras, this tree is found between 2,000 and 7,500 feet. It can be found throughout Tahoe Donner.

Note: A large white fir can be found at Station 22. For more detail see Station 22.

Station 30

Bitter Cherry

Prunus emarginata

Habit: Trees 20' to 50' tall and 5" to 18" in diameter, crown oblong to somewhat conical; bark bronze colored.

Leaves: 1" to 3" long, elliptical, obovate-elliptical or oblong-obovate; dark green and glabrous above, paler and initially minutely pubescent below but soon becoming smooth; margin finely serrate; minute glands on the basal serrations (occasionally on the petiole).

Flowers: White, borne in a loose, round cluster.

Fruit: Bright red, juicy, bitter drupe, about $\frac{1}{4}$ " in diameter.

Twigs: Round and slender, initially minutely pubescent, but soon becoming smooth and dark reddish-brown, spur shoots are common on the older twigs and branches.

Bark: Thin dark reddish-brown or grayish-bronze, smooth, but tending to break and curl crosswise, horizontal slit-like lenticels prominent.

Habitat & Range: Found on dry to moist and well drained, sandy and gravelly soils in the sun or partial shade; from British Columbia southward to southern California, eastward to western Montana and southwestern New Mexico. Elevation range: from about 150 feet in the northern part of its range to 9,000 feet in southern California.

Uses: Wood suitable for fine furniture.

Remarks: Tends to form thickets, or is associated with Douglas-fir, dogwood, grand fir, bigleaf maple, and cascara. Intolerant to intermediate tolerance. Deer and elk browse the leaves and twigs, and numerous birds and mammals feed on the fruits.

Station 31
Rabbitbrush
Chrysothamnus nauseosus

Habit: Erect shrubs with slender stems, up to 2' tall.

Leaves: Persistent, ½" to 2 ½" long, about 1/16" wide, linear; grayish-green and pubescent on both surfaces.

Flowers: Small heads of yellow flowers, borne in terminal, saucer-like clusters.

Fruit: Achene, 5-ribbed, smooth or minutely hairy.

Twigs: New twigs slender, round, grayish to light yellow in color.

Habitat & Range: Grow on dry sandy or gravelly soils in the sun; found in the intermountain region between the Cascade and Sierra Nevada Mountains and the Rocky Mountains.

Remarks: Has several subspecies and varieties. Commonly associated with big sagebrush. In the northern parts of its range, it is an important winter browse for elk, moose, and mule deer. Sap contains latex.

Station 32
Bitterbrush
Purshia tridentate

Habit: An erect, much-branched, evergreen shrub, 2' to 10' high. With small 3-lobed, wedge-shaped leaves.

Leaves: Wedge-shaped, ¼" to ¾" long; persistent; alternate on short spur shoots; green to grayish-green above & finely pubescent above, white to grayish-white and pubescent below; margins smooth and revolute (rolled under); apex 3-lobed; base wedge-shaped; petiole very short. The foliage is similar in shape to that of a big sagebrush, but is smaller, darker and non-aromatic.

Flowers: Small, tubular, yellow, borne singly.

Fruit: Single or paired, elliptical or tear-shaped achene with a tapered tip or beak, bitter tasting.

Twigs: Spur shoots abundant; main twigs slender, reddish-brown and smooth, becoming gray-reddish brown, bitter.

Bark: Thin, gray to grayish-brown or brown.

Habitat & Range: Found on sandy to gravelly and rocky soils in the dry plains, foothills and mountain slopes; found in the intermountain region between the Cascade and Sierra Nevada Mountains and the Rocky mountains. Elevational range: 200 to 9,000 feet.

Remarks: An important winter browse for elk, deer, and antelope.

Although bitterbrush is normally evergreen, in some localities, and in some years, it is deciduous.

Station 33
Mountain Mule Ears – Woolly Mule Ears
Wyethia Mollis

Habit: Mountain leaf plant 2 to 3 feet high.

Flowers: Yellow

Stems: Tubular, varying in diameter.

Habitat & Range: Occurs on dry to moist sites in the sun or shade. Very common mountain plant found throughout the Cascade and Sierra Nevada Mountain Ranges and southward.

Station 34

Black Cottonwood

(Populus Trichocarpa)

Notes:

Habit: A large tree, 100' to 300' high, and 3' to 6' in diameter, with a broad, open crown.

Leaves: 3" to 6" long, ovate to ovate-lanceolate; margins wavy to serrate; apex acute; base round dark lustrous green and smooth above, silvery-white and commonly with rusty areas on the underside.

Fruit: Subglobose, 3-valved, 1-celled, pubescent capsule, 1/3" to 1/2" long.

Twigs: Moderately stout, greenish-brown to olive-drab in color, slightly ribbed, spur shoots are common on the older branches; buds resinous, aromatic, with dark reddish-brown imbricated scales; terminal bud about 3/4" long, ovoid conical; leaf scars semi-circular.

Bark: Smooth, yellowish-tan to gray on young trees; on old trees gray to grayish-brown, and broken into deep furrows and narrow flattened ridges, 1 1/2' to 2 1/2' thick.

Habitat & Range: Occurs on moist sites along streams, bottomlands, river islands and benches. Ranges from southern and south eastern Alaska and the southern Yukon, southward to lower California and western Nevada, eastward to central Montana, local in Wyoming and southwestern North Dakota. Elevation range: near sea level to 4,500 feet in Washington and Oregon; 500 to 6,000 feet in California.

Uses: Paper pulp, plywood cores, excelsior, dairy and poultry boxes, crates and coops, laundry appliances and toys.

Remarks: Very intolerant. Grows rapidly and will sprout from the stump. Occurs in small pure stands. Black cottonwood is the largest of the American poplars, and is the largest hardwood indigenous to the West. In the spring as the buds begin to swell and burst, the air in the vicinity of the trees is filled with a honey-like fragrance.