

# U.S. BUREAU OF LAND MANAGMENT EAGLE LAKE FIELD OFFICE



# BIZZ JOHNSON RAIL TRAIL PLANT KEY for Shrubs and Trees

The following is a dichotomous plant key to use in identifying trees and shrubs that can be found along the Bizz Johnson Trail.

A dichotomous key is a key in which each step offers two choices. Starting with number 1, read the description. Find the second number 1 in the same margin location, and read the description. Select one or the other of these and proceed in the same manner going to the two number 2's following the number 1 selected. Select the most appropriate number 2 and proceed in numerical order until a plant name is reached. This should be the plant you are trying to identify.

A description of the plants, listed in numerical order, with illustrations, follows the plant key. Read the plant description and compare with the illustration. If the plant description or illustration is entirely wrong, go back through the plant key and make the alternate number selection if there was an area in which you were not certain of the choice.



# Shrub and Tree Identification Key

1 Tree-like; trunk diam. more than 6"; usually over 15 ft. tall.		
2 Trees with evergreen needles or scales.		
3 Trees with needles.		
4 Needles more than 3" long.		
5 Cones usu. more than 6" long; prickles curved in.		
1. Jeffrey pine		
5 Cones usu. less than 6" long; prickles curved out.		
2. Ponderosa pine		
4 Needles less than 3" long.		
5 Needles in groups of 2.		
3. Lodgepole pine		
5 Needles single.		
6 Cones erect, falling apart at maturity.		
4. White fir		
6 Cones hanging down, remaining intact; cone bracts exerted.		
5. Douglas-fir		
<ul><li>3 Trees with overlapping scales.</li><li>4 Scales green; bark red fibrous; fruit an oblong cone.</li></ul>		
6. Incense-cedar		

4 Scales blue-green; bark gray scaly; fruit bluish berries.

# 7. Western juniper

- 2 True leaf-bearing trees.
  - 3 Leaves with long pointed lobes; fruit an acorn.

# 8. California Black oak

# 3 Leaves not lobed or only finely toothed.

4 Mature leaves small, less than 2" long, thick, with in-rolled edges.

# 9. Curled-leaved mountain-mahogany

- 4 Mature leaves more than 2" long.
  - 5 Leaf stem flat; leaf blade usu. less than 2"; trees growing in groves.

# 10. Quaking aspen

5 Leaf stem usu. round; leaf blade usu. more than 2"; trees usu. large, growing individually or in small groups.

#### 11. Black cottonwood

1 Shrub-like; trunk diam. less than 6"; usually less than 15 ft. tall.

- 2 Mature leaves usu. 1" or less in length.
  - 3 leaves 3 toothed at tip, wedge shaped.
    - 4 Leaves dark green above.

# 12. Antelope bitterbrush

4 Leaves gray-green, sage smell.5 Shrub less than 1 ft. tall.

#### 13. Low sagebrush

5 Shrub more than 1 ft. tall.

## 14. Big sagebrush

3 Leaves smooth or many toothed on edges, usually oval shaped.

4 Leaves smooth on edges.

5 Leaves thin and oval in outline.

#### 15. Mountain snowberry

- 5 Leaves thick and more narrow in outline.
  - 6 Leaf edges curled, lance shaped.

#### 9. Curled-leaved mountain-mahogany

6 Leaf oval to wedge shaped, often notched at tip.

# 16. Buckbrush

4 Leaves toothed on edges, at least at the ends. 5 Low prostrate shrub; leaves thick.

#### 17. Mahala mat

5 Erect shrub; leaves thinner and usu. sticky.

# 18. Rock-spirea

- 2 Mature leaves usu. more than 1" long.
  - 3 Leaves with long pointed lobes, smooth edges; fruit an acorn.

#### 8. California black oak

- 3 Leaves and fruit not as above.
  - 4 Leaves smooth on edges.
    - 5 Leaves narrow linear (<1/4" wide) and long.
      - 6 Flowers with pale yellow petals; bark dark reddish brown.

#### 19. Bloomer goldenbush

- 6 Flowers yellowish with no visible petals; bark gray to greenish.
  - 7 Stems white to gray, smooth; leaves green, usu. twisted.

# 20. Yellow rabbitbrush

7 Stems gray to green, fine wooley; leaves gray to green wooley, usu. straight and very narrow.

# 21. White-stemmed rabbitbrush

Leaves wider, oval or lance shaped.
6 Leaves lance shaped.

#### 22. Willow

6 Leaves oval shaped.7 Leaves thick, round, usu. less than 1.5" long; bark smooth, reddish.

#### 23. Greenleaf manzanita

7 Leaves thinner, oval, usu. more than 1.5" long; mature bark rougher, grayish.

# 24. American dogwood

- 4 Leaf edges finely to coarsely toothed.
  - 5 Leaves 3-5 lobed, maple leaf like shape.
    - 6 Leaves more pointed lobed, 2-7" long.

# 25. Thimbleberry

6 Leaves round lobed, 1-3" long.

# 26. Mountain pink currant

- 5 Leaves not lobed.
  - 6 Leaves compound (consisting of 5-9 smaller leaflets).
    - 7 Leaflets lance shaped, 1-6" long; plant without thorns.

#### 27. Blue elderberry

7 Leaflets oval shaped,0.5-1.5" long; plant with thorns.

# 28. Woods' Wildrose

- 6 Leaves simple (consisting of single leaves).
  - 7 Mature leaves usually less than
    - 1.5" long.
      - 8 Leaves usu. less than 0.5" wide, more lance shaped; fruit a bright red berry.

# 29. Bittercherry

- 8 Leaves usu. more than 0.5" wide, oval shaped; fruit a dark berry when ripe.
  - 9 Leaves not toothed or finely so; fruit a black berry; flower not showy.

## 30. Sierra coffeeberry

9 Leaves mostly toothed above middle; fruit a bluish berry; flowers with 5 narrow petals about 0.5" long.

# 31. Utah service-berry

- 7 Mature leaves usually more than 1.5" long.
  - 8 Leaves coarsely toothed; fruit a dry brownish-red cone about 0.5" long.

# 32. Mountain alder

- 8 Leaves finely toothed.
  - 9 Flowers rose colored in a lilac type bunch; fruit a pod.

# 33. Douglas' spirea

 9 Flowers white; fruit a berry.
10 Leaves evergreen; fruit a hard
3-lobed berry.

# 34. Tobacco-brush

10 Leaves elliptic, deciduous (falling off in the fall); fruit a dark purple juicy berry.

# 35. Western chokecherry

## 1. JEFFREY PINE. Pinus jeffreyi

Pine Family (Pinaceae)

A tree 60-180 ft. tall with needles 5-11 in. long, in groups of 3's. Cones 6-10 in. long with in-curved prickles, making the cone gentle to the hand, thus known as gentle Jeffrey. The deep furrows of the bark usually have a sweet vanilla smell.

# 2. PONDEROSA PINE. Pinus ponderosa

#### Pine Family (Pinaceae)

A tree 50-200 ft. tall with needles 5-11 in. long, in groups of 3's. Cones 3-6 in. long with out-curved prickles, making the cone prickly to the hand, thus known as prickly ponderosa. The deep furrows of the bark usually smell of turpentine. Jeffrey and ponderosa pine characteristics can vary enough making it difficult to tell these two trees apart.

# 3. LODGEPOLE PINE. Pinus contorta ssp. murrayana

#### Pine Family (Pinaceae)

A tree 50-125 ft. tall with needles 1-2.5 in. long, in groups of 2's. Cones 1-2.5 in. long and slightly lopsided. The bark is light brown, covered with small thin scales. Trees usually in dense stands occurring from dry slopes to the edges of meadows.

# 4. WHITE FIR. Abies concolor

# Pine Family (Pinaceae)

A tree up to 220 ft. tall with individual flat needles 1-3 in. long, often pointing upward and forward. Branches usually short and stout. Cones 3-5 in. long, erect on the upper branches, usually shattering on maturity.



# 5. DOUGLAS-FIR. Pseudotsuga menziesii var. menziesii

Pine Family (Pinaceae)

A tree up to 220 ft. tall with individual flat needles 0.5-1.5 in. long. Branches slender and usually spreading to drooping. Cones 1.5-3 in. long with exerted 3-lobed bracts, hanging below branches.

# 6. INCENSE-CEDAR. Calocedrus decurrens

Cypress Family (Cupressaceae)

A tree 75-150 ft. tall with branches consisting of small overlapping green scales forming flat sprays. Bark thick, fibrous, and cinnamon brown in color. Cones about 1 in. long, pendulous, opening on both sides to release seeds.

# 7. WESTERN JUNIPER. Juniperus occidentalis var. occidentalis

### Cypress Family (Cupressaceae)

A tree 15-60 ft. tall with branches consisting of blue-green overlapping scales. Bark reddish to gray-brown shredding into broad scaley ridges. Fruit 1/4 in. blue-black berries.

# 8. CALIFORNIA BLACK OAK. Quercus kelloggii

## Oak Family (Fagaceae)

A tree up to 80 ft. tall or a shrub-like clump. Leaves deciduous, 3-8 in. long, with 3 main lobes on each side, with 1 to 4 bristle-tipped teeth on each lobe. Smooth dark gray bark with divided ridges or checks with age. Acorns oblong and about 1 in. long.



# 9. CURLED-LEAVED MOUNTAIN-MAHOGANY. Cercocarpus ledifolius var. intermontanus

Rose Family (Rosaceae)

A small tree up to 30 ft. tall or an erect shrub 6-12 ft. tall. Leaves evergreen, lance shaped, 1/2-1 in. long, leathery, with edges rolled towards the lower surface. Flowers rather inconspicuous but fragrant. Fruit a seed with a long twisted feathery plume at the end. Flowers May-June.

# 10. QUAKING ASPEN. Populus tremuloides

Willow Family (Salicaceae)

A tree 10-60 ft. tall with smooth white bark and usually growing in clumps or groves. Leaves deciduous, round, pointed, 1-2 in. long, with stems flattened alternate to the leaf, thus causing the quaking or trembling of the leaves in light breezes. Leaves turn bright yellow or orange in the fall.

# 11. BLACK COTTONWOOD. Populus balsamifera ssp. trichocarpa

Willow Family (Salicaceae)

A tree 40-100 ft. tall with grayish furrowed bark. Leaves deciduous, 1-3 in. long, heart shaped, with finely toothed edges, on round stems 1-2 in. long. Tree grows along canyon bottom with leaves turning bright yellow in the fall.

# 12. ANTELOPE BITTERBRUSH. Purshia tridentata var. tridentata

Rose Family (Rosaceae)

A shrub 2-8 ft. tall. Leaves dark green, usually deciduous, wedge shaped, 1/4-1/2 in. long with a tri-lobed tip. Flowers many, pale yellow. Fruit a small, hard, pointed seed. This is a favorite food for deer. Flowers May-June.



# 13. LOW SAGEBRUSH. Artemisia arbuscula ssp. arbuscula

Sunflower Family (Asteraceae)

A low shrub usually less than 1 ft. tall mostly growing in rocky flats. Leaves gray-green, partially deciduous, 1/4-1 in. long with a tri-lobed tip, and a sage smell. Shrub produces many non-showy flowers in the fall causing lots of hay fever problems. Flowers July-August.

# 14. BIG SAGEBRUSH. Artemisia tridentata ssp.

Sunflower Family (Asteraceae)

A shrub 2-10 ft. tall. Leaves gray-green, deciduous, 1/2-1.5 in. long, with a tri-lobed tip, and a sage smell. Big sagebrush flowers are the same as low sagebrush. Three different subspecies of big sagebrush occur along the trail. Flowers August-October.

# 15. MOUNTAIN SNOWBERRY.

## Symphoricarpos rotundifolius var. rotundifolius

Honeysuckle Family (Caprifoliaceae)

A shrub 2-5 ft. tall. Leaves are dark green, oval, and about 1/2-1 in. long. Flowers small, bell shaped, pink. Fruit bunches of white berries about 1/2 in. long. Flowers June-July.

# 16. BUCKBRUSH. Ceanothus cuneatus var. cuneatus

Buckthorn Family (Rhamnaceae)

An evergreen shrub 3-8 ft. tall. Leaves wedge shaped, opposite, blue-green, sometimes notched at tip, 1/4-1 in. long. Flowers in small, white to lavender bushes. Fruit small, hard, berry-like, with 3 horn-like appendages. Flowers March-May.



# 17. MAHALA MAT. Ceanothus prostratus

Buckthorn Family (Rhamnaceae)

A low ground cover type shrub 2-6 in. tall. Leaves evergreen, 1/4-1 in. long, opposite, leathery, and holly-like in shape. Flowers in small deep to light blue clusters. Fruit very similar to buckbrush. Flowers April-May.

# 18. ROCK-SPIREA. Holodiscus microphyllus var. glabrescens

Rose Family (Rosaceae)

A spreading shrub 1-6 ft. tall. Leaves deciduous, 1/4-3/4 in. long, oval, with small teeth above the middle. Flowers small, white, occurring in clusters. This shrub sometimes feels sticky and grows in rocky areas, thus the common name. Flowers June-August.

# 19. BLOOMER GOLDENBUSH. Ericameria bloomeri

Sunflower Family (Asteraceae)

A low compact shrub 1-3 ft. tall. Leaves deciduous, dark green, sticky, 1-2.5 in. long, and very narrow. Flowers with 1 to 5 small, narrow, yellow petals, in compact clusters at stem ends. Flowers July-September.

# 20. YELLOW RABBITBUSH.

# Chrysothamnus viscidiflorus ssp. viscidiflorus

Sunflower Family (Asteraceae)

A shrub 1.5-8 ft. tall. Leaves deciduous, green, 1-2.5 in. long, usually twisted. Stems usually shiny, smooth. Flowers in yellowish, compact clusters drying to light brown heads that send many tiny dandelion type seeds flying. Flowers July-September.



# 21. WHITE-STEMMED RABBITBRUSH.

## Chrysothamnus nauseosus ssp. albicaulis

# Sunflower Family (Asteraceae)

A shrub 1.5-6 ft. tall. Leaves deciduous, gray-green, 1-2.5 in. long, very narrow. Stems with a gray to green woolly covering. Flowers the same as green rabbitbrush. These two shrubs can also irritate hay fever sufferers. Flowers September-October.

# 22. WILLOW. Salix spp.

# Willow Family (Salicaceae)

A shrub 3-10 ft. tall usually growing near water. Leaves deciduous, usually lance shaped, pointed, up to 6 in. long. Young twigs small, limber and can be very colorful in winter, yellow to rosy red. Flowers unnoticeable, producing a small, fuzzy catkin fruit. There are many willows, and they are often difficult to tell apart.

# 23. GREENLEAF MANZANITA. Arctostaphylos patula

## Heath Family (Ericaceae)

An evergreen shrub 3-7 ft. tall with several stout, reddish brown stems, from a swollen base. Shrub will resprout from this swollen base after a fire. Leaves thick, bright green, oval, 1-2 in. long. Flowers pinkish, small, bell-shaped, occurring in small clusters. Fruit a small 1/4-1/2 in. hard, round, dark brown to black berry containing 5 nutlets. Flowers May-June.

# 24. AMERICAN DOGWOOD Cornus sericea ssp. sericea

## Dogwood Family (Cornaceae)

A shrub 6-15 ft. tall with reddish or purplish young branches. Leaves deciduous, oval, pointed, 1.5-3.5 in. long, with prominent curving veins. Flowers small, occurring in clusters producing a bunch of small white berries. Leaves turn a maroon color in fall. Flowers May-July.



# 25. THIMBLEBERRY. Rubus parviflorus

Rose Family (Rosaceae)

A shrub 3-6 ft. tall with gray peeling bark. Leaves deciduous, round, 2-7 in. long, with 3 to 5 pointed lobes, coarsely and unequally toothed. Flowers 1-2 in. across, white, in groups of 4 to 7. Fruit a 1/2-3/4 in. red edible berry. Flowers April-June.

# 26. MOUNTAIN PINK CURRANT. Ribes nevadense

Gooseberry Family (Grossulariaceae)

A slender shrub 3-6 ft. tall. Leaves deciduous, round, 1-3 in. long, 3 to 5 rounded lobes, bluntly toothed. Flowers small, pink, in clusters of 8 to 20. Fruit a blue-black edible 1/4 in. berry., Flowers April-July.

# 27. BLUE ELDERBERRY. Sambucus mexicana

Honeysuckle Family (Caprifoliaceae)

A shrub 4-10 ft. tall sometimes developing into a small tree. Leaves deciduous, 5-8 in. long, compound, consisting of 5 to 9 smaller lance shaped leaflets, 1-6 in. long, finely toothed. Flowers white to cream in large flat topped clusters. Fruit blue-gray edible berries. Flowers May-June.

# 28. WOODS' WILDROSE. Rosa woodsii var. ultramontana

Rose Family (Rosaceae)

A thorny shrub 3-9 ft. tall. Leaves deciduous, compound, consisting of 5 to 7 smaller, oval leaflets, 1/2-1.5 in. long, finely toothed. Flowers rose to light pink, 1.5-2 in. across. Fruit round, reddishorange, 1/2 in. apple-like berry, with 5 small leaf-like extensions at the end. Flowers May-October.



# 29. BITTERCHERRY. Prunus emarginata

Rose Family (Rosaceae)

A much branched shrub 4-12 ft. tall with slender gray to reddish brown branches. Leaves deciduous, narrow, oblong, rounded or notched at tip, 3/4-2 in. long, very finely toothed. Flowers small, white, in clusters of 3 to 10. Fruit a small bright red cherry, very bitter to the taste, thus the name. Flowers June-July.

# 30. SIERRA COFFEEBERRY. Rhamnus rubra

Buckthorn Family (Rhamnaceae)

A shrub 4-6 ft. tall with reddish young bark. Leaves evergreen, oval, shiny, 1-3 in. long, finely toothed. Flowers inconspicuous. Fruit a small hard berry, green at first, turning red, then finally black. Flowers April-June.

# 31. UTAH SERVICE-BERRY. Amelanchier utahensis

Rose Family (Rosaceae)

A shrub 3-10 ft. tall with reddish-brown to gray bark. Leaves deciduous, oval to round, rather thick, 3/4-1.5 in. long, with small teeth usually on upper end of leaf. Flowers white with 5 narrow 1/2 in. long petals. Fruit a purplish-black hard berry. Flowers April-June.

# 32. MOUNTAIN ALDER. Alnus incana ssp. tenuifolia

# Birch Family (Betulaceae)

A shrub or small tree 6-25 ft. tall with smooth gray to reddish brown bark. Leaves deciduous, oval, 1.5-4 in. long, dark green, coarsely toothed. Flowers a catkin 1-3 in. long. Fruit a dry, brownish-red cone about 1/2 in. long. Flowers June-August.



# 33. DOUGLAS' SPIREA. Spirea douglasii

Rose Family (Rosaceae)

A shrub 2-4 ft. tall with older bark a reddish-brown. Leaves deciduous, oval, 1.5-3 in. long, green above, whitish below. Flowers small, rose colored, in compact clusters similar to a lilac. Fruit a small 5 podded cluster for each flower. Flowers June-August.

# 34. TOBACCO-BRUSH. Ceanothus velutinus var. velutinus

Buckthorn Family (Rhamnaceae)

A spreading round shrub 2-5 ft. tall. Leaves evergreen, oval, shiny somewhat sticky, 1.5-2.5 in. long, finely toothed with a walnut odor. Flowers small, white clusters. Fruit hard, 3 sectioned, berry-like, with 3 lobes. Flowers May-July.

# 35. WESTERN CHOKECHERRY. Prunus virginiana var. demissa

# Rose Family (Rosaceae)

A shrub 3-12 ft. tall with thin, smooth, red to brown bark. Leaves deciduous, oval, pointed, 1.5 3.5 in. long, finely toothed. Flowers small, white, several, attached to a long central stem. Fruit a 1/4 - 1/2 in. dark purple cherry, bitter but edible. Great for jelly. Flowers April-May.



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# Notes

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