Shrubs and Trees for Bees in Oregon







Left: Mining bee (*Andrena* sp.) bee foraging on one-color willow (*Salix monochroma*), Right top: Bumble bee (*Bombus* sp.) foraging on yellow rabbitbrush (*Chrysothamnus viscidiflorus*), Right bottom: Long-horned bee (*Eucera frater*) foraging on blue elderberry (*Sambucus nigra*)

Guide Prepared By: Scott Mitchell

Contents

About this Guide:	2
How to Use this Guide:	2
Why Shrubs and Trees?	3
Antelope Bitterbrush	4
Big Leaf Maple	4
California Lilacs	5
Choke Cherry	5
Crab Apple	6
Currants	6
Dogwoods	7
Elderberries	7
Hairy Manzanita	8
Heather	8
Huckleberries and kin	9
Kinnikinick	9
Labrador Teas	10
Mock Orange	10
Ninebarks	11
Oceanspray	11
Oregon Grapes	12
Rabbitbrush	12
Raspberries	13
Rhododendrons	13
Salal	14
Salmonberry	14
Smooth Sumac	15
Snowberry	15
Spiraea and Hardhack	16
Thimbleberry	16
Wild Roses	17
Willows	17
Litaratura Citad	10

About this Guide:

This guide was prepared for the "Oregon Pollinator Stewards" Program and is designed to help landowners learn about and choose shrubs and trees to plant to promote native bee-friendly landscapes on their property.

This guide briefly covers information on 28 different types or "taxa" of shrubs and trees that are useful to bees. All data were compiled from the USDA NRCS Plant Resources Database and various field guides (cited at the end of this document).

How to Use this Guide:

This guide covers basic information on major shrubs and trees occurring in Oregon. Each species includes basic information that should be considered when planting a given species (i.e. drought tolerance, shade tolerance), considerations for pollinators (i.e. bloom period, known, non-forage use by bees), and reference maps.

Reference maps are included for each plant taxa present. In cases where a single species of a given taxa occurs in the state, maps display presence (green) or absence (gray) by county. In cases where multiple species occur in the state, a key is provided in the map. Species occurrence is given for taxa with more than one species occurring in the state. In some cases, the number of species per county in each taxa is used rather than species identity to improve map readability. Reference maps were made using county level information available in the USDA NRCS Plant Resources Database and may not accurately represent the range of a given species – meaning, it is possible for a species to occur in a county where it is shown as "absent" in this guide. All maps were made using https://www.mapchart.net.



Why Shrubs and Trees?

Long Lived and Hardy:

Shrubs and trees can live for quite a long time, with some species lasting decades. Many species are also resilient once established and can tolerate varied environmental conditions.



A miner bee (*Andrena* sp.) visiting the flowers of a snowberry shrub.

Visited by Many Bee Species:

Many shrubs and trees are visited by a wide variety of bee species and some plants even appear to support specialist bee species. In one study we conducted in Eastern Oregon, we found 80 species of bees visiting local native shrubs!

Useful as Forage and Nests:

Trees and shrubs can be useful to native bees in many ways. From forage to nesting, native trees and shrubs can provide bees with habitat features that are necessary for their life. While many bee species visit shrubs and trees for forage, some bees will use the hollow or pithy stems of some shrub species to create nests.

Produce Delicious Fruits and Berries:

Some native shrubs and trees produce delicious fruits and berries. So, on top of providing forage resources to bees, they can provide forage resources to you!

Provide Resources to Other Wildlife:

Shrubs and trees can provide resources to other wildlife. Animals such as elk and deer will browse foliage. Squirrels and birds may eat the berries or seeds produced by shrubs and trees. And birds may take shelter or create nests in shrub and tree branches.

Antelope Bitterbrush

(Purshia tridentata)

Shade Tolerance:

Intermediate

Drought Tolerance:

Tolerant

Bloom Period:

April – July

USDA Hardiness Zones:

5b - 9a

Other Notes and Characteristics:

Eaten by large game (deer and elk) and livestock. Grows up to 8' tall. Coarse or medium soils best. Documented bee visitors include mining bees (*Andrena*), mason bees (*Osmia*), green metallic bees (*Agapostemon*) and others.

Antelope Bitterbrush (Purshia tridentata)



Big Leaf Maple

(Acer macrophyllum)

Shade Tolerance:

Intermediate

Drought Tolerance:

Not drought tolerant

Bloom Period:

April-May

USDA Hardiness Zones:

7b - 10b

Other Notes and Characteristics:

Rapid growth – up to 30' in first 20 years. Will grow to 80' tall. Common in the western Oregon. Bees including mining bees (*Andrena*), mason bees (*Osmia*), and others visit. Tolerant of varied soils. Not fire resistant. Wood can be used for fuel and timber. High flood tolerance.

Big Leaf Maple (Acer macrophyllum)



California Lilacs

(Ceanothus spp.)

Shade Tolerance:

Most species not shade tolerant

Drought Tolerance:

Most species drought tolerant

Bloom Period:

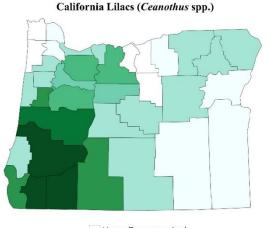
April – June (vary by species & location)

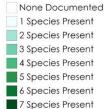
USDA Hardiness Zones:

5b - 10 b dependent on species

Other Notes and Characteristics:

Seven species common in Oregon were considered for this map: *Ceanothus cordulatus*, *C. integerrimus*, *C. sanguineus*, *C. prostratus*, *C. thyrsiflorus*, *C. velutinus*, *C. cuneatus*. Supports a high diversity of native bees and butterflies. Most species grow to ~10' tall. Many bee species associated (>50 documented species).





Choke Cherry

(Prunus virginiana)

Shade Tolerance:

Not tolerant

Drought Tolerance:

Medium tolerance

Bloom Period:

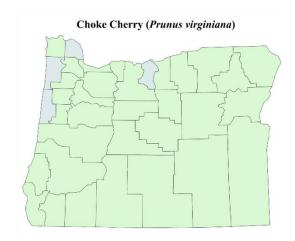
April – May

USDA Hardiness Zones:

6a - 10a

Other Notes and Characteristics:

Grows to maximum ~25' tall. Leaves/bark can be toxic to cattle and sheep (and humans), but wildlife will consume fruits. Tolerant of varied soils. Supports high diversity of bees (>60 documented visitors).



Crab Apple

(Malus fusca)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

Not tolerant

Bloom Period:

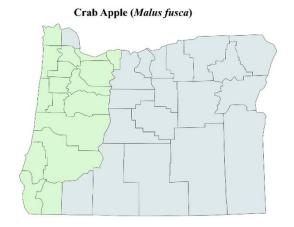
April – May

USDA Hardiness Zones:

6b - 9b

Other Notes and Characteristics:

Typical mature height, 15' tall. Does best in medium to course soils. Open flowers may attract a variety of bees. Fruit can be made into jams or used as source of pectin in jam making with other fruit.



Currants

(Ribes spp.)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

Tolerant, especially R. cereum

Bloom Period:

R. aureum: April - May R. cereum: May - July

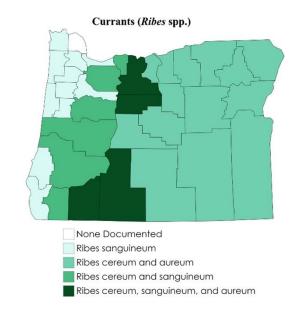
R. sanguineum: April - June

USDA Hardiness Zones:

R. aureum: 6b – 10b R. cereum: 5b – 9a R. sanguineum: 7b – 10b

Other Notes and Characteristics:

Max mature height ~10' tall. All do best in medium textured soils. All produce edible berries (wax currant not considered palatable). All visited by diverse bee species.



Dogwoods

(Cornus spp.)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

Not drought tolerant, esp. C. nuttallii

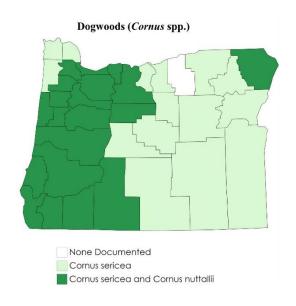
Bloom Period:

C. sericea: June – August C. nuttallii: April – May USDA Hardiness Zones:

C. sericea: 5b – 10b *C. nuttallii*: 7b – 9b

Other Notes and Characteristics:

Max height; *C. nuttallii*: to 50' tall, *C. sericea*: to 20' tall. Berries used by wildlife. Both visited by insects, but *C. sericea* potentially more so. In our Starkey studies, we found a potentially threatened bee - the western bumble bee (*B. occidentalis*) on *C. sericea*.



Elderberries

(Sambucus spp.)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

Tolerant, especially S. nigra

Bloom Period:

S. nigra: March - July

S. racemosa: July - August USDA Hardiness Zones:

S. nigra: 6a – 10b

S. racemosa: 5b - 10b

Other Notes and Characteristics:

Berries eaten by wildlife. Mature height ~20' tall. Both species commonly have dead, hollow twigs on plant which can be used for stem-nesting bees. Berries from *S. nigra* are edible. Grows best in medium – course soils.



Hairy Manzanita

(Arctostaphylos columbiana)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

Low tolerance

Bloom Period:

February – March

USDA Hardiness Zones:

8b - 9b

Other Notes and Characteristics:

Does well in varied soil, but well drained, conditions. Mature height 6' tall. Can be tricky to grow. Can hybridize with other related plants including kinnikinnick. Pollinated by "buzz pollination" as in bumble bees (*Bombus* spp.). Can be tricky to grow, but will do well in some sites.

Hairy Manzanita (Arctostaphylos columbiana)



Heather

(Cassiope mertensiana)

Shade Tolerance:

Tolerant

Drought Tolerance:

Moderately tolerant

Bloom Period:

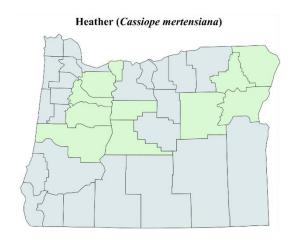
July - August

USDA Hardiness Zones:

5b - 7b

Other Notes and Characteristics:

Short plant – more of a subshrub than shrub. Mature height up to ~1' tall. Common in areas with high snowfall.



Huckleberries and kin

(Vaccinium spp.)

Shade Tolerance:

Tolerant

Drought Tolerance:

Moderate (species dependent)

Bloom Period:

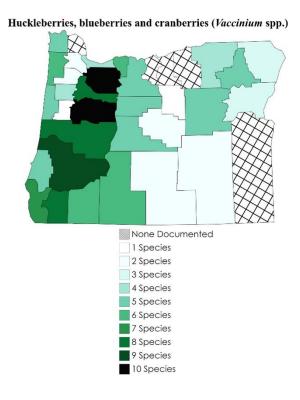
March – August (species dependent)

USDA Hardiness Zones:

5a - 10a (dependent on species)

Other Notes and Characteristics:

10 species with state records: *V. cespitosum*, *V. deliciosum*, *V. macrocarpon*, *V. membranaceum*, *V. myrtillus*, *V. ovalifolium*, *V. ovatum*, *V. oxycoccos*, *V. parviflorum*, *V. scoparium*, *V. uliginosum*. All produce edible berries. Visited by wide variety of bees. Plants benefit from "buzz pollination" as in bumble bees (*Bombus* spp.)



Kinnikinick

(Arctostaphylos uva-ursi)

Shade Tolerance:

Intermediate tolerant

Drought Tolerance:

Highly tolerant

Bloom Period:

March - June

USDA Hardiness Zones:

7b - 10a

Other Notes and Characteristics:

While quite woody, more of subshrub than shrub – max mature height ~1' tall. Grows in variety of soils can help stabilize sandy soil. Once established – little to no maintenance required. Visited by variety of bees, especially bumble bees (*Bombus* spp.). Not preferred by deer or elk, but other wildlife will eat the berries.

Kinnikinnick (Arctostaphylos uva-ursi)



Labrador Teas

(*Ledum* spp.)

Shade Tolerance:

Tolerant

Drought Tolerance:

Not tolerant

Bloom Period:

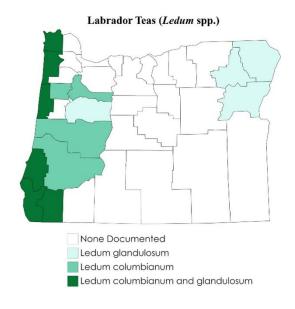
March - May

USDA Hardiness Zones:

3b - 9b

Other Notes and Characteristics:

Low shrub, growing to ~3' tall. Likely pollinated by bees, though little documentation on visitors. Can grow in varied soil conditions.



Mock Orange

(Philadelphus lewisii)

Shade Tolerance:

Not tolerant

Drought Tolerance:

Intermediate tolerance

Bloom Period:

May - June

USDA Hardiness Zones:

7a - 9b

Other Notes and Characteristics:

Max mature height ~12' tall. Browsed by deer and elk. Does best in medium – course, well drained soils. Large, ornamental flowers. Attracts variety of pollinators, however documentation is limited. Requires little maintenance.



Ninebarks

(*Physocarpus* spp.)

Shade Tolerance:

Moderate tolerance

Drought Tolerance:

P. capitatus: not tolerant P. malvaceus: high tolerance

Bloom Period:

May - June

USDA Hardiness Zones:

4b - 10b

Other Notes and Characteristics:

Does well on a variety of soils. Good pollinator plant but short bloom window – bloom ends quickly after onset. Max height ~15' tall (*P. malvaceus*) and ~8' tall (*P. capitatus*). Can be propagated via seed or wood cuttings.



Oceanspray

(Holodiscus discolor)

Shade Tolerance:

Tolerant

Drought Tolerance:

Moderate tolerance

Bloom Period:

May – August

USDA Hardiness Zones:

5b - 10b

Other Notes and Characteristics:

Generally hardy species. Height maximum ~12' tall, generally shorter (< 6'). Does well in well drained soil. Blooms later than many shrubs in Oregon, helping provide later season forage to bees. While shade tolerant, generally prefers sun.



Oregon Grapes

(Mahonia spp.)

Shade Tolerance:

Tolerant

Drought Tolerance:

High tolerance

Bloom Period:

May - July

USDA Hardiness Zones:

5a - 9b

Other Notes and Characteristics:

Generally shorter stature (< 2' tall), except *M. aquifolium* which can get to 8' tall. Does not require large amounts of water, good drought tolerance. Resistant to deer and elk browse. Synonym for *Mahonia* genus is *Berberis*. Bright yellow blooms. Produces edible (but tart) berry. Attracts variety of bees, but not much documentation.



Rabbitbrush

(*Ericameria* spp. and *Chrysothamnus* spp.)

Shade Tolerance:

Moderately

Drought Tolerance:

Very Tolerant

Bloom Period:

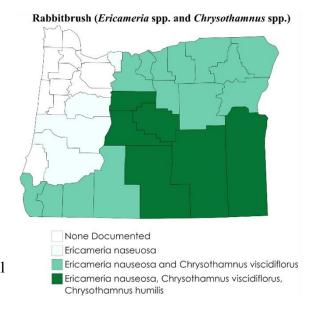
July - October

USDA Hardiness Zones:

5b - 10a

Other Notes and Characteristics:

While rabbitbrush fall into two genera, all species are similar in appearance and attract a wide variety of bees. Many subspecies means sourcing plant locally best option. Blooms later than most other plants – good option for extending bloom resources into fall.



Raspberries

(Rubus spp.)

Shade Tolerance:

Tolerant

Drought Tolerance:

Moderate Tolerance

Bloom Period:

March – June

USDA Hardiness Zones:

7a - 10a

Other Notes and Characteristics:

Max height ~6' tall. Both species produce edible berries and are browsed on by deer and elk. Both species are depended on insects for pollination and have quite a few documented visitors. Care should be taken when sourcing *R. idaeus* most subspecies are not native. *R. idaeus* subspecies *strignosus* is the native subspecies (also known as grayleaf red raspberry).



(Rhododendron spp.)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

Not drought tolerant

Bloom Period:

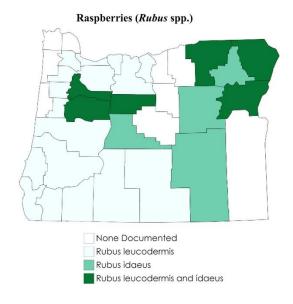
March – July

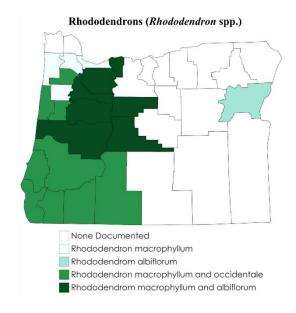
USDA Hardiness Zones:

7a - 10a

Other Notes and Characteristics:

Height varies with species, generally max height ~15' tall. Attracts a variety of bees, especially bumble bees at elevation. Generally easy to find in nurseries (especially *R. macrophyllum*). Produces large showy flowers.





Salal

(Gaultheria shallon)

Shade Tolerance:

Tolerant

Drought Tolerance:

Low tolerance

Bloom Period:

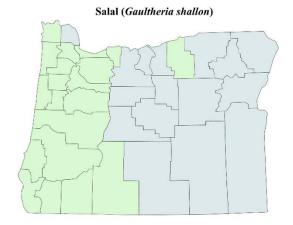
April – June

USDA Hardiness Zones:

9a - 10a

Other Notes and Characteristics:

Grows rapidly (spreads through rhizomes), max height ~6' tall, though can be taller. Visited by a variety of bees, often visited by bumble bees. Produces mildly sweet edible fruit. Tolerates wide range of soil conditions.



Salmonberry

(Rubus spectabilis)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

High tolerance

Bloom Period:

March – May

USDA Hardiness Zones:

9a - 10a

Other Notes and Characteristics:

Moderate size shrub, max height ~12' tall. Moderate growth rate, can be grown from cuttings. Best in fine – medium, moist soils. Can provide nesting resources for some bees (hollow stems). Produces mild edible berries. Used by other wildlife for shelter and food, especially in spring when other berries have yet to ripen.



Smooth Sumac

(Rhus glabra)

Shade Tolerance:

Not tolerant

Drought Tolerance:

Very high tolerance

Bloom Period:

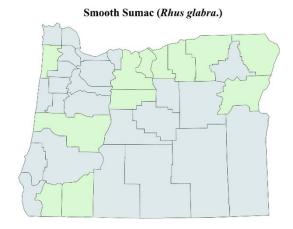
April – May

USDA Hardiness Zones:

2a - 9b

Other Notes and Characteristics:

Max height ~12' tall. Can be weedy/hard to get rid of. Fruits and seeds used by wildlife as winter food. Visited by many bee species (>30 documented). Pretty autumn foliage is common reason for planting. Generally able to grow in poor soils. Easily outcompeted by larger stature plants.



Snowberry

(*Symphoricarpos* spp.)

Shade Tolerance:

Intermediate tolerance

Drought Tolerance:

Tolerant, especially S. longiflorus

Bloom Period:

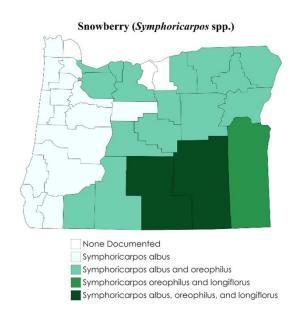
May – July

USDA Hardiness Zones:

6a - 10b

Other Notes and Characteristics:

Generally low shrubby plant, max height generally ~5' tall. Browsed by deer, elk, and wildlife. Provides shelter to small animals and some nesting birds. Produces distinct white berries that are not edible. Readily available at native plant nurseries. Visited by a range of bee species.



Spiraea and Hardhack

(Spiraea spp.)

Shade Tolerance:

Low tolerance

Drought Tolerance:

Moderate tolerance

Bloom Period:

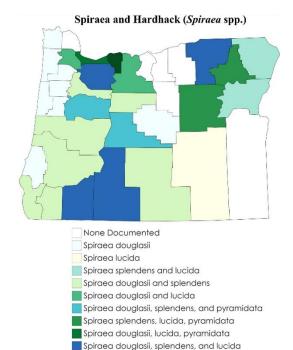
July – September

USDA Hardiness Zones:

5b - 9b

Other Notes and Characteristics:

Medium size shrub, max height ~7' tall. Does well in most soils. High flood tolerance. Can spread easily in some sites, but reportedly can help contain invasive reed canary grass. Provides food and shelter to other small wildlife. Showy flowers have a pleasant, sweet smell. Visited by a wide variety of bees (>30 species).



Spiraea douglasii, splendens, lucida, pyramidata

Thimbleberry

(Rubus parviflorus)

Shade Tolerance:

Intermediate Tolerance

Drought Tolerance:

Moderate tolerance

Bloom Period:

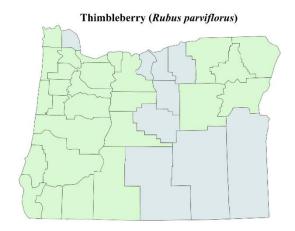
March – May

USDA Hardiness Zones:

6a - 10b

Other Notes and Characteristics:

Generally low shrub (~4' tall). Produces slightly tart edible berries. Leaves are palatable to browsing animals, thus used by deer and elk. Visited by a number of bees species for nectar and pollen. Also noted to be used as nesting material (stems) for native bees.



Wild Roses

(Rosa spp.)

Shade Tolerance:

Moderate tolerance, except R. pisocarpa

Drought Tolerance:

Intermediate tolerance, except *R. nutkana* **Bloom Period:**

May – June (most species)

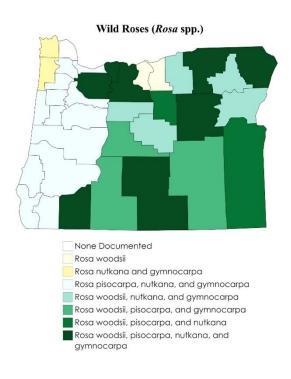
June – August (*R. pisocarpa*)

USDA Hardiness Zones:

R. gymnocarpa: 7a – 10a, R. nutkana: 8b – 9b, R. pisocarpa: 7b – 8b, R. woodsi: 5b – 9a

Other Notes and Characteristics:

Generally shorter than 6' tall, sometimes larger. Visited by wide range of insects. Reportedly more attractive to native bees than non-native cultivars (even those with more blooms). Fruits (rose hips) can be used in jams and high in vitamin C. Visited by wide variety of bees.



Willows

(Salix spp.)

Shade Tolerance:

Many are shade tolerant.

Drought Tolerance:

Depends on species.

Bloom Period:

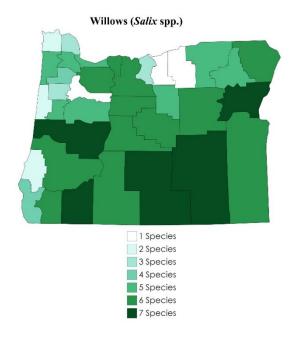
February – May (depending on species and location)

USDA Hardiness Zones:

5b - 10b

Other Notes and Characteristics:

Varied size, depending on species (generally ~10' tall) >30 species of willow native to Oregon. For this map, only the 7 most common were used: *S. exigua*, *S. geyeriana*, *S. lasiolepis*, *S. lemmonii*, *S. lucida*, *S. prolixa*, *S. scouleriana*. Likely important to early emerging bees and probably supports some specialist species.



Literature Cited:

Agencies:

USDA Natural Resource Conservation Service Plant Database, https://plants.sc.egov.usda.gov/java/

Books and Publications:

Coupe, R., Parish, Roberta, Lloyd, Dennis, and Antos, Joe. Plants of Southern Interior British Columbia and the Inland Northwest. Edmonton: Lone Pine, 1999. Print.

MacKinnon, A., Pojar, Jim, and Alaback, Paul B. Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia & Alaska. Rev. ed. Vancouver: Lone Pine Pub., 2004. Print.

Web-Based Resources:

CalFlora: Information on California plants; https://www.calflora.org/

Dave's Garden: https://davesgarden.com/

DiscoverLife: https://www.discoverlife.org/

Lady Bird Johnson Wildflower Center: https://www.wildflower.org/

Plants For A Future: https://pfaf.org/user/Default.aspx

USDA Natural Resources Conservation Service Plant Database; https://plants.usda.gov/java/