



RESTORATION PLANT GUIDE



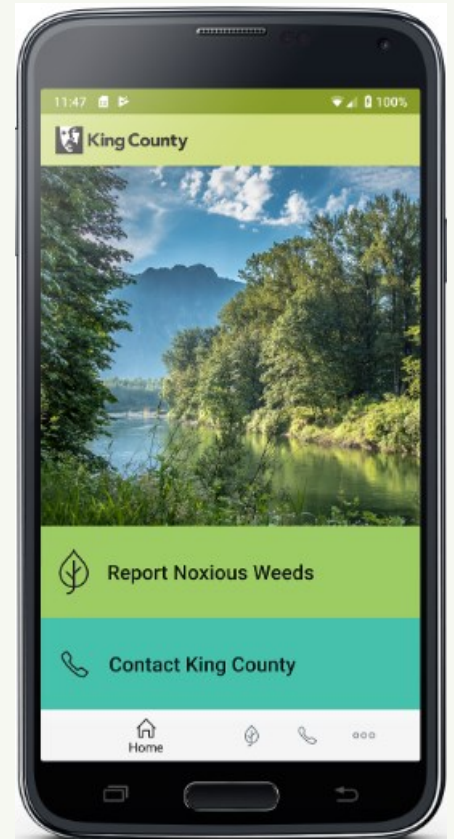
Invasive Species Reporting

Accurate monitoring and reporting of invasive species is crucial to preventing establishment and minimizing damage. Use the resources below to help out!

County Level

King County Noxious Weeds takes [reports on their site and mobile app](#). For non-regulated weeds, the information helps them to keep track of the impact. For regulated weeds, they will follow up to ensure proper control of the weed.

<https://www.kingcounty.gov/services/environment/animals-and-plants/noxious-weeds/infestation-form.aspx>



State Level

The Washington Invasive Species Council has both a great mobile app and a useful website format for [reporting invasive species](#). The report is reviewed by the council's team of experts and shared with the appropriate agency for taking action. User reports have helped the council prevent the establishment of many invasive species.

<https://invasivespecies.wa.gov/report-a-sighting/>



What Are They??

Tansy ragwort is a biennial herb that grows well in disturbed sites such as roadsides, forests that have recently been logged, and pastures. It is native to Europe and western Asia. It often spreads through contaminated hay. Because it also contaminates milk, it poses potential toxic risks to humans as well.

Why Should I Care??

Tansy ragwort can cause severe economic impacts to farmers and ranchers, as it is one of the most common causes of poisoning in cattle and horses when consumed in pastures or hay.

Opposite v. Alternate Leaves



Dogwood

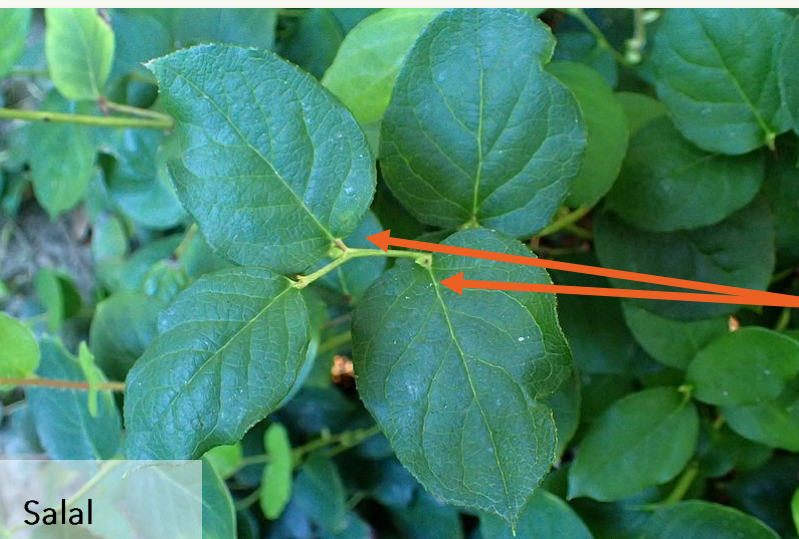
Opposite

Plants with an opposite leaf arrangement have leaves growing opposite one another from the same point on the stem.

Note: Opposite leaf arrangement is far less common than alternate leaf arrangement. Spotting opposite leaves dramatically narrows the number of potential species during plant ID.

Common opposite trees: Maple, Ash

Common opposite shrubs: Dogwoods, honeysuckles, Oregon grapes*, twinberry

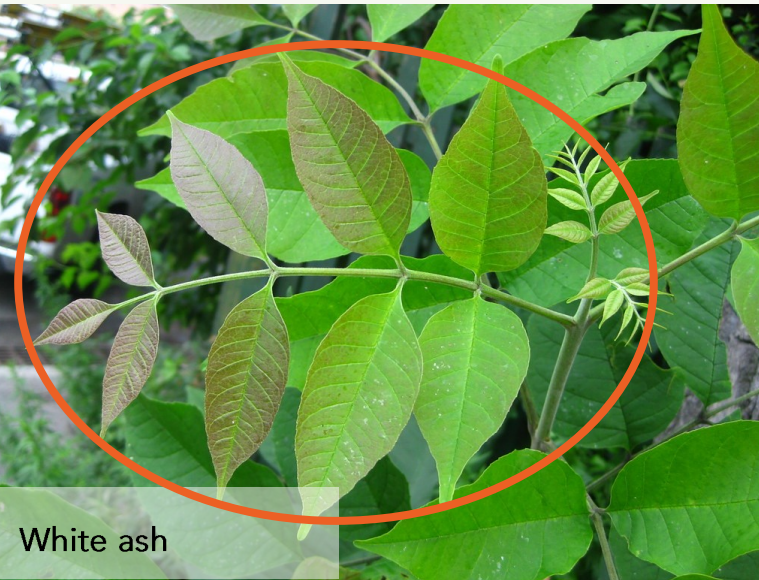


Salal

Alternate

Plants with an alternate leaf arrangement have leaves that alternate sides along the stem. Leaves do not grow from the same point on the stem.

Simple v. Compound Leaves



Compound

Compound leaves have multiple leaflets connected to a petiole, which then connects to a stem or branch (except in the case of ferns). The sum of the leaflets and petiole is the leaf.

Note: Compound leaf arrangement is far less common than simple leaf arrangement. Spotting compound leaves dramatically narrows the number of potential species during plant ID.

Common compound trees: Ash, locust, hickory

Common compound shrubs: Rose, Oregon grape, elderberry

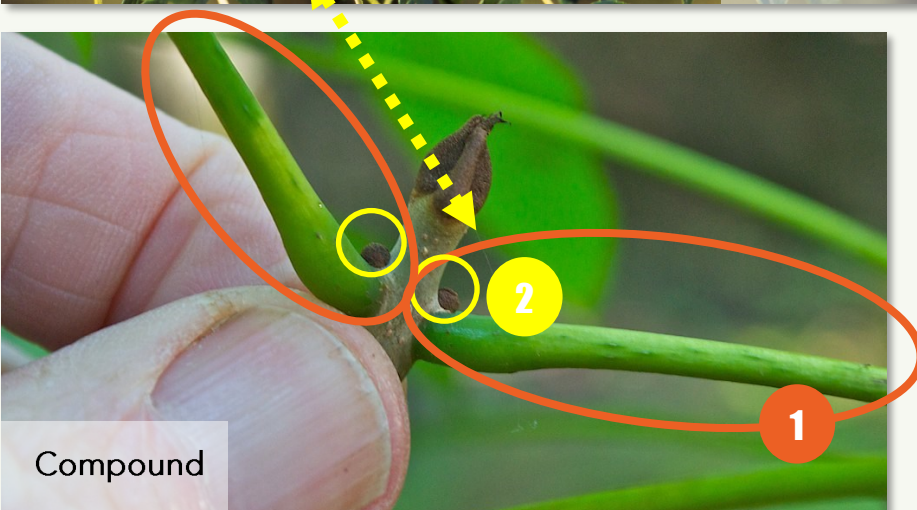
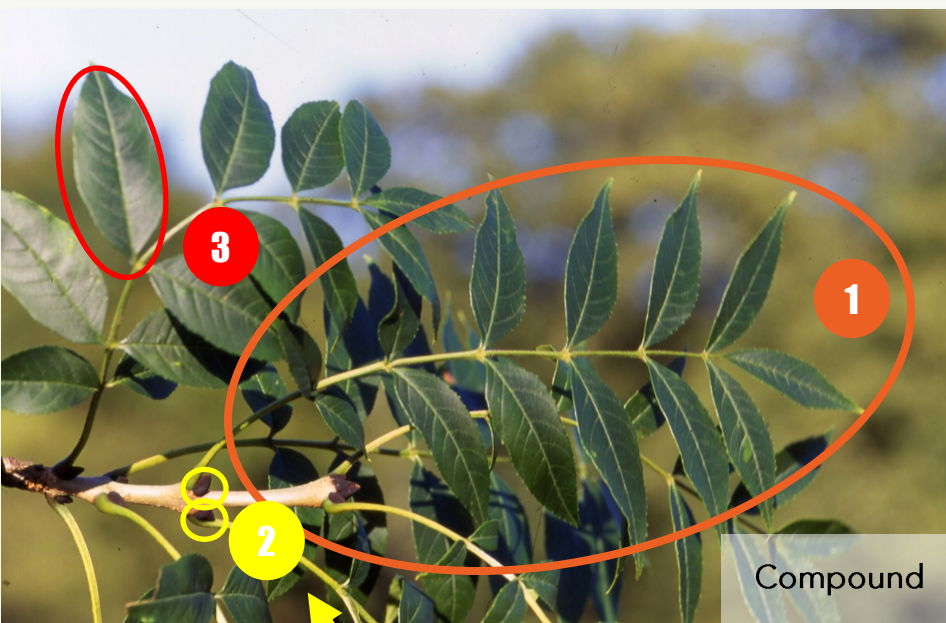
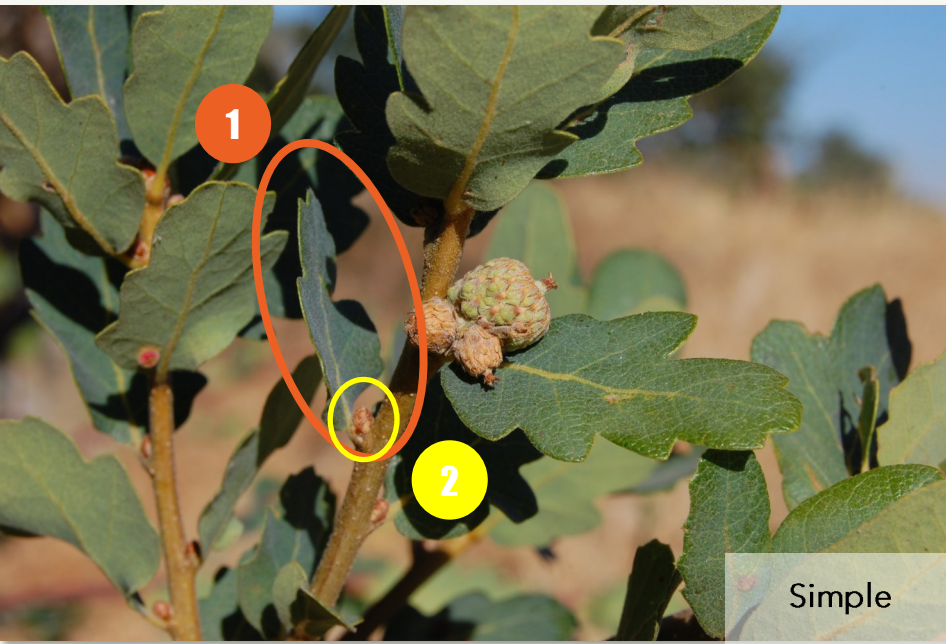
Common compound groundcovers: Ferns, goat's beard



Simple

Plants with simple leaves are not further divided into leaflets, and attach at a single point to a branch or stem.

Simple v. Compound Leaves (continued)



Best Buds

Finding the **lateral buds** is the easiest way to distinguish a leaf from a leaflet. Remember:

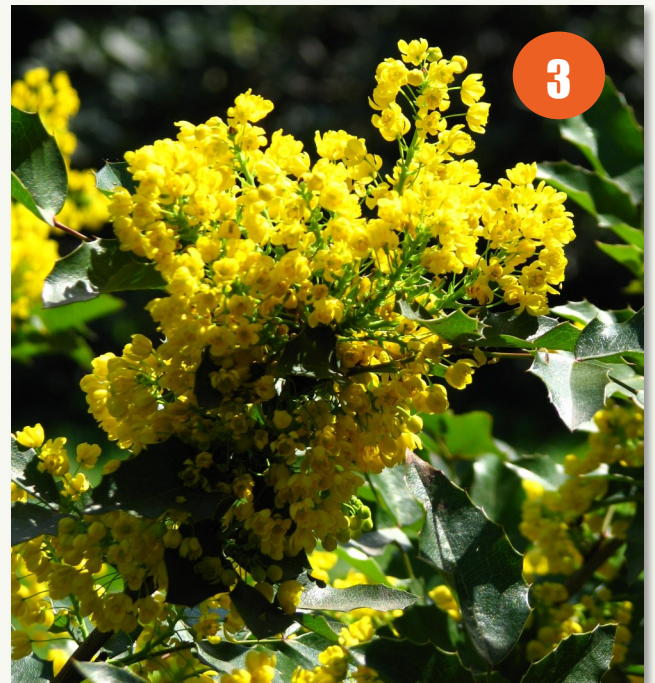
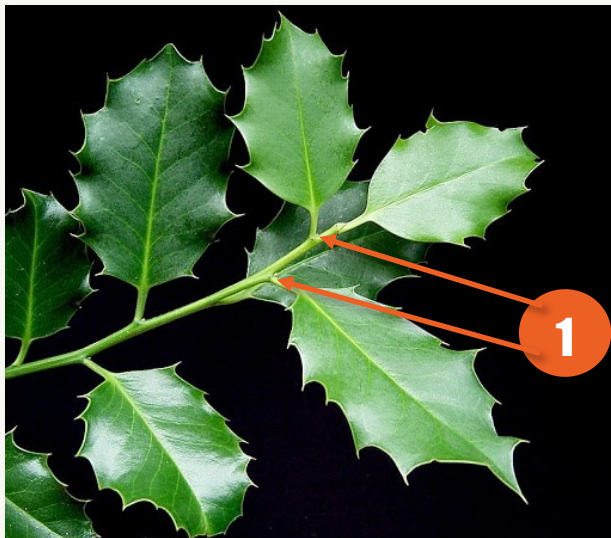
- Leaves have buds where they attach to the stem.
- Leaflets do not have buds where they attach to the petiole.

If you see what you think is a leaf, but it has no bud at the base, it is probably a leaflet, and part of a **compound leaf**. Check multiple leaves to be sure!

Identification Station

- 1** Leaf
- 2** Lateral Bud
- 3** Leaflet (compound only)

Direct Comparison



English Holly

- 1** Alternate leaves
- 2** Red berries
- 3** White flowers
- 4** Understory tree

Oregon Grape

- 1** Opposite leaves
- 2** Blue-purple berries
- 3** Yellow flowers
- 4** Understory shrub

Direct Comparison



Herb Robert

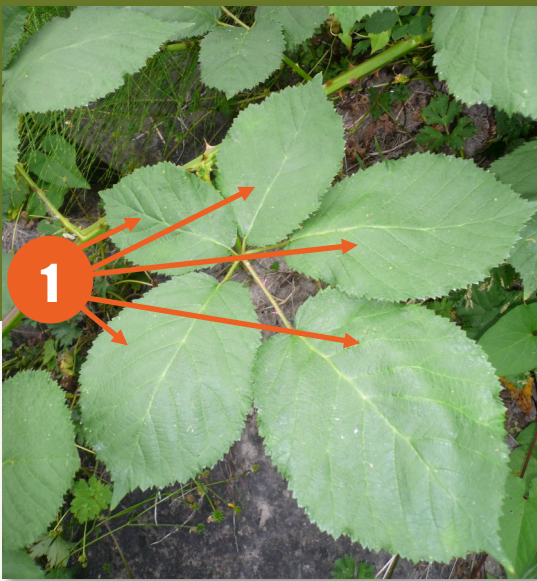
- 1 5 petal flowers
- 2 Hairy stems/leaves
- 3 Stems green to deep red
- 4 Crushed leaves give unpleasant odor



Pacific Bleeding Heart

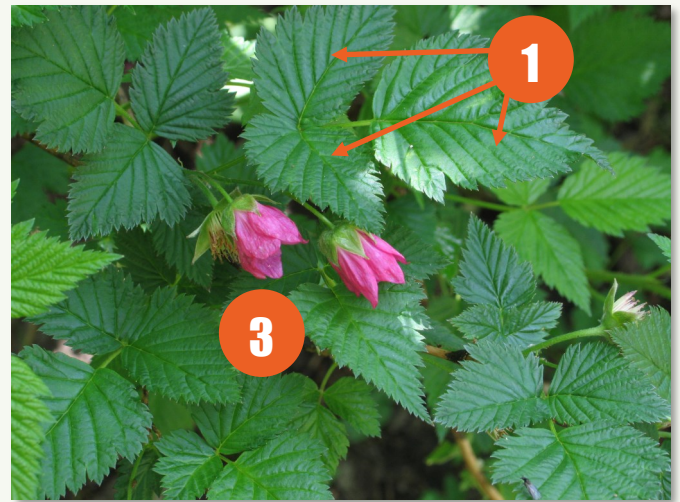
- 1 Heart shaped flowers
- 2 Hairless stems/leaves
- 3 Stems typically green, sometimes with red tint

Direct Comparison



Himalayan Blackberry

- 1 3-5 leaflets per leaf
- 2 Black berries
- 3 White flowers
- 4 Thorns green to red, up to 3/4" long



Salmonberry

- 1 3 leaflets per leaf
- 2 Yellow-orange berries
- 3 Pink flowers
- 4 Thorns smaller, more hair-like

Direct Comparison



Poison Hemlock

- 1 Purple spotted stems
- 2 Hairless stems
- 3 Grows up to 12 feet high
- 4 Musty smell when crushed



Queen Anne's Lace

- 1 Green stems
- 2 Hairy stems
- 3 Grows 2-3 feet high
- 4 Carrot-like smell when crushed
- 5 Older flowers curl into birds nest shape

Plant Profile: Scotch Broom

INVASIVE

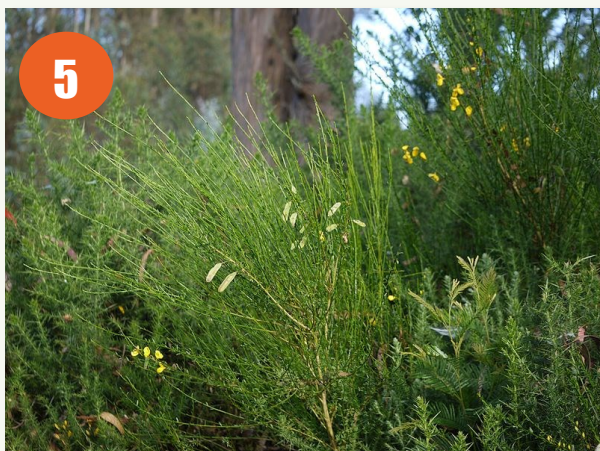
Common name: Scotch broom or Scot's broom

Species name: *Cytisus scoparius*


Management BMPs

- Hand pull small plants
- Where pulling isn't feasible, cut as close to the ground as possible and monitor for new growth.
- Compost on site

The Scoop: Scotch broom is a tall, ever-green shrub. It crowds out native species, disrupts wildlife habitat, and impedes forest regeneration. It also produces toxic compounds which are harmful to grazing animals. Where removal isn't possible, report the sighting at the state or county level



Identification Station

- 1** Yellow, 2 lipped flowers → 
- 2** Small, ovular leaves
- 3** Ribbed, star-shaped stems
- 4** Hairy, pea-like pods
- 5** Evergreen branches from 3-10 feet tall

Plant Profile: Yellow Archangel

INVASIVE

Common name: Yellow archangel or yellow lamium

Scientific name: *Lamium galeobdolon*

Management BMPs

- Hand pull small populations and revisit frequently.
- Thoroughly sift through soil for root and leaf material.
- Sheet mulch larger populations, and regularly check for holes or resprouting.

The Scoop: Yellow archangel is a fast-growing groundcover that can be trailing or upright depending on conditions. Like ivy, it forms dense layers, and does not provide good cover or food for native wildlife.



Identification Station

- 1 Yellow, tubular flowers
- 2 Opposite, ovate, toothed leaves with silver-grey markings. Hairy.
- 3 Square, green stems
- 4 Distinctive, unpleasant odor.
- 5 Groundcover either trailing or 1-2 feet tall.

Plant Profile: Garlic Mustard

INVASIVE

Common name: Garlic mustard

Scientific name: *Alliaria petiolata*

Management BMPs

- Garlic mustard is a regulated noxious weed, and should be reported at the county level.
- For small populations, hand pulling is easy and effective. Make sure to remove the entire root. Larger populations require professional crew work.
- Flowering and seeding individuals need to be bagged and put in the garbage.
- Carefully clean boots and equipment to prevent spreading seed.

The Scoop: Garlic mustard is an invasive non-native understory herb that can self-pollinate, helping it to spread rapidly by seed. The fast rate of spread and the ability to establish even in intact forests make this a major concern for land managers. It is very difficult to remove once established, so locating and reporting is essential to long term control.



Identification Station

- 1** Small, white, 4 petal flowers
- 2** Triangular toothed leaves that become smaller up the stem.
- 3** Leaves relatively hairless, unlike look-alikes
- 4** Thin stems, typically 3 feet tall.
- 5** Garlicky smell when pulled/crushed

Conifer Comparison



Douglas fir

- 1 Less symmetrical needles
- 2 Lighter green under leaves
- 3 Scaly/flakey cones
- 4 Gray-brown, lightly furrowed bark



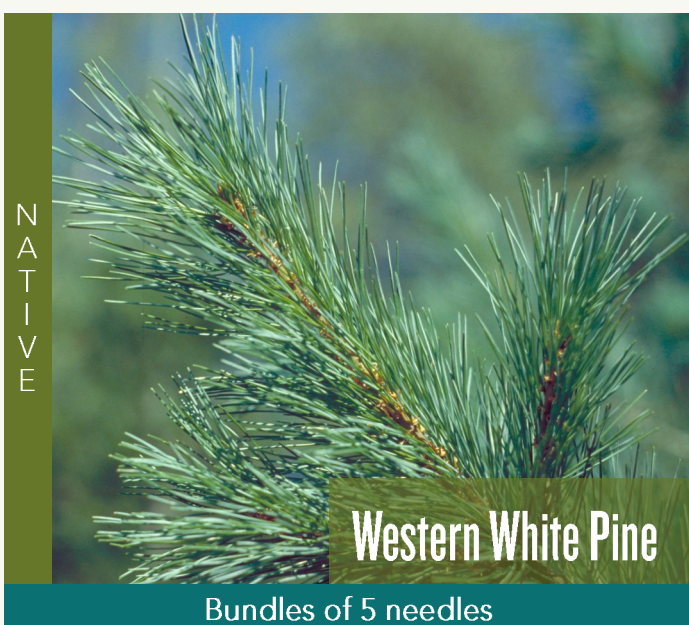
Grand fir

- 1 Neat, flat, opposite needles
- 2 White stripes under leaves
- 3 Compact, smooth cones
- 4 Brown, deeply furrowed bark

Pin(e)s and Needles

Bundles of Joy

Botanists have a fun way of identifying pines in the field. **Pine needles tend to come in bundles if you pluck them where they attach to the branch.** Different pines have different numbers of needles in their bundles, which helps to identify them more easily.



The Locals

The two common pines you'll find in the Puget lowlands are **shore pine** (*Pinus contorta* var. *contorta*) and **Western white pine** (*Pinus monticola*). Luckily, these two pines have different needle counts: Western white pine has bundles of 5; shore pine has bundles of 2. Less common but not infrequent is **Ponderosa pine** (*Pinus ponderosa*), which is 3 needled. Farther south you can find **Sugar pine** (*P. lambertiana*) and **Whitebark pine** (*P. albicaulis*) which both have 5 needles.

Of course, in the field you'll need to use other clues like the cones or bark to determine if the pine is native. Cones in particular are a great way of distinguishing pines.