

KEY TO COMMON TREES IN PACIFIC SPIRIT PARK

Adapted from Straley, G.B. and R.P. Harrison. 1987. An Illustrated Flora of the University Endowment Lands. Botanical Garden, Technical Bulletin #12.
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A key is a tool for identifying plants. Characteristics of the plant are described in couplets (e.g. 1a and 1b). For each species, only one of the two statements is accurate. For each accurate description, follow the instructions indicated in the right column; continue to the next pair of couplets or note the identification of the plant. Ultimately you will determine the genus and species of each plant using this key or by referring to other field guides. Remember to follow protocol when using scientific names of plants. * indicates non-native species.

- 1a.** Leaves needle or scale-like; seeds in cone or berry-like structure.....Division Pinophyta (Conifers).....2
- 1b.** Leaves broad and flat; seeds enclosed in a fruit.....Division Magnoliophyta (including Broadleaf trees)....8

Division Pinophyta (Conifers)

- 2a.** Leaves scale-like, smallest branchlets flattened; bark thin; reddish-brown, shredded; tree
with upright stem, mature trees large and dominate the canopy; seeds in cones.....*Thuja plicata* (western redcedar)
- 2b.** Leaves needle-like4
 - 4a.** Single seed in a fleshy red berry-like structure; needles sharp pointed,
bright green on both sides of needle, with short stalk;
small tree with reddish to purplish-brown bark*Taxus brevifolia* (western yew)
 - 4b.** Seed-producing cones.....5
 - 5a.** Needles attached to branchlets in clusters of 2, sharp, pointed; base
surrounded by a sheath; bark thin, orange-brown, short scrubby tree.....*Pinus contorta* (shore pine)
 - 5b.** Single needles attached to branchlets, base not surrounded by sheath.....6
 - 6a.** Needles of irregular length, blunt, flat, lower surface whiter than upper surface;
needles leave a persistent base on branch so branches are rough to touch when needles shed;
needles arranged brown bark with fine-textured furrows; trees have drooping top;
mature trees very large and dominant in the upper canopy.....*Tsuga heterophylla* (western hemlock)
 - 6b.** Needles not leaving persistent base when shed; naked twigs smooth;
Needles of similar length, terminal leaf buds sharp pointed; branching irregular; cones produced all over
the tree and hanging down; bark thick and deeply furrowed with large ridges;
mature trees very large and dominate the canopy.....*Pseudotsuga menziesii* (Douglas-fir)

Division Magnoliophyta (Broadleaf trees)

- 8a** Broadleaved trees, may be deciduous or evergreen tree; leaves simple.....9
 - 9a.** Leaves spiny, simple, deciduous or evergreen; flowers white; fruits red; bark smooth, small shrubby tree.....*Ilex aquifolium* (English holly)*
 - 9b.** Leaves not spiny, deciduous in autumn.....10
 - 10a.** Leaves lobed.....11
 - 11a.** Large leaves; 5 deep lobes beyond middle of leaf; bark greyish-brown, narrow scaly ridges, mature trees medium diameter, dominate the canopy*Acer macrophyllum* (bigleaf maple)
 - 11b.** Leaves small, almost circular; 7-9 shallow lobes; bark smooth, thin, greenish to reddish-brown, small tree often with multiple stems, lower canopy..... *Acer circinatum* (vine maple)
 - 10b.** Leaves toothed.....12
 - 12a.** Coarsely toothed, leaves tapered from the middle to both ends; remain green until they fall in autumn; bark smooth, light grey;mature trees medium diameter, dominate the canopy*Alnus rubra* (red alder)
 - 12b.** Leaves almost as wide as long, gradually tapered to tip; bright yellow in autumn; mature bark greyish-brown, deeply furrowed; mature trees medium diameter.....*Populus trichocarpa* (black cottonwood)
- 8b.** Broadleaved tree, deciduous in autumn; leaves compound.....13
 - 13a.** Leaves in alternate pairs, 9-17 leaflets, coarsely toothed; bark smooth, brown; small tree, lower canopy.....*Sorbus aucuparia* (European mountain ash)*
 - 13b.** Leaves in opposite pairs, 5-7 leaflets, sharply toothed; bark smooth, greenish small tree often with multiple stems, lower canopy*Sambucus racemosa* (red elderberry)

ILLUSTRATION OF USEFUL TERMS



---Simple---



-----Compound-----



-----Scale-----



-----Needle-----



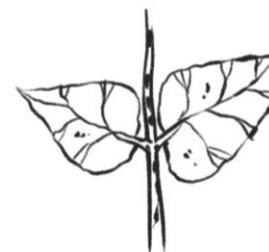
---Toothed---



-----Lobed-----



-----Alternate-----



----Opposite----

Images: S. Hewitt Wood

GLOSSARY

Simple: a broadleaf, with only a single blade and is joined by its stalk to a twig or branchlet that is woody.

Compound: a broadleaf, with several distinct leaflets attached to a midrib that is not woody. It is the stalk of the midrib that is attached to the woody twig.

Leaflet: leaf-like subdivision of compound leaves (see above), species usually have a characteristic number of leaflets per leaf.

Alternate: leaves (simple or compound) are arranged singly at intervals along the twig.

Opposite: leaves (simple or compound) that occur in opposing pairs along the twig.

Lobed: a leaf with incompletely separated, rounded or bristle-tipped sections.

Toothed: a leaf having large, dentate or serrate teeth at its edges (in contrast, a leaf with smooth margins like the example of a simple leaf, above, is “entire”)

Palmate - leaf structures (e.g., veins or leaflets of compound leaves) radiating out from a common point

Pinnate - leaf structures (e.g., veins or leaflets of compound leaves) distributed along a central line

Branchlet: the end portion of a branch containing the previous year’s growth