KEY TO WINTER TWIGS OF THE WILLAMETTE VALLEY

This key covers the common trees and shrubs of Oregon's Willamette Valley in a non-technical way. For broader coverage and more detail see *Winter Twigs* by Gilkey and Packard (2001). Photographs of the twigs mentioned in this key may be viewed online (http://dirttime.ws/WinterTwigs/Materials.htm).

To make identification easy, plants are grouped by their relative size – tall trees, small trees, tall shrubs (over 6 feet), and small shrubs (under 6 feet). Secondly they are grouped by whether buds and leaf scars are opposite or alternate. For shrubs, a distinction is made between those with prickles or thorns and those without. Sometimes bark, seed capsules, or fruits (such as snowberries and rose hips) persist all winter and can help in identification.

This key borrows from *Winter Twigs of Northwestern Oregon* by Jean L. Siddall for Tryon Creek State Park, a guide which is out of print. We have used common names that are either consistent with current USDA standards (http://plants.usda.gov/java/) or are in widespread use, but have referenced other names frequently used. We cover additional species common in the region.

Prepared by Dennis Deck and Ginny Maffitt (Updated January 2015).

TALL TREES

BUDS OPPOSITE

Bigleaf Maple (*Acer macrophyllum***):** Terminal bud large, "crown-like"; leaf scars in "V"s that join around the twig; clusters of winged seeds persisting in winter.

Oregon Ash (*Fraxinus latifolia*): Twig green, flattened at nodes; terminal bud small; leaf scars and buds not strictly opposite; cone-shaped terminal bud.

BUDS ALTERNATE

Black Cottonwood (*Populus balsamifera*): Buds large, pointed, dark brown, sticky, fragrant in early spring; lowest bud scale "thumb-nail" shaped; terminal bud conspicuously large.

Red Alder (*Alnus rubra***):** Buds red, **canoe-shaped**; new, reddish catkins at end of twigs; fruit a female "cone" persisting in winter.

Oregon White Oak (Quercus garryana) [syn: Oregon or Garry Oak]: Many crowded terminal buds (some lateral); round lobed leaves, often acorns or oak galls persist.

SMALL TREES

BUDS OPPOSITE

Vine Maple (Acer circinatum): Terminal bud resembles a tiny red deer-hoof; stems red or green; small hairs at bud base.

Pacific Dogwood (Cornus nuttallii) [syn: Common or Flowering Dogwood]: Twigs slender, green, hairy, curving; older twigs and smooth; grows as understory in drier habitat than Red Osier, red fall fruit may persist in dried form.

BUDS ALTERNATE

ARMED WITH SPINES

Black Hawthorn (*Crataegus douglasii*) [syn: Western Hawthorn, Douglas' Thornapple]: Twigs dull red, armed with stout thorns; fruit black, tiny, two-seeded; buds shiny, red 'tiny ruby', rounded; leaves toothed with small lobes.

Common Hawthorn (*Crataegus monogyna*) [syn: Oneseed or European Hawthorn]: Introduced. Similar to Black Hawthorn; often crossbreeds; twigs gray; fruit red, one-seeded; leaves deeply lobed.

UNARMED

Cascara (*Rhamnus purshiana*) [syn: Cascara Buckthorn, *Brangula purshiana*]: Buds naked (no scales, only Casacara and Poison Oak have naked buds); ovate leaves often persisting on young growth.

Oregon Crab Apple (*Malus fusca*) [syn: Pacific Crab Apple]: Small yellow apples persist in winter, remaining leaves have sharp teeth with one lobe (thumb of mitten).

Bitter Cherry (*Prunus emarginata*) [syn: Wild Cherry]: Twigs brown, whip-like; buds brown, tapered, ¼ inch; lenticels (corky pores in bark) large, elongated horizontally around twig. Tiny reddish fruit. Domestic cherry may also be found.

Beaked Hazelnut (Corylus cornuta) [syn: Hazel, Western Hazel, Hazelnut]: Twigs slender, usually zigzag, white hairs on new growth; golden catkin at nodes, flowering March-April.

Willow (Salix sp.): Buds with single hood-shaped bud scale; stems yellow (occasionally red or tan); flexible, any leaves generally without teeth (entire).

TALL SHRUBS (USUALLY MORE THAN 6 FT. HIGH)

BUDS OPPOSITE

Red Elderberry (Sambucus racemosa): Lateral buds large, rounded, aligned with stalk; terminal bud usually wanting (tip dies back); bud scar large with scalloped margins; raised lenticels; prefers moist areas.

Blue Elderberry (Sambucus nigra cerulea): Similar to Red Elderberry but bud pointed outward.

Red Osier Dogwood (Cornus stolonifera/sericea) [Red osier, Western Red, or Creek Dogwood]: Buds slender, pointed; lateral buds on either side of terminal bud; twig usually bright red; lenticels prominent, round; grows near water, clustered berry stems may persist, but berries eaten quickly.

BUDS ALTERNATE

Salmonberry (*Rubus spectabilis*): Golden stems. Armed with many prickles (break off easily); leaf scar hidden; thin, shredded bark at base.

Oceanspray (Holodiscus discolor): Plumes of dry flowers; small buds; bark dusty-gray.

- **Indian Plum** (*Oemleria cerasiformis*) [syn: Osoberry): Pith chambered; buds rosy-red; malodorus; first plant to bloom in the spring.
- **Serviceberry** (Amelanchier alnifolia) [syn: Saskatoon, Western, or Pacific Serviceberry, Saskatoon Berry]: Buds small, pointed, deep red; bud scales usually have fringe of white hairs; stems smooth to fuzzy.

Ninebark (*Physocarpus capitatus*) [syn: Pacific or Western Ninebark]: Twigs dull orange-brown, lustrous, strongly ridged below leaf scars; buds hairy; bark shredded.

SMALL SHRUBS (USUALLY LESS THAN 6 FT. HIGH)

BUDS OPPOSITE

- **Common Snowberry** (Symphoricarpos albus) [syn: Snowberry]: Twigs very slender, dusty-brown; buds white, inconspicuous; poisonous berries white, persisting in winter.
- **Mock Orange** (*Philadelphus lewisii*) [syn: Lewis's Mock Orange]: Twigs slender, orange-brown, lustrous; buds and leaf scars covered by a membrane.
- **Twinberry Honeysuckle** (Lonicera involucrata) [syn: Twinberry, Black Twinberry]: Young twigs green, 4-angled; black fruit persisting in early winter, not a vine.

BUDS ALTERNATE

ARMED WITH SPINES (GOOSEBERRY)

Black Gooseberry (*Ribes lacustre*) [syn: Prickly or Black Swamp Gooseberry]: Numerous small, golden prickles with larger spines at leaf nodes; older bark cinnamon colored, 18" to 6' tall, shade lover.

ARMED WITH PRICKLES, LEAF SCARS LINEAR (ROSES)

- Clustered Rose (Rosa pisocarpa) [syn: Cluster or Clustered Wild Rose]: Prickles needle-like; hips $\frac{1}{2}$ ", rounded or elongated in clusters.
- **Nootka Rose** (*Rosa nutkana*) [syn: Common Wild Rose]: Prickles paired, large, at leaf bases; large (3/4") red, round hips usually single.
- **Baldhip Rose** (Rosa gymnocarpa) [syn: Dwarf or Wood Rose]: Prickles soft, straight or lacking; only seen in shady woods; fruits scarlet, pear-shaped, tiny, bare (no sepals).

ARMED WITH PRICKLES, TWIG A CANE (BLACKBERRY)

- **Himalayan Blackberry** (*Rubus armeniacus syn: discolor*): Introduced, invasive. Stem stout, ridged; prickles stout, recurved downward. Persisting leaves ovate, 5-part, deeply furrowed.
- **Evergreen Blackberry** (*Rubus laciniatus*) [syn: Cutleaf or Evergreen Blackberry]: Introduced, invasive. Stem stout, ridged; prickles stout, recurved. Persisting leaves deeply-cut, 5-part.
- **Blackcap** (*Rubus leucodermis*) [syn: Black Cap, Whitebark, or Black Rasberry]: Stem with blue to lavender bloom (powdery coating); prickles small, straight, mostly found in woodland.

Trailing Blackberry (*Rubus ursinus*) [syn: Mountain, or California Blackberry]: Stem slender, trailing; prickles slender; persisting 3-part flat leaves.

UNARMED

Red Huckleberry (*Vaccinium parvifolium*): Stem green, ridged, square in cross-section; buds small, pink, fruit coral-colored (reddish).

Red Flowering Currant (*Ribes sanguineum*) [syn: Redflowering Currant]: Buds rosy-red, on short-stalks below tip, conspicuous; twig orange-brown; string of dried bluish-silver fruits may persist.

Douglas Spirea (Spiraea douglasii) [syn: Rose or Western Spirea, Hardhack]: Buds small, densely wooly; leaf scar triangular; stems dark brown to burgundy; dry brown flower clusters on tips persist.

Thimbleberry (*Rubus parviflorus*): Leaf scar obscured by persistent petiole; twig dusty-brown; makes thickets.

Poison Oak (*Toxicodendron diversilobum*) [syn: Pacific Poison Oak]: Buds naked (not covered by bud scales); vine adheres to a supporting plant or grows as a shrub; thin berry stems persist in winter; khaki brown stems.

GLOSSARY

Alternate – buds arranged spirally on the stem.

Bud scales – scales protecting the developing bud.

Catkin – a drooping spike of flowers (willow, alder, hazelnut).

Lateral – buds along a twig.

Lenticel – raised corky pore in the bark of a twig that absorbs oxygen.

Node – the place on a twig where a leaf was attached.

Opposite – buds arranged in pairs.

Prickles – sharp, pointed, part of the bark and thus will peel off.

Spine – a stiff outgrowth which is part of the stem and will not peel off.

Terminal – bud at end of twig.

REFERENCES

Winter Twigs: A Wintertime Key to Deciduous Trees and Shrubs of Northwestern Oregon and Western Washington. Helen M. Gilkey and Patricia L. Packard (Revised edition, 2001).

Winter Twigs of Northwestern Oregon. Jean L. Siddall. Handout available at Tyron Creek State Park, Portland, Oregon.

Winter Twig ID. Handout used in Winter Twig classes by Metro naturalists.