English name: Oregon Ash

Other English name: N/A

Scientific name: *Fraxinus latifolia* Benth.

Other scientific name: *Fraxinus oregona* Nutt. var *latifolia* Lingels.

Family: *Oleaceae* (Olive Family)

Risk status

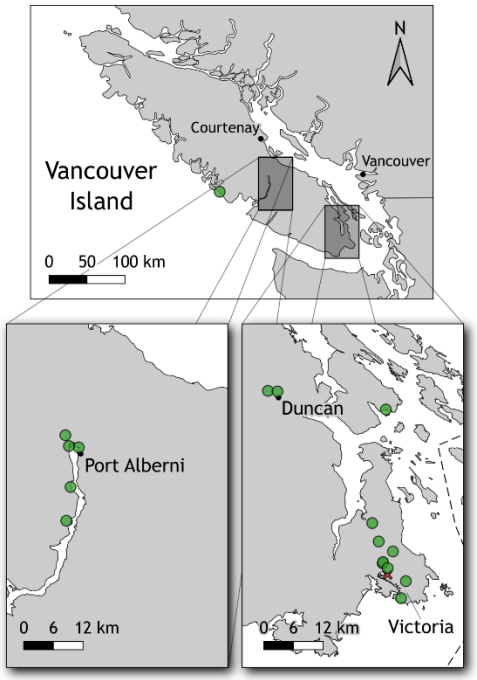
BC: uncertain (SU), formerly imperilled (S1S2)

Canada: uncertain (NU), formerly imperilled (N1N2)

Global: secure (G5)

Elsewhere: Washington, Oregon, California not ranked (SNR)

Range/Known distribution: In Canada, Oregon Ash has been reported from perhaps as many as 20 locations, from Pacific Rim National Park, Port Alberni, the Cowichan Valley to the Victoria area. Many of these trees occur in gardens and along road margins in Victoria and Duncan and it is not clear whether they are remnants of wild populations lost when the areas were converted to agricultural, residential, and industrial use or were ornamental plantings. Some of the populations occur in natural forests which have not been developed, nevertheless the B.C. Conservation Data Centre recently revised their assessment of its status from imperilled (S1S2) to uncertain (SU). It has been known from southeast Vancouver Island since the earliest days of collecting in the region, with a J. Macoun 1893 collection (GH 01848731) from "vicinity of Victoria". Oregan Ash has been reported from moist lowlands in the southeast, central, and south-central areas of the Olympic Peninsula.



Distribution of *Fraxinus latifolia*
● Confirmed Sites
✖ Extirpated Sites

Oregon Ash does not appear to occur in the San Juan Islands, but it is widespread in the Puget Trough from the Seattle area through south Puget Sound and the Willamette Valley (and Columbia River Gorge) to Eugene, with scattered occurrences along the Pacific coast. In southern Oregon and California, it is widespread in natural ecosystems along the Pacific coast and the Coast Mountains south to the San Francisco Bay area, and in the Central Valley and the west slopes of the Sierra Nevada almost to Los Angeles.

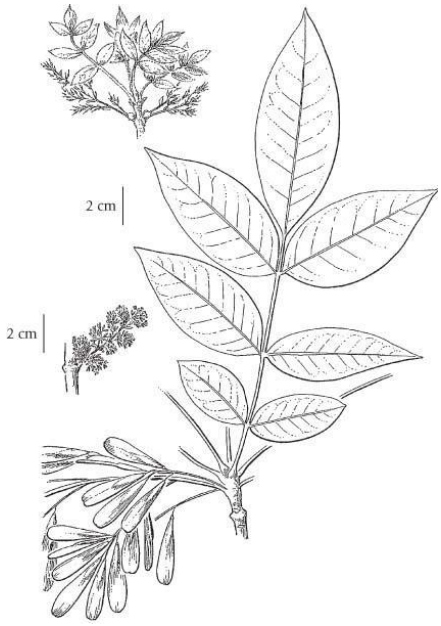
Given the presence of Oregon Ash in natural ecosystems in BC, its presence in similar systems in the Olympic Mountains and the Puget Trough, its occurrence in palaeoecological records from the Victoria area, and a Canadian collection history dating back to the late 19th century, it seems unlikely that it is a recent introduction to the Canadian flora.

Field description: Oregon Oak is a small tree with gray-brown furrowed bark. Its leaf buds are brown or red. Its leaves are opposite, 15-30 cm long and compound. The petioles are 3-7 mm long. It has 5-7 broad leaflets that are 5-15 cm long and less than twice as long as they are wide. The leaflets are slightly paler on their lower surface, broadly rounded to wedge-shaped at the base and slender-tapering at the tip. The lateral leaflets are essentially stalkless and the terminal leaflet has a 10-35 mm long stalk. The leaf scar, left behind after the leaf has been shed, has a deeply-curved upper side.

Oregon Ash is dioecious - male and female flowers are borne on separate trees. The flowers, which come out before the leaves, are very small - about 3 mm – and form small clusters. The male flowers are yellowish, and the female flowers are greenish. Its fruits are cone-shaped, winged fruits called samaras, 3-5 cm long, which hang in dense clusters. Ash samaras are sometimes called 'helicopter seeds' because they twirl in the air as they fall.

Identification tips: Within its range in Canada, Oregon Ash is the only native tree with opposite, compound leaves. It can be confused with other species of ash when growing in a landscaped setting. In urban areas it may be confused with Flowering Ash (*Fraxinus ornus*), Green Ash (*Fraxinus pennsylvanica*), and European Ash (*Fraxinus excelsior*). The inflorescence of Flowering Ash is distinctive: white to creamy-white very fragrant flowers in conspicuous, upright, and terminal panicles. The leaflets of Flowering Ash are clearly (though short)-stalked and they have toothed margins. On Green Ash, the upper edge of the leaf scar is straight rather deeply curved, and the leaf surfaces are not pale below. On European Ash the bud scales are jet black, and it usually has more leaflets (7-13).

Fraxinus latifolia



Life history: Oregon Ash flowers from March to May and its samaras ripen in July and August. The samaras catch the air and spread in late summer and autumn winds.

Habitat: In Canada, the Oregon Ash has been found growing in forests dominated by Sitka Spruce and in Trembling Aspen stands. The sites are generally moist and nutrient-rich and often have a well-developed shrub layer which may include Common Snowberry (*Symphoricarpos albus*), Nootka Rose (*Rosa nutkana*), Red Osier Dogwood (*Cornus stolonifera*), June Plum (*Oemleria cerasiformis*), and Black Twinberry (*Lonicera involucrata*).

Why this species is at risk: Over 95% of Garry Oak and associated ecosystems have been lost to development since European settlement began in the 19th century and is likely that an even greater proportion of Oregon Ash populations were lost in the process, because of its preference for relatively level, moist, deep-soil sites which are most preferred for conversion to agriculture and residential use.

Neither the BC provincial government nor the federal government treat Oregon Ash as having significant conservation value. The BC Conservation Data Centre (BC-CDC) does not accept that populations in landscaped settings or along roads may be remnants that survived land conversion, instead concluding they have little or no conservation significance. At present, the BC-CDC considers two populations to be naturally occurring but in the absence of evidence to show that either is of sufficient size to be capable of long term viability, the agency downgraded the conservation status from 'imperilled' to 'uncertain' and removed it from the Red List, which is generally consulted when assessing whether a plant occurrence is worthy of protection during proposed developments. The Government of Canada has not assessed the species for consideration under the Species-at-Risk Act despite its rarity.

A third natural population, which included at least one small sapling (thus demonstrating it was capable of reproduction), occurred within a Trembling Aspen stand in Victoria. It was destroyed in 2019 when the interchange at the intersection of Mackenzie Avenue and Highway 1 was replaced. Greater efforts may have been made to protect the population if it had received 'protected' status.

The future of Oregon Oaks in the Pacific Northwest is threatened by the spread of Emerald Ash Borer (*Agrilus planipennis*), a phloem-feeding beetle native to Asia that probably arrived in wood packing material. The Emerald Ash Borer arrived in North America in the 1990's and has caused range wide declines in eastern ash populations. It is spreading west across North America and was first observed in Oregon in 2022, the first confirmed occurrence on the west coast of North America. The adults feed on foliage and their larvae feed in the vascular structures of ash trees during the summer, creating serpentine shaped galleries. Emerald Ash Borers cause significant damage to the foliage of the tree and the vascular tissues. The tree will typically die within two years of the infestation. Once infested, most or all ash trees in a stand will die within six years. Emerald Ash Borers do not attack other tree species, but BC populations of Oregon Ash may not be protected by their isolation because it can spread via ornamental species of ash, as well as in untreated wood.

What you can do to help this species The BC-CDC urgently needs more information on the distribution and viability of naturally-occurring populations of Oregon Ash, in order to determine whether it should be returned to the red list. A COSEWIC status report is a necessary first step towards having the species protected federally.

Ornamental ash trees should be removed, to block the migration of Emerald Ash Borers into and through British Columbia.

References

B.C. Conservation Data Centre. 2024. BC Species and Ecosystems Explorer. B.C. Minist. of Environ. Victoria, B.C. Available: https://a100.gov.bc.ca/pub/eswp/ (accessed Mar 15, 2024)

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Emerald Ash Borer Network. n.d. Available. Online: www.emeraldashborer.info/index.php (accessed March 24, 2024).

Penny, J.L., and G.W. Douglas. 2000. Status Report on Purple Sanicle, Sanicula bipinnatifida, in Canada. Unpubl. rep. submitted to the Comm. on the Status of Endangered Wildl. in Can. Ottawa. 21pp.

For further information, contact the Garry Oak Ecosystems Recovery Team, or see the web site at: www.goert.ca

*Refers to non-native species