

## ***Cornus sericea* L.**

Halkomelem (Island): sháalʔə́ɫp

Halkomelem (Upriver): tʰəxʷíyətɔp (plant)

Ucwalmicwts (Lílʷat): tʰəq-tʰíq-anʰk

**English name:** redosier dogwood

**Family:** Cornaceae (Dogwood family)

Nomenclature: *Cornus sericea* is still referred to as *C. stolonifera* Michx. by many sources, including e-floraBC. According to the Integrated Taxonomic Information System (ITIS, 2019) the accepted name is *Cornus sericea* L. (redosier dogwood), which was first assigned in 1771 (IPNI, 2012). Two sub-species have been assigned by geographical location; *ssp. occidentalis* (Torr. & A. Gray) Fosberg is restricted to the Pacific Coast, while *ssp. sericea* L. occurs throughout the range.

### **Identifying Characteristics:**

Redosier dogwood is an upright, multi-stemmed deciduous shrub which grows from one to six meters tall (MacKinnon, 2014). Its suckering habit allows it to spread up to ten feet wide. Although the older branches maintain a grey hue year-round, the younger branches and twigs are a reddish-green in the summer turning reddish-purple in the fall. Winter frost brings out a bright red in the younger stems (Figure 1).



Figure 1. Winter twig colour.



The deciduous 5-10 cm long leaves have parallel veins (Figure 2) which have a strong midrib; leaves are simple, ovate and oppositely arranged. The fall foliage is a beautiful rich red colour (Cappiello, 2005). Moderately showy flowering occurs May-June on branch tips; the flat-topped compound cymes are approximately 2 inches across and contain numerous greenish white flowers (UConn, 2015). The fruit is a white to bluish-white (berry-like) drupe which matures in August-September (KPU, 2015) and contains a single seed (stone).

Figure 2. Leaves and flowers.

**Distribution:**

Redosier dogwood is widely distributed across Canada and the northern states in the USA (Figure 3). In western Turtle Island (North America), redosier grows from Alaska to California, with further disjunct locations in to Mexico. In the southern limits of its range, redosier grows only in moist areas likely due to its heat intolerance (Gucker, 2012).



Figure 3. Distribution and range of *Cornus sericea*

**Habitat:**

Redosier is a facultative wetland species found on bottomland streambanks and floodplains with fluctuating water tables (mesic to hydric) and nutrient-rich soils (Klinka et al, 1989). It prefers full sun but can survive in partial shade at forest edges. *C. sericea* is a dominant understory shrub associated with willows (*Salix* spp.), hardhack (*Spiraea douglasii*), red alder (*Alnus rubra*), black cottonwood (*Populus balsamifera* ssp. *trichocarpa*), twinberry (*Lonicera involucrata*), June plum (*Oemleria cerasiformis*), salmonberry (*Rubus spectabilis*), thimbleberry (*Rubus parviflorus*), Pacific ninebark (*Physocarpus capitatus*), Pacific crabapple (*Malus fusca*), and snowberry (*Symphoricarpos albus*) (Guard, 1995; Green and Klinka, 1994; Gucker, 2012). In urban ecosystems, *C. sericea* is often found in and along open ditches.

**Pests and Diseases:**

*C. sericea* can be parasitized by the native dogwood sawfly (*Macremphytus tarsatus*), resulting in leaf skeletonizing by larva and complete defoliation in major infestations (Landgren and Porter, 2018).

**Reproduction and Cultivation:**

Propagation can easily be done from seed, division, French layering and cuttings. Redosier dogwood spreads naturally in dense thickets from stolons and horizontal rooting stems and

branches. The aggressive suckering habit is the reason for the alternate species name of *stolonifera*. Redosier also reproduces from seed as it is widely consumed and distributed by many mammals and birds.

To propagate from seed, collect the fruit when fully ripe between August and September and remove the flesh as it contains germination inhibitors. There are about 30 to 50 clean seeds per gram (Rose et al, 1998). Scarify and sow seed in the fall, covering it with 1 cm of soil. To propagate from cuttings, take half ripe side shoots in June/July or mature wood in the autumn. Treat with rooting IBA hormone before sticking (Stevens, 2006). To propagate by division, sever suckering roots from the parent plant, divide the roots into individual suckers, and remove half the suckering foliage. Plant the sucker in prepared soil and water during dry weather. To propagate by layering, secure redosier branches horizontally to the ground and cover and secure with soil in the spring. In the fall, sever the rooted branches from the parent plant and further sever the branch around each shoot.

### **Interactions and Human Interest:**

The *Cornus* genus is characterized by highly ornamental shrubs to small trees with distinctive and showy bracts in the spring. *Cornus* comes from the Latin term “*cornu*” meaning ‘hard wood’. Certain *Cornus* species have been utilized in arrow making due to the density and strength of their wood. The species name *sericea* is Latin for ‘silky’. The common name, osier, comes from the French term ‘willow-like’ in reference to the flexible branches (Cooley, 2003). In Upriver Halkomelem, t<sup>th</sup>əx<sup>w</sup>íyəłp means ‘bark for washing’.

“Osier” in the common name is derived from the Latin “*osera*” which evolved c1190 into Old French and Middle French as “osier” meaning “willow” (e.g. *S. viminalis*), and “willow-branch” c1380). In Old French (late 11thC), “osiere” described a willow-bed (OED Online. 2019).

“Red osier” is an appropriation made by Frederick Pursh that first appeared in print in 1869 when he reported finding along the Oswego River on July 31, 1807 “*Cornus* several sorts, among which is the Osier rouge or Red Osier” (Pursh, 1869:70).

In the OED Online (2019) it is referred to as “red osier n. (a) North American (more fully red osier dogwood) a shrubby dogwood with dark red shoots, *Cornus stolonifera*.” This in turn at an unknown time was hyphenated, and then joined to become redosier, likely to ensure there is no confusion with the *Salix* osier species.

### **Wildlife Value:**

Wildlife browse the twigs, foliage, and fruits of red osier dogwood. A variety of song birds find cover and nesting sites within the shrub masses, and consume the fruit, which is especially valuable due to its persistence on the plants into the winter months (Stevens and Dozier, 2006). Species include northwestern crow, purple finch, crested flycatchers, black-headed grosbeak, eastern kingbird, American robin, European starling, tree swallow, western tanager, varied thrush, red-eyed vireo, cedar waxwing, and band-tailed pigeon. Mammals known to eat the fruit and foliage include black bear, beaver, cottontail rabbits, raccoons, squirrels, chipmunks, mice, and rats (all of which occur at Logan Creek). On Logan Creek, the twigs and foliage of new shoots are browsed heavily by black-tailed deer, which can be detrimental to the plant while it is establishing.

### **Ethnobotany:**

Indigenous peoples have a wide variety of uses for redosier dogwood. The inner bark was used for a tobacco additive, an element in dyes, to tan animal hides, and as an anti-diarrheal. The stems were used as toothbrushes for whitening teeth and were commonly utilized by basket weavers who alternated stem colours in attractive patterns.

Kuhnlein and Turner (1991) have compiled and described the various Indigenous uses of *C. sericea* for traditional food. Redosier fruit is very bitter and only consumed by Interior Salish peoples who ate them fresh, dried, mixed with other berries such as saskatoon (*Amelanchier alnifolia*) and salal (*Gaultheria shallon*) or in cakes (Moerman, 2010; Stevens and Dozier, 2006). Twigs and bark were infused and drunk after childbirth (Turner, 2014). Permission was asked of the living plant before harvesting bark. The Secwepemc people infused shavings of the red outer bark in boiling water and then packed the shavings on swollen or sore joints and muscles, or in the case of a toothache, on the jaw or directly around an abscessed tooth to cause it to drop out (Turner, 2014). Lower Lil'wat Peoples extracted the seeds (stones) and ate them like peanuts (Turner, 1978).

As a technology plant, redosier branches were used by the Secwepemc for basket weaving rims, and to make into salmon spreaders and skewers (Turner 2007). Other technology uses for redosier dogwood include teepee pegs, sweat lodge frames, stems fashioned into ribs and frames for spruce-bark canoes, fish traps and fish weirs, drying racks (Turner, 2014).

### **Horticultural Uses:**

Redosier dogwood is hardy in USDA Zones 2-7 (Cappiello, 2005). As an ornamental landscape plant, the redosier dogwood is most showy with its coloured stems in the winter and in mass plantings against a dark background. Many cultivars such as the yellow stemmed 'Flaviramea' and brilliant red 'Cardinal' have been developed to emphasize differing stem colours, while others such as 'Silver and Gold' have variegated foliage. Regular pruning or coppicing is required to maintain strong winter bark colours found on newer growth (Cappiello, 2005).

Redosier dogwood is often used in ecosystem repair projects, including its use in our work to restore ecological integrity to Logan Creek. Here, we are harvesting plant material in the winter and testing various techniques such as live staking, wattling, and fascines to control stream bank erosion. The earliest mention (OED Online, 2019) of redosier for riparian repair was in the 19<sup>th</sup> century:

*The first purpose of the osier-planting is still met in the hold their roots have upon the dike.*  
(Scribner's Monthly, 1876).

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## Images:

Figure 1. Clark, Curtis (2003). Wikimedia Commons: *Cornus sericea*. Retrieved from [commons.wikimedia.org/wiki/File:Cornus\\_sericea\\_leaves\\_and\\_inflorescence\\_2003-08-11.jpg](https://commons.wikimedia.org/wiki/File:Cornus_sericea_leaves_and_inflorescence_2003-08-11.jpg)

Figure 2. Herman, D.E. (1996). USDA-NRCS Plants Database: *Cornus sericea* in winter, showing red twig colouring. Retrieved from [commons.wikimedia.org/wiki/File:Cornus\\_sericea\\_winter.jpg](https://commons.wikimedia.org/wiki/File:Cornus_sericea_winter.jpg)

Figure 3. Wikimedia Commons. (2019). File: *Cornus sericea* ssp. *sericea* range map 1.png Natural distribution map for *Cornus stolonifera* (1971). Retrieved from [https://en.m.wikipedia.org/wiki/File:Cornus\\_sericea\\_ssp\\_sericea\\_range\\_map\\_1.png](https://en.m.wikipedia.org/wiki/File:Cornus_sericea_ssp_sericea_range_map_1.png)