Scientific Name: *Ribes triste* Pallas

Family: Grossulariaceae

Common Names: swamp red currant, red currant



Ribes triste a. flowering branch b. fruit c. flower d–f. seeds g. pollen

Plant Description

Reclining to ascending shrub, up to 1 m tall; branches do not have prickles; leaf palmate, 3 lobed (rarely 5 lobed) shallowly heart shaped or rarely squared at the base; lobes broadly triangular, toothed, maybe hairy below; flowers borne in drooping racemes; reddish or greenish purple, flower stalks are jointed and usually bear gland tipped hairs (Moss 1983). Fruit: Bright red, smooth berries, about 6 mm across, edible sour (Johnson et al. 1995).

Seed: Seeds are reddish 1 to 2 mm x 1 to 2 mm long, ovoid to round.

Habitat and Distribution

Moist woods, clearings, rocky slopes and swamps in the aspen parkland and boreal forest (Marles et al. 2000).

Seral Stage: Varies from early to climax communities in its range (Ulev 2006).

Soil: Soil pH range between 5 and 7.5 with no tolerance to salt. Soils can range from well to poorly drained coarse and medium textured soil (USDA NRCS n.d.).

Distribution: Alaska, Yukon, northern District of Mackenzie to Hudson Bay, northern Quebec, Newfoundland south to Oregon, Alberta, Saskatchewan, Manitoba, North Dakota, Minnesota, New Jersey (Moss 1983).



Ribes triste with ripening berries

Phenology

Flowers appear in late May to early June (Johnson et al. 1995). Berries appear July to August (Ulev 2006).











Pollination

Bees are the main pollinators of all *Ribes* species; they gather both nectar and pollen (CYSIP: Botany n.d.). *Ribes* spp. are often wind pollinated (Ulev 2006).

Seed Dispersal

Animal dispersed by numerous predators (Ulev 1990), especially birds (CYSIP: Botany n.d.).

Genetics

2n=16 (Moss 1983).

Seed Processing

Collection: The fruit should be stripped or picked as soon as they are ripe to avoid losses to birds and other wildlife (Young and Young 1992). Seed Weight: 3.2 g/1,000 seeds. Harvest Dates: July to August (Ulev 2006). Cleaning: *Ribes* spp. seeds can be cleaned by maceration and floatation (Young and Young 1992). Storage Behaviour: Unknown. Likely orthodox, tolerant of drying prior to cold storage. Storage: *Ribes* spp. seeds can be stored for long periods of time in sealed containers at low temperatures (Young and Young 1992). Longevity: Marked decline in viability after one year of seed stored at room temperature.

Propagation

Natural Regeneration: By seed and very likely vegetative though the latter is not definitive (Ulev 2006).

Germination: Epigeal (cotyledons above ground) germination (Young and Young 1992). Nichols (1934) found that a greater percentage of seeds germinated without refrigeration. They also germinated more quickly without stratification. Pre-treatment: *Ribes* spp. seeds are dormant and require a prolonged stratification and/or a wide variety of diurnal temperatures in order for the seeds to germinate (Young and Young 1992). However, Nichols (1934) found stratification unnecessary.

1996)). The stem can be made into a bitter tea (Marles
et al. 2000).Medicinal: Can be used as an eye wash and to bring on
menstruation (Marles et al. 2000, Royer and Dickinson
1996, 2007). The berries can help treat yeast infections
(Gray 2011).



Direct Seeding: Sow at a depth of 0.6 cm in mulched

Seed Rate: *Ribes sp.* seeds should be sown at a rate of 630 to 340 seeds/m² (Young and Young 1992).

Vegetative Propagation: Many Ribes spp. can be

propagated by hardwood cuttings taken in the fall

Food: Berries are eaten fresh or cooked to make jelly

(they have high pectin content (Royer and Dickinson

seedbeds (Young and Young 1992).

(Young and Young 1992).

Aboriginal/Food Uses

Wildlife/Forage Usage

Wildlife: Songbirds, rodents, small and large bears and hoofed browsers (moose, deer etc.) (Ulev 2006). Livestock: Not used if there is better forage present (Tannas 1997).

Grazing Response: Increaser (Tannas 1997).

Reclamation Potential

Moderately tolerant to acidic soils, *Ribes sp.* do well in medium to coarse textured soil. *Ribes sp.* have











been used for erosion control and to stabilize slopes (Tannas 1997, Ulev 2006).

Commercial Resources

Availability: Not available commercially in Alberta, propagules must be collected from native populations. Seeds have been collected by the Oil Sands Vegetation Cooperative for use in the Athabasca oil sands region.

Notes

Ribes triste is listed as 83% intact (less occurrences than expected) in the Alberta oil sands region (Alberta Biodiversity Monitoring Institute 2014). *Ribes* spp. serve as a host and carrier of pine blister rust (Young and Young 1992).

Photo Credits

Photo 1: Courtesy of U.S. Geological Survey Department of the Interior/USGS U.S. Geological Survey 2011.

Photo 2: Tracey Slotta @ USDA-NRCS PLANTS Database.

Line Diagram: John Maywood, used by permission of Bruce Peel Special Collections, University of Alberta.

References

Alberta Biodiversity Monitoring Institute, 2014. The status of biodiversity in the oil sands region of Alberta. Alberta Biodiversity Monitoring Institute, Edmonton, Alberta. 47 pp.

http://www.abmi.ca/FileDownloadServlet?filename= The%20Status%20of%20Biodiversity%20in%20the %20Oil%20Sands%20Region%20of%20Alberta 201 4 Supplemental%20Report.docx&dir=REPORTS U PLOAD [Last accessed June 16, 2014].

CYSIP: Botany, n.d. *Ribes triste:* Wild Red Currant. IN: Central Yukon Species Inventory Project. <u>http://www.flora.dempstercountry.org/0.Site.Folder/S</u> <u>pecies.Program/Species.php?species_id=Ribes.triste</u> [Last accessed October 8, 2013]. Gray, B., 2011. Currants *Ribes triste* (swamp red currant). IN: The Boreal Herbal: Wild Food and Medicine Plants of the North. Aroma Borealis Press, Whitehorse, Yukon. pp. 204-207.

Johnson, D., L. Kershaw, A. MacKinnon and J. Pojar, 1995. Plants of the Western Boreal Forest and Aspen Parkland. Lone Pine Publishing and the Canadian Forest Service. Edmonton, Alberta. 392 pp.

Marles, R.J., C. Clavelle, L. Monteleone, N. Tays and D. Burns, 2000. Aboriginal Plant Use in Canada's northwest Boreal Forest. Natural Resources Canada and Canadian Forest Service. UBC Press, Vancouver, British Columbia. 368 pp.

Moss, E.H., 1983. Flora of Alberta. A manual of flowering plants, conifers, ferns, and fern allies found growing without cultivation in the province of Alberta, Canada. 2nd edition. University of Toronto Press, Toronto Ontario. p. 345.

Nichols, G.E., 1934. The influence of exposure to winter temperatures upon seed germination in various Native American plants. Ecology 15(4): 364-373.

Royer, F. and R. Dickinson, 1996. Wild red Currant *Ribes triste* Pall. IN: Wild Flowers of Edmonton and Central Alberta. The University of Alberta Press, Edmonton, Alberta. p. 31.

Royer, F. and R. Dickinson, 2007. Plants of Alberta. Lone Pine Publishing, Edmonton, Alberta. 527 pp.

Tannas, K., 1997. Common plants of the western rangelands. Volume 1 – Grasses, grass-like species, trees and shrubs. Lethbridge Community College, Lethbridge, Alberta. 311 pp.

Ulev, E.D., 2006. *Ribes triste*. IN: Fischer, W.C. (compiler). The fire effects information system. United States Department of Agriculture, Forest









Service, Intermountain Research Station, Intermountain Fire Sciences Laboratory, Missoula, Montana.

<u>http://www.fs.fed.us/database/feis/plants/shrub/ribtri/</u> introductory.html [Last accessed July 3, 2013].

USDA NRCS, n.d. *Ribes triste* Pall. red currant. The PLANTS Database. National Plant Data Center, Baton Rouge, Louisiana. <u>http://plants.usda.gov/core/profile?symbol=RITR</u> [Last accessed June 24, 2013]. Young, J.A. and C.G. Young, 1992. Seeds of woody plants in North America. Dioscorides Press, Portland, Oregon. 407 pp.









