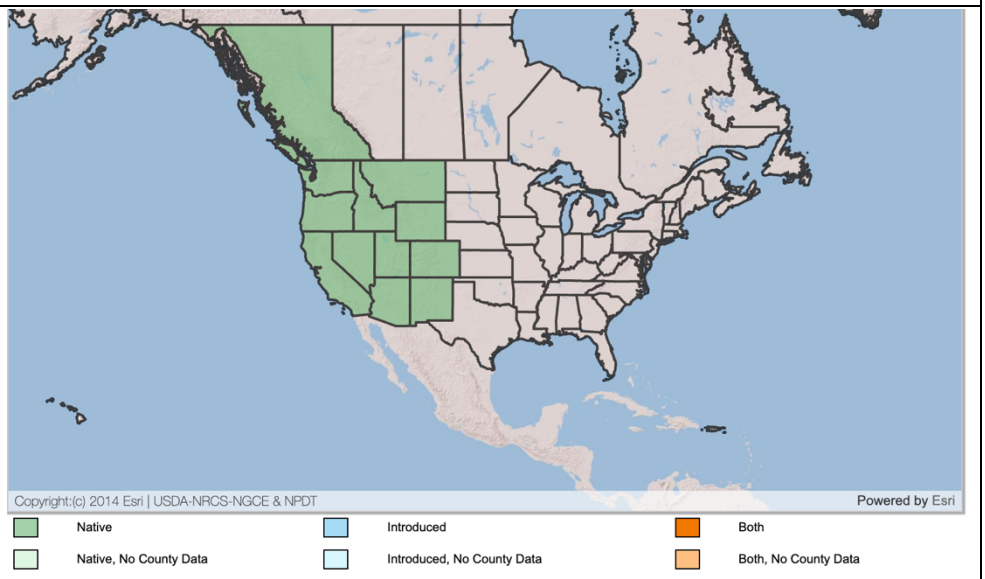
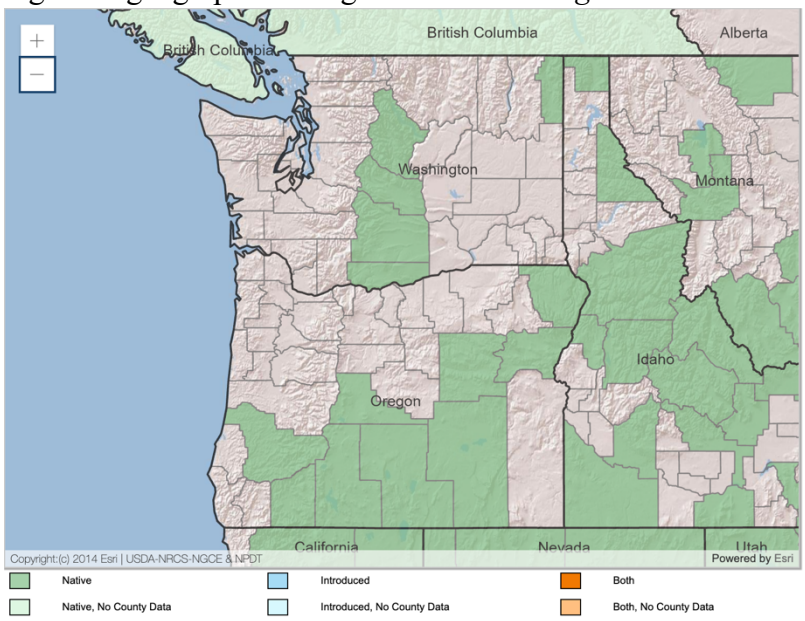
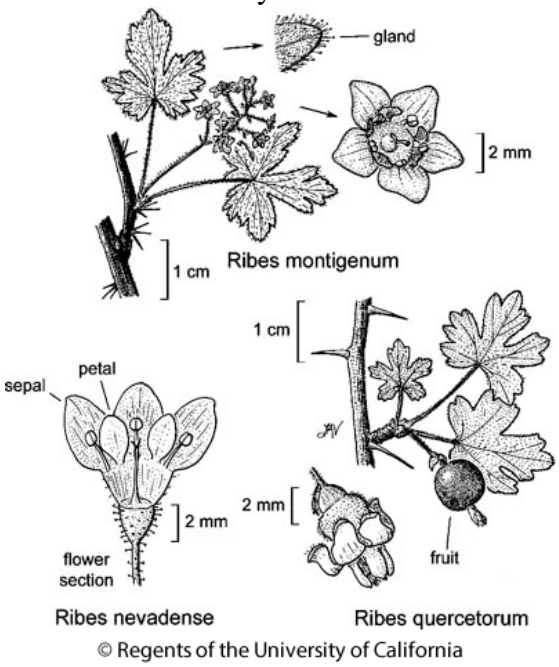
Plant Propagation Protocol for *Ribes montigenum* McClatchie
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*2023/RIMO2.pdf*



Photos by G. D. Carr, Left: 2012 Right: 2011 (5)

TAXONOMY	
Plant Family	
Scientific Name	Grossulariaceae
Common Name	Currant
Species Scientific Name	
Scientific Name	*Ribes montigenum* McClatchie (2).
Varieties	**No information found.**
Sub-species	**No information found.**
Cultivar	**No information found.**
Common Synonym(s)	*Limnobotrya montigena* (McClatchie) Rydb. *Ribes lacustre* (Pers.) Poir. var. *molle* A. Gray *Ribes lentum* (M.E. Jones) Coville & Rose *Ribes nubigenum* McClatchie (3)
Common Name(s)	Gooseberry currant, mountain gooseberry, subalpine prickly currant, western prickly gooseberry (1)
Species Code (as per USDA Plants database)	RIMO2 (3)

GENERAL INFORMATION	
Geographical range	 Figure 1: geographical range for *Ribes montigenum* for North America. (3)  Figure 2: Geographical range of *Ribes montigenum* in Oregon and Washington (3).
Ecological distribution	*R. montigenum* occurs in fir-spruce, lodgepole pine, sagebrush, chaparral-mountain shrub, and alpine ecosystems. It can be found in subalpine forests and extends through alpine communities throughout the West (1). It is often found in dry spots from the middle subalpine zone to timberline and sometimes extending into alpine communities (1).
Climate and elevation range	*R. montigenum* is found in elevations ranging from 2,100 to 4,800 meters (1).
Local habitat and abundance	*R. montigenum* is found in a variety of different habitats. It can be found in dry, rocky sites. It can grow on open, talus, or scree slopes, on ridges, boulder fields, meadows, and forests. It can even be found in wetter

	habitats, such as along streams or wet forests. It is most abundant on sites without forest canopy. Some of the commonly associated species are *Acer glabrum, Amelanchier* spp., *Arctostaphylos uva-ursi, Vaccinium spp*., and more. (1).
Plant strategy type / successional stage	*R. montigenum* is adapted to coarse and medium textured soils. It has high drought tolerance and medium fire tolerance (3). It is somewhat shade tolerant, it can grow in dense forests with few canopy openings but it does the best in areas with no forest canopy (1). After a fire event, *R. montigenum* is a ground residual colonizer (a plant species that establishes after a disturbance from soil-stored seed that was already on site prior to the disturbance) and makes up part of the initial community (1).
Plant characteristics	*R. montigenum* is a shrub that can be between 0.3-0.9 meters tall (8). The stems are spreading and have sparse to dense prickles along the internodes (4). The leaves are alternate with blades 1-2.5 centimeters in length. The leaves are irregularly lobed and toothed (5). The flowers (Figure 3) have an inflorescence of 4- to 7- flowered axillaries that are pink to yellowish (5). The fruits are a berry that are 5-7 millimeters long and reddish.  Figure 3: *R. montigenum* leaf and flower structure (2).
PROPAGATION DETAILS (SEED)	
Ecotype	**No information found.**
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Bareroot, container, or seeds.
Stock Type	**No information found.**
Time to Grow	**No information found.**
Target Specifications	**No information found.**

Propagule Collection Instructions	The seeds of *R. montigenum* should be collected when the fruit ripens between August and September (1). When collecting the seeds, handpick and/or strip the fruits from a minimum of 5 different collection sites that are 0.5-1 mile apart and from 30-50 different plants. This will help ensure genetic variation in your seed (7,8). If you are not going to extract seed immediately, the fruits should be stored by spreading them out in shallow layers to avoid heating (8).
Propagule Processing/Propagule Characteristics	163,798 seeds per pound (3). In general, for *Ribes* spp*.,* they are orthodox and thus remain viable for long periods of time (13-17 years) when they are stored in sealed containers at low humidity. Temperature doesn't seem to be critical, but it is recommended to store them in a cool place (8,9).
Pre-Planting Propagule Treatments	Generally, for *Ribes* spp., maceration and washing are used to strip the seeds from the flesh, and if the fruits are dried they should be soaked prior to cleaning. The seeds can then be filtered from the pulp and then washed (8). Store seeds in cool, low humidity areas in sealed containers (8,9). *Ribes* spp. can be stratified from 33-40 degrees F for 3-10 months (10,12).
Growing Area Preparation / Annual Practices for Perennial Crops	In general, for *Ribes* spp., mineral soil with a lot of humus is ideal for the growing media (8). *R. montigenum* typically grows in rocky areas, so having a gravellier growing media may be beneficial for successful establishment (1).
Establishment Phase Details	*Ribes* spp. seeds should be sown in the fall or in the spring after stratification (8). Seeds should be sown at a rate of 130 viable seeds per meter of row and covered in 3 to 6 millimeters of growing media (8).
Length of Establishment Phase	In one study the *R. montigenum* seeds were stratified at 0 degrees C for 200-300 days and there was a 53% germination rate after 30-40 days after being sowed (8).
Active Growth Phase	**No information found.**
Length of Active Growth Phase	The active growth period for *R. montigenum* is the spring and summer after establishment (3).
Hardening Phase	**No information found.**
Length of Hardening Phase	**No information found.**
Harvesting, Storage and Shipping	**No information found.**
Length of Storage	**No information found.**
Guidelines for Outplanting / Performance on Typical Sites	The height of the mature *R. montigenum* will reach about 0.3-0.9 meters tall (8). *Ribes* spp. generally begin to fruit after 3 years. Plant them late spring the following year they were sown (10).
Other Comments	N/A
PROPAGATION DETAILS (VEGETATIVE)	
Ecotype	**No information found.**

Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Propagules (cuttings)
Stock Type	**No information found.**
Time to Grow	1-2 years (6)
Target Specifications	**No information found.**
Propagule Collection Instructions	Hardwood: Collect a 10-15 cm long cutting with a heel from the *R. montigenum* in late autumn to late winter (10). Softwood: Collect a 10-15 cm long cutting with a heel in mid-summer (10). In general for cuttings, do not remove more than a third of the donor plant. To prepare cuttings, trim all side branches off the cutting and cut off the apical bud (11).
Propagule Processing/Propagule Characteristics	**No information found.**
Pre-Planting Propagule Treatments	Cuttings can be stored for about 4 months, so long as they are stored in a cool, dark, and moist place (11).
Growing Area Preparation / Annual Practices for Perennial Crops	A typical growing media mix for cuttings is perlite and peat moss.
Establishment Phase Details	In the Northern Hemisphere, the cuttings can root anytime between September through April (6).
Length of Establishment Phase	**No information found.**
Active Growth Phase	**No information found.**
Length of Active Growth Phase	**No information found.**
Hardening Phase	**No information found.**
Length of Hardening Phase	**No information found.**
Harvesting, Storage and Shipping	**No information found.**
Length of Storage	**No information found.**
Guidelines for Outplanting / Performance on Typical Sites	**No information found.**
Other Comments	**No information found.**
INFORMATION SOURCES	
References	(9) Dyer, Dave. 2002. Propagation protocol for production of Container (plug) *Ribes montigenum* seeds USDA NRCS - Lockeford Plant Materials Center Lockeford, California. In: Native Plant Network. URL:

	https://NativePlantNetwork.org (accessed 2023/05/03). US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources. (10) Fern, Ken. 2022. *Ribes montigenum* Temperate Plants Database https://temperate.theferns.info/plant/Ribes+montigenum (6) Hummer, K. E. and Dale, A., "Horticulture of Ribes" (2010). Publications from USDA-ARS / UNL Faculty. 562. https://digitalcommons.unl.edu/usdaarsfacpub/562 (5) Knoke, D., & Giblin, D. (2023). *Ribes montigenum*. Burke Herbarium Image Collection. Retrieved May 3, 2023. (1) Marshall, K. Anna. 1995. Ribes montigenum. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: https://www.fs.usda.gov/database/feis/plants/shrub/ribmon/all.html (2) Michael R. Mesler & John O. Sawyer, Jr. 2012, *Ribes montigenum*, in Jepson Flora Project (eds.) *Jepson eFlora*, https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=41429, accessed on May 02, 2023. (4) Morin, N. R. (2020, November 5). *Ribes montigenum*. Flora of North America. Retrieved May 3, 2023, from http://floranorthamerica.org/Ribes_montigenum (11) National Resource Conservation Service. (2005, August). *Collecting & Planting Hardwood Cuttings*. NRCS. Retrieved May 3, 2023, (8) Pfister, Robert D.; Sloan, John P. 2008. Ribes L.: currant, gooseberry. In: Bonner, Franklin T.; Karrfalt, Robert P., eds. The woody plant seed manual. Agric. Handbook No. 727. Washington, DC. U.S. Department of Agriculture, Forest Service. p. 961-968. (12) Parker, K. (2022, January 27). *Seed stratification: What seeds require cold treatment*. Illinois Extension. https://extension.illinois.edu/blogs/good-growing/2022-01-27-seed-stratification-what-seeds-require-cold-treatment (3) USDA NRCS National Plant Data Team. (2023). *Ribes montigenum McClatchie*. National Plant Data. Retrieved May 3, 2023, from https://plants.usda.gov/home/plantProfile?symbol=RIMO2 (7) U.S. Forest Service. (2023). *Collecting Native Seed - Wildflowers*. USDA Forest Service. Retrieved May 3, 2023
Other Sources Consulted	Baskin, Jerry M.; Baskin, Carol J.. 2002. Propagation protocol for production of Container (plug) Ribes montigenum McC. plants University of Kentucky Lexington, Kentucky. In: Native Plant Network. URL: https://NativePlantNetwork.org (accessed 2023/05/03). US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources.
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Date Protocol Created or Updated	05/02/23