

**Plant Propagation Protocol for *Coptis laciniata***

ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/COLA3.pdf>

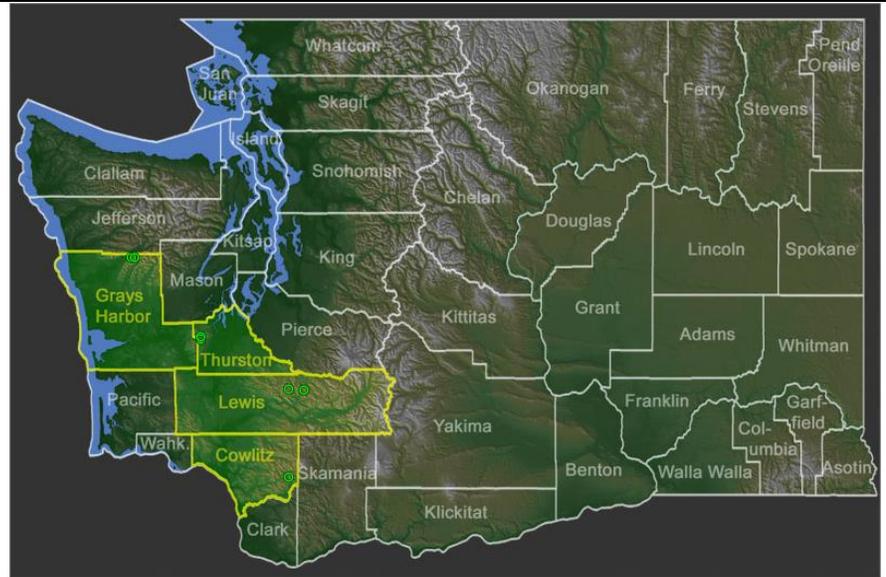


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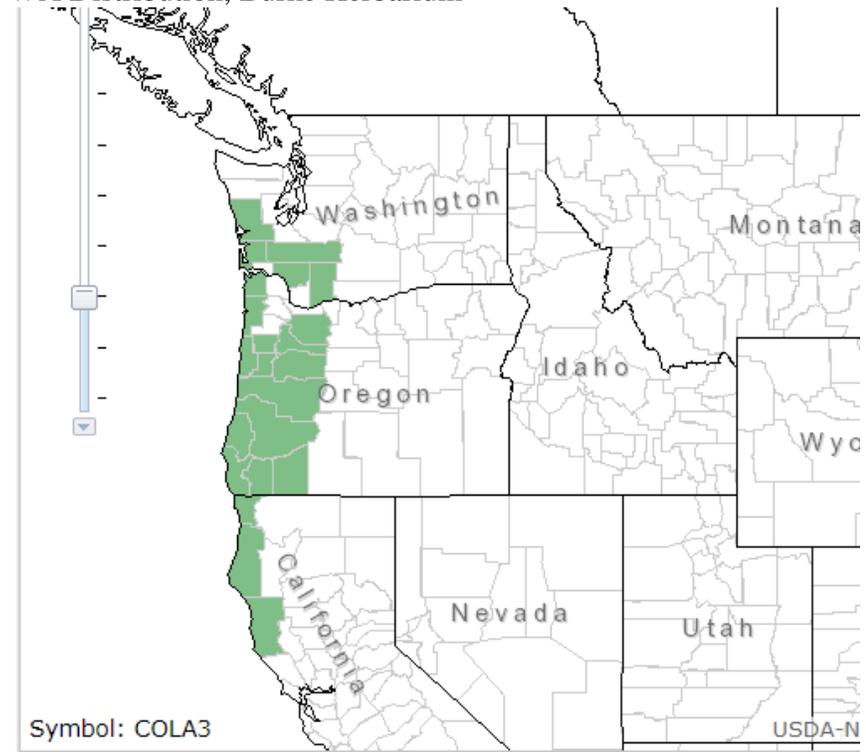


Image © 2007, G. D. Carr:<sup>5</sup>

<b>TAXONOMY</b>	
<b>Plant Family</b>	
Scientific Name	Ranunculaceae <sup>8</sup>
Common Name	Buttercup Family <sup>8</sup>
<b>Species Scientific Name</b>	
Scientific Name	<i>Coptis laciniata</i> A. Gray
Varieties	N/A
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	N/A
Common Name(s)	Cutleaf Goldthread <sup>8</sup> Oregon Goldthread <sup>9</sup>
Species Code (as per USDA Plants database)	COLA3 <sup>9</sup>
<b>GENERAL INFORMATION</b>	
Geographical range	



WA Distribution, Burke Herbarium<sup>5</sup>



Symbol: COLA3

<span style="display:inline-block; width:15px; height:15px; background-color: #4CAF50; border: 1px solid black;"></span> Native	<span style="display:inline-block; width:15px; height:15px; background-color: #2196F3; border: 1px solid black;"></span> Introduced	<span style="display:inline-block; width:15px; height:15px; background-color: #FFC107; border: 1px solid black;"></span> Both
<span style="display:inline-block; width:15px; height:15px; background-color: #E8F5E9; border: 1px solid black;"></span> Native, No County Data	<span style="display:inline-block; width:15px; height:15px; background-color: #BBDEFB; border: 1px solid black;"></span> Introduced, No County Data	<span style="display:inline-block; width:15px; height:15px; background-color: #FFF9C4; border: 1px solid black;"></span> Both, No County Data

Native Status:

L48  
  AK  
  HI  
  PR  
  VI  
  NAV  
  CAN  
  GL

US Distribution, USDA<sup>9</sup>

Ecological distribution

The Cutleaf Goldthread is a perennial understory groundcover found in moist, coastal coniferous forests, bogs and along streams.<sup>5, 8, 10</sup> It is shallowly rooted and requires consistent moisture to survive.<sup>7</sup>

	While the rhizomes do sprout if plant is damaged, it is not fire tolerant due to its depth in soil. <sup>10</sup>
Climate and elevation range	Occurs mid to low elevation, in cool, moist forest stands, below 1000m. <sup>5, 10</sup>
Local habitat and abundance	It is considered S3 vulnerable due to limited distribution in California. <sup>6</sup> Not listed federally. Common association with this species are: douglas fir, western hemlock, grand fir, shore pine, red-osier dogwood, Oregon grape, red huckleberry, evergreen violet, and other conifer forest species. <sup>10</sup>
Plant strategy type / successional stage	It is late successional, which means it is the predominant groundcover in old growth forest stands. <sup>10</sup>
Plant characteristics	See images at top of the pdf. Coptis laciniata can be differentiated from other goldthreads by its three deeply lobed and serrated leaflets. The leaves are longer than the flower stalks. Evergreen, flowers in March to April, with white flowers that produce 5-10 seeds in a ring shape. <sup>3,7</sup> In favorable conditions it will spread and create a dense groundcover. <sup>4</sup>
<b>PROPAGATION DETAILS</b>	
Ecotype	N/A
Propagation Goal	Plant
Propagation Method	Vegetative division by rhizome or seed <sup>10</sup>
Product Type	Propagule
Stock Type	Container, ¼ gallon pots or smaller
Time to Grow	Late summer to fall
Target Specifications	Target plant should look vigor, with well-developed root system that fills the pot. 11-24cm tall with 3-8 leaves. <sup>7</sup>
Propagule Collection Instructions	Seeds are very small and time consuming to collect in large quantities. <sup>10</sup> Seed follicles will split and disperse seeds if left mature for too long. Cut off seed head and collect in paper or fine mesh bag. Rhizome harvest preferred. <sup>10</sup> Collect around abundant patch from the edge, with a clean shear or razor. Only harvest one rhizome per mother plant. Do not harvest same patch consecutively. Be very gentle when removing rhizome from soil, do not pull on mother plant and disturb top soil layer. Wrap in damp paper towel and keep moist until potted.
Propagule Processing/Propagule Characteristics	Seeds could be sown right after harvest or kept in cold frame until early spring. <sup>4</sup> Rhizomes should be potted in moist, organic media as soon as possible. Seeds are 2mm to 2.5mm long. <sup>3</sup>
Pre-Planting Propagule Treatments	No known stratification requirement. Seeds are non-dormant and sown right away.

Growing Area Preparation / Annual Practices for Perennial Crops	Growing media should mimic forest floor composition with a mixture of fine bark mulch and compost. Surface could be topped with ½ inch depth of duff to encourage rhizome development. Plant is adapted to dense shade and consistent moisture. <sup>10</sup> Water daily during summer months and keep under shade cloth. Do not expose to full sun extensively. Keep plants inside greenhouse during freezing temperatures.
Establishment Phase Details	Sow seeds in a tray with peat moss. Do not sow too deep. Mist to keep moist
Length of Establishment Phase	Seeds should germinate 1-3 months after sowing.
Active Growth Phase	Keep seedlings shaded. Actively remove competing weeds before weed root interfere with seedlings or rhizome. Mist or water seedlings often.
Length of Active Growth Phase	March to September Transplanted rhizome will unlikely to develop much above ground during the first year. <sup>4</sup>
Hardening Phase	N/A
Length of Hardening Phase	N/A
Harvesting, Storage and Shipping	Roots are fragile and do not transplant well. Minimize disturbance to rhizome and roots if harvest is required. Keep soil on roots when planting.
Length of Storage	Seeds are non-dormant and does not store well.
Guidelines for Outplanting / Performance on Typical Sites	Unknown
Other Comments	Rhizome has laxative properties and was used by Native Americans to treat mouth sores. <sup>10</sup> Not commonly available in nurseries. Other species of <i>Coptis</i> seems to acquire than <i>Coptis laciniata</i> .
<b>INFORMATION SOURCES</b>	
References	See Below
Other Sources Consulted	
Protocol Author	Aileen Liu
Date Protocol Created or Updated	Created: 05/15/2018

1. California Native Plant Society. (n.d.). Oregon Goldthread, *Coptis laciniata*. Retrieved May 15, 2018, from <http://www.rareplants.cnps.org/detail/3178.html>
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3. *Coptis laciniata* in Flora of North America @ efloras.org. (n.d.). Retrieved May 15, 2018, from [http://www.efloras.org/florataxon.aspx?flora\\_id=1&taxon\\_id=233500424](http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=233500424)
4. Cullina, W. (2000). *The New England Wild Flower Society guide to growing and propagating wildflowers of the United States and Canada*. Boston: Houghton Mifflin.  
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5. Giblin, D. (n.d.). *Coptis laciniata*. Retrieved May 15, 2018, from <http://biology.burke.washington.edu/herbarium/imagecollection.php?ID=3689>
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10. USDA Forest Services. (n.d.). *Coptis Laciniata Gray Oregon Goldthread, Cut-leaved Goldthread*,53-54. Retrieved from <https://www.fs.fed.us/pnw/pubs/gtr513/gtr513c.pdf>.