Plant Propagation Protocol for *Chrysosplenium glechomifolium*
ESRM 412 – Native Plant Production
Protocol URL: https://courses.washington.edu/esrm412/protocols/CHGL5.pdf

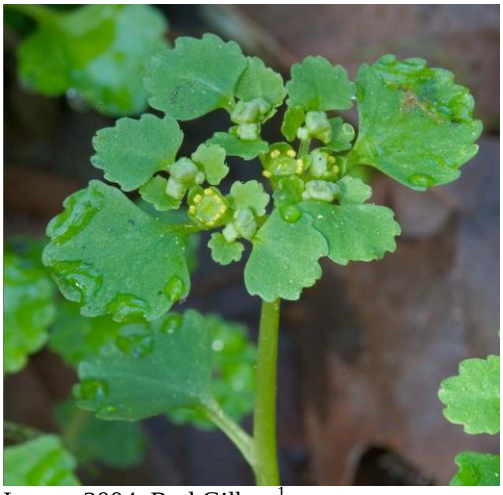
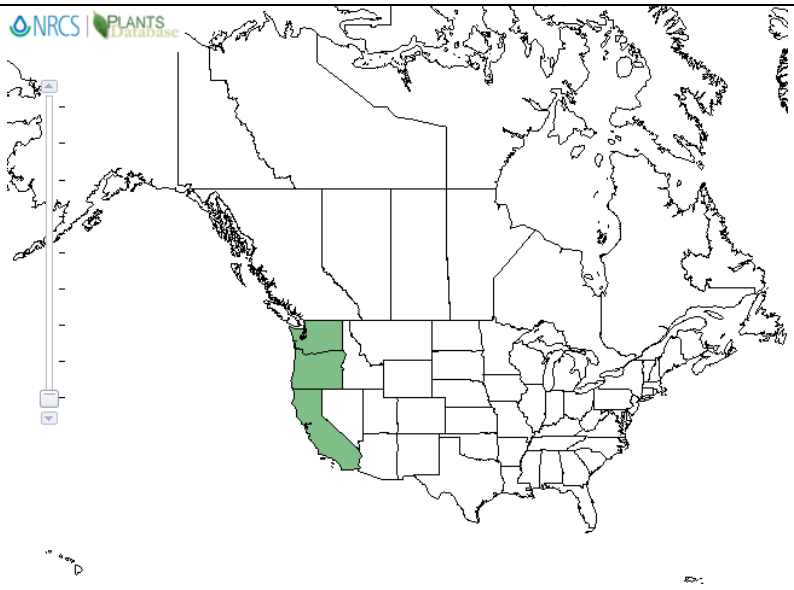
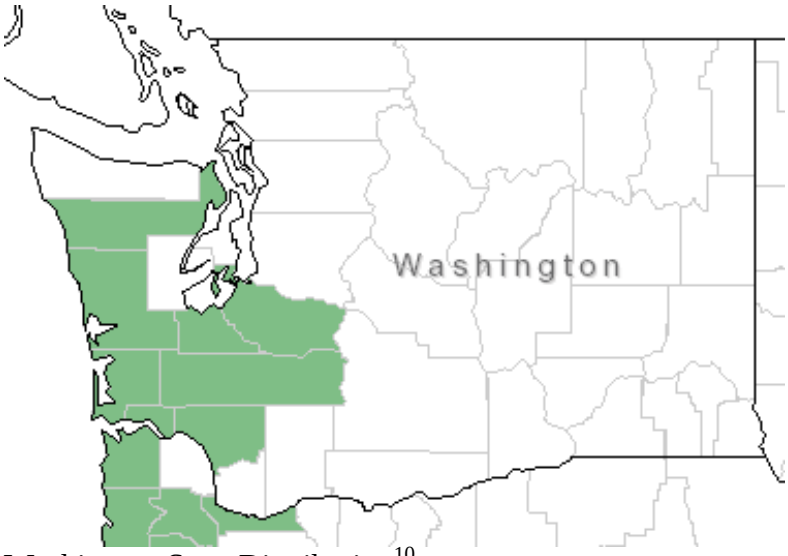


Image: 2004, Rod Gilbert[1]


Image: 2012, Ben Legler[1]

TAXONOMY	
Plant Family	
Scientific Name	Saxifragaceae[10]
Common Name	Saxifrage[10]
Species Scientific Name	
Scientific Name	*Chrysosplenium glechomifolium* Nutt.[10]
Varieties	N/A
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	*Chrysosplenium oppositifolium* L.[1] *Chrysosplenium oppositifolium* L. var. *scouleri* Hook.[1] *Chrysosplenium scouleri* (Hooker) Rose[1]
Common Name(s)	Pacific golden saxifrage[10], Ground ivy-leaved water-carpet[9], Pacific Watercarpet[1]
Species Code (as per USDA Plants database)	CHGL5[10]

GENERAL INFORMATION	
Geographical range	 North American Distribution[10]  Washington State Distribution[10]
Ecological distribution	Scattered at low to mid elevations (30-1400 feet) in moist to wet forested seeps and wet areas.[5,9] Wetland obligate species.[10] Often directly adjacent to a stream channel.[7]
Climate and elevation range	Low to mid elevations of western Washington, Oregon and Northern California.[9,10]
Local habitat and abundance	Found near small streams and wet areas.[9] Associated species include *Rubus spectabilis*, *Athyrium filix-femina*, *Tolmiea menziesii* among others.[4,7] Shade tolerant groundcover.[7]
Plant strategy type / successional stage	Mid to late successional stage. Colonization is typically through seed or stolons.[9] Small, black, round, seeds are distributed primarily through splash-cup dispersal, where raindrops hit the fruiting capsule (cuplike) and eject the seeds.[9]

Plant characteristics	Perennial, low growing, glabrous, mat-forming, forb.[1,9] Leaves are opposite, on stalks less than 1cm long, oval or egg shaped, about 2 cm long with shallow rounded 15-20 toothed edges.[9] Small, singular, greenish yellow flowers are produced in the axils of upper leaves.[9] Bloom period is February to June.[2]
PROPAGATION DETAILS: Seed	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container
Stock Type	N/A
Time to Grow	6-9 months
Target Specifications	20 cm.[9] Groundcover, trailing over 4 inch pot edges.
Propagule Collection Instructions	Collect seeds late summer.[5] Best if collected before fall rains, as seed will distribute through splash-cup dispersal.[9]
Propagule Processing/Propagule Characteristics	N/A
Pre-Planting Propagule Treatments	Dormancy likely required given native climate.[5]
Growing Area Preparation / Annual Practices for Perennial Crops	Grow seeds in moist, well-draining soils.[7]
Establishment Phase Details	Sow seed in a lightly shaded cold frame in spring or autumn.[8] Place pot in a half inch of standing water to maintain moist soil conditions.[8]
Length of Establishment Phase	N/A
Active Growth Phase	N/A
Length of Active Growth Phase	March through August.[7]
Hardening Phase	N/A
Length of Hardening Phase	N/A
Harvesting, Storage and Shipping	N/A
Length of Storage	N/A
Guidelines for Outplanting / Performance on Typical Sites	Once roots are established in growing medium late spring outplanting may occur.[8]
Other Comments	Species has recently been added to the California Native Plant Societies' inventory of rare and endangered species.[3, 6]
PROPAGATION DETAILS: Vegetative	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Vegetative

Product Type	Container
Stock Type	N/A
Time to Grow	6-9 months
Target Specifications	20 cm.[9] Groundcover, trailing over 4 inch pot edges.
Propagule Collection Instructions	Vegetative collection occurs by cutting stolon and removing the rooted daughter plant.[5] Divide in Spring.[8]
Propagule Processing/Propagule Characteristics	N/A
Pre-Planting Propagule Treatments	N/A
Growing Area Preparation / Annual Practices for Perennial Crops	Grow daughter plants in moist, well-draining soils.[7]
Establishment Phase Details	N/A
Length of Establishment Phase	N/A
Active Growth Phase	N/A
Length of Active Growth Phase	March through August.[7]
Hardening Phase	N/A
Length of Hardening Phase	N/A
Harvesting, Storage and Shipping	N/A
Length of Storage	N/A
Guidelines for Outplanting / Performance on Typical Sites	Once roots are established in growing medium spring outplanting may occur.[5]
Other Comments	Species has recently been added to the California Native Plant Societies' inventory of rare and endangered species.[3,6]
INFORMATION SOURCES	
References	[1]Burke Museum of Natural History and Culture [Online]. *Chrysosplenium glechomifolium.* Page Author: David Giblin. Available:http://biology.burke.washington.edu/herbarium/imagecollection.php?Genus=Chrysosplenium&Species=glechomifolium, Accessed: May 22, 2016. [2]Calflora, [Online]. Chrysosplenium glechomifolium, Available: http://www.calflora.org/cgi-bin/species_query.cgi?where-taxon=Chrysosplenium+glechomifolium, Accessed May 22, 2016 [3]California Native Plant Society [Online]. Chrysosplenium glechomifolium Available: http://calscape.org/plant.php?pl=66663&srchcr=sc57423384582e5, Accessed May 22, 2016

	[4]Crawford, R. C., C. B. Chappell, C. C. Thompson, and F. J. Rocchio. 2009. Vegetation Classification of Mount Rainier, North Cascades, and Olympic National Parks. Natural Resource Technical Report NPS/NCCN/NRTR—2009/D-586. National Park Service, Fort Collins, Colorado [5]Dumroese, R. Kasten; Luna, Tara; Landis, Thomas D., 2009. Nursery Manual for Native Plants: A guide for Tribal Nurseries - Volume 1: Nursery Management. Agriculture Handbook 730. Washington, D.C.: U.S. Department of Agriculture, Forest Service. 302 p. [6]Regan, J. 2015 Rare Plants Annual Report Humboldt Redwood Company LLC. [7]McCain, C., 2004, USFS Technical Paper R6-NR-ECOL-TP-10-04, Riparian Plant Communities of Northwest Oregon: Streamside Plant Communities, USDA. [8]Plants for a Future [Online]. Available: http://www.pfaf.org/user/Plant.aspx?LatinName=Chrysosplenium+oppositifolium, Accessed: May 22, 2016 [9]Pojar J., McKinnon A., 2004 Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia and Alaska, B.C. Ministry of Forests and Lone Pine Publishing, Canada. [10]USDA NRCS Plants Database [Online], Available: http://plants.usda.gov/core/profile?symbol=cosc4, Accessed May 7, 2016.
Other Sources Consulted	Native Plant Network [Online]. Available: http://www.nativeplantnetwork.org/, Accessed May 22, 2016 Rose, Robin, Chachulski, Caryn E.C., Haase, Diane L., 1998, Propagation of Pacific Northwest Native Plants. Oregon State University Press, 256 p.
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