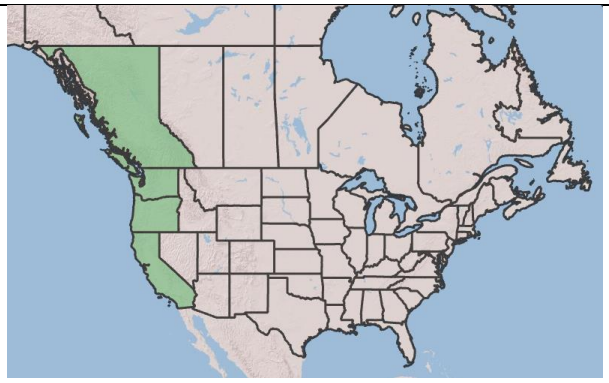
Plant Propagation Protocol for *Meconella oregana*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*2022/MEOR.pdf*

Ryan Batten, 2011

TAXONOMY	
Plant Family	
Scientific Name	Papaveraceae
Common Name	Poppy
Species Scientific Name	
Scientific Name	*Meconella oregana* Nutt.
Varieties	No varieties recognized
Sub-species	No subspecies recognized
Cultivar	No information available
Common Synonym(s)	*Platystemon oreganus* (Nutt.) Curran *Platystigma oreganum* (Nutt.) A.Gray
Common Name(s)	White Fairypoppy
Species Code (as per USDA Plants database)	MEOR

GENERAL INFORMATION	
Geographical range	 (USDA, n.d.)  (USDA, n.d.)
Ecological distribution	Low elevations, west of the Cascades. Southwestern British Columbia to California (Knoke and Giblin, n.d.).
Climate and elevation range	Annual Precipitation: 15.5" - 26.2" Summer Precipitation: 0.21" - 0.38" Coldest Month: 44.6" - 50.0” Hottest Month: 66.6" - 74.7" Humidity: 0.86" - 21.69" Elevation: 0-300m (CPNS, n.d.)
Local habitat and abundance	Found in sandy bluffs, meadows, moist banks (EFloras, n.d.). Grows in sandy or gravelly soils. Generally hidden among grasses, Shade intolerant (Turner, 2020).
Plant strategy type / successional stage	Long bloom period starting in early Spring (EFloras, n.d.)
Plant characteristics	Annual herb with height of 1-4 inches. Slender plants with basal, egg shaped leaves. White flowers with 4-6 petals and a 1/2-3/4 in. seed pod. (Turner, 2020)

PROPAGATION DETAILS Little propagation information available for *M. oregana*. *Propagation details provided for *Eschscholzia californica* Cham., a species in the Papaveraceae family	
Ecotype	Fort Funston, CA * (Young, 2001)
Propagation Goal	Plants * (Young, 2001)
Propagation Method	Seed * (Young, 2001)
Product Type	Container (plug) * (Young, 2001)
Stock Type	Leach Tube * (Young, 2001)
Time to Grow	No information available
Target Specifications	Root system: firm plug in container * (Young, 2001)
Propagule Collection Instructions	Seeds collected May 1-August 30. Capsules are brown at maturity and seeds are dark grey at maturity * (Young, 2001)
Propagule Processing/Propagule Characteristics	Cleaning: shake seeds out of pods or rub pods to extract seeds * 751 seeds/gram (Young, 2001)
Pre-Planting Propagule Treatments	Seeds stored dry at room temperature No other pre-planting treatments required * (Young, 2001)
Growing Area Preparation / Annual Practices for Perennial Crops	Fully controlled greenhouse. (Young, 2001) Seeds sown in flats with Sunshine Mix #4 Aggregate Plus (peat moss, perlite, major and minor nutrients, gypsum, and dolomitic lime). Watered with automatic irrigation system or by hand Seeds sown on September 30th 40% germination * (Young, 2001)
Establishment Phase Details	Seeds germinate 14 days after sowing. * (Young, 2001)
Length of Establishment Phase	14 days * (Young, 2001)
Active Growth Phase	Seedlings are transplanted 14 days after germination to individual containers 1.5"x8" tubes (Leach Tubes) containing a mix of 3:1 standard potting mix of peat moss, fir bark, perlite, and sand to 1 part sand. Transplant Survival averages 50% * (Young, 2001)
Length of Active Growth Phase	No information available

Hardening Phase	No information available
Length of Hardening Phase	No information available
Harvesting, Storage and Shipping	No information available
Length of Storage	Seeds cannot be stored for long periods of time, germination success drops significantly as seeds age (Pinder-Moss, pers. comm. 2004)
Guidelines for Outplanting / Performance on Typical Sites	Seeds are poorly adapted for long distance dispersal resulting in subpopulations of extremely small patch size. Small population sizes mean areas inhabited by *M. oregana* can suffer from stochastic events and inbreeding depression. (Parks Canada Agency, 2012)
Other Comments	*Meconella oregana* is considered a globally threatened plant with a population of less than 3,500 mature plants (Parks Canada Agency, 2012)
INFORMATION SOURCES	
References	Knoke, Don, and David Giblin. "Meconella Oregana." *Burke Herbarium Image Collection*, University of Washington, https://biology.burke.washington.edu/herbarium/imagecollection/taxon.php?Taxon=Meconella+oregana "Meconella Oregana in Flora of North America." *EFloras.org*, Flora of North America, http://www.efloras.org/florataxon.aspx?flora_id=1&taxon_id=220008241. "Meconella Oregana Nutt." *Plants of the World Online*, 2017, https://powo.science.kew.org/taxon/urn:lsid:ipni.org:names:30032832-2. "Meconella Oregana Nutt." *USDA Plants Database*, United States Department of Agriculture, https://plants.usda.gov/home/plantProfile?symbol=MEOR. "Oregon Meconella, Meconella Oregana." *California Native Plant Society*, https://calscape.org/Meconella-oregana-(). Parks Canada Agency. 2012. Recovery Strategy for the White Meconella (Meconella oregana) in Canada [PROPOSED]. Species at Risk Act Recovery Strategy Series. Parks Canada Agency, Ottawa. vi+ 31pp. Pinder-Moss, J. pers. comm. 2004. Conversation. January 2004. Collections Manager, Royal British Columbia Museum, 675 Belleville Street, V8W 9W2.

	Turner, Mark. "Meconella Oregana: White Meconella." *Wildflowers of the Pacific Northwest*, 2020, https://www.pnwflowers.com/flower/meconella-oregana. Young, Betty. "Eschscholzia (Californica)." *Reforestation, Nurseries, & Genetic Resources*, 2001, https://npn.rngr.net/renderNPNProtocoldetails?selectedProtocolIds=papaveraceae-eschscholzia-605.
Other Sources Consulted	Fuchs, Marilyn A. 2001. Towards a Recovery Strategy for Garry Oak and Associated Ecosystems in Canada: Ecological Assessment and Literature Review. Technical Report GBEI/EC-00-030. Environment Canada, Canadian Wildlife Service, Pacific and Yukon Region. Pereira, Tiffany J., et al. "Seed germination of a rare gypsum-associated species, Arctomecon californica (Papaveraceae), in the Mojave Desert." *Journal of Arid Environments* 184 (2021): 104313.
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