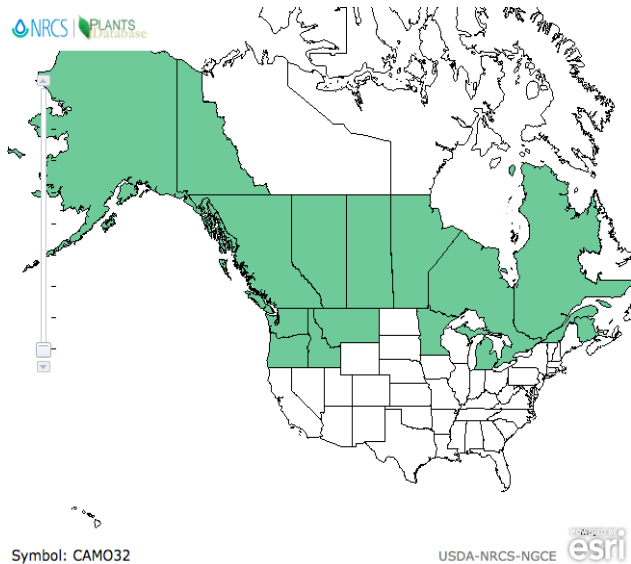


Plant Propagation Protocol for *Canadanthus modestus*

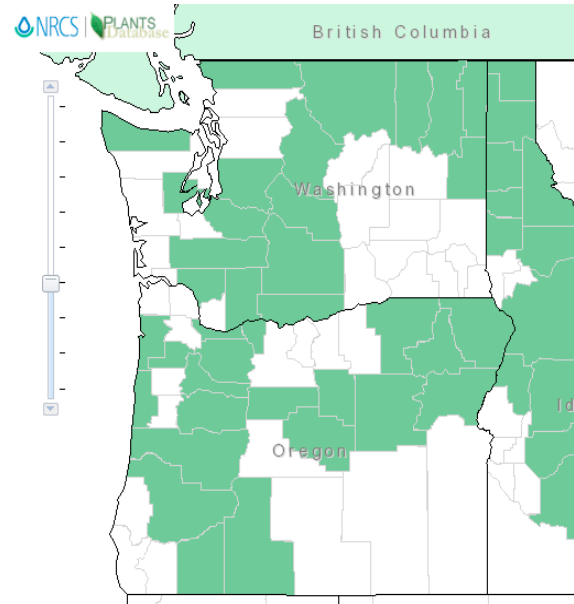
ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/CAMO32.pdf>

North America Distribution



Washington and Oregon Distribution



Source: USDA PLANTS Database

TAXONOMY	
Plant Family	
Scientific Name	Asteraceae / Compositae
Common Name	Aster family
Species Scientific Name	
Scientific Name	<i>Canadanthus modestus</i> (Lindl.) G.L. Nesom
Varieties	
Sub-species	
Cultivar	
Common Synonym(s)	<i>Aster major</i> (Hook.) Porter <i>Aster modestus</i> Lindl. <i>Aster unalaschkensis</i> Less. var. <i>major</i> Hook. <i>Weberaster modestus</i> (Lindl.) Á. Löve & D. Löve
Common Name(s)	Giant mountain aster, great northern aster, Canada aster, few flowered aster, large northern aster
Species Code (as per USDA Plants database)	CAMO32

GENERAL INFORMATION	
Geographical range	Distributed throughout mountainous areas of Washington; British Columbia south to Oregon, east to Michigan ⁴
Ecological distribution	Occurs in moist to wet forests, openings, swamps, stream and river banks, and clearings. Common at low to middle elevations in the northern half of our region south to Oregon mostly in the B.C. Coast and the Cascade mountains ⁵
Climate and elevation range	Average elevation of 944 meters and a maximum of 2,005 meters ³
Local habitat and abundance	In the Pacific Northwest and Alaska, it prefers stream banks and moist places.
Plant strategy type / successional stage	
Plant characteristics	30-100 cm tall, stem leaves lance shaped ⁵ Perennial forb ⁸
PROPAGATION DETAILS	
Ecotype	
Propagation Goal	Plant
Propagation Method	Seed
Product Type	Container, bare root
Stock Type	
Time to Grow	
Target Specifications	Reach a mature height of 3 ft and a minimum root depth of 10 inches ⁸ in a wild land setting
Propagule Collection Instructions	
Propagule Processing/Propagule Characteristics	320,000 seeds per pound ⁸
Pre-Planting Propagule Treatments	Dry seed quickly ⁷ Seeds need to be “overwintered” before germination, pre-chill for 2 weeks ²
Growing Area Preparation / Annual Practices for Perennial Crops	Grow in cone-tainer ⁷ , prefers medium textured soils ⁸ Sow seeds about 2 mm deep in well drained soil at about 20°C
Establishment Phase Details	Germination rate is low so plant many ¹
Length of Establishment Phase	Germination will usually take 10-14 days ²
Active Growth Phase	During spring and summer ⁸
Length of Active Growth Phase	
Hardening Phase	
Length of Hardening Phase	
Harvesting, Storage and Shipping	
Length of Storage	
Guidelines for Outplanting / Performance on Typical Sites	Bloom period is June-August ⁶
Other Comments	

INFORMATION SOURCES	
References	See below
Other Sources Consulted	
Protocol Author	Zainab Junejo
Date Protocol Created or Updated	06/05/17

References

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²Deno, Norman C. Seed Germination Theory and Practice. Pennsylvania : Pennsylvania State U, 1993. Print.

³In Klinkenberg, Brian. (Editor) 2017. *E-Flora BC: Electronic Atlas of the Plants of British Columbia* [eflora.bc.ca]. Lab for Advanced Spatial Analysis, Department of Geography, University of British Columbia, Vancouver. [Accessed: 22/05/2017]

⁴Knoke, Don, and David Giblin. "Canadanthus Modestus." *WTU Herbarium Image Collection*. Burke Museum of Natural History and Culture, n.d. Web.
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⁵MacKinnon, A, J Pojar, and P B Alaback. *Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia and Alaska*. Lone Pine Publishing, 2004. Print.

⁶"Plant Database: Canadanthus Modestus." *Lady Bird Johnson Wildflower Center*. The University of Texas at Austin, 21 June 2013. Web.
http://www.wildflower.org/plants/result.php?id_plant=CAMO32

⁷Therrell, Lisa; Cole, David; Claassen, Victor; Ryan, Chris; Davies, Mary Ann. 2006. Wilderness and Backcountry Site Restoration Guide. 0623 2815. Missoula, MT: U.S. Department of Agriculture, Forest Service, Missoula Technology and Development Center. 394 p.

⁸USDA, NRCS. 2017. The PLANTS Database (<http://plants.usda.gov>, 22 May 2017). National Plant Data Team, Greensboro, NC 27401-4901 USA