

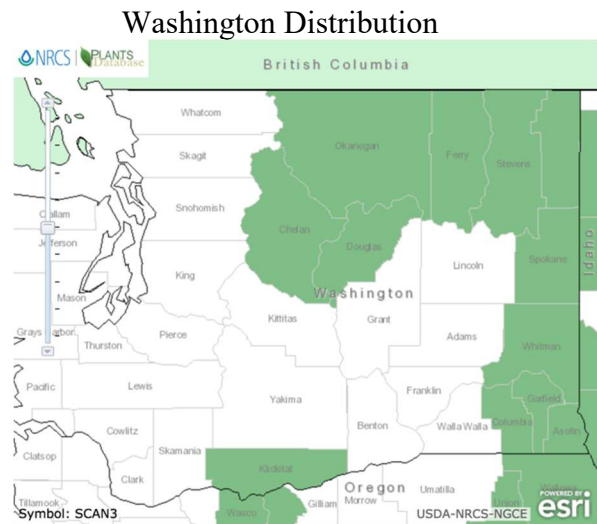
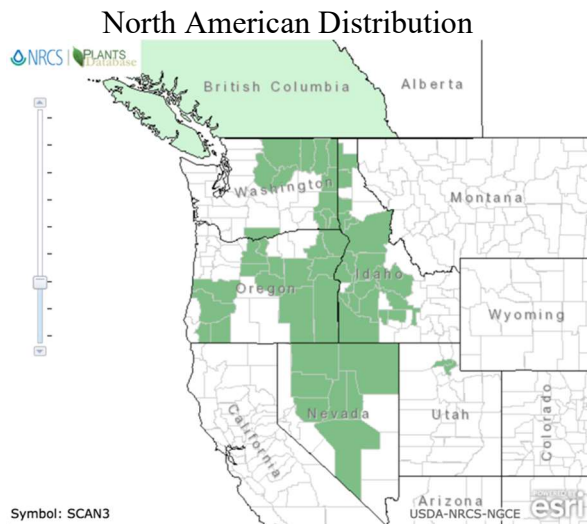
## Plant Propagation Protocol for *Scutellaria angustifolia*

ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/SCAN3.pdf>



Source: G. D. Carr, Burke Herbarium



Source: USDA PLANTS Database

### TAXONOMY

<b>Plant Family</b>	
Scientific Name	Lamiaceae/ Labiatae
Common Name	Mint family
<b>Species Scientific Name</b>	
Scientific Name	<i>Scutellaria angustifolia</i> Pursh
Varieties	
Sub-species	<i>Scutellaria angustifolia</i> Pursh ssp. <i>angustifolia</i> <i>Scutellaria angustifolia</i> Pursh ssp. <i>micrantha</i> Olmstead
Cultivar	None
Common Synonym(s)	None
Common Name(s)	narrowleaf skullcap; small flowered skullcap; helmet flower

Species Code (as per USDA Plants database)	SCAN3
<b>GENERAL INFORMATION</b>	
Geographical range	<p>Found in British Columbia, Washington, Oregon, Idaho, Nevada, and Utah. In Washington it is found East of the Cascades. See above maps for visual distribution.</p> <p>(USDA NRCS National Plant Data Team, n.d.)</p>
Ecological distribution	<p>Meadow, Shrub-Steppe</p> <p>(Scutellaria angustifolia, n.d.-b)</p>
Climate and elevation range	<p>Moderate to mid-elevations. The climate ranges from moist to dry conditions.</p> <p>(Giblin, 2004, 2019)</p>
Local habitat and abundance	<p>Abundant in local areas. Found in rocky, sandy, and gravelly areas. Often found by rivers and streams. The topography is often sloped.</p> <p>Associated Spp.:</p> <p>Douglas-fir ponderosa pine yellow pine juniper sagebrush bunchgrass</p> <p>(Cook, n.d.)</p>
Plant strategy type / successional stage	Unknown
Plant characteristics	<p>Forb</p> <p>Perennial</p> <p>Grows from rhizomes. The stems are 1-3dm. tall and stand erect. The stems are clustered and branched from the base. The stems are variously pubescent. Square stems.</p> <p>The leaves are opposite. The leaves are narrow, ranging around 1.5-2.5cm long and 3-10mm wide. The leaves are 3- to 5- nerved, starting from close to the base.</p> <p>Flowers are grown solitarily from the stem. The leaves surrounding the flower are reduced. The calyx is two</p>

	<p>lipped. The upper lip has a prominent transverse appendage that ranges from 3.5-5.5mm long. The corolla is two lipped and colored a deep violet-blue. Their size ranges from 2.4-2.8cm long. The upper petal is hood like while the lower petals are 3-lobed and spreading. The center lobe is bigger and wider. There are 4 stamens. The lower pair is longer than the upper. One of the pollen sacs is abortive (style 2-parted; ovary 2-celled, superior).</p> <p>The plant's fruits are 4 nutlets.</p> <p>(Giblin, 2004, 2019) (USDA NRCS National Plant Data Team, n.d.)</p>
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**PROPAGATION DETAILS**

**Note: Propagation has not been attempted and recorded for this species, details were taken from propagation for *Scutellaria lateriflora* or *Scutellaria* genus.**

Ecotype	Pacific Northwest (see note)
Propagation Goal	Plant
Propagation Method	Seed
Product Type	Container (plug)
Stock Type	Quarter-gallon container
Time to Grow	<p>The seedling will be ready at approximately 6 weeks, or when the seedling is 2" tall.</p> <p>(Anderson, 2017)</p>
Target Specifications	<p>Grows to the height of 2-40". Produces flowers.</p> <p>(Scutellaria Plant: How to Grow Helmet Flower, Skullcap, n.d.)</p>
Propagule Collection Instructions	Unknown
Propagule Processing/Propagule Characteristics	Unknown
Pre-Planting Propagule Treatments	<p>Stratify the seeds for at least a week before sowing. Place the seeds in a sealed plastic bag with moist medium (vermiculite, sand, paper towel). Have the ratio of medium to seeds be 3:1. The refrigerator should be set at 45°F.</p> <p>While stratifying, check on the seeds to make sure they are not too moist or dry. If they are too moist the seeds may mold.</p> <p>(Grant, 2018)</p>

	(How to Propagate Skullcap, n.d.)
Growing Area Preparation / Annual Practices for Perennial Crops	<p>The growing mix is one-part sand and four-parts commercial potting mix (1 sand: 4 potting mix). The potting mix is composed of 40-50% composted pine bark.</p> <p>The medium or soil should have good drainage.</p> <p>(Scutellaria Plant: How to Grow Helmet Flower, Skullcap, n.d.) (Chiari, 2004)</p>
Establishment Phase Details	<p>Start the seeds in a greenhouse (Temperature: 65°F night, 75°F day) in late winter to early spring. Do not cover the small seeds. Seeds germinate in 2 weeks. When the seedlings are small repot then into 2 in containers. Keep the medium moist.</p> <p>(Chiari, 2004)</p>
Length of Establishment Phase	<p>6-8 Weeks</p> <p>(Chiari, 2004)</p>
Active Growth Phase	<p>Finish into a quarter gallon container filled with the same growing medium. Plants will flower 16-18 weeks after sowing.</p> <p>(Chiari, 2004)</p>
Length of Active Growth Phase	<p>10-12 weeks</p> <p>(Chiari, 2004)</p>
Hardening Phase	<p>Hardening occurs once the plants are planted outside at the end of the season.</p> <p>(Anderson, 2017)</p>
Length of Hardening Phase	None
Harvesting, Storage and Shipping	Unknown
Length of Storage	Unknown
Guidelines for Outplanting/ Performance on Typical Sites	<p>Plant outdoors once there are no more signs of frost. Plant 6-12" apart. Plant so the soil is covering the roots but not covering the stem or foliage. Tamp the soil firmly. Water with a weak fertilizer solution.</p> <p>(How to Propagate Skullcap, n.d.) (White, 2015)</p>
Other Comments	None
<b>INFORMATION SOURCES</b>	
References	See Below

Other Sources Consulted	See Below
Protocol Author	Rachel May
Date Protocol Created or Updated	04/28/19

## **References**

- Anderson, R. (2017). Plant propagation protocol for *Scutellaria lateriflora* L. Retrieved April 30, 2019, from Plant Propagation Protocols website:  
<https://courses.washington.edu/esrm412/protocols/SCLA2.pdf>
- Chiari, A. (2004). Propagation protocol for production of Container (plug) *Scutellaria lateriflora* L. plants Cougar Springs Ranch Brooklyn, New York. Retrieved April 30, 2019, from Native Plant Network website:  
<https://npn.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=lamiaceae-scutellaria-2849>
- Classification. (n.d.). Retrieved April 30, 2019, from USDA website:  
<https://plants.usda.gov/java/ClassificationServlet?source=display&classid=Lamiaceae>
- Cook, J. (n.d.). *Scutellaria angustifolia*. Retrieved April 30, 2019, from The Oregon Plant Atlas website: <http://www.oregonflora.org/atlas.php>
- Giblin, D. (2004, 2019). Burke Herbarium Image Collection. Retrieved April 30, 2019, from Burke Herbarium Image Collection website:  
<http://biology.burke.washington.edu/herbarium/imagecollection/taxon.php?Taxon=Scutellaria%20angustifolia>
- Grant, A. (2018). Growing Skullcap Herbs. Retrieved April 30, 2019, from Gardening Know How website: <https://www.gardeningknowhow.com/edible/herbs/skullcap-plants/skullcap-plant-care.htm>
- How to Propagate Skullcap. Retrieved April 30, 2019, from Homeguides SFGate website:  
<https://homeguides.sfgate.com/propagate-skullcap-21691.html>
- Scutellaria angustifolia*. (n.d.-b). Retrieved April 30, 2019, from PNW Flowers website:  
<https://www.pnwflowers.com/flower/scutellaria-angustifolia>
- Scutellaria* Plant: How to Grow Helmet Flower, Skullcap. (n.d.). Retrieved April 30, 2019, from Gardeners HQ website: <https://www.gardenershq.com/Scutellaria-Helmet-Flower.php>
- USDA NRCS National Plant Data Team. (n.d.). *Scutellaria angustifolia*. Retrieved April 30, 2019, from USDA website: <https://plants.sc.egov.usda.gov/core/profile?symbol=SCAN3>
- White, C. (2015). Skullcap. Retrieved April 30, 2019, from Advice From The Herb Lady website: <https://advicefromtheherblady.com/plant-profiles/perennials/skullcap/>

## **Other References Used**

- eowyndbh. (2012, February 17). *Scutellaria angustifolia*. Retrieved April 30, 2019, from Wild Edible and Medicinal Plants website: <https://keys2liberty.wordpress.com/tag/scutellaria-angustifolia/>
- Klinkenberg, B. (n.d.). *Scutellaria angustifolia* Pursh. Retrieved April 30, 2019, from E-Flora BC Atlas website:  
<http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Scutellaria+angustifolia>
- Lamiaceae *Scutellaria angustifolia* Pursh. (n.d.). Retrieved April 30, 2019, from Native American Ethnobotany Database website: <http://naeb.brit.org/uses/37575/>
- Narrowleaf Skullcap (*Scutellaria angustifolia*). (n.d.). Retrieved April 30, 2019, from Sagebud website: <https://sagebud.com/narrowleaf-skullcap-scutellaria-angustifolia>

Narrowleaf Skullcap, Small-flowered Skullcap. (2015, June 24). Retrieved April 30, 2019, from USWildflowers.com website:

<https://uswildflowers.com/detail.php?SName=Scutellaria%20angustifolia>

Narrowleaf Skullcap (Subspecies *Scutellaria angustifolia angustifolia*). (n.d.). Retrieved April 30, 2019, from iNaturalist.org website: [https://www.inaturalist.org/taxa/238462-](https://www.inaturalist.org/taxa/238462-Scutellaria-angustifolia-angustifolia)

[Scutellaria-angustifolia-angustifolia](https://www.inaturalist.org/taxa/238462-Scutellaria-angustifolia-angustifolia)

Olmstead, R. G. (1990). BIOLOGICAL AND HISTORICAL FACTORS INFLUENCING GENETIC DIVERSITY IN THE SCUTELLARIA ANGUSTIFOLIA COMPLEX (LABIATAE. *Evolution*, 44(1), 54–70. <https://doi.org/10.1111/j.1558-5646.1990.tb04279.x>

Rob. (2017, December 3). The skullcaps. Retrieved April 30, 2019, from Rob’s Plants website:

<https://www.robsplants.com/plants/scutellaria.php>

The Editors of the Encyclopaedia Britannica. (2015, August 7). Lamiaceae. Retrieved April 30, 2019, from Encyclopedia Britannica website:

<https://www.britannica.com/plant/Lamiaceae>

TWC Staff. (2007, January 1). *Scutellaria angustifolia* (Narrowleaf skullcap). Retrieved April 30, 2019, from Lady Bird Johnson Wildflower center website:

[https://www.wildflower.org/plants/result.php?id\\_plant=SCAN3](https://www.wildflower.org/plants/result.php?id_plant=SCAN3)