

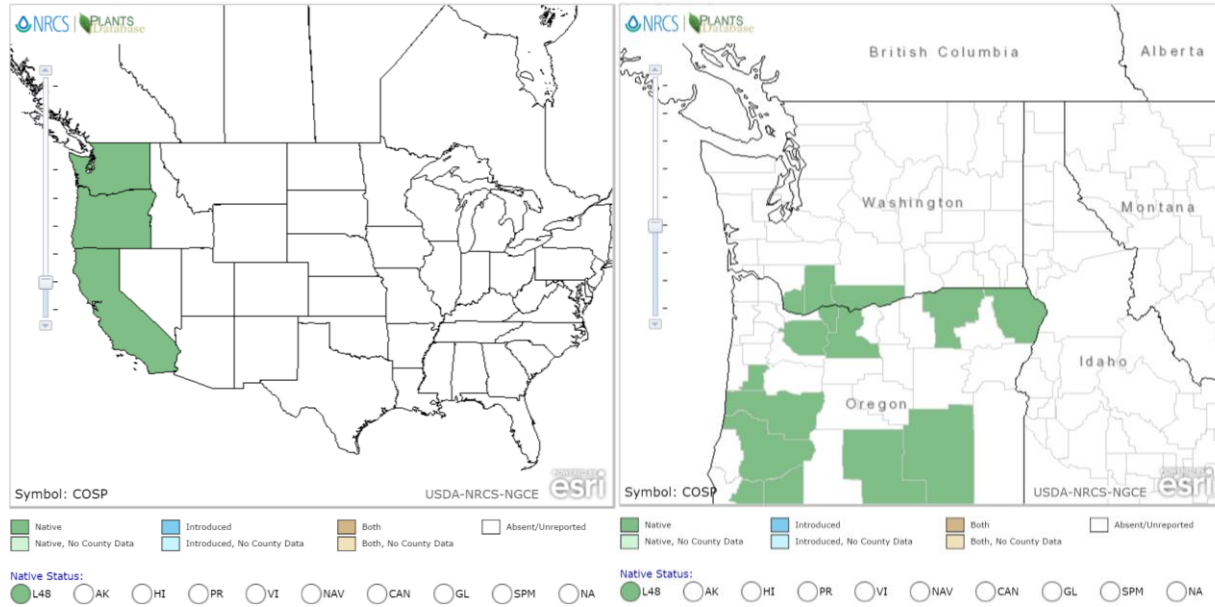
Plant Propagation Protocol for *Collinsia sparsiflora*

ESRM 412 – Native Plant Production

Spring, 2016

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

Source: USDA PLANTS Database, 2016



TAXONOMY

Plant Family	
Scientific Name	Scrophulariaceae
Common Name	Figwort Family
Species Scientific Name	
Scientific Name	<i>Collinsia sparsiflora</i>
Varieties	<i>Collinsia sparsiflora</i> var. <i>bruceae</i> <i>Collinsia sparsiflora</i> var. <i>arvensis</i> <i>Collinsia sparsiflora</i> var. <i>collina</i>
Sub-species	
Cultivar	N/A
Common Synonym(s)	<i>Collinsia sparsiflora</i> Fisch & C.A. Mey
Common Name(s)	Blue-eyed Mary; Few-flowered collinsia
Species Code	COSP
GENERAL INFORMATION	
Geographical range	Dominantly found in WA, OR, and CA
Ecological distribution	Within the Colombia River Gorge from WA to CA
Climate and elevation range	Mediterranean climate; prefers low elevations but up to 5,000 ft. ⁴
Local habitat and abundance	Open slopes and swales, serpentine soils. ⁶

Plant strategy type / successional stage	Early spring emergence adapted to nutrient-poor soil conditions.
Plant characteristics	Annual herbaceous forb.
PROPAGATION DETAILS:	
Ecotype	Dry, nutrient-poor, alkaline soils
Propagation Goal	Plants for seed stock
Propagation Method	Seed
Product Type	Seed capsules
Stock Type	
Time to Grow	Fall through spring
Target Specifications	Plants reach a maximum height of around 20 cm.
Propagule Collection Instructions	Propagules to be collected in fall through winter. Harvest dried heads then comb them to separate propagules from flower head stems.
Propagule Processing/Propagule Characteristics	Seed Cleaning: Seed drying at 68-80F in low humidity. ⁵ Seed Germination: maintain a slightly acidic soil of 5-6 pH during seed germination period to repel any damping-off fungi. ³
Pre-Planting Propagule Treatments	Seeds should be stored in a cool, dry environment until ready for planting. Soak seeds for 24 hours before planting to ensure ample moisture. ⁸
Growing Area Preparation / Annual Practices for Perennial Crops	Soil beds for seed collection are a more economically-viable option than propagation from containers because the plants are short-lived annuals. Therefore, the most economically-feasible option for this plant is the harvest of seed which may then be dispersed on restoration sites. 5.2-8.2 pH ⁶
Establishment Phase Details	Prepare a seed bed by tilling to expose soil. Sow seed at shallow depth (¼ inches) by raking after seeds are broadcast seeded. Germinates will be stronger if direct-sowed rather than transplanted.
Length of Establishment Phase	less than 25 days
Active Growth Phase	Germination typically from fall through spring for Pacific Northwest. Temperatures >50F for germination and growth. Bloom time typically from March to May (white, purple, red flowers). Flower heads are sparse, hence “sparsiflora”, and commonly found along stem axils. ²
Length of Active Growth Phase	Seeds mature and dry within 45 days of flowering. Most growth is determinate, in such that the plant produces one larger crop of seeds rather than a continual flowering stage.
Hardening Phase	No hardening phase; annual.
Length of Hardening Phase	N/A

Harvesting, Storage and Shipping	Propagation of seedlings may not be an economically-feasible option because the plants are short-lived annuals. Therefore, the most economically-feasible option for this plant is the harvest of seed which may then be dispersed on restoration sites. After capsules have reached maturity, they may be harvested directly from the stem.
Length of Storage	Seeds dried to 8-10% moisture and stored at less than 40F with less than 40% humidity. ⁹ Undetermined maximum length of storage before seeds lose viability.
Guidelines for Outplanting / Performance on Typical Sites	Plants are not recommended for outplanting. 5-20 cm typical size
Other Comments	<i>Collinsia sparsiflora</i> offers an early and reliable food source for pollinators ² and therefore some site analysis may be needed to determine if any adverse effects of seed collection may occur. Avoid harvesting more than 10% of the seeds from a given location to ensure a stable seed bank for a site.
INFORMATION SOURCES	
References	See below
Other Sources Consulted	See below
Protocol Author	David Hagopian
Date Protocol Created or Updated	05/23/16

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