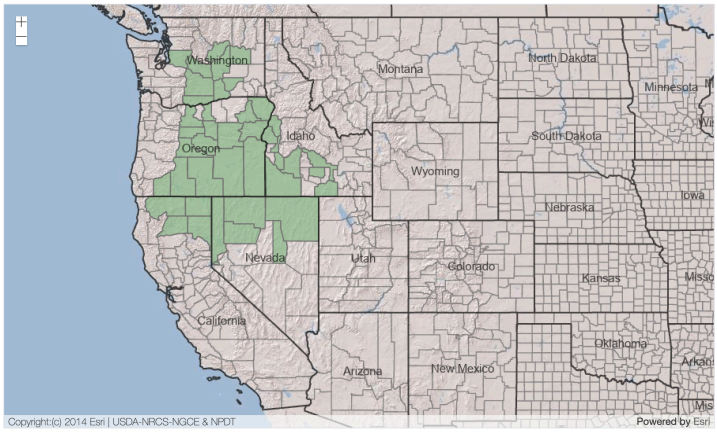
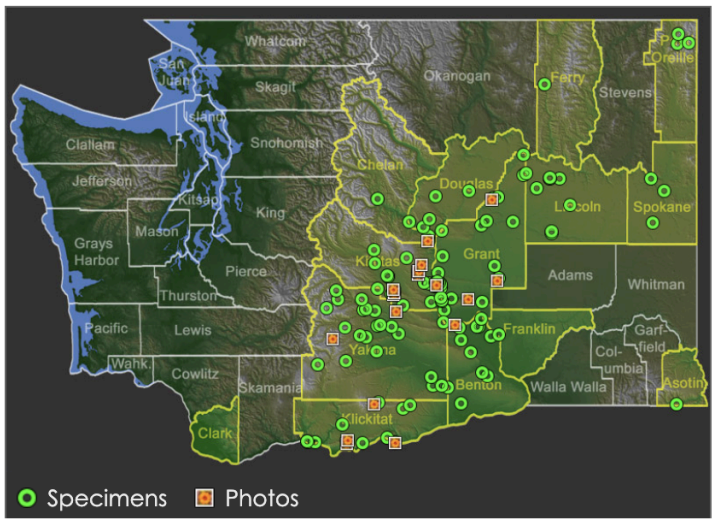
Plant Propagation Protocol for *[Insert Species]*
ESRM 412 – Native Plant Production
URL: https://courses.washington.edu/esrm412/protocols/*2025/ERSP7.pdf*

TAXONOMY	
Plant Family	
Scientific Name	*Polygonaceae* Juss.[1]
Common Name	Buckwheat family[1]
Species Scientific Name	
Scientific Name	*Eriogonum sphaerocephalum* Douglas ex Benth.[1]
Varieties	*Eriogonum sphaerocephalum* Douglas ex Benth. var. *fasciculifolium* (A. Nelson) S. Stokes[1] *Eriogonum sphaerocephalum* Douglas ex Benth. var. *halimioides* S. Stokes[1] *Eriogonum sphaerocephalum* Douglas ex Benth. var. *sphaerocephalum*[1]
Sub-species	*Eriogonum sphaerocephalum* Douglas ex Benth. var. *fasciculifolium* (A. Nelson) S. Stokes[1] *Eriogonum sphaerocephalum* Douglas ex Benth. var. *halimioides* S. Stokes[1] *Eriogonum sphaerocephalum* Douglas ex Benth. var. *sphaerocephalum*[1]
Cultivar	N/A
Common Synonym(s)	N/A
Common Name(s)	Rock buckwheat[1]; Round headed buckwheat[2]; Round Headed Eriogonum[3]
Species Code (as per USDA Plants database)	ERSP7[1]
GENERAL INFORMATION	

Geographical range	North American Distribution[1]:  Washington Distribution[3]:  Distributed primarily in mountainous regions of the western United States, *E. sphaerocephalum* is found from Central Washington to Northeastern California, stretching east into Nevada and Idaho[1]. In Washington, it occurs east of the Cascade crest[3].
Ecological distribution	*E. sphaerocephalum* commonly occurs in sagebrush-steppe and semi-arid rocky environments throughout the Western United States[2,4].
Climate and elevation range	This species is tolerant of a temperature range from -9°C in winter to 31°C in summer, and is present at elevations of 1000m to 2360m[2]. Climatically, *E. sphaerocephalum* prefers semi-arid habitats, receiving around 109 cm of cumulative rainfall at its upper tolerance[2].

Local habitat and abundance	Located in shrub-steppe habitats and within the Sagebrush Scrub, Yellow Pine (Ponderosa Pine) Forest, and Northern Juniper Woodland communities[2,3]. It is commonly found alongside other dominant sagebrush steppe species, including *Artemesia tridentata*, *Opuntia polyacantha,* and *Phlox hodii*[4].
Plant strategy type / successional stage	*E. sphaerocephalum* is relatively drought-tolerant, shade-tolerant, and has some ability to regenerate after wildfires[2,5}
Plant characteristics	Perennial subshrub with a spreading to erect habit and growing season of around 3 months[2,6]. *E. sphaerocephalum* generally flowers from April-July, with inflorescences comprised of an umbel 1-2 cm wide and yellow or cream 6-9 mm flowers[3,6]. Mature plants produce light brown achenes in fall that are glabrous and 3-4mm in length[2,6].
PROPAGATION DETAILS: FROM SEED **Information extrapolated from *Eriogonum umbellatum* Torr., *Eriogonum elatum*, and *Eriogonum heracleoides* Nutt. protocols**	
Ecotype	N/A
Propagation Goal	Plants
Propagation Method	Seed[7]
Product Type	Container (plug)
Stock Type	262ml container
Time to Grow	4 months[8,9,10]
Target Specifications	Firm plug[8,9,10]
Propagule Collection Instructions	Achenes should be hand collected into paper bags in fall[2,11]
Propagule Processing/Propagule Characteristics	There are 198,000 seeds per pound[11]. Seeds should be processed using a laboratory brush machine with a #40 mantel to remove the seeds from the flowerhead and air-screeened using an office Clipper[11]. Cleaned seeds should be stored between 33-38°F[11].
Pre-Planting Propagule Treatments	Seeds should be soaked in water for a day, then placed in ventilated bags with peatmoss for a 60-90 day cold stratification[8,9].

Growing Area Preparation / Annual Practices for Perennial Crops	Controlled greenhouse and outdoor nursery Seeds should be directly sown into 262ml containers with 6:1:1 milled sphagnum peat, perlite, vermiculite media mixture[8]
Establishment Phase Details	Media should be kept moist until germination occurs, and then watering should be administered only when the medium is dry on the surface[8,10].
Length of Establishment Phase	3 weeks[9,10]
Active Growth Phase	Plants should be fertilized with20-10-20 liquid NPK at 100 ppm once a week while in active growth phase[8,9,10]. Watering should be similarly only be administered when the medium becomes dry to avoid damping off or root rot[7,8]
Length of Active Growth Phase	12 weeks[8,9,10]
Hardening Phase	Irrigation should be reduced through September, and the plant should be moved to the outdoor nursery space[8,9].
Length of Hardening Phase	4 weeks
Harvesting, Storage and Shipping	Seedlings should be harvested after completion of the hardening phase and transferred to outplanting sites.
Length of Storage	0 weeks
Guidelines for Outplanting / Performance on Typical Sites	Outplanting should be completed in mid-October[9]
Other Comments	N/a
INFORMATION SOURCES	
References	1. Natural Resources Conservation Service. (n.d.). Eriogonum sphaerocephalum Douglas ex Benth. PLANTS Database. United States Department of Agriculture. Retrieved June 7, 2025, from https://plants.sc.egov.usda.gov/plant-profile/ERSP7 2. Calflora. (2025). Eriogonum sphaerocephalum — round-headed buckwheat. In Calflora: Information on California plants for education, research and conservation [web application]. The Calflora Database. Retrieved June 8, 2025, from https://www.calflora.org/entry/plantchar.html?crn=3368

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