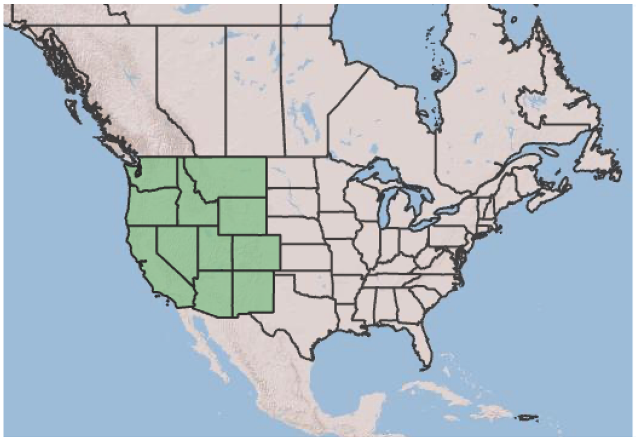
Plant Propagation Protocol for *Aliciella leptomeria* (A. Gray) J.M. Porter

ESRM 412 – Native Plant Production

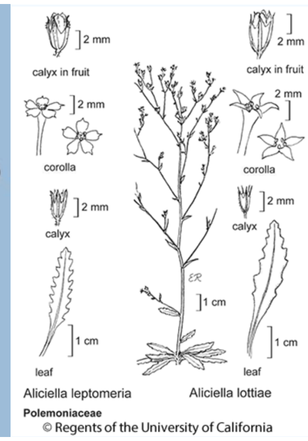
URL: https://courses.washington.edu/esrm412/protocols/2026/*ALLE7.pdf*

North America Distribution



Source: USDA PLANTS Database (1)

Botanical Illustration



Source: Jepson Flora Project (2)

TAXONOMY	
Plant Family	
Scientific Name	Polemoniaceae Juss.
Common Name	Phlox family
Species Scientific Name	
Scientific Name	*Aliciella leptomeria* (A. Gray) J.M. Porter
Varieties	
Sub-species	
Cultivar	
Common Synonym(s)	Gilia leptomeria A. Gray
Common Name(s)	Sand gilia, Great Basin gilia
Species Code (as per USDA Plants database)	ALLE7
GENERAL INFORMATION	
Geographical range	*Aliciella leptomeria* occurs throughout the Great Basin region of the western United States, including Washington, Oregon, Idaho, Nevada, Utah, Wyoming, Colorado, and California. (1)(2)(3)
Ecological distribution	Occurs in sagebrush steppe, pinyon-juniper woodlands, desert shrublands, dry rocky slopes, and open montane habitats. Frequently found in sandy or gravelly soils with good drainage (2)(4).

Climate and elevation range	Occurs in semi-arid to arid climates receiving low annual precipitation. Commonly found between approximately 1,000–3,000 m elevation. (2)(3)(4)
Local habitat and abundance	Typically grows in open disturbed or sparsely vegetated habitats. Often occurs in dry rocky soils, roadcuts, and sandy flats. (2)(3)
Plant strategy type / successional stage	Early seral to mid-seral forb species adapted to disturbance and drought conditions. It is a stress-tolerant colonizer in dry ecosystems (4)(6).
Plant characteristics	Annual/short-lived perennial forb with slender branching stems and small pale pink to lavender flowers. Produces numerous small seeds (2)(4).
PROPAGATION DETAILS: FROM SEED	
Ecotype	
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container Plug
Stock Type	Small containerized forb plug
Time to Grow	Approximately 3–5 months from sowing to out planting size under greenhouse conditions (6).
Target Specifications	Well-rooted plugs with multiple true leaves and developed fibrous root systems (6).
Propagule Collection Instructions	Collect mature seed capsules in late summer after drying on the plant. Seeds should be cleaned and air dried before storage (2)(6).
Propagule Processing/Propagule Characteristics	Seeds are small and lightweight. Dry cleaning by screening is generally sufficient. Seed should be stored under cool, dry conditions to maintain viability (2)(6).
Pre-Planting Propagule Treatments	Cold moist stratification for approximately 2–4 weeks may improve germination. Some studies of related *Aliciella* and *Gilia* species indicate germination may also occur without stratification under warm greenhouse conditions (4)(6).
Growing Area Preparation / Annual Practices for Perennial Crops	A well-drained propagation medium containing sand, perlite, and peat-based substrate should be used. Containers should provide good drainage to prevent root disease (6).
Establishment Phase Details	Maintain moderate moisture and temperatures around 18–22°C. Avoid excessive watering (6).
Length of Establishment Phase	Approximately 1-3 weeks (6).
Active Growth Phase	Maintain high light conditions and moderate irrigation. Fertilization should remain minimal because the species is adapted to nutrient-poor soils (4)(6).

Length of Active Growth Phase	Approximately 8-12 weeks (6).
Hardening Phase	Reduce irrigation and expose plants to outdoor temperature fluctuations before out planting. Harden plants for several weeks prior to field establishment (6).
Length of Hardening Phase	2-4 weeks (6).
Harvesting, Storage and Shipping	Plants should be transported while dormant or during cool weather conditions to reduce transplant stress (6).
Length of Storage	Should be short term storage as plugs perform best when planted soon after hardening (6).
Guidelines for Out planting / Performance on Typical Sites	Outplant on well-drained sandy or rocky soils with full sun exposure (2)(4).
Other Comments	Several recommendations are inferred from propagation studies involving related *Aliciella* and *Gilia* taxa adapted to similar Great Basin environments (4)(6).
PROPAGATION DETAILS: VEGETATIVE	
Ecotype	No species-specific vegetative propagation studies for *Aliciella leptomeria* were located. The recommendations below are inferred from related *Aliciella* and *Gilia* species adapted to dry Great Basin environments (4)(6).
Propagation Goal	Plants
Propagation Method	Vegetative
Product Type	Container plug
Stock Type	Rooted Stem cuttings
Time to Grow	n/a
Target Specifications	n/a
Propagule Collection Instructions	n/a
Propagule Processing/Propagule Characteristics	n/a
Pre-Planting Propagule Treatments	n/a
Growing Area Preparation / Annual Practices for Perennial Crops	n/a
Establishment Phase Details	n/a
Length of Establishment Phase	n/a
Active Growth Phase	n/a
Length of Active Growth Phase	n/a
Hardening Phase	n/a
Length of Hardening Phase	n/a
Harvesting, Storage and Shipping	n/a
Length of Storage	n/a

Guidelines for Out planting / Performance on Typical Sites	n/a
Other Comments	Propagation efforts for *Aliciella leptomeria* primarily focus on seed propagation rather than vegetative methods. No directly applicable vegetative propagation protocols/information from closely related *Aliciella* species were found.
INFORMATION SOURCES	
References	See source below
Other Sources Consulted	See source below
Protocol Author	Victor Zweig
Date Protocol Created or Updated	05/18/2026

Works Cited

[1] USDA Plants Database. *Aliciella leptomeria*. United States Department of Agriculture. Available: https://plants.usda.gov/home (Accessed May 2026).

[2] Jepson Flora Project. *Aliciella leptomeria*. Jepson eFlora, University of California, Berkeley. Available: https://ucjeps.berkeley.edu/eflora/ (Accessed May 2026).

[3] SEINet Southwestern Biodiversity Network. *Aliciella leptomeria* occurrence records. Available: https://swbiodiversity.org/seinet/ (Accessed May 2026).

[4] Flora of North America Editorial Committee. Polemoniaceae. Flora of North America. Available: http://floranorthamerica.org/ (Accessed May 2026).

[5] Lady Bird Johnson Wildflower Center Native Plant Database. *Aliciella* species information. Available: https://www.wildflower.org/ (Accessed May 2026).

[6] Native Plant Network Propagation Database. Native Plant Network. Available: https://npn.rngr.net/ (Accessed May 2026).

[7] Burke Herbarium Image Collection. University of Washington Herbarium. Available: https://biology.burke.washington.edu/herbarium/imagecollection.php (Accessed May 2026).

[8] Consortium of Pacific Northwest Herbaria. Available: https://www.pnwherbaria.org/ (Accessed May 2026).

[9] GBIF Occurrence Database. *Aliciella leptomeria*. Global Biodiversity Information Facility. Available: https://www.gbif.org/ (Accessed May 2026).

[10] California Native Plant Society CalPhotos Database. Available: https://calphotos.berkeley.edu/ (Accessed May 2026).

Other Sources Consulted (no propagation info)

Plants For A Future Database. *Aliciella leptomeria*. Available: https://pfaf.org/ (Accessed May 2026).

CalPhotos Database. *Aliciella leptomeria* image records. University of California, Berkeley. Available: https://calphotos.berkeley.edu/ (Accessed May 2026).