A study on Eremalche parryi

Janean Lukes

Common name: Parry's Mallow Other names: Eremalche parryi ssp. parryi Eremalche parryi (Greene) Greene parryi



Photo credit: randomtruth / Foter.com / CC BY-NC-SA

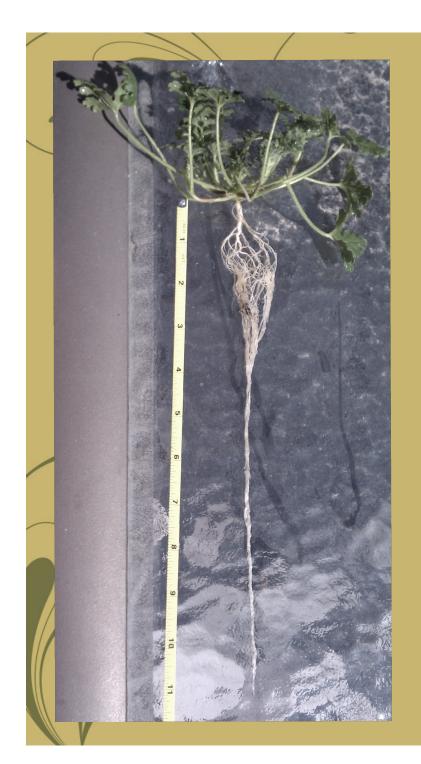
Geographic Distribution

California Floristic Province C Sierra Nevada Foothills S Sierra Nevada Foothills Tehachapi Mountain Area San Joaquin Valley San Francisco Bay Area Inner South Coast Ranges Outer South Coast Ranges Western Transverse Ranges

Illustration courtesy Calphotos.

Found in North America Endemic to California Found in Sierra Nevada Foothills, the San Joaquin Valley, the San Francisco Bay Area, the Western Transverse Ranges and both the Inner and Outer South Coast Ranges

Has been documented in 13 counties in California: Galaveras, San Joaquin, Alameda, Stanislaus, Merced, San Benito, Fresno, Monterey, Kings, Tulare, San Luis Obispo, Kern and Ventura



Native Habitat

Found on south facing slopes and occasionally found on tops of sand dunes.

Reports show it growing in well drained soil

Indicates quick growing root system capable of foraging for nutrients in less than ideal soil conditions.

Taxonomic Morphology



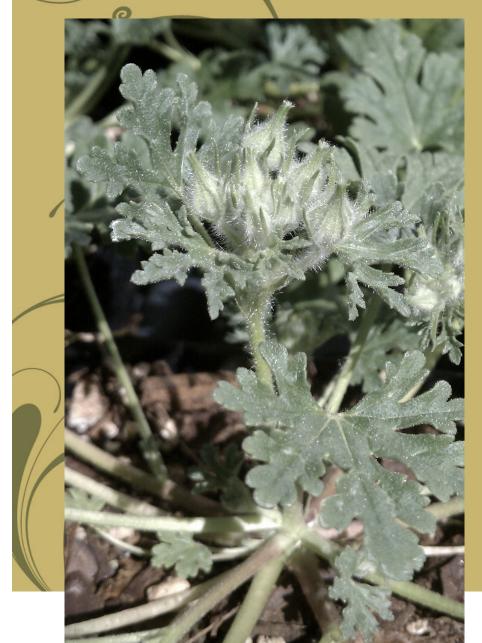
Ascending basal branches, sometimes turning red.

Tips of stems often hairy.

Leaves generally 2-5cm wide and deeply lobed to dissected, with 3-5 lobes per leaf.

No identified underground storage organs.

Taxonomic Morphology



Perfect flowers, but sometimes pistillate.

Colors of the corolla can vary from mauve, purple or rose-pink and occasionally, but rarely, white or lavender petals

Petals are 5-19 mm long with a 5-10 mm abruptly acuminate sepals behind the petals(Jepson, 2001)

Flowers are often held in loose terminal cymes(Munz, 1959)

Taxonomic Morphology

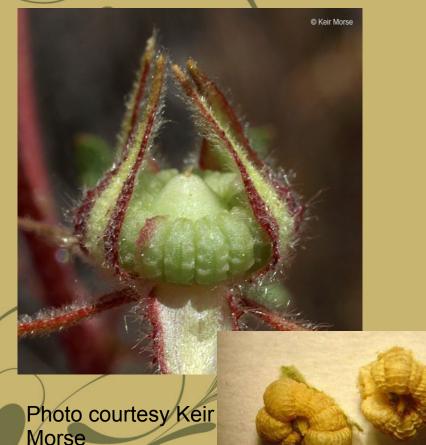


Photo courtesy Borders, 2006

Ovary is superior

Contains between 8-24 carpels

Produce a wheel like fruit when fertilized

Produces a wedge shaped seed

Flowers and fruits mature indeterminately

Propagation Methods

Photo courtesy Borders, 2006

Propagated by seed

Germinates in ideal conditions(mist house at 21C) in about a week.

Germinates in the environment in about three.

Germination rate twice as high when covered with vermiculite than when uncovered.

Production Schedule



Beautiful cotyledons once germinated!

Takes around seven weeks from seeding to flower bud formation.

For sale around Valentines Day, plants should be seeded in week 51 of the previous year to allow full flowering by the holiday. Later dates should be used for Mothers day and Easter.

Production Schedule



Photo courtesy Keir Morse

If planting in plug trays for transplant, plants should have significant root system on them by week 3 to safely be shipped.

Plants can be transplanted around week 4 and from then should take 3 weeks for flower buds to form in short day conditions.



Needs Assessment for Genetic Improvement



Photo courtesy Borders, 2006

Short day plant = limited use in northern climates.

Possible hybridization

Conventional breeding for larger flowers for hanging baskets or cut flowers. Also could breed for larger stems and leaves for medicinal purposes or for use as foliage only.

References

Andreason, K & D.M. Bates. 2012. The Jepson Manual: Vascular Plants of California. Berkeley, CA. University of California Press, Ltd.

Borders, B.D. 2006. *Eremalche Parryi* (Greene) Greene ssp. parryi. Valley Flora Propagation Center

Species Profiles. CSU, Stanislaus.

Calflora. 2013. Eremalche parryi. Available online at

http://www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=3047>

Cypher, E. 2002. Supplemental Survey Methods for Kern Mallow. Bakersfield, CA. California State

University, Stanislaus

Konate, Kiessoun, et al. 2012. "Toxicity Assessment and Analgesic Activity Investigation of Aqueous

Acetone Extracts of Sida Acuta Burn f. and Sida Cordifolia L. (Malvaceae), Medicinal Plants of Burkina Faso." *Bmc Complementary and Alternative Medicine.* 12 : 120.

Munz, P.A. 1959. A California Flora. Berkeley, CA. University of California Press. pp. 122. USDA Plants Database. Retrieved April 4, 2013 from USDA Plants Database:

<http://plants.usda.gov/java/profile?symbol=ERPAP9>