

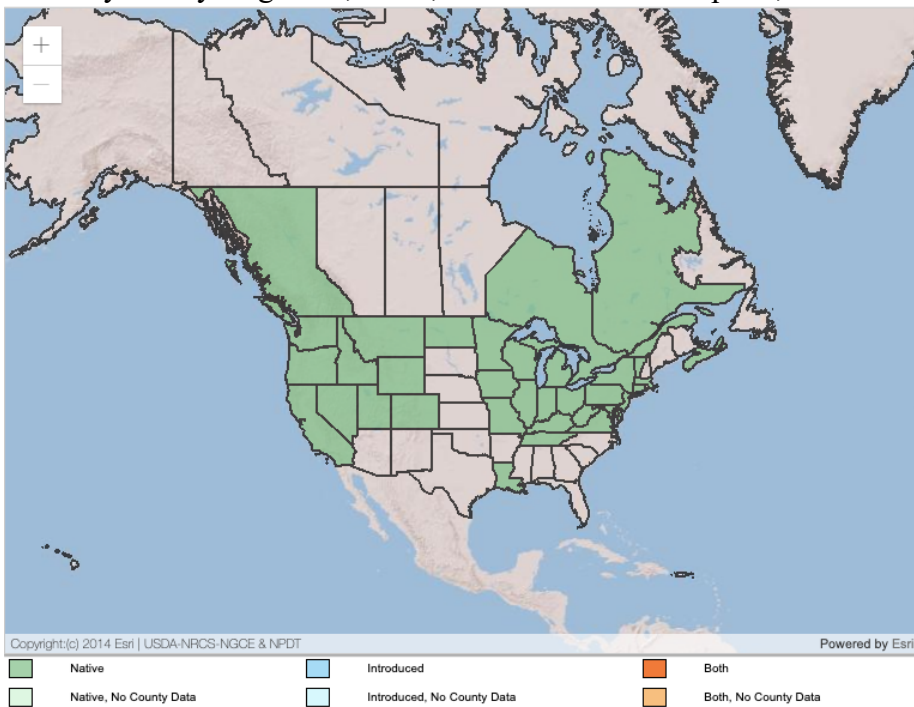
Plant Propagation Protocol for *Floerkea proserpinacoides*
ESRM 412 – Native Plant Production
URL: <https://courses.washington.edu/esrm412/protocols/2021/FLPR>



Courtesy Britton, N.L., and A. Brown. An illustrated flora of the northern United States, Canada and the British Possessions. 3 vols., Kentucky Native Plant Society, New York. (1913) Provided by USDA PLANTS Database.⁶



Courtesy Sherry Hagwood, BLM, False mermaidweed plant, USDA PLANTS Database.⁶



Native Status:

- L48
 AK
 HI
 PR
 VI
 NAV
 CAN
 GL
 SPM
 NA

Courtesy USDA PLANTS Database, *Floerkea proserpinacoides* range (2021).⁶

| TAXONOMY | |
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| Plant Family | |
| Scientific Name | <i>Limnaceae</i> |
| Common Name | Meadow-foam family |
| Species Scientific Name | |
| Scientific Name | <i>Floerkea proserpinacoides</i> Willd. ⁶ |
| Varieties | None |
| Sub-species | None |
| Cultivar | None |
| Common Synonym(s) | <i>Floerkea occidentalis</i> Rydb. ⁶ |
| Common Name(s) | False mermaid, false mermaidweed, |
| Species Code (as per USDA Plants database) | FLPR ⁶ |
| GENERAL INFORMATION | |
| Geographical range | It has a disjunct presence in North America, where it occurs from British Columbia south to California and east to Utah and Colorado. It occurs from Nova Scotia south to Louisiana and east to Missouri and Minnesota. <i>F. proserpinacoides</i> is native to the Pacific Northwest. It does not appear in the Great Plains. |
| Ecological distribution | Open or forested floodplains, limestone cliffs, riverside seeps, springy woods, and streamside meadows. |
| Climate and elevation range | Elevation range unknown. Requires winter temperatures as low as 5 C in order to germinate, so temperate deciduous forests which begin to warm from sunlight in April are preferred by <i>F. proserpinacoides</i> . Moist environments are preferred by this species and it will not survive in dry plains or desert. |
| Local habitat and abundance | Grows in wet places, especially under shrubs. Moist alluvial soils and mesic forests where the soil is moist but not wet. Deciduous forest. Associated species: sugar maple (<i>Acer saccharum</i> Marsh.) and white ash (<i>Fraxinus americana</i> L.), white birch (<i>Betula papyrifera</i> Marsh.), yellow birch (<i>Betula alleghaniensis</i> Britton), red maple (<i>Acer rubrum</i> L.) and red oak (<i>Quercus rubra</i> L.) |
| Plant strategy type / successional stage | Emerges in late winter. ⁵ |
| Plant characteristics | Herbaceous forb with annual perennation. 1-6 inches in height, this plant produces a tiny white or pink flower. It has alternate buds, weak stems, and is dicotyledonous. ⁵ The plant has early phenology, appearing in late March through late April and persists |

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| | for 60-70 days before disappearing in June. Leaflets are entire, longer than they are wide, flat or slightly convex, and have an obscure midrib. The leaves are alternate and pinnately compound with no more than 5 leaflets. The color of the plant is bright spring green. Fruit is an egg shape nutlet 2-3.5 mm. ⁵ |
| PROPAGATION DETAILS | |
| Ecotype | N/A |
| Propagation Goal | Plants |
| Propagation Method | Seed |
| Product Type | Container (plug) |
| Stock Type | Not given |
| Time to Grow | 8 months |
| Target Specifications | |
| Propagule Collection Instructions | Collect seeds when they are still green, in late May to early June. ¹ |
| Propagule Processing/Propagule Characteristics | Seeds do not persist in soil for longer than one year. Each plant only produces 3 +/- 0.5 seeds. ³ |
| Pre-Planting Propagule Treatments | Requires warm-moist stratification for 12 weeks, then cold-moist stratification at 5 C for 10 weeks to germinate. Seeds are dormant during summer and fall. ¹ |
| Growing Area Preparation / Annual Practices for Perennial Crops | Not given |
| Establishment Phase Details | Allow for sunlight to warm the soil during the day, and keep leaf litter clear from the soil. ⁴ |
| Length of Establishment Phase | 6 months. ¹ |
| Active Growth Phase | Not given |
| Length of Active Growth Phase | Not given |
| Hardening Phase | Not given |
| Length of Hardening Phase | Not given |
| Harvesting, Storage and Shipping | Not given |
| Length of Storage | Should not be stored due to limited longevity. ¹ |
| Guidelines for Outplanting / Performance on Typical Sites | <i>F. proserpinacoides</i> begins flowering 2 weeks after emerging from the soil, and senesces at 9 weeks. ⁵ Outplanting be urgent for this short-lived species. |
| Other Comments | None |
| INFORMATION SOURCES | |
| References | See Below |
| Other Sources Consulted | See Below |
| Protocol Author | Hannah Carter |
| Date Protocol Created or Updated | 05/26/2021 |

References:

¹Baskin, Jerry M.; Baskin, Carol C.. 2001. Propagation protocol for production of Container (plug) *Floerkea proserpinacoides* Willd. plants University of Kentucky Lexington, Kentucky. In: Native Plant Network. URL: <http://NativePlantNetwork.org> (accessed 2021/05/27). US Department of Agriculture, Forest Service, National Center for Reforestation, Nurseries, and Genetic Resources.

²Cornell Botanic Gardens. 2021. False mermaid-weed. Explore Our Plants. <https://cornellbotanicgardens.org/plant/false-mermaid-weed/>

³Houle, G. (2002), The advantage of early flowering in the spring ephemeral annual plant *Floerkea proserpinacoides*. *New Phytologist*, 154: 689-694. <https://doi.org/10.1046/j.1469-8137.2002.00418.x>

⁴Houle G, McKenna MF, Lapointe L. 2001. Spatiotemporal dynamics of *Floerkea proserpinacoides* (*Limnanthaceae*), an annual plant of the deciduous forest of eastern North America. *American Journal of Botany* 88: 594–607.

⁵Moorhead, Willian H. 2003. *Floerkea proserpinacoides* Willdenow False Mermaid-weed. Conservation and Research Plan for New England. New England Plant Conservation Program. <https://www.nativeplanttrust.org/documents/62/floerkeaproserpinacoides.pdf>

⁶USDA. 2021. *Floerkea proserpinacoides* Willd. USDA PLANTS Database.

Other Sources Consulted:

Calscape. 2021. “*Floerkea proserpinacoides*, False mermaid”. All Plants for California. [https://calscape.org/Floerkea-proserpinacoides-\(\)](https://calscape.org/Floerkea-proserpinacoides-())

McKenna MF, Houle G. 2000b. Under-saturated distribution of *Floerkea proserpinacoides* Willd. (*Limnanthaceae*) at the northern limit of its distribution. *Écoscience* 7: 466–473.

Russell AM. 1919. A comparative study of *Floerkea proserpinacoides* and allies. *Contributions of the Botanical Laboratory of the University of Pennsylvania* 4: 401–418.

Smith BH. 1983. Demography of *Floerkea proserpinacoides*, a forest-floor annual. II. Density-dependent reproduction. *Journal of Ecology* 71: 405–412.