Plant Propagation Protocol for Erythronium montanum
ESRM 412 – Native Plant Production
Protocol URL: https://courses.washington.edu/esrm412/protocols/*[*ERMO8.*pdf]*

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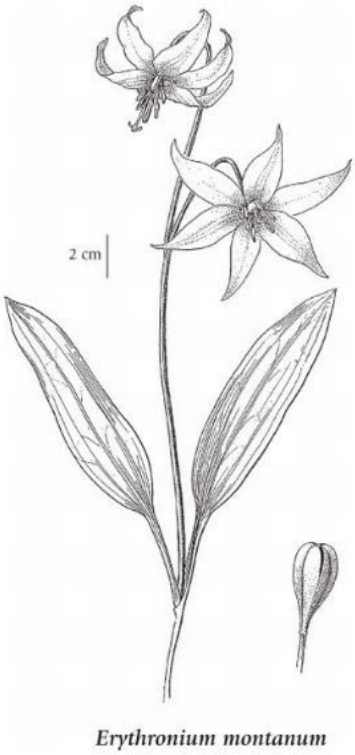
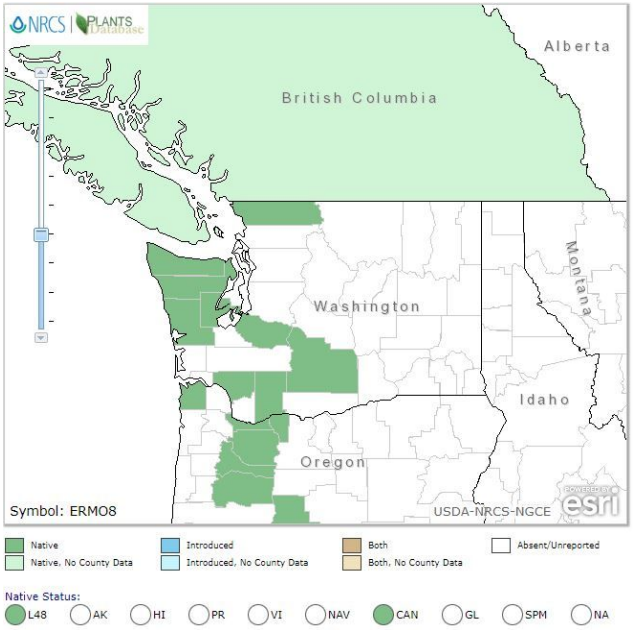
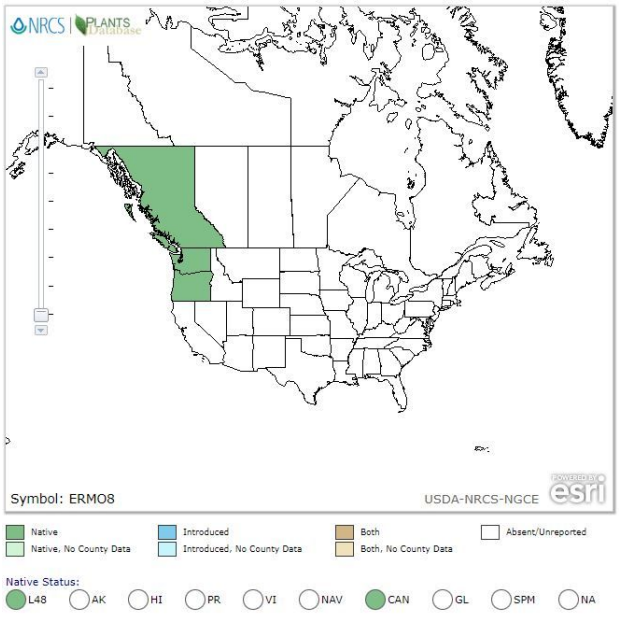


Erythronium montanum

Illustration Source: The Illustrated Flora of British Columbia

TAXONOMY	
Plant Family	
Scientific Name	Lilliaceae
Common Name	Lilly
Species Scientific Name	
Scientific Name	Erythronium montanum
Varieties	
Sub-species	
Cultivar	
Common Synonym(s)	

Common Name(s)	Avalanche Lily, Alpine Fawn Lily
Species Code (as per USDA Plants database)	ERMO8
GENERAL INFORMATION	
Geographical range	 
Ecological distribution	Montane and subalpine meadows of the Cascade and Olympic mountain ranges (9,13)
Climate and elevation range	The elevation range is between 800 - 2000 metres (13)

Local habitat and abundance	Subalpine forests to alpine meadows, often in location that have recently been logged. (9)
Plant strategy type / successional stage	Seral
Plant characteristics	E. montanum is a perennial forb with herbaceous growth from a deep-seated corm. The leaves are oblong (2-7cm) and grown in a basal pair. The flowers are white with a yellow base. As the flowers age they develop a pink tint The 6 tepals nod down. There are 6 white filament with yellow anthers. The fruit is a papery capsule that are about 2.5cm long. (5)
PROPAGATION DETAILS	
Ecotype	Unknown
Propagation Goal	Plants
Propagation Method	Seed
Product Type	Container / Propagules
Stock Type	Unknown
Time to Grow	Seedlings can be sown directly in desired location, or in cold frames/containers. When seeds in cold frames outplanting should wait until corms are formed in the fall. If planted in cold frames or containers the time to grow before outplanting is 9-18 months (13)
Target Specifications	Unknown
Propagule Collection Instructions	Collect seeds when capsule has dried. Seeds should not be planted at lower elevations. (11)
Propagule Processing/Propagule Characteristics	Unknown
Pre-Planting Propagule Treatments	Seed
Growing Area Preparation / Annual Practices for Perennial Crops	The prefered medium is slightly acid soils with high humus content. Seeds should be planted in a cold frame. Soil needs to hold moisture all year. (13)
Establishment Phase Details	Seeds can be planted from november to early spring with enough spacing to prevent the need for thinning. Seeds require cold stratification replicated off of the alpine winter climate. As snow melts in spring the seeds require large amounts of moisture for germination.(13)
Length of Establishment Phase	Unknown
Active Growth Phase	The growth phase is from March to August
Length of Active Growth Phase	5 months
Hardening Phase	E. montanum goes dormant in late summer, dropping its vegetation. It then store nutrients in its bulb through

	the winter. It does not need any other preparation to establish cold hardiness. (13)
Length of Hardening Phase	Unknown
Harvesting, Storage and Shipping	Seeds can be harvested in the summer when seeds ripen between June and July. Seeds should stay in a similar elevation and ecozone as parent plant due to the the sensitivity of timeliness of germination with extreme seasonal changes. Seeds to be transported for lower gardens should be taken from plants at lower elevations. (4)
Length of Storage	Seeds are best when sown directly after ripening in late summer or fall. Stored seeds will need to stratified before planting in the early spring. (13)
Guidelines for Outplanting / Performance on Typical Sites	It may take 2-4 years before plants are large enough to bloom. (13)
PROPAGATION DETAILS	
Ecotype	NA
Propagation Goal	Plants
Propagation Method	Vegetative/Corms
Product Type	Container
Stock Type	Unknown
Time to Grow	Corms
Target Specifications	Unknown
Propagule Collection Instructions	Divide the crown during the dormant season: either in early spring or midsummer to late fall. (13)
Propagule Processing/Propagule Characteristics	Unknown
Pre-Planting Propagule Treatments	Unknown
Growing Area Preparation / Annual Practices for Perennial Crops	The prefered medium is slightly acid soils with high humus content. Smaller corms can be planted in small pots while larger corms can be directly planted out.(13)
Establishment Phase Details	Unknown
Length of Establishment Phase	Unknown
Active Growth Phase	The growth phase is from March to August
Length of Active Growth Phase	5 months
Hardening Phase	E. montanum goes dormant in late summer, dropping its vegetation. It then store nutrients in its bulb through the winter. It does not need any other preparation to establish cold hardiness.
Length of Hardening Phase	Unknown

Harvesting, Storage and Shipping	Corms should stay in a similar elevation and ecozone as parent plant.
Length of Storage	Corms need to be planted directly after being harvested.
Guidelines for Outplanting / Performance on Typical Sites	Out planting should occur during the late summer dormant period. It may be 1-2 years before flowering. (13)

Other Comments	Very little information is research has been done for successful propagation methods of Erythronium montanum. (2) It has proven to be a difficult plant to grow, particularly at lower elevations due to its extreme native habitat and climate. (4) It utilizes the melted snow in the spring to provide moisture for the corm.
INFORMATION SOURCES	
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