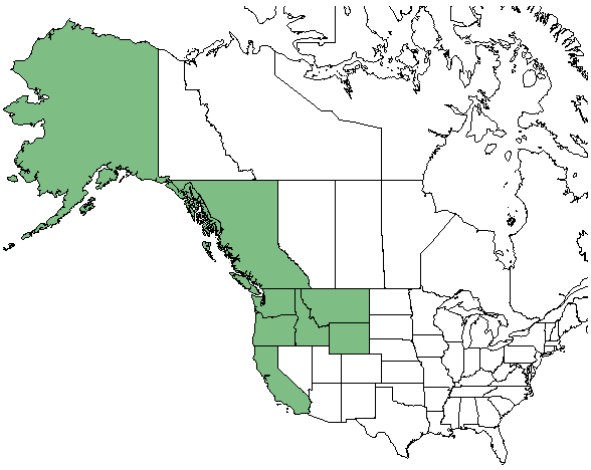
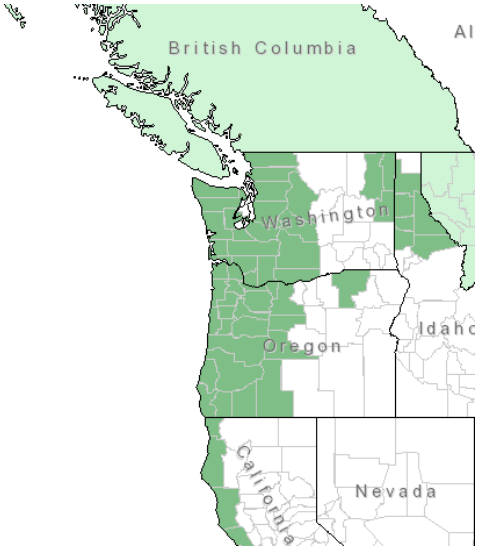
Plant Propagation Protocol for *Lysichiton americanus*
ESRM 412 – Native Plant Production
Spring 2019

North American Distribution

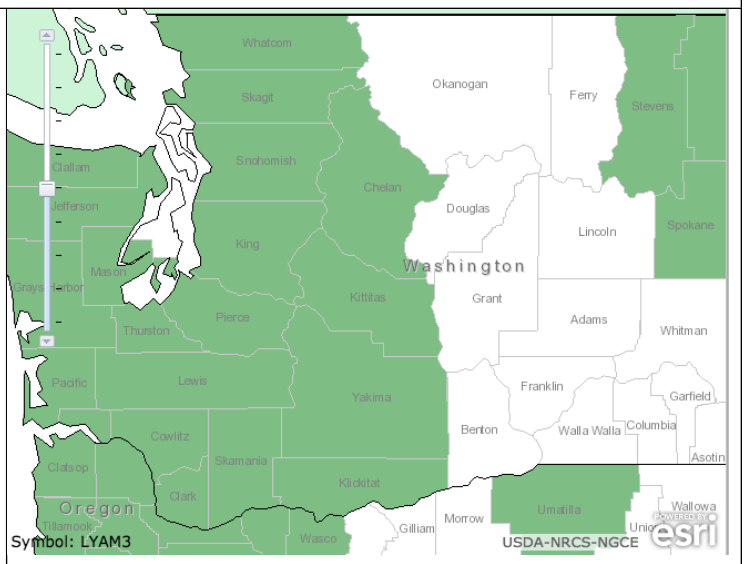


Pacific Northwest Distribution



Source: USDA Plants Database

TAXONOMY	
Plant Family	Areceae
Family Common Name	The Arum family
Scientific Name	*Lysichiton americanus*
Genus	*Lysichiton* Schott
Species	*Lysichiton americanus* Hultén & H. St. John
Common Name	Western skunk cabbage, American skunk cabbage, Yellow skunk cabbage, Swamp lantern
Species Scientific Name	*Lysichiton americanus* Hultén & H. St. John
Scientific Name	*Lysichiton americanus* Hultén & H. St. John Authority -- USDA Plants Database
Varieties	*Lysichiton americanus* Hultén & H. St. John Authority -- USDA Plants Database
Sub-species	N/A -- none listed
Cultivar	N/A -- none listed
Common Synonym(s)	*Lysichiton camtschatcensis* auct. non (L.) Schott Symbol -- LYCA6

Common Name(s)	American skunk cabbage, Western skunk cabbage, Yellow skunk cabbage, Swamp lantern (USDA Plants Database).
Species Code (as per USDA Plants database)	LYAM3
GENERAL INFORMATION	
Geographical range	 Washington State Distribution by county, North American and Pacific Northwest geographical range maps located at top of document (USDA Plants Database).
Ecological distribution	Swamps, low to mid elevation wetlands, alongside freshwater streams, fens, wet meadows (eFloras).
Climate and elevation range	0-1200m elevation range, native to Western North American climates, naturalized in some parts of Britain (iNaturalist).
Local habitat and abundance	Thrives in the shaded Pacific Northwest wet understory of coastal forests and open swamps. Can reproduce quickly through rhizomes, making it invasive in certain ecosystems throughout Europe (eFloras).
Plant strategy type / successional stage	Shade tolerant (however, flowers less effectively in the shade), wetland indicator species, can grow in most soil types (from sandy to clayey soils) and can withstand a large range of pH (acidic to alkaline soils), can be invasive when in non-native ecosystems (Plants For A Future 2012).
Plant characteristics	Perennial hermaphroditic forb, pollinated by insects, produces yellow flowers in April (eFloras).
PROPAGATION DETAILS	

Ecotype	Wetland indicator species. Lives primarily in freshwater wetlands.
Propagation Goal	Seed
Propagation Method	Seed -- transported by small mammals, running water
Propagation Method	Vegetative: (lateral growth of rhizomes -- underground modified stems),
Product Type	Propagation by seed -- best to sow seeds very shortly after ripening on the mother plant in a **container** full of wet humus-rich soil (Plants For a Future 2012).
Product Type	Propagation vegetatively - rhizome division is most successful between mid-autumn to late winter, as the propagules will be able to establish and grow during spring. Multiple divisions can be made from a single plant and planted in **bareroot** form (Plants For a Future 2012).
Stock Type	Forb, herb
Time to Grow	1-2 months from seeding until germination, keep seeds indoors through winter and outplant in early summer (Plants For a Future 2012).
Target Specifications	Height -- up to 1.5 meters tall. Rhizomes can grow up to 5cm in diameter. Flowers are 7-12cm, leaves range from 30-150cm long and 10-70cm wide.
Propagule Collection Instructions	Remove seeds from spadix once they are fully ripened (early-late July depending on the individual plant)
Propagule Processing/Propagule Characteristics	Seeds remain viable in the soil for up to 6 years. Each spadix generally has 100-650 berries, and each berry carries 2 seeds. Seeds are generally 5-11mm long (CABI 2019).
Pre-Planting Propagule Treatments	Seeds can remain viable up to 6 years in the soil after ripening on plant. Seeds should be planted shortly after collection (up to 50 in. apart), and kept in a cold-frame until germination occurs and outplanting is ready (CABI 2019).
Growing Area Preparation / Annual Practices for Perennial Crops	Soil must be nutrient and humus rich, soil must be wet. Can be outplanted after germination in small containers immersed in 3 inches of water (Plants For a Future 2012).

Establishment Phase Details	Keep sown seeds in a cold frame in their containers/pots until signs of germination. If signs of germination show during winter months, keep seeds indoors until the last frost before outplanting (Plants For a Future 2012).
Length of Establishment Phase	1-2 months from seeding until germination (Plants For a Future 2012).
Active Growth Phase	This is a perennial rhizomatous plant, so the plant can grow larger each year and spread through vegetatively (eFloras).
Length of Active Growth Phase	This is a perennial rhizomatous plant, so the plant can grow larger each year and spread through vegetatively. Minimal active growth during winter months (Pojar and McKinnon1994). Individual plants generally live around 20 years (National Wildlife Federation).
Harvesting, Storage and Shipping	Seeds are most viable when planted shortly after collection, as they do not store well (Plants For a Future 2012).
Length of Storage	Generally one season's length -- usually stored indoors during winter before outplanting (Plants For a Future 2012).
Guidelines for Outplanting / Performance on Typical Sites	Plant outdoors in late winter after frost to early spring. Plants will not flower unless established (establishment takes several years) and in partial sun (eFloras).
Other Comments	Invasive in much of Europe so planting is discouraged/ banned in certain regions.
INFORMATION SOURCES	

References	"Flora of North America Vol.22." *Lysichiton Americanus in Flora of North America @ Efloras.org*, EFloras Klingenstein, Frank, and Beate Alberternst. "NOBANIS –Invasive Alien Species Fact Sheet Lysichiton Americanus "Lysichiton Americanus (American Skunk Cabbage)." *Lysichiton Americanus (American Skunk Cabbage)*, Center for Agriculture and Bioscience International, 27 Sept. 2018 "Lysichiton Americanus." *EPPO Bulletin*, John Wiley & Sons, Ltd (10.1111), 30 June 2006 "Lysichiton Americanus Hultén & H. St. John Show All American Skunkcabbage." *Plants Profile for Lysichiton Americanus (American Skunkcabbage)*, United States Department of Agriculture, 29 Apr. 2019 "Lysichiton Americanus - Hult. & St.John." *Pfaf Plant Search*, Plants For a Future Otto, Mark, and Jacob Thornton. "Taxonomy." *Species Profile Browser · Species Profile*, National Biodiversity Data Center Pojar J., McKinnon A.,1994 Plants of the Pacific Northwest: Washington, Oregon, British Columbia and Alaska, B.C. Ministry of Forests and Lone Publishing, Canada "Skunk Cabbage." *National Wildlife Federation*, The National Wildlife Federation "Western Skunk Cabbage (Lysichiton Americanus)."

Other Sources Consulted	“Plant Database.” *Lady Bird Johnson Wildflower Center - The University of Texas at Austin*, The University of Texas at Austin “Skunk Cabbage | Visit Rainier.” *VisitRainier*, Official Site of Mt. Rainier Tourism -- Jeff Brock Studio, 13 Dec. 2018
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