

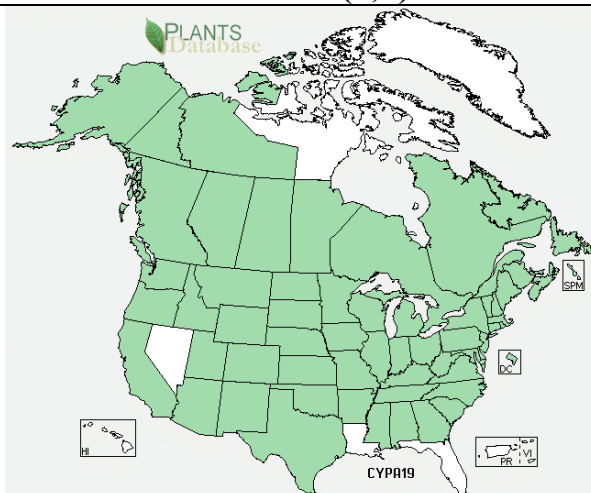
Plant Propagation Protocol for *Cypripedium parviflorum*
ESRM 412 – Native Plant Production



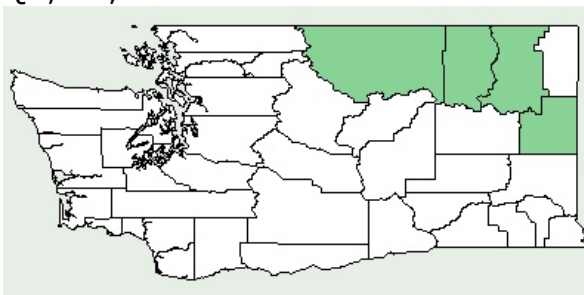
TAXONOMY (4,5)	
Family Names	
Family Scientific Name:	Orchidaceae
Family Common Name:	Orchid Family
Scientific Names	
Genus:	<i>Cypripedium</i>
Species:	<i>parviflorum</i>
Species Authority:	Salisb.
Variety:	<i>Cypripedium calceolus</i> var. <i>parviflorum</i>
Authority for Variety/Sub-species:	(Salisb.) Fern.
Common Synonym:	<i>Cypripedium calceolus</i> L. var. <i>parviflorum</i> (Salisb.) Fernald <i>Cypripedium parviflorum</i> Salisb. var. <i>makasin</i> (Farw.) Sheviak <i>Cypripedium parviflorum</i> Salisb. var. <i>parviflorum</i> <i>Cypripedium parviflorum</i> Salisb. var. <i>pubescens</i> (Willd.) Knight
Common Name(s):	lesser yellow lady's slipper
Species Code (as per USDA Plants database):	CYPA19

GENERAL INFORMATION (2,4)

Geographical range:



USA: AK, AL, AR, AZ, CA, CO, CT, DC, DE, GA, IA, ID, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY
CAN: AB, BC, LB, MB, NB, NF, NS, NT, ON, PE, QC, SK, YT



Ecological distribution:

Sunny places in damp calcareous fens, non-sphagnum bogs, marshes, and meadows.

Climate and elevation range

Large geographic range shows that *C. parviflorum* can tolerate a vast array of climates. Sea level to 2,900m.

Local habitat and abundance; may include commonly associated species

Shady deciduous and mixed woodlands. Commonly associated with oak, ash, and hazelnut woodlands.

Plant strategy type:

Long living perennial

Plant characteristics:

Deciduous Forb/herb 10-80 cm tall

PROPAGATION DETAILS (1,2,3)

Ecotype:

Propagation Goal:

Plant

Propagation Method:

Seed

Product Type:

Container

Stock Type:

Time to Grow:

1-3 years

Target Specifications:

Propagule Collection:	Seeds are collected from ripe capsules after flowering, typically in June.
Propagule Processing/Propagule Characteristics:	Scrape seeds from inside of a ripe capsule. It is imperative to store seeds in a sterile environment until germination. Cleaning with chemical sterilizing agents is not uncommon.
Pre-Planting Propagule Treatments:	
Growing Area Preparation / Annual Practices for Perennial Crops:	Having proper soil media prepared for sowing seed is important for success with <i>C. parviflorum</i> . A mix of 1 part peat or peat substitute, 1 part sterile loam, and 1 part coarse sand is suggested.
Establishment Phase:	It is imperative to monitor seedlings for pests and disease, Since this species seeds are so small there is no food in the seed coat so ensuring there are enough nutrients for the plant is important for survival.
Length of Establishment Phase:	8 weeks
Active Growth Phase:	
Length of Active Growth Phase:	
Hardening Phase:	
Length of Hardening Phase:	
Harvesting, Storage and Shipping:	Once plants reach desired size transplant them to a container and let them continue to grow. <i>C. parviflorum</i> requires little fertilizer, however it requires a larger amount of water.
Length of Storage:	
Guidelines for Outplanting / Performance on Typical Sites:	
Other Comments:	<i>C. parviflorum</i> is one of the easiest orchids to propagate, it is considered an endangered plant in Washington.

INFORMATION SOURCES

References (full citations):	<p>1-Croix, Isobyl la. <i>Orchid Basics: A step-by-step guide to growing and general care</i>. New York: Sterling Publishing Company, Inc, 2000. Print.</p> <p>2-Mergen, Daryl. <i>Cypripedium parviflorum</i> Salisb.: A Conservation Assessment. USDA Forest Service, 2006. Web.</p> <p>3-Seaton, Phillip, Margaret Ramsay. <i>Growing Orchids from Seed</i>. Surrey, UK: Kew, 2005. Print.</p> <p>4-"WTU Herbarium Image Collection - Burk Museum." The Burke Museum. University of Washington. 5 June 2009.</p>
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	<p>5-" PLANTS Profile for <i>Cypripedium parviflorum</i> (lesser yellow lady's slipper) USDA PLANTS." plants.usda.gov. USDA NRCS. 5 June 2009.</p> <p>6-"ITIS Standard Report Page: <i>Cypripedium parviflorum</i>." ITIS Report. ITIS.gov. 6 June 2009</p>
Other Sources Consulted:	<p>Cribb, Phillip. <i>The Genus Cypripedium</i>. Portland, OR: Timber Press, 1999. Print.</p> <p>Tullock, John. <i>Growing Hardy Orchids</i>. Portland, OR: Timber Press, 2005. Print.</p>
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