

Plant Propagation Protocol for *Epilobium pygmaeum*

ESRM 412 – Native Plant Production

Protocol URL: <https://courses.washington.edu/esrm412/protocols/EPPY4.pdf>

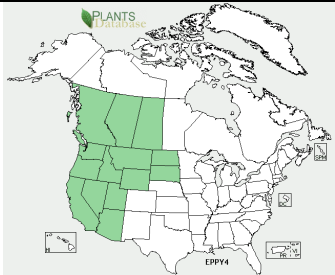
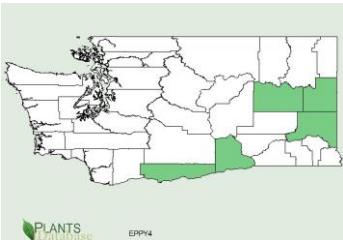


Epilobium pygmaeum(Speg.) Hoch & P.H. Raven^[13]



Epilobium pygmaeum(Speg.) Hoch & P.H. Raven seeds^[14]

TAXONOMY	
Plant Family	
Scientific Name	Onagraceae ^[1]
Common Name	Willowherb family ^[1]
Species Scientific Name	
Scientific Name	<i>Epilobium pygmaeum</i> (Speg.) Hoch & P.H. Raven ^[1]
Varieties	<i>Boisduvalia glabella</i> (Nutt.) Walp var. <i>camperstris</i> (Jeps.) Jeps. ^[3]
Sub-species	N/A ^[2]
Cultivar	
Common Synonym(s)	<i>Boisduvalia glabella</i> (Nutt.) Walp. <i>Boisduvalia glabella</i> (Nutt.) Walp var. <i>camperstris</i> (Jeps.) Jeps. <i>Epilobium campestre</i> (Jeps.) Hoch & W.L. Wagner <i>Oenothera glabella</i> Nutt. <i>Boisduvalia pygmaea</i> (Speg.) Munz ^[3]
Common Name(s)	Smooth willowweed ^[3] Smooth willowherb ^[4] Smooth Boisduvalia ^[3] Smooth spike-primrose ^[3]
Species Code (as per USDA Plants database)	EPPY4 ^[4]
GENERAL INFORMATION	

Geographical range	  North America^[4] Washington^[4]
Ecological distribution	Prairies, meadows, swamps, marsh, or any other nutrient rich soils ^[5]
Climate and elevation range	Has been found to grow in a range of elevation from 0-3500 ft. and is typically found in areas of moist to dry clay soils such as prairie mud flats, slough bottoms, and shores. ^{[6][7]}
Local habitat and abundance	Has been found in areas ranging from those fully exposed to the sun in a dry vernal ridge top pond with other plants including <i>Psilocarphus brevissimus</i> , <i>Allium nevii</i> , <i>Polygonum aviculare</i> , <i>Pyrrocoma carthamoides</i> . To shallow slough waters and along its bank in relative small populations. ^[6]
Plant strategy type / successional stage	Considered to be a rare herb on its way to extinction that colonizes well in moist to drying, bare, clayey mud flats in prairie, slough bottoms, and along shores. ^{[3][6]}
Plant characteristics	Annual herb with latex stems ranging from 10-30cm in height. With opposite, linear leaves that are 2-8cm long and produce a bell-shaped cup yellow flower with ciliate teeth in June to July. ^[5]
PROPAGATION DETAILS	
Ecotype	N/A ^{[8][7][5]}
Propagation	Seeds ^[7]
Propagation Method	Seeds ^[7]
Product Type	Grown from seeds in large containers ^{[7][10]}
Stock Type	Seeds ^[7]
Time to Grow	N/A ^{[5][8]}
Target Specifications	Mature height ranges from 10-30cm with purple and pink flowers blooming from June-July. ^[5]
Propagule Collection Instructions	N/A ^{[12][7][5]}
Propagule Processing/Propagule Characteristics	N/A ^{[12][7][5]}
Pre-Planting Propagule Treatments	N/A ^{[8][5]}
Growing Area Preparation / Annual Practices for Perennial Crops	N/A ^{[8][7][5]}
Establishment Phase Details	N/A ^{[8][7][5]}
Length of Establishment Phase	N/A ^{[8][7][5]}
Active Growth Phase	N/A ^{[8][7][5]}

Length of Active Growth Phase	N/A ^{[8][7][15]}
Hardening Phase	N/A ^{[8][7][15]}
Length of Hardening Phase	N/A ^{[8][7][15]}
Harvesting, Storage and Shipping	N/A ^{[8][7][15]}
Length of Storage	N/A ^{[8][7][15]}
Guidelines for Outplanting / Performance on Typical Sites	N/A ^{[8][7][15]}
Other Comments	This species has been increasing in rarity and coming close to extinction leaving very little information on seed propagation and storage. ^{[8][11]}
INFORMATION SOURCES	
References	See below
Other Sources Consulted	
Protocol Author	Travis Pederson
Date Protocol Created or Updated	05/11/2014

[1] USDA Plant Database, <http://plants.usda.gov/core/profile?symbol=EPPY4>

[2] Taxon profile: willowherb, <http://www.biolib.cz/en/taxontree/id40156/>

[3] University of Saskatchewan: *Epilobium pygmaeum*
http://www.usask.ca/biology/rareplants_sk/root/htm/en/plants-description/epilobium-pygmaeum/e-epilobium-pygmaeum.php

[4] USDA Plant Database, <http://plants.usda.gov/core/profile?symbol=EPPY4>

[5] Rare Vascular Plants of Alberta by the Alberta National Plant Council, ed. Kershaw, L., University of Alberta Press ISBN 0-888-64319-5 <http://nativeplants.evergreen.ca/search/view-plant.php?ID=05803>

[6] Brian Klinkenberg (2013), E-Flora BC: Electronic Atlas (*Epilobium pygmaeum*)
<http://linnet.geog.ubc.ca/Atlas/Atlas.aspx?sciname=Epilobium%20pygmaeum>

[7] Herbarium Database: *Epilobium pygmaeum* (Aug. 2013)
<http://biology.burke.washington.edu/herbarium/collections/results.php?Genus=Epilobium&Species=pygmaeum&State=Washington&SourcePage=search.php&IncludeSynonyms=Y&SortBy=Year&SortOrder=DESC>

[8] Bill Arrowsmith (summer 2010) Marsh mailing: Southwest Corner gets a New Face
https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&uact=8&ved=0CFYQFjAF&url=http%3A%2F%2Ffriendsofmadronamarsh.com%2Fj%2Findex.php%3Foption%3Dcom_content%26view%3Darticle%26id%3D85%26Itemid%3D67%26dir%3DD%25A%255CHosting%255C2398429%255Chtml%255Cj%255Cimages%252Ffomm%255Cmarsh%26download_file%3DD%25A%255CHosting%255C2398429%255Chtml%255Cj%255Cimages%252Ffomm%255Cmarsh%255Cmm-2010-3-summer.pdf&ei=3wZ5U4b4MoGJogTDtYDQBw&usg=AFQjCNF1nGkNcFRZe7xyZgLnFs6xvVOIvg&sig2=OJu67v6p05CEor8vyHXBHw&bvm=bv.66917471,d.cGU

[9] Native seed network: *Epilobium pygmaeum* Deetails,
http://www.nativeseednetwork.org/viewtaxon?taxon_code=EPPY4

[10] *Epilobium pygmaeum* Plant index (2011) <http://www.gardening.eu/arc/plants/Aquatic-plants/Boisduvalia-pygmaea-Speg.-Munz/25469/>

[12] Native seed network: *Epilobium pygmaeum* Deetails,
http://www.nativeseednetwork.org/viewtaxon?taxon_code=EPPY4

[13] Picture of *Epilobium pygmaeum* plant

<http://luirig.altervista.org/schedenam/fnam.php?taxon=Epilobium+pygmaeum>

[14] Picture of *Epilobium pygmaeum* seeds <http://luirig.altervista.org/cpm/albums/bot-hawaii13/05951-Epilobium-billardierianum-subsp--cinereum.jpg>