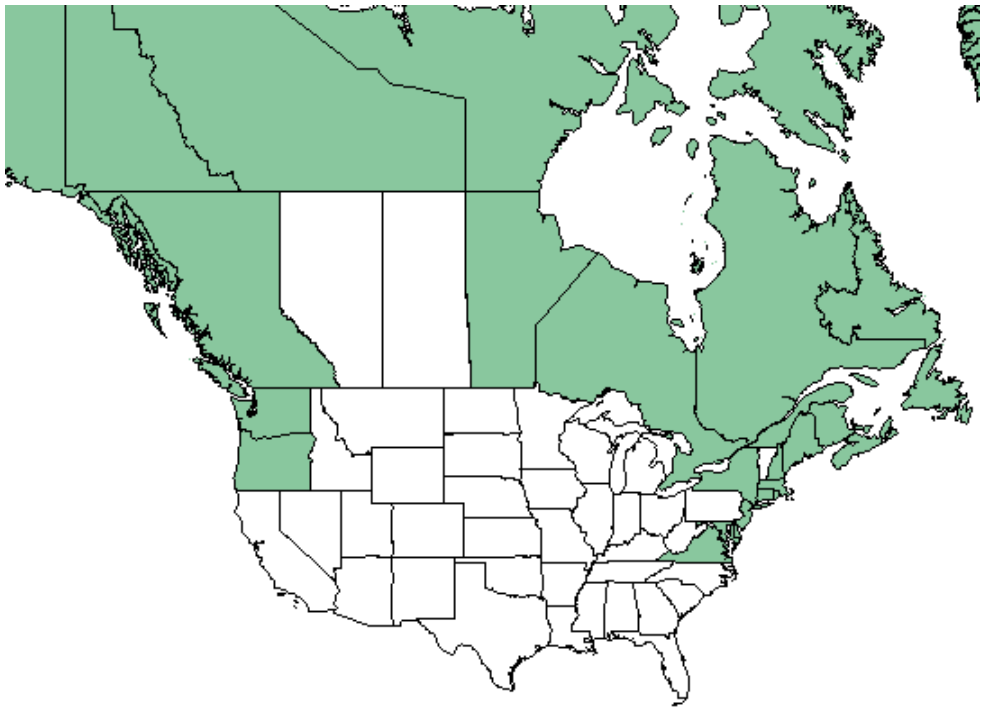
Plant Propagation Protocol for *[Honckenya peploides]*
ESRM 412 – Native Plant Production
Protocol URL: https://courses.washington.edu/esrm412/protocols/HOPE.pdf



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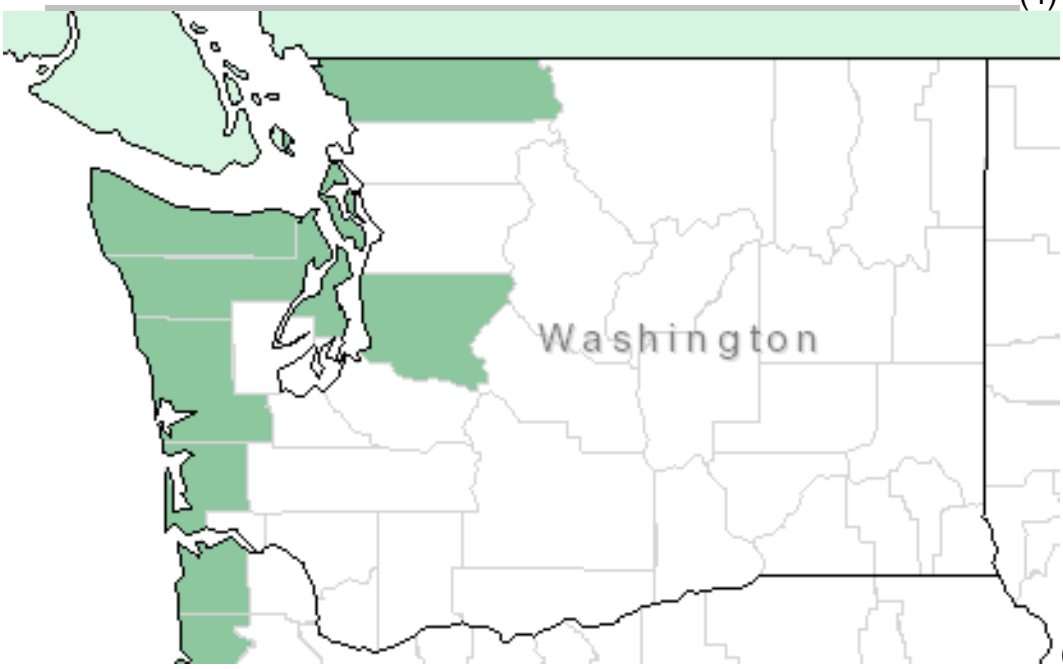

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TAXONOMY	
Plant Family	
Scientific Name	Caryophyllaceae
Common Name	Pink
Species Scientific Name	
Scientific Name	*Honckenya peploides* (L. Ehrh)
Varieties	*Honckenya peploides* (L.) Ehrh. var *major* (Hook.) Abrams (4) *Honckenya peploides* (L.) Ehrh var *robusta* (Fernald) Hulten (4)
Sub-species	*Honckenya peploides* (L). Ehrh. ssp *diffusa* (Hornem.) Hulten (4) *Honckenya peploides* (L.) Ehrh ssp *major* (Hook.) Hulten (4) *Honckenya peploides* (L.) Ehrh ssp *peploides* (L.) Ehrh. (4) *Honckenya peploides* (L.) Ehrh. ssp *robusta* (Fernald) House (4)
Common Name(s)	Seaside sandplant, sea sandwort
Species Code (as per USDA Plants database)	HOPE
GENERAL INFORMATION	
Geographical range	See maps at the top of page
Ecological distribution	Grows on rocky and shingly shorelines (1) Moist sandy beaches and grassy shorelines in the lowland zone; common along the coast; N to AK, YT and NT and S to NW OR (5)
Climate and elevation range	USDA hardiness zone 4-8 (2) Needs full sun and sandy soil (2)
Local habitat and abundance	typically found on the upper beach, at the foot of the foredune, forming low mounds (approximately 25–50 cm high (3) Grows near *Leymus mollis* (3) Grows with sea pea and lyme grass (1)

Plant strategy type / successional	Salt tolerant halophyte (1) Pioneer, colonizes the upper beach where it forms small mounds called embryo dunes. Its leaves are somewhat fleshy, wide at the base, and form an acute angle with the stem. The shape and the orientation of the leaves facilitate sand accumulation. As the plant becomes buried the stem develops numerous adventitious roots and, thus, becomes a subvertical rhizome (3)
Plant characteristics	Perennial herb. With subterraneous runners. (1) Height: 5–15 cm (2–6 in.). Runners up to 30 cm (12 in.) long. Stem fleshy. Forming mat-like stands. (1) Flower: Usually dioecious (pistillate and staminate flowers on different plants). Corolla regular (actinomorphic), white, 6–10 mm (0.24–0.4 in.) broad; petals 5, staminate flower 3.5–6 mm (0.14–0.24 in.) long and longer than calyx, pistillate flower 1.5–4 mm (0.06–0.16 in.) long and shorter than calyx. Sepals 5, green. Stamens several. Gynoecium syncarpous, with 3 styles. Inflorescence a 1–6-flowered terminal cyme, solitary flowers axillary. (1) Leaves: Opposite, stalkless. Blade ovate–elliptic, tapered, with entire margins, glabrous, fleshy, dark–lime green. (1) Flowers from June- August (1) Fruit: Spherical, 3-valved, 6–10 mm (0.24–0.4 in.) long capsule. (1)
PROPAGATION DETAILS	
Propagation	Plants
Propagation Method	Seed
Product Type	Containers
Time to Grow	1 year (3)
Target Specifications	Make sure smaller specimens are rooting well before outplanting (3)

Propagule Collection Instructions	Seeds ripen in September (3)
Propagule Processing/Propagule Characteristics	Seeds were viable but with decreased germination rates after 6 years of storage under low temps and humidity (5). Best germination occurs with less than 1 year old seed (5)
Pre-Planting Propagule Treatments)	Seeds that were stratified in 2C in damp sand for 16 weeks had increased germ. (5) If collecting seeds sterilize with NaHOCl at 1% (5) Seeds placed in a 12hr light/ dark cycle germinated significantly better than seeds germinated in 24hr dark (5)
Growing Area Preparation / Annual Practices for Perennial Crops)	Cold frame works well for seedlings, outdoor beds are also suitable (2).
Establishment Phase Details)	Depends on stratification and storage period ranges from 2-36 weeks (6)
Length of Establishment Phase	16 weeks (5)
Other Comments)	This plant is a federally listed species under the Endangered Species Act, and is a wetland indicator species (1)
INFORMATION SOURCES	
References	
Protocol Author	Melissa Rienstra
Date Protocol Created or Updated	5/19/2015

Refrences:

1) "Sea Sandwort." *Sea Sandwort, Honckenya Peploides*. Nature Gate, n.d. Web. 17 May 2015. <http://www.luontoportti.com/suomi/en/kukkakasvit/sea-sandwort>.

2) "Honckenya Peploides - (L.)Ehrh." *Plants for a Future*. N.p., n.d. Web. 17 May 2015. <http://www.pfaf.org/user/Plant.aspx?LatinName=Honckenya%2Bpeploides>.

3) FACTORS RESPONSIBLE FOR *HONCKENYA PEPLOIDES* (CARYOPHYLLACEAE) AND *LEYMUS MOLLIS* (POACEAE) SPATIAL SEGREGATION ON SUBARCTIC COASTAL DUNES, Gagne J. Houle G., American Journal of Botany 89(3): 479-485. 2002.

4) "Plants Profile for Honckenya Peploides (seaside Sandplant)." *USDA Natural Resources Conservation Service*. USDA, n.d. Web. 17 May 2015. <http://plants.usda.gov/core/profile?symbol=HOPE>.

5) In Klinkenberg, Brian. (Editor) 2014. *E-Flora BC: Electronic Atlas of the Plants of British Columbia* (eflora.bc.ca). Labfor Advanced Spatial Analysis, Department of Geography. University of British Columbia Vancouver

6) Germination Characteristics of Shingle Beach Species, Effects of Seed Ageing and their Implications for Vegetation Restoration

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