

Plant Propagation Protocol for *Impatiens capensis*

ESRM 412 – Native Plant Production

URL: <https://courses.washington.edu/esrm412/protocols/2021/IMCA.pdf>



Image Credits: Ben Legler¹

TAXONOMY	
Plant Family	
Scientific Name	<i>Balsaminaceae</i>
Common Name	Touch-me-not family
Species Scientific Name	
Scientific Name	<i>Impatiens capensis</i> Meerb.
Varieties	N/A
Sub-species	N/A
Cultivar	N/A
Common Synonym(s)	<i>I. biflora</i> Walter <i>I. fulva</i> Nutt. <i>I. nortonii</i> Rydb. <i>I. noli-tangere</i> L. ssp. <i>biflora</i> (Walter) Hultén
Common Name(s)	Spotted touch-me-not, jewelweed, spotted jewelweed, orange balsam, orange jewelweed ⁵
Species Code (as per USDA Plants database)	IMCA

GENERAL INFORMATION

Geographical range

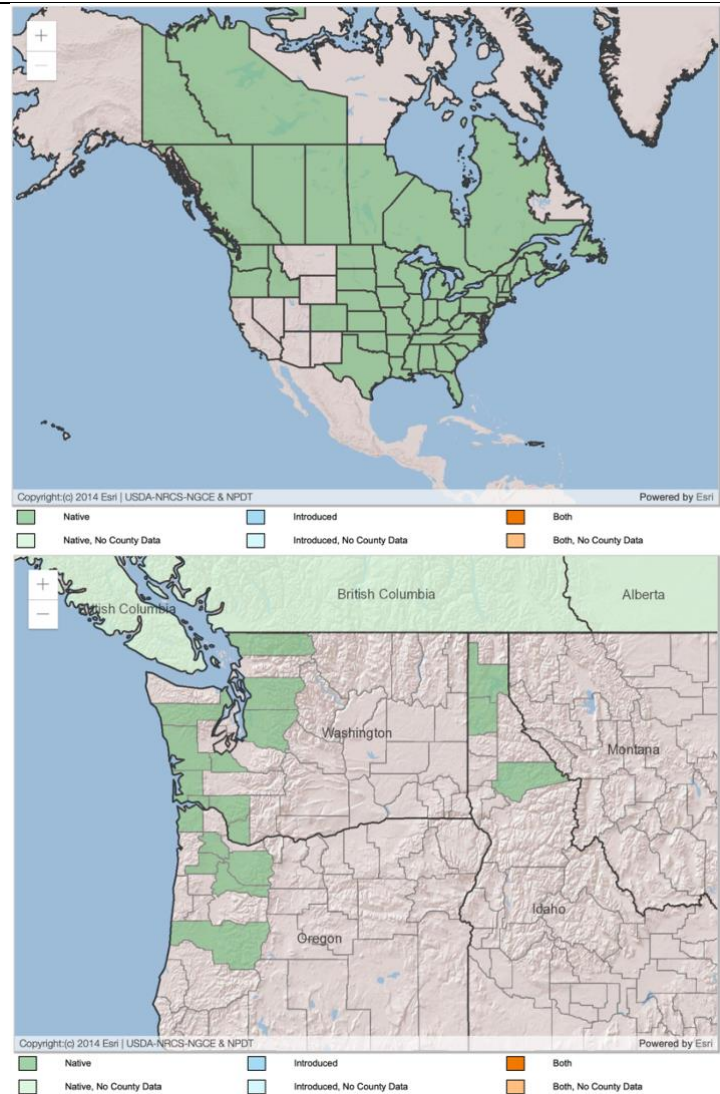


Image Credit: USDA PLANTS Database⁷

Native to eastern Canada and the United States.
Introduced to Washington, Oregon, and California.⁹

Ecological distribution

Moist and shady areas such as wetlands, low woodlands, bogs, marshes, and disturbed areas such as road cuts.⁴


Climate and elevation range

USDA hardiness zones 2-11 with annual temperatures ranging from -40°F to 40°F⁸

In Washington, it grows primarily west of the cascades in low elevations.¹⁰

Local habitat and abundance

In Washington, it is the most common spurred *Impatiens* species. Forms dense thickets in shady

	wetlands. ⁹ It can hybridize with the native <i>I. ecornuta</i> . ¹⁰
Plant strategy type / successional stage	Competes with native and non-native species in Washington and is considered a class C noxious weed. ¹⁰
Plant characteristics	<p>Annual forb that grows between 2 to 5 feet tall and often forms large, dense thickets. Bluish-green leaves are alternate, oval-shaped, with toothed margins and range from 2.5 to 5 inches in length.⁴</p> <p>Bright orange-yellow flowers ~ 1 inch long with red-orange spots. The two-lipped, solitary flowers appear to have 3 petals, but consist of 5. Petals form a cornucopia shape with a nectar spur at the back.^{4,5}</p> <p>Fruits are cylindrical or club-shaped capsules ~ 1 inch long that expel seeds when touched. Mature seeds are black in color.¹⁰</p>  <p style="text-align: center;">Image Credit: G.D. Carr¹</p>

PROPAGATION DETAILS

Ecotype	N/A
Propagation Goal	Plants

Propagation Method	Seed
Product Type	Container (plug)
Stock Type	
Time to Grow	1-3 years depending on stratification length ⁶
Target Specifications	Information unavailable
Propagule Collection Instructions	Seeds are harvested by hand from native plants in the eastern central Upper Peninsula of the U.S. Harvest during August to October. ⁶
Propagule Processing/Propagule Characteristics	40,000-60,000 seeds per ounce. ² Place seeds in open paper bags or open containers for 1 to 2 weeks to dry. Cleaning is not necessary. ⁶
Pre-Planting Propagule Treatments	Stratification: place seeds in Ziploc bag with equal amount of vermiculite or perlite. ^{6, 10} Add enough water to moisten mixture, but not completely saturate. Place in fridge or other cold storage at 42°F for at least 2 months and up to 3 years. ⁶
Growing Area Preparation / Annual Practices for Perennial Crops	14" x 8.5" trays with 24 cells that are 2" in diameter and 4" deep. Growing media is sterile seeding mix with vermiculite and peat moss. Sow 3 seeds in each cell and cover with a thin layer of soil. Germination is unpredictable, so sowing year-round is recommended to increase number of seedlings. ⁶
Establishment Phase Details	Greenhouse temperature settings vary depending on when seeds are sown. ⁶ <ul style="list-style-type: none"> • January to August: 65°F all day, ambient temperatures may reach 100°F • September to December: 55°F all day, ambient temperatures may reach 75°F <p>No artificial light needed if trays are placed on the south side of the greenhouse. Water with mist or light hose setting. Keep soil damp during germination.⁶</p>
Length of Establishment Phase	14 to 21 days ²
Active Growth Phase	Transplant seedlings from trays into larger containers within 7 to 10 days of germination. ² Move plants to northside of the greenhouse where temperatures are cooler or set greenhouse temperatures to 60-65°F. ^{2,6} Allow soil to dry between watering. Fertilizer is not needed but to produce stocky plants, use ¼ strength generic houseplant fertilizers. ^{2,6}
Length of Active Growth Phase	Information unavailable
Hardening Phase	Move mature plants into a cold frame during early to late spring. Cover plants with shade cloth to prevent scorching. After frost, leave plants outside and water less frequently. ⁶ Gradually expose to a few hours of sun each day before outplanting. ²

Length of Hardening Phase	7 to 10 days ²
Harvesting, Storage and Shipping	Outplant from May to October. Flats not planted during the summer can be stored in the greenhouse for another season. ⁶
Length of Storage	Information unavailable
Guidelines for Outplanting / Performance on Typical Sites	Once established, this annual species will self-seed and spread. Observe changes in percent cover as it should increase. ^{3,5} Flowers emerge during the first summer. ⁹
Other Comments	<i>Impatiens capensis</i> was first recorded in Washington in 1950 and added to the State Noxious Weed Monitor list in 2011. ⁹ It was previously believed to be a native plant, but recent studies have determined it to be a non-native invasive species in WA. ^{9, 11}
INFORMATION SOURCES	
References	See below
Other Sources Consulted	See below
Protocol Author	Thuy Luu
Date Protocol Created or Updated	05/26/20

References:

- ¹Giblin, D., & Legler, B. (n.d.). *Impatiens capensis*. Burke Herbarium Image Collection. <https://biology.burke.washington.edu/herbarium/imagecollection/taxon.php?Taxon=Impatiens+capensis>.
- ²Jauron, R. (1996, February 9). *Starting Impatiens from Seeds*. Horticulture and Home Pest News. <https://hortnews.extension.iastate.edu/1996/2-9-1996/impa.html>.
- ³Karriker, K. (n.d.). *Plant of the Week: Jewelweed (Impatiens capensis)*. Forest Service Shield. https://www.fs.fed.us/wildflowers/plant-of-the-week/impatiens_capensis.shtml.
- ⁴Mahr, S. (n.d.). *Jewelweed*. Wisconsin Horticulture. <https://hort.extension.wisc.edu/articles/jewelweed-impatiens-capensis/>.
- ⁵Missouri Botanical Garden. (n.d.). *Impatiens capensis* - Plant Finder. <http://www.missouribotanicalgarden.org/PlantFinder/PlantFinderDetails.aspx?kempercode=k490>
- ⁶Schultz, J., Beyer, P., & William, J. (2001). *Propagation protocol for production of Container (plug) Impatiens capensis*. Reforestation, Nurseries and Genetics Resources. <https://nnpn.rngr.net/renderNPNProtocolDetails?selectedProtocolIds=balsaminaceae-impatiens-1492&referer=wildflower>.
- ⁷USDA. (n.d.). *Impatiens capensis* Meerb. United States Department of Agriculture Natural Resources Conservation Service. <https://plants.usda.gov/home/plantProfile?symbol=IMCA>

⁸Virginia State University. (2020, October 1). *Impatiens capensis (Orange or Spotted Jewelweed)*. Master Gardeners of Northern Virginia. <https://mgnv.org/plants/annuals-corms-and-bulbs/impatiens-capensis-orange-or-spotted-jewelweed/>.

⁹Washington State Noxious Weed Control Board. (n.d.). *DRAFT WRITTEN FINDINGS OF THE WASHINGTON STATE NOXIOUS WEED CONTROL BOARD Proposed Class C Noxious Weed Listing*. https://www.nwcb.wa.gov/pdfs/Impatiens_capensis_draft_WF.pdf.

¹⁰Washington State Noxious Weed Control Board. (n.d.). *Spotted Jewelweed* . <https://www.nwcb.wa.gov/weeds/spotted-jewelweed>.

¹¹Zika, P. F. (2006). The status of *Impatiens capensis* (Balsaminaceae) on the Pacific Northwest coast. *The Journal of the Torrey Botanical Society*, 133(4), 593–600. [https://doi.org/10.3159/1095-5674\(2006\)133\[593:tsoicb\]2.0.co;2](https://doi.org/10.3159/1095-5674(2006)133[593:tsoicb]2.0.co;2)

Other Sources Consulted:

Arkansas Native Plant Society. (2015, July 31). *Know Your Natives – Spotted Jewelweed*. ANPS Blog. <https://anps.org/2015/07/31/know-your-natives-spotted-jewelweed/>.

Nelson, S. (2019). BWSR Featured Plant: Spotted Jewelweed. Minnesota Board of Water and Soil Resources.

Plants for a Future. (n.d.). *Impatiens capensis - Meerb.* Pfaf Plant Search. <https://pfaf.org/user/Plant.aspx?LatinName=Impatiens%2Bcapensis>.