Watercress

Nasturtium officinale W.T. Aiton

Taxonomic Classification

Domain: *Eukaryotes*
Kingdom: *Plantae*
Subkingdom: *Tracheobionta*
Super Division: *Spermatophyta*
Phylum/Division: *Magnoliophyta*
Class: *Magnoliopsida*
Order: *Capparales*
Family: *Brassicaceae*
Genus: *Nasturtium*
Species: *officinale*
[1]

[2] Leaves and flower

[3]

[4]

Botanical Description

Plants are submersed or emergent along water. Stems succulent 0.3 – 10 cm long (or more) and smooth. Leaves 1 – 20 cm long with 2 – 4 lobes, the terminal lobe the longest, leaf sessile (attached to stem without stalk), sometimes clasping the stem. Pedicels (flower stalks) 5 – 13 mm long, ascending, smooth or with small fine hairs. Flowers with sepals 2 – 3 mm long, with green or white tips, hairless; petals 3 – 4.7 mm long, white, sometimes (rarely) with purplish veins, oblanceolate (having an oval narrow shape with a pointed end at the base), style (stigma stalk) 0.7 – 1.2 mm long. Fruit siliques (long, narrow seed pod) 10 – 18 mm long and 1.8 – 2.4 mm wide [5].

Identification Tips

Barbarea verna, commonly known as landcress, is easy to confuse with watercress. It is a close relative and they both have pinnately compound, lobed leaves and white flowers. However, while water cress is a semi-aquatic plant, land cress is typically found in moist but well draining soil. It also has a skinnier stem than watercress and it's flavor is much more delicate, rather than pungent and peppery.

Fun Fact!

Watercress has been labeled a super food! It contains powerful antioxidants, and is a substantial source of many nutrients including vitamins K and C, folic acid, calcium, phosphorus, iron, and fiber, and other phytonutrients [6]. Disclaimer: only cultivate and eat watercress that originates from a clean water source.

[7] Flowers

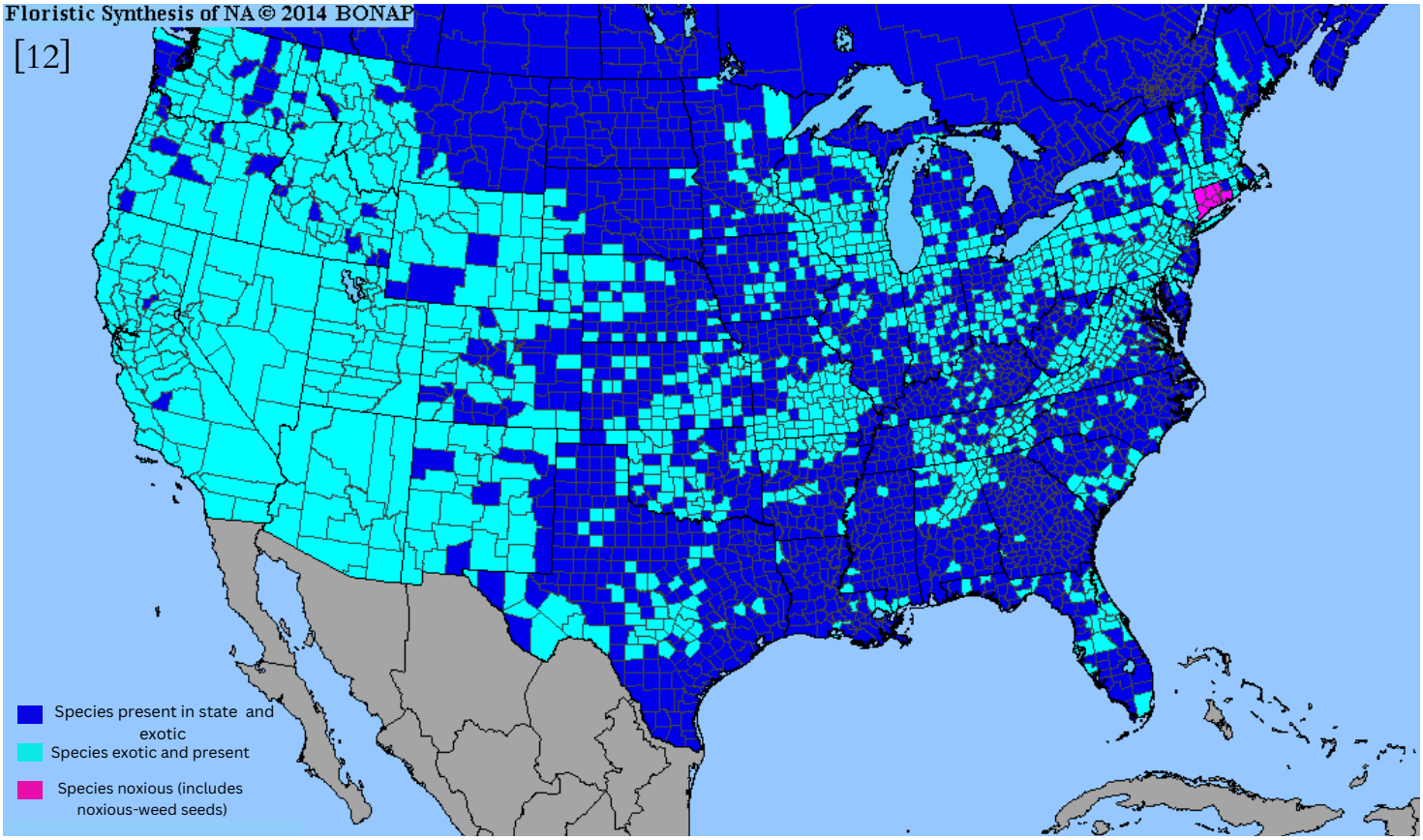
[8] leaves

[9] Siliques

Ethnobotanical and Other Uses

Watercress is often used in salads as a green as well as a garnish for meats and other dishes due to it's pungent, peppery flavor [10]. Watercress also has many medicinal uses as well. It can be used to treat gout, congestion, headaches, eczema and dermatitis, canker sores and mouth pain, anemia, rickets, cardiac disease, poor eyesight, and diminished lactation. It contains photoprotection for the human skin, by using lutein and zeaxanthin to reduce age-related degeneration and possibly the risk of skin cancer [6]. Recent studies show that watercress is a powerful anticarcinogenic agent, by decreasing damage to DNA and possible modulation of antioxidant status by increasing carotenoid concentrations, both of which reduce cancer risks [11].

Habitat Range


Floristic Synthesis of NA © 2014 BONAP
[12]
Species present in state and exotic
Species exotic and present
Species noxious (includes noxious-weed seeds)


[8] Watercress habit in Vineyard

Conservation Status

Watercress is an established, naturalized species!

Plant Ecology

Watercress is usually absent from stagnant waters as it prefers cold, alkaline-rich, running water. It can be found in streams, marshes, spring runs, and lake margins. Watercress takes root in gravel-like sediment. It is considered an introduced species in North America. However, here in the US, it is also a noxious, invasive plant [13].

References:

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Database, Gainesville, FL, https://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=229, Revision Date: 7/30/2019

Information collated by Sarah Daley under the direction of Dr. Ashley N. Egan in collaboration with UVU's summer 2023 BOT 2050 and fall 2023 BOT 4300 classes and through the UVU Excelerate Program.