Bryony

Bryonia alba L.

POISONOUS

Taxonomic Classification

Domain: *Eukaryotes*
Kingdom: *Plantae*
Subkingdom: *Tracheobionta*
Super Division: *Spermatophyta*
Phylum/Division: *Magnoliophyta*
Class: *Magnoliopsida*
Order: *Violales*
Family: *Cucurbitaceae*
Genus: *Bryonia*
Species: *alba* [1]


[2]


[3]

[4]

Botanical Description

Plants are a smooth to hairy, perennial vine 1- 2 meters long that can be either dioecious (plant either has male or female organs) or monoecious (plant has both male or female reproductive organs). Leaf blades 3 - 10 cm long that are cordate (heart shaped) to triangular ovate (egg shaped) with 5 - 7 lobes. Staminate (unisexual, only bearing male stamens) flowers 7 - 15 in racemes (clusters) with peduncles (flower stalks) up to 20 mm long. Pistillate (unisexual, only bearing female pistils) flowers are corymbiform (flat, umbrella-like clusters) on shorter peduncles on lower nodes. Calyx lobes 1.5 - 2 mm long. Corolla (petals of flower) about 4 - 5 mm long and color is bluish yellow or yellowish with green nerves. Fruit is a black, globose (globe-shaped) berry that is 7 - 8 mm thick. Disclaimer: fruits and all plant parts are poisonous and can be deadly.

[5]

Identification Tips

Distinguishing characteristics to help identify bryony include it's vining form and large, lobed leaves are lightly toothed. Each leaf has an opposing twirling tendril that helps it climb. It's flowers, both male and female, are born separately on the same plant. Green berries will appear after pollination under flowers then turn black.

Fun Fact!

Bryony alba has a history of folk and veterinarian uses in Europe where it is native. It was used to bless bouquets on Assumption day (anniversary of battle of Warsaw in 1920) in Poland. It was also a symbol of love and courtship in German and Polish folklore. For veterinary uses, it was known to be given to cows, sheep, pigs, and goats to treat illnesses of all kinds [6]. However, it has been shown to be toxic and deadly to humans - so do not eat any part!

[7] Pollinated green berries

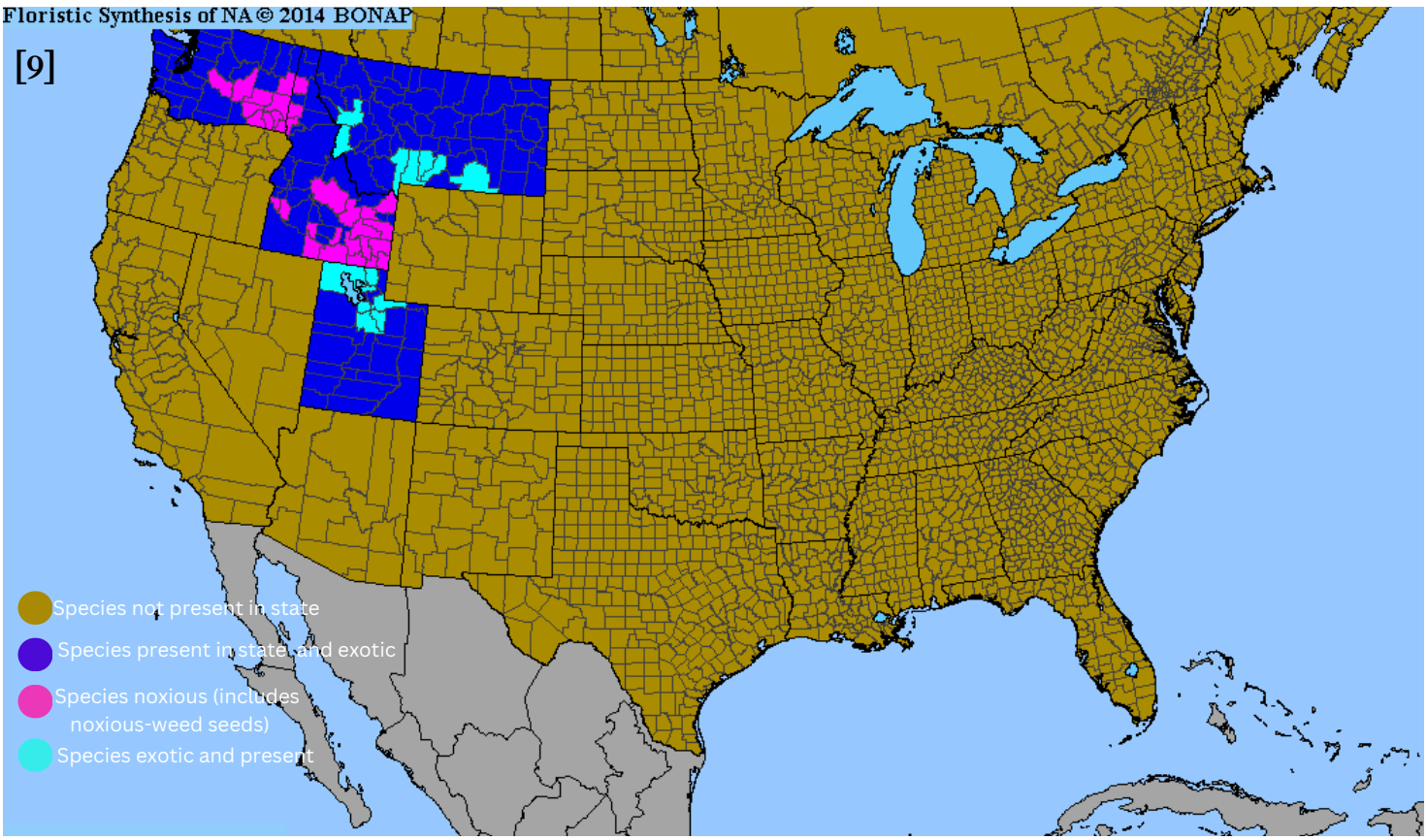
[3] Tendril

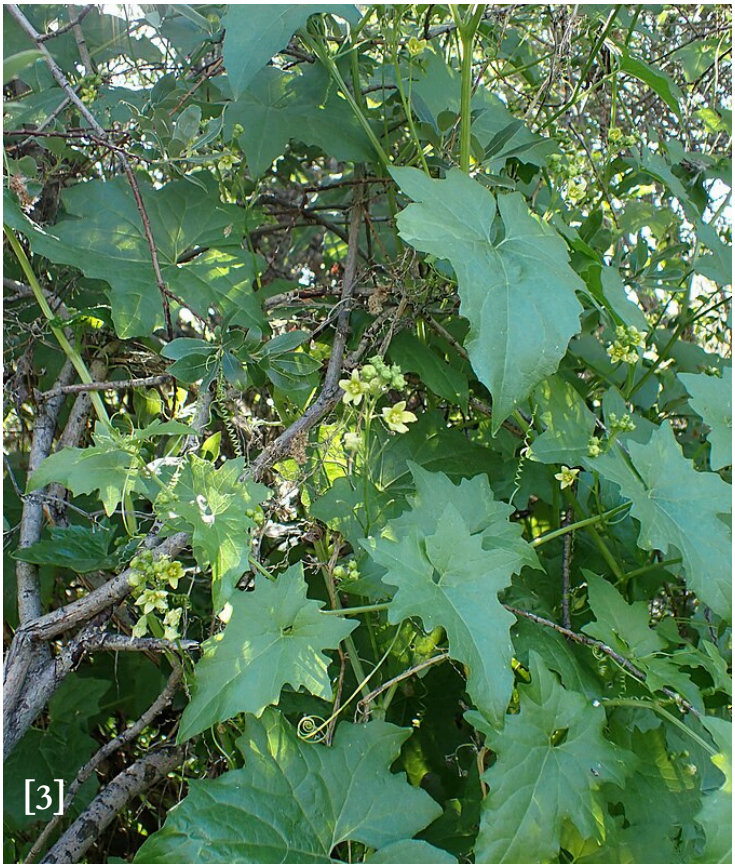
[8] Mature black berries

Ethnobotanical and Other Uses

Bryony had a number of uses in early herbal medicine across Europe, some more legitimate than others. For a time, it was believed that wearing the plant around one's neck prevented epileptic episodes (no studies have ever confirmed bryony as a remedy for epilepsy). More consistent uses included using the root to treat parasitic worms or use for laxative, aches and sores, pneumonia, inflammation, or to treat gout. Nowadays, a tincture (given in small doses) is made to relieve joint and muscle pain, coughs and colds of a feverish and bronchial nature, or as a diuretic [6]. However, Bryony has been determined to be highly toxic to humans, both the berries and the root, due to presence of cucurbitan. It is not recommended to use this for any human medical or homeopathic use.

Habitat Range




[3]


[2]

Conservation Status

Bryonia alba is considered a secure species, sometimes considered a noxious weed where introduced in the United States.

Plant Ecology

Bryony is native to Europe and Asia. In Utah, it is escaped from cultivation and established in riparian areas (along fence rows or climbing on other plants) from 1470 to 1870m [5]. It can also be found in irrigation ditches, moist slopes, stream terraces, and moist sites. Birds are the most common dispersal mechanism for this plant, as the root is a tuberous tap root. Flowering June to August [10].

References:

[1] *Bryonia alba L.* USDA plants database. (n.d.-a). https://plants.usda.gov/home/plantProfile?symbol=BRAL4

[2] Baldonado , G. (n.d.). *Bryony plant*. photograph, Vineyard.

[3] Lavin, M. (2022). *White bryony growing on two willow species, Salix boothii (Booth willow) and Salix lutea (yellow willow) in the Indreland Audubon Wetland Preserve*. photograph, Bozeman, Montana.

[4] Hamilton , E. (1852). *The flora homoeopathica : or, illustrations and descriptions of the medicinal plants used as homoeopathic remedies* Missouri Botanical Garden, Peter H. Raven Library.

[5] Welsh, S. L., Atwood, N. D., Goodrich, S., & Higgins, L. C. (2018). *A Utah flora* (5th, revised 2015 ed.). Marcus E. Jones Endowment Fund Monte L. Bean Life Science Museum Stanley L. Welsh Herbarium Brigham Young University.

[6] Kujawska, M., & Svanberg, I. (2019). From medicinal plant to noxious weed: Bryonia alba L. (Cucurbitaceae) in northern and eastern Europe. Journal of ethnobiology and ethnomedicine, 15(1), 22. https://doi.org/10.1186/s13002-019-0303-6

[7] Lefnaer, S. (2018). *Bryonia alba Inflorescence.* photograph, north of Grafensulz, district Mistelbach, Lower Austria.

[8] Samanek, J. (2007). *White bryony Bryonia alba fruit: small black berries with leaves*. photograph, Czech Republic.

[9] Kartesz, J.T., The Biota of North America Program (BONAP). 2015. Taxonomic Data Center. (http://www.bonap.net/tdc). Chapel Hill, N.C. [maps generated from Kartesz, J.T. 2015. Floristic Synthesis of North America, Version 1.0. Biota of North America Program (BONAP). (in press)

[10] Nesom, G. L. (2020, November 5). *Bryonia Alba. Bryonia alba* - FNA. http://floranorthamerica.org/Bryonia_alba

---

Information collated by Sarah R. Dayley 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.