

BWSR FEATURED PLANT

Wetland Indicator Status:
Upland



DUTCHMAN'S BREECHES *Dicentra cucullaria*

Family: Fumitory

Publication Date: 3-25-14

After a long, cold winter, the early blooms of Dutchman's breeches are a welcome sight. The species is important for bumblebees, as the queens collect pollen and nectar from them to feed their larvae when few other plants are flowering. These early blooming species are also important for ants that are attracted to the protein-rich, fleshy seed covering called an elaiosome. This is an example of a mutualistic relationship where ants benefit from the nutrition provided by the seed coating, and the plant benefits from the dispersal and fertilization services of the ants.

Identification

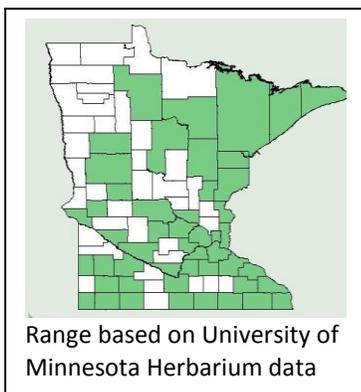
Dutchman's breeches bloom from April – May with white to pink flowers that resemble pantaloons, giving them their common name. Between 2-6 flowers droop upside-down, attached to a single, long leafless stalk that is tan to reddish-brown in color. Individual flowers are about $\frac{3}{4}$ of an inch long and have two white outer petals and two pale yellow inner petals. The flowers develop into pea pod-like seed capsules that eventually split apart, releasing their seeds. The plants grow in clumps from a bulbous base with fibrous roots. The compound bluish green leaves are finely divided, providing a fern-like appearance. The leaves turn yellowish in color in early summer, and the plant goes dormant going into late summer.



Unique, pantaloons-like flowers of Dutchman's breeches.



Bluish-green fern-like leaves



Range

Dicentra cucullaria is found across most of Minnesota with the exception of far northwest portions of the state. Across the country it is found in the eastern half of the United States and Canada. The species is also found in Idaho, Oregon and Washington where it grows along waterways in gravelly soil. In Minnesota, the species prefers full to partial shade and is often found on hillsides with rich soils in maple-basswood forests. It can also be found

in mesic oak forests, lowland hardwood forests, and the upper terraces of floodplains. A similar species, Squirrel Corn (*Dicentra canadensis*) is only found in far southeast Minnesota and has a more heart shaped flower.



Flowers drooping from long leafless stalks

Uses

Dutchman's breeches provide an important early season source of pollen and nectar. It is used by bumblebees, honeybees, mason bees and anthophorid bees, as well as some butterflies and skippers. The long tongues and strength of bumblebees allow them to reach the nectar. Pollinators that cannot pry the petals apart often cut a hole in the flower to gain access.

Primary Uses:

- Pollinator Habitat
- Slope Stabilization in Forests



Clump of Dutchman's breeches growing from a rosette of basal leaves

The species can persist well in shady forest slopes, playing an important role in the stabilization of woodland soils. It is often found amongst a diversity of species including bloodroot, hepatica, lady fern, maidenhair fern, and bellwort. Along with many other spring ephemerals, Dutchman's breeches can sometimes re-establish after dense stands of butckthorn are removed.

Dutchman's breeches is also known as "Little Blue Staggers" in some parts of the country as a result of its ability to induce drunken staggering in cattle that graze on its leaves that contain toxic alkaloids. The species is generally avoided by herbivores and should not be consumed by humans.

Planting Recommendations

The seeds of Dutchman's breeches should be planted when they are fresh, so as soon after collection as possible. If the seeds require storage they should be kept moist and refrigerated until seeding. No other special preparations are required for the seed though a combination of warm and then cold stratification is sometimes used to speed up germination. The plants produce a limited number of seeds which are difficult to collect and disperse quickly after ripening, making them more expensive than many other species. As the seeds are naturally dispersed by ants they are not widely distributed, so local sources are recommended to prevent genetic influences from introduced genes. Some nurseries will supply the species as bare-root plants early in the spring when they can be dug from planting beds. It is important that bare-root plants be kept moist and are planted as soon as possible after delivery. The species is also available in containers from some nurseries. As Dutchman's breeches is becoming less common in the landscape due to development, buckthorn invasion, non-native earthworms and other stressors they should not be transplanted from the wild. They can be divided shortly after the ground thaws, and spread within project sites as a way to increase their abundance.

Planting Methods:

- Broadcast Seeding
- Bare-root
- Containerized Plants

Additional References

Illinois Wildflowers: <http://www.illinoiswildflowers.info/woodland/plants/dutchman.htm>

UW-Steven's Point Freckman Herbarium: <http://wisplants.uwsp.edu/scripts/SearchResults.asp?Genus=Dicentra>

Minnesota Wildflowers: <http://www.minnesotawildflowers.info/flower/dutchmans-breeches>