

BWSR Featured Plant

Plant Name: Showy Lady's-slipper (*Cypripedium reginae*)



Unique slipper shaped flower with bright white petals
Photo by Carol Buckhout

Minnesota's state flower since 1902, the showy lady's slipper is a truly stunning plant growing up to a meter tall and with a slipper shaped blossom accompanied with white petals. Minnesota has forty-three orchid species and is the only state with an orchid as the state flower. The species is protected from collection in the state to protect natural populations. It has been decreasing in some areas but if the growing conditions are right a single plant can spread by underground rhizomes and send up thirty or more stems.

Identification

The plants grow from upright, hairy stems that have alternating leaves and one to three flowers at the end of stems. The flowers are six parted, having a slipper shaped "labellum" about two inches long that is a combination of white and deep purple to magenta (rare pure white versions also occur), and petals and sepals that are white and flat. Flowers also have a green floral bract.

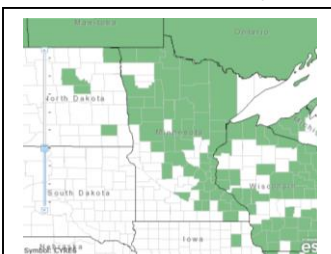


Wide leaves with long horizontal ribs

The flowers tend to bloom in June and July, lasting about one to two weeks. The leaves are elliptical in shape, hairy, ribbed and clasp the stem.

Range

The species was once much more widespread across the eastern United States and Canada and have diminished due to over collection, development, increased deer populations, and wetland impacts. Currently it ranges from southeastern Saskatchewan, southern Manitoba, southern Quebec, across most of New England to eastern North Dakota and south to Iowa, Illinois and Indiana. Now it is extirpated or imperiled in most of its original range within the United States with the exception of Michigan and Minnesota where populations are suspected to be declining but still strong. It tends to grow in peatlands, calcareous fens, and swamps and in some cases, northern roadsides. It typically grows where there is sphagnum moss and is associated with tamarack, white cedar, balsam fir, black ash and red maple trees.



Range based on University of Minn. Herbarium data.

Uses

Showy lady's slipper can cause an allergic dermatitis in people with sensitivity but the plants were historically used for some ailments such the treatment of insomnia, anxiety, fever, headache, tremors, irritable bowel syndrome, and pain relief.

Primary Uses:

- Pollinator Habitat
- Erosion Control
- Aesthetics

Native leaf-cutter bees are recognized as the primary pollinators of showy lady's

slipper, so the future of the species may rely on future populations of these pollinators. Like other species of lady's slippers, insects are generally unable to exit the flowers in the same place they came in. Instead, they are directed along a route where they come in contact with pollen (if they are the right size) from one or two anthers before they can exit and carry their pollen to other flowers. The species is also highly valued by Minnesota landowners who are fortunate to have the species on their property.

Planting Recommendations

Planting Methods

- Containerized plants

The species has tiny seeds that lack a seedcoat and germinate in association with fungi that aid the developing embryo by providing nutrients. Due to these characteristics they have been very difficult to grow from seed in the past. Transplanting generally has low survival, and collecting flowers and transplants is illegal in Minnesota. Fortunately new methods of cultivation from seed have made this species commercially available. When planting from containers it is important that sites are selected that have partial shade (sun in morning or afternoon is best) and moist soils. A variety of soil types are acceptable but a neutral pH is most beneficial. It is also helpful to have a fair amount of organic content in the soil and fertilization may be needed periodically, or slow release fertilizer applied early in the season. Fertilizer specially made for orchids or products with organic ingredients is recommended. Newly installed plants also need periodic watering. New plantings should be inspected frequently to spot problems with mold, slugs, bacteria and fungi. Even in good conditions it may take several years for plants to flower the first time.



An individual clump with multiple stems and flowers

Wild populations should be protected from any changes in hydrology conditions and from invasive species such as reed canary grass and glossy buckthorn that can grow in similar habitats. Fortunately, the rhizomes of lady's slippers can live indefinitely if conditions are favorable.

References

Minnesota Wildflowers:

<http://www.minnesotawildflowers.info/flower/showy-ladys-slipper>

Minnesota DNR: <http://dnr.state.mn.us/snapshots/plants/showyladyslipper.html>

Statewide Wetland
Indicator Status: **FACW**

Similar Species



Small white lady's slipper has broad, lance shaped leaves and relatively short stems (3-6 inches long) with a bright white slipper-like flower



Stemless Lady's Slipper has two basal leaves and a long stem (up to ten inches) leading to a showy flower with a pink slipper-like flower
Photo by Michael Bourdaghs