

Canadian White Violet (*Viola canadensis*)

Identification:

With over 50 species of violets just in eastern North America, some of which hybridize, determining which one you are looking at any given moment can be difficult. But the Canadian White Violet, or Canada Violet, is fairly easy to distinguish from other white violets. If you see an unusually tall violet, that is your first clue. Canada violets can grow up to 16 inches tall. Some violet species grow from rhizomes under the ground sending up flowering stalks and leaves separately, but Canada violet has a strong above ground stem that supports both blossoms and leaves.

Examine the pretty faces of the blossoms. Look closely to see the yellow throat and dark nectar guides where the petals converge. Nectar guides are a flower's way of directing pollinators to the place where nectar can be found, in the same way a runway guides an airplane. In return, the bee, or butterfly is directed past anthers and pistils achieving pollination. Look at the backs of the upper petals – they are usually tinged with purple.

The lower leaves on the flowering stalk of Canada violet are heart shaped, while the upper leaves are an elongated heart.

Natural History:

Roman mythology holds that the powerful god Zeus, fell in love with a beautiful nymph named Io. Upon learning this, Zeus' jealous wife Hera, turned Io into a white heifer. Unhappy with her situation, and having to eat roughage she was not used to, Io cried. Feeling pity on Io, but unable to undo his wife's deed, Zeus caused Io's tears to turn into violets wherever they landed on earth. You may see that Io was indeed very unhappy as violets occur



in many different habitats, some in profusion.

In the early 1800's, when Bonaparte was exiled from France, he vowed to return with the violets in the spring. His supporters used the violet as their symbol, and in fact Bonaparte did return to Paris in March of 1815. In the language of flowers, violets symbolize constancy.

The rhizomes, seeds, and fruits of violets are poisonous. A fine line exists between what is poisonous and what is medicinal. The Ojibwa Indians boiled the roots to treat bladder problems, and roots and leaves together have been used to induce vomiting. Pliny the Elder documented using violets to induce sleep, strengthen the heart, and produce a calming effect.



Contrastingly, the blossoms and leaves are perfectly edible, both raw and cooked. Toss a few violet blossoms onto a salad to spruce it up. Include a few leaves, which, pound for pound, have more Vitamin C than oranges. Leaves can also be cooked for use as a thickening agent. Blossoms have been made into jams and jellies and syrups. Violets even found their way as chemistry reagents. The juice from ground violet flowers was found to react to acids and bases. Exposed to acid, the juice turns red; exposed to a basic solution, the juice would turn green. It was used by chemists as a pH indicator until easier methods were discovered.

Interestingly, the violet has a "Plan B" for reproduction. In case cross-pollination fails, violets can produce a second type of flower to guarantee seed production. This flower lies close to the ground, and in fact never opens. It is called a cleistogamous flower. It is self-pollinating and produces seed that is genetically identical to the parent plant, save mutations.

Conservation:

In Connecticut, the Canadian white violet is listed under Threatened status. The plant is endangered in Illinois, Maine, and New Jersey.