Plant Description

Family: Adoxaceae

The elderberry, or *Sambucus canadensis*, is a part of the Adoxaceae family, and it fits into the plant evolutionary group as a flowering plant. The color of its fruits and flowers, as well as the shape of the leaves, are the key identifying features that separate the Sambucus Canadensis from its close relatives, as there is the *Sambucus ebulus*, *Sambucus nigra*, and the *Sambucus racemosa*. According to the Bonap map, the geographic range of the elderberry extends across all of the United States and is abundantly found along the eastern and western U.S. It is also found in parts of Canada as well. (See figure 1). As shown in Figure 2, the growth form of the elderberry can range from a large bush to a small tree. The elderberry can also grow in a variety of both wet and dry soils but tends to prefer rich, moist, and slightly acidic soils. The elderberry's branching pattern is considered to be an opposite branching pattern and has leaves that are described as pinnately compound, ranging from 5 to 11 leaflets, typically 7, with serrated edges. The flowers it produces, as seen in Figure 3, are a cluster of creamy white flowers, which are flat-topped and rounded. Depending on the type of elderberry, it can produce a variety of colors of fruit, but the *Sambucus Canadensis* produces a purple-blackish cluster of berries, which the plant produces throughout the summer in July and August. (See Figure 4)

Biological & ecological significance:

The elderberry has served and continues to serve significant biological and ecological roles in our environment. One of the many roles that it plays is providing a variety of animals with a source of food and habitats. The bush can be used for livestock, or more commonly, wildlife takes advantage of the fruits that it bears (Stevens). More specifically, a large number of different species of birds feast on the berries this plant provides, and it is an important part of providing a nesting habitat and shade for these birds (USDA). Outside of birds, animals, such as deer, raccoons, mice, and squirrels, find this bush to be a valuable source of food (Bulatiovic-Danilovich 2022).

Although it has few health and pest issues, elderberry does face some problems with invasive species. Some of these consist of the spotted wing drosophila, eriophyid mites, Japanese beetle, the cane or shoot borer, and the elderberry borer beetle. The spotted wing drosophila is considered to be a new invasive species to the elderberry that originated in Asia but is now present in most states. The spotted wing drosophila particularly takes interest in the ripening fruit on the elderberry and feeds inside the fruit (Bulatiovic-Danilovich 2022). The elderberry also suffers from a few diseases as well on top of the invasive species. Some of these diseases consist of tomato ringspot virus, fungal canker, powdery mildew, verticillium wilt, and root rot (Bulatiovic-Danilovich 2022).

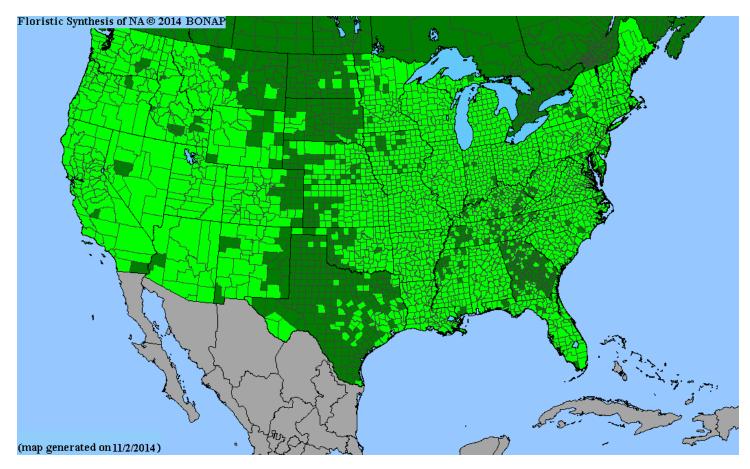
Cultural importance:

The elderberry is also a significant part of our history and culture. There have been many recorded instances of its use medicinally in the past, and how it continues to be used medicinally currently. Every part of the elderberry is used in the process of making medicine out of the plant. Indigenous cultures were one of the first that were observed in using these techniques. They have many uses, ranging from rheumatism, burns, headaches, and flu symptoms (Adkins). Even

though the elderberry is very popular medicinally, it also has its uses in the culinary world. Most parts of the elderberry are used in cooking but have to be prepared in specific ways, as there are toxic parts to the elderberry bush. The stems and raw seeds are parts that are removed before consumption or need to be cooked down as this removes the level of toxicity within them (Adkins). Some of the many products that are made from the elderberry consist of using the flowers for tea, turning them into fritters, and making wine, or syrup. The berries are also used for making jellies and wine, as well as being made into syrup (Adkins). The elderberry is also used in many varieties of crafts. Indigenous peoples use them to make a variety of instruments, dyes for baskets, and pipes (University of California).

Outside of what the elderberry was used for, it also has an extensive history in folklore. There is said to be an "Elder Mother" in old English and Scandinavian folklore, which inhabited the elder tree. This story tells of the elder mother who could both harm and protect those who took from the elderberry tree, and she would cause harm to those who did not ask to use the wood from the trees or make an offering to the tree (Lena 2019). This story is also told in a Hans Christain Anderson tale called "The Little Elder-Tree Mother".

Much of elderberry's significance in culture comes from its extreme usefulness in the medicinal world, and this holds no difference for our area here in Appalachia. In a paper by Future Generations University, they discuss the farm value of elderberries in Appalachia, pointing out their usefulness in medicine and crafts, much like what was mentioned in the paragraphs before this (Future Generations University). My personal experience with the elderberry has been little, but its berries did occasionally find their way into my grandmother's home and were often used in the making of jellies or eaten as is.



(Figure 1.)



(Figure 2.) H. Zell



(Figure 3.) The Spruce/K. Dave



(Figure 4) Adkins

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