Emma Pell
Environmental Ethnobotany
Dr. Burnham
Mar 21, 2025

Plant Atlas Entry
Witch Hazel (*Hamamelis virginiana*)

General Plant Description

Witch-Hazel, or *Hamamelis virginiana*, belongs to the family of *Hamamelidaceae*, which in turn lies under the order *Saxifragales* under the eudicots, a large clade of flowering plants. The witch hazel family is made up of about 30 genera and about 100 species of shrubs and trees native to tropical and warm regions of the world. The family has members characterized by leaves that are alternating and simple, with flowers that practically always retain 4 or 5 strap-shaped or small petals and 4 or 5 sepals, although one or both may sometimes be absent.

Witch-hazel is native to eastern North America, ranging from Nova Scotia west to Minnesota and south to Florida and Texas. In Virginia, it is commonly found throughout the state, including the Appalachian region.

Witch-hazel is a shrub or a small tree that, in nature, grows in arching branches. These are always dense and in multi-stemmed clumps. Its average height is 20 to 30 feet, and its width is 15 to 20 feet. When in shrub form, it is normally over 12 to 15 feet tall. It has an asymmetric and irregular open form with a canopy top. The witch-hazel shrub or small tree is commonly native to forests. It grows tucked away among plants or trees in the bottomlands but is also found in wet ground along the banks of streams and at the edges of forests.

Witch-hazel has alternate branching patterns, with each branch extending out along the stem at different heights. An alternate branching pattern means that branches stem out and grow slightly staggered apart, never directly opposite of each other. They are staggered to alternate from one side to the other. Witch-Hazel may have a single trunk up to 1' across or may have multiple ascending branches at its base. The larger branches or trunks are grey and smooth, and slightly wrinkled. Grey to reddish brown is the color for smaller branches and twigs.

The leaves are simple, oval-shaped, with wavy margins and an asymmetrical base. They are alternate leaves, mostly with lengths measuring 2.5 to 6 inches, unequal offset of leaf bases, and have wavy teeth along the margins. They are darker on the upper surfaces, while the lower surfaces are paler green.

Witch-hazel typically begins to flower from October to December. It is actually one of the last few trees or shrubs to bloom in the fall. The flowers have four slender, ribbon-like petals that are bright yellow, but sometimes tinged with orange or red. They give off a soft, mild, but

sweet scent. Their flowers are pollinated by moths and typically go dormant after being pollinated. The flowers have slender petals that are typically ½ to ¾ inch long, which appear mid to late fall. Generally, its bright yellow flowers are the only sign of color in woods during the fall seasons.

The velvety fruits you observe on witch hazel are the matured remnants of flowers that opened last year. When the fruits are fully ripe, they bloom and eject shiny black seeds that can travel up to 30 feet. This seed dispersal mechanism has given witch hazel another common name, the snapping hazelnut.

Biological & Ecological Significance

Witch hazel, Hamamelis virginiana, is a shrub native to North America and common in the Appalachian forests. This species usually attains an average height of 12 to 15 feet and is known for its unusual flowering time. This plant flowers in the fall, around October, when other plants have mostly finished flowering. This late flowering period provides some of the last nectar sources for pollinators. Witch hazel has its uniqueness when it comes to seed dispersal. The fruits of the capsules can eject seeds, thereby allowing for the successful propagation of the species and the maintenance of genetic variation in the forest ecosystems. Witch hazel is pollinated by small flies and moths, including the winter moths that are active during its bloom period in late fall. Some herbivores, including deer, may eat its leaves, but witch hazel is not typically considered a food source. Witch hazel contributes to nutrient cycling by dropping its leaves each fall, which then decompose, and later become organic matter in the soil. In succession, witch hazel typically appears as a shrub in forests and persists during various stages of succession, contributing to the ecosystem of the forest.

Cultural Importance

Culturally, witch hazel has been crucial to Indigenous and Appalachian traditions. Indigenous people have used witch hazel for decades for various medicinal purposes. People commonly use the leaves of witch hazel to make tea for various medicinal purposes. Today, witch hazel is used in a variety of products, including ointments, soaps, and lotions. One common medicinal use for witch hazel is utilizing it as an astringent for treating inflammatory and skin diseases. In Appalachian traditions, the plant has a presence in folk magic and medicine. Practitioners of folk healing, often called "granny witches," would use witch hazel for remedies and rituals. Dowsing, also known as "water witching," consisted of using a forked witch hazel branch to find water underground. This traditional practice is still used in some parts of Appalachia. In more modern times, witch hazel is highly of commercial importance, especially

in skincare products. Witch hazel extracts from the bark and leaves are used because of their astringent and anti-inflammatory properties incorporated into over-the-counter products that treat skin irritations. The prolonged use of the plant in such a fashion signifies its ongoing relevance from traditional usage to modern applications. Witch hazel plays a significant role in Appalachian ecosystems and culture, providing essential resources for pollinators, contributing to folk medicine, and remaining commercially valuable today.

Range Map

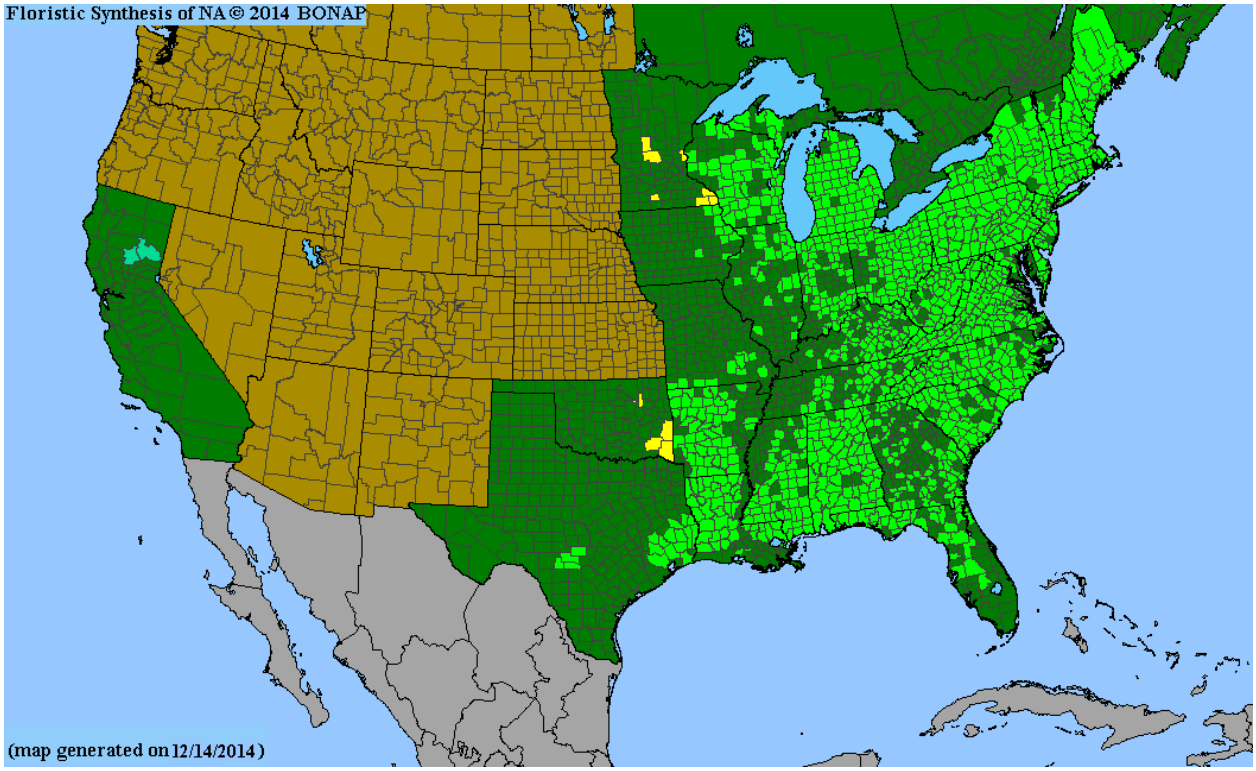

Figure 1. A county-level range map of *Hamamelis virginiana*.

Figure 2. Witch-hazel (Hamamelis virginiana) flowers and flower arrangement.

Figure 3. Close-up of Witch-hazel (Hamamelis virginiana) leaf and leaf structure and arrangement.

Figure 4. Witch-hazel (Hamamelis virginiana) structure and growth form.

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