

American Witch-hazel

Hamamelis virginiana



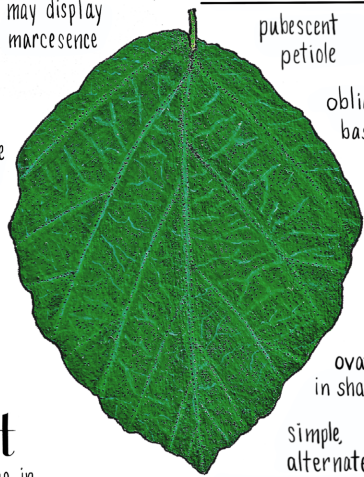
Leaf

may display marcescence

pubescent petiole

oblique base

coarsely crenate leaf margins



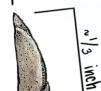
ovate in shape

simple, alternate

2 1/2 - 6 inches

Twig Bud

leaf buds are stalked & naked



1/3 inch

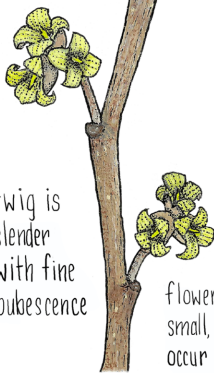
Bark

smooth, gray to gray-brown

Habitat

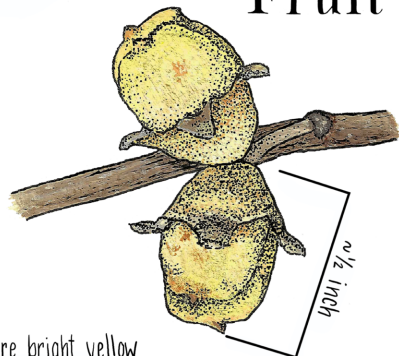
common understory tree in forests of eastern U.S. found in a variety of habitats, from streambanks to rocky slopes; prefers moist soils and shady areas

twig is slender with fine pubescence



flower buds are small, round, and occur in tight clusters from short stalks

Fruit



1/2 inch

Flower

monoecious



flowers are bright yellow with four very slender strap-like crumpled petals; 1/2 to 3/4 inch long

flowers in fall; fragrant

fruit is a light yellow to dull orange capsule with four sharp, curved points; pubescent; dehiscent



TREE OF THE MONTH

American Witch-hazel • *Hamamelis virginiana*

ALSO KNOWN AS: COMMON WITCH-HAZEL, WITCH-HAZEL

American witch-hazel (*Hamamelis virginiana*) is a deciduous, woody plant in the Hamamelidaceae (witch-hazel) family. It's usually a shrub, meaning it's shorter than 15 feet, but can be a small tree around 20 feet tall, with a maximum height of 35 feet. It has spreading, crooked branches that grow upwards, often with several stems growing from the base, giving it a shrub-like appearance. The branches, twigs, and leaves grow in an alternate pattern.

Witch-hazel is a common understory plant in the eastern forests of the United States. It prefers rich, moist soils and doesn't do well in full sun, but it can be found in a variety of habitats, from shaded streambanks to dry rocky slopes. In Massachusetts, common trees that grow alongside American witch-hazel are white ash, American beech, mountain laurel, eastern hophornbeam, black and yellow birch, red and sugar maple, elm, and eastern hemlock.

Witch-hazel leaves are broadleaf, simple, and alternately arranged. They're broadly egg-shaped with an offset leaf base and large wavy teeth on the margin. The leaf is typically 2.5 to 6 inches long and 2 to 3 inches wide. Its **petiole** is somewhat **pubescent**, and its veins are prominent. The leaves are dark green above and paler below. Witch-hazels often retain their dead leaves during the winter, a trait known as **marcescence**.

Witch-hazel has thin bark that remains fairly smooth even as the tree ages. The slender twigs of American witch-hazel are zig-zag, flexible, and covered in a fine pubescence. They can vary in color from gray to brown to a subtle orange-tan. The leaf buds are stalked and lack bud scales. When looking closely, the naked winter bud can resemble a deer's foot, but it's actually a tiny folded leaf. The flower buds are small and round, occurring in tight clusters from short stalks.

The American witch-hazel is unique in the way that it blooms during autumn. From late September through November, when leaves of trees have all but fallen, the American witch-hazel produces small, fragrant, bright yellow flowers that have slender strap-like crinkly petals. The species is **monoecious** and produces "perfect" flowers, meaning that both male and female reproductive parts develop on an individual flower. The flowers are pollinated primarily by moths and eventually develop into small, hard capsules that are covered in a fine pubescence and have four sharp, curved points at the top. The fruit of American witch-hazel remains dormant throughout winter, only maturing the following summer, at which point, they forcibly expel two shiny black seeds 10 to 20 feet away from the parent tree. The seeds take another year to germinate.

American witch-hazel fruit is eaten by ruffed grouse, northern bobwhite, ring-necked pheasant, and white-tailed deer. Beavers and cottontail rabbits are also known to eat them. In western Massachusetts, the fruit is a minor food source for black bears during fall.

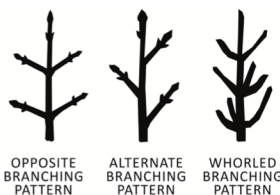
American witch-hazel is readily confused with cultivated Asiatic witch-hazels and, depending on where you are in the US, vernal witch-hazel and dwarf fothergilla. The American witch-hazel stands out from these other witch-hazel species and hybrids because it blooms in fall, whereas the others typically bloom in winter.

petiole : the stalk that joins a leaf to a stem

marcescence : the withering and persistence of plant leaves that normally fall off

pubescent : surface somewhat covered with short, dense, soft hairs

monoecious : a plant that produces both male and female flowers on the same individual



OPPOSITE BRANCHING PATTERN

ALTERNATE BRANCHING PATTERN

WHORLED BRANCHING PATTERN

Extract from witch-hazel is an astringent that's been used for centuries for its many medicinal properties. Native Americans used the bark and twigs to treat colds, soothe irritated skin, and stop bleeding. Today, you'll often see it in skin care products due to its powerful anti-inflammatory properties.

American witch-hazels species designation, *virginiana*, is a New Latin term that means "of Virginia" and is often used in taxonomy to classify species that are strongly associated with the state of Virginia. The genus *Hamamelis* is an ancient Greek word that was applied to a medlar or a similar tree. The common name "witch-hazel" likely comes from the old English word *wych*, meaning "to bend." Early settlers used the forked branches as dowsing rods to locate underground water sources or precious metals. The branches were believed to bend towards the ground when detected by the dowser.



Tree of the Month is sponsored by Berkshire Environmental Action Team, a 501(c)(3) non-profit organization located in Pittsfield, MA. Find more Trees of the Month at www.thebeatnews.org.