

## "NH Big Tree of the Month – November 2006" Witch Hazel

By Anne Krantz, NH Big Tree Team UNH Cooperative Extension

Witch-hazel, Hamamelis virginiana, is the New Hampshire Big Tree for November, because curiously, it flowers now.

While the tree resembles a shrub with multiple arching trunks, The American Forests' National Register of Big Trees lists it. This is the list used by the NH Big Tree Program. Currently the only recorded New Hampshire witch hazel tree on the NH Big Tree Registry is on the UNH campus near the main door of Putnam Hall. It has four trunks about 14 feet high with the largest about 12 inches in diameter.

New Hampshire's winter weather, with ice and heavy wet snows, bend the trunks right to the ground accounting for the lack of height. Conveniently, a thicket of witch hazel grows next to my house. The largest trunk is about 27 feet long with the tip dragging on the ground. It arches to a height of eight feet, and the trunk is 10 inches in diameter. The horizontal branches create thickets of wickets, requiring lots of ducking to walk around.

The unique blossoms consist of four bright yellow stringy petals hanging like gold tassels off the twigs. They brighten up the drab woods after its fat apricot-yellow leaves fall. The flowers hang on well into winter surviving frigid weather.

The pretty yellow flowers must attract the last insects for pollination, but I have never had the patience to watch and wait in the windy, cold November woods to notice who does the pollinating. A quick Internet search led me to Dr. Stefan Sommer, Research Asst. Professor, Dept. of Biological Sciences, Northern Arizona University, who did his thesis on *Pollination Ecology and Breeding System of Witch Hazel*. Perfect!

He answered my e-mail questions with this information:

"Witch-hazel is insect pollinated by a wide variety of insects because at that time of year witch-hazel is rapidly becoming the only source of nectar and pollen. Where I did my studies just outside of DC the insects kept flying at incredibly low temperatures. The only thing that reduced the number of flying insects at my study site was freezing rain and that only kept them down for a week. Otherwise I had high numbers of flying insects October through December. One of the neat things about witch-hazel is that it has a seven-month delay in fertilization. The pollen tubes

lay dormant until mid April when meiosis II takes place and the ovaries become ready to be fertilized."

Once this happens, woody seed capsules form and remain closed until the next October. When finally dried out, they split and eject the two seed up to 50 feet.

The name witch hazel is a curiosity, too. There are several different theories. One is that the name "witch hazel" is derived from the custom of using its branches as divining rods to reveal hidden underground water, a practice known as water witching. The lore is that the forked branch would dip downward over the site of a vein of a minerals or water. Since it grows in moist soils in the understory of hardwood forests, in ravines, and neat intermittent streambeds, the location itself indicates underground water.

Its medicinal uses are traditional and my bottle of Witch Hazel astringent is handy all summer for use on black fly bites. The dictionary defines it as "an alcoholic solution of a distillate of the bark of witch hazel used as a soothing and mildly astringent lotion." The label also recommends it a facial cleanser.

The NH Big Tree Committee is looking for more witch hazel trees with the hope they will be discovered in all counties. Be on the lookout for the unusual stringy yellow flowers growing on gray twigs on your November hikes in the woods. If you find a sizeable one, contact the NH Big Tree State Coordinator, Carolyn Page, <u>carolyn\_page@hotmail.com</u>, 664-2934, who will pass the information on to the appropriate county coordinator.

Also visit the NH Big Tree web site at: <u>www.nhbigtrees.org</u> for the complete list champion Big Trees. The UNH Cooperative Extension and the NH Division of Forests and Lands sponsor the NH Big Tree program in cooperation with the National Register of Big Trees through American Forests.

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