

# WILD NEWS



## Prince William Wildflower Society

A Chapter of the Virginia Native Plant Society

Number 2005-06

November-December 2005

### NATIVE PLANT PROFILE

Witch-Hazel (*Hamamelis virginiana*)

While walking through the autumn woods you may have noticed small yellow flowers borne on the ends of twigs of a small tree. Or, you may have heard a popping noise as you walked past the same trees. What you were seeing and hearing are the flowers and "exploding" fruits of witch-hazel. This is the only tree (or large shrub) in our area that blooms from September through December. Also, it is the only tree that bears both flowers and fruits (from last year's flowers) at the same time!

Witch-hazel is widely distributed, ranging from Nova Scotia and New Brunswick to central Georgia and southern Arkansas. It is commonly found along streams and on the banks of ponds, lakes, and swamps or in moist upland forests. It is considered an understory species in our deciduous forests.

The scientific name for witch-hazel was assigned to this handsome plant by the famous Swedish taxonomist Linnaeus. *Hamamelis* is an ancient Greek plant name and

*virginiana* means it was first collected in the colony of Virginia. Other common names are

snapping hazel, snapping hazelnut, tobacco wood, white hazel, and winter bloom. It is not a true hazel but rather is the Hamamelidaceae family. Sweetgum is the only other member of this family in our area. The "witch" part of its common name comes from the use of its branches as divining rods supposedly to find water

and even buried treasure and precious metal ores such as gold!

The small yellow flowers

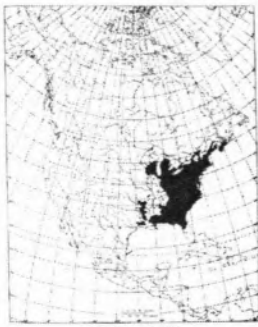
develop in clusters of three or four on the tips of mature branches. The four strap-like petals are attached on the margin of a cup-shaped receptacle. Eight stamens are arranged in two rows of four with the outer row usually sterile. With showy flowers, it is insect pollinated by insects still active in cooler autumn temperatures. Two shining black seeds form in a two-celled wooden capsule



that has a prominent beak. These fruits ripen over the year after flowering. The small half-inch seeds are forcibly expelled from the ripened capsule creating a popping noise.

The leaves, twigs, and bark of witch-hazel are distinctive. The alternate simple leaves are about four inches long and up to three inches wide. The leaf is ovate and variably lobed with an uneven base. Mature leaves have a waxy surface. Witch-hazel twigs have a unique zigzag appearance. The thin smooth outer bark is light brown with purple inner bark. Individual tree can be as tall as 30 feet and can attain a diameter of 12-14 inches.

Some American Indian tribes used witch-hazel to make the wooden part of bows. Other Indian uses of witch-hazel were primarily medicinal: poultices, washes, and extracts were made from the inner bark, twigs, and leaves to treat inflamed eyes, skin irritation, tumors, sore muscles, varicose veins, and even hemorrhoids. Extracts of bark



and leaves were rubbed on the legs of Indian athletes to keep the muscles limber. Teas or washes made from the leaves and/or bark were used to treat a variety of ailments from colds, sore

throats, menstrual cramps, cholera, and dysentery. Extracts were also used to stop excessive menstrual flow and a variety of problems involving internal bleeding. Heated and steamed branches were used in a "sauna" to ease sore muscles, while powdered dried leaves were used to stop external bleeding. Also, twigs were chewed to freshen the mouth as well as to heal and soothe bleeding gums and other mouth or throat problems. Early colonists soon discovered the value of witch-hazel. Alcohol extracts as well as lotions and salves made from twigs, leaves, and bark have long been used and are still used to treat sore

muscles and minor skin irritations as well as an astringent or shaving lotion. Most witch-



hazel preparations are now synthetically made, but there is at least one small company in New England that still prepares "real" witch-hazel extract. The astringent and other associated properties are due to tannins in the bark and leaves.

As you walk in the late autumn woods and the wildflowers have disappeared until spring, keep your eyes and ears open for the sight and sound of the unusual witch-hazel. Look for its delicate yellow flowers and listen for its fruits exploding!

—Marion Blois Lobstein

**Images:** Top, *A Modern Herbal: The Medicinal, Culinary, Cosmetic and Economic Properties, Cultivation and Folk-Lore of Herbs, Grasses, Fungi, Shrubs & Trees with their Modern Scientific Uses*. New York: Harcourt, Brace & Company, 1931; unabridged edition, Dover Publications, 1971, <http://botanical.com/botanical/mgmh/mgmh.html>; Schematic and photo, USDA, NRCS. 2005. *The PLANTS Database*, Version 3.5 (<http://plants.usda.gov>); Range map, University of Connecticut Horticulture database, <http://www.hort.uconn.edu/plants/h/hamvir/hamvir1.html>

*And the dead leaves lie huddled and still,  
No longer blown hither and thither;  
The last lone aster is gone;  
The flowers of the witch-hazel wither;  
The heart is still aching to seek,  
But the feet question 'Whither?'*

—Robert Frost, from "Reluctance"

*Complete Poems of Robert Frost*, Holt, Rinehart and Winston, 1967

## CHAPTER NOTES

The Prince William Wildflower Society annual meeting took place the afternoon of October 2, at the riverside home of Mary and Jerry Sherman. A potluck picnic was followed by a short, informal business meeting. A special thank you goes to gracious hosts Mary and Jerry.

### **Mark Your Calendars: PWWS**

**November Membership Meeting** will take place **November 21, 7:30 pm** at Bethel Lutheran Church, 712 Plantation Lane in Manassas.

**Dr. Ruth Douglas**, chair of the VNPS Invasive Alien Plant Working Group, will be talking about invasive alien plants in our region, the efforts being taken to address the problem, and what we can do to help. As always, **membership meetings are open to the public and refreshments will be served.**

### ***The Audubon Society of Northern***

**Virginia** has completed their new guide to managing your land for the benefit of wildlife and the environment. The *Audubon At Home Guide* is available for free. For a copy contact: Laura Stephens, the Audubon Society of Northern Virginia at [www.fairfaxaudubon.org](http://www.fairfaxaudubon.org) or 703-256-6895.

### **NEW VNPS t-shirts and sweatshirts are**

**here! Martha Slover** will be taking orders for the t-shirts at the November membership meeting and we will have information about ordering sweatshirts from the Hampton Roads chapter. T-shirts come in three colors—chestnut, pine, and eggplant—and feature artwork developed by Shenandoah chapter member Anita Cooper. They are \$15 each.

### **FROM the PRESIDENT—Invasive Alien Plant Awareness**

Invasive alien plants have been in the news recently and there seems to be some progress in making the public more aware of the problems associated with these species that create imbalance in our ecosystems. Many of these alien species were introduced intentionally by people who thought that they would be beneficial in horticulture, wildlife management, or in some other way.

What amazes me is how many very aggressive species are still sold and planted widely.

If you pick up mail order plant catalogs or search on-line, you can find numerous nurseries selling autumn olive, Japanese honeysuckle, English ivy, multi-flora rose, and Bradford pear (this is just a sampling of course). Autumn olive, Japanese honeysuckle, and multi-flora rose are still recommended by some wildlife people as wildlife food plants (although many have stopped doing this after learning the damage they do.) Autumn olive and multi-flora rose used to be a cost-share planting crop that farmers were encouraged to plant.

Recently, while walking in Manassas Battlefield Park, I noticed the prolific berry production on the remaining flowering dogwoods. These trees were often so crowded with berries that it really surprised me. You forget how much food native species offer for wildlife. It made me wonder why people were looking for alternatives to natives in the early and mid 20<sup>th</sup> century for wildlife food plants when the natives were so good at the job—and readily available.

One answer that came to mind was the relatively long time that many native species take to reproduce and establish themselves. They work on a time scale of many years—a period over which, before heavy disturbance by humans, they moved about the landscape as conditions slowly changed and opportunities arose. This slow rate of establishment is fine in a natural system with relatively low disturbance levels, but people disturb the landscape frequently and want rapid results. People also frequently expose large areas of soil that needs to be stabilized.

When you need rapid reproduction, spread, and establishment, invasive plants are the

ones for you. Some of the very characteristics that make invasive species so damaging also have made them attractive to people looking for a solution to a problem or a certain "look" in the landscape.

I hope that we can educate ourselves and others more about the problems associated with choosing and planting species that can cause harm to the environment. Our speaker at the November 21 membership meeting this month is Ruth Douglas, chair of the Invasive Alien Plant Working Group for the Virginia Native Plant Society. She will be talking to us about some of the invasive alien plants causing problems in our region and things others are doing and that you can do to help combat the problem. Please come out and hear Ruth and tell your friends also.

—Charles Smith

## WELCOME TO PWWS

**New members:** Joan Patterson, Manassas; Katherine Conkline, Manassas, Laura Farron, Woodbridge; Madeline Mowery, Southfield, Michigan; Susan Myers, Manassas; Robert Nugent, Manassas; Mary Presta, Clifton.

## MEMBER RENEWAL

If you received a **membership renewal form** in this newsletter, it's time to renew! The date at the bottom of your mailing label below is your PWWS/VNPS membership expiration date. If your membership has expired, use the enclosed form to renew or contact **Virginia Native Plant Society (VNPS) at 540-837-1600.**

## Coastal Plain Native Plant Conference Summary

September 16-17, 2005, Norfolk Botanical Garden and Old Dominion University, Norfolk, Va.

The conference included 11 speakers in two tracks: Track A – Conservation/Preservation, Track B – Natives in the Landscape [Horticulture]. There were also seven different field trip options for Saturday morning and tours of the native plant garden on Friday. I toured the native plant garden, attended five different talks including the Friday evening reception and keynote address, and went on the field trip to Zuni Pine Barrens & Antioch Pines Natural Area Preserve.

**Chris Ludwig** of the *Virginia Natural Heritage Program* gave a talk entitled, "Endangered Plants of the Virginia Coastal Plain and Their Conservation." Chris provided an overview of the coastal plain plant distribution zones (3), current threats to plants (habitat loss/alteration, biological invasion, fire suppression, subsidence and climate change) and the primary areas of focus in preservation (research, education, preservation *in situ*, management, regulation, *ex situ* conservation).

Landscape Fire Ecologist **Dr. Cecil Frost** spoke on "Fire Ecology: Using Fire to Restore Natural Habitats for Native Plants, Birds and Animals." Cecil is the preeminent ecologist working on historic role of fire in North American vegetative systems and has compiled the first map of North American pre-settlement fire classes (7). He detailed historic accounts and ignition sources, discussed fire frequency indicator species, fire frequency indicator communities, the fire assessment methodology Fire Regime Condition Class, and the soon-to-be-released software program of land managers called



"Land Fire." He discussed how systems change when fire is suppressed and when it is reintroduced.

The keynote speaker was **Lawrence Early**, author of *Looking for Longleaf: the Fall and Rise of an American Forest*. Longleaf pine forest in the American south covered an estimated 92 million acres at time of colonization. There is an estimated 2.8 million acres left, the largest chunks of which were just devastated by hurricane Katrina. The conversion to other cover types resulted from the use of the pines for products such as gum, turpentine, tar, rosin, and lumber as well as introduction of livestock, conversion of land for agriculture, and fire suppression. The focus of Lawrence's talk was on the nature and extent of the original forest, its decline through human agency, and modern efforts to preserve and restore portions of that forest.

On Saturday, September 17 I attended a field trip to Zuni Pine Barrens and Antioch Pines Natural Area Preserve with Dr. Linton Musselman, Dr. Cecil Frost, and Virginia Natural Heritage staff. The focus was on the history of the project, current research and

**Dr. Dennis Whigham** of the Smithsonian Environmental Research Center and the University of Utrecht gave a talk entitled, "Terrestrial Orchids and Their Fungal Partners." Whigham emphasized that orchids are highly evolved and comprise about 10 percent of all identified plant management efforts, the characteristics of active fire and fire-suppressed longleaf pine forest, plus there was lots of good plant identification. species. Although they are most prolific in the tropics and subtropics, orchids are

found all the way to the sub-arctic. His group's research has provided extensive information on the role played by fungus in orchid life cycles and on genetic identification of species associations. Techniques have been shared globally and there is a network of researchers compiling data worldwide. He spoke of research on common orchids in our region, the role of fungus in their life cycles, different plant strategies, causes of decline, methods of recovery, and the implications of fungal interactions on recovery efforts.

**Dr. Sylvan Kaufman** of the **Adkins Arboretum** gave a talk entitled, "Human and Ecological Dimensions of Plant Invasion." Her talk focused on definitions, the scope of the invasives problem, characteristics of invasive plant species, imperiled natives, and what various groups, organizations, and agencies working on invasives research and control are doing and sources of more information.

--Charles Smith

## LOOKING AHEAD

The annual PWWS member slide show is scheduled for the next regular membership meeting on **JANUARY 16, 2005**, at 7:30 p.m. at Bethel Lutheran Church in Manassas. Members are encouraged to share slides or digital images of nature-related scenes from their travels or gardens. Contact President Charles Smith at 703-361-5125 if you would like to contribute to the program.



Photos: UConn Plant Database of Trees, Shrubs, and Vines <http://www.hort.uconn.edu/plants/index.html>

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NEXT MEETING: NOVEMBER 21, BETHEL LUTHERAN CHURCH, MANASSAS

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