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Red Oak (Northern Red Oak)
Tina Thieme Brown

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A Publication of the
Maryland Native Plant Society



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Letter from the President

Dear Members,

Preserving and Restoring Biodiversity in Developed Landscapes. Drinking my first coffee of the day in the early morning before the conference, I asked myself whether I understood what those words mean. First of all, what's a developed, as opposed to a natural landscape? The wooded areas we explore on our field trips are very far from virgin forest. In most cases those areas were reforested in the last century, after being cleared for farming and other uses in the preceding 200 years. Mary Pat Rowan's description of the Fort Circle Parks in this issue provides a case in point. And the conditions of reforestation were strongly influenced by human activity, whether deliberate or not. When we talk about a 'quality' plant community, we mean one with a reasonable diversity of reproducing native plants and a reasonable paucity of invasive plants, and neither of those conditions can exist unless the deer population is reasonably low. Thus human intervention—in the form of invasive plant removal, deer population control, and various other forest management techniques—is increasingly necessary in order to preserve quality 'natural' conditions. So maybe the natural/developed dichotomy is not very distinct. The same considerations—preserving what biodiversity we have, and restoring what we don't have—should apply to our stewardship of all plant communities, no matter what degree of human activity brought them to their present state.

As Carolyn Fulton describes below, the conference speakers addressed all these questions, and the conference field trips took us to landscapes across the entire natural-to-developed spectrum.

On a completely different topic, please be sure to look at the ballot in this issue for next year's Board of Directors. Going into my fifth year as President (should I be elected), I often reflect that the greatest pleasure in my job comes from working and becoming friends with this diverse, dedicated and fun group of people.

- Kirsten Johnson

Conference 2012: Preserving and Restoring Biodiversity in Developed Landscapes

The 2012 Conference on the Towson University campus was a great success. The annual conference rotates among MNPS's chapters, and this was the Baltimore Chapter's year. We were fortunate to have Towson University Biodiversity Center (TUBC) join us as co-sponsor. Among the enticing field trips offered, participants could elect to visit the field station with Dr. Roland Roberts, TUBC's Curator of Botany.

Three accomplished speakers elaborated on various approaches to the theme. Chris Bolgiano, widely-published environmental reporter and prize winning author, discussed "Salvaging Biodiversity – Lost Cause or Lifestyle Choice". Her light touch nicely highlighted the responsibility each of us must bear for the environmental consequences of our own actions. Dr. William Hilgartner has focused his research on the paleoecology of wetland and serpentine species before and after European settlement in Maryland and Pennsylvania. He described finding seeds in our area of plants we think of as non-native but that are as old as 2300 years (*Chenopodium album*, for example). He also described evidence that prior to European settlement, large portions of Maryland and Pennsylvania were covered with sedge-dominated wetlands that were obliterated when Europeans dammed hundreds of streams for mills. When the dams were later destroyed, the streams began carving passages through the accumulated silt, creating the deep channels we so often see and deplore but whose origin we are only now understanding. Donald Outen (Natural Resource Manager at Baltimore County Department of Environmental Protection and Sustainability) gave an overview of trends the Department has been tracking for many years. Critically, Maryland is losing the dominance of oaks in our forests; the replacements – largely red maple – do not provide even nearly the same wildlife value as do the oaks. The Saturday afternoon and Sunday field trips were as varied and as richly informative as were the talks of the morning.

Thanks to all who worked so hard to make the conference a success, with particular recognition to the Baltimore Chapter led by Chris Partain and to Drs. Vanessa Beauchamp and Roland Roberts of Towson U.

- Carolyn Fulton

Mosses: Underappreciated and Under Threat

"The last word in ignorance is the man who says of an animal or plant, "What good is it?" If the land mechanism as a whole is good, then every part is good, whether we understand it or not. If the biota, in the course of aeons, has built something we like but do not understand, then who but a fool would discard seemingly useless parts? To keep every cog and wheel is the first precaution of intelligent tinkering."

~ Aldo Leopold

Mosses are often overlooked and underappreciated. As miniscule members of the plant kingdom they cannot compete for the same attention given to the larger, showy flowering plants. This disregard for mosses is reflected in our contemporary focus on the conservation of biodiversity; we seem concerned only with the charismatic mega-flora and fauna.

Mosses are as much at risk as any other plant for habitat loss and population depletion from increased urban expansion, environmental pollution and over-harvesting. Mosses are very sensitive to the state of their immediate environment. They either lack or have a very thin waxy

This intricate ecological dynamism is thrown off balance when a large moss-harvesting operation comes through. The mosses in the rainforests of the Pacific Northwest are regularly stripped from the trees, packaged and sold. When this happens, a large wound is inflicted on the landscape; it will be years, decades or longer, before it can fully heal. Because mosses support the constituents of the base of the food chain, everything else that relies on them is adversely affected by their absence. It is common today to find dried mosses being used to decorate store windows and planting displays. They are often sold in craft stores and floral retailers, but unfortunately, in most cases, these mosses were unsustainably wild-harvested. Be aware of this when purchasing



cuticle over their leaves. This poor barrier leaves them subject to toxic pollutants. Many mosses are also intolerant of extremely alkaline environments and heavy metals, as you would find in urban areas. As the concrete jungles expand, moss diversity will retreat.

But why should we care about moss? What ecological services could such tiny plants possibly provide? Mosses play a vital role in nutrient and water cycling, animal life cycles and vegetative succession. Both vertebrates and invertebrates make use of all that a bed of moss can provide whether that is food, protection or other provisions.

Small mammals can depend on the temperature stability provided by a layer of moss for their overwintering periods. Their soft texture makes them ideal nesting material for wildlife. Many fly larvae rely on mosses to carry out their life cycles. Predatory animals are well aware that mosses conceal all kinds of good eats. It is common to find upturned chunks of moss; the aftermath of a hungry animal foraging for invertebrates. Believe it or not, some species are well known rock-builders. The formation of calcareous limestone is often facilitated by mosses. If it were not for them, you might not have the option to use travertine stone in your home.

Mosses are some of the first colonizers to a new area and their establishment supports the subsequent succession of other plants. As with any indoor carpet, debris can easily get trapped inside moss. This is what makes them so fundamental in forest succession. Once mosses have established themselves they provide a warm, moist, suitable environment for the seeds of other pioneer species to germinate.

bryophytes, living or dead. Look into the distributor's harvesting practices and judge their level of sustainability for yourself.

The notion that peat mosses (*Sphagnum* species) are a sustainable resource is simply preposterous. The accumulation of sphagnum and other dead plant matter in wetlands happens over countless centuries or millennia. Annually, millions of metric tons of carbon gasses (carbon dioxide and methane) are released from the decaying material when it is disturbed and removed. Not counting it being burned as fuel. It is thought that peat mosses hold about one third of the world's total carbon; we would do best to rely on alternative sources for fuel and our horticultural needs.

Mosses play a much larger role in the balance of our ecosystems than we generally give them credit for. This underestimation seems to justify their depletion to support industries like horticulture and crafting without a second thought to the long term effects. In reality their elimination does have a drastic effect on their environment. It is imperative that their part in conservation is recognized, for the sake of the environment as a whole. It is my hope that this information inspires you to advocate for these tiniest of plants, or at least encourages you take the time to stop and pet the mosses, and thank them for all that they do to keep our world in balance.

~ Stephanie Stuber

Stephanie Stuber is a Curatorial Fellow at the Arnold Arboretum of Harvard University, and the author of *The Secret Lives of Mosses: A Comprehensive Guide for Gardens*.

The Civil War Forts of Washington and their Flora

The city of Washington, DC sits in a topographic bowl. The edges of this bowl are the Piedmont and the less eroded fingers of land stretching out onto the alluvial Coastal Plain. At the outbreak of the Civil War, many of these high elevation areas were farmed or cleared, but others remained forested. Control of these high points was key to the defense of the city. Forts and artillery batteries were built on these high points and on key choke points between the elevations. Around these fortifications, the forests were cut, first to provide building materials, but then also to permit distant surveillance and a clear field of fire in case Confederate forces appeared.

By the end of the Civil War, there were 68 forts and 93 smaller batteries in the system, more than half of them south of the Potomac. For the most part, the abandoned fortifications reverted to their previous owners. The military roads connecting them became in many cases part of the area's street network.

By the early 1900s, forests on many of these fort sites—which were generally just outside the urbanized area of the growing capital—had regenerated quite remarkably to the upland forests that had existed before the war.

Formed in 1900, the McMillan Commission was charged with updating the original L'Enfant Plan for the growth and management of the District of Columbia. The McMillan Plan of 1902 proposed the construction of a Fort Drive to connect and incorporate the Civil War forts in the District. Public agencies acquired the properties of fifteen of the forts and of Battery Kemble in the District (as well as Fort Foote in Maryland just south of the District and Fort Marcy in Virginia).

Fort Drive largely remains an unrealized dream, although it was constructed in some sections. The Depression-area Civilian Conservation Corps accomplished important work in stabilizing and restoring some of the fort sites. But mostly, Nature was left remarkably undisturbed to repair the ravages of war so that today, the fort sites are among the most nearly pristine, natural areas within a radius of 100 miles.

The Washington, DC chapter of MNPS has become the leading non-official defender and interpreter of the Forts Circle parks. We recognize that the forts complex is a major natural area in the city,

rivalled only by Rock Creek Park. In two respects the Forts Circle and Rock Creek Park are symbiotic and synergistic. The geologies of the two areas bracket the natural pre-Columbian landscape of the city, and determine two divergent floras. Rock Creek Park is a wet, rich valley running from the Piedmont to the Potomac below the Fall Line. The Forts are upland, relatively dry, relatively infertile highland gravel terraces.

In addition, Rock Creek Park is located in the wealthiest, most-favored part of the city: the Northwest quadrant. The Forts Circle incorporates sites in all four quadrants of the city. The Fort parks along the Anacostia Ridge and in Northeast are very important to an under-served part of the city and a population otherwise starved for natural areas.

More than ten years ago, the Chapter decided to focus its efforts on the geological formations and botanical associations of the Forts, especially those east of the Anacostia. We conduct monthly field trips (except July and August) to study these Fort sites in all seasons of the year. We are particularly interested in the woody plant associations, which reward study in field trips during the winter months, but we also document the herbaceous material.

The dominant canopy of these upland dry forests is Chestnut Oak, White Oak and Hickory. The understory contains Black Gum, Sassafras, and dry site Viburnum along with a vigorous heath layer of azaleas, blueberries and huckleberries. We even find the occasional globally rare Magnolia Bog.

Our documentation of our observations has played an important role in the National Park Service's understanding of the underappreciated treasures in their custody. Our sweat equity has earned the Maryland Native Plant Society a seat at the table in decisions on the future of these resources. And the stalwarts who return trip after trip, sometimes from three counties away, have enjoyed playing a vital role in the success of this program of research and education.

Below is a Fort Master List we have developed: "Trees and Shrubs of the Terrace Gravel Forest". These are the plants we expect to encounter on each visit. Join us one of these coming months and see for yourself the beautiful, clean, reborn forests of Washington, DC.

- Mary Pat Rowan, Chair of the Washington, DC Chapter

Native Trees & Shrubs: Terrace Gravel Forest, Fort Circle Parks, Washington, DC



American Chestnut

Bob Yaconis

Acer negundo	Boxelder	Aceraceae
Acer rubrum	Red maple	Aceraceae
Acer saccharum	Sugar maple	Aceraceae
Amelanchier sp.	Shadbush or serviceberry	Rosaceae
Aralia spinosa	Devil's walking stick	Araliaceae
Carpinus caroliniana	Hornbeam or musclewood	Betulaceae
Carya cordiformis	Bitternut hickory	Juglandaceae
Carya glabra	Pignut hickory	Juglandaceae
Carya tomentosa	Mockernut hickory	Juglandaceae
Castanea americana	American chestnut	Fagaceae



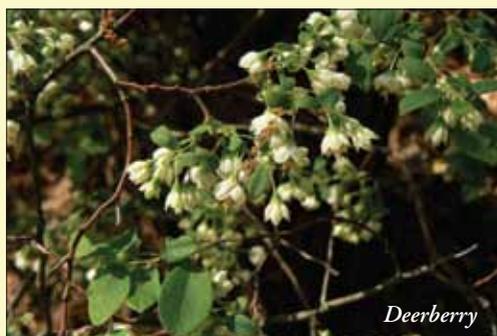
Blueberry

Bob Yaconis



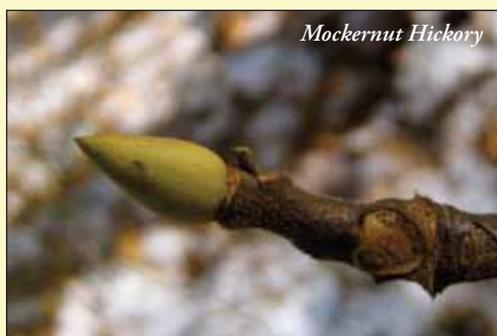
Chestnut Oak

Kirsten Johnson



Deerberry

Bob Yaconis



Mockernut Hickory

Kirsten Johnson



Pinxter Flower

Bob Yaconis

Chimaphila maculata	Spotted Wintergreen	Ericaceae
Cornus florida	Flowering dogwood	Cornaceae
Diospyros virginiana	Persimmon	Ebenaceae
Fagus grandifolia	American beech	Fagaceae
Fraxinus americana	White ash	Oleaceae
Fraxinus pennsylvanica	Green ash	Oleaceae
Gaylussacia frondosa	Black huckleberry	Ericaceae
Hydrangea arborescens	Wild hydrangea	Hydrangeaceae
Hypericum hypericoides	St Andrews cross	Hypericaceae
Ilex opaca	American holly	Aquifoliaceae
Kalmia latifolia	Mountain laurel	Ericaceae
Lindera benzoin	Spicebush	Lauraceae
Liquidambar styraciflua	Sweet gum	Hamamelidaceae
Liriodendron tulipifera	Tulip poplar	Magnoliaceae
Lonicera sempervirens	Trumpet honeysuckle	Caprifoliaceae
Lyonia mariana	Staggerbush	Ericaceae
Morus rubra	Red mulberry	Moraceae
Nyssa sylvatica	Black gum or Tupelo	Cornaceae
Parthenocissus quinquefolia	Virginia creeper	Vitaceae
Pinus rigida	Pitch pine	Pinaceae
Pinus virginiana	Virginia pine	Pinaceae
Platanus occidentalis	Sycamore	Aceraceae
Prunus serotina	Black cherry	Rosaceae
Quercus alba	White oak	Fagaceae
Quercus coccinea	Scarlet oak	Fagaceae
Quercus falcata	Southern red oak	Fagaceae
Quercus marilandica	Black jack oak	Fagaceae
Quercus phellos	Willow oak	Fagaceae
Quercus prinus	Chestnut oak	Fagaceae
Quercus rubra	Northern red oak	Fagaceae
Quercus x saulii [alba x prinus]	Saul's oak (natural hybrid)	Fagaceae
Quercus stellata	Post oak	Fagaceae
Quercus velutina	Black oak	Fagaceae
Rhododendron periclymenoides	Pinxter azalea	Ericaceae
Rhus copallina	Winged sumac	Anacardiaceae
Rhus glabra	Smooth sumac	Anacardiaceae
Rhus typhina	Staghorn sumac	Anacardiaceae
Rubus sp.	Blackberry	Ericaceae
Sambucus nigra	Elderberry	Caprifoliaceae
Sassafras albidum	Sassafras	Lauraceae
Smilax glauca	Glaucous greenbriar	Smilacaceae
Smilax rotundifolia	Common greenbriar	Smilacaceae
Toxicodendron radicans	Poison ivy	Anacardiaceae
Vaccinium atroccocum	Black highbush blueberry	Ericaceae
Vaccinium pallidum	Lowbush blueberry	Ericaceae
Vaccinium sp.	Blueberry – other species	Ericaceae
Vaccinium stamineum	Deerberry	Ericaceae
Viburnum acerifolium	Maple-leaf viburnum	Caprifoliaceae
Viburnum dentatum	Arrow-wood	Caprifoliaceae
Viburnum prunifolium	Black-haw	Caprifoliaceae
Vitis aestivalis	Summer Grape	Vitaceae
Vitis sp.	Grape	Vitaceae

This list was compiled during MNPS field trips led by Mary Pat Rowan and Lou Aronica in the years 1999 through 2012 at Forts Dupont, Chaplin, Mahan, Bunker Hill, Slemmer, Totten, Slocum, DeRussy, Bayard and Battery Kemble, as well as Bald Eagle Hill above Oxon Run. Its accuracy has not been verified by MNPS and it does not include areas of the Fort Circle Parks outside the terrace gravel forests.

More photos on bottom of page 8.

Oak in Focus—Red Oak

Red Oak (Northern Red Oak)

Quercus rubra L.

(*Quercus borealis* F. Michx.)



Maryland's oaks have put forth an abundant acorn crop during the Maryland Native Plant Society's *Year of the Oak* and you almost need a hard hat when walking in the woods this fall! Now that we've had three consecutive years of bountiful acorn production, it's difficult to remember the fall of 2009 when many of us were worried about the historic dearth of acorns in our native woodlands. The acorns of the red oak (*Q. rubra*) are quite distinctive and help to distinguish the tree from its closest look-alike, the black oak (*Q. velutina*). The red oak acorn's shallow cap looks like a beret, while the black oak cap looks more like a ski hat. The red oak is, not surprisingly, in the red or black oak group, which is distinguished from the round-lobed white oak group by its pointed-lobed, bristle-tipped leaves, acorns maturing in two years rather than one, and pubescent inner acorn shells. There are 12 oaks in the red oak group native to Maryland, and MNPS board member and Botanical Society of Washington president Dr. Christopher Puttock has created a wonderful key for them and for the white oak group, which he presented to our members during the September monthly meeting. Of the red oak group, *Q. rubra* is the most common species in Maryland. Its autumn color is variable, but MNPS board member and Montgomery County forest ecologist and botanist Carole Bergmann notes that its leaves, especially on young trees, often turn a brilliant red. In addition to its prevalence in area woodlands, the tree is also commonly planted as a street, park and backyard tree.

Native Habitat and Range: Grows in a wide variety of soils and habitats; southeastern Canada, Michigan and Minnesota; south to eastern Oklahoma, Alabama and Georgia.

Leaves: Simple, alternate, deciduous. 4-10 in. (10-25.3 cm.) long. 7 to 11 toothed, bristle-tipped lobes are cut about halfway to the midrib. Dull, medium green above, paler below and glabrous, except for occasional small tufts of brownish hairs in the vein axils. Petiole up to 2 in. (5 cm.) long.

Fruit: Acorn, maturing in two years. Oblong-ovoid, 2/3-1 in. (about 1.5-2.5 cm.) long, sessile or nearly so. Enclosed for less than 1/3 of its length in reddish-brown, saucer-shaped cap with many small, closely appressed scales. As previously mentioned, the cap resembles a beret.

Bark and Twigs: MNPS board member, author and long-time teacher Cris Fleming has taught her woody plant students a great diagnostic trick during many years of teaching. In Cris's words: "I find the bark pattern of *Q. rubra* very distinctive. The furrows with smooth light gray bark running between the long parallel ridges of thick dark gray bark always remind me of ski tracks through deep snow." Twigs are reddish-brown, becoming glabrous, with scaly, ovoid, reddish-brown winter buds. Buds have scales that may have some pubescence.

Growth Habit: Medium to tall tree with large branches forming a rounded crown.

Similar Species: The black oak (*Q. velutina*) is less common than the red oak in native woodlands. Many of its leaves are similar in shape (though some may be more deeply sinused, especially when sun-exposed) but they are dark, glossy green above and usually have "scurfy" (dandruff-like) pubescence below in addition to hair tufts in the vein axils. However, the pubescence may be gone this time of year. The black oak has very dark, broken, shallowly blocky bark (without "ski tracks") and exceptionally large angled buds covered with gray-white pubescence, an excellent fall and winter diagnostic. The scarlet oak (*Q. coccinea*), the pin oak (*Q. palustris*) and the Shumard oak (*Q. shumardii*) have leaves that are usually cut more than halfway to the midrib. The southern red oak (*Q. falcata*) has narrower leaves.

Ethnobotanical and Wildlife Lore: Alonso Abugattas, Natural Resources Manager for Arlington County Parks, shared a wealth of information about the red oak and oaks in general for Oak in Focus. In Alonso's words: "According to ethnobotanist Daniel Moerman, at least 12 Native American Indian tribes used red oak medicinally for such things as treating diarrhea, coughs, mouth sores, chapped skin, fevers, tooth aches, and sore throats. Over 600 insect species use oaks as their only host plants, not capable of feeding on anything else, with the most specific being the gall making Cynapid wasps. Tallamy records 532 species of moths and butterflies using *Quercus* (which is why gypsy moth spraying can have such devastating effects on Lepidoptera populations). About 50 species of leaf miners also use this genus, at least 27 species of treehoppers, and at least 57 species of beetles. That doesn't include the 60+ species of birds and dozens of mammals that also eat the fruit, which [in the red oak group] takes 2 years to mature. People did not eat red oak acorns as much due to the bitterness associated with tannins, but they could be eaten if it was repeatedly leached out. People used it more for tanning (tannins) leather and for furniture (because the red oak group absorbs moisture better for stains and such as opposed to the water-tight white oaks). It is the state tree of New Jersey, fast growing, and I think is the northern most growing of the red oaks. MNPS board member, master gardener and habitat steward Marney Bruce adds: "The acorns from the red oak, which mature during their second growing season, are bitter because of the tannin content, so squirrels tend to bury them. Well, we know the squirrels forget where they bury most acorns, so this helps the tree regenerate. Red oaks also tend to drop their leaves after the acorns fall, thus burying them themselves. In contrast, white oak acorns germinate quickly after they hit the ground. They are much more tasty to wildlife, so are consumed on the spot. It is interesting to see the different 'strategies' these two trees have to reproduce. The acorns are a very important food source for birds and mammals but not so much to humans anymore. However, the nutmeats of red oak acorns were an important food source for Native Americans. They used various tactics to dissolve the water-soluble tannins before pounding them into a meal."

Locations and Habitats in Maryland and Nearby: Common in western and central Maryland but not common on the Coastal Plain. Botanist, ecologist and MNPS board member Rod Simmons tells Oak in Focus that, while (northern) red oak (*Q. rubra*) is dominant in the mountains and inner piedmont, "southern red oak (*Q. falcata*) rules on the outer coastal plain and much of the Western Shore vs. (northern) red oak."

Botany Quiz

Cris Fleming notes: “In the publication *The Natural Communities of Maryland*, January 2011, The Maryland Natural Heritage Program lists seven ecological communities with *Quercus rubra* as dominant or co-dominant. These community groups are acidic oak-hickory forest, basic mesic forest, basic oak-hickory forest, chestnut oak forest, dry-mesic calcareous forest, mixed oak-heath forest, and northern hardwood forest.”

Carole Bergmann adds: “I think that *Quercus rubra* is one of the most common oaks in the Maryland piedmont. I find it regularly in Howard, Baltimore, Frederick, Carroll, Montgomery counties in pretty much the same combinations in all areas.

*in floodplains—basically scattered, not a primary tree, but definitely present in many spots along with the sycamore, green ash, musclemo, box-elder, red maple, tulip trees, etc.

*in toe of slope/sloped areas between floodplain and uplands—more of a presence, sometimes one of the more important forest components along with tulip tree, red maple, tupelo, etc.

*in mesic uplands—an important component of the very common “mixed oak/hickory” forests, along with white oak, pignut and mockernut, beech, etc.

*in drier uplands where chestnut oak is the main oak, you still find red and white oak with the *Kalmia*, *Vaccinium* etc. All in all, I find *Q. rubra* all over except in wetlands/swamps in the Piedmont.”

Simmons, a noted expert on oak species and hybrids, reports on some of the *Quercus rubra* plant communities of northern Virginia and Washington, D.C.: “In the City of Alexandria and much of the greater Washington, D.C. area along the fall line and inner coastal plain, dry, weathered, acidic summits, hilltops, terrace tops, and upper slopes of hills and ridges are typically vegetated by Oak-Heath Forest. Terrace and ridge summits and north facing upper slopes are usually characterized by dominant stands of Chestnut Oak (*Quercus montana*) and Mountain Laurel (*Kalmia latifolia*), occasionally intermingled with lesser concentrations of deciduous heaths and other plants. Often co-dominant and intermixed with the above on mid to lower north facing slopes — especially on very steep slopes and above streams — are Witch Hazel (*Hamamelis virginiana*) and Northern Red Oak (*Quercus rubra*). Excellent regional examples of Oak-Heath Forest slope variants occur in the City of Alexandria at Monticello Park (no terrace; entire eastern half of park is slope variant), the high, steep ridge above the “waterfall” at the Winkler Botanical Preserve (largest remaining example in Alexandria), and Dora Kelley Nature Park; Glen Carlyn Park in Arlington County; Rock Creek Park, Ft. Dupont Park, and other D.C. parks; and elsewhere.”

Historic red oaks are planted throughout Washington, D.C., perhaps most notably between Union Station and the Capitol in a historic Daughters of the American Revolution planting, and on the White House and Capitol grounds.

~ Melanie Choukas-Bradley

Oak in Focus is adapted from City of Trees: The Complete Field Guide to the Trees of Washington, D.C., Melanie Choukas-Bradley with illustrations by Polly Alexander (University of Virginia Press). Also Abugattas, Carole Bergmann, Marney Bruce, Cris Fleming, Karyn Molines and Rod Simmons contributed to this article.

1. Match the acorn with the oak species.

- A. *Quercus prinus* (Chestnut Oak)
- B. *Q. rubra* (Northern Red Oak)
- C. *Q. acutissima* (Sawtooth Oak)
- D. *Q. alba* (White Oak)



2. These deep blue (occasionally white) flowers are a common sight in damp shady areas in late summer and fall. Sometimes reaching over 2 feet high, the racemes are crowded with irregularly shaped, downward hanging flowers and coarsely veined leaves. This plant grows well in the garden. Plant one, and the following spring you’ll have rosettes growing up from rhizomes just beneath the surface of the soil.

3. In what genus is each of the following plants currently classified?

- a. *Aster cordifolius* L. (Blue Wood Aster);
- b. *Aster ericoides* L. (White Heath Aster);
- c. *Aster lateriflorus* L. (Britton) (Calico Aster)

4. This vine is a common invader of shrubs. You might not notice it until the fall when it bursts into bloom with a profusion of fragrant white flowers overtopping shrubs and fences. The leaves are opposite, compound, with (usually) 5 leaflets whose margins are entire.

4. *Clematis ternifolia* (Sweet Autumn Clematis), native to Japan. The native look-alike, *Clematis virginiana* (Virgin’s Bower), has (usually) 3-toothed or lobed leaflets.

3. All three are classified in the genus *Symphoricarpon* [sim-fee-AH-tri-kum].

2. *Lobelia siphilitica* (Great Blue Lobelia)

1. A-1, B-3, C-4, D-2. *Q. acutissima* is native to Asia, and is seen to escape from cultivation in our area, e.g., at the US National Arboretum.

Answer to Botany Quiz

Native and Non-Native Vines – Can You Tell the Difference?



Kirsten Johnson

Poison Ivy on White Oak, with a bit of English Ivy, at Fort Stanton, Washington, DC.

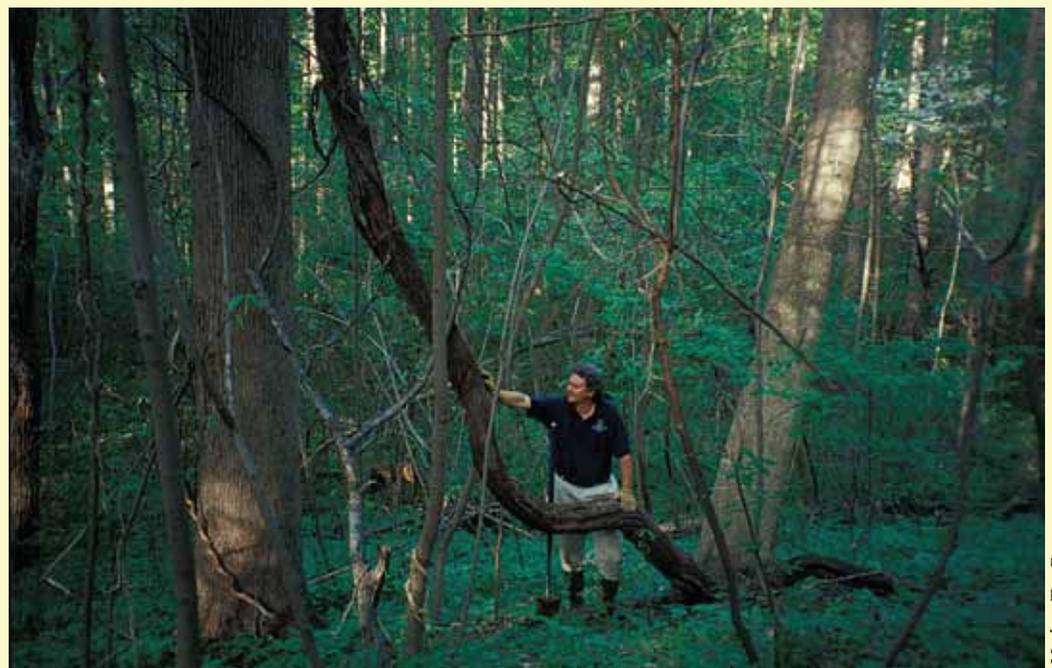
All MNPS members are acutely aware of the damage that non-native invasive vines are inflicting on our trees. But sometimes we see native vines high up on a tree trunk. Do those native vines also harm the trees? Here's Alexandria Natural Resource Specialist, Rod Simmons:

“High-climbing native woody vines, such as Poison Ivy (*Toxicodendron radicans*), Virginia Creeper (*Parthenocissus quinquefolia*), Grape (*Vitis spp.*), and Trumpet-creeper (*Campsis radicans*), have co-evolved with native canopy trees and do not harm them or generally cause health problems for the tree. All of these high-climbing native vines are important, often dominant, components of natural communities, especially floodplain, bottomland, and swamp forests. Many of these vines reach great size, with extensive branching and fairly large mass. Some shorter-lived vines, like Poison Ivy and Trumpet-creeper, also reach great size and extend well into the tree canopy, with the main stem eventually dying off and decaying, and new vines growing up the trunks again in a natural cycle.

“Invasive exotic vines like English Ivy (*Hedera helix*), Porcelain-berry (*Ampelopsis brevipedunculata*) and Winter-creeper (*Euonymus fortunei*) are highly destructive to the bark, trunks, and branches of trees. Some others, like Japanese Honeysuckle (*Lonicera japonica*) and Oriental Bittersweet (*Celastrus orbiculatus*) spiral around the trunks of saplings and younger trees,

strangling and misshaping them. Porcelain-berry is especially hard to control because of its wide-spreading growth habit, thick rangy roots, and the abundance of its fall fruits. The conclusion: native vines should be left in place and invasive exotic ones removed.”

But what about old-age trees in a garden or arboretum setting? Rod says, “I can understand someone not wanting to take a chance on leaving a large, heavy native vine on a much-loved tree in that setting. I would treat those situations case-by-case. But overall, I'd never



Meghan Tice First

*Rod Simmons at Chapman Forest North with Ancient Winter Grape (*Vitis vulpina*)—a dominant component of Basic Mesic Forest communities.*

advocate the indiscriminate removal of native vines, including ones apparently less desirable to humans like Poison Ivy, Greenbrier (*Smilax spp.*), Virginia Creeper, and Grape.”

Yet sometimes we notice native vines, especially Grape, that have been cut, either because of mis-identification or ignorance of their positive role in the forest community. Carole Bergmann responds,

“Cutting native grape vines is never condoned in M-NCPPC Parks. I probably spend half of my work hours teaching people about invasives, about biodiversity, and about the importance of preservation of native habitats. Whenever I hire contractors, whenever I teach the regional park workers, whenever I teach the citizen volunteer Weed Warriors, I show them the difference between native and non-native vines—every time!”

“Of course there is unauthorized invasive removal in the parks, and I know that most untrained people would not know the difference between a native and a non-native vine. I expect other area park systems also have ‘self-appointed weed busters,’ who go into parks and do things without permission because they think they are helping.”

How to know what to cut? Poison Ivy is relatively easy to recognize, with its characteristic “leaves of three” and the hairy look of the vine,



M-NCPPC Forest Ecologist Carole Bergmann teaches new Weed Warriors to differentiate between native and non-native vines.

created by its aerial rootlets. Distinguishing native Grape from Porcelain-berry can be tricky because these two plants have similarly shaped leaves. It should be no problem when the plants are in fruit because Porcelain-berry has fruits that turn from white to the mottled blue or purple color that gives the plant its common name. When confronted with a vine not in fruit, look at the underside of the leaf. Native Grape has hairs only on the veins, not on the leaf surface. Then, break off a twig, get out your pen-knife, and take a look at the pith. Porcelain-berry has white pith, whereas native Grape has brown pith. If you are in doubt about whether a vine is native or

non-native, don't cut it. Instead, check with an expert or come back later when it's in fruit.

For more information about non-native invasive plants in our region, see *Plant Invaders of Mid-Atlantic Areas* published by the National Park Service and the US Fish and Wildlife Service. It can be ordered through the MNPS website. For a comprehensive website on invasive plants, see www.invasiveplantatlas.org. And the National Park Service's Center for Urban Ecology has produced an excellent brochure on the native grape species of our region. http://science.nature.nps.gov/im/units/ncrn/products/briefs/NCRN_Grape_RB.pdf

~ Kirsten Johnson
(with help from my friends)

Civil War Forts, continued



Field trip at Fort Stanton Park, September 2012.



Fort Totten Park, showing remnant of Civil War earthen fortification.



Coming Events

FALL AND WINTER FIELD TRIPS

These are the field trips scheduled at press time. For up to date news of MNPS field trips and activities please see our website, www.mdflora.org and find us at meetup.com. Unless otherwise indicated, MNPS field trips are generally geared to adults. Please see the information provided for individual field trips, some of which may welcome children. If you have questions, feel free to contact the field trip leader.

November 4 ~ Sunday, 10:00 AM – 2:00 PM
Civil War Fort Sites in Washington, DC: Fort Dupont

Leaders: Mary Pat Rowan and Lou Aronica

We will return to Fort Dupont, the largest of the Civil War Fort properties in Washington D.C. at 261 acres, to explore the upland forests with an emphasis on identifying native oaks using the bark, leaves on the ground, buds and acorns. We will meet in the parking lot of the Fort Dupont Activity Center but car share to our entry point on Ridge Road.

December 2 ~ Sunday, 10:00 AM – 2:00 PM
Civil War Fort Sites in Washington, DC: Location TBA

Leaders: Mary Pat Rowan and Lou Aronica

Please check the MNPS website, www.mdflora.org, for the location of the December Fort Circle field trip.

December 16 ~ Sunday, 10:00 AM – 3:00 PM
Winter Solstice and Hooley: Chapman Forest

Leader: Rod Simmons

Sponsors: MNPS, VNPS Potowmack Chapter, Botanical Society of Washington, Mattawoman Watershed Society, Chapman Forest Foundation

Celebrate the winter season in Chapman Forest with its spectacular scenery and remarkable diversity of native trees. We will focus on an inner loop walk from Mt. Aventine across the gentler, sandy hills and ravines between the mansion and the convergence of the Aventine stream and the Glymont stream – all old-age forest. We'll see new state co-champion Pagoda Oak (*Quercus pagoda*), state champion and co-champion Chinquapin Oak (*Quercus muhlenbergii*), the natural hybrid between White Oak and Chinquapin Oak, Swamp Chestnut Oak (*Quercus michauxii*), as well as White Oak (*Quercus alba*), Northern Red Oak (*Quercus rubra*), Shumard Oak (*Quercus shumardii*), Southern Red Oak (*Quercus falcata*), Willow Oak (*Quercus phellos*), and other oaks and trees. Cancelled for heavy-steady snow, sleet, or pouring rain, but not for snow flurries or drizzling rain.

MONTHLY MEETINGS

Many MNPS members have thought of the monthly meetings in Montgomery County—usually at the Kensington Library, Knowles Avenue, in Kensington—as the regular meetings of the Maryland Native Plant Society. MNPS's other chapters hold monthly meetings as well; all the meetings known at press time are listed chronologically. Please see www.mdflora.org for details.

November 14, Wednesday – 7:00 PM
Winter Oak Identification Workshop

Baltimore Chapter, location: Irvine Nature Center, Owings Mills

Speaker: Cris Fleming

2012 is the MNPS Year of the Oak. This month, educator extraordinaire Cris Fleming will lead an oak-focused identification workshop with specimens of twigs, barks, and fruit to help participants learn different techniques of identifying oaks in winter.

November 27, Tuesday – 7:30 PM, doors open at 7:00
Oak Tree Anatomy

Montgomery County, location: Kensington Library

Speaker: Richard Murray

As an arborist practicing in Lower Montgomery County, Richard finds that 90% of his work with Oaks involves only a handful of species. He will profile these trees, revealing overlapping features of other Oaks and trees in general. Among other things, we'll investigate protection wood, branch attachments, and touch on bark and root elements.

Prior to Richard's talk there will be a very short Annual Meeting, consisting of the announcement of the election of the Board for 2013.

January 28, Tuesday ~ 7:30 PM, doors open at 7:00
An Introduction to Maryland's Heaths

Montgomery County, location: Kensington Library

Speaker: Cris Fleming, MNPS Board Member and Former President

For the first meeting of 2013, MNPS's Year of the Heaths, Cris will provide an overview and introduction to Maryland's heaths.

FIELD TRIPS

Do you know of a good place for a field trip? Whether or not you want to lead a field trip yourself, please let us know and we may be able to find a leader. Send your ideas to fieldtrips@mdflora.org.

**we are
ALWAYS
LOOKING
for GOOD
IDEAS**

MONTHLY MEETINGS

Do you know someone who would be a good speaker for a monthly meeting? If you do, we would love to hear from you. Please send contact information to info@mdflora.org.

Maryland Native Plant Society Nominees for 2013 Officers and Board of Directors

~: For Members Only ~ Ballot on Reverse Side ~:

* denotes current member of the board ** denotes new board candidate

President

Kirsten Johnson* ~ Baltimore City

Current President, having served since 2009; retired attorney; Master's Degree in biology, lifelong interest in natural history.

Vice Presidents

Marney Bruce* ~ Montgomery County

Current VP; Founder, Simplicity Matters Earth Institute; Weed Warrior for Montgomery Co, The Nature Conservancy, Audubon Naturalist Society; Montgomery Co Master Gardener; NWF Habitat Steward; Conference, Monthly Meeting and Conservation Committees.

Marc Imlay, PhD* ~ Charles County

Current VP; Conservation Biologist; Habitat Stewardship Committee Chair; Southern MD Chapter; consultant, Mid-Atlantic Invasive Plant Council; Conservation Biologist, Park Ranger Office, Natural & Historical Res Div, M-NCPPC.

Treasurer

Matthew Cohen* ~ Montgomery County

Current Treasurer; Owner, Matt's Habitats, focused on native plants and other environmentally-friendly gardening strategies. A long time gardener and naturalist, he and his wife transformed their ¼ acre yard in Silver Spring to natives and edible plants.

Secretary

Ginny Yacovissi* ~ Northern Virginia

Current Secretary; Weed Warrior for George Washington Memorial Parkway (NPS); volunteer at native plant propagation beds for Potomack Chapter, VA Native Plant Soc'y (VNPS); Monthly Meeting Committee.

Board of Directors

Ken Bawer* ~ Montgomery County

IT specialist; Weed Warrior with Montgomery Co and TNC; pursuing Certificate in Natural History Field Studies, Grad School USA; interested in conservation. BS Atmospheric & Oceanic Sciences, U Mich; Graduate work in Developmental Biology, U Wisconsin-Madison.

Matthew Bazar* ~ Cecil County

Biologist; environmental scientist, US Army; Cecil Co Forestry Board; volunteer land steward for Lancaster Co Conservancy (PA); interested in development issues, habitat preservation, open space preservation.

Carole Bergmann* ~ Montgomery County

Past President; Forest Ecologist for M-NCPPC, founder of Weed Warriors; Montgomery Co Forestry Board member; instructor for Grad School USA; Conference, Education, Botany and Habitat Stewardship Committees; field trip leader MNPS & ANS.

Melanie Choukas-Bradley* ~ Montgomery Co

Past VP; Nominating Committee; author of *City of Trees and Sugarloaf* books; field trip leader for many orgs; Grad School USA Natural History Field Studies instructor. *Wildflower in Focus* column for MNPS.

Cris Fleming* ~ Montgomery County

Past President; Botany, Conference, Nominating, Conservation Advocacy Committees; instructor, plant id courses, Grad School USA; field trip leader for MNPS, VNPS, ANS; author, *Finding Wild-flowers in the Washington-Baltimore Area*. Former field botanist/ecologist for the MD Natural Heritage Program.

Carolyn Fulton* ~ Baltimore City

Past Secretary; Marilandica Editor; Nursery and Finance Committees.

Beth Johnson* ~ Montgomery County

Past Treasurer; tax professional/Enrolled Agent with IRS; interest in Lepidoptera and Odonata; organized the 7th Annual ('12) Howard Co Dragonfly Count.

Liz Jones** ~ Montgomery County

Volunteer Coordinator for ANS, helped create & maintain Blair Native Plant Garden at Woodend. Co-chaired ANS Grounds Com., removed invasives with many groups. Retired from ANS in '12, & took Montgomery Co Master Gardener training, volunteer Butterfly Habitat meadow restoration project. Coordinates Blair Garden volunteers. Numerous Grad School USA Natural History Field Studies courses. ANS Board Member 1994-2000; education & finance committees.

Brett A. McMillan, PhD* ~ Carroll County

Asst. Professor of Biology, McDaniel College; Field Botany and Ecology Instructor. MA, U of Fl. Research on invasive plant impact on central Fl. understory plants. PhD, Old Dominion University, research on environmental variables/plant distribution, dunes of barrier islands, eastern shore of VA.

Karyn Molines* ~ Calvert County

Membership Chair; past President, VP, Secretary; 1998, 2004, 2007-2011 Fall Conference Chair; Southern Maryland Chapter. Division Chief, Calvert Co Nat. Resources Div.

Christopher F. Puttock, PhD* ~ Prince Georges Co

Research Associate at the Smithsonian Inst Nat'l Museum of Natural History. 2012 Pres of Botanical Society of Washington, VP Chesapeake Natives, Board Member Hawai'i Conservation Alliance Foundation. Broad interests in landscape restoration & wetland plants. Trained in systematics & working on electronic flora of the No. American paper daisies.

Mary Pat Rowan* ~ Washington, DC

Board Member; landscape architect; Conservation Committee; MNPS field trip leader; Washington, DC Chapter liaison.

Matt T. Salo** ~ Prince Georges County

Founder/director PG/AA Chapter. In Cheverly; Initiator & author of much of Green Infrastructure Plan, Founder/chair of Science Advisory Com., Forest steward M-NCPPC, conducted plant surveys & organized first BioBlitz, represents town and SAC to Baltimore/ Washington Partners in Forest Stewardship, 3 volunteer-of-the-year awards for environmental work. Participant MD Invasive Species Council. Former member Environmental Advisory Com to WSSC. Volunteer Chesapeake Natives & UMD Arboretum & Bot Gardens. Masters '67 Indiana U; PhD '74 SUNY Binghamton.

Roderick Simmons* ~ Northern Virginia

Past President; Field trip leader; Botany, Conservation Advocacy, & Education Com. Natural Resource Specialist & Plant Ecologist for the City of Alexandria, VA. Research Collaborator Smithsonian; Contract Botanist NatureServe & NPS; Botany dendrology instructor, field leader for Arlington Regional Master Naturalists; works with VA & MD natural heritage programs. Past pres. and active member of the Bot Soc'y of Washington; VNPS Board, & field trip leader for many organizations.

Gary Steele* ~ Montgomery County

Past Treasurer; computer configurations analyst; experienced hiker, trail volunteer, AT corridor monitor; has completed several Natural History Field Studies Classes, Grad School USA.

For Members Only

Ballot for Officers and Board of Directors for 2013

MNPS conducts its elections for the Board of Directors by including the ballot in the fall issue of Marilandica. Members do not need to vote if they favor the proposed slate that the Nominating Committee recommends. A non-response will be counted as a vote in favor of all nominees. If you do not favor one or more of the nominees, then please do cast your vote by mailing in a ballot. Candidates are running for one year terms unless a two-year term is specified. Candidates' bios are printed on the back of the ballot.

If you mail in your ballot, it must be received at MNPS, PO Box 4877, Silver Spring, MD 20914 by November 27, 2012—or you may bring it to the November 27 Annual Meeting. That meeting, at which the results of the election will be announced, will take place at 7:30 PM at Kensington Library, immediately before the regular monthly program.

If you decide to mail in your ballot, please choose from one of the following:

___ I vote for all of the Board nominees

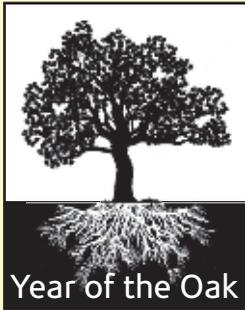
___ I vote for all of the Board nominees, with the following exceptions:

Nominees for 2013 Officers and Board of Directors

- President: Kirsten Johnson
Vice-President: Marney Bruce*, Marc Imlay, PhD
Treasurer: Matthew Cohen*
Secretary: Ginny Yacovissi

- Board of Directors: Ken Bawer, Matthew Bazar, Carole Bergmann*, Melanie Choukas-Bradley, Cris Fleming, Carolyn Fulton, Beth Johnson, Liz Jones, Brett A. McMillan, PhD, Karyn Molines, Christopher F. Puttock, PhD, Mary Pat Rowan, Matt Salo, Rod Simmons, Gary Steele

*midway into two-year term



Maryland Native Plant Society
PO Box 4877
Silver Spring, MD 20914

In this Issue

Letter from the President pg 1
Mosses 2
Civil War Fort Flora 3
Oak in Focus 5
Botany Quiz 6
Native & Non-Native Vines 7
Upcoming Field Trips 9
Upcoming Meetings 9
Board Members Bios 10
Election Ballot Back Cover