

A Chapter of the Virginia Native Plant Society
Web site: www. http://vnps.org/pwws

Number 2011-04

July-August 2011

Prince William Wildflower Society Membership Meeting Monday, July 18, 7:30 p.m. Bull Run Unitarian Universalists Church 9350 Main Street, Manassas, Va.

Make plans to join PWWS members as naturalist and

PWWS conservation and education chair Charles Smith presents a program on "Spring Wildflowers of Pinnacle Natural Area Preserve." Charles will take us on a visual tour of the Pinnacle Natural Area Preserve, a Virginia state preserve in Russell County that features unusual dolomite rock formations and harbors a rich collection of native plant species endemic to the mountains of Virginia. The program will takes us on a "walking" tour of the Preserve featuring the plants found as you cross the suspension footbridge, visit waterfalls, view

the Pinnacle rock formation, and stop near the confluence of Big Cedar Creek and the Clinch River in one of the most biologically rich regions of the state. Species of note include bishop's cap, crested iris, large-flowered bellwort, northern white cedar, large-flowered trillium, fairy bells, ninebark, dwarf larkspur, round-leaved ragwort, and American bladdernut. Please note change of venue for this meeting only to the Bull Run Unitarian Universalists Church in downtown Manassas. Parking is available at the lot across the street or on the street. If you need a ride to the meeting, please call PWWS President Dee Brown at (703) 367-0940. All are welcome to join us. Refreshments will be served.

PRESIDENT'S CORNER

PWWS is hosting the annual statewide meeting for the Virginia Native Plant Society Sept.16-18. Many members of your board have spent numerous hours in planning meetings and contacting people to set up speakers, tour leaders, hotel and food arrangements, write information for the state newsletters, get name tags, gather hospitality items, etc. When the meeting

arrives (and a few days before) we will need lots of help. Many of you are "silent members" who pay dues that support programs, and that is very appreciated and for some all that is possible, but we never see many of your faces at meetings or when volunteers are needed for public events. Now, we really need you to give a few hours of work for this once in a decade event. Here are some of the jobs that will need people before or during the meeting, which will be held at the Four Points by Sheraton near the Manassas Battlefield.

Prior to the Meeting

- --Stuff the registration packets
- --Put color coded dots on the name tags to denote which tours people are taking, which box lunch they get, and which meal they selected
- --Make pennant type signs for the various tours so we can gather up participants Sat. and Sun. for the many simultaneous tours departing the Sheraton
- --Design and make, or, pick up centerpieces for the ballroom tables
- -- Make bid sheets for the silent auction items
- --Compile lists of who has registered for each tour and give them to the tour leaders. Alert us if the list is approaching capacity so we can schedule alternate tours
- -- Make a list of all registrants and their home chapters

During the meeting

- --Help register people as they arrive Fri. afternoon and Sat. morning and give them their information packet and name tag
- --Staff a table to answer questions people from out of town may have about where to find restaurants, drug stores, etc.
- --Early Sat. morning, get the correct box lunches to people before the tours depart. Also help get ice, drinks, and other needed supplies to the tour leaders
- --Ride along (or drive) in some of the carpools to help our out-of-town guests find the tour locations
- --Help vendors such as the artists or nursery people serve customers
- --Staff the silent auction or other tables, especially at the end, and gather up the bid sheets
- --Get merchandise to the people who bought it and get their payments
- --Help take things down after the meeting closes on Sun.

I'm sure other tasks may arise in addition to these, but, as you can see, many people will be needed to keep things running smoothly those three days and make our guests feel welcome. Remember we ask you only every 8 or 10 years to do this, so please be generous with your time. Contact Karen Waltman, our secretary, at *geraldwaltman@hotmail.com* or (703) 830-5710 to tell her what you are willing to do. If she does not hear from enough of you, expect a pleading cajoling phone call from Karen. PWWS has over 100 members so if we spread this around, no one should feel overburdened during the annual meeting and there will be time for all of us to enjoy ourselves some.

Finally, register yourself. The \$85 registration fee covers everything for local people except the cash bar and items you may buy. There will be a speaker Fri. night and heavy snacks. Sat. we will have a gourmet dinner and a speaker. You can select 3 field trips from the many offered - Sat. AM, Sat. PM, and Sun. AM plus entertainment, auctions, and socializing with people who share your interests. Details are in the VNPS Bulletin and this newsletter and Registration begins soon. You can print a registration form from www.vnps.org. --Dee Brown, President

[Photo credits: Staphylea trifolia (American Bladdernut), Stefan Bloodworth, NPIN Image Gallery ID 19183, accessed at www.wildflower.org.]

"Wild Places in Urban Spaces"
Prince William Wildflower Society to Host
VNPS Annual Meeting, September 16-18,
2011, Four-Points by Sheraton, Manassas,
Virginia

The Prince William Wildflower Society Chapter of the VNPS invites you to the 2011 Annual Meeting of the Virginia Native Plant Society to be held at the Four Points by Sheraton Hotel near the Bull Run Battlefield in Manassas. Following on the heels of the Civil War Sesquicentennial commemorations of the First Battle of Manassas, VNPS members will gather from all areas of the Commonwealth to explore the varied flora and fauna in Virginia's only county that spans three geological provinces, from Bull Run Mountain to the coastal plain on the Potomac River. The Prince William area is historically rich and provides an exciting backdrop for hiking, canoeing, exploring the urban and rural wilds, hearing exciting speakers, and visiting with old and new friends. Below are a Schedule of Events and a list of Field Trips available at the meeting. A Registration Form is included in your July VNPS Bulletin. All materials are also posted on the VNPS Web site at **www.vnps.org**.

01889000188900018890001889000

We need help from many PWWS members to help with the field trips, organizing carpools, and many other tasks. Please consider volunteering your time to help make our meeting a success. To volunteer, contact a PWWS board member (listed below in this newsletter) or PWWS President Dee Brown, at dj44brown@yahoo.com or (703) 367-0940. See Dee's appeal, under "President's Corner," for more info.



SILENT AUCTION ITEMS NEEDED

One of the enjoyable activities of the annual meeting is bidding on silent auction items which members have donated. Please look around to see what you are willing to give that others may find interesting. Of course, garden related things are always appropriate. Even produce from your garden--a good zucchini bread, carrot cake, jams, vinegars. Are you artistic? Have a cabin someplace you'd let others use for a few days? What about a service--pet sitting, yoga lessons, a few hours help in the garden for a person who has mobility problems? Own a business--a gift card? Don't be afraid to give small things that might not stand alone. We can gather similar themed items into a large gift basket. Think about all those events you have attended that had silent auctions and remember what most caught your eye or what many others bid on.

Please bring any things you have to the next PWWS meeting (which is the only one prior to the annual meeting). If you have something that is not ready yet, tell us what it is so we know what will be available. You can e-mail Dee Brown at dj44brown@yahoo.com.

Weekend Schedule of Events

(All events other than field trips will be held at the headquarters hotel, Four Points by Sheraton Manassas Battlefield.)

Friday, Sept. 16

3-5 p.m. Quarterly Board Meeting

Dinner on your own—many restaurants nearby (list available)

Evening Social

6 p.m. Registration. Chapter and state displays
7 p.m. Hors d'oeuvres and dessert (cash bar)
7:30 p.m. Welcome and opening remarks. Featured
presentation by Jim McGlone, "Managing
Our Forest Lands for Ecological Health." Join Jim as he
gives an overview of the condition of our forests,
discusses the underlying ecological functions of a forest,
and describes how managing for ecological health often
involves human intervention and education.

Saturday, September 17

Breakfast on your own

9 a.m.-4 p.m. Field trips (Lunch provided: see registration form for choices)

5:30-7 p.m. Social, silent auction, cash bar, and appetizers

7 p.m. Annual Business Meeting, Election
7:30 p.m. Dinner (business-casual dress)
8:15 p.m. Evening program: Keynote speaker Karen
Firehock, "Using Green Infrastructure Planning
to Conserve Native Plant Communities." Many impacts

to native plant systems are the result of poor land use planning. Changing the process to focus on obtaining good information about "green assets," ensuring habitats are connected, and identifying opportunities while engaging stakeholders can greatly improve preservation and restoration efforts and result in better quality of life for residents.

Sunday, September 18

Breakfast, lunch on your own

9 a.m.-noon Field trips

Accommodations: Four Points by Sheraton Manassas Battlefield, 10800 Vandor Lane, Manassas, VA 20109; Special Offers Reservations (866) 716-8113; free breakfast and wi-fi. Registration prior to August 31 ensures \$99 advertised room rate. When making your reservation, make sure that you give the VNPS Reservation Code ANP: 16.

Field Trips

Field trips begin at 9 a.m. Box lunches from Panera will be provided. Trips are full-day or half-day. Some trips have additional fees as noted. Field trip attendance limits are 20 unless otherwise noted. Programs are rain or shine except for the kayak/canoe trip.

On the registration form INDICATE your field trip preferences. Please mark a first and second choice. For field trip questions, contact Charles Smith (chrlssmith@msn.com); for all other information, contact Karen York (540) 837-1600 or vnpsofc@shentel.net). Information and directions on where and when to meet for each trip will be sent out with your Annual Meeting Confirmation Packet and will also be available at the Friday evening program.

Saturday Full-Day Field Trips

Bull Run Mountain (Moderate to Strenuous, limit 25) This unique outlying mountain range plays host to 1,016 species of plants and 112 species of lichens (formally documented) in 11 major plant communities. Some of the plants are disjunct from the higher mountains to the west, including black ash (Fraxinus nigra), Goldie's wood fern (Dryopteris goldiana), slender mannagrass (Glyceria melicaria), staghorn clubmoss (Lycopodium clavatum), round-leaf orchid (Platanthera orbiculata), great rhododendron (Rhododendron maxima), northern starflower (Trientalis borealis), American false hellebore (Veratrum viride), nodding trillium (Trillium cernuum) and table mountain pine (Pinus pungens). The 2,846 acres of Bull Run Mountain are now designated a DCR-Division of Natural Heritage Natural Area Preserve, with 8 rare plant communities. Visit www.dcr.state.va.us/dnh/bullrun.htm and www.brmconservancy.org.

2 ___Manassas National Battlefield Park Flora and Civil War History (Moderate) \$3 park entry fee without annual pass. This 5,000-acre national park has three VNPS Registry sites and contains unusual plants such as blue-hearts (*Buchnera americana*), marsh hedge-nettle (*Stachys pilosa* var. arenicol), buffalo clover (*Trifolium sp.*), Appalachian

quillwort (*Isoetes appalachiana*), and hairy beardtongue (*Penstemon hirsutus*). Manassas battlefield was the site of two important Civil War battles. The stories of the soldiers and civilians who fought and died here are a compelling part of our heritage. Visit http://www.nps.gov/mana/ and look under Park Resources, Nature & Science to view species lists.

3 ___Silver Lake Park & The Winery at La Grange (Moderate, limit 25). Vineyard tasting \$10. The group will visit Silver Lake Regional Park in the morning, which features a 20-acre lake fed by the Little Bull Run and an abandoned diabase quarry. The diabase-derived soils support two globally rare plant communities: Northern Hardpan Basic Oak-Hickory Forest and Pin Oak-Swamp White Oak Upland Depression Swamp. The group will drive just a few miles down the road at mid-day to eat lunch at the Winery at La Grange. The winery opened in September 2006 and is situated around red brick three-and-a-half story La Grange manor house built in the 1790s. There will be a wide selection of wines and a wonderful setting to eat, drink, and visit with friends. Visit http://www.pwcparks.org and http://www.wineryatlagrange.com.

Saturday Half-Day Field Trips and Workshops 4 ___Occoquan Bay National Wildlife Refuge; Morning

- (Moderate) This trip is ideally paired with Featherstone NWR in the afternoon. The 643-acre Occoquan Bay National Wildlife Refuge, formerly the U.S. Army Woodbridge Research Facility, is noted for its upland meadows with warm season grasses and for the wetlands on the shore of the Occoquan River near its confluence with the Potomac. Twenty plant communities support 700 species of plants that in turn support an inventory of 265 bird species. Northern harrier, bald eagles, rails, migrating birds all use the habitats of the refuge, part of the USFWS Potomac River Refuge Complex. Visit http://northeast.fws.gov/va/mro.htm.
- 5 ___ Featherstone National Wildlife Refuge; Afternoon (3 hours) (Moderate) This trip is ideally paired with Occoquan Bay NWR in the morning. Featherstone NWR is 325 acres including upland hardwood forest and vast tidal wetlands. Participants will get a rare glimpse of this refuge that has been closed to the public since its acquisition in the 1970s. The refuge includes state rare species as well as some of the best remaining forested and emergent tidal wetlands in the region. Visit http://www.fws.gov/featherstone.
- 6 ___ Occoquan Reservoir Kayak-Canoe Trip; Morning (3 hours) (Moderate) Kayak or canoe rental about \$26 or you may bring your own and pay the \$5 launch fee. Occoquan Reservoir is a 2,100-acre Fairfax Water Authority impoundment, which forms the boundary between Fairfax and Prince William Counties. Although known throughout Virginia for its fishery, the reservoir also plays host to diverse wetlands and terrestrial plant communities and a wide array of bird species. Join botanists and historians with special assistance from the Occoquan Water Trail League in exploring this unique place the best way possible, from the water. Visit http://www.nvrpa.org/park/fountainhead.

7 ____ Wetlands Studies & Solutions Inc. Building Tour; Morning (2 hours) (Easy, limit 25) This trip is ideally paired with the Conway Robinson State Forest in the afternoon. The Wetlands Studies and Solutions Inc. (WSSI) headquarters in Gainesville, Va., is one of the first Leadership in Energy and Environmental Design (LEED) Gold facilities in the mid-Atlantic. This unique structure incorporates numerous resource saving and Low Impact Development (LID) design features. Join a WSSI staff member and learn more about energy-saving features, the green roof, porous asphalt and concrete, rain garden and cisterns that allow rainwater to be reused to irrigate plantings and flush toilets. Visit http://www.wetlandstudies.com/about-wssi/office-docs/WSSIBrochure4thEdit... and

http://www.wetlandstudies.com/about-wssi/wssi-office.html.

- 8 ___ Conway Robinson Memorial Forest, Virginia Department of Forestry; Afternoon (Moderate, limit 25) This trip is ideally paired with the Wetlands Studies and Solutions Inc. Headquarters building tour in the morning. Conway Robinson Memorial Forest contains 440 acres bordered by Rt. 29 at I-66, Heritage Hunt development, Little Bull Run and is near Manassas National Battlefield Park. It features hardwood and pine forests on bedrock outcroppings. A gas line forms an open meadow and hosts Gentiana clausa, Gerardia tenuifolia, Krigia dandelion, and Liatris squarrosa. Autumn brings Corallorhiza odontorhiza blooms. A forest stewardship center has been proposed for the site. Visit http://www.dof.virginia.gov/stforest/index.htm.
- 9___ Introduction to Nature Photography; Morning (3 hours) (Easy) In this workshop you will learn how to use the various settings on your camera to get more interesting and unique photos of nature subjects. We will also discuss accessories and equipment that can be used to improve your results and learn a little about post-processing with Photoshop or similar image editing programs. The workshop will include fieldwork at several sites at Merrimac Farm Wildlife Management Area and a chance to practice and to compare your work. Merrimac Farm has a variety of habitats including wetlands, meadows, and upland forest. Visit http://www.pwconserve.org/merrimacfarm/index.htm.

10___ Introduction to Nature Journaling; Afternoon (3 hours) (Easy) Would you like a relaxing way to enjoy nature? You don't have to climb mountains or slog through wetlands to experience and appreciate nature in this workshop. Learn the techniques of nature journaling during a session at and around the Stone House at Merrimac Farm Wildlife Management Area, a particular hotspot for butterflies. Visit http://www.pwconserve.org/merrimacfarm/index.htm.

Sunday Field Trips

- **11___ Manassas National Battlefield Park Flora Walk** (3 hours) (Moderate, see park description above).
- 12___Manassas Airport Wetlands Mitigation Birding Walk (3 hours) (Easy) The Route 234 Wetland Mitigation Area near Manassas Airport is 89 acres of forested and emergent wetlands protected by an upland corridor. This

variety of shrubs and hardwood trees adapted to wetland conditions: red maple, sycamore, pin oak, willow oak, green ash, button bush and black willow. A variety of rushes and sedges were planted, along with wildflowers such as hibiscus. Preserving both upland and wetland habitats, it is quickly becoming a refuge for wildlife in a rapidly developing area.

13___Bristoe Station Battlefield Meadow Walk (2 hours) (Moderate, no limit) Set aside to protect a portion of the Oct. 14, 1863, Battle of Bristoe Station site, this 127-acre county park also provides important piedmont meadow habitat. Participants will discuss meadow management while observing meadow plant species and a diverse array of birds, including eastern meadowlark and grasshopper sparrow. Visit www.pwconserve.org/issues/landuseplanning/bristoe/index.html.

former farmland site was developed in 2000 by VDOT to

of the Route 234 Bypass. Original plantings included a

replace wetlands and wildlife habitats lost to the construction

About Our Guest Speakers

Jim McGlone is an urban forest conservationist with the Virginia Department of Forestry, serves on the Fairfax County Tree Commission, and is a chapter advisor of the

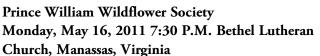
Fairfax Master Naturalists. He assists private and public landowners in assessing their properties and developing land management strategies. He also gives presentations to diverse audiences on ecology and related topics and participates in developing and implementing local policies that protect and enhance natural resources.

Karen Firehock is director and co-founder of the Green Infrastructure Center, and is an adjunct at the University of Virginia teaching graduate courses in green infrastructure planning, watershed planning and stormwater management, global health and environmental ordinances, and fundraising. Visit http://www.arch.virginia.edu/faculty/KarenFirehock and http://www.gicinc.org/staff.htm.

Silent Auction

13-39-90-13-59

Each VNPS Chapter will be providing items for the Silent Auction. Proceeds benefit VNPS. Bidding opens at 5 p.m. on Saturday at the Center for the Performing Arts and closes at 6:30 p.m. Cash, credit, or personal checks accepted. Winners will be announced at the meeting. Sponsors and patrons will be recognized.



President Dee Brown opened the meeting and welcomed those present.

Announcements: Marion Lobstein reported the *Flora of* Virginia's publication is going along as planned for 2012. The Virginia Native Plant Society's annual meeting in September will be hosted by PWWS at the Four Points by Sheraton in Manassas, at Route 234 and Route 66's Exit 47. Nancy Vehrs gave the dates for the annual meeting -September 16-18, 2011. Charles Smith reported on the field trips planned for the annual meeting. Speakers will be finalized in the next two weeks. Dee listed some possible volunteer jobs for our members during the annual meeting. Nancy Vehrs reported that Prince William Conservation Alliance is raising money for native plantings around the Stone House at Merrimac Farm. Charles said there would be a second plant survey at Featherstone National Wildlife Refuge by Charles and Kim Hosen. The National Park Service is asking for public input in developing a white-tailed deer management plan and environmental impact statement for Maryland's Antietam National Battlefield and Monocacy National Battlefield and Virginia's Manassas National Battlefield Park.

Program: President Dee Brown introduced her program, "We Know About Darwin's Finches, But What About Darwin's Cotton?" Dee and husband Glen Macdonald visited the Galapagos Islands in Sept. 2009 and Dee, with Glen at the controls of the power point presentation, gave us a look at plants and animals of the isolated Galapagos Islands.

In 1835 Charles Darwin studied the plants and animals of the Islands, and some plants had a lesser known but important place in Darwin's work on his evolution theory, e.g. Darwin noticed 6 different species of daisies-one on each of 6 different islands.

The 120 islands that make up the Galapagos Islands are located on the Equator, with 600 species of plants. In contrast, Ecuador is the closest neighbor with 20,000 species of plants. About 400 species of the 600 species of plants on the Islands are native, 40% of which are endemic (evolved mutations found nowhere else). Originally, over the course of several million years, birds brought in about 60% of the plant species, about 30% came in on the wind, and another 8% came from the sea. On the populated islands introduced species brought in by settlers for commercial production and decoration now outnumber the natives. Some, unfortunately are invasive. Even on the never populated islands there are over 200 introduced species and the number is growing.

In moist uplands, settlers who grew in numbers following WWII introduced mangos, bananas, and other commercial plants. They also brought in goats, cat, and dogs many of which are now feral. Since the goats eat everything, this has put tremendous stress on native plants and animals, along with the already harsh living conditions. Park Rangers are trying to get people to plant native plants, and there is a plan for goat eradication.

Parallels between problems in the Galapagos and our Virginia native habitat areas in the face of development were pointed out—introduction of decorative invasive plants and animals, in our case deer, that feed on native plant areas to their detriment. A huge problem is also the potential to bring in foreign animals and insects with every shipload of building and other supplies that comes in to service the growing population. Attending: Charles Smith, Diane Flaherty, Helen Walter, Janet Wheatcraft, Nancy Arrington, Harry Glasgow, Nancy Vehrs, William Hendrickson, Jeanne Endrikat, Jeanne

Fowler, Marion Lobstein, Joyce Andrew, Tom Andrew, Bill Lehman, Jane Lehman, Deanna High, Jack High, Dee Brown, Glen Macdonald, Betty Truax, Karen Waltman, and 3 others who did not sign the sign-up sheet. 24 total

> --Respectively submitted, Karen Waltman, PWWS Secretary

SEEKING SHADE

Ramblings from Home Prince William County July, 2011

"But who are you, twittering to and fro Beneath the oak?" —D.H. Lawrence, "Under the Oak"

Walking the dog late in the morning, I instinctively seek out the shady side of the street, as the sun is hot, hot at eleven a.m. these

days. It's a Sunday, so there is mercifully little traffic noise booming from the nearby Prince William Parkway, and we walk in near silence except for birds and insects. Mostly, the latter, as the birds' morning chorus is about over and the insect throng is just beginning with a few desultory humming and buzzing swells. It's also still, which gives us another reason to seek shade—little breeze to count on. As a someone who grew up in the Deep South, seeking shade is second nature, an instinct of survival. Watch any group of southerners outdoors—even at a funeral—and you'll witness a silent edging over to whatever shade is available. And it's true that I'll park a mile away to get a spot with any shade rather than a close-to position in the sun.

Trees, of course, offer the best kind of shade, but differ in the kind of shade, depending on, among other things, habitat, habit, and size and shape of their crowns. A week or so ago, at my husband's family reunion in Utah, we found ourselves spending a very hot, sunny day on a high desert plateau with only one large tree for shade—the only tree of any size as far as the eye could see. It was a cottonwood (Populus angustifolia), a quintessentially 'western' tree. Instead of the usual cows snoozing in its afternoon shade, a group of adults and children slowly shifted over the course of the day to sit and play under its branches. Its shade was dappled, but a breeze blew under it and cooled one's otherwise burning brains. The scene brought to mind how a single tree can order its surroundings, such as in an old country cemetery. Sometimes the type of tree in such cemeteries is surprising. At my Aunt Lucy's

burial in Union Parish, Louisiana, it was an enormous old



dogwood rendered almost unrecognizable by its size that set the stage of its rural enclosure. Often it seems to be an old holly or mulberry. Where my parents are buried—in a much more modern cemetery—there are no large trees except off in the distance, which is a loss of sorts, in that it is impossible to seek shade there, except perhaps from the shadows of the grave.

Our native hardwoods of oak, hickory, and maple throw down a

wide but dappled shade, as do the smaller trees growing underneath them: dogwood, ironwood, and others. American beech exudes a denser, deeper shade—a "stillness" emanating from under its branches. Locusts—both black and honey-locust--provide a light-mottled, filtered shade, and are often "limbed up" by landscapers so that lacy light can reach lawns growing beneath them. American holly (Ilex opaca) provides an ominously dark, prickly shade—I always feel like a creepy crawly thing is going to drop on me when I'm under them—while the shade of a pine grove is clean and whispery quiet, perhaps because of the bed of soft pine needles underfoot and the sound of them above. Shade of red cedars is absolute, but elusive, as one usually has to crawl under a specimen in order to benefit. Best left for children and other small animals! Shade of oaks, however, seems quintessential to creating an expansive aura of peace and restfulness. It made sense to learn that more than 400 swamp white oaks (Quercus bicolor) will line the World Trade Center "Ground Zero" Plaza in New York City. The oaks will line the plaza

and surround the two reflecting pools that mark the footprints of the twin towers. And doubtless, provide much-needed shade in years to come.

Sticking to the shady patches on my street, in between some terrible swaths of stilt grass, I spy wild carrot or Queen Anne's Lace, (*Daucus carota*), which seems to be new to the spot this summer. It's not native, but I stop to admire one and notice that it's growing in a luxuriant patch of poison ivy. Wild lettuce (*Lactuca canadensis*) is blooming (yellow starry little

flowers) or nearly over, with some seed heads fluffed out and

ready to fly away. Late boneset (Eupatorium serotinum) is 3 feet or so tall and will bloom in a week or two. Along with a big patch of dogbane, which had been mowed and is now straggling back to the roadside, I also notice the Amur honeysuckle (Lonicera maackii) growing in the drainage ditch on our side of the road. This bush first came to my attention this spring when it bloomed—rather pretty, but, as I have since learned, it is just about the worst invasive one can imagine. I made a mental note then to do something about getting rid of it before it has berries and spreads, but here it sits months later as healthy as ever. No berries, yet, so perhaps there is still time. Wild berries otherwise are in fruit; I sampled a couple of blackberries that were growing along the road the other day—ok, but not great. Serviceberries were fruiting several weeks earlier. What few I had were delicious. And, there is a vague recollection somewhere (was it a dream?) of a beautiful serviceberry pie that someone had made. Perhaps it was in a dream, as you would need a very large stand of serviceberries to get enough fruit for such a pie. --Deanna LaValle High

[Photo: Swamp white oak, nativeohioplantlist.com/content/swamp-white-oak; Queen Anne's Lace, watercolor, Donald Hyatt, accessed at www.donaldhyatt.com/gallery.html; Wild lettuce photo, Roland Barthe, Nature Search, Fonenelle Nature Association, http://fnanaturesearch.org].

INVASIVE PLANT PROFILE Amur Honeysuckle

(*Lonicera maackii*) is one of a group of Asian natives sometimes called the "Exotic Bush

Honeysuckles." The group includes Lonicera fragrantissima (fragrant honeysuckle), L. maackii (Amur honeysuckle), L. morrowii (Morrow's honeysuckle), L. standishii (Standish's honeysuckle), L. tatarica (Tartarian honeysuckle), L. xylosteum (European fly honeysuckle), L. X bella (hybrid, pretty honeysuckle) and possibly others in the Honeysuckle family (Caprifoliaceae).



Native Range: Eurasia (Japan, China, Korea, Manchuria, Turkey, and southern Russia). It derives from the borders of the Amur River, which divides the Russian Far East from Manchuria. Its Latin name honors Richard Otto Maack, a 19th century Estonian naturalist, who surveyed and lived in Russian Siberia for most of his life.

Description: Exotic bush honeysuckles are upright, generally deciduous shrubs that range from 6 to 15 feet in height. The 1-2 ½ inch, egg-shaped leaves are opposite along the stem and short-stalked. Older stems are often hollow. Pairs of fragrant, tubular flowers less than an inch long are borne along the stem in the leaf axils. Flower color varies from creamy white to pink or crimson in some varieties of Tartarian honeysuckle. Flowering generally occurs from early to late spring, but varies for each species and cultivar. The fruits are red to orange, many-seeded berries. Native bush honeysuckles may be confused with these exotic species and

cultivars, so proper identification is necessary. Unlike the exotics, most of our native bush honeysuckles have solid stems. Exotic bush honeysuckles have been introduced for use as ornamentals, for wildlife cover and for soil erosion control.

N.B. The USDA even introduced a cultivar of Amur Honeysuckle, called 'Red Rem,' which was bred to be resistant to Honeysuckle Aphid infestation and bears a more profuse crop of red fruit. As the plants database text of the University of Connecticut states, "Given the invasive tendencies of this plant, this feature may not be preferable. Also, this cultivar is reportedly seed-produced, thus it is quite likely indistinguishable from the species." [www.hort.uconn.edu/plants]

Ecological Threat: Exotic bush honeysuckles can rapidly invade and overtake a site, forming a dense shrub layer that crowds and shades out native plant species. They alter

habitats by decreasing light availability, by depleting soil moisture and nutrients, and possibly by releasing toxic chemicals that prevent other plant species from growing in the vicinity. Exotic bush honeysuckles may compete with native bush honevsuckles for pollinators, resulting in reduced seed set for native species. In addition, the fruits of



exotic bush honeysuckles, while abundant and rich in carbohydrates, do not offer migrating birds the high-fat, nutrient-rich food sources needed for long flights, that are supplied by native plant species.

Distribution in the U.S.: Amur, Tartarian, Morrow's, and Pretty honeysuckle generally range from the central Great Plains to southern New England and south to Tennessee and North Carolina. The remaining species are sporadically distributed.

Biology & Spread: Open-grown exotic bush honeysuckles fruit prolifically and are highly attractive to birds. In the eastern United States, over twenty species of birds feed on the persistent fruits and widely disseminate seeds across the landscape. In established populations, vegetative sprouting also aids in the persistence of these exotic shrubs.

Management Options: Mechanical and chemical methods are the primary means of control of exotic bush honeysuckles. In shaded forest habitats, where exotic bush honeysuckles tend to be less resilient, repeated clippings to ground level, during the growing season, may result in high mortality. Clipping must be repeated at least once yearly because bush honeysuckles that are cut once and left to grow will often form stands that are more dense and productive than they were prior to cutting. Seedlings of exotic bush

honeysuckles can also be controlled by application of a systemic herbicide, like glyphosate (e.g., Roundup*), at a 1 percent solution, sprayed onto the foliage or applied by sponge. Well-established stands of exotic bush honeysuckles are best managed by cutting the stems to ground level and painting or spraying the stumps with a slightly higher rate of glyphosate (2-3 percent) or with imazapyr in a 10 percent solution. Prescribed burning has shown some promise for exotic bush honeysuckles growing in open habitats. In all instances, control should be initiated prior to the seed dispersal period (late summer to early autumn) to minimize reinvasion of treated habitats.

Bush Honeysuckle Increases Risk of Human Disease

Scientists at Washington University in St. Louis have recently documented that invasive honeysuckle—especially the bush honeysuckle, increase risk of tick-borne disease in suburbs. (For description of the experiment and links to full article, see http://www.sciencedaily.com/releases/2010/10/101011173245.htm). An interdisciplinary team of scientists from the university conducted the experiment in a conservation area that contained a dense wall of *Lonicera maacki* that provided shelter for white-tailed deer, who in turn dropped many more larval ticks there than elsewhere, forming an indirect link between invasive plants and human disease. The team found that the density of white-tailed deer in honeysuckleinvaded areas was roughly five times that in areas without honeysuckle and the density of ticks infected with bacteria that cause human disease was roughly 10 times higher than in other areas. As the director of Washington University's

Tyson Research Center says regarding whether what holds for honeysuckle holds for other invasive plants as well, "This may be something that's occurring quite broadly, but we're really just starting to look at the connection between invasive plants and tick-borne disease risk." Lead scientist of the project, Dr. Brian F. Allen, notes that "bush honeysuckle retains its leaves longer than most native species do. It's the first thing to leaf out in the spring and it's the last thing in the understory to drop its leaves in the fall, so it creates structure for a large portion of the year." From the perspective of tick biology, "honeysuckle is the only thing providing green cover, so deer probably bed in honeysuckle throughout the larval tick season." Dr. Allan observes that "Many studies around the world are showing an increase in the risk of infectious disease as a result of the loss of biological diversity." Since it's difficult to get people to focus on invasive plants, he thinks that they will pay more attention when their health is at stake: "This may be a case of win-win ecology. Honeysuckle control would benefit native species but it would also benefit human health."

[Adapted from Plant Conservation Alliance's Alien Plant Working Group, "Weeds Gone Wild: Alien Plant Invaders of Natural Areas," 2005, accessed at www.nps.gov/plants/alien and USDA Forest Service, Forest Health Staff, Newtown Square, PA. WOW 09-05-05, accessed at http://www.na.fs.fed.us/fhp/invasive_plants; Invasive Plant Atlas of New England, http://nbii-nin.ciesin.columbia.edu/ipane/icat/browse.do?specieId=66; Science Daily, accessed at www.sciencedaily.com. Photos: Richard Otto Maack, Wikipedia, accessed athttp://en.wikipedia.org/wiki/Richard_Maack; Amur honeysuckle, Photo: Berried branch, Chuck Bargeron, University of Georgia, Bugwood.org. Accessed at http://www.ipmimages.org/browse/detail.cfm?imgnum=1237034]



PRINCE WILLIAM WILDFLOWER SOCIETY A Chapter of the Virginia Native Plant Society P.O. Box 83, Manassas, Virginia, 20108-0083

Next Meeting: "Spring Wildflowers of Pinnacle Natural Area Preserve" Monday, July 18, 7:30 p.m., Bull Run Unitarian Universalists Church, Manassas, Virginia