ON THE EDGE: THE POTOMAC RIVER DYKE MARSH, THURSDAY, NOVEMBER 9

The unique native habitat of Dyke Marsh is the subject of a film, "On the Edge: The Potomac River Dyke Marsh," to be featured at our November 9 program at 7:30 p.m. at Green Spring Gardens. Once considered the most primeval spot near Washington, D.C., Dyke Marsh is the last major tidal marshland within view of our Nation's Capital on the Potomac River. Like most vanishing tidal marshlands, it is disappearing as a result of human activity. As a safety buffer against hurricanes and floods, the native hatchery for bay and ocean fish and as a focal point for migratory birds, Dyke Marsh affects all of our lives. “On the Edge” is a primal call to revive the diversity of life that provides sustenance and safety to the species that is destroying our country's tidal marshes - human beings! The film is the work of Dave Eckert, formerly of Falls Church.

Brent Steury, Supervisory Biologist and Natural Resources Program Manager with the National Park Service at George Washington Memorial Parkway, will introduce the film and answer questions. Brent’s research interests have focused on the distribution of threatened and endangered vascular plants on the Mid-Atlantic Coastal Plain. Directions to Green Spring Gardens Park: From Interstate 395, exit at Route 236 West (Little River Turnpike); turn right at Braddock Road and go 1 block north to park entrance.

MASON NECK STATE PARK WALK, SUNDAY, NOVEMBER 19

Rod Simmons, noted regional field ecologist and VNPS Registry Chair, will lead a walk at Mason Neck State Park in Fairfax County from 10 am to 2 pm on Sunday, November 19. Mason Neck State Park is one of the largest natural areas in Fairfax County. We will see a wide variety of native plants and habitats, including different types of upland forest, seepage wetlands, marsh vegetation, and scenic overlooks above the Potomac River. Mason Neck is also renowned for its bird diversity, and we may be joined by our birding friends from Prince George's County, Maryland, who would be present before 8:30. This will be an easy to moderate walk on trails. Wear sturdy shoes and bring lunch or snacks and water. Please contact Meghan Tice (ceccopia13@msn.com) if you are interested in meeting up with birders. Directions: Take Route 1 south to the Lorton exit Route 242 (Gunston Road). Take Gunston Road into Mason Neck and proceed to the large parking lot on the left (the parking lot with the restrooms). There will be a small entrance fee of $3.00. We will meet in the large parking lot.

NEW SYNTHESIS OF FLORA FOR FAMED PLUMMERS ISLAND

A checklist of the flora of Plummers Island, in the Potomac River narrowly separated from the Maryland shore just inside the beltway (I-495) and below the American Legion Bridge, has just been published by Stanwyn G. Shetler, Sylvia S. Orli, Elizabeth F. Wells, and Marcie Beyersdorfer, in the Bulletin of the Biological Society of Washington. The Washington Biologists’ Field Club has been studying the biology of Plummers Island and its adjoining mainland since 1901; when the Club leased the island and established a headquarters there. Today, it is one of the most studied small islands or sites of comparable size anywhere. The first and only previous checklist was published in 1935, with an addendum in 1953.

The new checklist reports a cumulative total of 885 species since records were first kept and documented with specimens. This is 92 species more than previously reported in 1934 and 1953. Of the 885, only 300-350 of these are present today. The flora has been in constant flux from season to season and year to year, especially because of the frequent flooding of the river. Among the species that have disappeared from the island over the years are the locally native pricklypear cactus (Opuntia humifusa) on Cactus Rock and bloodleaf (Iresine rhizomatosa), which was first described new to science from the island. Others have given way to invaders. The native hop (Humulus lupulus) has been displaced by the Japanese hop (Humulus japonicus), and the American bittersweet (Celastrus scandens) has given way to the Oriental bittersweet (Celastrus orbiculatus).

The island is still relatively unspoiled, but as everywhere, invasive aliens are taking their toll. Although only about 21% of the historical total of 885 species and the 300-350 contemporary species are aliens, 55% of the 42 species that have been recorded since the last update in 1953 are aliens.

An order form can be found online under Special Publications at: http://www.biolsocwash.org/ . Or you can download a draft at: http://persoon.si.edu/DCFlora/DCPlummers/.

On occasion when I find myself in a small but relatively undisturbed and species-rich wooded field, my heart expands to a point where it's about to burst with excitement. It's an intensely physical experience, as well as it is a psychologically exhilarating one. In a small nook of Virginia suburban forest, the traffic noise humming steadily in the background, I am temporarily transported to thousands years past and meet my ancient past as a gatherer: the whole forest produce abundantly and I gratefully search and pick foods for my entire tribe. ... If we lose this Earth, we lose everything. Inevitably, I get out of that rich corner of forest with a heavy heart. The once rich-forest is now forever gone, and people seem to care more about building absurdly big houses and carry on with their utterly trivial and meaningless activities.

From the writings of Lisa Bright of Earth Sangha
PRESIDENTS MESSAGE:
After five years as Treasurer for the Potowmack Chapter, Dusty Dukes is sailing away into the sunset---to Hawaii. We will miss her on the board and on Wednesday mornings at the chapter’s propagation beds. Dusty was everything you want in a treasurer: honest, reliable, good with numbers and fun. She was at all 10 plant sales under her watch and maybe missed one or two board meetings at most. We wish her all the best and thank her so much for her years of dedication to the chapter. At the same time, we welcome Leigh Pickering, the chapter’s new treasurer and thank Leigh for stepping up to the plate and taking on the duties that keep us going as a chapter. We also have a new education chair, Cindy Gustafson. Cindy will help us expand our educational offerings to include some family-oriented events centered on native plants. If there is something you’d like to see the chapter offer or if you’d like to get more personally involved, please call me. We can always use help and new ideas.

Marianne Mooney

PLANT SALE REPORT AND PLANNING
The Potowmack Chapter’s fall native plant sale on September 16th coincided with Green Spring’s Butterfly Fest, an event-packed day focusing on monarch butterflies. Gardeners inspired by monarch conservation made a run for the milkweed plants we had stocked for the sale. Over 50 Asclepias tuberosa were snapped up along with 25 swamp and common milkweed plants. We also sold many of our usual assortment of shade and sun perennials, ferns and woody plants. A collection of butterfly-friendly plants was donated by the propagation committee to Green Spring’s silent auction and the committee also gave several sun-loving perennials to an Arlington elementary school. Money raised for the chapter and number of plants sold this fall totaled higher than in recent years due solely to monarch mania.

Next year’s spring plant sale will be on May 19th---just around the corner (if we skip winter). The propagation committee will cease its labors at the end of October and begin again in April. If you’d like to help by donating plants from your garden to the next sale or by volunteering at the propagation beds on Wednesday mornings, please call Laura Beaty at 703-534-8746.

Invasives Control Work Parties at Turkey Run Park along the Potomac!
The Potowmack chapter continues its work with The Nature Conservancy to help control invasive plant species on National Park Service lands in the Potomac Gorge at Turkey Run Park off the GW Memorial Parkway. Wear work gloves and boots or sturdy shoes, and bring water, snacks, and hand saws or loppers if you have them. You are always welcome to bring friends. Our schedule for November and December is:

Thursday, Nov. 2 10am-1pm
Saturday, Nov. 18 10am-1pm
Saturday, Dec. 16 10am-1pm

For information: Alan Ford; cell: 202-213-6196; email: amford@acm.org

GARY FLEMING’S POTOMAC GORGE WALK
Vegetation ecologist, Gary Fleming, of the Virginia Natural Heritage Program led a dedicated group of Virginia Native Plant Society members on a walk at the Great Falls portion of the Potomac Gorge on September 9. Most of those members have volunteered countless hours eradicating invasive species to help preserve areas of the Potomac Gorge.

Their reward was a tour with Gary Fleming, whose field studies of the Gorge have prompted the Nature Conservancy and the National Park Service to make the protection of the unique plant communities there one of their highest priorities for Virginia. An interpretive sign near one of the overlook quotes Gary about the Potomac Gorge: “In more than 25 years of fieldwork I have not seen another site of this size with comparable diversity of land forms, plants, and natural communities.”

While over thirty distinct plant communities exist along the Potomac Gorge, the group’s walk could feature only a few of the major ones. One of those was the riverside prairie, a true grassland among the rocks. It has been designated as a G1—globally imperiled (at high risk of extinction) and is likely endemic to the upper Potomac drainage. This designation made us tip-toe carefully among the rocks, while chimney swifts swooped overhead. Many of us agreed that the National Park Service should fence off this area to prevent damage to the plant community. The shallow, high calcium soils, frequent flooding, and affinity to midwestern prairies help make this river terrace vegetation unique. We saw big blue stem, switch grass, little blue stem and Indian grass. We also found *Liatris spicata* (tall blazing star), *Coreopsis tripteris* (tall tickseed), *Solidago nemoralis* (gray goldenrod), and *Veronicastrum virginicum* (Culver’s-root).

High along the river’s edge was another unusual area—a Virginia pine and red cedar woodland with shallow acidic soils that supports mostly blueberries in the understory. This riverside bedrock terrace woodland, on the rimrock cliffs is one of two components making up the Bedrock Terrace community.

Farther inland, Gary led us to the second component of the Bedrock Terrace community—the oak-hickory forest section with large bedrock outcrops, which is less frequently flooded. The hickory abundance is apparently related to the rich, but dry soils. Overhead was a canopy of oaks and hickories, where a red-bellied woodpecker called. At our feet was a grassy herbaceous layer with numerous species of sedges. One was *Carex glaucodea* (blue sedge), a sedge with thick “glaucous” leaves. The uncommon white gentian, *Gentiana villosa*, can be found here, as can leatherwood, *Dirca palustris*, downy arrowwood, *Viburnum rafinesquianum*, and the hop tree or wafer ash, *Ptelea trifoliata*. One small plot studied in this area contained 111 species. This unique plant community is ranked G1 (globally critically imperiled) because it is endemic to the Potomac Gorge—found nowhere else on the planet. Many of us were again hopeful that the National Park Service would fence off the area and make eradication of *Microstegium* a high priority, (which Margaret Chatham immediately took to heart).

Laura Beaty suggested that the National Park Service (NPS) close some of the trails and rotate their use, in order to keep unknowing visitors from tromping on rare plant communities. Because NPS is currently working on a new General Management Plan for the area, such comments are timely and welcome.
Above the falls along the river is a community called the river-scour woodland immediately on the river’s channel shelf. Gary showed us the diversity of trees in that area, including sycamore, persimmon, Shumard oak, Carolina willow, ash and swamp white oak. Even black maple can be found there. We were awed to see a state rare species of *Hasteola suaveolens*, sweet scented Indian plaintain, which because of the August drought had not bloomed.

Gary’s studies in the Gorge will conclude in a report, which should be available next spring. Meanwhile, for a downloadable powerpoint presentation on the Vegetation Ecology of the Potomac Gorge with Gary’s wondrous photos and a narrative script to accompany them, please visit http://www.state.va.us/dcr/dnh/nchome.htm.

*(To see more photos in color, go to VNPS.org)*
FINDINGS: SEX HELP FOR MOSSES AND PLANTS THAT CAN “SMELL” by M.A. Lawler

The findings from scientific research on plants often surprise us and may change some of our assumptions about plant life. For example, we’ve assumed that assistance from insects in fertilizing plants occurred only since plants began to flower about 130 million years ago, when angiosperms began to appear. Researchers in Sweden have now found evidence that springtails and mites, move sperm from male mosses to female mosses. They showed that fertile moss shoots attract those arthropods, which in turn carry moss sperm, enhancing the fertilization process. And those moses, springtails and mites are all older than flowering plants and pollination by 300 million years.

We also assumed that plants cannot “see” or “smell,” but they apparently do have some kind of receptors that can detect chemical “odors.” Researchers at Pennsylvania State University have found that the parasitic dodder plant can detect the scent chemicals of tomatoes, which is one of the plants on which it feeds. Dodder (Cuscuta sp.) has no roots and cannot produce its own food through chlorination, hence its yellow or orangey color. It must find a host plant after it germinates, then coils around the host plant inserting little pegs so it can feed off the plant. If it detects a tomato, it grows in that direction. In early fall common dodder can be seen covering plants along the edges of the lower part of Four Mile Run in our area. If you are unfamiliar with the plant go to: http://plants.usda.gov/ and type “dodder” in under common name. The Atlas of the Flora of Virginia lists nine species of dodder.

FALLS CHURCH INVASIVE PLANT REMOVAL TASK FORCE

Sat. Nov. 4  Invasive Plant Removal Party Cherry Hill Park 10am to noon.  300 Park Avenue, Falls Church (Meet by the basketball court) English Ivy and other invasive plants are overwhelming our Parks, natural areas and open spaces. Join other volunteers and learn how to remove English ivy from the forest floor and properly cut English Ivy vines that are smothering our trees. The City will have a limited number of small tools available for this event. Volunteers are asked to bring their own garden rakes, hand pruners, gloves, flat head screwdrivers, and handsaws. We recommend that you wear long-sleeved clothing. Light refreshments will be served.

ARLINGTON'S RIP PROJECT

Sat. Nov. 4 - 9 am - noon - Old Hume School- 1805 S. Arlington Ridge Rd. Join neighborhood volunteers to remove invasive plants and do general clean up work at this historic site.

Sat. Nov. 11 (9:00am - Noon) The last of our multi-site fall volunteer days and a great way to spend Veteran's day in the crisp fall weather. Hope to see you at one of the below sites.

--Bluemont Park: Near N. Jefferson St. and 5th St. N. Park near bike trail at the bottom of Illinois St. Enter Illinois St. from Wilson Blvd. Meet at “the rocks” next to the bike trail. Contact John Huennekens at 524-3853. Meet at the Nature Center. Limited parking in the Nature Center parking lot, volunteers are encouraged to park across the street on N. 36th Rd. and walk to the Nature Center.

--Isaac Crossman Park - 1900 N Westmoreland St. (near N. Westmoreland St and Lee Highway,22213) Park on N Westmoreland St. Meet at the park next to the street.

Sun. Dec. 3 - Barcroft Park 1 - 3 PM - 4200 S Four Mile Run, 22206. Join volunteers from Arlingtonians for a Clean Environment and help control invasive plants in areas near Arlington's rare Magnolia bog habitat. Park in new parking garage. Meet near the parking garage. If late, walk past sports fields towards DMV and Four Mile Run stream (southwest corner of the park) and cross bridge over stream. Meet on other side of the stream.

Sat. Dec 9- Bluemont Park 9am - Noon. pm (See above for details)

NOTE: Some training and tools provided at volunteer events. Long pants and long sleeves recommended. If you have your own clippers, loppers and/or gloves, please bring them along. For more information, please contact Jan Ferrigan at (703) 228-7636 orjferriga@vt.edu.

LOCAL EVENTS AND LEARNING OPPORTUNITIES:

Sat. Nov. 4 Fall Hike in Geo. Washington National Forest. 9am-5pm. Adults. $20 fee. Easy 4.5 mile hike. Bring a water bottle and bag lunch. For information call 703-228-6535. Registration required; register on-line https://registration.co.arlington.va.us or call 703-228-4747. Program # 6144001 Vans leave Lubber Run Recreation Center, 300 N. Park Dr. or pick up from Ballston Metro.

Sun. November 5 Nature Tour of Glen Carlyn Park 1-4pm Glencarlyn, one of Arlington’s largest parks, is the site of locally significant natural resources. Your nature guide will take you to the last remaining stand of American Chestnuts and the oldest thicket of Mountain Laurel in the County. Along the way we'll visit some of the County’s Champion Trees and observe many signs of urban wildlife. This hike will be moderately strenuous, with both on and off trail travel. Wear long pants, long sleeves and sturdy footwear. For information call 703-228-6535. Free. Registration required, register on-line https://registration.co.arlington.va.us or call 703-228-4747. Program # 614400J Meet at the Long Branch Nature Center parking lot, 625 S. Carlin Springs Rd., Arlington, VA 22204.

Sat. Nov. 11 Dyke Marsh Invasives removal Alexandria, 10am to noon Call Jeannine Purdy of the Northern Virginia Senior Environment Corps at 703-549-1607 Ext. 141 for information. Register near the bathrooms in Belle Haven Park (left of the parking lot). The National Park Service will provide all trash bags and gloves. Wear long pants, sturdy shoes, bug spray, and bring sunscreen. If working with invasive plants, wear a long-sleeve shirt.

Sun. Dec. 3 Winter Weed Walk with Stephanie Mason. At the Woodend Sanctuary and nearby Rock Creek Park to look at winter wildflower identification. 10am-2:30pm. Audubon Naturalist Society $29 for non-members. For Information call: 301-652-9188 x16

FAIRFAX COUNTY’S INVASIVE MANAGEMENT AREA PROGRAM
The IMA program is winding down for the year, but will have more workdays again in February. Its aim is to continue removing invasive species, followed by planting native species.

**Sat, Nov. 11 Idylwood Park** There will be a native planting workday, involving invasive species removal directly around the planting area. Idylwood Park is in need of some caring volunteers to free the trees of the smothering invasives. RSVP to Katherine.Frederick@fairfaxcounty.gov or call 703 324 8681.

**GLOBAL WARMING’S AFFECT ON THE PLANET’S PLANT LIFE**

According to several news reports, Paul Smith, the head of the Millenium Seed Bank in Britain, says that thousands of plants species are threatened with extinction by global warming. Plants in the drylands of the world (40 percent of the earth’s surface, where one-third of all humans live) face the greatest danger from expected droughts. But other areas are being affected as well. Eight plants have gone extinct in the last 10 years on an island off Chile. The growing season for plants in England is already a month longer than it was 100 years ago. The dates of leaf emergence, flowering and the appearance of butterflies are earlier. As warm weather moves northward it brings in new plant species and new insect pests, which previously would have been killed off by frost. And while stress from drought and insect pests is affecting native species in England, dry climate trees like Eucalyptus from Australia, Turkish Hazel and the Sweetgum from the United States are thriving there. Climate Change Minister Ian Pearson says that scientists predict that in Britain alone rainfall would halve by 2080.

In our own country, the affect is already being felt dramatically in Alaska, where forests the size of Yellowstone National Park have millions of dead spruce trees. Along the Kenai Peninsula, as temperatures have risen, the population of spruce bark beetles has exploded killing the spruce trees.

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**Chapter Events Calendar**

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Potowmack Chapter
Virginia Native Plant Society
P.O. Box 5311
Arlington, VA  22205

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