

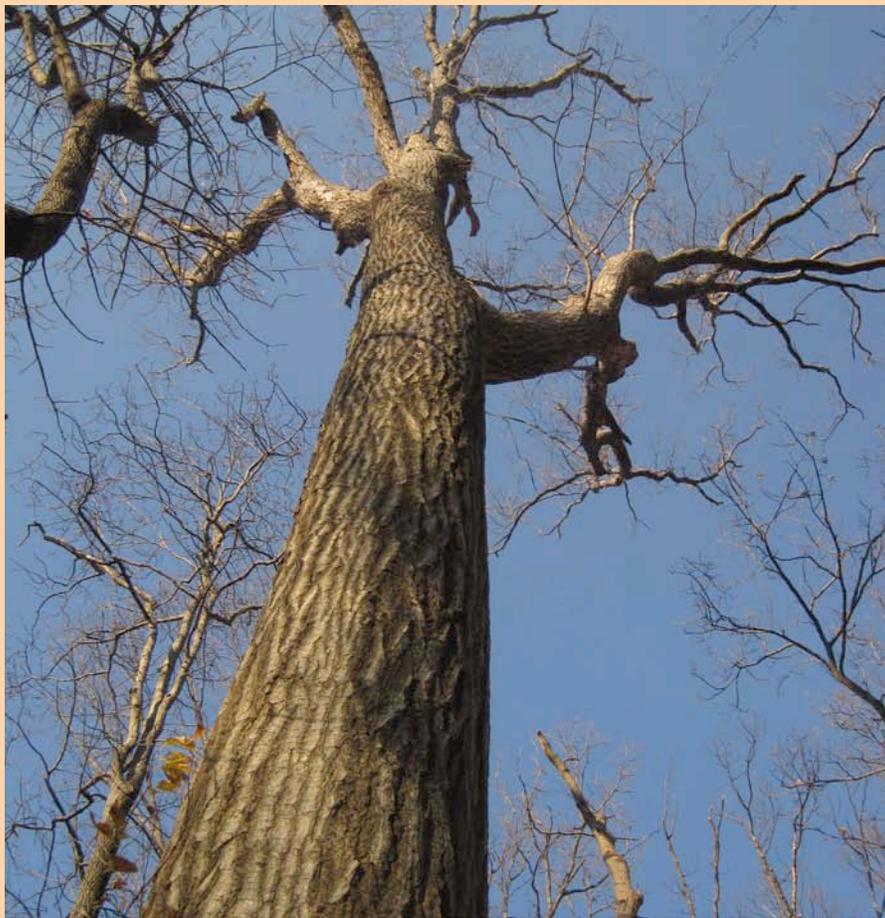
POTOWMACK NEWS

Potowmack Chapter of the Virginia Native Plant Society

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Old Growth Forest Network Recognizes Arlington's Glencarlyn Park

By Alonso Abugattas



RED OAK, *QUERCUS RUBRA*. PHOTO BY MARGARET CHATHAM.

On October 20, 2015, a portion of Arlington County's Glencarlyn Park became part of the Old Growth Forest Network. The mission of the Old-Growth Forest Network is to preserve, protect and promote the few remaining stands of old-growth forest <https://en.wikipedia.org/wiki/Old-growth_forest> in the United States. With 95% of the nation's old growth forests having been removed or radically altered, the Old Growth Forest Network works to recognize these areas and to preserve them for future generations. The organization's goal is to set aside a few forests, at least one in every county where such forests can grow, and allow them to recover their old-growth characteristics. These "future old-growth forests" will ensure that generations to follow can experience native forests in their mature diversity and complexity. The forests that receive this designation should be open to the public and managed so they are protected and preserved for future generations. After review of Arlington's Natural Resource Management Plan to protect Glencarlyn Park and a visit by Old-Growth Forest Network representatives to see the park, this site was accepted because its remnant

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Upcoming Events

Charles Smith: Helping Nature Help Itself

Thurs, Jan. 14, 7:30 pm

Green Spring Gardens Horticulture Center

Restoring the land with natural processes: broad context on restoration, why and how.

Dr. Andrea Weeks: Big Data for Virginia Plant Taxonomy

Thurs, Feb 11, 7:30 pm

Green Spring Gardens Horticulture Center

The director of the Ted R. Bradley Herbarium at George Mason University will speak about the ongoing project to create very high-resolution images of all Virginia herbarium specimens, available over the internet to all.

Gaylan Meyer: Moss ID Walk

Sat, Feb 27, 1-3 pm

Fred Crabtree Park, registration required

John Magee: Native Plants in the Landscape

Thurs, Mar 17, 7:30 pm

Green Spring Gardens Horticulture Center

Landscape designer & VNPS State Horticulture Chair John Magee walks us through native plant projects he has done over the years, with before and after photos and suggestions for how we all can plant more natives on our own properties.

Watch for announcements of other walks!

All events are free and open to the public.

Join our listserve at

<http://groups.yahoo.com/group/vnps-pot> to receive notices with walk registration links

Winter Weeding – a few places to lend a hand

Japanese barberry removal at Fraser Preserve. Japanese barberry, *Berberis thunbergii*, forms dense, prickly monocultures in the woods that offer shelter for mice. When mice congregate, they share their diseases and their ticks. The barberry also holds humidity, enabling ticks to stay active more of the time. Its small leaves break down quickly, changing the soil chemistry to favor exotics over native woodland understory plants. All in all, it is highly undesirable, and winter, when the ticks are not active, is the best time to work on it. We've been pulling it at Fraser for a number of winters, & have made good progress, but there's still more to do, both pulling small new plants (exhausting the seed bank) and reaching farther into the Preserve to remove more of the big old nasties. Snow on the ground only makes it easier to spot the plants, but frozen ground or truly bad weather will cancel a work session. We remove the red fruits, then get the crown of the plant out of the ground, either by hand-pulling (heavy leather gloves are a must!) or with garden forks or weed wrench.

12-3 pm Saturdays: Jan 2, 16, 30, Feb 13, & 27

12-3 pm Mondays: Jan 18 & Feb 15

12-3 pm Wednesdays: Jan 6, 27, Feb 10



In all cases, please contact Margaret Chatham (Margaret.chatham@verizon.net) to say if you're coming & find out the meeting place: many sessions will meet at the corner of Allenwood and Springvale in Great Falls, but some will meet in the camp (north end of Springvale Road) to work farther north.

Alan Ford and Steve Worrell with uprooted barberries at Fraser Preserve.

Photo by Margaret Chatham

Marie Butler Leven Preserve and Salona Meadows. Led by Alan Ford. This is field work, please wear long pants and boots, as well as dressing for the season. Wear heavy leather gloves if you have them. Light work gloves and hand tools will be available. Bring hand clippers or loppers if you have them. Also bring water and whatever snacks you need. We can work with snow on the ground, but will cancel if the weather is particularly nasty: active precipitation, sub-freezing temperatures, and/or strong wind.

Please contact me to confirm you are coming and the event is occurring. Call me at: 703-732-5291 after 8:30 on the day of the event to inquire; otherwise use email: amford@acm.org

1-3 pm Sundays Jan 10, 31, Feb 14, 28, Mar 13 & 27 at Marie Butler Leven

1-3 pm Sundays Jan 24, Feb 7, 21, Mar 20 & Apr 3 at Salona Meadows

Arlington Habitat Restoration. Open to age 8 and up, no registration required. Help out the Old Growth Forest by removing invasive exotic plants nearby if not in it.

2-4 pm Monday Jan 18 & Sunday Feb 21 at Long Branch Nature Center, 703-228-6535

2-4 pm Saturdays Jan 9 & Feb 13 at Gulf Branch Nature Center, 703-228-3403

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Submissions to *Potowmack News* may be sent to The Editor at vnps.pot@gmail.com

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Virginia Native Plant Society

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OLD GROWTH FOREST CONTINUED FROM PAGE 1

of unlogged forest is thought to contain trees at least 200 years old, and because of its diverse native flora and the wildlife it supports. This is the second oldest forest in Arlington, with the older being a small part of Arlington National Cemetery called the Arlington House Woodlands, which is a registry site of the VNPS.



This is only the fourth location in Virginia to receive such a designation, and the first in Northern Virginia. Discussions regarding whether this site qualified for this designation began in August of 2014. Glencarlyn Park is one of Arlington's seven Natural Resource Conservation Areas and at 40+ acres is the largest natural park in Arlington. A park-wide inventory of native plants documented that 273 species were present. In addition to the high native plant diversity, it contains a number of County Champion and Significant trees and a largely intact old-age stand of Mountain Laurel (*Kalmia latifolia*). The stand contains trees of all ages, from the seedling shown at left to the major tree it stands under. The parcel is dominated by oaks - White Oak (*Quercus alba*), Black Oak (*Quercus velutina*), Southern Red Oak (*Quercus falcata*),

Scarlet Oak (*Quercus coccinea*), and Chestnut Oak (*Quercus montana*), along with ancient Mockernut Hickory (*Carya tomentosa*) and Pignut Hickory (*Carya glabra*). With all the urbanization near the nation's capital and large scale removal of trees during the Civil War to protect DC, that a small county such as Arlington managed to keep such natural treasures is significant and thus the designation. Arlington is delighted to have received this designation and recognizes this natural resource, having put together a natural resource plan to conserve it into the future.

The certificate reads:

Recognizing that less than 1% of the eastern US forests, and less than 5% of western US forests, have remained undisturbed long enough to develop old-growth characteristics

Recognizing that many species of plants, animals, and fungi are most successful in older forests

Recognizing that the older forests are best at purifying the air and the water, and creating fertile soils

Recognizing that most humans consider older forests to be the most beautiful forests and will travel to see them

Recognizing that ecotourism is economically beneficial for nearby communities

Recognizing that all people, but especially the younger generations, need contact with natural areas

Therefore The Old-Growth Forest Network has been created to identify one forest in each county (or equivalent) that will remain in a natural condition and open to the public for quiet recreation during daylight hours.

This certificate is presented to confirm that Glencarlyn Park in Arlington County in the State of Virginia is hereby officially recognized as being part of the Old-Growth Forest Network.

Signed: Joan Maloof, October 20, 2015

FROM LEFT: ARLINGTON NATURAL RESOURCES MANAGER ALONSO ABUGATTAS; URBAN FORESTER VINCENT VERWEIJ; JOAN MALOOF; PARKS AND NATURAL RESOURCES DIVISION CHIEF KURT LOUIS; DEPUTY DIVISION CHIEF JAMIE BARTALON.



WORD OF THE MONTH: FORB (noun) a seed-producing, non-grass plant that has no woody stems and so dies back to the ground at the end of the growing season. May be annual, biennial or perennial.

Elainus squerii - an endangered species

By Laura Beaty



Known among Potomack Chapter members for her outstanding ability to process vast quantities of native plant seeds into seed packets with informative profile slips. These packets have been available for sale for many years at chapter plant sales.

This endangered species, known less formally as Elaine Squeri, has been involved with the chapter's propagation program since March, 1997. After working with the beds for several years, she accepted the challenging job of cleaning, processing, sorting and packaging buckets of seeds collected by chapter volunteers from the propagation beds at Green Spring Gardens. Constantly innovating, she improved her seed cleaning methods, developed inventory sheets to keep track of seeds sold at each sale and kept botanical names up to date as botanists changed their

minds.

She has worked alone at the many tasks that make up the ultimate product, although she confided that she's listened to many audio books during her years of seed cleaning, sorting and packaging. And when greater computer use was required, she increased her computer proficiency to meet the challenge.

Endangered, because the seed packets prepared for 2015 are her last. She's keeping the records until the end of 2015, but after that, this incredible volunteer will be putting her efforts into other worthwhile projects important to her. Not only did she contribute 540 recorded hours to this work (and how many that didn't get written down?) over the years, but she insisted on covering all the expenses of the project, "They're my contribution." In her words, "This is fun - always a adventure!"

To assist the next "Seed Master" she has prepared five pages of instructions in the yearly round of seed packet preparation with this message: "A joy of the task - the array of seeds and pods is amazing, a reward to learn."

We will miss Elaine, but are grateful for her many hours and years of assistance, and know that she's busy helping others as she helped our chapter prepare seeds for future native plants. Thank you Elaine!

But now we need a new "Seed Master"! If you'd like to try your hand & eye, you'll receive all the assistance you need until you are comfortable with the various tasks. Your work is of short duration and would begin in early Spring culminating in the delivery of packaged seeds to our beds prior to our Spring plant sale in May.

If you are curious about the job and/or need more information, please call Laura Beaty at 703-850-0075.

PHOTOS BY LAURA BEATY



WARM-SEASON AND COOL-SEASON PLANTS

By John Dodge

What are warm-season and cool-season plants? Turf managers who deal with golf courses and other sports venues, and the landscape managers for schools and other public and commercial buildings deal with these plant designations on a daily basis. Our own Grass Bunch has made great progress towards becoming competent field botanists but has not dealt directly with the warm-season/cool-season aspects of the grasses. This short article will hopefully provide a start in understanding what these groupings mean and why they matter.

First, it will be helpful to know a little about photosynthesis. No formulas here – just the language used and some similarities and differences among the three types: C3, C4, and CAM. The "C" in the first two represents carbon and

the number refers to the number of carbon atoms involved in the molecules in the different photosynthetic processes. "CAM" is short for crassulacean acid metabolism, which is part of the CAM photosynthesis process.

85% of all plants are C3 plants, 3% are C4 plants, and 8% are CAM plants. (Presumably the "missing" 4% of plant species are parasitic and do not perform photosynthesis at all.)

What is useful for gardeners and amateur field botanists to know about these types is:

C3 Plants: cool season plants, growing best at 65-75 degrees F. They include most temperate & cold region plants, especially evergreens and trees.

C4 Plants: warm-season plants, growing best at 80-95 degrees F. 79% of all C4 plant species are either grasses or sedges. There are few broad-leaved, temperate C4 plants, but among them are some weeds well-known to farmers: (native) Redroot Pigweed, *Amaranthus retroflexus*; (exotic) Tumble or Prostrate Pigweed, *A. albus*; and Purslane, *Portulaca oleracea*, which is listed by USDA as being both native and introduced in the 48 contiguous United States, and is able to shift to CAM photosynthesis after 23 days of no water.

CAM Plants: close their stomata (tiny pore-like openings on the leaf surfaces) during the day to conserve water. This is good for surviving arid conditions, but it impedes growth by reducing access to carbon dioxide. They include all cacti, *Sedum* sp., and Pineapple *Ananas comosus*.

The above groupings apply to all plants that grow by photosynthesis. As a practical matter, however, only grass experts deal with the type of photosynthesis a particular plant uses. Probably because no grasses are CAM plants, CAM plants are often left out of the discussion. Other plant growers will be aware of the environmental requirements for their plants, but may not need to know the photosynthetic details. Temperature ranges are likely descriptive enough.

It is interesting to note that these three types of photosynthesis are the only types known. One might think that with millions of years to evolve and millions of plant species evolving, other processes would evolve, but if they have, they are not known to science today. The C3 photosynthetic process puts some of the carbon dioxide it uses back into the atmosphere, while C4 does not. By simply looking at the percentages above you can tell that most plants on earth leave some of the carbon dioxide they use in the atmosphere. It is possible of course that more carbon-efficient types existed in the past or will in the future.

C3 plants may be annual or perennial; the grasses in this category seem to require short days and cooler temperatures to flower. Some of these cool-season grasses are:

Fescue - *Festuca* sp.; Tall Fescue - *Schedonorus arundiacea*; Kentucky Bluegrass - *Poa pratensis*; Annual Bluegrass - *Poa annua*; Rye Grass - *Lolium* sp.; Bent Grass - *Agrostis* sp.; Wild ryes - *Elymus* sp.; and important grains, like wheat, oats, rice, & rye.

Some of the warm-season grasses are:

Big Bluestem - *Andropogon gerardi*; Indian grass - *Sorghastrum nutans*; Bermudagrass - *Cynodon dactylon*; Zoysia - *Zoysia japonica*; Bahia grass - *Paspalum notatum*; and corn, millet, sugarcane, & sorghum.

For anyone seeking additional details, three references are noted below.

1. Turgeon, A. J.; Turfgrass Management, Third Edition; Regents/Prentice-Hall, Englewood Cliffs, New Jersey; 1980; 418 pages. (Note: Ninth edition available)
2. Raven, P. H.; Evert, R. F.; and Eichorn, S. E.; Biology of Plants, Fifth Edition; Worth Publishers; New York, New York; 1992; 791 pages. (Note: Tenth edition available)
3. Bareja, Ben G.; website www.cropsreview.com; website completed August 2013. Website compiled by the author, who is the "owner, founder, and webmaster". Much of the website is supplied with recent references.



C4 Indian grass blooms late in the season

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Oh, Deer! (What won't you eat?)



Photo by Margaret Chatham

We all sooner or later face the challenge of landscaping where deer seem to eat all our favorite plants, disfiguring shrubs, beheading tall forbs, or killing small trees by rubbing their antlers. When they're hungry (or ignorant) enough, they'll eat anything. Yet there are some plants that are less often bothered by deer.

One of these safer plants is Partridgeberry, *Mitchella repens*. Normally, deer do not browse leaves that lie as close to the ground as Partridgeberry, so its lovely evergreen leaves may be left untouched. It blooms in May, with pairs of fragrant, pink-tinged white blossoms. Each pair of blossoms makes a single red fruit. While some fruits may be eaten by chipmunks, and presumably partridges, they are relatively tasteless and may stay on the plant until the following May. So with luck, you may see a plant with both fruit and flowers on it at the same time.

If you would like to receive this newsletter (in full color!) electronically, contact Alan Ford at: amford@acm.org