Volunteer
Morris Arboretum of the University of Pennsylvania

Volunteer is a newsletter published monthly for Arboretum volunteers.

The Morris Arboretum of the University of Pennsylvania is a historic public garden and educational institution. It promotes an understanding of the relationship between plants, people, and place through programs that integrate science, art, and the humanities. The Arboretum conducts four major activities: education, research, outreach, and horticultural display. As the official Arboretum of the Commonwealth of Pennsylvania, the Morris Arboretum of the University of Pennsylvania provides research and outreach services to state agencies, community institutions and to citizens of Pennsylvania and beyond.

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Volunteer
Sarah Bolivar, Editor

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Questions, comments, and submissions can be directed to the editor at mabxeduc@exchange.upenn.edu or mailed to the Arboretum Attn: Education Intern.

Front Cover: Prima Hutabarat
Photos throughout: Sarah Bolivar unless otherwise stated

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Letter from the Editor
November 2012

Hope everyone fared well through Hurricane Sandy, which devastated so many within the Northeast. The Arboretum, remarkably, did not suffer major damage or experience flooding like last year during Hurricane Irene. We had no power on Wednesday and continued to scramble a little on Thursday, but most things are back to normal. In the upcoming month, you can look forward to a volunteer and staff gathering at the Garden Railway (bundle up!), food galore, and Winter Wellness Walks. Of course, plenty of volunteer opportunities abound so stay active despite the temptation to feast endlessly! Happy November.

Cheers,

Sarah Bolivar

Intern Trip Corner

Morris Arboretum Executive Director Paul Meyer, Bloomfield Farm Section Leader Louise Clark, and the interns took a trip to the beautiful Chanticleer Gardens in early October. Bill Thomas, the Executive Director of Chanticleer Gardens, welcomed us and gave us a general, as well as “behind-the-scenes,” tour. From the Gravel and Ruin Garden to the Teacup Garden, every space was a treat.
Hi All!

Rachel Carson’s book, *Silent Spring*, was published 50 years ago this September. In it, she describes how synthetic pesticides, DDT in particular, make their way up the food chain from bugs to birds and fish, and eventually, to humans. The environmental impact of *Silent Spring* is unparalleled. Carson took on some of the largest and most powerful industries in the world. It caused the people of this country to demand change in the use of our chemical applications. Many of Carson’s readers were housewives who found birds and squirrels dead on their back porches, poisoned by pesticides. She posed the moral question, “By acquiescing in an act that causes such suffering to a living creature, who among us is not diminished as a human being?” *Silent Spring* was more than a study of the effects of synthetic pesticides; it was an indictment of the late 1950’s.

DDT was synthesized in 1874, but it did not garner attention for its effectiveness in eradicating pests until 1939. By the fifties, DDT was being aerially sprayed over large areas of the United States to control mosquitoes and fire ants. Applied to the skin in powder form, it controlled lice in soldiers. A useful product! The industry’s response to Carson’s book was aggressive. Carson was accused of being a communist sympathizer, an agricultural propagandist in the employ of the Soviet Union and a spinster with an affinity for cats. She was tough, testifying before a Senate sub-committee against aerial spraying and advocating for a grass-roots movement of concerned citizens. Ten years later, the United States banned the domestic sale of DDT but continued to export it for another 10 years. The well-financed counterattack to Carson is an analogy to the super PACs of today, which deride carbon emissions, new energy sources, etc. Her opponents hold her responsible for deaths resulting from malaria. There may be some truth in this, but the greatest truth is in the statement, “When we start messing around with Mother Nature, bad things happen.”

(Adapted from *NY Times magazine*, September 23, 2012)

See You in the Garden!

Marcia Steinberg, Chair of the Guides
Stay in shape over the winter – mentally and physically!

Guide Refresher: 10:30 on December 3rd

The Guide Retention Committee wants to keep the Refresher momentum going by having a get together every four months. Starting in December these meetings will help guides stay on top of tours and any changes in the garden. Weather permitting, we'll meet in front of the Widener Visitor Center at 10:30am, take a tour, and end with a B.Y.O. lunch. For the December get together, we’ll take the Food Factory tour. It’s lots of fun and has some great activities to get us moving! We’ll end at Gates Hall to have lunch in the conference room at noon. I’ll bring dessert and beverages. Please join your fellow guides for fun and exercise, and maybe learn a new tour.

- Liza Hawley, Visitor Education Coordinator
Volunteering Opportunities

Tu B’Shevat - New Year of the Trees

Volunteers are needed for the following time slots:

Sunday, January 20th | 10:00-11:15am & 11:30-12:45pm
Monday, January 21st | 10:00-11:15am
Tuesday, January 22nd | 10:00-11:15am
Wednesday, January 23rd | 10:00-11:15am
Thursday, January 24th | 10:00-11:15am
Sunday, January 27th | 10:00-11:15am & 11:30-12:45 pm

Sign up on the Google Calendar or with Lisa Bailey at (215) 247-5777 ext. 157 or baileyL@upenn.edu, and you are welcome to sign up for more than one slot!

Winter Wellness Walks

Calling all leaders!

Winter Wellness Walks will run from November through March, every Saturday, at 10:30am. Guides will meet and depart from the Visitor's Center. Beat those doldrums by leading brisk (or leisurely) walks around our lovely grounds.

Help is especially needed for:  
November 17
November 24
December 15
Compost Tea - A Bug-friendly Alternative to Pesticides

On October 18, Vince Marrocco, Chief Horticulturist, led a Volunteer Workshop about the Compost Tea program.

About three years ago, the Arboretum staff decided to minimize the use of pesticides and fungicides in the Rose Garden. Using grant money obtained for the purpose, the plants were sprayed with organic compost extracts rather than chemical pesticides.

The program now includes spraying the roses with “Compost Tea”, the liquid obtained by distilling organic material (cuttings and wood chips) in a compost brewer. The advantage of using this process is that it preserves the mineral content of the organic matter and, because it is aerated, maintains the fungal and bacterial life, which beneficially bonds to the root structure of the plant. The fungal and bacterial content of the Compost Tea is critical in helping the plant protect itself and better absorb minerals and nutrients from the soil. The plant grows healthier, and a healthier plant is better able to fight off pests and diseases.

Vince also explained the Arboretum’s turf testing program, as a result of which tall fescue is now being planted in various places in the Arboretum.

- Deborah Glass, Horticulture Volunteer
Volunteer News

Notes From Ruth Pfeffer, Local Birder Extraordinaire

Many of you are being asked by visitors about the birds that are present at the Arboretum. This month, I am highlighting some birds that can be found in the fall.

Look for the Red-tailed Hawk soaring overhead or perched in the large dead tree at the edge of the Wetland. In fact, many species of birds perch in that tree throughout the day.

The American Goldfinch (winter plumage) can be seen on many of the plants.

The Palm Warbler enjoys resting and feeding at the Wetland before they leave to winter in Florida.

The Ruby-crowned Kinglet flits like a butterfly through the vegetation, dining on insects.

The Song Sparrow can be seen and heard singing throughout the year.

Each time that you enter the Wetland, it is a unique experience. Enjoy!

- Ruth Pfeffer

P.S. There is a checklist for the birds of the wetlands on the Arboretum website.
volunteer news

Upcoming Lecture for Staff and Volunteers

Please join us on November 28th at noon in the Upper Gallery (Widener Visitor Center) for a lunchtime talk by Andrew J. Falender, who has been the President and CEO of the Appalachian Mountain Club for the last twenty years.

Creating a financially self sustaining 100,000 acre conservation/recreation corridor in the heart of the Maine Wilderness

At the beginning of the 21st century, the Appalachian Mountain Club decided it was critically important to make an investment in conservation and recreation that would significantly benefit future generations. We wanted to conserve ecologically sensitive lands; make major parts of the area available for hiking, skiing and boating; demonstrate that sustainable harvesting could be done consistent with our ecological, recreation and economic objectives; support the local communities; and provide significant environmental education for local school kids. Now it’s a reality...almost.

Holiday Feasting

Education Volunteer Potluck
Tuesday, December 18th
12pm-2pm
Upper Gallery
(To make a note of what dish you would like to bring, sign up through Google Doc, sign up in the office, or e-mail Sarah at sbolivar@upenn.edu)

Horticulture Volunteer Potluck
Wednesday, December 19th
12pm-2pm
Upper Gallery

Images: Bekka Schultz
Out On a Limb - What’s Going On?

You may have noticed all of the work happening along the service road just north of Out on a Limb. Perhaps you are wondering what is happening in the section of the woods, or asking why we are removing so many trees in such a concentrated area. Most of the trees that we are removing from this area are a non-native species, *Tetradium daniellii* (Korean evodia, or bee-bee tree). In the 1950s and ‘60s, evodia was promoted and planted as a great summer food source for honey bees. Since that time, the trees have naturalized and started to crowd out our native tree species.

As part of the restoration of the Arboretum’s natural areas, we are removing the non-native trees and shrubs in this section of the woodland, and re-planting with a mix of native species. These native plants include a number of different oaks (*Quercus*), buckeyes (*Aesculus*), flowering dogwood (*Cornus florida*), serviceberry (*Amelanchier*) and common witchhazel (*Hamamelis virginiana*). As these native species mature, they will help restore this area of woods to a more natural state.

- Anthony Aiello, The Gayle E. Maloney Director of Horticulture and Curator
around the arboretum

And the Winners are . . .

The votes have been tallied and the results are in! The winners of the Morris Arboretum 2012 Scarecrow Contest are:

**Designer Category**
1st prize – Strawbacca: What a Wookie!
2nd prize – For the Birds
3rd prize – Hopeless Harry

**Storybook Category**
1st prize – Neverland Crows
2nd prize – The Lorax
3rd prize – a tie – Rapunzel & Bob the Minion

Images: Morris Arboretum Staff
around the arboretum

Autopsy of a Tree

As many of you may have noticed, the Nordmann Fir (*Abies nordmanniana*) on the hill was removed, and its base roped off following an excavation of its roots. The fir had been flagging through the spring and was only getting worse as the summer drew on, probably due to high levels of heat and humidity (firs like it on the drier side). The excavation of its roots was an attempt to understand what elements led to the tree’s decline.

We invite you to take a look for yourself when you visit. If you do, you will notice that many of the roots seem to wander and crash into one another as they circle round the trunk, creating large grafts—an inefficient use of roots. This is typical of trees that were grown in containers at the nursery. Ideally, roots grow outwards, away from the trunk, at an angle around 90 degrees. This ensures good anchorage and nutrient/water absorption.

You may also notice that several of the roots are dead, and some have even reached advanced stages of decay. The symptom pattern we observed when the tree was still up was a pervasive needle blight on the interior of the tree. This symptom may be connected to these problems with the roots. Additionally, there was a smaller root mass than we expected to find for a tree this size, which is a clue that the tree had been chronically stressed.

- Fabrice Rochelemagne, *The Walter W. Root Arboriculture Intern*

Images: Fabrice Rochelemagne
around the arboretum

Continuing Education Opportunities

**Keepsake Ornaments for the Holidays**  
*Dyan Krajnikovich*  
*Artist, Art Teacher, and Owner of Pottery Works Mobile*

Join in this workshop and make holiday ornaments from clay to keep or give as a gift. Hand-building techniques will be used that are quick and easy to learn. We will cut your ornaments from clay by hand or use cookie cutters and then decorate them with paint and pattern tools. Finished projects will be ready for pick up at the Morris Arboretum Visitor Center on Saturday, December 15. Each participant may make up to three ornaments.

Saturday, December 1 | 10:30 a.m. – 12 noon  
Volunteer Price: $30

**Thanksgiving Harvest Centerpiece**  
*Cheryl Wilks*  
*Floral Educator, Florist, and Owner of Flowers on Location*

During the Thanksgiving holiday season, mixing flowers and dried materials along with fruits and vegetables creates stunning arrangements. Learn some tricks when working with these natural materials and create a fabulous centerpiece for your Thanksgiving table or to give as a hostess gift. Bring a rectangular box to transport your finished arrangement home.

Saturday, November 17 | 1 – 3 p.m.  
Volunteer Price: $44

**Advanced Plant Physiology**  
*Dr. Tim Block*  
*The John J. Willaman Director of Botany, Morris Arboretum*

This class is for those wishing to learn more about the physical and chemical processes that take place in plants. It is expected that the students in this class will have completed the Arboretum’s Introduction to Botany course, or have a basic understanding of the chemistry of photosynthesis and other cellular processes.

Monday, November 19 | 10 a.m. – 12 noon  
Volunteer Price: $12.50

To register for these great classes, call (215) 247-5777, ext. 125.
around the arboretum

Widener Construction
There will be construction taking place in the café area starting in November and lasting until March. Please plan tours and volunteer gatherings accordingly.

The Bugs are Back - Spring 2013
Big Bugs, designed by Dave Rogers, will return to the Arboretum after almost a decade since they last stepped foot. Eleven bugs will invade our Arboretum from April to August. Tell your family and friends about this upcoming treat so they can place it on their calendars! Look out for bug-related tours, activities, events, and fun gift shop items.
around the arboretum

Volunteer Snapshots!

horticulture volunteer images: Deborah Glass
garden highlights

**Enkianthus perulatus**
‘J. L. Pennock’
(Beside Visitor Center)
This shrub grows 3-6 inches per year! Check out our bright red 20-year old rows of shrubs by Widener.

**Aesculus flava**
yellow buckeye
(Near Out on a Limb)
A fantastic choice for color and interest during the fall.

**Acer griseum**
paperbark maple
(English Park)
The orange-cinnamon exfoliating bark enlivens gardens throughout the year.

**Ilex verticillata**
‘Winter Red’
(Azalea Meadow)
Occasionally used by Native Americans for medicinal purposes, such as treating fevers or other ailments.

**Malus**
‘Indian Magic’
(Past Meadow Garden)
Henry David Thoreau’s essay, “Wild Apples,” describes the crabapple as “sour enough to set a squirrel’s teeth on edge and make a jay scream.”

**Nyssa sylvaticum**
blackgum
(past Out on a Limb)
blue-black berries offer a feast for birds and mammals. Its scarlet color is quite the sight to behold.
upcoming events

Garden Railway

The Garden Railway will be open November 23rd - December 31st. The grand opening event is on November 24th from 1-3pm. Please join us for Staff & Volunteer Night on November 29th from 4:00-7:00pm!
## upcoming events

### November

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### Weekly Volunteer Events

**Wednesdays:** Horticulture Volunteers 8:00am-12:pm<br>**Saturdays and Sundays:** Regular Tour 2:00pm-3:00pm<br>**Saturdays:** Winter Wellness Walks 10:30am
# upcoming events

## December

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