

VOLUNTEER

AUGUST 2012



Morris Arboretum of the
University of Pennsylvania

Official arboretum of the Commonwealth of Pennsylvania

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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Front Cover: *Hemerocallis* 'Mini Pearl'
Photos throughout: Sarah Bolivar unless otherwise stated



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Pentas
'Butterfly Red'
(entrance garden)

Letter from the Editor August 2012

Thank you all for being so kind and welcoming to the 2012-2013 batch of interns! You've truly made us feel at home. Despite the unbearable heat and humidity, your deep-rooted commitment to the Arboretum is a daily source of inspiration. I look forward to meeting all of you and please be sure to "friend" the Facebook Intern Page. Otherwise, a friendly "hello" would be equally wonderful! Have fun out there!

Sincerely,

Sarah Bolivar

*The McLean Contributionship
Endowed Education Intern*



Horticulture volunteers and staff remove invasive *Phragmites* and cattail in the wetlands area.



Paul Meyer and the interns study tree stressors in urban areas.



Image: Paul Meyer, F. Otto Haas Director of the Morris Arboretum



Interns examine (and sample) hosta plants during a break at the Woody Plant Conference.

notes from the guides chair

Hi All!

Has anyone noticed that it is hot outside? Are your plants panting with their tongues hanging out and moaning “water us, please water us”? Do you get up early in the morning to water them because you have heard-and believed-that watering plants in the middle of the day causes sunburn (on both you and the plants). The part about you is correct, but how about the part about the plants? It certainly makes sense, but is it true? As reported in the *American Scientist*, the Environmental Optics Laboratory, based out of Budapest, decided to test this theory. First, researchers placed glass beads on maple leaves and exposed them to direct sunlight. When the leaves were scanned, sunburned spots were clearly visible, their severity increasing with the length of time they had been exposed. Then scientists placed water droplets on maple leaves, which have a smooth non-water repellent surface. The leaves were exposed to the sun until the water evaporated. The result: no visible leaf burns. There are several reasons for this. Water droplets are not spherical like glass beads, but ellipsoidal, and therefore have a longer focal length. This means that the sun’s rays going through the water did not actually hit the leaves’ surface. Also, water droplets cool the leaf as they evaporate. Finally, the researchers tested whether water droplets can cause sunburn on leaves whose surfaces are covered with small hairs, such as ferns. Two hours of midday sun clearly burned these leaves. The reason is that the leaf hairs hold the water droplets above the surface of the leaf at just the right height for the sun’s rays to reach the leaf. Also, because the water drop is above the leaf surface, it does not cool the leaf when it evaporates. So the moral of the story is: it is best not to water your ferns in the middle of the day as no one has yet invented a sunburn lotion for hairy leaves. As for smooth leaved plants, there may be some reasons for not watering at noon, but sunburn is not one of them.

See You in the Garden!

Marcia Steinberg,
Chair of the Guides

*Thalictrum
rochebruneanum*
meadow rue

volunteer news

Save the Date!

Sunshine & Roses
Thursday, September 20
5 to 7 pm

In appreciation of voluntary service,
the Morris Arboretum invites its
volunteers to celebrate amongst the
beauty of the rose garden.



Calling all Happy Wanderers!

Due to high demand, **there are now lovely green aprons in the Education Office** for any Arboretum volunteer who has a desire to help visitors interpret the gardens. The new aprons, imprinted with the Arboretum logo on the front and large

“Volunteer” label on the back, will easily inform visitors that they are speaking with a trusted and knowledgeable Arboretum ambassador. Come on in, check one out, and take it for a spin! No RSVP necessary.



Image: Lisa Bailey



Image: Lisa Bailey

volunteer news

Wetlands Tour

To standardize procedure for future tours of the Wetlands, **school buses will drop off and pick up students in the meadow next to the kiosk.** This will be helpful for guides as well as the chaperones that accompany the visit. The prop bags for the Wetlands tours will also be available for pick up next to the kiosk just before the start of the tour, but should be returned to the Education office at the end of the tour. Feel free to park in the loading zone next to the Visitor Center for this. Many thanks for all the volunteer input on the topic, and here's to a fall filled with wetland tours!



Have you Noticed?

Emma Williams, the *Eli Kirk Price Endowed Flora of Pennsylvania Intern*, is conducting her intern project in the natural lands section meadow. **You may have noticed nine brightly flagged 10m x 10m study plots in three different areas of the meadow.** She will be taking measurements on the different plants growing in these areas as well as the seeds being stored in the soil below. By comparing the vegetation to the soil seed bank contents, she hopes to infer whether or not the soil seed bank could be a viable source of native seed for post weed-removal plant regeneration. Feel free to take a look, but she asks that you take care not to walk through the study plots; doing so will impact the project's results. If you have any questions, please feel free to contact Emma at 215-247-5777 ext. 133 or emmawi@upenn.edu.



Image: Emma Williams

volunteer news

Sign up for a class or trip this fall!

Pre-registration is required. To register please call 215- 247-5777, ext. 125. Classes have fees but discounts are available for active volunteers.

Birding at the Norristown Farm Park

Ruth Pfeffer, Expert Birder and Trip Leader

Norristown Farm Park is a working farm in continuous use since colonial times. Located close to the Arboretum, the park provides great habitat diversity for birding with over 170 species recorded. We will focus on birding at the Park's newly established wetlands but will also visit other habitats including woods, wetlands, agricultural fields, and the floodplain along a stream.

Saturday, September 15 | 8 – 11 a.m.

Digital Photography

Arnold Winkler, Photographer

This introduction to digital photography is designed to give you the basics you need to get started. With both lecture and hands-on practice, the instructor will guide you through the learning process.

Five Mondays: October 1, 8, 15, 22, 29 | 7 – 9 p.m.

One Saturday: October 13 | 10 a.m. – 12:30 p.m.

Mural Arts Tour: Philadelphia's Public Art

Come explore the Philadelphia's Mural Mile, 17 of Center City's most iconic murals arranged along a walking route through downtown Philadelphia's vibrant commercial districts and quaint residential streets. We will meet at the Arboretum and travel by bus. Park in the meadow next to the entrance kiosk.

Tuesday, October 2 | 9 a.m. – 1 p.m.

Hagley Museum and Gardens: Where the DuPont Story Begins

Bob Gutowski, Morris Arboretum Historian

Situated on 235 picturesques acres along the Brandywine River, Hagley is the birthsite of the DuPont Company and a touchstone in American history. Among industrial ruins and restorations, collections of Americana, demonstrations of water power, and seasonal landscape splendor, this park-like museum depicts home and worklife in a nineteenth-century industrial community along the Brandywine. We will meet at the Arboretum and travel by bus. Park in the meadow next to the entrance kiosk. The trip cost includes lunch.

Thursday, October 11 | 8:30 a.m. – 5 p.m.



Image: Bob Gutowski

around the arboretum

Asian Longhorn Beetle Traps: Why are there lanterns in the trees?

Have you seen lanterns in the trees at the Morris Arboretum? Well, they are actually Asian Longhorn Beetle, *Anoplophora glabripennis*, (ALB) Traps. These traps are part of a USDA-APHIS monitoring program. ALB are serious invasive species and have been found in Massachusetts, New Jersey, New York, and Ohio. It is believed that ALB was introduced to the U.S. in solid wood packing material from China in the late 1980s. ALB threatens a wide range of hardwood trees, such as maple, birch, horse chestnut, poplar, willow, elm, ash, and black locust. It bores into both healthy and dying trees. It has the potential to destroy millions of trees and could cause more damage than Dutch elm disease, chestnut blight, and gypsy moths combined. This is why it is so important to survey for ALB. The traps we have hung include a pheromone lure that attracts the beetles to the trap. Thus, we can detect the first signs of ALB with these traps if the insect reaches Philadelphia.

What about the purple traps? These are surveying for another serious invader, Emerald Ash Borer, *Agrilus planipennis*, (EAB). These are a serious threat to ash trees and have been detected as close to us as Bucks County. It was introduced in the same manner as ALB, wood packing material, and has spread to 15 different states in the eastern United States. If EAB is detected early enough, there may be treatments that could help save an infected tree, making this an important monitoring program.

Please do not untie and lower the traps. If you have any questions, feel free to contact Stephanie Wilson, Plant Protection Intern, at 215-247-5777 ext. 133.

-Stephanie Wilson

It's a Bee Trap!

Stephanie Wilson, the *John J. Willaman & Martha Haas Valentine Plant Protection Intern*, is collecting wild bees (non- honey bees) as part of a larger survey that the U.S. Geological Survey is conducting. The USGS is monitoring bee populations in large shipping ports, such as Philadelphia. The bees are attracted to the colors of the traps. The solution in the trap is propylene glycol, a safe food additive that preserves the bees for later identification. Feel free to look in the traps but please do not touch them. You can contact Stephanie at 215-247-5777 ext. 133 or swilso@upenn.edu if you have any questions!



Image: ALB, United States Department of Agriculture

education news

Take the Plunge at our Fall Refresher Sessions

Have you always wanted to expand your tour repertoire and brush up on your guiding techniques? Or have you never led a tour, but would love to do so? If the answer to either of these questions is "YES", **our Fall Refresher Sessions scheduled for September 14th and 21st are just the thing for you!** Both experienced and relatively new guides are strongly encouraged to attend. Each session will feature two entire tours demonstrated by experienced guides plus stimulating workshops led by Bob Gutowski and Tim Block.

Since we are being called on to lead a wide variety of tours more and more frequently, the need for additional guides to lead these tours has become crucial. So please don't miss the Fall Refresher Sessions as we know that you will find them both enjoyable and stimulating. Here are the details for the two sessions:

Friday, September 14th (10:00am – 2:30pm)

- 10:00 – 11:30: Wetlands Tour led by Willie Wilson followed by a brief question and answer session. (NOTE: Please park in the meadow and meet the group there.)
- 11:30 – 12:30: Tim Block will speak to the group about the latest research in botany and answer your burning questions about plant reproduction.
- 12:30 – 1:00: Lunch: Please bring a brown bag lunch – drinks and dessert will be provided.
- 1:00 – 2:30: Plant Reproduction: Seed Formation (Pollination Tour) and Seed Dispersal Tour led by Marcia Steinberg followed by a brief question and answer session.

Friday, September 21st (10:00am – 2:30pm)

- 10:00 – 11:00: Bob Gutowski will speak to the group about the latest work done on the Mill and remind us how everything works. (NOTE: Please park at Bloomfield Farm. We'll walk to the Mill from the parking lot.)
- 11:00 – 12:30: Children's Mill Tour led by Jane Alavi followed by a brief question and answer session.
- 12:30 – 1:00: Lunch: Please bring a brown bag lunch – drinks and dessert will be provided.
- 1:00 – 2:30: Horticultural Center Tour led by Joan Hanby followed by a brief question and answer session.

-Joan Kober, *Chair Retention Committee*

education news

Garden Discovery Series Countdown

With only two Discovery Series programs left, we will soon bid farewell to all the fun until spring 2013. Before we say our goodbyes, volunteers are still needed! **We are looking for four volunteers to help us for both programs**—especially for the Sink or Float activity on Saturday, September 1st (Labor Day weekend). All Discovery programs take place in two shifts between 11am to 3pm. Email Tiffany Stahl at tifstahl@upenn.edu, call 215-247-5777 ex.127, or sign up on the Google Calendar if you can help us!

Here is the final line up:

Sink or Float, Saturday, September 1st: Explore the density and buoyancy of seeds, fruits, leaves, and a variety of other objects at the Discovery Table.

Lots of Leafy Fun, Saturday, October 6th: Create leaf art, or design a leaf collection bag to take on a crisp autumn walk.



Image:: Arboretum Staff

in bloom



Lycoris squamigera
resurrection lilies
(toward Out on a Limb)



Salvia longispicata x farinacea
'Mystic Spires'
(rose garden)



Belamcanda chinensis
blackberry lily
(around visitor's center)



Thalictrum rochebruneanum
meadow rue
(rose garden)



Rosa 'robusta'
(rose garden)



Platycodon grandiflorus
'Sentimental Blue'
(pennock and rose garden)

upcoming events

August

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4 Garden Discovery Series 11am-3pm
5	6	7	8	9	10	11 Mill Volunteer Work Day
12	13	14 Great Plants Committee Meeting 1:30- 2:30pm <i>Classroom</i>	15	16	17	18
19	20	21	22 PEP Committee Meeting 11am- Noon <i>McLean Room</i>	23	24	25
26	27	28 Education Committee Meeting 1:30-3pm <i>McLean Room</i>	29	30	31	

Weekly Volunteer Events

Wednesdays: Horticulture Volunteers 8:00am-12:pm

Saturdays and Sundays: Welcome Cart 11:00am-3:00pm

Saturdays and Sundays: Regular Tour 2:00pm-3:00pm

upcoming events

September

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1 Garden Discovery Series 11am-3pm
2	3 Labor Day (the Arboretum is open, but offices are closed)	4 Guides Council Meeting 1:30-3:00 <i>McLean Room</i>	5	6	7	8
9	10	11	12	13	14 Guide Refresher 10am-2:30pm <i>Widener Classroom</i>	15
16	17	18	19	20 Sunshine & Roses 5-7pm <i>Rose Garden</i>	21 Guide Refresher 10am-2:30pm <i>Hort. Center</i>	22
23	24	25 Education Committee Meeting 1:30-3pm <i>McLean Room</i>	26	27	28	29
30						

Weekly Volunteer Events

Wednesdays: Horticulture Volunteers 8:00am-12:pm

Saturdays and Sundays: Welcome Cart 11:00am-3:00pm

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