

VOLUNTEER

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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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Volunteer
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Magnolia Slope on a foggy day

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Bloomfield Farm area flooding
foggy day

Letter from the Editor January 2013

Happy New Year's, Everyone! It's 2013 and the Arboretum has quite a few exciting pieces of news to share. We look forward to a revamped café dining and seating area, the implementation of the Rose Garden perimeter project, and celebrating the success of the Always Growing Campaign thanks to generous donors. Also, our Big Bugs exhibition will be here before you know it! It's going to be an exciting year, indeed. Stay tuned for upcoming classes, trips, and lectures through the spring brochure (there are a lot of really amazing opportunities), and best of wishes for a prosperous new year.

Sincerely,

Sarah Bolivar

*The McLean Contributionship
Endowed Education Intern*

Intern Trip Corner

As part of the interns' professional development sessions, the interns set out for Longwood Gardens, where they were able to have a behind-the-scenes tour. They learned about the solar panel field and its future stages, the meadow and trail expansion, integrated pest management techniques, and last but not least, the compost pile area!



upcoming events and lectures



Sunday, January 27 | 2-3pm | Upper Gallery

Tales of Compton: Exploring Morris Arboretum History

Lukens Endowed Lecture Series

Bob Gutowski, Director of Public Programs, Morris Arboretum

What today is the Morris Arboretum began as Compton, the summer home and garden, of John and Lydia Morris. Who were these founders whose vision and legacy has spanned 125 years? How does the Compton they created nurture our experience? Bob Gutowski, Director of Public Programs and our garden historian, will share some images, stories and insights of the people, place and times that shape the Arboretum of today.



Sunday, February 24 | 2pm | Upper Gallery

Japanese Flowering Cherries: A 100 Year-Long Love Affair

Klein Endowed Lecture

Anthony S. Aiello, The Gayle E. Maloney Director of Horticulture and Curator, Morris Arboretum

2012 marked the 100th anniversary of the planting of the famous flowering cherries surrounding the Tidal Basin in Washington D.C. Flowering cherries have long been a captivating presence in Japan and throughout the U.S. since their introduction 100 years ago. In this lecture, Tony Aiello will discuss the introduction of flowering cherries into the U.S. and will focus on their history in Philadelphia. Along with his interest in the history of cultivation of flowering cherries, Tony has been using the Arboretum's cherry collection as a model for preserving our horticultural heritage and at the same time providing best practices of veteran tree care.

February 13 and February 27 | 9am - midafternoon | Upper Gallery

Horticulture Volunteer Winter Workshops - Save the Date!

Start the season with fun and informational talks by Arboretum staff highlighting recent achievements, trips, and upcoming projects. The final schedule will be included in February's *Volunteer*. Stay tuned!

notes from the guides chair

Hi All!

The most pressing problem our planet faces is climate change, better known as global warming. This is a situation that is pretty much being ignored by our political leaders, though they may occasionally mention it in passing. Fortunately, many engineers are focused on this problem. The era of fossil fuels is over, in spite of loud protests to the contrary. Other avenues to produce energy must be explored. One of the best options is solar energy. And who better to show us the best way to harness the energy of the sun than plants and cold-blooded insects?

A researcher at Princeton realized that the surface of a leaf is covered with transparent cells that work like magnifying glasses. It also has millions of ridges that guide light into the leaf. He created a solar cell with a surface like that of a leaf and was amazed to find that his panel absorbed six times as much light as one with a flat surface. Additionally, he used plastic instead of silicon, which produces less electricity but can be bent and stretched. He is thinking of making curtains, which normally block light, but in this case will instead capture light and create electricity. Far out? Another example of imitating nature comes from MIT, where engineers are studying sunflowers, whose seeds are arranged in a series of interlocking spirals. Each seed sits at an angle of 137.5 degrees to its neighbor. The researchers created a solar plant with a central tower that was surrounded by thousands of mirrors arranged exactly like the seeds of a sunflower. The mirrors sent light to the tower, which then absorbed it. This design not only greatly increased efficiency, but took up less land space.

Finally, scientists looked at the wings of butterflies and found that they were made of tiny scales arranged like shingles on a roof. The scales have ridges and valleys with holes, whose walls bounce light onto the scales, keeping the butterfly warm. A solar cell built like this and containing a photocatalyst doubled the production of hydrogen, a clean burning fuel. We all know that if plants did not exist, animals and insects would not exist. Perhaps, plants and insects can also teach us how to clean up the mess we have made on our home planet.

(*Sierra, Jan/Feb 2013*)

See You in the Garden!

Marcia Steinberg, *Chair of the Guides*

education

Tu B'Shevat - New Year of the Trees

Tu B'Shevat inspires a deeper and richer connection to trees and the land. Some people commemorate this day by planting trees or eating fruit. How will you celebrate trees this day and everyday?

Volunteer to help children learn about the significance of this holiday from January 20-27! The following date and time still open for volunteers:

Sunday, January 27th | 10:00-11:15am & 11:30-12:45 pm

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



Images: Arboretum Staff

education

Saturday Morning Wake-up

I have had the privilege of leading some of the Saturday morning Winter Wellness Walks in November and December. If you have not had a chance to lead it, I encourage you to sign up. It is a great gift to your body and the Arboretum! Plus, your fellow walkers have a real love for the Arboretum. Every leader has a different way of leading the walk. Before starting, I let people know we will do a brisk loop around the perimeter, then a second loop that is more of a stroll. Sometimes we go off-roading, just to see what another area of the Arboretum looks like, such as the Holly Slope. You will enjoy your morning and you will be sharing the Arboretum with fellow enthusiasts!

- Jody Sprague, *Guide*

Winter Wellness Walks take place on Saturdays at 10:30am.

Help is especially needed for:

January 26
February 9
February 16
March 2



Geranium Image: Lucy Dinsmore, Rose Garden Horticulturist

education

Guide Workshop -

Wednesday, January 30 | 10:30 am - 12pm

The Silver Beach Native Plant Garden: Developing Watershed Stewardship

Sarah Bolivar, The McLean Contributionship Endowed Education Intern

Sarah will discuss a watershed-based native plant garden project she developed during her AmeriCorps service with the Bellingham Natural Resources Department in Bellingham, Washington. The 0.3-acre garden site is located within the Lake Whatcom watershed, wherein the lake is the source of drinking water more than 96,000 residents. Learn about some of the Northwest's native trees and shrubs, as well as the challenges of managing a city's water supply during this presentation.



Education Volunteers Will Now Be Required to Undergo Background Checks

In order to better ensure the safety of all children who visit the Arboretum, the University of Pennsylvania is requiring background checks and fingerprinting of all volunteers regularly in charge of groups of children.

The three-step process is easy and much of it can be handled through email. (I'll work with anyone without an email account.) You will, however, need to go to Fort Washington, just 10 minutes north of the Arboretum, for fingerprinting. We will use the same background check provider that Penn uses for their new hires, HireRight, and the Arboretum will cover the costs involved in this process and provide you with assistance and guidance as needed.

I realize that some of you do not lead children's tours or programs, but for the sake of your Chairs-of-the-Day and a sense of *égalité et fraternité*, it has been decided that the best way to proceed is to require ALL Education Volunteers to submit to the background check. You may, of course, opt out of the check, but that will limit some of the activities in which you can participate.

I will send each of you a letter in the coming weeks with more information on the process. In the meantime, please don't hesitate to contact me with any questions you have. I greatly appreciate your support of this important safety initiative.

Liza Hawley, *Visitor Education Coordinator*

education

Fun Times with the Guides!



horticulture

A Feast with the Horticulture Volunteers



horticulture

Horticulture Committee Minutes 12/13

Paul Meyer reviewed the progress of the Always Growing fund-raising campaign, which recently reached the long term goal of \$60M through some generous gifts.

Horticulture Department update – Tony Aiello

- o Plans for developing the Natural Lands area with accessible trails from the Wetlands to the Widener Center and down to the area along Wissahickon Creek were reviewed.
- o Study is under way for the Oak Allée, which has been under stress with soil compaction and water runoff. This has led to drainage problems for the trees and plants.
- o Lucy Dinsmore, Rose Garden Horticulturist, was introduced to the Committee. The Arboretum has received additional funding to complete the design work and the first stages of implementation of the Rose Garden perimeter project. This first aspects of this project will begin in early 2013.
- o New entrance gates on Germantown Avenue will be studied over the coming year. This project, under consideration for a long time, will improve access to the Arboretum by users of public transportation and present the Arboretum with an improved gateway.
- o Baxter Garden Analysis (Intern Project) – Heather Schmidt
The Baxter Garden was installed in 1966 as a memorial to Samuel Baxter, whose relationship to the Arboretum is still largely unknown, but being researched. Heather presented an analysis of the soil, plantings, topography and site plans. Afterward, Heather presented some concepts focusing on the improvement of circulation through the space and how it relates and connects to surrounding garden areas. A proposed seating area or focal point on axis with the Pennock Garden/Orange Balustrade was proposed. The Committee recommended a quiet seating area.
- o *Michaux Quercetum* (Intern Project) – Jessamine Finch
The *Michaux Quercetum* is a collection of 108 oaks, 80 of which are from the original collection in the 1950s. The specimens were all wild collected as acorns and planted out in plots at Bloomfeld Farm. Of the seeds planted, 11,000 germinated, and over five years, the plants were selected for hardiness and vigor. The 80 trees that survived are now thriving in sometimes compacted, wet, and low pH soils. These trees and approximately ten trees planted in the Arboretum will be studied for hardiness and resistance to the various diseases affecting the oak species.
- o Discussion of the aftermath of the Sandy storm and the feelings of many homeowners and civic groups to remove large trees in urban settings to reduce liability and damage in future storms even if the trees are healthy and show no visible decline. What is the role of the Arboretum in educating the public regarding proper tree care and preservation of specimen trees?

around the arboretum

Horticulture Service Awards

Twenty years is a long time to be a volunteer. Even at a minimum per year of one day a week for 45 weeks, four hours a day, that's 3,600 hours!

Shelley Dillard, the Arboretum Propagator, mentioned at December's holiday luncheon that two of her invaluable helpers have often helped more than that, showing up several days a week. She noted, too, that they work virtually independently and that she and they have become "dear, close personal friends." After singing their praises, she handed 20-year awards to Jean Cooke and Dianne Smith. Jean is the main record-keeper at the Greenhouse and helps with propagation. Dianne works primarily in the Fernery, maintaining more than 100 ferns, many of them rare. Shelley Dillard also presented five-year awards to Cheryl Clair and Bani Paul.

Iana Turner, Azalea Meadow Section Leader, gave awards to six stalwart horticulture volunteers. Ron Pieringer was honored for ten years of service. Five-year awards went to Marcia Anderson, Linda Lewis, Bob Panebianco, Jim Proud and Wendy Willard. Whatever the individual totals, the cumulative total of hours contributed by all Arboretum volunteers is impressive and important, as Tony Aiello, *The Gayle E. Maloney Director of Horticulture and Curator*, and Paul Meyer, *The F. Otto Haas Executive Director*, often remind us.

Paul Meyer also announced the success of a major 10-year fund-raising campaign. Begun in 2002, the Always Growing campaign initially set a goal of \$18 million, he said. But a strong and encouraging response led Arboretum leaders to push that goal higher, to \$24 million, then \$40 million, and finally to \$60 million. The great news, he said, is that as of December 19, the campaign had amassed more than \$60 million.

That total includes \$20 million for the endowment. That's particularly important because the \$20 million will generate about \$1 million a year for the Arboretum's operating budget. The total Arboretum endowment is now \$45 million, Paul Meyer said, up from \$6 million 20 years ago.

- Herb Kestenbaum, Volunteer Liaison



Hyssopus officinalis Image: Lucy Dinsmore, Rose Garden Horticulturist

around the arboretum

Integrated Pest Management for Aspiring Horticulturists

One of the benefits of being an intern at Morris Arboretum is the opportunity to take some of the amazing classes that the Arboretum offers. I just finished taking an especially good one through the Arboretum's School of Arboriculture: Integrated Pest Management Training. This three day class was taught by two entomologists from the University of Maryland, Dr. Michael J. Raupp and Dr. Paula Shrewsbury. Three days is a lot of time to spend in the classroom, but the presenters made sure that we were never bored. It was obvious that Dr. Raupp and Dr. Shrewsbury both love their work, and their enthusiasm was infectious. Their presentations were full of interesting anecdotes and stories, and yet they always steered the class back to real life and practical information that I thought would be very applicable in my work as a horticulturist.

During the breaks we were able to look at the professors' extensive collections of bugs and see examples of specific insect damage. Breaks also were a great time to talk to the other people taking the class – a diverse and interesting group of horticultural professionals.

At the end of each day we had some lab time. On the first day we walked out into the Arboretum grounds where we looked at plants, identified their problems, and the pest causing those problems, and then came up with ideas for a remedy. The second day had us dissecting bagworm bags to find eggs, signs of parasitism, and other clues to help form a plan of treatment. We also looked at scale and several other examples of problem insects. Finally, on the last day, our tasks were feeding and observing beneficial insects. The young praying mantises were not all that hungry (they had just eaten a bunch of fruit flies), but the lacewing larvae chowed down on the aphids we provided.

I think you can tell from the photos, we all had a great time, and learned a lot!

- Stephen Pyne, *Martha J. Wallace Plant Propagation Intern*



around the arboretum

Continuing Education Opportunities

Friday, February 22 | 8 a.m. – 4 p.m.

Shark River Birding Adventure

Ruth Pfeffer

Expert Birder and Trip Leader

Shark River near Belmar, New Jersey, is a great place for winter birding for waterfowl. Our trip includes visits to a variety of water habitats including Shark River Inlet, several lakes, freshwater ponds, and the Atlantic Ocean, all great sites for bird watching. (Volunteer Price: \$58)

Saturday, March 2 | 1 - 3 p.m.

An Inside Look at the Witchhazel Collection

Anthony S. Aiello

The Gayle E. Maloney Director of Horticulture and Curator, Morris Arboretum

Join us as we tour the Arboretum's outstanding collection of witchhazels with Curator Tony Aiello. (Volunteer Price: \$12.50)

Saturday, March 16 | 10 a.m. – 12 noon

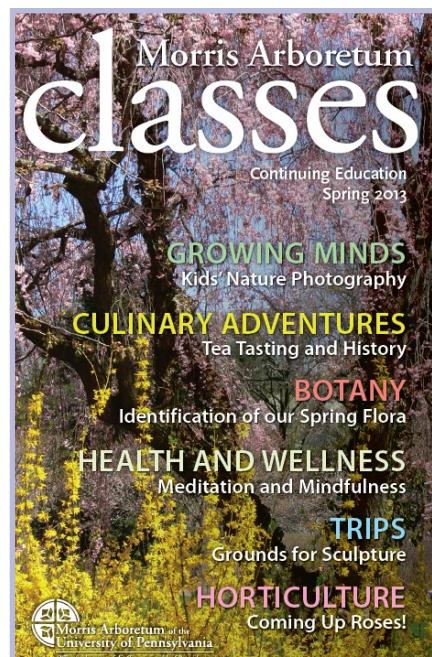
American Idols: Native Plants to Love

Catherine Renzi

Owner, Yellow Springs Farm Native Plant Nursery

Are you curious about native plants? In this class you will have the chance to learn about great native plants. (Volunteer Price: \$12.50)

To learn more and to register for these great opportunities, call (215) 247-5777, ext. 125.



Thursday, March 21 | 7 – 8:30 p.m.

Creating Stunning English Gardens with Yankee Practicality

Kerry Mendez

Garden Designer and Owner of Perennially Yours

Learn great design tips and plant combinations from the gardens of Adrian Bloom, an award-winning garden designer and author from Dis, England. This illustrated lecture features a collection of inspiring photographs taken while Kerry stayed at Bressingham Manor, a bed and breakfast in the heart of Adrian's magnificent seven acres of gardens. The lecture focuses on perennials, shrubs, bulbs, grasses, conifers, and annuals hardy for the Northeast, as well as design concepts you can use in your garden. (Volunteer Price: \$12.50)

upcoming events

January

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 New Year's Day <i>Offices Closed</i>	2	3	4	5 Winter Wellness Walks 10:30-11:30am
6	7	8 Guides Council Meeting 1:30-3:00pm <i>McLean Room</i>	9	10	11	12 Winter Wellness Walks 10:30-11:30am
13	14	15 PEP Meeting 10:30am <i>Horticulture Center</i>	16	17	18	19 Winter Wellness Walks 10:30-11:30am
20 Tu B'Shevat Program Begins	21 Martin Luther King Day <i>Offices Closed</i>	22	23	24	25	26 Winter Wellness Walks 10:30-11:30am
27 Endowed Lecture 2:00pm <i>Upper Gallery</i> Tu B'Shevat Program Ends	28	29 Education Committee Meeting 1:30-3pm <i>McLean Room</i>	30 Guide Workshop 10:30am-12pm <i>Upper Gallery</i>	31		

Weekly Volunteer Events

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

Saturdays: Winter Wellness Walks 10:30am

Second Saturday of the month: Mill Volunteer Workdays 10:00am

upcoming events

February

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
					1	2 Winter Wellness Walks 10:30-11:30am
3	4	5 Guides Council Meeting 1:30-3:00pm <i>McLean Room</i>	6	7	8	9 Winter Wellness Walks 10:30-11:30am
10	11	12	13 Horticulture Volunteer Winter Workshop 9am <i>Upper Gallery</i>	14	15	16 Winter Wellness Walks 10:30-11:30am
17	18 Presidents' Day	19	20	21	22	23 Winter Wellness Walks 10:30-11:30am
24 Endowed Lecture 12:00pm <i>Upper Gallery</i>	25	26 Education Committee Meeting 1:30-3pm <i>McLean Room</i>	27 Horticulture Volunteer Winter Workshop 9am <i>Upper Gallery</i>	28		

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