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
Ariel Dreyfus, Editor
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Question, comments and submissions can be directed to the editor at mabxeduc@exchange.upenn.edu or mailed to the Arboretum attn: Education Intern.

Front Cover: J. Schwartz
Photos throughout: Ariel Dreyfus unless otherwise stated

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Spring is now officially around the corner, though it has been popping up here and there all month. An article in the New York Times this month chronicled New York Botanical Garden's experience with the warmer weather. They actually planted what they call a “global warming garden” to track the changes. It was a familiar story; crocuses in full bloom mid-February, pollinating bees sighted in the depths of winter. It’s hard to predict what these changes will bring, but I am glad people are taking notice. For now, let’s enjoy the fine weather and welcome spring!

Ariel Dreyfus,
The McLean Contributionship Endowed Education Intern

The interns learned about grafting in the green house this month with Tony Aiello, our Director of Horticulture, and Bill Barnes. Bill has been in the nursery business for over 35 years, is a former President of the Eastern North American region of the International Plant Propagators Society, and knows a whole lot about grafting. Grafting is a method of propagating plants that involves imposing the vascular cambium tissues from the desired plant, onto the shoot of another plant. The plant being grafted onto or used for its roots is called the rootstock or understock. The scion is whatever is being grafted. Why would someone do this, you may ask. There are many advantages to this method of propagation. One of the most common is it allows one to propagate plants that are difficult to propagate by cutting or seed. Another is to create unique specimens, like a tricolored Brugmansia we saw displayed in a nursery catalogue in the greenhouse. Most apples and other fruit trees are produced through grafting. This is fascinating work that has been in practice for thousands of years in various forms and I enjoyed the opportunity to give it a try! In a few weeks, we will know how successful our grafts were.
Mark your calendars and come hear about the interesting and diverse work the interns have done this year. All presentations will take place in the Upper Gallery of Widener at 12:30 pm.


Tuesday, March 6th: Josh Darfler, *The Martha J. Wallace Endowed Plant Propagation Intern*, Updating and Improving the Visitor Experience in the Dorrance H. Hamilton Fernery


Tuesday, March 27th: Ariel Dreyfus, *The McLean Contributionship Endowed Education Intern*, Foundation for Expansion of Botany Education at the Morris Arboretum

Thursday, March 29th: Lauren Pongan, *The Hay Honey Endowed Natural Lands Intern*, Developing a Walking Guide to The Woody Edibles at the Morris Arboretum

Tuesday, April 3rd: Dan Weitoish, *The Walter W. Root Endowed Arborist Intern*, From the Canopy: An Arborist’s Perspective


Thursday, April 12th: Prima Hutabarat, *The Charles S. Holman Rose and Flower Garden Intern*, Morris Arboretum Nursery Trials: A Study of Rose Care Treatments

*Prunus mume* ‘Hanakami’, Japanese apricot
Welcome our new Natural Lands Section Horticulturist, Tracy Beerley!

Tracy rejoins the Arboretum staff as our McCausland Natural Lands Horticulturist. She was the Arboretum’s John J. Willaman and Martha Haas Valentine Plant Protection Intern in 2010-11. She received her Bachelor’s degree in Environmental Science and Ecology at Lock Haven University, where she was active in the Biology and Scuba Clubs. She is committed to land conservation and environmental science, she is looking forward to applying her interests and skills to Morris’s Natural Lands. Tracy grew up locally and currently resides in Flourtown. When she is not at the Arboretum, Tracy enjoys outdoor activities especially biking and camping. When you see her around the garden, be sure to introduce yourself and help us welcome Tracy to our community.

Attention Volunteers!

The Cedars House at Northwestern Avenue and Forbidden Drive is now offering a 10% discount on food purchases. Just show your valid Morris Arboretum membership card to benefit from the discount. This is a great place to dine during the winter months when the Arboretum’s Compton Café is closed for the season.

Get ready for spring gardening at Primex garden center. They are offering Morris Arboretum members 10% off trees, shrubs and greenhouse foliage plants.
Volunteer Workshop

Join Dr. Tim Block, our John J. William Director of Botany, this month as he discusses aquatic plants. Tim, along with his colleague Ann F. Rhoads, has authored numerous publications, including the most recent *Aquatic Plants of Pennsylvania: A Complete Refernce Guide*. Tim will highlight the importance of aquatic ecosystems, and present some interesting and unique aquatic plants. Tim’s lecture will be on **Thursday, March 15th** at **10 am** in the **Upper Gallery** of Widener. See you there!

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Joan Kober, *Education Volunteer*
Hi All!

Since the theme of the Flower Show this year is Hawaii, it seems fitting to think about orchids. Orchids have been called the world’s sexiest flower. They are seducers. They trick creatures into pollinating them and give nothing in return. Bees, carrion flies, bee-eating hornets, mountain mice and humans are all pollinators. Humans? Yes, orchid breeders. The last World Orchid Conference was held in Singapore and drew 1,000 participants from 55 countries and more than 300,000 visitors. Botanist Tim Yam says “Orchids are like fashion. People get bored with the same variety and want something new all the time.” There are more than 25,000 orchid species in the wild and growers have cross-bred many more to produce varieties that could not occur in nature because each species has its own pollinator. Most of the 50,000 orchids from 5,000 varieties displayed at the conference were hybrids created by humans.

An orchid breeder first decides the color, shape, size, fragrance and longevity he wants in his new flower and then searches for parents that might produce these characteristics. After pollination, the minuscule seeds are grown in tissue culture in a lab, i.e. in a sterile flask containing nutrients. They are transferred to new containers when they start to grow. It will take four years before they flower. Clearly this is not a job for impatient people. If the flower is special, it will be cloned. A growth tip or meristem is clipped off and shaken in a flask. Normally, one meristem produces one shoot but shaking “confuses” it and it produces many shoots, all clones of each other. Orchids are the most commonly sold potted flowering plant in the United States. The wholesale business reached $171 million in 2010. Not Bad! Tom Miranda, orchid collection specialist for Smithsonian Gardens, whose magazine (February 2012) this was excerpted from says “Mankind has taken the orchid family down pathways of evolution that never would have happened in nature. The question is, are we manipulating them or are they manipulating us.”

“No winter lasts forever; no spring skips its turn.” Hal Borland

See You in the Garden!
Marcia Steinberg, Chair of the Guides
education news

2012 Arbor Week Sign Up
Share your love for trees with children during the Arbor Week Program. The Arboretum will host two sessions each day. Volunteers are needed for tours, seedling plantings, a roots exhibit, and Tree Trivia game show. Sign up soon! We need people:
Monday, April 24th - Friday, April 28th
10:00-11:15am and 11:30am-12:45pm
Sign up on the Google calendar or email Lisa Bailey at baileyL@upenn.edu. Call Lisa at (215) 247-5777 ext 157 if you have questions.

It’s that time again! Keep an eye out for your Spring Guiding Sheet. It will be arriving in the mail shortly. Please fill it out and mail it back to Lisa Bailey, via snail mail, or email at baileyL@upenn.edu

This April, we will be offering the Native Trees tour every Sunday at 1pm, meeting at Widener. This exciting new tour is very informative, volunteers are encouraged to tag along and pick up some native tree knowledge!

Photo: Paul Meyer

Photo: Bekka Schultz
Winter Work

Although the formal Wednesday work sessions are in limbo during January and February, a number of Horticulture Volunteers have been sighted in the underbrush during the winter break. Speaking of breaks, we have certainly enjoyed a break from bad weather this winter and there is much in bloom at the Arboretum, especially on a sunny day.

Bob Pannebianco, Wendy Willard and Bob Knisel have been working Tuesdays in the wetlands and across the street at The Farm. In the wetlands, “deer candy” defenses have been fortified with additional/replacement stakes around trees and shrubs enhanced with plastic mesh to keep the animals at bay. Pruning and general clean up continue at both sites. Word is in that we have hired a new Section Leader for the Wetland and Natural Areas, so find your Wellies and patch the holes as I expect we will be working there early in the year.

The Garden Railway will be reopening soon. Prior to Christmas, 49 buildings and structures had to be moved from the Train Site, decorated with lights and trimmings, and then placed back in the Train Site. Now, Gretchen Heebner, Lorraine Steel and Mary Ellen Post are busy un-decorating them and making repairs in anticipation of reopening of the railway in a few months. This year, the Arboretum will be increasing the number of storytime days for children, so the theme for the Garden Railway will appropriately be Storytime Rails to keep our most enthusiastic visitors amused.

Jim Proud has been pruning on Tuesdays in the Oak Allée as well as in other parts of Iana’s section as the need arises, and Eileen Lynch has been tending to the Springhouse Garden. Tonya Uffner and the train crew have pitched in to help with her mission. And, as usual, I have been in the Hill and Cloud Garden. I have been raking for the the last two months since conifers shed a lot, which leaves thick mats in the grass. Have also been removing piles of dirt from Groundhog Hill resulting from burrow maintenance by the residents. I heard that the Air Force was bringing drones back from the Middle East. Sure could use a couple for pest management.

Thinking there won’t be anything left to do come March? Did you see the “mulch word” mentioned above?

-Hiram Munger, Horticulture Volunteer
up coming classes

Have fun and learn something new! Here are some great learning opportunities from the spring course brochure.

**How Does Nature Inspire You?**
**An Art Series for Kids**
Four Saturdays, April 1st, 15th, 22nd, 29th
1-2:45 pm
This is a great opportunity for the youngsters in your life! Children ages 8-12 will get the chance to learn about nature and explore their creative side. After gleaning inspiration from the arboretum, children in this course will paint, print and create sculptures with instructor Allison Zito.

**Using Native Plants to Awaken the Senses**
Saturday, March 17th, 2-3:30 pm
Join Greg Tepper, horticulturalist at Mt. Cuba Center, as he discusses how native plants appeal to all of our senses. Discover new ways of appreciating our native flora, learn little know facts and hear entertaining stories in this fantastic lecture!

**Ecological Gardening**
Saturday, April 28th, 10 am-1pm
Get an introduction to ecological gardening in this great class with our own research botanist, Dr. Michael Burgess. Participants will learn the fundamentals of ecology, explore what ecological gardening means, and develop their own garden design.

**Nature Inspired Note Cards**
Saturday, March 10th, 10 am – Noon
Put some personality into your stationary! Taking inspiration from nature, you will have a chance to make note cards, greeting cards or place cards in this fantastically fun class with our Curatorial Assistant, Pam Morris Olshefski. All materials will be provided.

**Beginning Drawing Inspired by Nature**
Three Sundays, March 4th, 11th, 25th, 1-3pm
Enjoy nature in a whole new way! Learn the basics of drawing with nature as your muse. Whatever skills you have, or don’t have, instructor Janice Merendino will provide a series of non-intimidating drawing exercises to bring out the artist in you! All materials will be provided.
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**Weekly Volunteer Events**

Wednesdays: Horticulture Volunteers: 8:30 am - 12:00 pm  
Tuesdays: History and Archive Volunteers: 10:00 am - 3:00 pm  
Saturdays and Sundays: Regular Tour 2:00 pm - 3:00 pm  
Saturdays: Winter Wellness Walk 10:30 am
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Saturdays and Sundays: Welcome Cart 11:00 am- 3:00 pm  

Image: [http://www.supercoloring.com](http://www.supercoloring.com)