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 an 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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Photos: Alessandra Rella, unless otherwise stated

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Letter from the Editor

Recently I feel as though I’ve been seeing wildlife around the Arboretum that evokes in me a feeling similar to the one I get when looking at deep sea creatures. That feeling of pure wonder and amazement that brings a smile to my face, then a furrow to my brow, as I try to figure out how in the world these incredibly shaped, colored, or textured living things could possibly be real, and not part of a sci-fi movie or fairytale.

For example, on a lovely Wednesday morning, I participated in one of the Guide Refresher Trainings, which many of you went through a few weeks ago. Judith Pyle was demonstrating the “Big Trees” tour and leading us toward our next stop, the huge red maple across the bridge from Loop de Loop, when we ran into this:

I’ll let you ponder for a moment as to what this could be...

Apparently, this is what the fruit of a peony (Paeonia obovata) looks like! What you see here are ripe follicles that have split open, revealing the plant’s seeds, which birds and small mammals enjoy eating.

On page 8 you’ll find another pretty incredible creature that interns Emily Conn and Luke Hearon recently ran into. On page 10, you’ll see a few of the other crazy looking plants referred to above that stopped me in my tracks this past month.

And so, the theme for this issue of Volunteer unintentionally became the enchantment of those living things that are seemingly supernatural, incredibly weird, and sometimes almost “creepy.” How convenient that October is, in a way, the month we dedicate to appreciating the “spooky” or “weird” things in life, brought on by the Halloween festivities.

Hope you have a very happy October,

Alessandra Rella
The McLean Contributionship Endowed Education Intern
Notes from the Guides Chair

Wild Pollinators to the Rescue

Honeybees are disappearing at an alarming rate, which is very bad news due to their fantastic pollinating abilities. However, recent studies show that the news is not all dire, as wild pollinators, including bumblebees, mining bees, and mason bees, are also surprisingly successful pollinators.

Just ask Charlie Nicholson*, who for the past three years has been catching, counting, and cataloging pollinators on 15 blueberry farms across Vermont as part of his doctoral thesis on pollinator services. Nicholson and his adviser, Taylor Ricketts, chose Vermont because it has so few honeybees. With honeybees removed from the equation, the team could more easily discover whether native activity results in greater numbers of blueberries. They found that visits from wild bees did, in fact, result in a more plentiful harvest and larger berries on these farms. The team also found that the farms surrounded by natural areas got 20 to 30 visits from pollinators per square meter over a ten minute period, while farms surrounded by developed land received significantly fewer.

Awareness of the pollination value of honeybees has increased substantially in recent years, but the contributions of wild bees has largely gone unnoticed. But this is changing. An important study, which Ricketts was a co-author of, collected data from 41 farms over six continents. The results showed that wild insects increased fruiting on every farm where they were present. Honeybees only produced a significant increase 14% of the time. On average, wild bees delivered twice the benefit of honeybees.

The reasons for this phenomenon are not difficult to explain. Nicholson pointed out that many plants native to the Americas require “buzz pollination” at the right frequency to release pollen. Native bees, who evolved with these plants, know the secret code. Honeybees, who originated in Africa, don’t. In addition, the bodies of native bees are better designed for delivering pollen to flowers’ stigmas. They also prefer to buzz from plant to plant, which is better for cross pollination than the honeybees’ approach of visiting a single plant and flying immediately back to the hive with the nectar.

As food insecurity increases around the world, the easiest solution is to enhance populations of wild pollinators. Unfortunately, numerous studies show that just the opposite is happening. Habitat loss is the top cause for the decline in insect abundance, although pesticides, invasive species and climate change are also contributors. Honeybees are also a large part of the problem, as diseases spread quickly between honeybee operators. These diseases are then transmitted around the country by migratory beekeepers and transmitted to wild bees through shared flowers.

As wild habitats continue to diminish, farmers may need to take a closer look at what they are doing on their own land. Practices like organic farming, wildflower planting, and maintaining grassy margin strips can triple the supply of major crop pollinating bees on a farm. “Supporting healthy and diverse farmscapes is about as easy a way to address food insecurity as you’ll find,” said Ricketts. “At our institute we work on a lot of crazy, intractable problems. This is not one of those!”

Enjoy the cooler weather that fall brings and don’t forget to sign up for Bill Cullina’s talk, entitled, The Critical Role of Public Gardens. Bill will be speaking at the Ambler Theater on October 23 at 2 p.m. Hope to see you there.

Joan Kober
Chair of the Guides

*Fun fact: Charlie Nicholson is a past Morris Arboretum intern!
Announcements

New Volunteer Event!

Pawpaw Presentation and Tasting

Tuesday November 12 | 10:00 a.m. -12:00 noon | Widener Upper Gallery

*How much do you know about Pawpaws?*

Join Sharon Richardson to learn about one of her favorite fall fruits, our native pawpaw! What do they look like? What do they taste like? Where do they grow? Why don’t I see them in grocery stores? What is their historical, ecological, and medicinal significance? The presentation will culminate in a brown bag lunch followed by a tasting of pawpaws and pawpaw recipes and products.

We are looking for volunteers to find, buy, and make pawpaw dishes. There are an abundance of recipes on the web including breads, pudding, ice cream etc. Please let us know if you want to make something. Pawpaws are available for a limited time right now at Weavers Way, but may be also found at other local farmers markets and co-ops.

If you plan to make a recipe (c’mon, it’ll be fun) please jot down the name of your dish on the TeamUp calendar to help reduce the number of multiples.

To access the TeamUp calendar, copy and paste this link into your browser: https://teamup.com/ks5bfc51e60901b9f/

Tour Guides Needed for the Outdoor Career Symposium!

Thursday, October 24

The Outdoor Career Symposium is an annual Morris Arboretum event that aims to get high school students excited about careers in the outdoors.

This year the day of the Symposium will begin with tours of the Arboretum. We need guides to show participating students and professionals around our beautiful gardens! Tours at 8:45 a.m. and 9:40 a.m.

Please contact Alessandra at arella8@upenn.edu if you are interested in participating.
You’re Invited

William Cullina, The F. Otto Haas Executive Director, and the Host Committee cordially invite you to the

**Lydia Morris Legacy Society Luncheon**

Friday, November 15, 2019 from 12:00 noon - 2:00 p.m.
Upper Gallery, Widener Visitor Center

Please join us for a lecture by Diane Newbury, architectural and landscape historian, for her talk, “Cultivating Curiosity: Laura Barnes and John Fogg” in which she will share insights on their mutual interest in horticulture and their friendship that spanned decades. Lynn Ierardi, J.D., Director of Gift Planning at the University of Pennsylvania, will also share updates regarding planned giving.

Kindly register by November 6, 2019 with Chelsea Melvin at 215-247-5777 ext. 279 or by email at melvinc@upenn.edu

Host Committee

- Mary Pat Boyle
- Tom Boyle
- Paul W. Meyer
- Gail D. Miller
- Debra L. Rodgers
Volunteer Workshops and Opportunities

Volunteer Tour of Awbury Arboretum

**Wednesday, October 2 | 9:30 a.m. | Meet at Lower Meadow**

Join us for a visit to Awbury Arboretum, a public garden established as a rural retreat by inter-related Quaker families in the late 1850s. Today, the Arboretum includes an English walking landscape, private domestic gardens, an adventure playground, snowdrop woods, bogs, a pond, a natural spring, an organic farm and a large community garden. Our gems include native and exotic, large, old trees. A two hour walk will include all of the above, with a focus on the houses, meadows and woodlands. Please bring a brown-bag lunch, and suggested donation of $5 per person. Please sign-up on the TeamUp calendar (link on p.3).

First Wednesday Workshops

**Wednesday, October 2 | 12:30 p.m. | Widener Terrace**

This month you will be with Assistant Arborist, Andrew Hawkes, doing a tree root exploration workshop. Andrew will use an air tool to expose the roots of trees near Widner to show examples of a few methods that can be used to extend a tree’s life span.

Saturday Morning Live Tour: Sculptures

**Saturday, October 5 | 11:00 a.m. | Widener Terrace**

Join this month’s Sculpture Tour to discover fine examples of public art that complement the Arboretum’s landscape and plant collection.

Fall Family Weekend

**Saturday and Sunday, October 5 and 6 | 10:00 a.m.**

Don’t miss this weekend of autumn fun that has become an annual tradition for many families. Make your own scarecrow, paint a pumpkin, sample different varieties of apples and more. Weaver’s Way Co-op will be on hand with the season’s best local apple varieties.
Volunteer Workshops and Opportunities

MORE Hidden Gems Tour
Saturday, October 12 & 26 | 11:00 a.m. | Widener Terrace
The original Hidden Gems tour was so popular that it has returned this season with MORE! Go off the beaten path to see less frequently visited garden gems and add some new fun facts to your guiding repertoire.

Bloomfield Farm Day and Insider Art Show & Sale
Sunday, October 20 | 12:00 noon - 4:00 p.m. | Bloomfield Farm
Celebrate the fall season at Bloomfield Farm by enjoying original art and craft works created by Morris Arboretum’s talented staff and members. In addition to the art show, there will be demonstrations, music, food, and a few animals.

Springfield Mills Demonstration Day
Last one of the season
Sunday, October 20 | 12:00 noon - 4:00 p.m. | Bloomfield Farm
Explore the Arboretum’s historic grist mill situated along the picturesque Wissahickon Creek. Watch one-ton millstones grind corn kernels, and observe 160 year old machinery transport and sift the ground corn to produce meal.
The Book Club is open to all Arboretum volunteers and staff and meets the first Friday of each month, through December, at 1 p.m. in Gates Hall. All are welcome to attend any session and you do not have to attend every month. Contact Deitra Arena at deitraarena@gmail.com with any further questions.

October

**Gathering Moss: A Natural Cultural History of Mosses**  
*By Robin Wall Kimmerer*

**Friday, October 4 | 1:00 p.m. | Gates Hall Conference Room**

Living at the limits of our ordinary perception, mosses are a common but largely unnoticed element of the natural world. *Gathering Moss* is a beautifully written mix of science and personal reflection that invites readers to explore and learn from the elegantly simple lives of mosses. Robin Wall Kimmerer’s book is written as a series of linked personal essays that will lead general readers and scientists alike to an understanding of how mosses live and how their lives are intertwined with the lives of countless other beings.

November

**The Beak of the Finch: A Story of Evolution in Our Time**  
*By Jonathan Weiner*

**Friday, November 1 | 1:00 p.m. | Gates Hall Conference Room**

On a desert island in the heart of the Galapagos archipelago, where Darwin received his first inklings of the theory of evolution, two scientists, Peter and Rosemary Grant, have spent twenty years proving that Darwin did not know the strength of his own theory. For among the finches of Daphne Major, natural selection is neither rare nor slow: it is taking place by the hour, and we can watch. In this dramatic story of groundbreaking scientific research, Jonathan Weiner follows these scientists as they watch Darwin's finches and come up with a new understanding of life itself. *The Beak of the Finch* is an elegantly written and compelling masterpiece of theory and explication.
Volunteers who have worked over 30 hours during the past year may take Morris Arboretum classes at a discounted price. Please refer to the Volunteer Price Spreadsheet in the Education Office for a complete list of volunteer class pricing. To sign up for a class please call (215) 247-5777 ext. 125, or sign up online using the code “ELM” for discounted classes.

**John and Lydia Morris’s Travel Companion Tells All**
Joyce Munro, Essayist and former Dean of the Graduate School, Chestnut Hill College

**Wednesday, October 16 | 4:30-6:00 p.m. | 50% off discount for volunteers**

No one other than their immediate family knew John and Lydia Morris better than Louise Kellner. As travel assistant to John and Lydia on their several extended trips abroad, Louise kept diaries, chock-full of details, which revealed just how much she knew. Enjoy afternoon tea, a regular pastime of the Morrises, and discover what these entries hold!

**Woodland Treasures with John Lonsdale**
Dr. John Lonsdale, Owner, Edgewood Gardens, Exton, PA

**Thursday, October 17 | 6:30-8:00 p.m. | 50% off discount for volunteers**

John is a local plantsmen who is well known to those who collect and enjoy cyclamen, galanthus, trillium, peonies, and other woodland plants. In this lecture, John will discuss a selection of the many unusual and beautiful plants that thrive in his home landscape. You’ll leave with a complementary cyclamen and lots of inspiration for what to plant in your own woodland garden.

**Horticultural Therapy Workshop: Recover, Restore, Renew**
Peg Schofield, Registered Horticultural Therapist, Educator

**Four Mondays: October 28, November 4, 11, 18 | 10:00 a.m. - 12:00 noon**

Learn how the connection between plants and people can offer acceptable outlets to process emotions, recover from trauma, and reduce stress. In these “hands-on” sessions, participants will creatively work with plants in a safe, nurturing, and supportive environment.

**The Critical Role of Public Gardens**

**Wednesday, October 23 | 2 p.m. At the Amber Theater**

A lecture by
William Cullina
the F. Otto Haas Executive Director

Take this opportunity to meet William (Bill) Cullina at this lecture and public reception. Bill will discuss the increasingly critical role that public gardens play in American society. He will consider biophilia (the affinity of human beings for other life forms) and reflect on ways that gardens provide accessibility, improve health, engage in critical research, and provide space for quiet joy and transcendence.

This lecture is presented in partnership with the Ambler Theater

Buy your tickets, here | 50% off discount for volunteers
A Host of Problems

By Luke Hearon

The John J. Willaman & Martha Haas Valentine Endowed Plant Protection Intern

While not particularly rare in the eastern half of the U.S., the saddleback caterpillar (Acharia stimulea) has long been on my bug-seeing bucket list. I do wish I had encountered the caterpillar under different circumstances; the caterpillar came to my attention because our Propagation Intern, Emily Conn, accidentally touched it while doing garden work. When it meets your skin, the saddleback caterpillar is impossible to miss and difficult to forget. Those black-tipped bristles that adorn the insect are precisely the reason why this caterpillar wears its flashy and memorable bright green saddle. These spines bear a powerful venom. On contact with skin, the spines deliver this venom and may break off deep under the surface, increasing the pain and duration of the “sting.” Already comparable to a wasp sting, if the spines cannot be removed, the burning pain intensifies and persists. It’s a potent reminder that the more striking the insect, the less readily it should be handled.

Of course there are another few dozen subjects of these photos: the parasites. The pale cocoons blanketing the caterpillar are the pupating young of a parasitoid wasp in the family Braconidae, and likely the genus Cotesia. While technically a type of parasite, the term “parasitoid” is essential to distinguish the modus operandi of these killers; while a parasite does not usually kill its host, a parasitoid is, by definition, always lethal. Thus, the parasitoid inhabits the gruesome space between the conventional parasite, which never kills its host, and the conventional predator, which kills its prey relatively instantaneously. The parasitoid kills, and kills slowly. It is a grim outlook indeed for our saddleback caterpillar.

Read Luke’s full article on the Arboretum Blog.

P.S. Emily Conn is OK!
Five Things You Might Not Know About . . .

A Botanical Book in Lydia Morris’s Library

by Joyce H. Munro

First a caveat: John and Lydia Morris shared the library at Compton and both of them purchased books through the years. It’s not possible to know precisely which volumes Lydia purchased while John was alive, but volumes published after his death in 1915 were definitely her own choice. One of the botanical books listed in the final inventory of her library is particularly interesting because it was written by a neighbor.

The Practical Book of Outdoor Rose Growing for the Home Garden by George Clifford Thomas, Jr.

You can read it here.

1. The connection between Thomas and Morris began shortly after the turn of the century when Thomas’s father gave Thomas several adjacent homesteads in Springfield and Whitemarsh Townships. Thomas named all of the property on both sides of the Wissahickon Creek “Bloomfield Farm” and he had big plans for it.

2. His first plan was to design a golf course on a choice section of the farm, which he then sold to the newly-formed Whitemarsh Valley Country Club in 1908. The following year, Thomas began selling off acreage for building sites.

3. But Thomas held onto a portion of the farm, where he bred hybrid roses, some on rootstock imported from France and Ireland. Thomas was a serious rosarian with an ambitious goal: to produce hardy, ever-blooming climbers adapted to Philadelphia’s climate.

4. The remaining portion of Thomas’s farm, across the road from Compton, was bought by John Morris in 1914. Morris kept the name Bloomfield Farm and he, too, had big plans for it. But that’s another story, told here.

5. By the time Lydia Morris purchased the 4th edition of Thomas’s book in 1917, Thomas had moved across the country to Beverly Hills, California. He continued producing roses on his estate and at his test gardens in Portland, Oregon. In 1924, he produced “Bloomfield Beverly,” forever linking two very different locales. A few years later, the dapper George C. Thomas, Junior, sauntered through his extraordinary rose garden with the camera rolling. See the video here.
Garden Highlights

Epimedium x warleyense
barrenwort
Rose Garden

Verbesina alternifolia
wingstem
Wetlands

Anemone hupehensis
Japanese anemone
Ravine Garden

Aconitum sinomontanum
monkshood
Widener Walkway

Cornus kousa
kousa dogwood
English Park
## Upcoming Events

### October 2019

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<td>1</td>
<td>2 Horticulture Volunteers with Kate Deregibus - Volunteer Trip to Awbury</td>
<td>3 Guides Council 1:30 p.m.</td>
<td>4 Book club 1 p.m.</td>
<td>5 Saturday Morning Live Tour 11 a.m. - Fall Family Weekend</td>
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<td>9 Horticulture Volunteers in Natural Areas</td>
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<td>Fall Family Weekend</td>
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<td>30 Horticulture Volunteers with Louise Clarke</td>
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### Weekly Volunteer Events

**Wednesdays:** Horticulture Volunteers 8:30 a.m. - 12 noon  
**Saturdays and Sundays:** Regular Tour 2:00 - 3:00 p.m., Garden opens at 8 a.m.  
**Sundays:** Regular Tour 11:00 a.m. - 12 noon
## Upcoming Events

### November 2019

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<td>Horticulture Volunteers in Natural Areas</td>
<td>Education Guide Committee Meeting 2 p.m.</td>
<td>Lydia Morris Legacy Society Luncheon 12 noon</td>
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<td>Horticulture Volunteers with Erin Conley</td>
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### Weekly Volunteer Events

**Wednesdays:** Horticulture Volunteers 8:30 a.m. - 12 noon  
**Saturdays:** Wellness Walks 10:30 a.m. – 11:30 a.m.  
**Saturdays and Sundays:** Regular Tour 2:00 - 3:00 p.m., Garden opens at 8 a.m.