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: Claire Sundquist, unless otherwise stated
Letter from the Editor

As gardeners and garden lovers we are all well aware of the fact that the calendar definitions of the seasons can often be inadequate. Sure, the winter solstice may be December 21st but that isn't a predictor of snow. There are plenty of other terms, words, and phrases we have come up with to better talk about the earth's cycles. A few weeks ago I was reminded by a dear friend of one of these terms- Persephone Days!

Coined by farmer and author Eliot Coleman, the term ‘Persephone Days’ refers to the time of year with fewer than 10 hours of daylight. November 15th marked the beginning of this year’s Persephone Days here in Philadelphia and they will end on January 27th.

Persephone is the Greek goddess of vegetation, the daughter of Zeus and the harvest goddess Demeter. According to the myth, Persephone was abducted by Hades and taken to the underworld, during which time the earth became barren and dark. When she returned in spring, the earth once again was covered in plants and light. Thus the naming of these dark days when little grows.

Even with winter holidays offering chances to gather and celebrate, the long nights can make this season a difficult time for many. Just as my friend inspired me, I would like to encourage you to join me in celebrating Persephone Days this year. Instead of spending time dreading the coming darkness take some time to enjoy the serenity that comes with it. It is not hard to find beauty in the winter here at the Arboretum. Take this chance to admire some of the amazing bark, or keep your eyes open for the flowers of Camellia oleifera, tea oil camellia, that usually blooms in December. Happy Persephone Days!

Sincerely,

Claire Sundquist

McLean Contributionship Endowed Education Intern
Hello Everyone,

The smallest orchids are microscopic, and the biggest ones have masses of flowers as large as footballs, so said Susan Orlean in *The Orchid Thief*. Orchids are the main characters in this book with humans falling all over themselves to find the wily plant. I found the botany in this book to be fascinating.

Many plants pollinate themselves, which creates no variation in genetic material. Self-pollinated plants remain simple and common. Complex plants rely on cross-fertilization. Charles Darwin believed that living things produced by cross-fertilization always prevail over self-pollinated ones in the contest for existence because their offspring have new genetic mixtures and they then will have the evolutionary chance to adapt as the world around them changes. Most orchids never pollinate themselves. In fact, some orchid species are actually poisoned to death if their pollen touches their stigma.

The orchid family could have died out like dinosaurs if insects had chosen to feed on simpler plants and not on orchids. The orchids wouldn’t have been pollinated, and without pollination they would never have grown seeds. Orchids have multiplied and diversified and become the biggest flowering plant family on earth because each orchid species has made itself irresistible. Many species look so much like their favorite insects that the insect mistakes them for kin. Another orchid species imitates the shape of something that a pollinating insect likes to kill. Botanists call this pseudoantagonism. Other species look like the mate of their pollinator, so the bug tries to mate with one orchid and then another, this is pseudocopulation. Lady’s slipper orchids have a special hinged lip that traps bees and forces them to pass through sticky threads of pollen as they struggle to escape through the back of the plant. There are orchids that smell like rotting meat, which insects happen to like. Another orchid smells like chocolate. Another smells like an angel food cake. Several mimic the scent of other flowers that are more popular with insects than they are. Some release perfume only at night to attract nocturnal moths.

So did orchids evolve to complement insects or did the orchids evolve first followed by insects? The same conundrum as the chicken and the egg, no one knows. The harmony between the orchid and its pollinator is so perfect that it is kind of eerie. Again from Darwin, he loved studying orchids. In his writings he often described them as “my beloved orchids” and was so certain that they were the pinnacle of evolutionary transformation that he once wrote that it would be “incredibly monstrous to look at an orchid as having been created as we now see it.”

Botanists studied one thousand wild orchids for fifteen years, and during that time only twenty-three plants were pollinated. The odds are bad, but orchids compensate. If they are ever fertilized, they will grow a seedpod that is supercharged. Most other species of flowers produce only twenty or so seeds at a time, while orchid pods may be filled with millions and millions of tiny dust-sized seeds.

The next time you go to the flower show, don’t miss Waldor Orchids from New Jersey, you will have a new appreciation of the amazing world of orchids.

Happy Gardening and Happy Holidays!

*Jody Sprague*
*Chair of the Guides*
Save the Date!

Volunteer Workshop:
Roots Refresher & Walking the Camino de Santiago
Tuesday, January 7th

9:15-10am
Interested in volunteering at Tu B’Shevat and Arbor Day, but nervous you don’t remember the activities? Join us before the workshop for a refresher of the roots exhibit!

10am-11am
Come see and hear the experiences of two local women, Holly Jobe and Diana Muir, who walked this 500 mile pilgrimage in northwestern Spain. Known also as “The Way of St. James,” spiritual pilgrims have been making this journey for over 1,000 years.

Tu B’Shevat – The New Year of Trees
Help children celebrate the New Year of Trees! We need volunteers to help with a number of activities throughout the week at the following times. Feel free to sign up for more than one slot!

Sunday, February 1st 10-11:15am & 11:30am-12:45pm
Monday, February 2nd 10-11:15am
Tuesday, February 3rd 10-11:15am
Wednesday, February 4th 10-11:15am
Thursday, February 5th 10-11:15am
Sunday, February 8th 10-11:15am & 11:30am-12:45pm

Sign up on the Google Calendar or with Lisa Bailey at (215)247-5777 ext.157 or baileyL@upenn.edu.
**Holiday Happenings**

**Volunteer and Staff Holiday Garden Railway Night**
Thursday, December 4th | 4-7pm

Come enjoy the Holiday Garden Railway after hours for a special view of the twinkling lights. Bring a flashlight.

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**Education Volunteer Holiday Potluck**
Tuesday, December 16th | noon-2pm

Bring your favorite dish to share and enjoy a winter celebration with other Education volunteers and staff!

Please RSVP by Google Calender or email Claire Sundquist at 215-247-5777 ext.159 or clairesu@upenn.edu. Don’t forget to tell her what dish you are bringing!

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**Horticulture Volunteer Holiday Potluck**
Wednesday, December 17th | noon-2pm

Treat your fellow horticulture volunteers to a favorite dish or plate of cookies and enjoy a winter celebration!
### Learn something new!

#### Bald Eagles at Conowingo Dam

*with Ruth Pfeffer, Expert Birder and Trip Leader*

**Tuesday, December 9 | 7:45am-4:30pm**

Join us for a day of birding at the Conowingo Dam, a prime spot for viewing bald eagles as they feed on fish coming over the dam. We will also see lots of great blue herons, gulls, and other raptors. We will walk on a woodland trail along the river, and visit the historic town of Port Deposit. Bring binoculars, your lunch and a water bottle. Dress for the weather and wear comfortable walking shoes.

Volunteer Price: $70

### Holiday Wreath Making

*with Cheryl Wilks, Floral Educator, Florist, and Owner of Flowers on Location*

**Sunday, December 6 | 10am-noon**

This workshop is designed for those who want to make their holiday wreath from fresh, loose boughs of greens. You will work with a wire ring and spool wire to construct your wreath. There will be a selection of ribbons and decorations to make it festive. All supplies will be provided. Bring a pair of pruners and a box to take home your wreath.

Volunteer Price: $45

### Holiday Tabletop Tree with Lights

*with Cheryl Wilks, Floral Educator, Florist, and Owner of Flowers on Location*

**Sunday, December 13 | 10:30am-1pm**

*or*

**Monday, December 15 | noon-2:30pm**

You will create a special centerpiece that is sure to put you into the holiday spirit. Create your own tree from long-lasting greens and choose your colors for bows and glass balls. We will also use fresh flowers to decorate this spectacular holiday centerpiece that is 22 to 24 inches tall. Lights will be added to make the tree even more festive. Bring a pair of pruners and a box to take home your tree.

Volunteer Price: $50
After twelve years of giving tours I still ask myself, *What is in store on my next tour?* I am rarely disappointed and last month was no exception. A group of four had booked an early afternoon cart tour. An hour after the starting time our visitors had not arrived and I was headed for my car. I would normally not wait that long but it was a beautiful fall day and I had nothing scheduled for the rest of the day. Just as I got to my car our visitors arrived. It was their first time visiting Morris and they were very appreciative that we could still do the tour. Little did I know what was in store by staying the extra hour.

They wanted to hear all about the history of Morris and to see as much as possible with the time allotted. The tour lasted almost two hours. Even with all of the displays tucked away for the winter there was plenty to see. Everything we saw was a first for them and the challenge was to try to see and hear about everything in the usual one hour. They were not pressed for time so we did it all. That is the benefit of the cart. I don't think I have ever answered so many questions nor enjoyed them more. It showed me how interested they were.

Almost two hours from the start we arrived back at the parking lot and there I got the surprise of a lifetime. The gentleman sitting next to me told me he was 91 years old and was very thankful for the cart. He then exclaimed “You really love your job don't you?” Once again the adrenalin had done it's job. He said that I made him feel like a VIP. His wife leaned forward and gave me an oversized postcard. She said I might like to have it as thanks for the tour. It featured a picture of Brigadier General Charles “Chuck” Yeager, standing in front of an F-15 Fighter aircraft. I had no idea that, sitting next to me for two hours, was one of the most famous and celebrated aviators of all time: a veteran of World War 2 flying P-51 Mustangs, shot down in France but escaped to Spain carrying an injured airman, and the first man to break the sound barrier. In 1947 he challenged death, breaking the sound barrier in the Bell X-1. His aviation achievements would fill volumes.

As I said goodbye to our visitors I urged them to come again and enjoy a different season. As they drove away I thought “I can't wait to see what is in store on my next tour”

Imagine, what could possibly be in store on your next tour?
**Garden Highlights**

- **Ilex opaca**
  - American Holly
- **Hamamelis virginiana**
  - Common witchhazel
- **Magnolia × soulangeana ‘Lennei’**
  - Lenne saucer magnolia
  - Rose Garden
- **Pieris japonica**
  - Japanese pieris
  - Japanese Overlook
- **Cornus kousa var. chinensis**
  - Chinese kousa dogwood
  - Oak Allee
- **Adiantum peruvianum**
  - Silver dollar fern
  - Fernery
## Upcoming Events

### December

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### Weekly Volunteer Events

**Wednesdays:** Horticulture Volunteers 8:00am-12pm  
**Saturdays and Sundays:** Regular Tour 2:00pm-3:00pm  
**Saturdays:** Winter Wellness Walks 10:30am
**Upcoming Events**

### January

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