

Enjoy a Fabulous Fall at Morris Arboretum!



Photo: Paul W. Meyer

- ✿ 30+ Designer scarecrows displayed along the Oak Allée (Oct 1 - Oct 16)
- ✿ Fall Festival (Oct 2) ...paint a pumpkin, make a scarecrow, taste local apples, and more!
- ✿ Mill Day (Oct 23) Tour Springfield Mill and enjoy the games, music, and good times of an earlier era.
- ✿ Go *Out on a Limb* for fall color as you've never seen it before, from 50 feet up in the treetops.
- ✿ Gain a new appreciation of beer with a fall class, *Beer Dinner with Yards Brewery* (Sept 22)
- ✿ Learn something new at one of our many course offerings (Sept - Dec)

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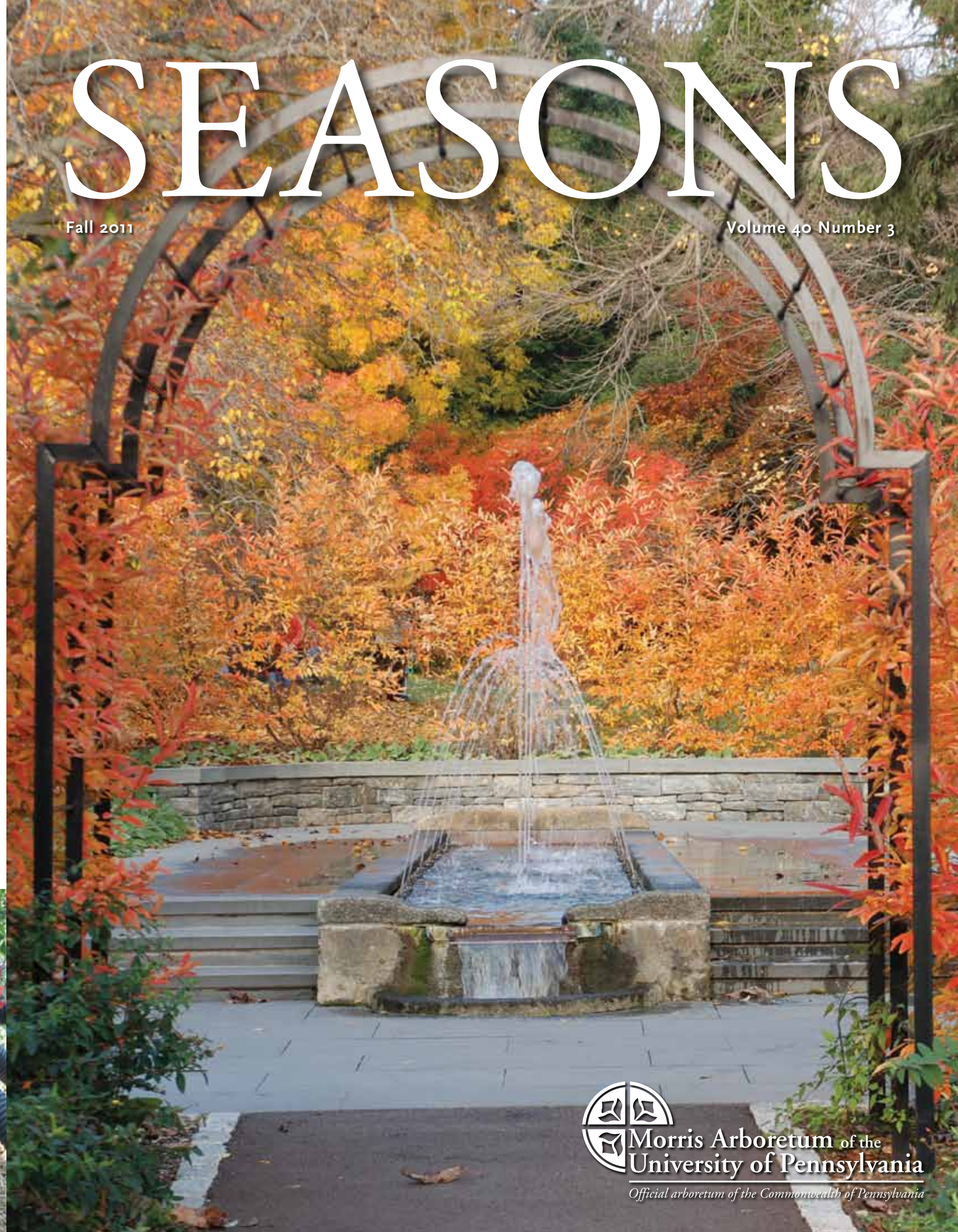


Photo: Susan Crane

SEASONS

Fall 2011

Volume 40 Number 3





A Note from the Director

PAUL W. MEYER, *The F. Otto Haas Director*

Harvest from the Garden

We rely on plants completely for our survival. This simple, but sometimes forgotten, theme is woven throughout all the Arboretum’s programs and interpretive messages. Whether it is the oxygen we breathe, the home we live in, or the gardens we enjoy, plants are essential. But food is our most obvious and essential connection. Grains, fruits and vegetables come to us through plants. Even meat comes to us indirectly from plants.

With the proliferation of prepackaged and fast foods, we are apt to lose sight of the origins of our food. Yet nothing has the potential to connect us more closely to plants than food. How

many kids today have never experienced the joy and wonder of growing and digging their own potatoes or carrots? How many have never had the thrill of harvesting a fresh tomato or watching a giant pumpkin grow?

In a world that is increasingly driven by media and technology, the opportunities for young people to encounter and learn from nature continue to diminish. Recent research by the Kaiser Family Foundation (www.kff.org) reports that children are spending approximately eight hours each day using some form of media, including television, computers, video games, music, cell phones, and other mobile devices. Young people between the ages of eight to eighteen are spending more time with technology than in any other activity, including – in some cases – sleeping.

We know that people learn best through experience. One of the hands-on experiential programs that the Morris Arboretum offers is our community garden. Approximately 100 plots are available to local families to garden as they wish. This program is run in partnership with the Chestnut Hill Community Association and has thrived for more than 30 years. It is rewarding for me to watch the plots laid out each spring followed by armies of family gardeners arriving on the scene. From the first light of the morning until dusk, gardeners work to nurture their crops. Often multiple generations work side by side, competing for the first lettuce or tomatoes.

The output of these gardens is not only the produce, but the lasting bonds formed with nature and with one another. A child who harvests their own vegetables will not likely forget that plants are our ultimate source of food. And, of course, a gardening family has its own source of healthy, fresh local produce. With good planning, a garden can provide fresh produce from May through October.

Some of my own early childhood recollections involve tending the family vegetable gardens. I remember insisting that I have my own tomatoes and anxiously watching my first fruits ripen. Some things never change, and this year I happily picked my first tomato on June 29th. I also remember the failed crops and the lessons learned from each setback.

As this year’s harvest draws to a close, start planning now to grow at least a few vegetable plantings at your home next year. If space is limited, think about a few containers or perhaps integrate some leafy vegetables into your flower garden plantings. If you would like an Arboretum plot, contact the Chestnut Hill Community Association for more information.

Paul



SEASONS

Morris Arboretum of the University of Pennsylvania

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Christine Pape, Editor

The Morris Arboretum of the University of Pennsylvania is an educational institution that promotes an understanding of the important relationships between plants, people and place. The Arboretum conducts three major activities – horticultural display, public and professional education, and botanical and horticultural research.

Public Garden Hours:
Mon-Fri, 10-4
Sat/Sun, 10-5 (April - Oct.)
Sat/Sun, 10-4 (Nov. - March)
Thurs. 10-8:30 (June, July, August)

Information:
(215) 247-5777
www.morrisarboretum.org
<http://www.upenn.edu/paflora>

Guided Tours:
Every Sat/Sun, 2 p.m.

Visitor Entrance:
100 East Northwestern Avenue between
Germantown and Stenton Avenues in the
Chestnut Hill section of Philadelphia

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Arboretum Rentals

Hold your special event in one of Philadelphia’s most beautiful settings. The Widener Center and surrounding grounds are available for weddings, parties, and private and corporate meetings up to 170 guests. For details contact Adele Waerig, Visitor Services Coordinator, at (215) 247-5777 ext. 158.

e-newsletter

Would you like to receive our monthly e-newsletter and other Arboretum updates via email? It’s a great way for you to stay up-to-date on upcoming events, register online and help us save trees! Email members@morrisarboretum.org to be added. To address the problems of SPAM, many Internet Service Providers (ISPs) and email systems now block or filter email that is not from a “safe sender.” Please add info@morrisarboretum.org and members@morrisarboretum.org to your list of accepted senders or friends list if you wish to receive this information.

Cover photos by Paul W. Meyer, showing views of the new Horticulture Center, designed and built to achieve LEED® Platinum standards, the highest rating of the US Green Building Council.

Contents

I A Note From the Director

3 Advisory Board Profile – Bill Harral

4 The Gift of Membership

5 Arboretum Staff Pick their favorite Narcissus

6 Plant Profile – American Holly

8 Botany Department Releases New Book

9 Campaign Update

10 Morris Arboretum Welcomes New Interns

11 “Compost What?”

12 Fall Leaves – Composting Solutions for Every Garden

13 A Look Back in Time

14 *Moonlight & Roses* 2011

15 Fall Classes 2011

17 Beer Tasting

18 Fall Events

Photo: Paul W. Meyer



Advisory Board Profile – Bill Harral

LESLIE WEISSER, Associate Director of Development

When asked what brought him to the Morris Arboretum, Bill Harral will readily tell you that it was friendship that led to his first visit here. Although Bill had driven by the Arboretum on his way to work every day for almost ten years, he really didn't know very much about the place. It was a friend, John Shober, who invited Bill to come to the Arboretum for a tour.

Mr. Harral is well recognized throughout the region for his depth of experience in many fields: the corporate world, academia, and the non-profit sector. He enjoyed thirty-six years in senior management positions in the telecommunications industry, retiring as the President and CEO of Bell Atlantic-Pennsylvania, Inc. (now Verizon Corporation) in 1997. From there, Bill went on to Drexel University's LeBow College of Business where he served as Executive-in-Residence, then Interim Dean, while also teaching business courses in the MBA Program. In 2001, Bill accepted the position of President of the Barra Foundation, and has spent countless hours analyzing, advising, and supporting non-profit organizations in southeastern Pennsylvania. In each of these arenas, Bill's core commitment has been to improve the quality of life for residents of the greater Philadelphia region.

Bill Harral and John Shober have known each other for many years as business colleagues and as friends who share the same wry sense of humor and enjoy a good game of golf. When John invited Bill to come to the Arboretum for a tour with Arboretum Director Paul Meyer, Bill was glad for the opportunity to explore the garden. He knew that it was a place that was important to his friend John, and he was curious to see what lay beyond the tall, wrought iron gates. What he didn't know was what he would learn, and what he would be asked, through this leisurely tour with John and Paul along the Arboretum's winding pathways.

As with all first-time visitors, Bill was struck by the extraordinary beauty of the Arboretum landscape – the remarkable collection

of rare trees, the vast meadows, the rich colors of the Rose Garden, the dramatic *Out on a Limb* tree canopy exhibit. He was also fascinated by the origins of the garden as a late 19th century private estate, and enjoyed seeing the historic structures and water features that have been preserved from that era.

He was also interested in learning about the impact of the Arboretum's Public Programs Department, which serves tens of thousands of children and adults each year through school tours and activities, continuing education programs, lecture series, conferences, art exhibits, concerts, and seasonal special events.

As the three men drew near to the end of the tour through the garden, Bill could see that the Morris Arboretum is flourishing, and found himself invigorated by the strength of the Morris Arboretum, and by its deep commitment to upholding its mission, despite a national period of economic uncertainty that has challenged so many non-profits region-wide.

When John Shober contacted Bill not long after that visit and asked him to consider joining the Arboretum as a member of the Advisory Board of Managers, Bill said yes. While Bill says that it is his good buddy, John Shober, that got him interested in the Morris Arboretum – he follows that by saying that it is the Arboretum's history, its current projects and programming, and the institution's commitment to embracing new and creative opportunities in the future that truly cemented his decision to join the Board.

The Morris Arboretum is delighted to have Bill Harral as a member of the Advisory Board of Managers, and looks forward to continuing to share a common vision with Bill that enhances the quality of life for our visitors and for our community!



Photo: Paul W. Meyer

Advisory Board of Managers

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Give a year of discovery and learning with a Gift Membership

This holiday season, treat family and friends with a gift that keeps giving. The membership will last a year, but the memories made at the Morris Arboretum will last a lifetime! Members can participate in more than 25 free special events and programs offered annually. Members also receive discounts on educational courses taught by Arboretum experts and they receive reciprocal admission privileges to more than 200 gardens nationwide. For more information about membership benefits or to purchase a gift of membership online, visit us on the web at www.morrisarboretum.org.

To receive signature Morris Arboretum gift wrapping, make your purchase in The Shop at the Morris Arboretum. And, while you are in the shop don't forget to use your member discount on other purchases. Sorry, member discounts are not applicable towards membership purchases. **To ensure your gift of membership materials are in hand by December 24, mail, online and phone orders must be received by December 9.**

Shop and Support the Morris Arboretum



Make an online purchase at Brent & Becky's Bulbs and a percentage of your purchase will support the Morris Arboretum. Visit www.bloominbucks.com and select "Morris Arboretum of the University of Pennsylvania" from the drop down menu. You will then be taken to the website for Brent and Becky's Bulbs where you can select from their huge selection of bulbs, plants, perennials, supplements, books, tools, and more. A percentage of your purchase will be donated to the Morris Arboretum.



Arboretum Staff Pick their favorite Narcissus

PAM MORRIS – Curatorial Assistant

Photo: Paul W. Meyer

Nothing says spring like the emergence of *Narcissus* or daffodils, as they are commonly known. This bulb has a rich history filled with Greek mythology, poetry, medicinal use and cultural importance. *Narcissus* is a natural favorite among gardeners as one of the first signs of the promise of spring.

As part of the amaryllis family, there are dozens of species, and about 25,000 registered cultivars. The American Daffodil Society further breaks down these bulbs into 12 distinct horticultural divisions based on their description and size, and then by petal color and cup color. With so many varieties of daffodils to choose from, it might be a bit overwhelming to select the best ones for your garden. So naturally, we asked our Horticulture department and avid gardening staffers to select a few of their favorites. The overwhelming response to this question was, “That is like asking a parent to choose their favorite child!” After some contemplation, below are the top selections as determined by our staff:

Narcissus poeticus – This late blooming daffodil (pictured above) has a spicy fragrance and looks great in meadows where it naturalizes very well. This was hands down the most selected variety.

Narcissus ‘Thalia’ – A later blooming daffodil, this one is a pure white beauty! It is also a very fragrant variety that is a great perennializer as well.

Narcissus ‘Baby Moon’ – This is a late, spring blooming multi-flowered form. It is a very diminutive-sized, golden yellow flower with grass-like foliage.

Narcissus ‘Cheerfulness’ – This variety has creamy, double white flowers with flecks of yellow in the center. It blooms later in the spring and has a sweet musky fragrance.

Narcissus ‘Carlton’ – This is the world’s second most common daffodil and one of the best naturalizers. It has a very bold yellow flower and can be found along the Magnolia slope.

Narcissus ‘Rip Van Winkle’ – An endearing small, double flowered yellow daffodil, this is an early to mid spring bloomer.

Narcissus ‘Golden Bells’ – A wonderful N. *bulbocodium* cultivar, the flower is described as a ‘perfect little hoop petticoats’. These funnel-shaped cups of rich golden yellow are on top of thin star like petals that bloom mid-spring.

Narcissus ‘Rinjveld’s Early Sensation’- This is one of the earliest blooming daffodils!! When the rest of the garden is still brown, this two-toned early bloomer is up and flowering in February!

Narcissus ‘Mite’ – An early spring bloomer, this lovely, all yellow variety has extremely reflexed petals with a long narrow trumpet. It is a very small, precious little daffodil.

Narcissus ‘Segovia’ – This lovely, little blue ribbon winner daffodil has white, rounded overlapping petals with a small yellow flat cup. Segovia blooms in the mid spring.

In our area, fall is the best time to plant your bulbs, generally a few weeks before frost so that there is time for them to grow roots before winter. *Narcissus* bulbs are also deer and squirrel resistant due to the alkaloid toxin found mainly in the bulb, but also some in the leaves. By planting your *Narcissus* in the fall you plant the promise of spring so you can reap the benefits after a long winter.

Plant Profile – American Holly

ANTHONY AIELLO – The Gayle E. Maloney Director of Horticulture & Curator

Some of the best areas of the Arboretum are those tucked away corners where one rarely finds many visitors – where you can almost feel as if you have the garden to yourself. I almost hate to give away my secrets, but one of these areas is the Holly Slope, the group of trees between Gates Hall and the large *Cercidiphyllum japonicum* (katsura-tree). The holly slope is a great place to visit on a brisk autumn or winter day. With its southern exposure, you will not only enjoy the sunshine of this location, but the evergreen hollies add a background of green to the fall colors; and, most likely you will share the slope with the robins that feast on the holly berries.

This area has a history distinct from that of the rest of the Arboretum. The four acres surrounding Gates Hall were not owned by John and Lydia Morris, but purchased in 1948 by the University. The majority of the Holly Slope was planted from 1949-1953. The southern exposure and well-drained soils make the slope a perfect location to grow a diversity of holly species and varieties. Since 1948, the American Holly Society has recognized the Morris Arboretum as an Official Holly Arboretum.

Today, the predominant species planted on the Holly Slope is one of our native evergreen hollies, *Ilex opaca* (American holly) a tree that grows throughout the south and along the coastal plain from Maryland into New England. American

Photo: Anthony Aiello



Photo: Paul W. Meyer

hollies are grown as specimen trees or as a large screen and are prized for their evergreen winter foliage and bright red fruit. As with all hollies, American holly has separate male and female plants, so for berry production you will need to have one male for up to ten female plants. If you do not have the space for multiple plants, a good rule of thumb is that if you see fruit on an American holly in your neighborhood, then there is likely a male plant in the vicinity, so you can feel confident in planting a female. Although there are hundreds of varieties of American holly, a few selections can commonly be found for sale. Those most commonly available include ‘Jersey Princess’, ‘Miss Helen’, ‘Old Heavy Berry’, ‘Satyr Hill’ and ‘Jersey Knight’ (a male selection) but there are many more to choose from.

American holly is well suited for the Delaware Valley and once they are established they need relatively little care. They prefer protection from strong winds, soil of average moisture and on the slightly acidic side, and full sun. Plants are relatively slow growing, reaching about 30 feet tall in 30 years, but maturing at over 50 feet. The ultimate size can limit their usefulness on smaller properties. The beauty of all hollies is their ability to withstand severe pruning. Although not recommended, you can cut American hollies to the ground and they will re-sprout. However, if a holly has outgrown its space, you can also perform very heavy “hatrack” pruning and the plants will recover within two or three years.

Of all of the American hollies throughout the Arboretum, my favorite stands near the entrance to the Pennock Garden. This impressive female tree dates from the Morris’s time, and although they did not live to see it reach maturity, it is a wonderful specimen in the landscape. So, if you need a little green in your life this fall, come and enjoy the American hollies throughout the Arboretum.



Botany Department Releases New Book

DR. MICHAEL B. BURGESS, RESEARCH BOTANIST

Photos: Paul W. Meyer

The Botany department will soon celebrate the arrival of a third major publication, *The Aquatic Plants of Pennsylvania: A Complete Reference Guide*. Designed as an identification guide and introduction to the ecology of aquatic plant species occurring in Pennsylvania's lakes, ponds, and streams, this work is the culmination of seven years of research by authors Drs. Timothy Block and Ann Rhoads, during which they surveyed more than 130 lakes in the state.

The Aquatic Plants of Pennsylvania: A Complete Reference Guide is the first publication of its kind in the commonwealth and thus represents a significant contribution to our understanding of aquatic plant species diversity and distribution. The impetus for this publication arose from numerous conversations with lake region residents who expressed an eagerness to learn about aquatic plants, but were unable to find a resource to satisfy this interest. *The Aquatic Plants of Pennsylvania*, which is being published by the University of Pennsylvania Press, has also been designed to serve the needs of environmental science professionals and amateur botanists.

The results of the floristic research have had a direct and immediate impact on the conservation of aquatic plants in Pennsylvania. Many aquatic plants currently listed by Pennsylvania as threatened or endangered were newly documented. This research also resulted in the delisting of 15 species formally listed as threatened or endangered because

discovery of previously unknown populations established a level of species abundance that no longer warranted listing. The authors also documented the first verified occurrence of *Elatine triandra* (long-stem waterwort) in Pennsylvania.

Funding for the extensive field work was provided by the Wild Resource Conservation Program, and publishing costs for *The Aquatic Plants of Pennsylvania* were supported by the generosity of Elizabeth and William L. McLean III, Sandra McLean, Elizabeth and John A.H. Shober, Mt. Cuba Center, and the University of Pennsylvania, Business Services Division.

Nymphaea odorata (fragrant water-lily)



Campaign Update

As Campaign Co-Chairs of the Arboretum's *Always Growing* Capital Campaign, we are happy to report on the continued progress being made at the Morris Arboretum. You have been eyewitnesses to the Arboretum's recent accomplishments, including the revitalization of its world-class gardens as well as the establishment of new garden areas, the addition of a new researcher in the Botany Department, the realization of capital projects, and the expansion of unique educational opportunities and programming.

- Extensive work has taken place in the gardens, particularly the restoration of the area around the Orange Balustrade, the development of the native Woodland Garden under the *Out on a Limb* exhibit, and the enhancement of landscaping and the green roof gardens at the Horticulture Center.
- Research Botanist Dr. Michael B. Burgess joined the Arboretum staff in the Botany Department. His primary focus is on updating and redesigning the Arboretum's Pennsylvania Flora Project website. He is also involved in the department's research, field work, and teaching.
- The Horticulture Center complex was officially dedicated in October 2010. This historic occasion enabled the Arboretum to showcase the importance of this capital project in securing the Arboretum's position as one of the preeminent environmental, educational, and cultural centers in our region.
- Robust and diverse educational opportunities have led to expansion in the Arboretum's Children's Education Program. More than 5,000 school-aged young people visited the Arboretum in fiscal year 2011- through public and private school tours, clubs, programs for children with special needs, youth-based community groups, and summer camps — and enjoyed rich learning experiences led by Arboretum staff and volunteer guides.

Historically, the Arboretum has been known throughout the Philadelphia region for its strong commitment to careful strategic planning and fiscal responsibility. It has also been recognized for its deft responses to financial

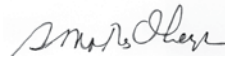
challenges such as those faced nationwide by non-profits who are struggling for survival in the current economy. This year is another example of that commitment and leadership.




In fiscal year 2011, it was necessary for the Arboretum to review its three-year strategic plan and make adjustments in its campaign priorities. Strengthening the Arboretum's endowments, especially the Historic Preservation Endowment, the Horticulture Center Endowment, and the Equipment Replacement Endowment, has been identified as being of paramount importance in providing essential resources for the Arboretum's most critical needs. Additionally, there has been a renewed focus on securing unrestricted general operating support, specifically through the Annual Fund program. The response to these readjustments has been tremendous, resulting in an additional \$3.8 million dollars in campaign gifts having been received since our last campaign report in 2010. This brings the total amount of gifts and grants raised to \$52.7 million designated for our *Always Growing* Campaign goal of \$60 million. This progress is truly cause for celebration!

These achievements are the product of the confidence that you — our friends, members, and donors — have placed in our renowned botanical garden and center for education. The Morris Arboretum's work and mission would not be possible without your commitment and generosity.

On behalf of the entire Arboretum community, thank you!


Susan Oberwager
Campaign Co-Chair


John A. H. Shober
Campaign Co-Chair



\$7.3 million needs to be raised by December 31, 2012 to meet our \$60 million campaign goal.

CAMPAIGN PRIORITIES:

Completion of Phase I of the Horticulture Center Project.

Endowments

Historic Preservation
Equipment Replacement
Horticulture Center
Youth Education

Garden Restoration

For more information on the exciting plans we have for the Morris Arboretum, and how you can participate, please contact Melissa Calvert, Director of Development, at (215) 247-5777 ext. 102.



Morris Arboretum Welcomes New Interns

CHARLIE NICHOLSON, *Eli Kirk Price Endowed Flora of PA Intern*

Charlie is a native of New England and a graduate of Skidmore College with a degree in biology. He is looking forward to further exploring the diverse plant life in Pennsylvania.

LAUREN FINE, *Alice & J. Liddon Pennock, Jr. Endowed Horticulture Intern*

Lauren graduated from the University of Alabama at Birmingham with a bachelor's degree in anthropology and earned a master's degree in environmental studies from the University of Pennsylvania.

JOSHUA DARFLER, *Martha J. Wallace Endowed Plant Propagation Intern*

Joshua, originally from Ithaca, NY, graduated from Binghamton University with a degree in cellular biology. Previously, Josh worked at a native plant nursery and several small-scale organic farms in the upstate NY region.

LAUREN PONGAN, *Hay Honey Farm Endowed Natural Lands Intern*

Lauren has spent the last years in Maine earning a B.A. in English from Colby College. In the future, Lauren hopes to continue to work in the non-profit sector.

DANIEL WEITOISH, *Walter W. Root Endowed Arborist Intern*

Daniel graduated from Juniata College in 2007 with a BS in natural science and philosophy. Daniel's interests include vertical gardening, specifically the incorporation of larger, woody organisms into a green wall context.

BRECK MILLER, *John J. Willaman & Martha Haas Valentine Endowed Plant Protection Intern*

Breck recently graduated from the University of Vermont, where he studied forestry. He is especially interested in forest entomology and pathology. He hopes to use his experience to address the many issues facing urban trees and forests.



NINA SAFAVI, *Martha S. Miller Endowed Urban Forestry Intern*

Nina has a bachelor's in economics from Temple University, and attended the University of Pennsylvania for graduate school. Nina currently is working toward a certificate in landscape design.

ARIEL DREYFUS, *McLean Endowed Education Intern*

Ariel recently graduated from The Evergreen State College with a BA in environmental and sustainability studies. She developed a passion for environmental education while teaching in Seattle.

PRIMA HUTABARAT, *Charles S. Holman Rose and Flower Garden Intern*

Prima is from Indonesia where he received a B.S. in agriculture from Bogor Agricultural University. He previously worked at K. N. Nursery, the largest nursery and garden center in Brunei.

Photos: Brian Dooner



Under the theme of "Exploration," 2011 Summer Adventure campers made nature journals, gathered and tested water samples from streams, drinking fountains and Arboretum water features, created terrariums, and used a giant map to lead them on a treasure hunt through the Arboretum to find a cool treat. Full camp enrollment allowed the Morris Arboretum to offer scholarships to two deserving campers this year.

“Compost What?”

JUSTIN JACKSON, Horticulture Section Leader – Rose Garden

Close your eyes and think about any plant. It could be your favorite, but it doesn't have to be. How would you describe it?

Is there anything missing in your description? What about everything underground? The intricate root system that provides water intake, nutrient absorption, and support is an integral part of a plant's health. People often overlook life below the surface, but by enhancing your garden's soil you can better position your plants for a healthy future. Several products and methods are focusing on enhancing soil biology in order to increase water retention, nutrient cycling, and disease resistance. One option is using compost tea.

Compost tea is, in its simplest definition, a liquid extract of compost. Properly composted material is full of all kinds of beneficial organisms, and through the use of compost tea you can increase populations and apply the biology directly to your garden's soil.

Although the mention of compost tea overwhelms most gardeners, the process is rather simple. To create the solution, water is aerated and a “tea bag” of compost is suspended in the water. The reason the water is aerated is because there are living organisms in the compost and in order to maintain an aerobic condition, oxygen is needed. Once the compost is suspended in the aerated water, you need to provide a food source for the biology to feed on, such as humic acids, molasses, fish emulsion, or liquid kelp. This will allow the fungal and bacterial populations that were already in your compost to feed and multiply, thus creating a concentrated solution of compost in liquid form. Once the compost has brewed for more than 24 hours it is ready to be used in the garden.

Two methods of application exist: soil drench and foliar spray. Drenching puts the biology straight into the soil, while foliar spray provides a biological barrier that can help protect the plant from foliar problems. Both methods of application will provide your garden with the beneficial biology needed to successfully create a healthy soil food web, but a foliar spray provides some additional benefits.

For more information on compost tea, take Justin's Class, *Chemical Free Rose Gardening* on October 22. For more information, see page 15.

But why compost tea in the rose garden? It's all part of a bigger picture. An organic approach to rose gardening focuses on enhancing the garden's soil, selecting disease resistant roses, and encouraging beneficial insects. By choosing roses that are disease resistant you are halfway to a chemical free rose garden. The next step is planting your garden with companion plants that naturally deter pests, such as mints and marigolds, as well as provide seasonal interest when the roses aren't performing at their best. The last step is to let nature take its course. Ladybugs, green lace wings, and praying mantis all do a good job of controlling pest populations.

Through the use of compost tea I hope to achieve a beautifully healthy rose garden without the use of synthetic chemicals. Although I don't expect results overnight, I do believe that any alternative to using synthetic chemicals is a good one.

Photo: Paul W. Meyer



Photo: Paul W. Meyer

KIM FRISBIE, Freelance Writer

Compost - that dark, crumbly mixture of decayed organic matter, is perhaps the most important element for improving soil health and growing a great garden. Everything from vegetables and perennials to shrubs and trees will benefit from the addition of this organic ‘miracle mix’. And the best thing about compost is that it's right there for the taking! Composting is nature's way of recycling nutrients and returning them to the soil to be used again, and if we would all take advantage of this, we would lighten the load of waste that otherwise ends up in our already overburdened landfills. Let's talk about those beautiful fall leaves you love to admire, until they're all over your yards. Raked into piles, leaves will eventually decompose, but it takes a long time. To speed things up so you can use them more readily, rake your dry leaves into low piles and mow over them several times with a mulching mower. You can then incorporate a thin layer of these mulched leaves into your lawn. They will gradually turn into compost, enriching the soil over the winter and leaving it in far better shape for the following spring. Shredded leaves also make good mulch for garden beds, as they are less likely to blow around than regular leaves. Just avoid piling them around the base of trees or shrubs as they may encourage pests and disease.

Another option is to cover the bare soil in your vegetable garden with leaves over the winter. Leaves will also protect cold-hardy vegetables like carrots, kale, leeks and beets for extended winter harvests. In the spring, simply turn the leaves back into the soil for added nutrition. Just be sure to add a slow-release nitrogen to your soil as decaying leaves will deplete soil nitrogen.

Getting back to compost, it's important to understand how the process works. Compostable materials contain carbon and nitrogen, referred to as “greens” and “browns”. The greens are more nitrogen rich: fruit and vegetable waste, coffee grounds, grass clippings and manure. Browns contain more carbon and include leaves, straw, wood chips and sawdust. Microorganisms in the composting process use carbon in leaves as an energy source, while nitrogen supplies the microbes with proteins for growth. The decomposing organisms need both carbon and nitrogen to work properly, in a carbon-nitrogen ratio (C:N Ratio). The C:N ratio for grass clippings is 15:1; for leaves, it's 40-50:1. The best ratio for compost is 30-50:1, thereby making leaves an obvious bonus to your compost pile. And composting doesn't have to be complicated: a simple pile in the corner of your yard is just as effective as a bin or fenced in area – it's all a matter of space and preference! As composting is an aerobic process, it's helpful to chop or mow composting materials to speed up the process: the more surface area, the faster your organic material will decompose. Try to add your kitchen scraps to the center of the pile where the heat is greatest. And remember that water is key to successful composting – keep your compost moist, but make sure you have adequate drainage. So mix your greens and browns: leaves, grass clippings, weeds and discarded plants along with kitchen scraps (other than meat, fish, bones or fatty foods), keep your piles moist and aerated, and in 6 to 12 months, you'll have your own “black gold.” This excellent soil conditioner is the best thing you can give your plants and your neighborhood, and best of all, it costs nothing to make!

A Look Back in Time

125 years ago

John T. Morris was planning his Compton mansion with architect Theophilus P. Chandler Jr, who would found Penn's School of Architecture. The 29 acres for Compton in Chestnut Hill were purchased from John's banker friend, John Lowber Welsh for \$980.80 per acre.

100 years ago

The English Park, with its paths and Seven Arches newly completed, was being landscaped with plants ordered from Yokohama Nursery, Japan. Among them was a Yoshino cherry that likely survives today, *Corylopsis spicata* (winter hazel), and more than 200 different azaleas. Plants also came from the Veitch nursery in England.

75 years ago

Writing in the *Morris Arboretum Bulletin*, Director John M. Fogg described all nine species and two hybrids of temperate American magnolias. All were under cultivation in the garden. In planning to expand the collection he reported, "Two separate and very diverse sites have been selected for the growing of our Magnolias. One is a low, flat protected area along Hillcrest Avenue at the foot of the Azalea meadow. The other is an open, north-facing hill-slope, along Meadowbrook Avenue..."



To celebrate the completion of the new entrance road, the Arboretum staff joined hands to walk from Northwestern Avenue Gate to the Widener Visitor Center.

25 years ago

Staff beekeeper Chick Culp could expect 400 pounds of honey from the Arboretum bee hives.

To celebrate completion of the new entrance road, the Arboretum staff joined hands to walk from the Northwestern Avenue gate to the Visitor Center.

American Jacob's ladder (*Polemonium van-bruntiae*), thought to be vanished from the state's flora, was discovered along the Lakawanna river by the Morris Arboretum botanical team led by Dr. Ann Rhoads.

Photos: Zac Brooks



Support the Arboretum and Do Your Holiday Shopping at the Same Time

- 🎁 Beautifully packaged amaryllis bulb kits – perfect for the hostess, teacher or gardener
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Moonlight & Roses 2011

MIRIAM PINSKER, Education and Moonlight & Roses Coordinator

On Friday, June 10th, 2011, more than 650 people gathered in the Arboretum's spectacular Rose Garden to celebrate 30 years of *Moonlight & Roses*. Following cocktails and hors d'oeuvres in the garden, 360 guests stayed for dinner under the moonlit tent, where they danced the night away to the lively sounds of the Janis Nowlan Band, recently chosen as one of the "Top 15 Bands" in America in an NBC poll. Despite the heat and threats of rain, a wonderful time was had by all.

This year's event was a landmark year, not only because it marked the 30th anniversary of *Moonlight & Roses*, but also because it was the most successful fundraising year to date for the annual gala. Gross revenue from the event totaled \$234,371 – greatly exceeding our goal of \$189,000. In addition, sound management of event expenses and an increase in corporate support led to a 105% increase in net revenue from the 2010 gala.

Proceeds from this year's *Moonlight & Roses* supported annual operations and the Historic Preservation Endowment, used to maintain and preserve all aspects of the Arboretum's 167 acres of precious historic landscape. The benefiting fund received the nod of approval from this year's honorees and longtime Arboretum friends and supporters, Elizabeth and John Shober. As members of the Advisory Board of Managers, Directors' Guild, and Lydia Morris Legacy Society, the Shobers have been enthusiastic and outspoken ambassadors for the Arboretum's preservation and maintenance. We were thrilled to honor the Shobers during this important anniversary year, while achieving fundraising success that will help ensure the Morris Arboretum will remain a beautiful and thriving historic and cultural institution for generations to come.



Co-chairs Alice Bullitt (left) and Paige Yager with their husbands Christian Bullitt and Jeff Yager.



Mac and Lydia Butcher, Sue Connell and Jim McCabe

Photos: Susan Scovill

Fall Classes at the Arboretum – Learn something new, get inspired!

NOW YOU CAN SIGN-UP ON-LINE! Registration for fall classes is now quick and easy. You can now go to the Morris Arboretum website, check out the course listings and sign up online. Go to online.morrisarboretum.org/classes. The Arboretum offers a wide selection of unique courses and trips. Here are some of the highlights for fall:

Rain Gardens

*Louise Clarke – Horticulturist,
Morris Arboretum*

Rain gardens are an excellent way to absorb rainwater runoff from roofs, driveways, sidewalks, and lawns so that it can soak into the ground. Learn how to add rain gardens to the landscape where they will be effective. See examples of rain gardens and suitable native plants.

Saturday, October 1, 10am–12noon
Members: \$25, Non-members: \$30

Tree Care Essentials

Bryan Thompson-Nowak – Certified Arborist
Healthy trees are a huge asset in your home landscape. Whether they are trees that already exist on your property or ones you plan to add, find out how to give them the best care possible.

Saturday, October 22, 1–3pm
Members: \$25, Non-members: \$30

Chemical Free Rose Gardening

Justin Jackson – Rosarian, Morris Arboretum
If you have children or pets that play in your rose garden, then it's time you stopped spraying nasty chemicals and learn how to manage your garden in a natural way. Come join Justin Jackson, Rose Garden Section Leader, in a discussion about organic gardening and ways to improve your plants' health in a natural way. You will learn about the importance of a clean garden, composting, and organic pest and disease solutions. An indoor talk will be followed by an outdoor walk in the garden.

**Saturday, October 22,
10 a.m.–12 noon**
Members: \$25, Non-members: \$30

CONNECTIONS BEYOND OUR GARDEN – TALKS ON PEOPLE, PLANTS, AND PLACE

Our mid-week afternoon series continues this fall with three talks designed to stimulate and enrich.

A reception with refreshments will follow each presentation, and tours of the Arboretum are available afterward. Reservations and payment are required in advance as space is limited. Call (215) 247-5777, ext. 125 or go to online.morrisarboretum.org/classes/cbog.



**Arctic Autumn: A Journey
to Season's Edge**
*Pete Dunne – Director, Cape May
Bird Observatory*

Wednesday, October 12, 2pm
Members: \$18, Non-members: \$20
Travel with noted birder and naturalist Pete Dunne and witness the stark beauty and remarkable adaptations of nature that he observed during his many months of exploration to this last frontier of our planet.

**Exploring the West with John
James Audubon: The Last
Expedition**
*Robert McCracken Peck – Senior
Fellow, Academy of Natural Science*
Wednesday, November 9, 2pm
Members: \$18, Non-members: \$20
Showing images of Audubon's western paintings and the surviving specimens and artifacts gathered

during his nine month expedition, historian Robert McCracken Peck will describe Audubon's last great adventure and put its accomplishments into the broader context of its time.

Transforming Public Spaces and Individual Lives: Philadelphia's Mural Arts Program

*Jane Golden – Executive Director,
Mural Arts Program*
Wednesday, December 7, 2pm
Members: \$18, Non-members: \$20
Jane Golden, the founder and leader of Philadelphia's Mural Arts Program, will lead a slideshow "tour" through Philadelphia's streets. Today, 3,000 murals later, the program that was started in 1984 as an experiment to redirect the energies of graffiti writers, is now the largest mural program in the country.



Photo: Ruth Pfeffer

Trinidad and Tobago Birding Adventure

This April, join the Morris Arboretum on a journey to the birding hotspots of Trinidad and Tobago. With more than 500 species recorded in Trinidad, this trip is sure to be a remarkable ornithological experience. The adventure will begin at the world-renowned Asa Wright Nature Centre and Lodge, a 200-acre wildlife sanctuary in Trinidad's rainforest and the charming Blue Waters Inn in Tobago. We will travel with Ruth Pfeffer, our own expert birder and trip leader, and with local guides assisting in tours to several unique natural areas throughout both islands. Stops will include Matura Beach, one of the world's largest and most productive leatherback turtle nesting sites, and Dunston

Cave, a beautiful riparian grotto and one of the most accessible oilbird caves in the world. We also expect to see the spectacular flight of the scarlet ibis returning to its mangrove roosts at dusk, truly one of the world's most dramatic natural moments. On Tobago, the accommodations are situated in a lovely cove perfect for swimming and snorkeling. For a complete itinerary, contact Jan McFarlan at ilm@upenn.edu. Trip dates are April 11–18, 2012. The cost is \$2,340 for double occupancy and \$2,880 for single occupancy. Trip price does not include airfare. A \$200 non-refundable deposit (payable by check only to Caligo Ventures) to is due by December 15th to reserve a spot.

ALES OF THE REVOLUTION BEER TASTING DINNER – SEPT. 22ND

Join us on Thursday, September 22 at 7pm for our fourth annual beer tasting dinner. Travel back to the days of Washington and Jefferson as we explore Ales of Revolution from Yards Brewing Company.

These flavorful beers will be paired with complementary food to create a delicious and festive evening. Bring friends and make it a social event. The cost for members is \$50 and \$55 for non-members. Reservations are required and space is limited. Register by calling (215) 247-5777, ext. 156 or 125, or online at www.morrisarboretum.org under Events.





Photos: Arnold Winkler

fall events

the Philadelphia Zoo will present their Zoo on Wheels program *Born in the USA*. Come learn how our native animals spend their fall preparing for the coming winter. Some activities have an additional fee.

Great Trees at Morris Arboretum

Every Sunday in October at 1pm
Meet in front of the Widener Visitor Center for a guided tour of the Great Trees at the Morris Arboretum. Knowledgeable guides will point out champions and discuss their history and merits.

OCTOBER

- 1 4th Annual Scarecrow Walk**
Saturday, October 1, – Sunday, October 16
The scarecrows are coming! This year, two categories of 'crows will be on display – the original Designer scarecrows and Harry Potter themed scarecrows to coincide with Chestnut Hill's Harry Potter Weekend on October 15 & 16. Come vote for your favorite in both categories and help determine which 'crows will be the prize winners!

Garden Discovery Series: Leaf Pictures

Saturday, October 1, 11am-3pm
Visit the Rose Garden and create a one-of-a-kind picture, collage or greeting card using a variety of leaf colors and shapes.

- 2 Fall Festival**
Sunday, October 2, 11am-3pm
Don't miss this afternoon of autumn fun that has become an annual tradition for many families. Make your own scarecrow, paint a pumpkin, and sample different varieties of apples. New this year

- 28 Storytime at the Morris Arboretum**
Friday, October 28, 10:30-11:00am
Join us on the lawn in front of the Visitor's Center to listen to fabulous stories as told by a William Jeanes librarian. Afterward enjoy an autumn stroll through the garden.

NOVEMBER

- 22 Storytime at the Morris Arboretum**
Tuesday, November 22, 10:30-11:00 am
Join us in the Upper Gallery at the Visitor's Center to listen to fabulous stories as told by a William Jeanes librarian. Afterward enjoy an autumn stroll through the Arboretum.



- 11 Storytime at the Morris Arboretum**
Tuesday, October 11, 10:30-11am
Join us on the lawn in front of the Visitor's Center to listen to fabulous stories as told by a William Jeanes librarian. Afterward enjoy an autumn stroll through the garden.

- 23 Bloomfield Farm Day**
Sunday, October 23, 12-3pm
Tour the Springfield Mill and enjoy the games, music and good times of an earlier era. Springfield Mill, which dates back to 1760, is located on the Bloomfield Farm side of the Morris Arboretum. The Mill is one of the oldest architectural features at the Arboretum and contains the most complete inventory of original mill works and related machinery of any mill in the area. Free with admission.

- 25 Holiday Garden Railway Display**
Open daily November 25-December 31 (Closed Christmas Eve and Day), 10am-4pm
Twinkling lights and holiday décor adorn the Garden Railway during this most magical of seasons!

- 26 Holiday Garden Railway Grand Opening Event**
Saturday, November 26, 1-3pm
Come see the Holiday Garden Railway dressed in its wintry finest! Take part in a fun craft for the kids and enjoy the winter garden.

DECEMBER

- 2 Holiday Garden Railway Evening Event for Premier Level Members**
Friday, December 2, 2011, 4-8pm
Beech level members (\$115) and higher will be invited to enjoy a special evening at the Morris Arboretum. Follow the glow of sparkling lights down the garden path to the magical garden railway, sip hot cocoa and enjoy cookies for dessert. Registration will be required. Not a premier

level member? Upgrade your membership by calling (215) 247-5777 ext. 151 or consider a premier level membership when renewing. Memberships can be renewed online at www.morrisarboretum.org under the "Join Us" tab.

- 20 Storytime at the Morris Arboretum**
Tuesday, December 20, 10:30-11:00 am
Join us in the Upper Gallery at the Visitor's Center to listen to fabulous stories as told by a William Jeanes librarian. Afterwards enjoy the last day of autumn with a stroll through the Arboretum.

JANUARY

- 20 Storytime at the Morris Arboretum**
Friday, January 20, 10:30-11:00am
Join us in the Upper Gallery at the Visitor's Center to listen to fabulous stories as told by a William Jeanes librarian. Afterwards bundle up for a walk in the winter garden.



- 29 The Byron W. Lukens Endowed Lecture – Forces of Plant Evolution: Insights from Amelanchier (Rosaceae)**
Sunday, January 29, 2 p.m.
Prized by horticulturists for its brilliant spring blossoms and by wildlife for its delectable fruit, *Amelanchier*, a genus of native shrubs and small trees of the rose family, exemplifies the evolutionary roles genome duplication and hybridization play in driving species diversification. Dr. Michael B. Burgess, Research Botanist at the Morris Arboretum, will summarize the current understanding of plant evolution, and will explore research investigating speciation in *Amelanchier*.



GREATER
Philadelphia
GARDENS

The Philadelphia area is rich in public gardens. A collaboration of these gardens called Greater Philadelphia Gardens, makes it easy for visitors to learn what each of the 30 gardens, arboreta and historic houses in this area has to offer. In addition to information on each garden, there is information on garden happenings throughout the region, including plant sales, wildflower walks, garden tours, hands-on workshops, lectures, and evening galas. Check it out at <http://www.greaterphiladelphiagardens.org/>.

ADMISSION	
Adults (18-64 yrs.)	\$16
Senior (65+ yrs.)	\$14
Children (3-17 yrs.)	\$7
Members	FREE

* Please note, Arboretum events are subject to change without notice.

In the event of inclement weather, please check the website at www.morrisarboretum.org for information or call (215) 247-5777, ext. O.