

1 Morris Arboretum classes

Continuing Education
Fall 2013

GROWING MINDS

Nature Sleuths

CULINARY ADVENTURES

Botany of Beer
Chocolate & Wine Tasting

BOTANY

The World of Mosses

CREATIVE EXPRESSIONS

Digital Photography

TRIPS

From Creek to Sewer



Morris Arboretum
UNIVERSITY of PENNSYLVANIA

Official arboretum of the Commonwealth of Pennsylvania

become a member and save

All Membership Levels Include:

- FREE unlimited general admission for a year.
- Complimentary one-time use guest passes.*
- DISCOUNTS in the Shop, at the Café, and on educational classes and excursions.
- DISCOUNTS at local garden centers and other retailers.
- FREE admission to special events.
- MEMBERS ONLY Plant Sale Day, plus 1 FREE bonus plant.
- RECIPROCAL ADMISSION privileges to over 200 gardens.
- Seasons newsletter.
- E-Newsletter, keeps you up-to-date on all our events.
- Morris Arboretum automobile decal.

General Memberships

Individual

- \$60 (1 Year Membership) 2 free passes**
*\$115 (2 Year Membership ~ Save \$5) 4 free passes**
- Admits one named member.

Dual

- \$75 (1 Year Membership) 2 free passes**
*\$140 (2 Year Membership ~ Save \$10) 4 free passes**
- Admits two named membership cardholders.

Family

- \$90 (1 Year Membership) 2 free passes**
*\$170 (2 Year Membership ~ Save \$10) 4 free passes**
- Admits up to two named membership cardholders and their children 18 and under (or up to 4 grandchildren).

Premier Memberships

Premier Memberships admit up to two named membership cardholders and their children (or up to 4 grandchildren) 18 and under.

Beech \$115 4 free passes*

- \$220 (2 Year Membership ~ Save \$10) 8 free passes**
Members enjoy all the general benefits, plus
- Invitation to the Holiday Garden Railway Evening.

Chestnut \$165 6 free passes*

- Members enjoy all the benefits of Beech, plus*
- BRING 2 FRIENDS – Save your guest passes. Show your membership card and get free admission for two additional friends every time you visit the Arboretum.
 - Attend the Plant Sale Preview.

Holly \$250 6 free passes*

- Members enjoy all the benefits of Chestnut, plus*
- Beautiful full-color calendar.
 - Invitations to exclusive Arboretum events for Premier members.
 - Additional bonus plant at the Plant Sale (2 total).

Enjoy additional benefits at the Oak (\$500) and Laurel (\$1,000) membership levels. Please call (215) 247-5777, ext. 151 for details or visit our website.

RENEW OR JOIN NOW ONLINE AT
www.morrisarboretum.org

**\$14 retail value per pass*

Membership Level _____ ☐ NEW ☐ RENEW (Member ID _____)

Primary Member Name (Mr./Ms./Mrs.) _____

Secondary Member Name _____ # of children _____
(list up to two names for Dual Membership or higher and number of children for Family or higher)

Address _____

City _____ State _____ Zip Code _____

Phone _____ Email _____

Please make membership and course payment separately.

Checks payable to the Morris Arboretum – Membership Dues Enclosed \$ _____

☐ Check ☐ Visa ☐ MasterCard ☐ AmEx ☐ Discover CVC #: _____

Expires: _____

Signature: _____

The Morris Arboretum of the University of Pennsylvania

is an educational institution that promotes an understanding of the important relationships between people and plants. Founded in 1887 as the private estate of John and Lydia Morris, brother and sister, the Arboretum today is an interdisciplinary center that integrates art, science, and the humanities. It is the official arboretum of the Commonwealth of Pennsylvania. It is listed in the National Register of Historic Places and is accredited by the American Association of Museums.

The 167-acre public garden, located in the Chestnut Hill section of Philadelphia, provides an idyllic setting for historical architectural features as well as provides a fine collection of contemporary sculpture. Specialty garden areas include the Rose Garden, Swan Pond, English Park, Asian gardens, meadows, and woodlands.

Over 12,000 labeled woody plants from around the world grow here along with superior plants for urban and community landscapes. The Arboretum provides internships, school tours, adult and professional education, lectures, and other special events.

Come visit us. Admission is \$16 for adults, \$14 for seniors, \$7 for students and children ages 3 to 18 years. It is free to members and children under 3. Special tours for the public are held on Saturdays and Sundays at 2 p.m. Other tours by reservation only; please call (215) 247-5777, ext. 157. The Arboretum is open 10 a.m. – 4 p.m. November to March; 10 a.m. – 5 p.m. on weekends from April to October. It is closed Thanksgiving Day, Christmas Eve, Christmas Day, and New Year's Day. Visit our web site regularly at www.morrisarboretum.org for information on what's happening in the garden.

Please note: Parking adjacent to the Visitor Center is sometimes at full capacity on nice weather weekends. If you visit after noon, you may be required to park at the bottom of the hill and be shuttled into the garden.



Illustrations by Anna Aniško from *The Plants of Pennsylvania – An Illustrated Manual*. Used with permission of the University of Pennsylvania Press.

Cover image by Judy Miller

at a glance

Starting Time	Title	Page #
Date	Classes listed by starting date	

September

3	10:30 a.m.	Stroller Strides (moms and strollers)	10
9	10:30 a.m.	Seeds to Sprouts, Autumn Adventures I (Ages 2-4)	10
17	7:30 a.m.	Birding the Perkiomen Trail (trip)	22
18	10 a.m.	Tai Chi in the Garden	9
18	7 p.m.	From Creek to Sewer: Topographical Change in Philadelphia	7
19	10 a.m.	Little Diggers: Healthy Living Series (Ages 3-5)	11
21	8 a.m.	Birding at Alverthorpe and Lorimer Parks (trip)	22
21	5:30 p.m.	Early Evening Tour of Bloomfield Farm	7
22	10:30 a.m.	Nature Sleuths (Ages 5-7)	12
24	7 p.m.	Digital Photography	13
26	8:45 a.m.	Pennsbury Manor and Historic Fallsington: Quaker Roots (trip)	27
26	4:30 p.m.	Wine, Cheese, and Spectacular Trees	8
28	10 a.m.	From Creek to Sewer: A Tour of Wingohocking Creek (trip)	7
28	10 a.m.	The World of Mosses	19
28	1 p.m.	Edible Native Plants	5
29	1 p.m.	Impressionist Painting	13

3

October

1	9 a.m.	Emerald Ash Borer: Planning for 2014	29
2	9 a.m.	Introductory Tree Climbing for Women	29
3	10 a.m.	Identifying Warm Season Grasses	19
3	9 a.m.	Philadelphia's Early Landscapes: Woodlands and Lemon Hill (trip)	28
3	4 p.m.	Kids' Nature Photography Workshop (Ages 8-12)	12
4	10 a.m.	Cool Beans Band Music & Art Series (Ages 2-5)	11
5	8 a.m.	Birding in the Wissahickon (trip)	22
8	7 p.m.	Gardening for Wildlife	16
10	8:45 a.m.	Swedish America, Sustainable Colonial, Olmsted, Coots, Italian Market (trip)	28
10	9 a.m.	Electrical Hazard Awareness, Aerial Rescue, and Chain Saw Safety	30
10	7 p.m.	Creating a Woodland Garden	20
12	10 a.m.	Compost This!	16
12	1 p.m.	Ikebana Flower Arranging	13
13	2 p.m.	Cordial Cocktails: Delicious Delights Straight from the Garden	5
15	10 a.m.	Goldenrods and Asters	19
16	3 p.m.	PHS—The Year-Round Flower Show	25
17	7:45 a.m.	Ocean Birding Adventure (trip)	22
17	9 a.m.	New Field Techniques for Tree Evaluation	30
19	8 a.m.	Attracting Birds to Your Backyard	23
19	10 a.m.	The Lure of the Labyrinth	9
19	10 a.m.	Last Chance Café: The Secret Life of a Goldenrod Field	17
19	1 p.m.	Putting Food Aside: Canning Basics for the Home Cook	5
20	12:30 p.m.	Zentangle Art Workshop: The Basics and Beyond	14
21	10:30 a.m.	Seeds to Sprouts, Autumn Adventures II (Ages 2-4)	10

Starting Date	Time	Title	Page #
Classes listed by starting date			
22	9 a.m.	Introductory Tree Climbing	31
22	7 p.m.	Bulb-o-licious Containers	17
23	9 a.m.	Pruning Deciduous Trees	31
23	7 p.m.	Orchid Workshop	17
24	7 p.m.	Designing the Small Garden: Lecture and Workshop	20
24	7 p.m.	Pruning for the Homeowner	18
26	1 p.m.	Great Native Plants for Your Landscape	20
27	7:45 a.m.	Birding in Cape May and Blackwater National Wildlife Refuge (trip)	23
30	9 a.m.	Climate Change and Sea Level Rise: Predicting the Effects	32
31	9 a.m.	Tools and Techniques of Modern Arboriculture	32

November

1	6:30 p.m.	The Botany of Beer: The Second Pint	6
2	9 a.m.	Understanding Trees as Complex Biological Systems	32
2	10 a.m.	Vegetables and Annuals from Seed	18
2	1 p.m.	Nature's Palette for Papermaking	14
3	12:30 p.m.	Painting with Watercolor and Colored Pencil	14
3	2 p.m.	Floral Fantasies from the 19th Century: Simulating Nature under Glass	15
4	9 a.m.	Mobile Crane Operator Training and Certification	33
7	7 p.m.	Creating Beautiful Landscapes under Mature Trees	21
11	9 a.m.	Advancing Your Climbing Skills: Pruning, Rigging, Crane Removal	33
12	9 a.m.	Behind the Scenes at the Academy of Natural Sciences	8
12	9 a.m.	Physical and Cultural Geography of the Pinelands	34
13	3 p.m.	More Park, Less Way and Other Urban Design Visions	26
14	9 a.m.	Field Identification of Landscape Trees	34
21	9 a.m.	Restoration Ecology	35
22	9 a.m.	Diagnosis and Identification of Plant Disorders	35
24	12:30 p.m.	Thanksgiving Harvest Centerpiece	15

December

1	10:30 a.m.	Holiday Wreath Section A	15
2	10:30 a.m.	Holiday Wreath Section B	15
4	3 p.m.	A Passion for Nature: Thomas Jefferson and Natural History	26
5	9 a.m.	Redesigning Landscapes in the New Urban Environment	35
8	1:30 p.m.	Chocolate and Wine Tasting: A Delicious Afternoon	6
9	7:45 a.m.	Bald Eagles at the Conowingo Dam (trip)	24
12	10:30 a.m.	Holiday Tabletop Tree with Lights	16
14	1 p.m.	Gift-Making Workshop (Ages 6-12)	12

January

16	8:30 a.m.	Landscape Design Symposium	21
26	2 p.m.	Informing Land Preservation through Science	36

culinary adventures

Edible Native Plants

Anna Wik

Landscape Architect, Pennsylvania Horticultural Society

Many of us love to munch on blackberries and raspberries, but did you know you can also make a caffeinated beverage out of Yaupon holly, jam out of chokeberry, and snack on the young shoots of Solomon's seal? Many of our most treasured native plants were used by Native Americans and early settlers as nourishing food, and can still provide for us today. We will start in the classroom with a short presentation on selected plants then we will go on an informal hour-long walk to see these and other plants in the field. We will identify and discuss historical and current uses for several native herbs, shrubs, and trees.

Wear good walking shoes.

**Saturday, September 28
1 – 3 p.m.**

Members: \$25

Non-members: \$30

Register Now >

Cordial Cocktails: Delicious Delights Straight from the Garden

Maia Toll

Herbalist and Owner, Herbiary and Professor of Botanical Medicine, West Chester University

Savor the taste of summer through the long winter months!

Making cordials is a time honored-way of preparing botanical medicine and bringing a little sunshine to your soul. This is a perfect class for both the beginner and the expert. We will start with a stroll through the gardens—sniffing, tasting, and discussing the herbs and flowers involved in cordial-making; then we will adjourn back inside for a tasting and cordial-making demonstration (please note – cordials

contain alcohol). You will go home with cordial recipes and time to prepare them as ingenious holiday gifts.

**Sunday, October 13
2 – 4 p.m.**

Members: \$35

Non-members: \$40

Register Now >

Putting Food Aside: Canning Basics for the Home Cook

Lois Fischer

Penn State Certified Master Gardener

Too many tomatoes, beans, or cucumbers? Want to make homemade jam but don't know where to begin? This workshop will teach you all of the basic techniques of water-bath canning needed to create delicious canned goods from your kitchen. This is a lecture class. You will not be cooking. However, you will be able to sample a variety of products made by the instructor. Lois Fischer has been a home-canner for over forty years. She has lectured on the topic of canning for Penn State Cooperative Extension and the Pennsylvania Horticultural Society. Lois is an avid vegetable gardener and has been sharing the results of her own garden and kitchen with family and friends for decades. **This course will be held at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

**Saturday, October 19
1 – 2:30 p.m.**

Members: \$25

Non-members: \$30

culinary adventures

The Botany of Beer: The Second Pint

Julie Jenney

Educational Programs Coordinator, Scott Arboretum of Swarthmore College

Julie Jenney returns for more craft beer drinking and discussion! While reviewing the botanical components of beer she will dig deeper into the use, varieties, and importance of hops in the making of beer. A carefully chosen line-up of beer will complement the discussion: a pale ale and an India pale ale while uncovering the crucial role hops play; a few Belgian-style beers while discussing how monks and their traditions have brought amazing beer into our world; a sour beer to delve into this unique style; a seasonal beer will be enjoyed while learning why barley is the perfect brewing grain; and a surprisingly delicious rauchbier (smoked beer) will be tasted while looking into the very important role yeasts play in beer. Food pairings and the best glassware to use will be mentioned for each beer. While *The Botany of Beer* is more beer than botany, it has developed out of a passion for both plants and craft beer and a fascination of how the two have been intertwined throughout history.

Friday, November 1
6:30 – 8:30 p.m.

Members: \$40

Non-members: \$45

Register Now >

Chocolate and Wine Tasting: A Delicious Afternoon

John Doyle

John & Kira's Chocolates

There are few foods that people feel as passionate about as chocolate. For the true chocoholic, just thinking about chocolate can evoke a pleasurable response. Pairing chocolate with wine makes for a delicious tasting event. Please join us as we sample a variety of chocolates with wines that are especially selected to complement each different chocolate. The chocolates are created by premier Philadelphia gourmet chocolate maker, John & Kira's. John & Kira's is a socially innovative chocolate company dedicated to both making and selling world class confections using ingredients from small family producers and urban gardens. During the tasting, John will discuss the chocolates—how taste varies depending on where the cocoa beans come from, and how fresh garden herbs are used in the company's recipes.

Sunday, December 8

1:30 – 3:30 p.m.

Members: \$40

Non-Members: \$45

Register Now >



behind the scenes

From Creek to Sewer: A History of Topographical Change in Philadelphia

Adam Levine

Environmental Historian, Author, and Consultant, Philadelphia Water Department

In this fascinating illustrated lecture, Adam Levine will uncover a part of Philadelphia's history that few people ever think about – the drastic changes made in the city's landscape since its founding in 1682. The most significant change was the systematic obliteration of almost all the city's streams. Buried deep underground in pipes as large as 20 feet in diameter, these former streams, some of which had watersheds that covered thousands of acres, became main drainage arteries in the city's 3,000 mile sewer system. These massive alterations to the landscape, undertaken over two centuries, have environmental repercussions that are still being felt today. Adam Levine has worked for the Philadelphia Water Department since 1998, researching the city's watersheds as well as its sewage and stormwater drainage systems.

Wednesday, September 18
7 – 8:30 p.m.

Members: \$25

Non-members: \$30

Register Now >

From Creek to Sewer: A Tour of Historic Wingohocking Creek

Adam Levine

Environmental Historian, Author, and Consultant, Philadelphia Water Department

Like any natural area in this well-watered part of the country, Philadelphia was once laced with a complex system of streams and their tributaries, many of which are now hidden underground. To provide level land for new homes, protect the health of our citizens, and provide drainage for expanding neighborhoods, city engineers in the 19th and 20th centuries re-channeled most of these

waterways into massive sewers that now run far beneath the streets. Join Adam Levine on this fascinating bus tour that will follow the winding course of the Wingohocking Creek. Once a major tributary to Frankford Creek that provided power for many factories, the Wingohocking now runs in a sewer that drains several neighborhoods, including Mt. Airy, Germantown, Olney, Feltonville, and Juniata. We'll stop at points of interest along the way, including Awbury Arboretum and Belfield, home of Charles Willson Peale on the LaSalle University campus. You'll also learn more about watersheds, and how you can help protect the streams in your neighborhoods. This tour is co-sponsored by the Philadelphia Water Department and the Morris Arboretum. **Meet at the Morris Arboretum. We will travel by small bus. People should be capable of getting in and out of the bus and walking on uneven terrain. Bring a snack and something to drink. A restroom break will be available.**

Saturday, September 28
10 a.m. – 1 p.m.

Members: \$40

Non-members: \$45

Register Now >

Early Evening Tour of Bloomfield Farm

Louise Clarke

Horticulturist, Morris Arboretum

Go behind the scenes with Arboretum staff for an early evening harvest moon tour of historic Bloomfield Farm. We will visit the Arboretum's LEED platinum certified Horticulture Center and learn about its environmentally-sustainable features. We will also see green roofs, rain gardens, a 19th century bank barn, and miller's cottage, as well as Springfield Mills, a grist mill on the banks of the Wissahickon Creek that dates back to 1761. During our meadow walk we will look for birds and other creatures that call bucolic Bloomfield Farm their home. Wear comfortable walking shoes and long pants for

behind the scenes

this infrequent chance to view the non-public side of the Arboretum. **This tour will be held at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

Saturday, September 21
5:30 – 7 p.m.

Members: \$25

Non-members: \$30

Register Now >

Wine, Cheese, and Spectacular Trees

Paul Meyer

*The F. Otto Haas Executive Director,
Morris Arboretum*

Join this early evening walk with Arboretum Executive Director Paul Meyer focusing on ten outstanding trees in the Arboretum's living museum. Each of these accessions has special genetic significance and tells an important conservation story. You will learn about the attributes of each species and how the individual plant became part of the Arboretum's collection. This walking class will conclude with a glass of wine, snacks, and discussion on the Arboretum's popular tree canopy exhibit, *Out on a Limb*. **Rain or shine. In the event of rain, the class will be held indoors.**

Thursday, September 26
4:30 – 6:30 p.m.

Members: \$30

Non-members: \$35

Register Now >

Behind the Scenes at the Academy of Natural Sciences

Ruth Pfeffer

Birding Expert and Trip Leader

Join us for a behind-the-scenes tour of the Academy of Natural Sciences' amazing collection. The Academy, the oldest natural science institution in the Western Hemisphere, was founded in 1812 when Philadelphia was the cultural, commercial, and scientific center of our new nation. The Academy's collection now contains over 17,000,000 specimens. While the Academy has exhibits open to the public, it has large collections that are used primarily by researchers. This is what our trip will focus on. We will see bird and insect specimens collected by pre-eminent ornithologists and entomologists. We will also have the opportunity to see some of the priceless books in the Academy's library. **Park in the meadow next to the entrance kiosk. We will travel by van. Space is limited. Lunch will be at the Academy's Bistro and is not included in the cost of the trip.**

Tuesday, November 12
9 a.m. – 3 p.m.

Members: \$60

Non-members: \$65

Register Now >



health and wellness

Tai Chi in the Garden

Al Smith

Practitioner Member, National Qigong Association

Do you want to reduce stress, quiet down, move in a slow, balanced way, and cultivate energy? In the beautiful outdoor setting of the Morris Arboretum we will share in the practice of the healing art of Tai Chi. Tai Chi is an ancient Chinese tradition that today is practiced as a graceful form of exercise. It involves a series of movements performed in a slow, focused manner accompanied by deep breathing. Often described as meditation in motion, Tai Chi promotes serenity through gentle, flowing movements. We will begin with Tai Chi Easy™ Level 1, no previous experience is needed. Al Smith has over 200 hours of teacher training from the Institute of Integral Qigong and Tai Chi. **Please wear loose-fitting clothing to the class.**

Four Wednesdays: September 18, 25, October 2, 9

10 – 11 a.m.

Raindate, Wednesday, October 16

Members: \$75

Non-members: \$90

Register Now >

Stroller Strides®

Jacqueline Walsh

Certified Stroller Strides and Fit4Baby Instructor

For a complete description and class dates, see page 10.

The Lure of the Labyrinth

Michelle Conners

Public Programs Event Coordinator, Morris Arboretum

Janie Shields

Special Projects Coordinator, Morris Arboretum

The history of the labyrinth is as old as humanity. Through the centuries, these peaceful paths have been featured in garden and church designs, symbolizing young love, rebirth, and spiritual pilgrimage. Centers focusing on health care and spirituality incorporate labyrinths as a way to promote healing the body and mind. Inviting meditation and mindfulness, the restful nature of walking these paths can reduce stress and improve health and wellness. The class will begin indoors with a short presentation on the history and uses of labyrinths, and then move outdoors to outline unique patterns suitable for reproducing a personal labyrinth in your own backyard. **This course will be held at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

Saturday, October 19

10 a.m. – 12 p.m.

Raindate: Saturday, October 26

10 a.m. – 12 p.m.

Members: \$20

Non-members: \$25

Register Now >





Growing Minds at Morris Arboretum is a program series for kids and families aimed to inspire a sense of wonder about the natural world within the beautiful setting of the Morris Arboretum. These classes offer children and their caregivers the opportunity to connect meaningfully with nature, through a wide variety of creative and educational programs. Take a look and sign up for these programs that are certain to be enriching, fun, and memorable!

FOR PARENT/CAREGIVER & CHILD

Stroller Strides®

Jacqueline Walsh
*Certified Stroller Strides and Fit4Baby
Instructor*

This popular fitness class comes to Morris Arboretum this fall! Stroller Strides® is a total fitness program that moms can do with their babies – it includes power walking, strength-training intervals, and a unique blend of Pilates, barre, yoga, and stroller-based exercises designed to help moms build strength and muscle tone and improve posture. Taught by a certified and specially trained instructor (and fellow mom), it is a great workout for any level of exerciser. Jacqueline will weave songs and activities into the routine designed to entertain and engage baby, while moms are led through a series of exercises specific to her role as mom. In the case of inclement weather, class will be modified in order to be comfortably held indoors. **You must be at least six weeks post-partum to participate in this series.**

Eight alternate Tuesdays: September 3, 17, October 1, 15, 29, November 12, 26, December 10
10:30 – 11:30 a.m.

Members: \$160
Non-members: \$200

Register Now >

plus a one-time fee of \$14 for an exercise ball that is yours to keep and use for future classes



Seeds to Sprouts, Autumn Adventures! (Ages 2-4)

Pam Newitt
Educator and Founder, Nature By The Yard

Is your toddler a budding naturalist? Join us this fall for a series of outdoor adventures designed to introduce children and their caregivers to the wonders of the natural world! Each session will include guided exploration through the Arboretum and a craft to take home. Children must be walking and accompanied by an adult. Please dress for the outdoors and for the weather. Class size is limited to the first 15 registrants. **Due to its popularity, this program includes two six-week sessions – sign up for one or both!**

Six Mondays: September 9, 16, 23, 30, October 7, 14
10:30 – 11:15 a.m.

or

Six Mondays: October 21, 28, November 4, 11, 18, 25
10:30 – 11:15 a.m.

Register Now >

Members: \$120 for each six-week session
Non-members: \$150 for each six-week session

Little Diggers: Healthy Living Series (Ages 3-5)

Howard Brosius

*Instructor and Founder,
Chipping Hill
Micro Farms*

What better way to connect children with nature and the food they eat than through gardening? The experience of gardening—planting a seed; watching it grow; nurturing the plant by watering, weeding, and guarding against pests; and waiting for it to mature and bear fruit—teaches children many valuable lessons. This six-week series offers hands-on experience for three, four, and five year olds with growing and eating vegetables. Research has shown that children's palates are most receptive at age three and four and that they become much more adventurous in eating fresh produce when they grow it themselves. Each class will begin with a short walk in the garden, followed by a story about nature and gardening. Then, children will be guided through the process of growing a wide variety of vegetables and herbs, which will be tasted individually and then chopped up into a mixed salad with fruits and dressing. Throughout the series, we will encourage children to be curious, get dirty, and use their listen, smell and watch senses.

**Six Thursdays: September 19, 26,
October 3, 10, 17, 24
10 – 11:15 a.m.**

Members: \$120

Non-members: \$150

Register Now >



Cool Beans Band Music & Art Series (Ages 2-5)

Steve Pullara

*Family & Children's Entertainer and
Illustrator, Grammy Award-winning Producer*

This six-week series for toddlers and their parents (or caregivers) combines interactive music with engaging art lessons, sure to delight all participants. Grammy Award-winning instructor, Steve Pullara, will sing high energy interactive songs on his guitar and banjo that teach rhyming; word with sounds associations; and engaging eye-hand coordination exercises. In the second portion of the class, Steve will lead the class in drawing an array of animals and nature images, incorporating letters of the alphabet. Parents and children are encouraged to follow along using hand-over-hand drawing techniques. Each class concludes with a closing song to cap off the fun session.

**Six Fridays: October 4, 11, 18, 25,
November 1, 8
10 – 10:45 a.m.**

Members: \$120

Non-members: \$150

Register Now >

AFTER SCHOOL

Nature Photography Workshop (Ages 8-12)

Kim Soles

Photographer and Founder, Indigo Nature Arts

This four-week photography workshop offers kids the opportunity to get out in nature, be creative, and have fun while capturing the beautiful landscape of Morris Arboretum during fall! A lifelong photographer, Kim Soles will share her experience with photographing the natural world, while encouraging the young photographers to find his or her own way. Children will learn tips and techniques to hone their photography skills, concentrating on close-ups, textures, color, and landscape concepts. During the last session, students will have the opportunity to critique and celebrate their classmates' work. Rain dates will be offered in case of inclement weather. Children must have their own camera, know how to use it, and make sure that it has been charged before arriving to class. Film cameras are welcome.

**Four Thursdays: October 3, 10, 17, 24
4 – 5:30 p.m.**

Members: \$85

Non-members: \$100

Register Now >

web of life. One week we may use binoculars to find migrating birds, while another week we may follow the colorful progress of the leaves' changing fall colors; all within the safe confines of the Arboretum's trails. Then back inside, we will create a take-home art project related to our outdoor adventure.

**Four Sundays: September 22, 29,
October 6, 13**

10:30 – 11:30 a.m.

Members: \$80

Non-members: \$100

Register Now >

Gift-Making Workshop (Ages 6-12)

Allison Zito

Artist and Teacher, Harcum College

Surprise your friends and loved ones with wonderful gifts you make yourself! During this two-day workshop students will have fun painting, printing, and creating sculptures and toys. Kids will experience the magical holiday season at Morris Arboretum and will feel proud knowing that they've created their own unique, one-of-a-kind holiday gifts. All supplies are provided. **Come to class dressed to paint.**

**Saturday and Sunday:
December 14 and 15
1 – 2:45 p.m.**

Members: \$50

Non-members: \$60

Register Now >

ON WEEKENDS

Nature Sleuths (Ages 5-7)

Pam Newitt

Educator and Founder, Nature By The Yard

Autumn is a wonderful time for children to explore the great outdoors and develop their intellectual curiosity while having fun in nature! Join us for a close look at trees, birds, and other wildlife that call the Morris Arboretum home. Each session will focus on a particular topic of the natural world, delving into how it fits into the Arboretum's



creative expressions

Digital Photography

Arnold Winkler

Photographer

So you just bought a digital camera... what now?? This introduction to digital photography is designed to give you the basics you need to get started. With both lecture and hands-on practice, the instructor will guide you through the learning process. The six sessions cover digital camera terminology, photography basics including exposure, aperture, shutter speed, and depth of field, and techniques for uploading images into your computer and organizing them for easy access. Arnold will discuss modifying and enhancing images, the basic features of Adobe Photoshop for photo manipulation and printing, e-mailing, and putting images onto the web. Some of the on-line services that can help you with these operations will be reviewed. Students will have a chance to practice taking pictures and get help from Arnold during the Saturday morning session.

**Five Tuesdays: September 24,
October 1, 8, 15, 22
7 – 9:30 p.m.
and One Saturday: October 12
10 a.m. – 12:30 p.m.**

Members: \$160

Non-members: \$190

Register Now >

Impressionist Painting

Allison Zito

Artist and Teacher, Harcum College

The romance of the nineteenth century is captured in the artwork of the impressionist painters. This class will focus on the Impressionists and the developments that led to the freedom of their expression. We will paint on canvas board with the quick drying medium of acrylic paint. **Bring a smock and dress to paint, all other supplies will be provided.**

**Sunday, September 29
1 – 3 p.m.**

Members: \$30

Non-members: \$35

Register Now >

Ikebana Flower Arranging

Janet Solomon

Professor, Ikenobo School

Ikebana is the Japanese art of flower arranging. Its fundamental inspiration comes from nature. In contrast to the Western approach to flower arranging, which favors a mass of flowers, Ikebana emphasizes simplicity of design and using line, space, and texture to create balanced, harmonious arrangements. It involves discipline and knowledge of rules and forms. Learn the rich symbolism and fundamentals of this graceful, traditional Japanese art form and gain a lifetime skill for distinctive floral design as you create a different arrangement each week to take home and enjoy.

**Two Saturdays: October 12 and 19
1 – 3 p.m.**

Members: \$62

Non-members: \$68

Register Now >



creative expressions



Zentangle Art

Zentangle® Art Workshop: The Basics and Beyond

Terri Greenberg
Certified Zentangle Teacher

Consider the geometric grace of a nautilus shell or the subtle curve of a rose petal. All simple shapes and lines; all combine to create beauty in the world. The simple lines and strokes of Zentangle allow you, the Zentangle artist, to create beauty too. If you're intrigued by the name "Zentangle," if you're interested in a new approach to making art, if you've been creating Zentangle art on your own, this two-session workshop is for you. We'll begin with simple patterns and learn how to create "tangleations" that take those patterns to a deeper level. Beginners and intermediate level artists alike can enjoy this fun and relaxing workshop. **Everything you need for creating beautiful art is included; additional supplies will be available for purchase from the instructor.**

**Two Sundays: October 20 and 27
12:30 – 3:30 p.m.**

Members: \$65
Non-members: \$70

Register Now ➤

Nature's Palette for Papermaking

Winnie Radolan
Papermaker, Artist, Educator

At the end of the growing season our gardens provide us with a wealth of plant materials that can be processed into papermaking fibers, useful for creating beautiful handmade papers. Using Winnie's recent harvests, learn how to prepare iris and day lily leaves, canna stalks and other plant materials to make beautifully textured and colored paper for your art or correspondence. No experience necessary, just a love of the natural world. **Dress for papermaking.**

**Saturday, November 2
1 – 3 p.m.**

Members: \$40
Non-members: \$45

Register Now ➤

Painting with Watercolor and Colored Pencil

Eileen Rosen
Art Teacher and Illustrator

What happens when you combine two very different mediums to paint a flower, fruit, or vegetable? This simple and enjoyable technique results in a vibrant, life-like painting. The first step is to paint a flat, one-color, simple shape that becomes the underpainting. Then a layering and blending of wax-based colored pencils adds glowing, realistic depth to the painting. Eileen's step-by-step demonstrations will explain the process. Fruits, vegetables, and other plants will be provided. No previous experience required. **Please bring the following supplies: If you already have watercolors, bring them, if not purchase a basic set of watercolors (found at Michaels or A.C. Moore), one watercolor brush, a small dish or palette for mixing paint, a small container for water, a set of 24 or 48 count Premier Prismacolor colored pencils (wax based and NOT Prismacolor Scholar or watercolor pencils),**

creative expressions

a Strathmore Bristol, smooth finish, 300 series pad (no larger than 9 x 12”), and a pencil sharpener.

**Three Sundays: November 3, 10, 17
12:30 – 3:30 p.m.**

Members: \$122

Non-members: \$135

Register Now >

Floral Fantasies from the 19th Century: Simulating Nature under Glass from The Victorian Era

John Whitenight

Artist, Educator, Author

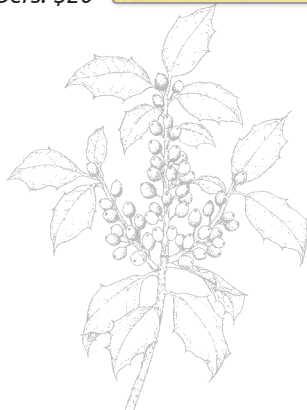
Come experience a world of botanical beauties created during the 19th Century in an array of materials including: wax, sea shells, wool, silk, and even human hair all of which were placed under glass domes for their protection and posterity. Author John Whitenight will be sharing images and information from his book, *Under Glass, A Victorian Obsession*, which is a comprehensive study of all the objects created as parlor pastimes during the Victorian Era. The book is a culmination of forty years of collecting and researching these beautiful and sometimes whimsical representations from a time when art, science, and handcrafting were combined to produce incredible floral arrangements that fooled and delighted the eye.

**Sunday, November 3
2 p.m.**

Members: \$15

Non-members: \$20

Register Now >



Thanksgiving Harvest Centerpiece

Cheryl Wilks

Floral Educator, Florist, and Owner of Flowers on Location

During the Thanksgiving holiday season, mixing flowers and dried materials along with fruits and vegetables creates stunning arrangements. Learn some tricks when working with these natural materials and create a fabulous centerpiece for your Thanksgiving table or to give as a hostess gift. Success is guaranteed. You will take home a unique and beautiful arrangement. Everything is included. **Bring a rectangular box to transport your finished arrangement home.**

**Sunday, November 24
12:30 – 3 p.m.**

Members: \$50

Non-members: \$60

Register Now >

Holiday Wreath

Cheryl Wilks

Floral Educator, Florist, and Owner of Flowers on Location

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.**

**Sunday, December 1
Section A: 10:30 a.m. – 12:30 p.m.
Monday, December 2
Section B: 10 a.m. – 12 noon**

Members: \$45

Non-Members: \$55

Register Now >

creative expressions

Holiday Tabletop Tree with Lights

Cheryl Wilks

Floral Educator, Florist, and Owner of Flowers on Location

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. Your tree arrangement will last four to five weeks. **Bring a pair of pruners and a box to take home your tree.**

Thursday, December 12

10:30 a.m. – 1 p.m.

Members: \$50

Non-members: \$60

Register Now >

horticulture

Gardening for Wildlife

Marc Radell

Penn State Certified Master Gardener

More than twice the amount of land that is conserved as open space in Southeast Pennsylvania is used for residential purposes, which means that how homeowners maintain their property has a dramatic impact on area wildlife. In this class, you will learn how to enhance your property's potential to provide food, water, and shelter for a variety of wildlife in a sustainable and aesthetic way. It will cover the backyard habitat principles developed by leading environmental organizations and recommend specific plants and garden practices for attracting songbirds, butterflies, and other beneficial wildlife based upon the instructor's experience rehabilitating his own 4.5-acre property, working as an environmental professional, and practicing as a Master Gardener Volunteer.

Tuesday, October 8

7 – 9 p.m.

Members: \$25

Non-members: \$30

Register Now >

Compost This!

Lucy Dinsmore

Rosarian, Morris Arboretum

This class will demonstrate the how's and why's of making compost and compost tea for your home garden. We will start by exploring the variety of materials available to compost and the methods used for building bins and storing these materials at home. We will build a compost pile together, so that you can easily replicate it at home. We will also demystify the idea of "compost tea" by exploring the equipment used at the Morris Arboretum and demonstrating the brewing process. Participation in handling the compost materials is optional, so dress accordingly if you plan to get messy. **This course meets at the Horticulture Center at Bloomfield Farm. Enter the Arboretum on the road opposite from the public garden entrance. Park in the parking lot and follow the signs to the Horticulture Center.**

Saturday, October 12

10 a.m. – 1 p.m.

Members: \$30

Non-members: \$35

Register Now >

Last Chance Café: The Secret Life of a Goldenrod Field

Mike Weilbacher

*Executive Director, Schuylkill Center for
Environmental Education*

Goldenrod fields—the villains in thousands of allergy-relief commercials—are a critically important ecosystem for millions of butterflies, bugs, and birds, the last chance for life-saving pollen and nectar before the long winter sets in. On a walk through the Arboretum's stunning goldenrod field, naturalist Mike Weilbacher shares with you the wonderful life histories of the many species we'll find there—monarch butterflies, bumblebees, praying mantises, peacock flies, assassin bugs, and the plants themselves, asters and goldenrods, milkweeds, and thistles. Mike directs the Schuylkill Center for Environmental Education in Roxborough, makes regular appearances on WXPB's "Kid's Corner," and hosted Earth Talk on WHY? for many years. **Wear good walking shoes.**

**Saturday, October 19
10 – 11:30 a.m.**

Members: \$25

Non-members: \$30

Register Now >

Bulb-o-licious Containers

Lucy Dinsmore

Rosarian, Morris Arboretum

Create a stunning container display of bulbs for the spring by forcing them this winter. The possibilities are endless! We will get familiar with some of the best bulbs for forcing in containers. We will also take a look at the Rose Garden tulip displays from years past – single early, double late, miniature, and species tulips, plus the many different muscari. Learn how to choose bulbs that will bloom together over a long period of time and where to get them. You will be able to plant your own pot to take home. Class fee includes bulbs, soil, and a liner pot. **Bring a container from**

home in which you want to display your bulbs, then take home your liner pot to force over the winter.

**Tuesday, October 22
7 – 9 p.m.**

Members: \$42

Non-members: \$48

Register Now >

Orchid Workshop

Beth Davis

Waldor Orchids

Learn how you can grow exquisite orchids as houseplants and pot up one to take home. By applying the proper cultural techniques to vigorous orchid varieties, you can grow these exotic plants in your home or greenhouse and have them flourish. Beth will review orchid growing supplies nutritional requirements, grooming techniques, and pest and disease control. She will demonstrate how to pot a bare-root plant. You will then pot up your own beautiful orchid. Additional plants will be available for sale at the end of the workshop. Beth is a third generation orchid grower. If you have an orchid that is not thriving, bring it to class and Beth will offer suggestions for how to make it grow better. Beth has worked at Waldor Orchids in Linwood, New Jersey for nearly 20 years doing many different jobs including orchid growing and lecturing. **Bring a box to take home your orchid.**

**Wednesday, October 23
7 – 9 p.m.**

Members: \$43

Non-members: \$48

Register Now >

Pruning for the Homeowner

Iana Turner

Horticulturist, Morris Arboretum

Learn how you can skillfully prune shrubs and small trees to achieve a pleasing natural shape and abundant flowering. In this evening lecture and Saturday workshop, you will have the opportunity to see demonstrations designed to help you master pruning concepts and gain confidence. The course will cover formative pruning for young trees and proper pruning techniques for larger, older trees. It will also cover naturalistic pruning techniques for creating attractive hedges and methods for reducing overgrown shrubbery. This class meets twice. **Please bring hand pruners and a small pruning saw to the Saturday session.**

Thursday, October 24

7 – 9 p.m.

and

Saturday, October 26

10 a.m. – 12 noon

Members: \$45

Non-members: \$50

Register Now >

Vegetables and Annuals from Seed

Shelley Dillard

Plant Propagator, Morris Arboretum

Vegetable gardening is booming! So many folks have jumped on the bandwagon to grow their own. Buying vegetables and annuals as small plants can not only be expensive, but it can also be hard to find exactly what varieties you want. This class will teach you how to grow seeds so that you can start planning your garden this fall and get a jump start on spring. Simple strategies that will increase success will be demonstrated, as well as timing sowing dates, and sources for seed. It is SO easy! This is a class that will inspire you. **The class takes place in the Arboretum Greenhouse. Class size is limited so sign up early. Check in at the Visitor Center, walk to the Greenhouse.**

Saturday, November 2

10 a.m. – 12 noon

Members: \$25

Non-members: \$30

Register Now >



The World of Mosses

Keith Bowman

Moss Ecologist

Come and explore the Lilliputian world of the mosses. You will be introduced to the unique biology and ecology of these often overlooked plants through hands-on demonstrations and activities. You will have a chance to get up close and personal with some of the common species in the classroom and, if time allows, on a short walk in the Arboretum. In addition to the mosses, you will learn about the closely related liverworts and hornworts and how to distinguish among these different groups. Bring your hand lens, your enthusiasm, and your questions. Keith Bowman has been studying the biology and ecology of mosses for the last 15 years. He is currently completing his Ph.D. dissertation in bryophyte ecology.

Saturday, September 28

10 a.m. – 1 p.m.

Members: \$35

Non-members: \$40

Register Now >

Identifying Warm Season Grasses

Dr. Ann Rhoads

Retired Director of Botany, Morris Arboretum

Warm season grasses have become very trendy with managers of parks and conservation lands. What characterizes this group of species, how do they differ from other members of the Poaceae? We will discuss physiology, anatomy,

and evolution in order to understand their ecological role. Using dissecting microscopes, and identification keys we will examine living specimens to identify representatives of the more common genera of warm season grasses that occur in our area. A portion of the class will be spent in the meadows at the Arboretum. **Please bring your lunch and something to drink.**

Thursday, October 3

10 a.m. – 2 p.m.

Members: \$54

Non-members: \$60

Register Now >

Goldenrods and Asters

Dr. Ann Rhoads

Retired Director of Botany, Morris Arboretum

Goldenrods and asters are the most conspicuous components of the fall wildflower display. We will start by examining the characteristics that define the Asteraceae, the family to which both belong. The bulk of our time will be spent using keys to identify species. Part of the course time will be spent indoors in order to use dissecting microscopes to become familiar with the fine details of these plants' flowering heads. We will also explore the meadows at the Arboretum to see some species in situ. **Please bring your lunch and something to drink.**

Tuesday, October 15

10 a.m. – 2 p.m.

Members: \$54

Non-members: \$60

Register Now >



landscape design

Creating a Woodland Garden

Eva Monheim

Horticulture Instructor, Temple University

Learn how to transform an area of your landscape into a woodland oasis. If you already have a grove of trees or are thinking of planting one, this presentation will help you make the proper selection of trees, shrubs, perennials, and annuals. Eva will discuss the process involved in woodland gardening from garden planning to soil preparation, planting, and ongoing care. Her step-by-step process is something you can integrate at your own pace. Learn what to plant to provide year-round interest from early-blooming bulbs to shrubs with colorful berries in fall and winter. You will learn how to attract wildlife too!

Thursday, October 10
7 – 8:30 p.m.

Members: \$25

Non-members: \$30

Register Now >

Designing the Small Garden: Lecture and Workshop

Denis Lucey

Landscape Designer, Denis Lucey Garden Design

Our region is known for large private and public gardens, but many people contend with gardening in limited spaces. These include people living in condominium complexes, retirement communities, and attached houses in the city and suburbs. Landscape designer Denis Lucey believes that small gardens, while challenging, can be a equally gratifying. He will review basic design principles that include planning for garden usage, the value of borrowed landscapes, and the importance of hidden “garden rooms.” He will provide keys for working with single conditions (sun or shade) over an entire garden, as well as making use of micro-climates. With help from the instructor, students will work on a sample garden design in class. Materials will be provided.

Thursday, October 24
7 – 9 p.m.

Members: \$25

Non-members: \$30

Register Now >

Great Native Plants for Your Landscape

Pam Morris Olshefski

Curatorial Assistant, Morris Arboretum

From Amelanchier to Verbena, there are many great native plants you can use to enhance your garden. In this illustrated lecture and walk through the Arboretum you will learn about many good choices, the conditions they require to grow, and how to successfully work them into your landscape. Pam will focus on woody and perennial plants that provide seasonal interest with attractive flowers, fruit, fall color, and bark texture. She will discuss good native plant cultivars that have been bred for appealing garden traits, such as compact size, abundant flowers, and fruit. Pam will also discuss adding fall color to the garden with native wildflowers. This class will include a walk through the Arboretum looking at native plants and considering how to use them in the landscape.

Saturday, October 26
1 – 3 p.m.

Members: \$25

Non-members: \$30

Register Now >



landscape design

Creating Beautiful Landscapes under Mature Trees

Harriet Cramer

Garden Designer and Writer

Learn how you can create and sustain a lush, healthy, and beautiful landscape in the shade of mature trees. In this class we will examine one of the most common, yet most challenging of all landscape situations. Limited light, compacted soil, intense competition for nutrients, and less than ideal air circulation—these are only some of the obstacles to creating

a beautiful garden under large, old trees. We will discuss how to successfully deal with these obstacles while ensuring that the plants you are planting under the trees will remain vibrant and healthy. You will learn what you need to do before you plant, the diversity of herbaceous and woody plants and bulbs that you can use, and the ongoing care needed to ensure that your shady garden remains attractive for many years to come.

**Thursday, November 7
7 – 8:30 p.m.**

Members: \$25

Non-members: \$30

Register Now ➤

landscape design symposium

Join us on **January 16 and 17** at Temple University's Ambler Campus for the 25th annual winter landscape design symposium. This two-day symposium is an in-depth examination of the state of the art of naturalistic landscape design. Speakers represent a diverse and accomplished group of designers, horticulturists, ecologists, and artists in an interactive and informal setting. Continuing education units for landscape architects will be available. Brochures will be available in November. To request a brochure, please call (215) 247-5777, ext. 125 or e-mail jl原因@upenn.edu. **Starting in November, online registration will be available at online.morrisarboretum.org/LDS.**



calling all birders

Birding the Perkiomen Trail

Ruth Pfeffer

Expert Birder and Trip Leader

On this trip we will be birding along the Perkiomen Trail, a new site for a Morris Arboretum birding adventure. The gravel trail, a former railroad bed that was preserved as open space, runs along the Perkiomen Creek in Montgomery County. We will look for fall migrating and resident birds. Along the way we will visit the Perkiomen Valley Park, a scenic spot with a variety of good birding habitats including woodlands, wetlands, and open grass areas. We hope to see herons, kingfishers, waterfowl, ospreys, woodpeckers, hawks, bluebirds, a variety of song birds, and possibly a bald eagle. We plan to stop at Pennypacker Mills, a National Register of Historic Places site. During the Revolutionary War, George Washington used the mansion as a headquarters prior to the Battle of Germantown and also as a field hospital for injured soldiers after the battle. Dress for the weather. **Bring your binoculars, lunch, and something to drink. Meet at the Arboretum in the meadow next to the entrance kiosk. We will travel by small bus or van.**

Tuesday, September 17

7:30 a.m. – 2:30 p.m.

Members: \$60

Non-members: \$65

Register Now ➤

Birding at Alverthorpe and Lorimer Parks

Ruth Pfeffer

Expert Birder and Trip Leader

Join us on a visit to Alverthorpe and Lorimer, two beautiful parks in nearby Abington Township, and two great locations for fall birding. Our focus will be migrating songbirds but we will also see resident birds that live in our area year-round. The parks feature a variety of great bird habitats including a lake and many sprawling acres with walking trails through woodlands and fields. Bring your binoculars. Ruth will help

us with identification skills. **Meet Ruth at Alverthorpe Park. The park entrance is on Forest Avenue between Fox Chase and Jenkintown Roads.**

Saturday, September 21

8 a.m. – 12:30 p.m.

Members: \$30

Non-members: \$35

Register Now ➤

Birding in the Wissahickon

Ruth Pfeffer

Expert Birder and Trip Leader

Join us for a morning of birding in the Wissahickon section of Fairmount Park. We will meet at Forbidden Drive and stroll along the beautiful Wissahickon Creek, a hotspot for birding in our area and a beautiful natural environment. In this green corridor we hope to see some of the birds that migrate to this area as well as resident and nesting birds. **Meet in the Wissahickon section of Fairmount Park at the concrete picnic tables at the intersection of Bells Mill Road and Forbidden Drive. Bring binoculars.**

Saturday, October 5

8 a.m. – 11 a.m.

Members: \$20

Non-members: \$25

Register Now ➤

Ocean Birding Adventure

Ruth Pfeffer

Expert Birder and Trip Leader

Get away for a day's adventure at the Jersey Shore's Island Beach State Park. Shaped by storms and tides, Island Beach State Park is a narrow barrier island stretching for 10 miles between the Atlantic Ocean and Barnegat Bay. It is one of New Jersey's last significant remnants of a barrier island ecosystem that once existed along much of the Atlantic coast. We will focus on wintering waterfowl but also may see osprey, peregrine falcons, wading birds, shorebirds, and migrating songbirds. We will look for birds in varied habitats including primary dunes, thicket, freshwater wetlands,

calling all birders

maritime forest, and tidal marshes. **Dress for the weather as it is usually windy at the ocean. Meet at the Widener Visitors Center. We will travel by small bus or van. Bring binoculars, lunch, and something to drink.**

Thursday, October 17
7:45 a.m. – 4:30 p.m.

Members: \$80

Non-members: \$90

Register Now >

Attracting Birds to Your Backyard

Ruth Pfeffer

Expert Birder

Learn how to identify the backyard birds and get tips on how to attract them. Ruth will start the day with an illustrated lecture highlighting birds in our area and the time of year you can expect to see them. She will consider year-round as well as migrating birds and those of conservation concern. Using close-up pictures Ruth will help you sharpen your identification skills. She will

discuss the basic elements birds require to live including food, water, shelter, places to raise young, and a variety of foliage to create desirable habitat. Ruth will also discuss native plants and pollinators. After the lecture, weather permitting, we will go outside in the Arboretum to observe birds and discuss their diverse habitat requirements. **Bring binoculars.**

Saturday, October 19
8 – 11 a.m.

Members: \$25

Non-members: \$30

Register Now >

Birding in Cape May and Blackwater National Wildlife Refuge

Ruth Pfeffer

Expert Birder and Trip Leader

Cape May, at the southern tip of New Jersey, is North America's birding mecca. It is on the Atlantic Flyway, the migration path for birds heading south for the winter. We will bird



calling all birders

on the boardwalks, trails, and bird blinds at Cape May Point Park and visit the woodlands and fields of Higbee Beach, which is over 1,000 acres of varied habitats managed for migrating songbirds and raptors. Target birds are late migrants, raptors, waterfowl, and resident birds. We will then head to Blackwater National Wildlife Refuge in Cambridge, Maryland, which hosts over 250 bird species. The Refuge includes 27,000 acres, of rich tidal marsh. Other habitat types include freshwater ponds, mixed evergreen and deciduous forests, croplands, and managed impoundments. We also plan to stop at Bombay Hook National Wildlife Refuge on the way back. Our accommodations at the Sea Crest Hotel feature ocean views, and views of the Cape May Lighthouse and wonderful sunsets. In Cambridge, MD we will be staying at the Holiday Inn Express. All levels of birding experience are welcome. **A “what to bring” list will be supplied. The trip includes van transportation, hotel, and an expert guide. Meals are not included. We will pack our breakfasts and lunches. Overnight rooms have refrigerators. We will depart from the Morris Arboretum. Park in the meadow next to the entrance kiosk.**

**Sunday, Monday, Tuesday:
October 27, 28, 29
Depart: Sunday, 7:45 a.m.
Return: Tuesday, 5 p.m.**

Members:
Double Occupancy \$310
Single Occupancy \$410

Non-members:
Double Occupancy \$410
Single Occupancy \$490

Register Now >

Behind the Scenes at the Academy of Natural Sciences: Celebrating 200 Years

Ruth Pfeffer
Birding Expert and Trip Leader

For description see page 8.

**Tuesday, November 12
9 a.m. – 3 p.m.**

Bald Eagles at the Conowingo Dam: A Trip

Ruth Pfeffer
Expert Birder and Trip Leader

Join us for a day of birding at the Conowingo Dam, a prime spot for seeing bald eagles as they feed on fish coming over the dam. These are magnificent birds and a thrill to see. We will also see lots of great blue herons, gulls, and other raptors. The Conowingo Dam is located on the Susquehanna River on the Pennsylvania-Maryland border. It is one of the nation's largest non-federal hydroelectric installations and is a great birding area any time of year because of its close proximity to the Delaware Bay. We will walk on a woodland trail along the river and visit the town of Port Deposit, which is interesting historically. **Bring your lunch and a water bottle. Dress for the weather and wear comfortable walking shoes. You may want to bring your camera. We will meet at the Arboretum and travel by small bus or van. Park in the meadow next to the Arboretum entrance kiosk.**

**Monday, December 9
7:45 a.m. – 4:30 p.m.**

*Members: \$90
Non-members: \$100*

Register Now >

connections beyond our gardens

Talks on People, Plants, and Place

Once again our mid-week afternoon series will present three outstanding talks that will stimulate and enrich. Our speakers this fall we will take you beyond our garden and yours to Thomas Jefferson's world, urban design projects all over Philadelphia, a sneak preview of the 2014 Flower Show and other PHS projects. A reception with refreshments will follow each presentation. Reservations and payment are required in advance as space is limited.

Sign up on-line at online.morrisarboretum.org/classes or call (215) 247-5777, ext. 125.

Note the new prices: \$15 for members and \$20 for non-members and the new 3 p.m. time.

PHS – The Year-Round Flower Show

Drew Becher

President, Pennsylvania Horticultural Society

The Pennsylvania Horticultural Society founded in 1827, is probably best known for the Philadelphia Flower Show, mounted in March each year. PHS is now bringing the beauty and inspiration of the Flower Show to landscapes and programs in the Philadelphia region throughout the year with projects such as Pop Up gardens, the temporary sites that transform Center City Philadelphia's vacant spaces into urban oases. Drew Becher, Society President, will provide an insider's preview of the grand Pop Up project planned for next

spring and ... the 2014 Flower Show – both of which will celebrate the art of horticulture and the role gardens and landscapes have played in the visual arts. Becher will also talk about the vision of the Civic Landscapes Plan, designed to transform sites in Philadelphia in the years to come.

Drew Becher brings his ideas and programs to Philadelphia from his work in Chicago, where he helped develop Mayor Daley's renowned green agenda, and from his work in NYC, where he ran the New York Restoration Project founded by Bette Midler.

**Wednesday, October 16
3 p.m.**

Members: \$15

Non-members: \$20

Register Now ➤



connections beyond our gardens

More Park, Less Way and Other Urban Design Visions

Harris Steinberg

Executive Director, PennPraxis, University of Pennsylvania

Design with nature, merge neighborhood charm with civic grandeur, make places for real Philadelphians, create parks walkable from every community, honor the river, update the meaning of park space for the 21st century. These are just a few of the concepts developed during the re-envisioning of the Benjamin Franklin Parkway, the Central Delaware, and the Philadelphia Park system – three of the more than 60 projects of PennPraxis, the applied research arm of the School of Design at the University of Pennsylvania founded to extend design excellence into the community.

Speaker Harris Steinberg, founding executive director of PennPraxis and associate professor of city and regional planning, will share some of the visions for our most important and iconic public spaces. He will describe how he has worked with more than 11,000 people in over 260 public meetings since 2002 to create the plans for some of our favorite places. Steinberg has lectured nationally and internationally on the role of civic engagement in city planning and the relationship between civic life, creative place making, and public policy in city building.

Wednesday, November 13
3 p.m.

Members: \$15

Non-members: \$20

Register Now >

A Passion for Nature: Thomas Jefferson and Natural History

Keith Thomson

Executive Officer, American Philosophical Society

Thomas Jefferson once wrote to a friend that politics was his “duty” but natural history was his “passion.” Despite his demanding public life Jefferson somehow had time to be one of America’s first serious students

of fossils, botany, climate, geology, and anthropology, becoming a leading American scientific intellectual of his time. Our speaker, author Keith Thomson will introduce us to Jefferson’s fascinating world, exploring our third president’s passion for natural history, and highlighting how it related to everything he did—as a farmer, as a philosopher, and as a citizen. Author of more than a dozen books on evolution, paleontology, and the history of science, in recent years Thomson has focused more on writing for a popular audience.

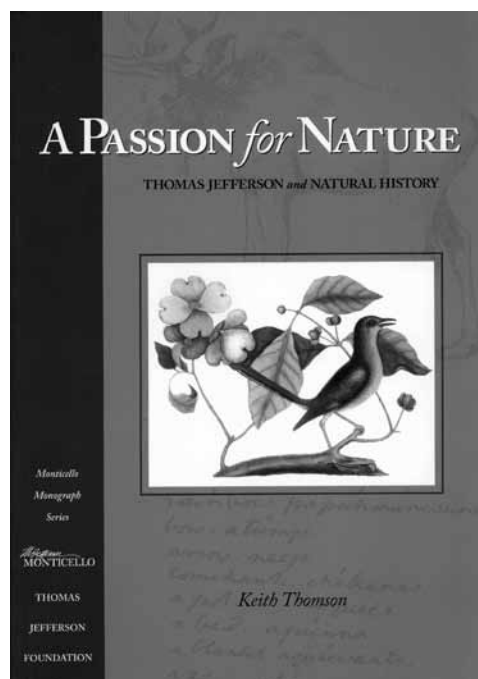
Keith Thomson is currently Executive Officer of the American Philosophical Society, the oldest learned society in the United States, founded in 1743 by Benjamin Franklin. He is also emeritus professor of natural history at the University of Oxford and was President of Philadelphia’s Academy of Natural Sciences.

Wednesday, December 4
3 p.m.

Members: \$15

Non-members: \$20

Register Now >



From Creek to Sewer: A Tour of Historic Wingohocking Creek

Adam Levine

*Environmental Historian, Author, and
Consultant, Philadelphia Water Department*

For a complete description see page 7.

Saturday, September 28
10 a.m. – 1 p.m.

Behind the Scenes at the Academy of Natural Sciences: Celebrating 200 Years

Ruth Pfeffer

Birding Expert and Trip Leader

For description see page 8.

Tuesday, November 12
9 a.m. – 3 p.m.

Pennsbury Manor and Historic Fallsington: Visit Pennsylvania's Quaker Roots

Bob Gutowski

*Trip Leader and Director of Public Programs,
Morris Arboretum*

The village of Fallsington is nestled in Bucks County just north of Philadelphia. It is an enduring Quaker community with an architectural heritage that is uniquely American. We will visit the town's Meetinghouse Square, which appears as it did almost 200 years ago and tour commercial and residential buildings from the 18th and 19th centuries. We will learn how citizens saved important town buildings from demolition and development and how the town survives to tell its story. We will have a special guided tour of the Fallsington Quaker Meeting and learn about the history of the Society of Friends in Bucks County. After lunch at Fallsington we



will tour nearby Pennsbury Manor, scenically located along the Delaware River. Pennsbury is the home of William Penn, the founder and proprietor of the Colony of Pennsylvania. The Manor was originally constructed in 1682 but was destroyed and recreated in the 1930s. In addition to the house, there are gardens as well as buildings for baking and brewing, a large stable, a boathouse, and numerous farm buildings. We will learn about William Penn, his American home and garden, Quaker values, and the founding of Pennsylvania. **Meet in the meadow next to the entrance kiosk. We will travel by small bus or van.**

Thursday, September 26
8:45 – 4 p.m.

Members: \$75

Non-members: \$80

Register Now >

Swedish America, Sustainable Colonial, Olmsted, Coots, and the Italian Market

Bob Gutowski

*Trip Leader and Director of Public Programs,
Morris Arboretum*

The American Swedish Historical Museum, an Important Birding Area, an Olmsted park, a Sesquicentennial landscape, and a 1750 mayoral retreat with sustainable building features all share a walkable bit of Franklin Delano Roosevelt Park in South Philadelphia. If this isn't enough to satisfy your hunger for art, culture, history, parks, and waterfowl, you will have the chance to explore 9th Street eateries for lunch and pick up something for dinner. We begin with a guided tour of the oldest Swedish Museum in the United States. There are 12 permanent galleries and a travelling exhibition highlighting the work of Austrian-born designer and architect Josef Frank (1885–1967) a leading pioneer of Swedish Modern design. Next, Robert Thomas, architect and founder of the Philadelphia Parks Alliance, will lead us on a storied tour of FDR Park, a green oasis

designed by the Olmsted brothers and site of the Sesquicentennial Exposition. Bellaire Manor, built by 1750, is a special architectural feature. This designated historic site is also an excellent place for birding. After “the lakes” we will proceed to the Italian Market. **Meet in the meadow next to the entrance kiosk. We will travel by small bus. Lunch on your own in the Italian Market.**

Thursday, October 10
8:45 a.m. – 3 p.m.

Members: \$50

Non-members: \$55

Register Now >

Philadelphia's Early Landscapes: The Woodlands and Lemon Hill

Nicole Juday

*Historic Landscape Consultant and
Horticulture Education Coordinator,
The Barnes Foundation*

Originally massive private estates and riverfront neighbors on the Schuylkill in the 18th Century, The Woodlands and Lemon Hill contained premier horticultural collections and were the most elaborate gardens in Philadelphia. In the mid 19th century these properties represented Philadelphia's first foray into public green spaces, which they remain today. Join garden historian Nicole Juday on a tour of these two landscapes and their original mansions. While many garden features have disappeared over time, what remains is a palimpsest of 300 years of horticultural history, plant discovery, and the evolution of urban parks. **Meet in the meadow next to the entrance kiosk. We will travel by van or small bus.**

Thursday, October 3
9 a.m. – 2:30 p.m.

Members: \$75

Non-members: \$80

Register Now >

school of arboriculture

International Society of Arboriculture Continuing Education Units

The Arboretum's professional training courses carry International Society of Arboriculture Continuing Education Units. If you are an ISA certified arborist and need to maintain certification by taking 30 credits over a three-year period, you may want to sign up for classes at the Arboretum. If you have questions about this, please contact Jan McFarlan, (215) 247-5777, ext. 156 or jlm@upenn.edu.

Emerald Ash Borer: Planning for 2014

Jean A. Scott

*ISA Certified Arborist and Territory Manager,
Rainbow Treecare Scientific Advancements*

Jeff Picher

*Technical Arboriculture Consultant,
New Jersey Certified Tree Expert*

Paul Bolan

Vice President, BioForest Technologies, Inc.

Learn the latest information on the battle with emerald ash borer (EAB). New tools, techniques, and materials are becoming available to aid those who need to protect ash trees in 2014 and beyond. The program will cover research from those at the front lines of the EAB invasion and provide a review of what works and how to add these tools to your program. The impact of EAB on communities and budgets will be covered and we will discuss how municipalities are dealing with the challenge. This session is geared to municipal tree managers, urban foresters, and private arborists. **This course carries 4.5 CEUs for ISA certified arborists and pesticide update credits from the PA Department of Agriculture.**

**Tuesday, October 1
9 a.m. – 2:30 p.m.**

Fee: \$50 (includes lunch)

Register Now >

Introductory Tree Climbing for Women

Rachel Brudzinski

*ISA Michigan Tree Climbing Female State
Champion, 2012 and Arborist Intern, Morris
Arboretum*

Women can be talented, successful climbers even in a field traditionally dominated by men. This course, taught by ISA state champion tree climber, Rachel Brudzinski, will demonstrate climbing techniques especially geared to female climbers. It will also provide a basic understanding of tree biology that is so critical for practicing arborists. The class will focus on teaching women with a passion for arboriculture how to create and maintain a safe working environment, develop fundamental arboricultural skills, and learn the professional techniques necessary to develop an approach for climbing a tree. You will learn some of the latest professional tree climbing advancements and you will have the opportunity to participate in supervised in-tree climbing. This class will give you the chance to experience trees in a whole new light. Novice to advanced women climbers are welcome. Wear long pants and comfortable, hard soled shoes. If you have regulation climbing gear including a rope, harness, hardhat with chin strap, and eye protection, please bring it. You may also want to bring gloves. **This course meets at the Horticulture Center at Bloomfield Farm. Enter the Arboretum on the road**

school of arboriculture

opposite from the public garden entrance, Park in the lot and follow the signs to the Horticulture Center. This course carries 5.75 CEUs for ISA certified arborists.

Wednesday, October 2

9 a.m. – 4 p.m.

Fee: \$125 (includes lunch)

Register Now >

Electrical Hazard Awareness, Aerial Rescue, and Chain Saw Safety

Gary Lovallo

New Jersey Certified Tree Expert #273

Jon Hanbicki

New Jersey Certified Tree Expert #354

Al Saharic

Electrical Safety Instructor, Retired Electric Lineman

Proper tree felling techniques and job site safety will be covered in this class. We will focus on the Electrical Hazards Awareness Program (E.H.A.P.) and aerial rescue. We will cover the critical safety precautions that must be taken when performing tree work in close proximity to electrified wires. The identification and distinction between voltages carried in distribution and transmission lines will be emphasized along with the ANSI standards that apply to this work. The effects of live current will be demonstrated by the instructors. You will have the chance to see an in-the-field demonstration of aerial rescue techniques. Each student will have a “hands on” opportunity to practice safe lowering methods. The safe operation and maintenance of chain saws will be demonstrated in the field by experienced arborists. Each participant will have an opportunity to use a chain saw to make practice cuts. **Students should come equipped with chaps, a hard hat, ear plugs, work gloves, and steel-toed work boots.** On both days this course meets at the Horticulture Center at Bloomfield Farm. Enter the Arboretum on the road opposite from the public garden entrance. Park in

the parking lot and follow the signs to the Horticulture Center. This course carries 11.5 CEUs for both days for ISA certified arborists. Due to the hands-on nature of the class, the size is limited.

Thursday, Friday

October 10, 11

9 a.m. – 4 p.m.

Fee: \$250 (includes lunch)

Register Now >

New Field Techniques for Tree Evaluation

Jerry Bond

Consulting Urban Forester, Urban Forestry LLC

Jerry will explain new field protocols for obtaining quick and reliable estimates of tree condition and tree load potential. The morning session will examine an estimating method that uses six defined parameters to determine tree condition. This method will then be practiced in an outdoor exercise. After lunch, we will consider tree load, a topic important for risk assessment. Participants will learn an easy technique to determine the load potential for trees and their parts. An outdoor exercise will put this knowledge into practice and will be followed by a discussion of actual case studies. **This course carries 5.75 CEUs for ISA certified arborists. We will meet at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

Thursday, October 17

9 a.m. – 4 p.m.

Fee: \$135 (includes lunch)

Register Now >

school of arboriculture

Introductory Tree Climbing

Zac Shechtman

Owner, Shechtman Tree Care

Rob Thigpen

*Foreman, Shechtman Tree Care and ISA
Penn-Del Chapter Climbing Champion*

This class provides an introduction to tree climbing and features the opportunity to have supervised climbing instruction in trees. It is ideal for tree companies looking to advance promising groundsmen, or gardeners and landscapers looking to get off the ground. Effective methods for climbing trees will be demonstrated by instructors and practiced by students. Safety rules will be reviewed and stressed. Students will learn how to tie critical knots regularly used by arborists. Included in the fee, each student will receive a copy

of *The Tree Climbers Companion*, by Jeff Jepson, a great resource for climbers. **Bring an arborist's rope and saddle, a hard hat, gloves, safety glasses, and insect repellent to the class. Wear boots, long pants, and dress for the weather. This course carries 17.25 CEUs for ISA certified arborists. We will meet at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

**Tuesday, Wednesday, Thursday
October 22, 23, 24
9 a.m. – 4 p.m.**

Register Now >

Fee: \$525 (includes lunch)

Pruning Deciduous Trees

Iana Turner

Horticulturist, Morris Arboretum

Pruning young trees for healthy structural development is cost-effective care. This class will explain how recent research on pruning has changed both practice and understanding. Pruning strategies for trees of different ages will be stressed to maximize tree longevity and structural health. In addition, techniques will be discussed to help tree managers evaluate the arboricultural work of others under their supervision. The morning will consist of a lecture and demonstration. The afternoon will feature supervised, hands-on pruning. **Please bring a hand pruner and a small pruning saw. This course carries 4.75 CEUs for ISA certified arborists.**

**Wednesday, October 23
9 a.m. – 3 p.m.
Raindate: Friday, October 25
9 a.m. – 3 p.m.**

Fee: \$120 (includes lunch)

Register Now >



Climate Change and Sea Level Rise: Predicting the Effects

Dr. Benjamin Horton

Professor, Rutgers University School of Environmental and Biological Sciences

Dr. Anton Nelessen

Chair, Department of Urban Planning, Rutgers University

Climate change and sea level rise on the East Coast are the focus of this day-long symposium. One of the primary challenges in studying climate change is reconstructing its history. Scientists must understand the past to have a better sense of the causes and effects of future changes. One of these effects, which can have serious societal consequences, is sea-level rise. Hotter climate temperatures mean higher seas. This could spell disaster for coastal communities the world over. Predicting the rate and magnitude of global sea-level rise, as well as its local effects, is a high priority. This is an issue that will have a profound effect upon urban planning and design in some of these threatened communities. Dr. Ben Horton, will present research findings from his work with the Sea Level Research Lab at the University of Pennsylvania. Dr. Anton Nelessen will discuss how the threat of rising sea has impacted his design work in communities such as Hoboken N.J. and will show a film on the effects of climate change and sea level rise in Belize and Alaska. **This course carries 5.75 CEUs for ISA certified arborists and 6 CEUs for PA landscape architects.**

Wednesday, October 30

9 a.m. – 4 p.m.

Fee: \$125 (includes lunch)

Register Now >

Tools and Techniques of Modern Arboriculture

Steven Chisholm, Jr.

President, Aspen Tree Expert Company, Inc.

Diagnosis of tree disorders and identification of potential threats and hazards is one of the most challenging aspects of arboriculture. Alex Shigo's admonition "prescription without

diagnosis is malpractice" compels us to always do the very best job that we can to make a proper assessment and diagnosis of the conditions that we are presented with. In the last 10 to 20 years there have been a wide variety of new tools and techniques that have been developed. These include resistographs and sonic tomography techniques, as well as the use of air spades for root crown excavation. Steve Chisholm, Jr. is a second generation New Jersey arborist with a strong background as a working arborist. He is the immediate past president of the Society of Commercial Arboriculture, Past President of the NJAISA (New Jersey Arborists of the Internal Society of Arboriculture) as well as chapter liaison for The Tree Fund. Steve will help us to approach plant disorder problems in a systematic fashion and introduce us to a variety of new tools that may be of assistance in our work. **This course carries 5.75 CEUs for ISA certified arborists.**

Thursday, October 31

9 a.m. – 4 p.m.

Fee: \$125 (includes lunch)

Register Now >

Understanding Trees as Complex Biological S

school of arboriculture

explain their recommendations to clients.

We will meet at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center. This course carries 5.75 CEUs for ISA certified arborists.

Saturday, November 2

9 a.m. – 4 p.m.

Fee: \$135 (includes lunch)

Register Now >

Mobile Crane Operator Training and Certification

Larry DeMark, Sr.

President, Equipment Training Solutions

In recent years OSHA has passed a series of new regulations regarding the operation of cranes that will require all crane owners and operators to become certified by the National Commission for the Certification of Crane Operators (NCCCO) by the end of 2014. This will have a profound effect on arborists in the Philadelphia region who offer tree removal with a crane as part of their service. Compliance involves completion of a certification process that is administered by the NCCCO and the International Assessment Institute. The certification process includes the successful passing of a 90 question written core exam, a 26 question written fixed cab telescopic exam, and a practical examination. Larry DeMark, Sr., co-owner of Equipment Training Services, LLC (ETS), which is an NCCCO recognized training provider, will administer this three-day course that will lead to certification upon passing the two written examinations on the final day and the practical examination. Students are expected to arrive having studied the training material that will be provided in advance. **This course carries 17.25 CEUs for ISA certified arborists.**

Monday, Tuesday, Wednesday

November 4, 5, 6

9 a.m. – 4 p.m.

Fee: \$1,650 (includes lunch)

Register Now >

Advancing Your Climbing Skills: Pruning, Rigging, and Removal with a Crane

Zac Shechtman

Owner, Shechtman Tree Care

Rob Thigpen

Foreman, Shechtman Tree Care and ISA

Penn-Del Chapter Climbing Champion

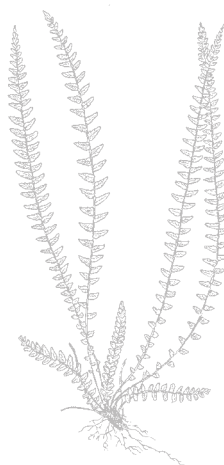
This class, taught by experienced professionals, consists of three days of advanced arboricultural techniques.

November 11: Practical Pruning

The first day will focus on the theory and practice of large tree pruning, including a component on tree physiology, structural pruning, and the latest ANSI standard. Each student will receive a copy of the ANSI Z133.1 standards and will have the opportunity to climb a tree for supervised instruction.

November 12: Rigging for Removal – The Old Fashioned Way

This class will focus on the techniques and gear involved in the process of safely lowering wood as part of the removal process. Each student will have an opportunity for hands-on experience using proper rigging techniques to safely lower wood from a standing trunk. Proper use of the latest equipment as well as the critical knots involved will be demonstrated. Safe felling techniques will also be demonstrated.



school of arboriculture

November 13: Crane Use and Safety

The last day of this course will consist of instruction and demonstration of the safe use of a truck mounted crane for tree removal. Emphasis will be given to site selection, weight calculation, load distribution, and safe cutting techniques.

Each student will receive a copy of *How to Fell a Tree* by Jeff Jepson, a book with step-by-step methods for taking down a tree. This course carries 17.25 CEUs for ISA certified arborists. We will meet at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.

**Monday, Tuesday, Wednesday
November 11, 12, 13
9 a.m. – 4 p.m.**

Fee: \$525 (includes lunch)

Register Now >

Physical and Cultural Geography of the Pinelands National Reserve

Mark Demitroff

*Pinelands Geographer, Department of
Geography, University of Delaware*

In the midst of megalopolis lies nearly a million-and-a-half acres of treasured urban wilderness known as the New Jersey Pine Barrens. This session provides a natural science-based overview of how to read both the environmental and human landscapes of this land, long lauded for its uniqueness by the scientific community. Climate-driven movement of frozen and thawing ground, along with strong winds from the nearby Laurentide Ice Sheet, helped to fashion the local terrain into the place that we value today. Unusual landforms provide critical habitat for rare, threatened, and endangered plants and animals. People have exploited its forest resources for over 14,000 years. Their story will be woven together in a geographic tapestry of interactions between nature and

society, with emphasis on the region's unusual flora. This great wilderness provided the raw materials needed for America's rapid industrialization, and since 1850 offered sanctuary to ethnic settlers who sought security by taming an impoverished land while overcoming social intolerance.

**Tuesday, November 12
9 a.m.—4 p.m.**

Fee: \$135 (includes lunch)

Register Now >

Field Identification of Landscape Trees

Ken LeRoy

*Certified Arborist Representative,
John B. Ward Tree Experts*

Join us for a two-day class on the identification of woody landscape plants for urban and suburban landscapes. The class will cover both deciduous trees and conifers. Arborist and horticulturist, Ken LeRoy, will show us how to use a dichotomous key to identify plants and will explain the terminology used in keys to describe plant characteristics. He will also discuss the physical characteristics used to group plants into families. We will go on a tour of the Morris Arboretum to see specimens of the plants we discuss. You may want to purchase the *Sibley Guide to Trees*, available in the Arboretum bookstore, and a good reference for tree identification. Please dress for the weather. **This course carries 11.5 CEUs for ISA certified arborists and 6 CEUs for Pennsylvania landscape architects. We will meet at the Horticulture Center at Bloomfield Farm. Look for the paved road across Northwestern Avenue from the public garden entrance. Park in the lot and follow the signs to the Horticulture Center.**

**Thursday, Friday
November 14, 15
9 a.m. – 4 p.m.**

Fee: \$270 (includes lunch)

Register Now >

school of arboriculture

Restoration Ecology

William Young

President, Young Environmental Services

Kevin Smarz

*Graduate student, School of Design,
University of Pennsylvania.*

During the last 25 years, restoration ecology has emerged as a separate field of ecology. It can be thought of as the practice of renewing and restoring degraded, damaged, or destroyed ecosystems by active human intervention, design, and action. This symposium will bring together two noted experts in this field to discuss some of the background and techniques involved in approaching restoration projects. We will look at the process of site evaluation, natural resource inventory and assessment, soils and contaminants, as well as various restoration techniques. This course will be of particular interest to land managers, designers, landscape contractors, and anyone who is charged with the renewal of a degraded site.

Mr. Young is past President of the New Jersey Native Plant Society as well as a lecturer at the University of Pennsylvania. He has an extensive contracting background with a wide variety of wetland restoration projects throughout the United States. Mr. Smarz has a background in biogeochemistry and ecology and works as a restoration specialist for USA Environmental. **This course carries 5.75 CEUs for ISA certified arborists and 6 CEUs for PA landscape architects.**

Thursday, November 21

9 a.m. – 4 p.m.

Fee: \$125 (includes lunch) [Register Now >](#)

Diagnosis and Identification of Plant Disorders

Richard Buckley

*Manager, Plant Diagnostics Laboratory,
Rutgers University*

Join us as New Jersey's premier plant diagnostician leads us on a day of discovery. This session will present an overview of the major causes of abiotic and biotic plant

disorders in North American woody stemmed plants. Biotic plant problems are caused by living organisms, such as fungi, bacteria, viruses, nematodes, insects, mites, and animals. Abiotic disorders are caused by non-living factors, such as drought stress, sunscald, freeze injury, wind injury, chemical drift, nutrient deficiency, or improper cultural practices, such as overwatering or planting too deeply. Unfortunately, the damage caused by these various living and non-living agents can appear very similar. A systematic approach to the identification of environmental, fungal, and bacterial causes of plant disorders and diseases will be considered along with common sense approaches to their control. **This course carries 5.75 CEUs for ISA certified arborists.**

Friday, November 22

9 a.m. – 4 p.m.

Fee: \$135 (includes lunch) [Register Now >](#)

Redesigning Landscapes in the New Urban Environment

Dr. Anton Nelessen

*Department Chair, Urban Planning, Policy
and Public Health, Rutgers University*

As cities today work to become more energy and resource efficient, urban planners project an upswing in their growth and renewal. An important part of the planned urban environment is its designed public gardens and plantings. Thoughtful use of valuable space in the city environment is an important skill for any architect, designer, contractor, or planner. Join us as world famous urban planner, Anton Nelessen, guides us through the planning and design process. Dr. Nelessen will familiarize us with the Visual Preference Survey process that he developed. There will also be a hands-on design segment of this seminar in the afternoon. **This course carries 5.75 CEUs for ISA certified arborists and 6 CEUs for PA landscape architects.**

Thursday, December 5

9 a.m. – 4 p.m.

Fee: \$125 (includes lunch) [Register Now >](#)

endowed lecture series

The Morris Arboretum Endowed Lecture Series

In addition to the classes listed in this course brochure you might also be interested in The Morris Arboretum Endowed Lecture Series. This series is free for members. For non-members these lectures are free with Arboretum admission. A reception with refreshments is featured at each lecture.

Reservations are required and space is limited. Sign up online at online.morrisarboretum.org/classes/lukenslecture or call (215) 247-5777, ext. 125.

Informing Land Preservation through Science: The Botany Department of the Morris Arboretum Lukens Endowed Lecture

Dr. Tim Block

The John J. Willaman Director of Botany, Morris Arboretum

The reasons for preserving land range from biodiversity protection to tax benefits. Whatever the reason, most people agree that land preservation is a good idea. To effectively protect land, the questions that need to be addressed include what land should be preserved, and how should land be managed once it is preserved? For many years, the Botany Department at the Morris Arboretum has been actively engaged in science-based studies that help inform decision makers on issues concerning conservation and land protection. These studies include county and municipal natural areas inventories, complete biological inventories for the Pennsylvania Bureau of State Parks and other resource management agencies, and the creation of management strategies for conservation land owners, both public and private. In this talk, we will discuss the importance of land protection, the public perception of preserved land, and the history of the Arboretum's involvement in helping shape conservation priorities in Pennsylvania and beyond.

Sunday, January 26

2 p.m.

Dr. Tim Block in the field.



general class information

The Morris Arboretum is located in the Chestnut Hill section of Philadelphia. For further information or directions, call (215) 247-5777 or check the Arboretum website at www.morrisarboretum.org. Go to "Plan your Visit."

The Green Choice

We need your input. In the interest of sustainability, if you would like to opt out of receiving our course brochure, please e-mail us at education@morrisarboretum.org with the subject line, "Opt out." We always offer the fall course brochure on our website under the Education tab.

Location of Classes

All classes will be held at the George D. Widener Visitor Center unless otherwise noted. Parking areas may be reached by entering the Arboretum off of East Northwestern Avenue. Students should arrive at least ten minutes before the start of the class to allow time to check in.

If you are a person with a disability and require an accommodation to participate in classes, please contact Jan McFarlan at (215) 247-5777, ext. 156 Monday through Friday, to discuss the accommodation. For people who use TTY, please call PA Relay at 1-800-654-5984.

Refund and Cancellation Policy

In order to receive a refund for a class you must call (215) 247-5777, ext. 125 at least two business days before the class start date. When withdrawing from a trip, you must call the Arboretum five business days in advance of the trip. The Arboretum reserves the right to cancel any program if necessary. Refunds take approximately 3 to 4 weeks to process. There will be no refunds after a class begins.

Weather Information

In case of inclement weather conditions on the day of your class, please call the Education Department, (215) 247-5777, ext. 156, for information on possible cancellation or rescheduling of the class.

Give the Gift of a Morris Arboretum Class!

Are you looking for a unique birthday or holiday gift idea? Morris Arboretum now offers class gift certificates! For more information or to purchase, call (215) 247-5777, ext. 125.

registration form

Course Title and Names of Attendees	# Students	Date	Fee
Orchid Workshop			
Jane Simon	1	10/23/13	\$43
Total Enclosed			

Please make membership and course payment separately.

To register online, visit <https://online.morrisarboretum.org/classes>.

To register by mail, send this form along with check payable to the "Morris Arboretum" to:

Education Department
Morris Arboretum
100 East Northwestern Avenue
Philadelphia, PA 19118-2697

To register by phone, have your credit card ready.

Call the Education Dept. (215) 247-5777, ext. 125.

Payment Information

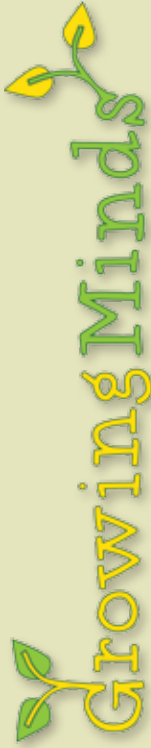
Name_____

Address _____

Phone home work cell

Email Address _____

- ☐ Member ☐ Non-member
☐ My check or money order payable to the Morris Arboretum is enclosed.



Look inside....

Growing Minds at Morris Arboretum...

Get creative, have fun, and be inspired by nature through a wide variety of new programs designed especially for kids and families!

- 🌱 Seeds to Sprouts toddler adventures
- 🌱 Stroller Strides exercise program
- 🌱 Little Diggers: Healthy Living Series
- 🌱 Cool Beans Band Music & Art Series
- 🌱 Nature Sleuths naturalist series



Morris Arboretum
UNIVERSITY of PENNSYLVANIA

Official arboretum of the Commonwealth of Pennsylvania

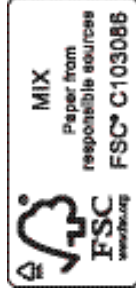
100 East Northwestern Avenue
Philadelphia, PA 19118

Return Service Requested

Connect with us!



Classes



The Morris Arboretum is proud to print on FSC (Forest Stewardship Council) certified paper, which supports the growth of responsible forest management worldwide through its international standards.

Non Profit Org.
U.S. Postage
PAID
Philadelphia, PA
Permit No. 1417