Friends of WCBG
WELLESLEY COLLEGE BOTANIC GARDENS

Spring Newsletter, 2014

WELLESLEY COLLEGE

Wellesley's Class Trees

Perhaps the best expression of the close bond between Wellesley College women and their campus is the tradition of the class tree. There is a designated tree for every class that has ever graduated, from the very first class in 1879 to the Class of 2016's tree, planted this past autumn. Each class tree has an associated stone carved with the class year. It was College founder Henry Durant's intent that a class's tree be planted early in the students' academic career at Wellesley, so they would be able to watch it grow. Over time, the tradition has become for each class to plant its tree during its sophomore year.

Class trees in the WCBG are cared for by the Botanic Gardens' staff, and those planted elsewhere on campus are maintained by the Grounds Department. If construction at the College will affect a class tree, it is moved or replaced. If a class tree dies, a new one is planted or designated. The golden willow, *Salix alba* 'Tristis', planted in the Arboretum across the path from Paramecium Pond was the Class of 1894's tree until it fell during Superstorm Sandy. Another willow in the Botanic Gardens has now been designated as 1894's tree. The Class of 1879's tree has been a couple of different species in different locations. The class originally planted an American elm, *Ulmus americana,* near the entrance to the College. The elm was a graceful native tree and a lovely choice in the pre-Dutch elm disease era. As College President Kim Bottomly described in her commencement address to the Class of 2010, in a "demure rebellion" the 1879 class demanded this tree and location instead of the Japanese golden evergreen that Henry Durant wanted to have them plant near College Hall. "Even back then, Wellesley women were Wellesley women," President Bottomly noted. That elm tree has long since succumbed and the College entrance has moved. Over time, a Norway spruce, *Picea abies,* was planted to commemorate the Class of 1879 at the edge of Severance Green, near Shakespeare. That tree fell during Hurricane Irene in 2011 and has been replaced, so the first Wellesley class is now remembered with one of the youngest class trees on campus.

Class trees are spread throughout the College's landscape, though most are planted around Severance Green, Clapp Library and Houghton Chapel. There are five class trees located in the Wellesley College Botanic Gardens. In keeping with the tradition established by the Class of 1879, a class has some input in the selection of its tree. The most common class tree species is the European copper beech, *Fagus sylvatica*, associated with 15 different classes. Different species of oak have been connected with 21 classes, with white oak, *Quercus alba*; red oak, *Q. ubra*; scarlet oak, *Q. coccinea;* and pin oak, *Q. palustris;* all represented. The Class of 1920 chose to adopt an existing tree rather than plant a new one, and the tree

Class tree planting has been celebrated in different ways over the years, often in costume in the early days. This tree day photo is from 1921.

they chose is a majestic white oak on the Severance slope. A common native species in eastern North America, the white oak has been called the most important tree for biodiversity in its native range. In addition to nourishing countless Wellesley squirrels and other animals, the Class of 1920's tree has witnessed College commencements, winter "traying" (sledding on dining service trays) down Severance Hill, and the College Hall fire 100 years ago in 1914. Think of the stories it could tell!

When classes started being associated

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106 Central Street
Wellesley, Massachusetts 02481-8203

781.283.3094
wcbgfriends@wellesley.edu
www.wellesley.edu/wcbgfriends

Class Tree

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with a "class color" (originally yellow, red, blue and purple; now yellow, red, green and purple, with blue standing for Wellesley as a whole), a class would often choose a tree in keeping with its color. Some classes have even incorporated their class trees into their logos. Red classes have chosen specimens such as bloodleaf Japanese maple, *Acer palmatum* 'Atropupureum', and red horsechestnut, *Aesculus x carnea*, a showy red-flowered cross between horse chestnut, *A. hippocastanum,* and red buckeye, *A. pavia.* Purple leaf beech, *Fagus sylvatica* 'Purpurea', and eastern redbud, *Cercis canadensis,* have been popular with purple classes. The 'Forest Pansy' cultivar of the eastern redbud, chosen by a couple of recent classes, has red twigs and reddish-purple young leaves. Profuse rose-purple blooms appear along the bare branches in spring. Yellow classes are represented by species such as golden hinoki cypress, *Chamaecyparis obtusa* 'Crippsii', and American yellowwood, *Cladrastis lutea.* Named for the color of its heartwood,

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NOTES **from the Director**

Greetings from snowy Wellesley! Climate models call for wetter winters in New England, and that certainly characterizes this one so far, as we've had storm after storm. My son's neighborhood shoveling gig has been so demanding that he hired his sisters to help out. It has seemed plenty cold, but we haven't had any prolonged periods below zero, so will have to hope that other factors will keep down populations of the hemlock wooly adelgid, winter moth, and other pest insects whose populations have exploded in this area in recent years.

Horticulture students are already looking towards spring, experimenting with branches from a range of woody species pruned by Tricia Diggins from the Botanic Gardens to see which "force" more readily than others, which bloom and which leaf out first. They'll add these to the bulbs and desert annuals as part of our annual "sneak preview" of spring in the greenhouses. The Desert House already is bursting with desert bluebells, *Phacelia campanularia*, whose intense blue flowers are especially amazing with the low sun coming through the glass.

The bluebells also were a beautiful accent for the Greenhouse Light Show on February 7. This year's focus on spice plants drew a lot of student interest, and Thorndike Interns Mackenzie Klema '14 and Sophia Liu '14 did an amazing job of engaging students in the planning and implementation of the show. The Botanistas have grown to several dozen students under Mackenzie and Sophia's leadership, and they played every role at the show, from "spice girl" docents telling the stories of the plants, to overseeing the "grind your own" spice table, to set up and take down of the exhibits. The show drew the wonderful crowd we've come to expect – about 200 attendees, mostly students, with a few faculty, staff, Friends and guests in the mix.

The Botanistas have been busy all year, with a fall field trip to the Arnold Arboretum, where we had a great tour from Director Ned Friedman and Curator Michael Dosmann, tree mobs all over campus (see p. 4), and lots of smaller activities like growing different kinds of sprouts in mason jars. They meet every other week over lunch, and have quite a slate planned for spring!

Botany Fellow Katie Goodall is helping meet student demand for botany and food-related courses, with a spring course on edible ecosystems (see description on p. 3) and a summer course on agroecology. And Alden Griffith will offer an updated field botany course, Plant Diversity and Ecology, next fall, cross-listed in Biology and Environmental Studies – so great to have that course as a regular part of the curriculum

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Spice girls supervised the grind-your-own table at the Light Show.

Katie Goodall: Agroecologist

These days sustainable farming and how it fits in to the greater ecology is a growing interest of Wellesley students, from those involved with the college's Regeneration farm to those studying permaculture in the Edible Ecosystem Garden on the back of Observatory Hill. Now the Botanic Gardens have their own agroecologist to help sort out the issues. Katie Goodall, this year's Botany Fellow, got her PhD last summer from the University of Vermont, with a dissertation on Nicaraguan coffee farming. As she says on the College web site, "my research focuses on transdisciplinary approaches to understanding agroecosystems. I collaborate with coffee cooperatives in Northern Nicaragua to explore questions regarding biodiversity conservation and farming decision-making within communities of small coffee growers. … Incorporating both ecological and social data into the same study, I aim to better understand how the ecological landscape interacts with the social landscape across these coffee systems." While there are no coffee farms in New England, young organic market gardeners are also interested in landscape ecology, biodiversity conservation and land-owner decision making.

Botany Fellow Katie Goodall shares her passion for food, agriculture and the environment with students.

Katie has a substantial track record doing exciting things in far-flung regions of the world. In addition to her research and teaching in Nicaragua, she has netted birds in Hawaii to study avian diseases; monitored migrating bird populations in Denali National Park in Alaska; and tracked and banded waterfowl in the Klamath River Basin and in northern Minnesota. Now she is settled in Wellesley, but her earlier experience informs her current research and interests. Birds are important on coffee farms. Katie explained that, "one objective of my dissertation research was to compare bird abundance and diversity in coffee and forest habitats managed by coffee farmer cooperatives. By knowing the effect of coffee cultivation on bird populations, farmers can make informed decisions about their management practices. The cooperatives also run an ecotourism business, and many travelers are interested in birdwatching. I'm in the process of creating a bird list for these cooperatives so that the tour guides can better differentiate which species are in different habitats. Hopefully this will bring in revenue to the communities and support their efforts to conserve forest and maintain a diverse shade canopy over their coffee."

During the fall term, she led the Environmental Studies reading group course called The Future of Food. "The group was composed of about 12 students and a couple of faculty who sat in on the course," Katie says. "The students had a diversity of majors, but they all were interested in food and the environment. They were also from all over the country and shared their experiences from home, which ultimately shaped their ideas about food systems. I loved teaching the course, as it provided a forum to share my passion for food, agriculture, and the environment with students and, in turn, learn from them about their experiences." Her own research contributed, she said. "My agroecological research engages with several topics including tropical biodiversity conservation, farming on marginal lands, food security and sovereignty, landscape ecology, and political ecology. For this reason, my background in coffee systems was helpful in that it provided several case study examples for discussions of broader themes. I find case studies helpful for grounding the conversation when it begins to spin off into the abstract."

This term Katie is teaching an Environmental Studies course called The Science of Edible Ecosystem Design: Theory and Practice, and she'll be teaching Agroecology as a summer term course. She is also planning some future research. She says, "I am developing a research plan with Kristina Jones and Mia Howard to investigate commonly cited permaculture concepts that are seldom scientifically tested. We are developing a network of researchers and permaculture practitioners to brainstorm common practices, design empirical tests of these practices, implement the research, and share the knowledge we gain with a broader audience. I'm very excited to be working with such a diverse group on an applied topic, and having a field site out my back door is something I've never experienced because my research has always been in the tropics. It will certainly be a benefit for maintaining longer-term projects that reach beyond a quick field season."

Having an agroecologist on Wellesley's faculty offers exciting opportunities for engagement with issues surrounding food systems, topics that are increasingly popular with students and the wider community. Friends members can look forward to hearing more from Katie during her term as our Botany Fellow.

The Science of Edible Ecosystem Design: Theory and Practice

Edible forest gardens are as ecologically relevant as they are delicious. This course will use edible forest gardens as a focal point for learning about permaculture, agroecology, and research design for food systems. In a combination of lecture, activities, and fieldwork, students will learn theoretical understanding of these fields, technical skills for data collection, and principles of research design. Student work will contribute to the on-going development of a research network in Wellesley and other areas in Massachusetts that connects scientists, permaculture practitioners, farmers, and homeowners interested in understanding how best to incorporate edible fruit trees into our shared landscape.

Peek Into the World of the Screw Pine

MacKenzie Klema '14 tells tree mobbers about the screw pine in the Tropic House.

The long, spiny leaves of the *Pandanus utilis* twist elegantly toward the glass ceiling of the Tropical House. Distinctive prop roots reach toward the ground creating the illusion of a tree suspended in midair, afraid of getting its feet wet.

The screw pine, as this tree on stilts is commonly called, is one of the most showy and bizarre plants in the Margaret C. Ferguson Greenhouses. Like other visitors, I had walked by it many times without knowing its story. But given the opportunity to host an indoor "Tree Mob" – a spontaneous gathering of plant enthusiasts to learn about a special tree on campus – I embarked on a quest to uncover the secret life of this mysterious plant.

Pandanus utilis is often called the screw pine or screw palm though it is neither a pine nor a palm. Pandanus are actually monocots, more closely related to grasses and orchids than conifers. The screw pine gets its deceiving name from the corkscrew appearance of its leaves that grow in a spiral up the trunk, leaving prominent scars when they fall off.

It is a tropical tree native to Madagascar, Mauritius, and the Seychelles with a long history of cultivation and transport to many parts of the tropics including the United States. If you've spent time in southern Florida, chances are you've encountered at least one. The trees usually grow along waterways, swamps, and sandy coastal areas in poorly drained soil. Those tall prop roots keep the trees upright and anchored to the ground during heavy wind and rain. And despite their preference for wet places, these tough trees can endure six months of drought!

Since the screw pine in our greenhouse has never produced flowers or fruit, we don't know whether it is a male plant or a female, for like many of the pandanus family, *Pandanus utilis* is dioecious. The male plant has spikes of fragrant flowers, and the female, when pollinated, makes volleyball-sized clusters of tough yellow-orange fruit that look vaguely like pineapples. The fruit is starchy and can be eaten after being cooked to neutralize the calcium oxalate crystals. The fruit also contains a notoriously tough nut that is reported to taste like coconut or peanut.

Pandanus utilis boasts many other ecological, economic, and cultural benefits. The tree's strong prop roots make it a good choice for erosion control along coastlines. Birds, bats, rodents, and lizards enjoy its fruit and live among its spiny leaves for shelter and protection. In the South Pacific the dried fiber of the pandanus leaf is used to weave handicrafts such as rope, baskets, and even paper. The tough, waxy leaves themselves are used for thatching roofs. In addition to being a food plant, the screw pine is a traditional medicine for a range of ailments including headaches, toothache and stomach pain. Lastly, due to its fascinating architecture, screw pines are in great demand for tropical landscaping. A large specimen may sell for $5,000-10,000!

Pandanus utilis is just one of many unique trees that were highlighted at a Tree Mob this past fall. The Tree Mobs are part of a new WCBG effort, inspired by Harvard's Arnold Arboretum, to get the community out into the landscape to learn about culturally and ecologically important trees through informal presentations. So far they have highlighted crabapples, black walnuts and pawpaws, and have been led by students, staff, professors and local plant experts. They are strategically timed to capture exciting botanical events, such as peak blooming or fruiting periods. While Tree Mobs are now on a hiatus due to the snow, be on the lookout for more of them this spring once the trees begin to bud!

by Mackenzie Klema '14, Thorndike Intern

Freycinetia cumingiana,' after climbing pandanus

The Strange Sex Life of Climbing Pandanus

The climbing pandanus, *Freycinetia cumingiana,* is one of my favorite plants in the Ferguson Greenhouses. This tropical evergreen climber in the Warm Temperate House is related to the screw pine, *Pandanus utilis*. Both are in the Pandanaceae family. I've drawn the climbing pandanus many times because it has beautiful, unusual flowers. However, the closer and longer I observed this plant the more odd things I saw that I couldn't explain until I did a little research.

The plant stays in bloom for a long time because what look like petals are really bracts: modified leaves surrounding the flower. These bracts range in color from deep mahogany red through shades of pink and salmon and eventually to pale orange as they get older. Like leaves, bracts are structurally stronger and persist longer than petals. They do the job of the petals in being colored to attract a pollinator. Bats, birds and small mammals are said to be the pollinators of climbing pandanus in its native tropical Asia and Indonesia.

Carol Govan

After the bracts have withered, the reproductive structures persist on the plant.

The plant is usually described as dioecious, meaning that the female and male structures are on separate plants. Many of us are familiar with male and female hollies and know that you must plant a male near the females to get those pretty red berries. Freycinetia were thought to be similar, with female plants bearing flowers with sterile stamens and male plants having flowers with sterile pistils, although they differ little in appearance. However, when botanists took a closer look, they occasionally found both male and female flowers on the same plant. Sometimes they appear at the same time and sometimes male follows female or vice versa in the next flowering season. I think I have seen both male and female flowers on our own climbing pandanus.

Carol Govan

The climbing pandanus has beautiful, unusual flowers.

I speculate that the plant changes sex when the conditions change. The climbing pandanus would not be unique in doing this; our native jack-in-the-pulpit produces more male flowers when it is small and more female flowers when it is mature. It is a great strategy for coping with a variable environment. If circumstances are not ideal for taking on the metabolic load of bearing a fruit, changing sex to produce pollen increases the plant's chances of passing on its genes to the next generation. I think the flower above is female. I also saw a male flower, and maybe some in between.

In any case I look forward to examining each flower as it opens this year to see and record what new variations I might find on the climbing pandanus.

by Carol Govan, WCBG Friends Instructor

The following year, a new shoot starts with a new flower at the tip of the old shoot and last year's flower at the base.

Integrated Pest Management: A Progress Report

Since 2006, improving the health of greenhouse plants through Integrated Pest Management (IPM) has been a primary focus for the horticulturists. As Kristina Niovi Jones, Director of the Botanic Gardens, explained in the Fall 2007 issue of this newsletter, "we are taking an ecological, holistic approach to plant health care that minimizes chemical use. In theory, plants defend themselves well against pests and diseases if they are otherwise healthy and have a little help from some friends (beneficial organisms). We're putting that theory to the test in an integrated program by providing balanced nutrients, introducing predators of pest insects, and building up a complex web of soil organisms to help with both soil fertility and disease control." The program included soil amendments high in fungal activity, a switch to organic fertilizers and the release of beneficial insects to prey on specific greenhouse pests. It continues today with some changes and additions, as Senior Horticulturist Tony Antonucci and Research Technician Mia Howard '12 describe below.

Tony Antonucci and Mia Howard planted pots of

It is hard to believe how fast time passes. One thing we have learned over the years is that every day is different in the greenhouse. We have to be on our toes all the time. Seasons change, conditions change, and so do our pest problems. We need constant vigilance to promote plant health and control pests in our greenhouse.

The first step is to pay attention to the soil food web that nourishes our plants. While we continue to improve the condition of the soil in the planting beds with the knowledge gained through analyzing soil samples, we are now broadening our focus to the soil in individual pots as well. We continue using compost tea and compost top dressing, but our potting mixes have changed over the past few years. We found that the older soil blends became heavier and held more water. Poor soil aeration is detrimental to plant health, making plants more susceptible to insect attack. We now use some new soil amendments to help loosen the density of potted mixes. 'Turface' is a kind of expanded clay which aids in aeration. Parboiled rice hulls are a renewable resource and a replacement for perlite that adds air-filled pore spaces to soil, increasing water-holding capacity and drainage. In addition to our standard Neptune's Harvest applications, we use organic amendments which include poultry manure to supply micronutrients and granular humate which aids with the uptake of micronutrients. These amendments all lead to healthier plants that are ultimately less susceptible to infestations.

A large jar provides a home for mealybug destroyer beetles.

In order to know what pests we're up against, we have been monitoring each room in the greenhouse on a weekly basis using sticky trap cards. We have found that the populations of pests fluctuate greatly, and while we believe overall that the biological control program is working, it is difficult to confidently associate changes in pest populations to the additions of beneficial insects for several reasons. First, there are many environmental factors that cause the populations of insects to change throughout the year, regardless of the presence of their predators. For example, in the winter when we have the heat on, dry conditions promote the spread of spider mites. High humidity, on the other hand, generally supports beneficial insects, but also provides optimal conditions for fungus gnats. Secondly, there is a time lag between the release of a beneficial and its effect on the pest population. Some beneficials arrive ready to attack pests, whereas others may need to mature into their adult phase or have offspring before they can have an effect. Working with a diverse, continuously changing plant collection is also a challenge because different types of plants have different pest problems. Tracking the patterns of pest populations this year should give us insight into the timing of beneficial insect releases for future seasons. We hope that our continued experimentation with new IPM

Marigolds attract thrips and help in mor

wild flowers to host beneficial insects.

nitoring thrip populations.

techniques continues to improve our pest situation.

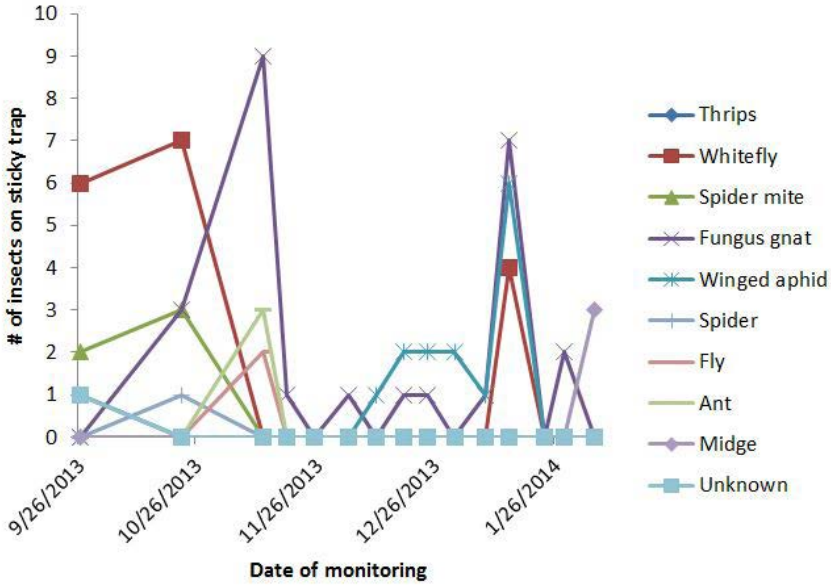
Repeatedly ordering biological control insects is costly because they need to be shipped live. In an effort to maintain populations of beneficials in our greenhouses at lower cost, we have created 'habitat pots' of plants such as marigolds and alyssum that supply beneficials with a place to live and an alternative food source (nutritious pollen) in case their prey become scarce. We have introduced beneficial mites, such as *Neoseiulus cucumeris*, which attack thrips and fungus gnats, to these habitat pots, creating portable, sustainable, pest-fighting units that will hopefully keep our pest populations in check. Very recently, we have also started trying to rear our own 'mealybug destroyer' (*Cryptolaemus montrouzieri*) beetles on mealybug-infested plants inside a large glass jar with Vaseline around the rim. The Vaseline prevents crawling mealybugs from escaping and infecting other plants, while adult mealybug destroyer beetles can easily fly away and search for prey throughout the greenhouse. Our first try was not too successful; we underestimated how many mealybugs the beneficials could eat and think they flew away before laying eggs in the jar. In the next round, we will feed them mealybugs more often!

Additional steps to provide plants a healthier environment have taken place on a more macro level. New doors have been installed throughout the greenhouses to mitigate stress on plants by keeping their environments more consistent. This past summer the student greenhouses were completely emptied and 'solar sterilized' by the heat of the July sun. The crushed stone, a possible reservoir of damp that supports thrips, was removed from many of the plant benches. And more plants were taken outside in the summer in the hope that the positive benefits of the natural environment would outweigh their exposure to outdoor pests.

Tiny parasitic wasps emerge from the white hanging pouch to prey on aphids.

Finally, horticulturists continue to attend workshops on the latest IPM practices and implement any that seem appropriate and feasible. The struggle to keep greenhouse plants healthy requires constant attention.

by Tony Antonucci, Senior Horticulturist and Mia Howard '12, Research Technician



Greenhouse pest populations fluctuate dramatically.

Learn With Us

- All classes are held in the WCBG Visitor Center unless otherwise noted.
- For classes over the lunch hour, bring your own lunch or walk to local shops.
- Full course descriptions and material lists may be found on our website.
- Parking on campus is restricted. Use of the Davis Parking Garage or car pooling from off campus is encouraged.

To register for classes, use the form on page 11 or visit www.wellesley.edu/wcbg/learn_discover and print a registration form.

The Plantastic World of Harry Potter

Saturday, May 10

Drop in any time between 1:00 and 4:00 p.m. to explore.

While whomping willow and puffapod sprang from the imagination of author J. K. Rowling, other plants used by Harry Potter and his wizardly friends are quite real and have stories of their own to tell. Meet a mandrake and see if it screams. Explore our selection of wand woods and potion ingredients. Try some pumpkin juice. Come dressed as your favorite character from the Harry Potter books!

Free program for visitors of all ages.

Coastal Maine Botanical Gardens, An Armchair Visit

HOR 14 100

Experience a photo tour of this fabulous plant paradise in Boothbay, Maine, with garden designer and WCBG Friends docent Maureen Bovet DS'92 who returns to this garden by the sea as often as possible.

Wednesday, April 16

1:00 p.m. lecture

Members Free | Non-Members $10

Watercolor Landscapes

WCC 14 203

Susan Swinand teaches adults at all levels of experience to solve those awkward problems of painting on location: changing natural light and cast shadows, elements of atmospheric and linear perspective, color and composition and all the techniques you'll need for success.

7 Thursdays: May 1, 8, 15, 22, 29; June 5, 12

1:00 – 4:00 p.m.

Members $200 | Non-Members $250

Feng Shui - Enhancing Your Environment

HOR 14 110

Lisa Law '89 gives an overview of Feng Shui philosophy, shows how to use Feng Shui tools such as the Bagua, and teaches you how to employ plants and nature to enhance your environment. You'll come away inspired and with many ideas to improve your spaces.

Wednesday, May 7

1:00 p.m. lecture

Members Free | Non-Members $10

Hellstrip Gardening Paradise at the Curb

HOR 14 120

Semi-public spaces in parking strips and alongside driveways and alleys could host thriving gardens that add beauty and provide ecological services. Evelyn Hadden addresses issues such as car, foot, and paw traffic; utility and maintenance equipment; restricted root zones, contaminated soil; covenants/city regulations and presents ideas for the greening of your neighborhood.

Location: Arnold Arboretum's Hunnewell Building, 125 Arborway, Boston

Wednesday, May 21

6:30-8:30 p.m.

Members $15 | Non-Members $25

Field Sketching Techniques

BAC 14 040

Carol Govan encourages you to achieve your own "voice" by getting comfortable with drawing techniques especially for field sketching. Increase your accuracy, speed, and familiarity with the fastest way to achieve the correct color of an object.

3 Fridays: June 13, 20, 27

9:30 a.m. – 12:30 p.m.

Members $90 | Non-Members $115

WCBG Florilegium: Wildflowers

BAC 15 141

Head outside with Carol Govan and Sarah Roche to observe botany in action in the College's meadows and then record the flowering plants that you see using pencil and pen sketches and dry brush watercolor.

3 days: Tuesday, July 15 – Thursday, July 17

9:30 a.m. – 3:30 p.m.

Members $225 | Non-Members $275

Especially for Beginners

Drawing and Painting for the Petrified
BAC 14 010

In this relaxed, informative seminar with plenty of helpful demonstrations, you will work towards developing your drawing and painting skills. Sarah Roche encourages your observational skills to grow as you experiment with line drawings and the accurate representations of botanical forms. Leap into watercolor painting as Sarah guides you through a series of fun beginning botanical watercolor exercises.
Get started painting! All abilities and anxiety levels welcome.
4 Wednesdays: June 4, 11, 18, 25
9:30 a.m. – 12:30 p.m.
Members $125 | Non-Members $150

Introduction to Botanical Art Foundations in a Week
BAC 15 101A

Explore the world of botanical art over five days in this course designed especially for you – the beginner. Sarah Roche guides your experience through structured exercises, projects, and demonstrations. She exposes you to the basic techniques and methods of botanical drawing and watercolor painting.
All experience levels welcome.
5 days:
Monday, August 11 – Friday, August 15
9:30 a.m. – 3:00 p.m.
Members $250 | Non-Members $300

Botanicals by Brush and Pencil
3 days: Tuesday, July 8 – Thursday, July 10
9:30 a.m. – 3:30 p.m.

Tablet Computers as a Tool for Artists
Tuesday, July 22
9:30 a.m. – 3:30 p.m.


Sarah Roche

Depth in Detail
2 days: Wednesday, July 23 – Thursday, July 24
9:30 a.m. – 3:30 p.m.

Patterns from Nature
2 Saturdays: July 26 and August 2
9:30 a.m. – 3:30 p.m.

Painting with Sunshine: The Sunflower
3 days:
Tuesday, July 29 – Thursday, July 31
9:30 a.m. – 3:30 p.m.

Finishing Studios
with Elaine Searle
Friday, July 25 9:30 a.m. – 12:30 p.m.
Friday, August 1 9:30 a.m. – 12:30 p.m.
with Catherine Watters
Friday, August 8
9:30 a.m. – 12:30 p.m.


Sarah Roche

On The Road: Gardens of the Berkshires
TVL 14 101

Day trip west from Wellesley College by car to the Berkshires, including a special trip to Berkshire Botanical Garden (www.berkshirebotanical.org), one of the nation's oldest botanic gardens, located in Stockbridge, Mass.
Wednesday, June 25
8:00 a.m. – 6:30 p.m.
For more details visit our website or contact the Friends office.

Summer Flowers: Mastering Botanical Composition
3 days: Tuesday, August 5 – Thursday, August 7
9:30 a.m. – 3:30 p.m.

Tonal Drawing Fundamentals
3 days: Friday, August 22 – Sunday, August 24
9:30 a.m. – 3:30 p.m.

For more details
contact the Friends office for the
Spring/Summer Brochure
or visit our website:
www.wellesley.edu/wcbg/learn_discover

'Noise and Nature' Sound Design and Art Music

Someone with a deep connection to nature and a gift for expressing herself in music brought the greenhouses to life in a whole new way on December 7. Toni Lester, Professor of Law at Babson College, master gardener, writer, and acclaimed composer, has frequented the greenhouses for several years, often coming to meditation sessions led by Wellesley's Buddhist advisor, Ji Hyang Sunim. Inspired by the place and with some remarkable musicians in mind, she composed a series of pieces specifically to be performed here.

Concertgoers followed soprano Jessica Petrus on a meditative walk through the greenhouses, punctuated by crystal-clear notes from the singer and a Tibetan bell played by Michele Oshima '85. Totally magical, especially in the Tropical House! The walk led to the Creighton Room, where flutist Clare Nielsen, cellist Reinmar Seidler, and pianist Stephen Porter joined Petrus in various combinations for pieces exploring sounds from nature and human-generated noise. Often the soprano and flute were birds, seeking their kin or expressing distress.

It felt so right to have this music at the greenhouses. I hope the success of this concert inspires more performance art along these lines!

by Kristina Niovi Jones

Come join us: Spring Planting Weekend in the Edible Ecosystem Teaching Garden

Talk: Friday, April 25, 7:00 p.m.
Planting Workshop: Saturday, April 26, 9:00 a.m. - 4:00 p.m.

Learn directly from garden designers Dave Jacke and Keith Zaltzberg with an introductory talk on Friday evening and a hands-on workshop doing planting and garden maintenance tasks on Saturday. Join us for as much of the weekend as you like. Workshop participants should dress for working in the garden. Bring a hat, work gloves, your own tools (label them, please), sunscreen, bug repellent, lunch, water and snacks. The Edible Ecosystem Garden is located on the slope below the Whitin Observatory. Please contact the Friends office to register for this free event:
781-283-3094 or
wcbgfriends@wellesley.edu.

Class Tree *Continued from page 2*

yellowwood is known for its fragrant white summer-blooming flowers. One might think that almost any tree would do for a green class, but many have chosen evergreens like Fraser fir, *Abies fraseri* or eastern white pine, *Pinus strobus*. At Wellesley, the white pine is forever associated with Margaret Ferguson, whose doctoral thesis on its life history remained a seminal work for many years. At the time when the Class of 1925 chose a white pine as its class tree, the Botany Department under Miss Ferguson's direction had become an important institution in the study of plant science and the H.H. Hunnewell Arboretum and Alexandra Botanic Garden were being established.

Class trees remain a powerful symbol to Wellesley alumnae of their connection to the College, flourishing markers of the growth they experienced both during and after their time here. As President Bottomly reminded the Class of 2010, "When we look at the array of class trees that now populate the campus, it's a rich variety … Like the trees, you are all a beautiful part of Wellesley but you are all different. Your difference is Wellesley's strength. Some of you will be craggy pines, fiercely clinging to hostile outcroppings, protecting the environment; some of you will be flowering dogwoods, beautifying the place you are in; some of you will be sturdy oaks, feeding the souls and squirrels around you; some will be sugar maples, always useful and occasionally brilliant … And we at Wellesley hope that you will come home often to sit in the shade of your tree … You are a Wellesley woman now, and like your tree, you will always belong here."

You can read the full text of President Bottomly's address to the Class of 2010 here: http://www.wellesley.edu/events/commencement/archives/2010commencement/presidentsaddress

by Gail Kahn, Assistant Director, WCBG

Director's Notes *Continued from page 2*

now that Alden is tenure-track faculty!

The other big way we're involving lots of students in botany and food systems is through the Center for the Environment. Project Handprint, the community-building initiative for the Center, kicked off with an inaugural symposium on November 9, 2013. The plan was to bring together all of the alumnae, faculty, students and staff that we knew were working on some aspect of sustainable food systems. There were short talks by keynote alumnae and faculty, discussion tables on a wide range of topics including ongoing research projects and current urban agriculture initiatives, student posters, and a harvest supper, all packed into one afternoon. Over 60 alumnae attended, and we exceeded our official capacity of 120 participants. The energy in the room was palpable. The only negative comment I heard was that it was too short! Students and young alumnae were especially excited to be part of this high-powered group focused on issues they care deeply about but often aren't sure how to engage. More information about the inaugural symposium, including videos from the event, can be found at: http://projecthandprint.com/symposium.

Botanic Gardens staff, especially Gail Kahn, Eileen Sprague and I, worked closely with Jess Hunter from Environmental Studies and Pamela Coravos '81 to reach out to faculty and alumnae participants, and organize and run the event. Aiming to build on the momentum from this great beginning, Jess and I wrote a grant proposal to fund a year of activities for the Handprint network, including webinars, internships, and an expanded symposium for fall 2014. Check out the online portal projecthandprint.com to find out what's happening with the Handprint network, on and off campus.

Best wishes for a wonderful spring renewal.

Kristina Niovi Jones, Director
Wellesley College Botanic Gardens
kjones@wellesley.edu 781.283.3027

REGISTRATION FORM

NAME: _____

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EMAIL: _____

If applicable, Wellesley College Class _____ CBA student? _____

Mail this completed form and your payment to: **Friends of Wellesley College Botanic Gardens, 106 Central Street, Wellesley, MA 02481-8203**

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(See Programs and Classes Information and Cancellation Policy.)

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MEMBERSHIP IN WCBG FRIENDS

A membership level of $50 or above entitles you to discounts on WCBG Friends programs and discount admission to botanical gardens across the U.S. through the American Horticultural Society's Reciprocal Admissions Program.
Your membership is valid for a full calendar year.

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WCBG Black Tote Bags (recycled materials) _____ bags at $5 = $_____

Shipping/Handling at $2.50 for up to 10 tote bags = $_____

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_____ Women's Medium _____ Men's Medium

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Wellesley Begonia Thrives in the Parker Family

In a short article in the fall issue of *Wellesley* magazine describing the Botanic Gardens' Plant Giveaway to entering first-year students, Assistant Director Gail Kahn invited anyone who had received a plant in the past and kept it growing to post an update on the WCBG Facebook page. As of today nobody with a giveaway plant—the giveaway only started in 1985—has checked in. However, we did receive the following post from Muriel 'Sis' Parker '46:

"Being a Class of 1946 botany major I spent many pleasant hours in the greenhouses where I enjoyed discovering new plants every time I visited them. What a nice thought to give the incoming students a plant to nurture through their Wellesley years. In the fall issue of *Wellesley* Magazine Gail Kahn urges "alums who still have the plants received as first-years to post updates." Though not part of this tradition, I did succeed in coming away with some plants through my work in the greenhouses. One of them, an angel begonia, was the progenitor of many offspring, as it was so easy to propagate. My daughter-in-law has a huge old angel begonia whose ancestor lived at Wellesley along with me 67 years ago, and it too will yield some descendants."


A greenhouse begonia today, perhaps a scion of the one Muriel Parker'46 took a cutting from 67 years ago.

ANNUAL MEETING OF THE FRIENDS 2014
Farm in a Box

Hear how first-year students at Wellesley get hands-on experience in agricultural experimentation. Associate Professor of Environmental Studies Jay Turner and Research Technician Mia Howard '12 will describe their innovative research plot, the "Farm in a Box."

Monday, June 2 — Lecture 3:00 p.m. — Reception 4:00 p.m.

The lecture is followed by Certificate in Botanical Art and Illustration Awards Ceremony

Free; please call 781-283-3094 or email wcbgfriends@wellesley.edu to let us know you are attending, so we will have enough seating.