



Diversitree: Polyculture in Action

By Rebecca Leung '13

This past summer, one of the projects undertaken by the Environmental Horticulture and Sustainable Agriculture interns was the planning and implementation of a permaculture garden at Ashland Middle School located about ten miles west of the College.

The project was born from a partnership between the Ashland Middle School, the Wellesley College Office of Religious and Spiritual Life, and Kristina Jones' spring semester horticulture class. In the fall of 2011, the Office of Religious and Spiritual Life undertook President Obama's Interfaith and Community Service Campus Challenge, an initiative meant to bring people of different faiths together in community service. In their partnership with Ashland Middle School, one goal was to install a permaculture garden in the middle of a large traffic circle (roughly 37' in diameter) where only patchy grass was growing. Kristina's horticulture class contributed their expertise in permaculture gardening.

An Asian pear tree was selected for the middle of the circle, and the students' task was to design a community of companion plants to support the well-being of the tree. Students also created an explanatory sign and short video.

With the semester over, Kristina chose four designs and assigned the summer interns the task of combining them. Three of the interns — Echo Yue, Mackenzie Klema, and me — had taken Kristina's class. It was great to continue to work on the project during the summer.



Laying the spiral path at Ashland Middle School last fall.

Why a permaculture garden? Low maintenance, a facet of permaculture design, was especially important for the traffic circle. Also, the philosophy of permaculture aligned well with the mission of the Interfaith and Community Service Campus Challenge. Permaculture relies on a diversity of plant types and favors intentional cooperation over competition. While biologically sound principles, these values are useful for middle school students as well. The name "Diversitree" was chosen for the site, embodying both biological properties and philosophical ones.

We wanted the circle to be a welcoming space which people, particularly students,

could fully explore and interact with. For this reason, we chose a spiral path leading from the outside of the circle in towards the tree. Our plant selections demonstrated that food can be grown anywhere with a minimal input of labor when grown in a polyculture.

Plants were chosen to provide a diversity of functions to the local ecosystem. Plants with attractive and fragrant blooms (purple coneflower, New England aster) will bring beneficial insects and pollinators (ladybugs, bees, butterflies, etc.) to our garden. There are plants that naturally repel pests (daffodil, yarrow). Many of the plants are considered

Continued on page 9

Notes from the Director – Spring '13

Greetings from Wellesley!
Between Superstorm Sandy, some nights dipping below 0°F, and a short-lived thaw at the end of January, it's been quite an interesting "dormant season" around here.

I consider it something of a miracle that the greenhouses are still standing after Sandy came through—we were very lucky.

The greenhouses got a short-term functional upgrade in late fall, in the form of new doors between houses. The beautiful old wooden doors had been gradually giving way for many years despite frequent repairs. Together with the College's Facilities department, we decided that regaining the ability to maintain different temperature and humidity conditions across houses couldn't wait for the more extensive renovation that the greenhouses still need. So, while the new white aluminum storm doors aren't as pretty as the old ones, they've been fitted into new frames, you can see through them clearly, and they open and close as intended! The Durant camellia, in particular, is grateful I'm sure for the reprieve from the tropical



The door between the Tropic House and the Fern House helps maintain separate climate conditions.

air next door. I found myself wanting to similarly shield trees outdoors when the thermometer hit 60°F on a rainy day in January, hoping they wouldn't break dormancy mid-winter!

The BISC 108 Environmental Horticulture class again will monitor the spring leaf-out and bloom in the young trees and shrubs planted to date in the Edible Ecosystem Teaching Garden, so we'll get some indication of how the dormant season went for them and what their potential might be for the growing season. Last spring we picked off blooms on things like the young plums and clove currants, with the idea that they should allocate their resources more towards getting established than to fruiting so soon. Two of the three kinds of plum grew a lot last year, so we may let them produce some fruit this season if they can. We've eaten greens and herbs such as chives, mint and sorrel from the EETG, but the first fruit will be especially exciting! This spring we're planning a



Keith Zaltzberg and Eric Toensmeier at the polyculture design workshop.

big planting push with more fruit trees and understory polycultures. This follows a polyculture design workshop with Eric Toensmeier and Keith Zaltzberg held in the fall, attended by many students, Friends, and permaculture enthusiasts. The push will take the garden past the halfway point in the implementation plan.

Continued on page 11

Help fund the next Botany Fellow!

The first Botany Fellow, Alden Griffith, brought so much to botany at Wellesley that we'd like to do it again, this time with a focus on sustainable agriculture.

We are excited to announce a challenge pledge: a generous donor will match every contribution towards a Botany Fellow through the Center for the Environment, doubling the impact of your gift! If we can raise \$160,000 by May 1, we'll be able to hire a Botany Fellow, possibly as soon as this fall!

Gifts should be made out to Wellesley College, with an indication that they are for the Center for the Environment fund. You may also follow the directions on the WCBG Friends website for making a membership gift online. In step 2 click on the box left of 'I would like to direct my gift to the following area(s)'. Then under 'Other Designation' enter 'Center for the Environment Fund.' Thank you for helping us answer the Botany Fellow challenge.

For more information please call Kristina Jones at 781-283-3027, or the Friends office.



Visit the Garden Through Social Media

By Rebecca Leung '13, WCBG Thorndike Intern

One of Rebecca's responsibilities as the Thorndike Intern is increasing the visibility of the Botanic Gardens on campus.

Love for the Wellesley College Botanic Gardens is a love that is rooted in place. It could mean having a favorite spot in the arboretum, a specific memory in the botanic garden, or a beloved plant in bloom in the greenhouse. Now, however, the Internet makes it possible to continue experiencing the WCBG from the comfort of your own home or whenever you have an Internet connection. We have long had a site on the Wellesley web that allows people to experience the WCBG remotely through pictures, and our plant database. The website is also a great place to find updates on programming and tours for visitors, and internship and employment opportunities for students. The website has great information for visitors of all types, whether they are students, former students, or unaffiliated visitors.

Recently, the WCBG has become active on social media as well. Social media sites make the dissemination of information and engagement with visitors easier and faster, and our hope is that using social media sites will ultimately mean more students are inspired to visit the WCBG. While the WCBG has had a Facebook page for some time, this year we added a Twitter account and Tumblr account.

Twitter makes it easier for organizations to engage with "followers" and to share a quick photo or update. If you don't have a Twitter account already, it is very easy to create one, and

once you do, you can "tweet" at us. The difference between tweeting and e-mailing is that tweeting is public; for example, if you have a question about when the Durant camellia will be in bloom, Twitter allows us to answer your question and even include a photo. You and other Twitter users can see our reply.

Tumblr is a newer blog platform that makes sharing photos and posts very easy. Tumblr also allows you to tag posts (for example, "Wellesley," "greenhouse," "camellia") so posts are easily searchable and then situated among other users' related blog posts.

While the WCBG is not physically getting any larger any time soon, the Internet allows us to take up a little more space. Social media can serve to inspire visits from those yet to make the trip, particularly students who may not have visited the WCBG yet but are on social media. Social media also allows those who already love the WCBG to experience it from wherever they may be.

So even if you're unable to visit your favorite spot in the arboretum or witness the Durant camellia in bloom in person, visit one of our new sites and let us know what you think.

Website: <http://www.wellesley.edu/wcbg>

Facebook: <http://www.facebook.com/wcbotanistas>

Tumblr: <http://wcbotanistas.tumblr.com>

Twitter: <http://www.twitter.com/wcbotanistas>



Farming IS a Good Life!

Feedback from you, our members, is special, and we'd like to share this letter from Lucy Flower Klug '56.



Lucy harvesting veggies from her garden late last summer.

*Dear Kristina Niovi Jones,
Congratulations to you and to your Regeneration-ers on your 2012 Campus Cultivation Conference, and kudos to the creators and caretakers of your Regeneration Farm and Asian Garden!!
For me, backyard gardening has made a 'Good Life.' I grew up gardening with my parents in their Victory Garden in WW II. I became a Botany major at Wellesley; loved my horticulture, plant physiology and genetics classes, but eventually chose to focus on Bacteriology.
During our 53 years of marriage, my husband and I have always tended a vegetable garden, producing pesticide-free food for ourselves and our kids. Even now, my husband (age 84) and I (age 78) still enjoy working in our vegetable garden, and we 'put up' food for the whole year in root cellar and freezer. We don't pickle much any more unless we get a bumper crop of Brussels sprouts.
We passed our passion on to our kids who garden wherever they are. This has made a good life for all of us, even as we pursued other professions. It has kept us hale and healthy and fit and flexible.
So kudos to Wellesley for nurturing the back-to-the-land life and skills, and the exploration of horticulture as a profession and a lifestyle. Remember the key to success is manure and compost!!
Best wishes to all*

Lucy Fowler Klug '56

On Location: The Kampong

The great British plant explorer Sir Joseph Hooker came to visit Wellesley's laboratories and classrooms soon after the College was founded in 1875. Hooker shared with Professor Susan Hallowell that botany students in England were taught watercolor painting; she promptly arranged to send all her first year botany students to a Wellesley College art teacher for a weekly lesson in watercolor. "Quickened powers of observation resulted – no doubt, the purpose of the course," said Louise North, class of 1879.



Sue Neff's finished painting of the Hong Kong orchid, *Bauhinia blakeana*.



Sue's *Bauhinia* is just getting started.

Today the Friends botanical art program helps to bring vitality to the WCBG Visitor Center, not only home to the studio classroom but also to an art display space for the public. Visitors stop and briefly observe the art classes on their way into the greenhouses or while picking up a map for the arboretum. They take home our newsletters and program brochures. We often hear from those who saved their brochure for a year or two until they retired and then contacted us to sign up for classes. We call this informal process "planting seeds" – growing an appreciation for the plant collection, for botanical art and even artists.

One of the ways we share our mission is to study on location in a variety of botanical garden venues around the country. Recently the WCBG Friends collaborated with The Kampong of the National Tropical Botanical Garden in Coconut Grove, Florida, on a three day course taught by Sarah Roche, Education Director of our Certificate in Botanical Art and Illustration (CBA).

After travelling from the Boston area and from all around Florida, the artists marveled at the plant collections growing on this former private estate of Dr. David Fairchild. They especially appreciated learning about the ethnobotany of the diverse array of plants from the tropics and warm subtropics. Whether a beginning or an advanced artist they set to work quickly filling their sketchbooks with graphite and color studies of flowers, fruits, leaves, and plant habits.

CBA Program Director and class participant Carole Ely '79 reported, "It was a wonderful partnership between our two botanic gardens. The Kampong is one of those well-treasured, small pieces of heaven on this earth. We were immersed in our art – learning and laughing and PAINTING! – all the while hosted by a super welcoming staff who shared their passions for and knowledge of a special place."

If you are in the neighborhood, plan to tour The Kampong. Open weekdays by appointment. Call 305-442-7169 or visit <http://intbg.org/gardens/kampong.php>.



Sue Neff getting pointers from Sarah Roche during class.



Instructor Sarah Roche and the whole class drawing outside on their first day at the Kampong.

Photos on this page are by Lynda La Rocca

Environmental Horticulture Flipped

By Vivi Read Leavy '62



Students on a panel in BISC 108 engage directly with the topics they study.

Environmental Horticulture (BISC 108), an introductory lab course for non-science majors taught by Assistant Professor and Botanic Gardens Director Kristina Niovi Jones, used to be a pretty straightforward lecture class. Students read the textbook, came to class and listened to a lecture on the topics of the day. There were opportunities to get questions answered in class. There were frequent short quizzes and the usual periodic hour exams. The course format was not much different from what students fifty years ago might have experienced except that questions could be asked and discussed outside of class on an online forum.

Over the past three years the course has evolved to make fuller use of technology to support deeper understanding of the material. This year, before attending class, students listen to a 'podcast' (an online slide lecture narrated by Kristina), then complete an online quiz. During class Kristina can answer questions and discuss areas of possible confusion indicated by the students' quiz answers. Students

use the material they have just learned and new resources they have researched to present panels on various aspects of the day's topic. There is less focus on the basics of biology and more on why it matters to the world. "There is more emphasis on how plants work and why people should care," explains Kristina.

Kristina describes the change as a gradual evolution. TED talks, the online broadcasts of conference presentations, were one inspiration, convincing her that complex material could be presented effectively online. Kristina's podcasts are very dense, and few students could watch one straight through and absorb everything. But the beauty of the computer is that students can listen as often or as slowly as necessary to get it all. That provides two big advantages: more time in class to trouble-shoot concepts and an opportunity for students to teach each other through panel presentations.

The changes have generally been popular with students. Half the 56 seats are reserved for first-year students. The

diversity of backgrounds students bring to class is one of its strengths. "A senior economics major brings a different point of view to a panel on biofuels than a first-year student," says Kristina. This year there is a public speaking tutor connected to the course to help beef up presentation skills. Students choose two panels to take part in and also critique two panels. The format forces members of the class to play different roles, some they are comfortable with and some less so. It gives Kristina good insight into individual strengths and needs. "It's not just a matter of acquiring knowledge, but how students perform with it. Can they make connections? Can they broaden it out and use it to get at complex topics? Do they understand the different disciplines involved and how they each contribute?"

The new format appealed to political science major Crystal Myung '14 who took BISC 108 as a first-year. She is now involved with the Albright Institute, Wellesley's new international initiative. She

Continued on page 9

Remembering Our Birch

By Gail Kahn, Assistant Director, WCBG

While Superstorm Sandy touched lightly upon Wellesley College in comparison to the devastation wrought in New York and New Jersey, the campus lost a number of trees, including three in the botanic gardens. The large golden willow next to the red maple swamp fell during the storm and a white pine tree near Mirror Pond and Rte. 135 also toppled, taking out a large branch of a nearby Amur cork tree as it fell.

By far the biggest loss was the iconic white birch that stood on the banks of Paramecium Pond. The College community was saddened by its loss and photos of the downed birch were posted on Facebook. One student said that she cried upon seeing the beloved tree lying in the pond. Rebecca Leung, our Thorndike Intern, approached Director Kristina Jones with an interesting idea: a memorial service for the tree. Religious and Spiritual Life staff supplied poems appropriate for the occasion, and we invited participants to bring their own poems, readings and reminiscences.

On a sunny afternoon almost a week after the storm, a group of students, faculty and staff gathered near the birch stump for our remembrance. We shared stories and read a few poems (among them, *Birches* by Robert Frost). The poem *Advice From a Tree*® by Ilan Shamir, reproduced here, expressed the wisdom that many of us felt in our connection to the birch and other favorite trees in our lives.

Del Nickerson, the retired senior horticulturist for the greenhouses and gardens, planted this birch and others around Paramecium Pond in the 1970s. Upon hearing it had fallen into the pond, he remarked, "What a wonderful natural ending for the white birch tree. The circle of life as it should be. Actually, it's the beginning of new life, as all the seen and unseen life will seek homes and nourishment, recycling all of its parts. Life doesn't end with the death of a tree."

A short-lived species, the white birch was nearing the end of its life even before the storm. One of its two major trunks was removed several years ago, and the stump of the tree plainly showed decay. Participants at the remembrance shared Del's perspective on the natural life cycle. They suggested letting the birch remain in the pond as a place for turtles to sun themselves. Younger birches planted around the pond will grow to take their places as Wellesley's iconic birch trees.



Del Nickerson's photograph of the birch in its glory days.

Advice From A Tree®

Dear Friend,
Stand Tall and Proud
Sink your Roots deeply into the Earth
Reflect the light of your own true nature

Think long term
Go out on a limb

Remember your place among all living beings
Embrace with joy the changing seasons
For each yields its own abundance
The Energy and Birth of Spring
The Growth and Contentment of Summer
The Wisdom to let go like leaves in the Fall
The Rest and Quiet Renewal of Winter

Feel the wind and the sun
And delight in their presence
Look up at the moon that shines down upon you
And the mystery of the stars at night

Seek nourishment from the good things in life
Simple pleasures
Earth, Fresh Air, Light

Be Content with your natural beauty
Drink plenty of Water
Let your limbs sway and dance in the breezes

Be flexible
Remember your Roots!

Enjoy the View!

Ilan Shamir

Copyright 1993-2002 YTN. Advice from a Tree is a registered trademark of Your True Nature, Inc. Used by permission. www.YourTrueNature.com 1-800-992-4769



Students, faculty and staff gathered to celebrate the fallen birch barely visible in the pond (center).

Indoor Living is Hard on a Tree

By Vivi Read Leavy '62

Even the newest docents know the story of the Durant camellia (*Camellia japonica*). They gather their tour groups around the tree planted in soil in the center of the Display House and tell how it is the last remaining of the four camellias that Henry Durant, the founder of Wellesley College, brought with him in 1875 when the College opened. Two of them died in the fire in College Hall in 1914, one expired later of disease, but this one survives, the oldest tree in the greenhouses. So how old does that make it? It may take a minute or two to figure out the answer. Meanwhile there are questions: Why is that pink ribbon tied to some of the branches? Why is there a sheet of plastic fastened to the roof above the tree like a giant umbrella? Why isn't it as big as the camellia in my garden in Georgia which has the same pink striped flowers?

The Durant camellia, the most cherished plant in the greenhouses, has survived all this time and is thriving and covered with buds and flowers now in late winter, but it hasn't always been easy. There have been brushes with disaster. Special care is required on a regular basis. The person in charge of it is Tricia Diggins, the arboretum horticulturist. She looks after all the trees outside in the arboretum and this one indoor tree, pruning it and guarding it from pests.

Pruning a tree that wants to be larger than the inside space available is an art. If you keep trimming the branch tips, they will eventually shade out the interior. In order to open up the center and promote interior growth, last summer Tricia pruned the camellia rather hard, tying markers of pink plastic ribbon to some of the larger cuts. She is watching those spots to see if new growth occurs there as a result of the pruning. While

the tree is flowering well this season, that was not due to pruning, Tricia says.

The bigger challenge is dealing with pests. Camellias are subject to a variety of fungi and insects. "We've had almost all of them at some point," says Tricia, although not the fatal ones like root rot or *Glomerella cingulata* fungus. They are controlled largely without pesticides and fungicides. In 2006 when the camellia started losing leaves and doing poorly, Tricia and greenhouse horticulturist Tony Antonucci called in a consultant. Tricia feared *Glomerella*; Tony that a leaky steam pipe might be killing the roots. Analysis of the fungus and the soil led to a plan of action. The fungus (*Colleotrichum gloeosporioides*) was a common one which could be managed by keeping the tree as dry as possible; thus the plastic sheet to keep roof condensation from dripping on the tree. Pruning to allow air to circulate more easily also helped. A soil analysis indicated that the soil was depleted; there was no steam leak. That could be helped with a top dressing of compost. Other camellias, and azaleas which share some pests with camellias, were banished from the greenhouse. The Durant camellia began to recover.



Horticulturist Tricia Diggins pruned deep inside the Durant camellia.



Flowers and buds cover the tree in January and February.

Tony is in charge of feeding the tree. Like most of the greenhouse plants it gets regular feeding with Neptune's Harvest, an organic fertilizer with a pleasantly fishy smell. Compost tea is also used periodically as a soil amendment to help activate the micronutrients and once a year Tony applies Hollytone. Finally, he top-dresses the soil occasionally with leaf duff and pine needles from the campus.

Even when the camellia seems to be doing well, its health is a constant concern. Tricia mentioned the ongoing battle with tea scale, which appears on the underside of the leaves as a white fuzz and causes feeding damage that can look a little bit like rust. Last spring some of it was removed by rubbing each leaf individually with a soft cloth, but that may injure the leaves. Horticultural oil works better but is used only when the scale is particularly bad. Some of the leaves also have sooty mold. Tricia rubbed it off with her finger and explained that thrips attack the buds and leave behind traces of honeydew which then feed the mold. Cockroaches live in the cracks of the old building and come out at night to nibble on camellia buds. Living inside is hard on a tree.

All that care is rewarded in January when the Durant camellia comes into bloom and is covered with fat, deep pink buds and flat pink and white striped blooms, the star of the greenhouse and a favorite with visitors. Don't miss it when you visit. ♪

Programs

- 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/wcbgfriends and print a registration form.

Rosemary Verey: Legendary Gardener

Barbara Paul Robinson, author of *Rosemary Verey: The Life and Lessons of a Legendary Gardener*, speaks about Verey's life and her contributions to the field of landscape design. LOCATION: Arnold Arboretum, Hunnewell Building, 125 Arborway, Boston

Wednesday, March 27
6:30 – 8:00 p.m. HOR 13 080
Members \$5 / Non-Members \$15

Spring Wildflowers of the Northeast: A Natural History

Carol Gracie shares the life histories of some of your favorite spring wildflowers including medicinal and other uses and the latest scientific research on these beautiful plants. Following the lecture enjoy an optional docent-led walk through the garden in its early spring glory.

LOCATION: Garden in the Woods, Framingham, MA
Sunday, April 28
1:30 – 3:00 p.m. HOR 13 090
Members \$15 / Non-Members \$18

Watercolor Landscapes

Susan Swinand teaches adults at all levels of experience how to solve those awkward problems of painting on location: direction of natural light and cast shadows, elements of atmospheric and linear perspective, simplifying to suggest complex masses, and modeling form with light and color. Paint in the classroom or in the gardens. One-on-one instruction and group critiques further your progress as you explore what makes a painting work.

7 Thursdays: May 2, 9, 16, 23, 30; June 6, 13
1:00 – 4:00 p.m. WCC 13 203
Members \$200 / Non-Members \$250

Wellesley College Photo Walk

Grab your camera and join us!

Experience the late-afternoon light striking the landscape – a favorite time for photographers. After a brief orientation, set out with Dennis Ditto and David Kahn on a tour of their favorite photography spots, where you'll have time to compose shots of the spring beauty. Learn tips and try techniques to achieve sharp close-ups and stunning vistas. Contact our office for more details and equipment list.

Saturday, May 11 (Rain Date: May 18)
4:30 – 7:00 p.m. DIG 13 201
Members \$30 / Non-Members \$38

Botanizing Together: Signs of Spring

*No previous experience necessary
except a love of plants.*

With artist and naturalist Carol Govan, start recording your observations of spring in a nature journal. Some easy drawing conventions will be covered. Attempting to draw your subject helps you remember it no matter what the drawing looks like. Bring sketchbook, plastic eraser, kneaded eraser, hard and soft pencil (2H and 2B), and hand lens.

2 Wednesdays: May 22, 29
9:30 a.m. – 12:00 noon BAC 13 040
Members \$75 / Non-Members \$95



Drawing Trees Outside

Go outside to draw trees under the guidance of Carol Govan. Figure out the correct proportions to fit on your page, get the outside shape right, see the negative spaces of the branches, understand how to make it look three dimensional. Find your own style as you draw a large tree from a distance. Then move closer to draw the details of the bark, leaves, twigs, flowers, fruit, cones or anything else of interest. Various media can be used.

3 Fridays: June 7, 14, 21
9:30 a.m. – 12:00 noon BAC 13 030
Members \$100 / Non-Members \$125

Multi-Media Color Explosion

Using different media including colored pencils, watercolors, and collage, understand how color works. Carol Govan helps you match the local color and make objects look three dimensional. With just a few colors, play with highlights and shadows on those objects. Understand how using the same principles with different media will affect your image.

Wednesday, July 24
9:30 a.m. – 2:30 p.m. WCC 14 110
Members \$60 / Non-Members \$75

ESPECIALLY FOR BEGINNERS

*Get started painting!
All abilities welcome.*



Drawing and Painting for the Petrified

In this relaxed, informative seminar with plenty of helpful demonstrations, 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. Please bring to the first class: 9x12 sketch paper, HB (No. 2) pencils, and white plastic eraser. Sarah will discuss brushes, palettes, and papers necessary. Samples of paint provided.

4 Wednesdays: June 5, 12, 19, 26
9:30 a.m. – 12:30 p.m. BAC 13 010
Members \$125 / Non-Members \$150

Introduction to Botanical Art

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.

5 days: Monday, July 15 – Friday, July 19
9:30 a.m. – 2:30 p.m. BAC 14 101A
Members \$250 / Non-Members \$300

See Our Full Course Listing Online.

More classes of interest
... complete details
online, in our program
brochures, or contact
the Friends office.



“dynamic accumulators” (comfrey, yarrow), which draw necessary nutrients from the ground up into the top layer of soil for all the plants to use. Plants that are nitrogen fixers (lupine, indigo, clover) ensure that the soil will not be depleted of this important nutrient.

The combination of plants was thoughtfully considered to encompass a diversity of heights, bloom times, different root lengths and styles, and propagation methods. We hope this strategy will minimize competition between plants and ensure that no one plant comes to dominate the circle over time.

In June, the traffic circle was sheet mulched with a layer of newspaper and wood chips. The Asian pear tree had already been planted and was on a regular watering schedule. By the end of the fall, with the help of some former interns; Vaishali Gupta from the Office of Religious and Spiritual Life; Lisa Beaudin, the Ashland Middle School nutritionist; and a few middle schoolers, almost all of the plants were in the ground.



This sign for the garden by Mia Howard '12 says it all.

I'm looking forward to seeing how this garden turns out come spring. What I like about gardening is that it's a constant process. I can't wait to see what survived the winter, what works well together like we planned, and what just totally

disregards our carefully laid plans. Finally, I am looking forward to seeing how the students and parents of Ashland Middle School interact with and learn from their new Diversitree Garden. 9

Horticulture Flipped

Continued from page 5

commented, “The Albright Institute has a strong focus on interdisciplinary learning bringing together students from all backgrounds from neuroscience to political science and music. The structure and emphasis on interconnected academic fields resonated with my experience in BISC 108 where I learned about the bigger picture and relationships of plants and food with society and public policy in general.”

Kristina admits that preparing the 20- to 30-minute podcasts is hard work. She needs to be very precise in explanations that will be viewed so intently. And not all the students love the format — a few gripe that it is more work because they have to be prepared when they enter the classroom.

Fresh from a recent seminar on science pedagogy sponsored by Wellesley's Pforzheimer Learning and Teaching Center, Kristina has been reinventing the wheel over the last few years. The 'flipped classroom' in which students study new material for themselves and use class meetings for activities designed to improve mastery has proved itself over the last decade, not only in universities but also in high schools. It is used in many classrooms at Wellesley College. Cathy Summa '83, Director of the Science Center is a strong proponent of it and other

new approaches to teaching. She has served as a mentor and sounding board for Kristina, and helped her with materials and techniques. Cathy says, “We've learned a great deal about how people learn in the past 15 years or so, and helping students learn how to monitor their own learning is key to long-term mastery and the development of real expertise. Critical to effective teaching is purposefully designing activities that force students to confront what they do and don't know, and that help them take the next steps to learn how to fill in the gaps. That's why pedagogies like the flipped classroom are so successful—they give students the opportunity to engage more directly with the material, rather than sit passively and listen to a lecture.”

In the future, when today's students think back to their time at Wellesley, class experiences of working with others to organize and present new material will loom large. Sitting in lectures may be truly a thing of the past.

Further information: Many articles on Flipped Teaching are available on the Internet. As for BISC 108, there is no longer a required biology textbook. Readings include the widely available *In Defense of Food* by Michael Pollan and *Gaia's Garden* by Toby Hemenway, in addition to many current articles provided to students online. BISC 108 reserves some seats for auditors and Friend docents are given priority. 9

Welcome Our New Docents

By Gail Kahn, Assistant Director, WCBG

2013 has produced a bumper crop of fourteen new volunteer docents eager to lead tours of the Ferguson Greenhouses. They range in age from stay-at-home moms to retirees and come from varied backgrounds. Lisa Newton is a statistician with an interest in tropical ecology, and Maury Medoff has worked as an agricultural inspector. Debbie Alexander is a self-employed landscaper for Gardens 2 Go. When Marilyn Lustig isn't volunteering with the Friends, you might find her just down the street at Wellesley Books. Our three retired teachers, Tricia Terrell, Tricia McCann and Judy Ianelli, have educated students in biology, French, and English as a second language.

They are joined by two retired college administrators, including Maria Raffi who spent many years on the Wellesley College staff. Our new docents are an active bunch, enjoying nature, walking, hiking, golf and other athletic pursuits. Lisa Derany, in common with the rest of our Friends volunteers, loves plants. Many of our new docents spend time growing vegetables and ornamentals in their home gardens, and a couple of them are garden club members. Several of our new docents, including Barb Viechnicki, have taken botanical art courses with the Friends. Volunteerism is another common thread. Marissa Taranto is active in the Westwood Public Schools, while Nora Huvelle serves on the boards of both Mass. Audubon and The Farm



New and returning docents joined our largest-ever training group for leading greenhouse tours. (L-R) Carol Pace, Sonja Hicks, Nora Huvelle, Debbie Alexander, Fiona Roman, Joan Brooks, Alice Cestari, Lisa Newton, Marissa Taranto, Joan Gorman, Marilyn Lustig, docent instructor Carol Govan, Nobuko Maeda, Tricia McCann, Maria Raffi, Barb Viechnicki, Tom Doran, and Maury Medoff. (New docents not pictured: Lisa Derany, Judy Ianelli, Tricia Terrell)

School. Both Fiona Roman and Joan Brooks have volunteered at Mass. Hort.

Training for our new class of docents consisted of six sessions this past fall and winter with docent trainer Carol Govan, who combines her naturalist's knowledge and botanical artist's observation skills with a terrific sense of humor. Armed with notes, guided by hands-on sessions in the greenhouses, and comforted by the camaraderie of the returning docents who join the training classes, our new docents look forward to upcoming tours with enthusiasm (and a bit of trepidation.)

Put our new docents to work!

Book a tour for your garden club, scout troop, church group, or group of family and friends. We offer tours free of charge to groups of eight or more children and adults with at least two weeks' advance notice.

Call 781-283-3094 or email wcbgfriends@wellesley.edu to schedule a tour.

Remembering Eleanor Viens

With sorrow, we report the passing of volunteer emerita Eleanor Viens '33 on January 23, 2013. In the Spring 2012 Newsletter, we wrote about her many contributions to the Friends on the occasion of her milestone 100th birthday. Eleanor liked to share stories about her experiences as a botany major at Wellesley and

put her botanical knowledge to use in designing interpretive displays. Well into her 90's, she was a steady fixture at the greeter's desk in the Visitor Center, where her lively mind and keen insights into plant science engaged visitors. The Wellesley College Botanic Gardens have been enriched by her many years of dedicated volunteer service.



Notes from Director *Continued from page 2*

Elsewhere in the Botanic Gardens we harvested hazelnuts, persimmons, blueberries and grapes, I tasted my first lingonberries, and Environmental Studies professor Beth DeSombre made delicious nocino from foraged black walnuts. Friends co-chair Carole Ely '79 made a very tasty chili sauce from hot peppers in the Asian-themed kitchen garden. I was amazed to see the luffa squash from the kitchen garden transform into a real "loofah" scrubbing sponge when it dried--who knew those came from cucurbits?

The Botanistas put out a beautiful display from the fall harvest at the Mystical Tree Tour, which also had an Asian theme this year. The College's Taiko drum club set the beat and drew more students to the event, which was held on an afternoon rather than evening for the first time. Although perhaps less mystical than when the trees are lit at night, a daytime tour gives participants a more complete sense of the trees and landscape than they can get after dark. The main goal of the event is to strengthen connections between people and trees, and late afternoon on a beautiful fall day seems to be an optimal time to do this. The 2013 focus is on American natives. Seed ordering is already underway in preparation for a North American kitchen garden, and we look forward to highlighting our native trees in the fall tree tour.

One final note: I am happy to amend my Fall 2012 note that no sundews had survived in the bog garden, as a few did reappear by late summer among the pitcher plants.

Looking forward to an exciting growing season in 2013!

Kristina

Kristina Niovi Jones, Director
Wellesley College Botanic Gardens
kjones@wellesley.edu 781-283-3027



The surviving sundews (hairy sprouts in the center) dwarfed by pitcher plants.

NAME: _____

ADDRESS: _____

PHONE: Home: _____ Work/Cell: _____

EMAIL: _____

If applicable, Wellesley College Class _____ CBA student ? _____
_____ I would like information on volunteering at WCBG Friends.

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

COURSE REGISTRATION

See programs and classes information and cancellation policy

Course ID#	Class title	Fee
_____	_____	_____
_____	_____	_____
_____	_____	_____

SEPARATE CHECK FOR PROGRAM FEES \$ _____

made payable to: *Friends of Wellesley College Botanic Gardens*

Friends of WCBG cannot accept credit cards for course fees. Checks or cash only please.

MEMBERSHIP IN THE FRIENDS

(for the academic year July 2012-June 2013)

My membership gift for the current academic year \$ _____

Membership Gift Payment Type (circle one):

CHECK or MasterCard / Visa / AMEX

Account number: _____

Exp. date: Month: _____ Year: _____

Membership Levels

Patron:	
Durant Society	\$2500+
Alum (6-10 yrs out)	\$1000
Alum (1-5 yrs out)	\$500
Benefactor:	\$1000
Supporter:	\$500
Donor:	\$250
Sponsor:	\$100
Contributor:	\$50
Alum (1-5 yrs out):	\$15

or **SEPARATE CHECK FOR MEMBERSHIP GIFT**

made payable to: *Friends of Wellesley College Botanic Gardens*

LOGO ITEMS FOR SALE (more details online)

WCBG Mugs _____ Pair(s) of mugs at \$15 =\$ _____

WCBG Recycled Fleece Vest _____ at \$40 each =\$ _____

_____ Women's Medium _____ Men's Medium

_____ Women's Large _____ Men's Large

_____ Women's Extra Large _____ Men's Extra-Large

Shipping / Handling at \$5 for each vest, pair of mugs =\$ _____

SEPARATE CHECK FOR LOGO ITEMS. TOTAL =\$ _____

made payable to: *Friends of Wellesley College Botanic Gardens*

Friends of WCBG cannot accept credit cards for merchandise. Checks or cash only please.

Friends of Wellesley College Botanic Gardens
106 Central Street
Wellesley, MA 02481-8203

781-283-3094 wcbgfriends@wellesley.edu
www.wellesley.edu/wcbgfriends

Editorial Committee:

Kristina Niovi Jones Gail Kahn Vivi Leavy '62
Carole Ely '79 Eileen Sprague Ray Pace, layout



Friends of Wellesley College
Botanic Gardens
Science Center
106 Central Street
Wellesley, MA 02481-8203

Non Profit Org
US Postage
PAID
Boston, MA
Permit No 12548



EDIBLE ECOSYSTEM TEACHING GARDEN

Join garden designer and permaculture expert Dave Jacke and his team in our Edible Ecosystem Teaching Garden for an informative walk and talk as well as two hands-on days. Learn skills you can use in establishing your own forest garden while you help us with spring cleanup and planting tasks. Work with us for as much of the day as you like on either or both of 'The Big Push' days, even if you miss the Thursday talk! To register call 781-283-3094 or email wcbgfriends@wellesley.edu.

Walk and Talk in the Garden with Dave Jacke

Thurs., April 11 at 5:00 p.m.

The garden is located on the slope below the Whitin Observatory.

Work Party – The Big Push

Fri., April 12 and Sat., April 13
9:00 a.m. – 5:00 p.m.

(including lots of planting in the Fruit Woodland and Fruit Thickets)

ENCYCLOPEDIA OF LIFE and ANNUAL MEETING OF THE FRIENDS

Director of the EOL Learning and Education Group Marie Studer will talk about the Encyclopedia of Life (EOL; www.eol.org) and how it can be used for your projects and for explorations of living nature.

Monday, June 3, 2013 3:00 p.m. Reception 4:00 p.m. Lecture

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 that we will have enough seating.

TRAVEL ... ON THE ROAD GARDENS OF WESTPORT

Day trip from Wellesley College by car south to special garden spots in and around Westport, MA, including a farm tour and lunch with Eva Sommaripa '63 and Didi Emmons, author of "Wild Flavors" about Eva's Garden, Eva, her way of life, her plants, and how to cook with them.

Thursday, June 27
8:00 a.m. – 6:30 p.m.



For more details, visit our website or contact the Friends office.

VOLUNTEER

Share your love of nature and gardens with others by becoming a volunteer in a variety of tasks for the outdoor gardens. Training sessions are free. Pre-registration is required. For more information, visit our website or contact us!

Fridays, May 3, 10, 17
9:30 a.m. – 12:00 noon

