Friends of WCBG
WELLESLEY COLLEGE BOTANIC GARDENS

Fall Newsletter, 2015

WELLESLEY COLLEGE

Edible Ecosystem Happenings, Summer 2015

As I write this, sitting in my room in Pomeroy Hall, except for the near-90 degree heat, my summer work as a Sustainable Agriculture Intern at Wellesley's Botanic Gardens feels long ago. In reality, a mere 20-something days and a short walk across campus separate me from ten enjoyable and enriching weeks spent in the sun—and, when it got this hot, the blissfully air-conditioned Science Center. Under the direction of WCBG Director Kristina Jones and Horticulturist Tricia Diggins, Isaac Zerkle '18, Lara Jones '18, Maureen McCord '18, Joy Price '17 and I worked on either Sustainable Agriculture or Environmental Horticulture projects.

I am ashamed to admit that I spent little time in the Botanic Gardens during my first year at Wellesley, despite living on the east side of campus and taking a class in the observatory. I was pretty excited on June 1st when Kristina took us out in dripping 50-degree rain (weather we would wish for in August) to show us the Edible Ecosystem Teaching Garden and explained what the project, whose paths I had traversed on my way to class, was all about. On that first day, the EETG's paths were still lined with stakes, black weed-block exposed, and the grass paths were blocked off from foot traffic. With Reunion set to occur that coming weekend, Kristina put us to work mulching the paths and sheet-mulched areas, collecting rocks to line them with, and putting in new plants. In that first week alone, the EETG went from looking very much under construction to looking almost fully established. During Reunion weekend, Betsy's Garden Classroom, located under the majestic white oak, was dedicated for Elizabeth Anderson Fitzgerald '60. Later on, the shade there provided much needed relief from the afternoon sun that beats down on the west-facing slope of the garden, and now I think it is one of the best places (and best-kept secrets) on Wellesley's campus.

With the EETG in its fourth year of planting, it was a prime time to be

The beautiful Betsy's Garden Classroom in the Edible Ecosystem garden.

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NOTES **from the Director**

Greetings from Wellesley! What a variable growing season we've had, with late snowmelt followed by a very dry May, wonderful early summer with moderate temperatures and regular rain, then some high heat and strong storms (golf ball-size hail!) in late summer. Imagine being fixed in place and just having to deal with whatever comes at you. Our remarkably resilient trees and shrubs seem to be dealing just fine. We also planted a lot of perennials this spring, in the Edible Ecosystem and in the new Molly's Garden, and they, too, are settling in well following diligent watering in May.

Of course, climate isn't the only challenge for plants around here. We planted a great variety of perennial herbs and vegetables in the Edible Ecosystem garden this spring, with interns Clare Salerno '18 and Isaac Zerkle '18 taking care of them and monitoring their establishment through the summer. Rabbits were especially excited about the 'Red Rib' chicory and deer selectively nibbled the Solomon's seal. The beautiful French sorrel with its lemony tang apparently appeals more to humans than to these other critters, so that's in great supply, and the asparagus, Welsh onions, chamomile, and oregano particularly are thriving. The wild basil *(Clinopodium vulgare)* was so aggressive, crowding out the other plants around the Asian pear and seeding into other areas, that we decided to try to remove it entirely. I'm sure it will be back.

It's such a pleasure to introduce students to the garden and have them sample new things. Woodland strawberries and clove currants were especially popular with summer science research students. You can find the complete plant list for the garden on the WCBG website (or search for "Wellesley edible ecosystem"). Many thanks to the big team of Friends and students who joined Dave Jacke, Keith Zaltzberg and their crew for two all-day planting frenzies in April. The garden is getting close to being fully planted, and we're starting to implement Botany Fellow Katie Goodall and WCBG Assistant Director Gail Kahn's interpretation plan with signs and plant ID cards. It's almost ready for prime time, which is good because faculty already are using the garden in a range of classes!

The beautiful Betsy Anderson Fitzgerald '60 Garden Classroom, overlooking the Edible Ecosystem, was formally dedicated in Betsy's memory at Reunion this June, with Class of 1960 friends and family overflowing the intimate space under the grand old white oak. Betsy's husband Charles remarked "…it embodies several of her major passions: horticulture, education and, of course, Wellesley College. I'm sure she is well pleased." I am thrilled that Charles chose to remember her in this way, and hope that some of the many Wellesley students who use the space may be inspired to follow in Betsy's footsteps and become landscape architects.

It was a busy Reunion in the

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Garden designer Alison Campbell (dark dress) at the dedication of Molly's Garden honoring her mother, Dean Molly Campbell '60.

Friends of WCBG
WELLESLEY COLLEGE BOTANIC GARDENS

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Where Did Your Tea Bag Come From?

Abaca (*Musa textilis*) is a fiber plant commercially grown in Ecuador, Costa Rica, and the Philippines where it is native. The fibers in the huge tropical leaves keep them intact when strong winds blow. An understory tree, these leaves also capture the filtered light coming through the upper canopy. Once used for rope and textiles, today most of the fiber is pulped for products such as tea bags, cigarette filters, banknotes, sausage skins, "manila envelopes," and other specialty papers. Also called Manila hemp, it is not related to true hemp (*Cannabis*), in which the fiber comes from the stem rather than the leaf.

© Carol Govan

The abaca plant at various stages of maturity.

Abaca is a perennial herb that grows into what looks like a small banana tree. Its "trunk," called a pseudostem, is made up of the bases of its leaf stalks (petioles). These are sturdy enough to support the large leaves the same way a tree trunk supports its branches and leaves, but botanists call it an herbaceous plant because the "trunk" is not made of wood. When the abaca plant is mature enough the leaves start to grow up through the center of the pseudostem. This tropical plant does not need bud scales to protect new growth like our temperate plants do. It just keeps unrolling new growth called "cigar leaves" until it has enough reserves to start flowering.

In the same genus as the banana plant (*Musa*), the flowers and fruits are similar. The beautiful pink bracts of the abaca drop to reveal several orange tubular flowers. You can find these bracts on the greenhouse floor along with flower parts including tepals (fused sepals and petals), stamens, stigmas and styles. The ovary stays on the plant to ripen into tiny banana-like fruits. The similarity between the larger banana plants (*Musa acuminata*), also in the tropic house, is clear. The banana plant is larger but has a similar shape, and drops large purple bracts and flower parts leaving a cluster of bananas. When the plants are finished fruiting they are cut down because, having spent all their energy to produce fruits, they will not bloom again. New growth will eventually appear on smaller "pups" starting to grow from the underground rhizomes.

The orange flowers are enfolded in bright pink bracts.

Harvesting the commercial abaca fibers begins when the plants are about two years old and can continue for 12 years or more. Using special knives, the leaf sheathes in each stalk (pseudostem) are separated and cut into strips and the fiber separated from the chaff. The fiber is then dried and graded.

When Magellan landed in the Philippines in 1521, the indigenous people were using abaca for fine textiles, baskets, hammocks and other things. By 1897, the Philippines were exporting almost 100,000 tons of abaca, one of their three biggest economic crops, along with tobacco and sugar (also in the greenhouses). This trade was predominantly with the United States and the rope making was done in New England for the most part. Abaca rope is very durable, flexible and resistant to salt water damage, thus good for boat rigging and mooring. Hemp is not waterproof and needs a waterproof coating to make it suitable for boats.

It is worthwhile to visit the abaca plants in the tropic house of the Wellesley College greenhouses and compare them to our other banana plants. Watch for the new "cigar leaves" unfurling, the huge mature leaves, the new "pups" beside the cut-off pseudostems, the unusual flowers enclosed in colorful bracts, and the tiny fruits that look like bananas.

by Carol Govan
WCBG Friends Instructor

Under the Eyes of Queen Victoria

This March, it was my great pleasure to be the lead organizer for the British Ecological Society (BES) Symposium, *Demography Beyond the Population,* held in Sheffield, UK. Sponsored in part by the Wellesley College Botanic Gardens, the symposium attracted over 100 researchers for four days of presentations, discussion, and hands-on workshops. Even in our incredibly interconnected world I believe there is no substitute for physically gathering together.

Demography is essentially the study of how differences among individuals—whether they are humans, redwoods, orchids, or warblers—contribute to patterns at the population level. Classic questions might include: What is the main cause of a population's increase or decline? What happens to the overall population size if adult mortality were to increase? This is a well-established subfield that has made important contributions to ecology and conservation biology. However, the application of demography in answering ecological questions has often been somewhat confined: using population-level methods to ask questions about populations. Recent methodological advances have opened up new opportunities, and emerging research is pushing the boundaries of demography. This has extended the direct relevance of demography in ecology, informing questions grounded in evolution, geographic distributions, physiology, and more. Thus, the title of the symposium reflects the emerging role of demography as a bridge across different aspects of ecology.

Symposium and workshop organizers: (from left) Roberto Salguero-Gómez, Cory Merow, Alden Griffith, Dylan Childs, Jessica Metcalf, and Sean McMahon.

One of the best things about BES Annual Symposia is the combination of leading-edge research, small size, and focused scope. The overall format emphasized a continuity of engagement and was guided by the goal of maximizing the number of contributing voices. Oral sessions were comprised of a mix of 20-minute presentations and 5-minute "lightning" talks, allowing us to hear from 56 speakers over the three days! An additional 36 research posters (most of which were paired with lightning talks) provided a constant source of engagement and discussion during the long breaks. An important part of the experience was the unforgettable and historic venue (Cutlers' Hall in Sheffield), which provided an elegant yet relaxed ambience. It is fair to say that not too many ecology symposia have discussion sessions in the drawing room, with talks in the main hall attended by larger-than-life portraits of Queen Victoria (couldn't keep her eyes off the presentations) and the Duke of Wellington (never seemed terribly engaged)!

Several important themes emerged from the symposium and will help guide the direction of research in the coming years. One theme focused on understanding and attributing sources of variation in survival, growth, and reproduction that is often otherwise considered to be "noise." This work is essential to developing ecological models with improved predictive ability (and a clearer understanding of their potential biases). Similarly, many researchers, myself included, talked about how to better incorporate the influence of environmental drivers like climate, soil, and competition into demographic models. This approach was "scaled-up" in several presentations that looked at how the geographic distribution of species may change in the coming century as individual organisms are affected by rapidly changing environments. An exciting outcome of the symposium is a forthcoming special feature of roughly 15 peer-reviewed articles that will be published across the five journals of the BES early next year.

Finally, it was particularly exciting to see broad representation at the symposium. The 102 attendees came from 22 countries and four continents and were almost evenly split between women and men. Additionally, there was a large number of early-career researchers making important contributions along with several "giants" of the field who were invited to present. It was great to see such history, continuity, and momentum in the field, and we were left with a great sense of excitement and opportunity. Thanks again to the Wellesley College Botanic Gardens for helping to make the symposium a great success!

For more information and the symposium program visit: http://tinyurl.com/bes-beyond-demog

by Alden Griffith
Assistant Professor of Environmental Studies

Ecosystem *Continued from page 1*

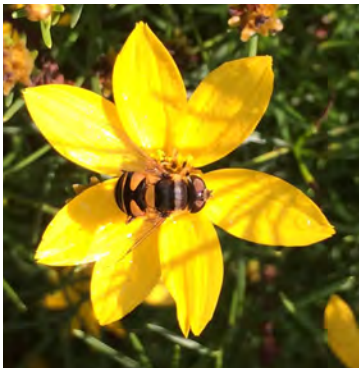
working there. Most of the plants are in the ground and fairly well established, even the perennial vegetable plots planted this past May. This meant that though there was still some maintenance to be done in the way of weeding and watering (the crown vetch and crabgrass are indeed persistent!) we could also spend time collecting data on plant function and comparing it to the original plan. We worked on compiling a plant database and identifying online tools using the websites Encyclopedia of Life and iNaturalist. We first created a collection containing all the plant taxa in the EETG so that the names and information for all the plants were in one place. Then we exported it to the iNaturalist site and mobile app which we were able to access via a mobile device right in the garden to submit live observations of plants, and more importantly, plant and animal interactions. iNaturalist uses crowdsourcing, so that you can upload an observation of an unknown species and someone else can see it and identify it for you!

The Edible Ecosystem is a biodiverse environment, with focal woody plants surrounded by herbaceous polyculture "understories" that provide guild functions. (See the Friends Newsletter, Spring 2013, p. 1 article for more information about how polycultures work.) The functioning of these polycultures became a primary focus for us. We added to the online data on the health and productivity of the woody plants and their understories, while checking to see if all the original understory plants were still present. We even gathered data about the newly planted perennial vegetable patches.

Another important project for the summer was to create plant ID cards with pictures and information to help visitors understand the plant communities in the EETG. Botany Fellow Katie Goodall started this project in the spring with her horticulture students. WCBG Assistant Director Gail Kahn played another starring role doing the plant research and writing up the information. Isaac and I used their templates and spreadsheets to create the eye-catching cards that will soon be placed in the garden.

A final, fun project we did involved launching the research in the experimental plots, the blue barrels planted with tomatoes, basil, and marigolds. Using soil moisture probes and a chlorophyll meter, as well as counting fruits, we obtained a measure of plant function and productivity across different parts of the garden. Research Technician Carolyne Banks '15 and I were even featured in Wellesley's capital campaign video that will be shown to potential donors starting this fall! All of us interns, working with science research students studying bees, helped survey insects and their interactions with plants. We saw many of their tagged bees in the garden, so it was exciting to be involved with other Wellesley research (and provide important pollinator support!).

At the end of the summer, Isaac and I set up a table at the summer research poster session, where we picked vegetables and fruits from the EETG, including clove currants, wild blueberries, various mountain mints, Welsh onions, lamb's ear (my personal favorite EETG plant), sea kale, and other perennial vegetables. We allowed students to sample those that could be eaten raw in their current state of growth, and we compared the concept of traditional annual gardens to the EETG's perennial permaculture.



A Syrphid fly landing on a coreopsis.

Isaac, Maureen, Joy, Lara, and I all enjoyed our summer in the WCBG immensely and we are so grateful to everyone who made our internships possible. Please check out our instagram account @wcbotanicgardens to see some of the great moments of the summer! And, if you have a chance, take a walk through the Edible Ecosystem next time you are at Wellesley.

by Clare Salerno '18
Sustainable Agriculture Intern

This summer's interns (left to right): Lara Jones '18, Clare Salerno '18, Isaac Zerkle '18, Maureen McCord '18, Joy Price '17.

The Paramecium Pond Journals

Seven years ago, in the fall of 2008 Laura Stevens '11 was one of four students in Kristina Jones' independent study course, Plant Projects. Like the others, as reported in the Friends of Horticulture's Spring 2009 Newsletter, Laura designed a project in sync with the Botanic Gardens' mission to increase scientific and environmental literacy. Starting with a favorite spot, the bench at Paramecium Pond, she created a small notebook with pictures and information about the surrounding trees and an invitation to visitors to record their reactions and reflections at the spot. The notebook was placed in a weatherproof box on the side of the bench and ever since thoughtful visitors have used it or a successor notebook to record their comments.

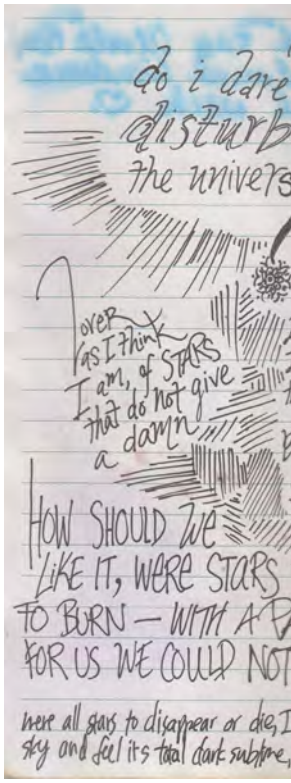
Last spring, when the notebook was replaced once more, we took a look through the writings to get a sense of how the notebook was being used and by whom all these years later. Most of the writers have a connection with Wellesley: students, of course, and their friends and occasionally parents; alumnae, particularly during Reunion weekend; neighbors and their children throughout the year; local dog walkers with their pets. Almost everybody signs their name and most explain why they are there. Their writings are a crazy quilt of observations, poetry and drawings. They record thoughts about the natural world, but more about their human interactions—friendships, human nature, academic pressure, aspirations for the future, sometimes fears and failures. Many read through the journal before adding their comments which almost turns it into a conversation. What follows are some journal excerpts to give a sense of the range and variety of entries.

Trees around the pond may be subjects for journal sketches.

A Lover (on a wrinkled page mottled with pale blue ink spots, melted snow flakes): I have just been out walking on the pond. It is frozen solid. There is no snow where I come from, so I am fascinated. It is currently snowing so sitting on the bench would be quite uncomfortable, but I am in love. The fallen birch is what drew me over, and it is my favorite part. . . . There is a couple out on the ice now. It feels like the perfect scene. I wish them happiness too. This is a wonderful tradition. I hope it endures.

The Passage of Time: I have lived in Wellesley for 20 years and have visited this pond countless times over those decades and watched my children grow up playing along its edges, watching the tadpoles, catching—and releasing—the frogs, sighting the heron and myriad other birds. My children are young adults now, off to and out of college, so there is both a happy and a sad feeling sitting here—happy for the future unfolding before them and sad that those childhood years are past. My mother Ann Means went to Wellesley (Class of '49, I think) and her mother Avril Means as well (Class of about 1917). I often think of them as young women walking on the same paths and sitting and reflecting on the passage of time at the pond.

Wandering Thoughts: So unexpected! So whimsical, to find a book of ideas about this very place on my first visit! Unlike all the [writers of] previous entries, I have no relation to Wellesley other than a wanderer has to beauty. . . . Truly this is a place of beauty and peace.

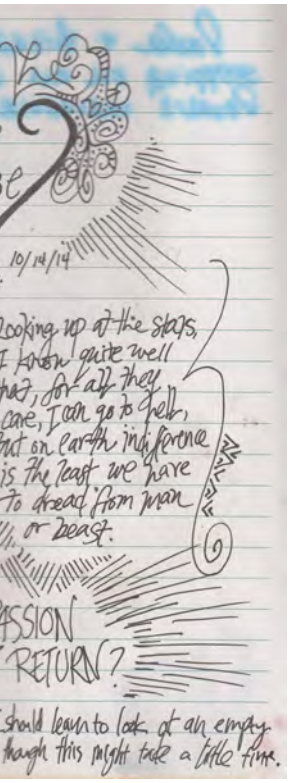


An amalgam of T. S. Lewis a other poets quoted in the jo Thoreau; Anne Barrett Hugh wrote in the whole of Birches heart?); Nikolai Rylenkov (a Russian); A. A. Milne; Nancy Keats; also a Tibetan blessi Theresa and the Dalai Lama

Marathon Monday: This is not a typical experience at Paramecium Pond. Although spring and its chirping birds and soft breezes are upon us, I also hear students laughing and screaming and the Harlem Shake blasting. Today is Marathon Monday. I spent my morning cheering on random strangers, kissing random strangers and observing the beauty that exists between humans interacting. Although I love spots like this where I can be one with nature and its beauty, I also have such an appreciation for the human spirit. I am happy.

Midnight Mist: It's after midnight. The pond is steaming. It's super creepy. I'm exhausted. Do geese ever sleep? I'm so much calmer when I'm out here. Lamps reflect onto the pond, milky with mist—pretentious yes, but so pretty. After

The journal lives inside to the bench.



and W. H. Auden. Among
urnals: Henry David
es; Robert Frost (Someone
s! Did she know it by
oem about nature in
and Ann Wilson; John
ng and words from Mother
a.

midnight is the best time to be out here. I want to hold on to this quiet and calm.

Goose Watch: . . . We wanted a break from studying and came by to chill in the sun. The geese and their brood of six came by for 20 minutes and happily ate on the grass. Those goslings are wicked fat and had to lie down to continue eating . . . . The world looks so lush and every couple of minutes you can hear a fish splash, grabbing something at the surface.

Watering the Birch: We are watering the new birch tree as I write. Some of the leaves are looking a little brown, but I think it will live. Note: Woody plants need to be watered once or twice a week regardless of rainfall for at least the first two years after transplanting.

Dog Walking: Karina, Nicole and Julia are taking the dogs, Rocky, Ares and Louis, for a walk. [Signed with sprightly stick-figure portraits of the dogs and their walkers.]

The Most Perfect Day: I'm sitting here with my true love in this beautiful spot. We just paused to watch a doe and her fawn on the hillside to the left as we approached from the Square. It is the most perfect day of the summer and the pond is the most perfect mirror to reflect our happiness.

Dear Laura Stevens: . . . You see us as you want to see us in the simplest terms and the most convenient definitions. But what we found is that each one of us is a brain and an athlete and a basket case—a princess and a criminal. Does that answer your question?

The Wellesley Woman: I think this school might stop people from becoming who they need to become. That doesn't seem right. But how can we grow as people when we're constantly being pressured and asked to apologize for our privilege while at the same time taking advantage of it? How can we discover who we're meant to be when that image becomes hopelessly entwined with the "Wellesley Woman?" . . . I am critical, I am, I am.

a lidded box attached

A Bigger Picture: The sun fills every pore on my face, banishing the last of winter's cold from my bones, promising me a new day with fresh air. I sit and watch the animals in hopes that I can learn from them: to be as elegant as the swan; as joyful as the finches; as cool as the fishes; and as stable as the turtles. . . . In the classroom I learn only problems, examples of why the world needs to be fixed. But, as I look out at the glassy water and as the goose stares back at me, I wonder if there's a bigger picture, one that we have yet to see. If I stay here a little longer maybe that picture will come to me.

Journal artists must put up with ink splotches bleeding through.

It is obvious that whether or not the journals increase scientific knowledge and literacy, they have become an important part of the experience of being in the moment at Paramecium Pond.

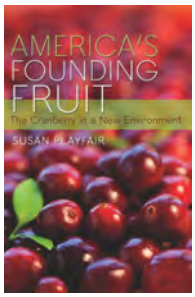
by Vivi Leavy '62
WCBG Friends Docent

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.

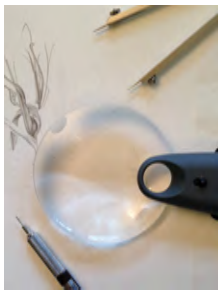
To register for classes, use the form on page 11 or visit www.wellesley.edu/wcbg/learn and print a registration form.

America's Founding Fruit: The Cranberry in a New Environment
HOR 16 020



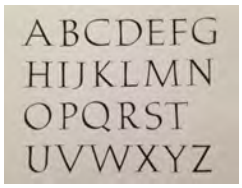
Author Susan Playfair traces the story of this perennial vine and poses the question of how the cranberry, and by inference other fruits, will fare in a warming climate. Copies of *America's Founding Fruit* will be available for purchase and signing.
Wednesday, October 14
12:30 – 2:00 p.m.
Members Free | Non-Members $10

Beginning Botanical Drawing II
BAC 16 122



Learn how to add tone to contour drawings in order to obtain a life-like depiction of a botanical form. Carrie Megan will help demystify the process of creating a botanically accurate plant portrait. Beginner level (Foundations or drawing class required).
5 Mon.: Oct. 19, 26; Nov. 2, 9, 16
9:30 a.m. – 12:30 p.m.
Members $225 | Non-Members $275

Lettering for Illustration
BAC 16 123X



© Nancy Galligan

Through demonstrations and guided exercises, professional calligrapher Nancy Galligan will introduce you to the stately, majestic Roman Capital alphabet and its accompanying lower case, Foundational. No previous experience required. All materials will be provided.
Tuesday, November 3
9:30 a.m. – 3:30 p.m.
Members $80 | Non-Members $100

Traditional Crowquille Pen Techniques
BAC 16 143

© Carol Ann Morley

This workshop with Carol Ann Morley introduces the traditional illustrator's Crowquille pen – a versatile tool. Discover the elegant, flowing contours, rich tonal values, and expressive imagery of pen and ink drawings. Some drawing skill advised.
3 days: Tues., Nov. 10 – Thurs., Nov. 12
9:30 a.m. – 3:30 p.m.
Members $250 | Non-Members $300

The Parks of Washington, D.C.
HOR 16 030

Delight in the charms of gardens and parks on the Mall, in leafy Georgetown and on the grounds of George Washington's beloved Mount Vernon with garden designer and WCBG docent Maureen Bovet DS '92.
Wednesday, November 18
12:30 – 2:00 p.m.
Members Free | Non-Members $10

On Location: The Kampong
BAC 16 230

Join Sarah Roche at the National Tropical Botanical Garden in Florida and enjoy 5 days of botanical art. All abilities welcome. Fee includes class instruction plus 4 lunches and 2 half-day visits to local botanical gardens and/or museums. Contact the Friends office for more details.
5 days: Mon., Jan. 18 – Fri., Jan. 22
9:30 a.m. – 3:30 p.m.
Members $515 | Non-Members $615

History of Botanical Art Seminar
BAC 16 112

Be inspired by the works of many famous and unknown artists who created botanical images for early herbals and documented the discovery of plants from around the world. This seminar with Carol Govan includes a private viewing of rare botanical art books in Wellesley College's Margaret Clapp Library Special Collections.
3 days: Mon., Jan. 11 – Wed., Jan. 13
(Snow Date: Jan. 14)
9:30 a.m. – 12:30 p.m.
Members $120 | Non-Members $145

Foundations of Botanical Drawing & Painting
BAC 16 102

Make 2016 the year you explore the traditional art and science of botanical drawing and painting with our lead instructor and Education Director, Sarah Roche. Instructional focus includes observational skills, drawing, composition, design, and watercolor techniques. All abilities are welcome.
8 Wed.: Feb. 3, 10, 24; March 2, 9, 16, 23, 30 (Snow date: Apr. 6)
9:15 a.m. – 12:15 p.m.
Members $250 | Non-Members $300

Large Scale Landscapes: Sustainable Management
HOR 16 040

Join the Ecological Landscape Alliance and Wellesley College Botanic Gardens for a symposium on the development and maintenance of large-scale landscapes. Experts who work daily in successful, sustainable, large-scale landscapes will lead presentations and panel discussions.
Wednesday, January 13
(Snow date: Jan. 14)
8:30 a.m. – 4:30 p.m.
Wellesley College Science Center
Members $85 | Non-Members $110

Maria Sibylla Merian: The First Ecologist?
HOR 16 050

Kay Etheridge, Professor of Biology at Gettysburg College, provides an overview of Maria Sibylla Merian's art, her contributions to the study of natural history, and her considerable influence on other naturalists and scientists who followed her.
Tuesday, March 29
7:00 – 8:30 p.m.
Arnold Arboretum's Hunnewell Building
125 Arborway, Boston
Members $5 | Non-Members $10

Family Programs

Print a children's art class registration form at www.wellesley.edu/wcbg/learn/families_kids

Greenhouse Activities for Families

Drop in at the Ferguson Greenhouses during school vacation weeks in December, January and February, where you can pick up activity sheets and scavenger hunts to help you explore the fantastic world of plants. Greenhouses is open daily 8:00 a.m. – 4:00 p.m.

Art Alive at the Greenhouses Arts Exploration: Ages 7-12
CHP 16 101

Each week aspiring young artists will have fun creating a different project using acrylic paints, watercolors, oil pastels, markers, pencils, different types of paper and unexpected materials. All materials will be provided.
6 Sundays: 3:15 – 4:15 p.m.
Oct. 18, 25; Nov. 1, 8, 15, 22
Members $75 | Non-Members $95

See Our Full Course Listing Online.

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

Students Present Research in Minneapolis

This past July, with support from the WCBG Friends, two Wellesley students, Angela Ai '15 and Elena Cravens '15, presented their research at poster sessions of the American Society of Plant Biologists' annual conference, *Plant Biology*, in Minneapolis.

For the past year and a half Angela has been working with Professor T. Kaye Peterman to develop lines of moss that can show the localization of a class of signaling molecules using fluorescence. They worked with *Physcomitrella patens,* which has become a widely used model system for examining different processes in plants. Elena also worked with Professor Peterman using the same moss. She studied how tip growth in the moss was affected by a protein very similar to one with the interesting name, COW1. The properties of COW1 are known, so Elena investigated how the COW1-like proteins found in the moss worked. "We hypothesize that [they] are involved in tip growth in the protonema (the first tissue type to grow from the moss spore), but may be functionally redundant." Her work is ongoing.

Angela reported that she presented her poster to an undergraduate symposium in addition to the main conference. "This allowed me to receive feedback on my project and practice my presentation skills as I met people from all stages of their career—fellow undergraduates, established professors, and senior scientists in industry, to name a few. It really gave me a perspective on the different paths people can take while in research." Elena noted that she "attend[ed] talks done by world famous plant scientists spanning topics from GMOs to the mechanisms behind plant defenses. I was even able to meet and discuss my research with a lab in Germany which conducts research on the COW1 protein in flowering plants. It was gratifying to be able to discuss my honors thesis work with professionals who were engaged and interested in my research."

Both students were grateful to the Friends for the funding that enabled them to attend the conference.

Angela Ai '15 and Elena Cravens '15 in Minneapolis in July. That's Claes Oldenburg's Spoonbridge and Cherry behind them.

Thorndike Interns Ningyi Xi and Virginia White

This year's Thorndike interns, Ningyi Xi and Virginia White, have taken parallel paths through the Botanic Gardens during their time at Wellesley. Both are Class of 2017 and became interested in the Botanic Gardens and Botanistas during their first year here. Virginia's interest was especially sparked by the first-year seminar with Jay Turner on food, agriculture and sustainability which included the Farm in a Box research plots. Both she and Ningyi were accepted into WCBG's summer intern program at the end of their first year, and both have been employed by the Friends as weekend desk greeters in the Visitor Center. Although deeply connected to the Botanic Gardens, Virginia is pursuing a degree in Classical Civilization, while Ningyi's major is Art History. It was during a tour with Professor Emeritus Peter Fergusson that Ningyi devised a new art-garden collaboration: Bark and Metal. It takes the Tree Mob concept of a brief talk about an interesting tree and combines it with a talk about one of the campus's outdoor sculptures. Both Ningyi and Virginia have a lot of ideas and enthusiasm to bring to their year as the Botanic Gardens' student ambassadors.

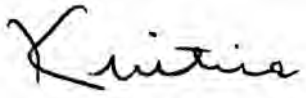
Ningyi Xi '17 and Virginia White '17 bring ideas and enthusiasm to their year as Thorndike Interns.

Director's Notes *Continued from page 2*

gardens for the Class of 1960, as Molly Campbell '60, former Dean of Students at Wellesley, also was fondly remembered at the dedication of Molly's Garden, just behind Paramecium Pond. Molly's daughter, Alison Campbell, designed the garden to be in flower throughout the growing season, and it's been a non-stop beauty from the first purple primroses in April through the pink turtleheads and Joe Pye blooming now, with a riot of colors in between. Summer Botanic Gardens interns Joy Price '17, Lara Jones '18 and Maureen McCord '18 helped ensure the establishment of the mostly native perennials. Horticulturist Tricia Diggins and returning summer workers Barbara Solorzano and Cliff Wentworth worked with the students throughout the gardens, including the kitchen garden behind the greenhouses, this year serving up traditional Italian vegetables, herbs and flowers for Professor Jacki Musacchio's Art History course on Food and Art in Renaissance Italy.

As for the greenhouses, the Global Flora design process was officially "paused" in April by the trustees, to give some time for big-picture planning of major renovations to the Science Center, which may affect the positioning of the greenhouses and how they connect to the Science Center. That's all I'll say about that for now. The entire design team eagerly awaits the re-pressing of the "go" button.

In the meantime, there's plenty going on in the gardens to keep us all busy! Wishing you a bountiful and beautiful fall season,



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

P.S. Don't miss the Wellesley Magazine article about our own Florilegium, beautifully illustrated with some of the plant portraits by participating Certificate in Botanical Art & Illustration graduates. http://magazine.wellesley.edu/summer-2015/gathering-flowers

REGISTRATION FORM

NAME: _____

ADDRESS: _____

PHONE: Home _____ Work/Cell _____

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**

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 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.

My membership gift: $_____

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Or **SEPARATE CHECK FOR MEMBERSHIP GIFT**

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Or send your membership gift to the Friends online via **www.wellesley.edu/give**

LOGO ITEMS FOR SALE (more details online)

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

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

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

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_____ Women's Medium _____Men's Medium

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

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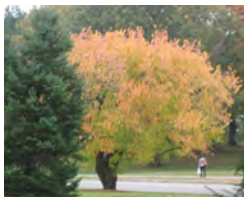

Project Handprint Symposium

HOR 16 PHP

International Perspectives on Food and Water

Hear from faculty, students and alums working around the world on issues relating to food and water, environmental sustainability, and justice.
Your handprint is your positive environmental impact. The Wellesley Center for the Environment's Project Handprint is creating a powerful learning community focused on environmental issues. This symposium brings together alumnae, faculty, staff, students and Friends who are interested in improving food systems, from production through consumption. Be inspired to expand your handprint!

Wednesday, November 4, 5:00 p.m. - 9:00 p.m.

Tishman Commons, LuLu Chow Wang Campus Center, Wellesley College
$25 registration includes dinner. Additional donations enable students to attend free of charge - thank you.
Space is limited. Please call or email by October 25 to register.

WELLESLEY
Project Handprint

Volunteer With the Friends

Share your love of nature and gardens with others by becoming a tour leader for the greenhouses.
Free training sessions on Fridays from 9:30 a.m. – 12:00 noon:
Oct. 30; Nov. 6, 13; Jan. 29; Feb. 5, 12
New docents are encouraged to participate in as many of the training sessions as possible.
Pre-registration is required.