Friends of WCBG
WELLESLEY COLLEGE BOTANIC GARDENS

Fall Newsletter, 2014

WELLESLEY COLLEGE

Global Flora: Greenhouse Renewal, Phase 1

The resurgence of botany at Wellesley is gaining momentum, as we have gone into high gear on the first phase of renovations: the Global Flora Collection of the Margaret C. Ferguson Greenhouses. This project not only will provide an improved home for the greenhouse plant collection, it also will strengthen connections between botany and other sciences and the rest of the liberal arts in new and exciting ways.

The Wellesley2025 Plan for Campus Renewal identified the "permanent collections" greenhouses as one of the Science Center components in urgent need of renovation. College Trustee Mary White '79 saw the greenhouse project as a potential catalyst for increasing interest and participation in science, prompting a round of conceptual planning this past spring. A very generous gift from Nan Walsh Schow '54 early in the process fueled strong enthusiasm for the planning. The exciting conceptual design that resulted (which I shared at the Friends Annual Meeting in June) must have met Mary's criteria for catalysis, because, in a moment that will be forever sealed in my memory, she announced that she would fund the rest of the Global Flora project in its entirety.

Focusing in on the permanent collections greenhouses – the main axis from the Desert House through the tropics to the hydrophytes, plus the cryptogams – has enabled a transformative re-examination of goals for the collections. Consultations with greenhouse experts revealed that, with the probable exception of the Durant camellia, the plants now in the ground would be better off moved out of the construction zone and replanted afterwards, opening up much greater design flexibility. Margaret Ferguson's original vision to house a diversity of plants from around the world and to "form a center that shall be of interest to all" is guiding conversations with faculty, staff, students and Friends as we seek to create an extraordinary indoor living laboratory.

Aspirations for the Global Flora project are three-fold: to give the botanical collection a focus of broad interest in science and art; to provide a new platform for interdisciplinary science at Wellesley; and to be an innovative example of sustainable design that lends itself to study. I'll elaborate a bit on the current thinking on each, and welcome your reactions.

The focus of the Global Flora plant collection will be diversity of form. The form of a plant reveals a great deal. Plants wear their history in their form – both the evolutionary history of the species and the growth history of the individual in its particular environment. In order to reveal this diversity as fully as possible, we will grow distinctive plants under climatic conditions to which they are adapted, and give them the time and space to develop their form. We are planning three relatively large houses to replace the current one large and five small ones: a dry house for everything from cacti to caudiciforms;

Plant form is the focus of Global Flora.

Continued on page 2

Friends of WCBG
WELLESLEY COLLEGE BOTANIC GARDENS

106 Central Street
Wellesley, Massachusetts 02481-8203

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

Global Flora *Continued from page 1*

a wet house with various small-scale water bodies, resembling a subtropical bog or a mangrove wetland, along with plants that require high humidity; and a "diversity highlights" house for the most interesting species we can think of. We plan to highlight floral form as well, and will need to acquire new plants such as a protea to join our marvelous *Aristolochias, Epiphyllums* and Darwin's orchids.

The Global Flora project also provides an excellent platform for interdisciplinary science: "indoor ecosystems" with a year-round growing season. Thinking of indoor plants as members of ecosystems opens up many interesting lines of investigation. Planting them together in the ground enables study of interactions among organisms – not necessarily as they would occur "in nature," but as they do occur indoors, with implications for pest and disease management. Greater indoor biodiversity might benefit humans through associated microbial communities – "microbiomes" – that may help control pathogens. Also, human contact with

Continued on page 10

NOTES **from the Director**

Greetings from Wellesley! The greenhouse renovation project has everyone abuzz here, mostly with excitement but of course also with some apprehension. Much thought is going into how to accommodate our usual programming, from class experiments to botanical art to outreach activities, over the coming year. We're also carefully culling the collections in preparation for construction. We will share updates (including opportunities to obtain plants) as the project progresses, through various outlets – keep an eye out for news!

Meanwhile there's plenty going on outside the greenhouses as well, particularly in the Edible Ecosystem Teaching Garden (EETG), which is rounding into form very nicely. This spring saw the installation of the Betsy Anderson Fitzgerald '60 Garden Classroom – a collection of sitting stones arranged to enable conversations in small groups, a larger discussion for groups of up to 15 people, and talks, readings, or performances from the "teaching platform" at the bottom of the slope, all in one small space under the shade of the magnificent white oak at the corner of the garden. The classroom will be formally dedicated in Mrs. Fitzgerald's memory at her class reunion in 2015, but in the meantime it is already in use, including by a gathering of faculty taking a break to play music together in that beautiful setting during the busy first week of fall semester. Together with the new pair of benches (see p. 10) the garden now offers ample opportunities to stay awhile, and a new wide, gently sloping path makes it easier to get into the garden and classroom.

Once these hardscape additions were in place, an April planting party of students, Friends and our permaculture partners (including one who came from Australia to participate!) put in patches of berry shrubs – several varieties of half-high blueberries, a few gooseberries, serviceberries and other lesser-known species. Tricia Diggins and summer interns Ningyi Xi '17, Virginia White '17, and Adiba Manning '14 took good care of the new plantings, while summer research students Melanie Chen '16 and Rebecca Matteson '17 studied nutrient and water dynamics in more established areas of the garden (see list of botanical research projects on p. 3). Only a few more areas left to plant – next year!

The Botanistas student group helped celebrate the Alumnae Achievement Award with recipient Eva Sommaripa '63, who declared herself proud to be the first farmer to win the award. And of course she brought some of her own produce to the lunch we held in her

Eva Sommaripa '63, winner of the Alumnae Achievement Award, as she welcomed students to her farm.

honor! The Botanistas remained numerous and enthusiastic throughout the school year, thanks to the inspired leadership of Thorndike Interns Mackenzie Klema '14 and Sophia Liu '14. More "tree mobs" and a trip to the Taza Chocolate Factory were spring highlights. Our new Thorndike Interns, Meg McClure '15 and Sarah Russell '17, are engaging this year's group in the Global Flora project and with interpretation of the outdoor gardens. Having these structures in place

Continued on page 11

Summer Research Projects

This past summer, thirteen students worked with six faculty members (Alden Griffith, Martina Koniger, Vanja Klepac-Ceraj, Heather Mattila, Kaye Peterman, and Kristina Jones) and research technician Mia Howard '12 on research projects involving plants. The following abstract titles show the breadth of botanical and environmental science research being done at Wellesley:

Does comfrey mulch affect kale plant growth and soil composition? Alena Plotkin '14

Investigating the effects of developmental pollen stress on foraging by honey bee adults. Anita Yau '17, Amina Ziad '17 and Anne Shen '17.

A bee foraging for pollen in the Edible Ecosystem Teaching Garden.

The role of soil resources in invasive plant establishment. Tania Ahmed '16

Soil moisture impacts on nutrient availability for invasive plant establishment. Abigail Golden '15

Biological fertilizers: exploring the capability of comfrey *(Symphytum officianale)* and chives *(Allium schoenoprasum)* as nutrient accumulators. Melanie Chen '16.
Note: Melanie mentored Framingham High student, Lucy Matzilevich, on this project.

The role of COW1 orthologs in *Phycomitrella patens* protonemal growth. Elena Cravens '15

Making veins: the role of PATELLIN1 and PATELLIN2 proteins in *Arabidopsis thaliana* vascular development. Christina Lepore '17 and Sarah Russell '17
Note: Sarah is a Thorndike Intern.

Evaluating the importance of chloroplast movement and non-photochemical quenching (NPQ) on the fitness of *Arabidopsis thaliana*. Andrea Bae '14 and Zahra Pirani '17

Groundcovers and soil water retention in the Edible Ecosystem Teaching Garden. Rebecca Matteson '16

Botanistae Wellesleyanae

Botanist and Director of the Wellesley College Botanic Gardens, Kristina Niovi Jones is joining the Botanical Society of America's push to reclaim the name "botanist." She and other Wellesley faculty who work with plants are taking pictures of themselves with signs identifying their vocation. See some below. And see the BSA website (www.botany.org) for (a lot) more botanists! An interesting aside: Our own Margaret Ferguson, for whom the greenhouses are named, was the first woman president of the BSA.

Look at the Bird of Paradise!

The bird of paradise, *Strelitzia reginae*, is a common evergreen tropical plant. However, look closely at the strange orange and blue flower. It seems a complete mystery as to what is what.

More familiar flowers are usually made up of four different whorls: leafy sepals that surround and protect other parts of the flower until they mature; attractively colored and patterned petals to lure a pollinator; stamens that hold pollen in their anthers; and finally, a pistil made up of a stigma to receive the pollen and an ovary that protects the immature seeds and ripens into fruit after pollination. Some flowers also have an additional part called a bract. Bird-of-paradise plants are monocots which means they are supposed to have all these flower parts (or whorls) divisible by three, which they do, although at first glance the whorls are really hard to distinguish.

A 3-part capsule reveals seeds with orange arils.

The bird of paradise has fat roots that look like fingers suitable to grab the earth in its native habitat of riverbanks and shrubby coastal areas. When it starts to flower, the long narrow bud points straight up and is difficult to separate visually from the fan of broad leaves outlined in pink. A boat-shaped bract gradually peeks out of the bud, turns perpendicular to the flower stalk, and reveals many colors as it grows to resemble a purple and pink bird's beak. The four to six flowers pop up out of this beak, one at a time, like an orange and blue crest.

The three orange parts of an individual flower are the sepals, very different from the leaflike sepals of more typical flowers. Even more unusual are two fused dart-shaped bright blue petals. The base of this dart has rounded ears (auricles) which form the third monocot petal where nectar is stored. The stamens are embedded in a channel between the two longer petals. You can see the anthers that contain white sticky pollen if you pull them apart. The stigma of the pistil comes up through the stamens and pokes out of the petal tips like a dart, ready to receive pollen. The ovary is concealed in the bract and will mature into fruit if the flower is pollinated.

There is disagreement over how a *Strelitzia* flower is pollinated. Many say a sunbird gets the pollen on its feet as it gathers nectar and spreads it to the next flower it visits. Others say the bird cheats the flower, avoiding the anthers, and gets nectar by hanging down from the sepals or standing on the bract. In any case, the flower seldom sets seed in the wild. In cultivation, pollen is easy to gather with a paintbrush. Horticulturist David Sommers took pollen from one plant and painted it onto the stigma of another *Strelitzia* and eventually we saw a woody 3-part capsule that opened to reveal large seeds, each wearing an orange wig. The wig is called an aril and helps attract the birds that will disperse the seeds.

A new Strelitzia flower with two sepals erect and a third just poking out of the bract. The blue dart is made up of three petals. The tip of the dart is the stigma.

This flower, found in South Africa, was first made known to Western horticulturists in 1772 by a Scottish botanist, Francis Masson. He was part of Captain Cook's second voyage. Masson worked as the first plant hunter for the Royal Botanic Gardens at Kew, unofficially directed by Sir Joseph Banks who had sailed on Cook's first voyage. Banks named the plant *Strelitzia reginae* after Charlotte of Mecklenburg-Strelitz, an amateur botanist who was queen consort and wife of George III. You may remember him from the American Revolution.

Strelitzias are closely related to bananas, gingers, and heliconias. They all have striking flowers with bracts of different colors and shapes that are structurally stronger than petals and thus able to attract a pollinator (and us humans) for a much longer period of time.

— Carol Govan,
WCBG Friends Instructor

Wellesley's "Big Bird"

The white bird of paradise rooted in the ground of the Tropic House, is a large relative of the orange bird of paradise, *Strelitzia reginae*. From its massive, multi-stemmed base, the erect leaves reach 12 feet or more in height. Ours is at least 75 years old and could be much older. Early photos of the Tropic House portray the distinctive leaves of a banana-family plant exactly where our big white bird of paradise now grows. In her 1925 "Botany at Wellesley" article, Margaret Ferguson refers to "[t]he bird of paradise, an object of interest to students for many college generations, [that] continues to bloom here even more freely than in its old surroundings." Due to its age and consequent lack of records, its species is undetermined. It has been labeled variously as *Strelitzia alba* and *Strelitzia nicolai*, two closely related plants with similar growth habits that produce white flowers. The flowers on our white bird are morphologically similar to those of *S. reginae* and are quite spectacular. Pinkish-white sepals and blue, dart-shaped, fused petals emerge from a violet-blue boat-like bract. The entire flower can be 18 inches long. Like *S. reginae*, it flowers in winter. Some years, the flowers are high up in the leaves and hard to see, but every once in a while our big bird delights us all with a flower low enough for everyone to enjoy. The white bird of paradise will be part of the Global Flora collection, where its distinctive form will continue to be an "object of interest" for generations to come.

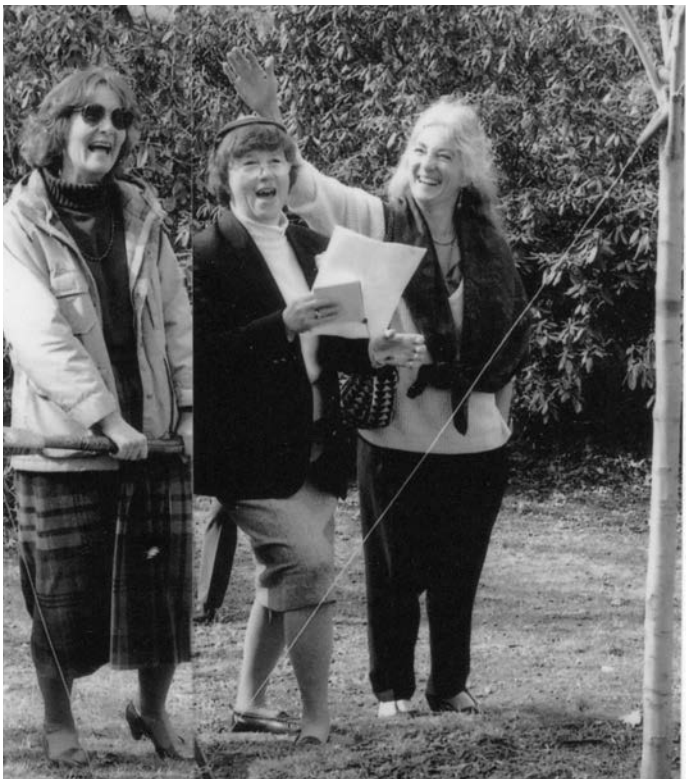
In 2010 our white Strelitzia bloomed at eye level.

Recalling Molly Campbell: Tree Day, 1989

Our Spring Newsletter article on Wellesley's class trees prompted former Class Dean Pamela Daniels '59 to send this photo of the Class of 1991's tree planting with Wellesley College President Nan Keohane '61, Dean of Students Molly Campbell '60, and herself, serving as the Dean of the Class of 1991. During the spring of their sophomore year, the class planted a sugar maple, *Acer saccharum*, in front of the Clapp Library near the path to Founders.

Sadly, Molly Campbell passed away on January 28, 2014, her 75th birthday. She served as Dean of Students at Wellesley College from 1984 to 1998. A meadow of perennial flowers in the Alexandra Botanic Garden – Molly's Meadow – is being planned as a reminder of Molly and her delight in growing things, a celebration of renewal in Wellesley's own garden.

You are invited to contribute to the Molly's Meadow fund. Checks may be made out to "Friends of Wellesley College Botanic Gardens" with the notation "for Molly's Meadow" and mailed to Friends of Wellesley College Botanic Gardens, Science Center, 106 Central Street, Wellesley, MA 02481.



President Nan Keohane, Dean of Students Molly Campbell, and Class Dean Pamela Daniels join in celebrating Sophomore Tree Day, Spring 1989.

The Margaret C. Ferguson Greenhouses: 92 Years of Living

"We believe we have here a system of greenhouses of which every Wellesley woman may be proud. . . . In these will be grown plants representative of the great floras of the earth," wrote Margaret Ferguson in her 1925 article for the Wellesley Alumnae Quarterly.

A prominent botanist and a tireless campaigner for superlative botanical resources at Wellesley, Margaret Ferguson was justifiably proud of the "laboratories under glass" built on Observatory Hill. In her article, she outlined the prominent plants from the Durant conservatory that had new homes: the large palms that had once graced College Hall, acacias, hibiscus, a night blooming cereus, and "the very camellias which for half a century supplied Mrs. Durant with her favorite flowers." Alongside these, there were new additions: cycads in the Tropic House, pitcher plants in the Hydrophyte House, and desert plants collected by a department staff member in Arizona and Texas for the Desert House. Margaret also described the infrastructure for enabling plant research in the new greenhouses: supplemental lighting in two of the houses, compartments for isolating plants, and clever bench designs that enabled a student to work in a space surrounded on three sides by plants, with wooden bench inserts to keep books and instruments clean and dry.

The complex of greenhouses that opened in 1922 on Observatory Hill was not the first greenhouse at Wellesley. The Durant's conservatory had been available to students from the inception of the College as a place for plant study, and in 1907 a greenhouse annex had been built as part of a new botany classroom. What distinguished the 1922 greenhouses were their scope and their intent: 7,200 square feet under glass for an expansive permanent collection and state-of-the-art plant research laboratories. The structure facilitated the Botany Department's practice of having students grow their own plants. This hands-on, learning-by-doing approach – a hallmark of education at Wellesley – was an innovative concept in an era where greenhouse men and instructors routinely grew plants used by students at other college campuses.

The greenhouses from the south in 1947.

Another innovation – to connect the greenhouses directly to the botany laboratories – was to become a battleground between Margaret Ferguson and the architect of the Botany-Zoology Building (shortened by students to the Bo-Zo Building and later to become known as Sage Hall). As she explained in a 1946 letter to Harriet Creighton '29, "You know that the greenhouses were built two or more years before the building was begun. I did fight for a time an unaided battle for them. The architect felt very strongly that they would ruin all the fine effect that was being planned for the building . . . 'Yale did not ask to have the greenhouses tied to the building' he was putting up for them, etc. I had felt that this would be his attitude and so the first building plans . . . showed each of the three ranges of laboratory

The vestibule that links the greenhouses to Sage.

Clever greenhouse design faci

Laboratories

houses with the glass connected directly to the building. He held to his objections for some months. At last, when he was at the college one day, I asked him if it would be any better, from his standpoint, if we placed a vestibule [corridor] eight or more feet wide between each of the three north wings and the building. He was delighted and said that if we still insisted on the association of the greenhouses with the building, he would accept our plan with this change. Of course we knew all the time that the vestibule was a necessity since the cold frames and pits were to be between these three ranges of houses and we must go in and out with a wheelbarrow."

In 1946, the greenhouses were named in honor of Margaret Ferguson. Harriet Creighton, in writing on behalf of the Botany Department to President Mildred Horton, said, "The greenhouses . . . seem to us to represent her. She wanted to make botany alive; she wanted to encourage students to learn and enjoy plants and above all she wanted to emphasize the beauty that is in the world." Margaret Ferguson, touched by the gesture, said that what gave her greatest satisfaction was that "one of my own girls is now Chairman of the Department." (Harriet had been a student of hers at Wellesley.)

Harriet Creighton had her own adventures in acquiring plants for the permanent collection. In the spring of 1949, the husband of an alumna, who worked at the Walter Baker Chocolate and Cocoa Factory in Dorchester, MA, offered to have abaca, *Musa textilis,* and cocoa, *Theobroma cacao,* cuttings shipped to Wellesley from Costa Rica. There were many delays in the fulfillment of this promise, mostly due to the paperwork Harriet had to complete in order to import abaca, which was prohibited by the USDA's banana plant quarantine laws. In November 1949 the plants were finally shipped by steamer, and a big package arrived at the Botany Department in early December. Surrounded by eager students, Harriet opened the package only to find that the plants, having survived a long journey to the north, had been killed by the fumigation used upon their arrival in Boston.

litated plant research in 1942.

By the 1970s, the Ferguson Greenhouses were showing their age. The Lord and Burnham greenhouses, a beautiful example of post-Victorian design, had single overlapping panes of glass supported by curved iron framing and wooden sash bars that required yearly painting. The energy crisis of the 1970s and the resultant increase in fuel costs mandated that changes be made. The greenhouses were enclosed in a layer of plastic, which reduced their energy needs but hastened the decay of the wood and iron structure. The glass panes started to fall down. Over time, the plastic turned yellow. In 1982-83, faced with the possibility that the greenhouses could collapse, the glazing and wooden supports were removed and aluminum framework was erected. A sad but necessary consequence of this renovation was that the curved glass of the Lord and Burnham design was replaced with straight-angled framework and two layers of flat glass, since replicating the curved glass was prohibitively expensive. The rusting, curved iron frames, lingering ghosts of the original architecture, can still be seen.

The original Lord and Burnham roof struts arch above the Tropic House.

The Ferguson Greenhouses have now reached their 92nd year. The venerable structure is in decline, and a facility that was at the cutting edge in 1922 is far from it now. The exciting plans for Global Flora underscore the College's continuing commitment to indoor living laboratories. New generations of students and the public will continue to be inspired by the variety and beauty of plants "representative of the great floras of the earth" in state-of-the-art greenhouses that will still bear Margaret Ferguson's name.

— Gail Kahn,
WCBG Assistant Director

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.

NEW! Half-Foundations of Botanical Drawing & Painting

Focusing on the rudiments of botanical art, this Foundations class with **Sarah Roche** is split between the fall and winter sessions and will concentrate on two separate four week projects. The content is similar to the 8-week Foundations class but is a solution for those with a tight schedule.

BAC 15 101i
4 Thursdays: Oct. 2, 9, 23, 30
9:30 a.m. – 12:30 p.m.

BAC 15 101ii
4 Thursdays: Feb. 26; Mar. 5, 12, 19
9:30 a.m. – 12:30 p.m.

Each 4-week session:
Members $150 | Non-Members $190
Package price for both sessions:
Members $260 | Non-Members $325

A Walking Tour of the Hunnewell Estate

HOR 15 020

David Dusenbury, Superintendent of the Walter Hunnewell Estate property, will lead us on a 90-minute walking tour of the horticultural and botanical features of this historic property. We will meet at the WCBG Visitor Center to walk over to the estate. The rain date will only be used if there is a torrential downpour. There will be a moderate amount of walking over uneven paths.

Thanks to Wellesley alumna Luisa Hunnewell DS'94 for so generously sharing her landscape with the Friends.

Wed., Oct. 1 (rain date: Wed., Oct. 8)
10:00 a.m. – 12:00 p.m.
Members $20 | Non-Members $30

Plant Stories and Poetry Reading Group

HOR 15 030

Bring your lunch and join us at the Greenhouse Visitor Center for a weekly discussion of short stories and poetry featuring plants with group leader **Joan Parrish.** Each week read one assigned short story and one poem for discussion. A variety of gardens provide inspiration for works by authors including Eudora Welty, Garrison Keeler and Jane Smiley.

5 Fridays: Oct. 14, 24, 31; Nov. 7, 14
12:15 p.m. – 2:00 p.m.
Members Free | Non-Members $25

Food of the Gods: Chocolate Production from Bean to Bar

HOR 15 040

WCBG Botany Fellow **Katie Goodall** explores the journey of chocolate from tropical landscapes to consumers all over the world. Focusing on Latin America, we will discuss cacao's botanical origins, cultural history, cultivation methods and their ecological impacts. And what's a chocolate talk without a tasting? Savor the flavors of local specialty chocolates.

New Date: Wed., Oct. 29, 1:30 p.m.
Members Free | Non-Members $10

Nature Journals: Small & Simple Handmade Books

WCC 15 051

In this one-day workshop with **Suzanne Lee**, make a special book – a diary, recipe book, special occasion guest book, or travel journal. Use hand-made papers, dried leaves, fabric collage, or your own sketches and paintings. The workshop includes all materials. No previous experience needed.

Mon., Dec. 1, 9:30 a.m. – 3:30 p.m.
Members $85 | Non-Members $100

The Tech-Enabled Artist

BAC 15 022

This beginner-level workshop with **Sarah Roche** shows you the potential of the iPad or other tablet as a tool in your artistic process. Learn features and apps that will become invaluable to your work as an artist. Bring your iPad / tablet with you.

Tues., Dec. 2 and Thurs., Dec. 4
9:30 a.m. – 12:30 p.m.
Members $80 | Non-Members $100

The Parks of Washington, D.C.

HOR 15 060

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**. Maureen's photos and stories will take you on a tour of the green side of the nation's capital.

Wed., Jan. 28, 1:30 p.m.

Members Free | Non-Members $10

Weeds

HOR 15 070

Join gardener, naturalist and WCBG volunteer **Robin Wilkerson** for a look at the plants most familiar to us that we know the least about: weeds. Robin will cover garden-variety, roadside-variety and invasive weeds. Learn their names, their habits, and what they can teach us about our gardens.

Wed., Feb. 4, 1:30 p.m.

Members Free | Non-Members $10

© Lucy Sur

Family Programs

Art Alive At The Greenhouses

Young people can let their imaginations soar and creativity flourish in the inspiring setting of the Ferguson Greenhouses with experienced art instructor and Wellesley College staff member **Lynda Davis Jeha**.

Each 6-week session:

Members $75 | Non-Members $95

Multimedia Art Creations: Ages 5-7

Children will have fun experimenting with watercolors, oil pastels, foil and colorful tissue paper to create a different project each week. All materials provided.

CHP 15 101

6 Sundays: Oct. 19, 26; Nov. 9, 16, 23, Dec. 7; 2:00 – 3:00 p.m.

CHP 15 102

6 Sundays: Feb. 22; Mar. 1, 8, 15, 22, 29; 2:00 – 3:00 p.m.

© Art Alive

Drawing and Painting: Ages 10-12

Students will explore both realistic and abstract approaches using a variety of materials including acrylic paints, watercolors, sea salt, colored pencils and oil pastels. All materials provided.

CHP 15 201

6 Sundays: Oct. 19, 26; Nov. 9, 16, 23, Dec. 7; 3:15 – 4:15 p.m.

CHP 15 202

6 Sundays: Feb. 22; Mar. 1, 8, 15, 22, 29; 3:15 – 4:15 p.m.

Plantastic Family Days

The Botanic Gardens hosts free programs for visitors of all ages to discover through art, literature, culture and science just how fantastic plants can be. Hands-on activities, crafts and scavenger hunts will engage everyone from toddlers to college students to grandparents. Drop in any time between 1:00 and 4:00 p.m. to explore.

The Plantastic World of Harry Potter:

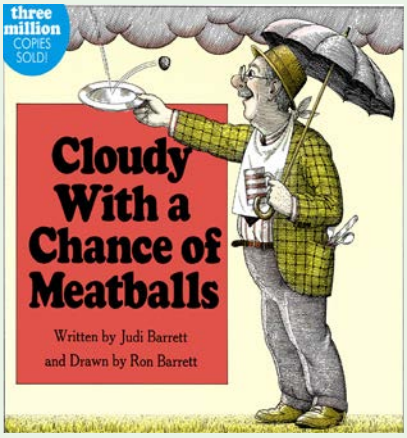
Monday, January 19

Back by popular demand: more plant-related crafts and activities inspired by the Harry Potter books. Come dressed as your favorite character.

Cloudy With a Chance of Pepos:

Monday, February 16

Will giant food really fall from the sky in Wellesley, MA? Explore the different ways botanists and chefs think of fruits and veggies.



Lucky, This Point . . .

Two new additions to the Edible Ecosystem Teaching Garden (EETG) offer pleasant places to relax and learn about the garden. The Betsy Anderson Fitzgerald '60 Garden Classroom – a group of flat stones nestled in a shady spot at the top of the slope – looks like it has been underneath the large white oak for years, though it was only installed last spring. Classes and other groups can often be found here, enjoying the breezes and the garden vista. A gravel path from the observatory driveway provides the most accessible way down to the classroom.

Nearby, a bench dedicated to the memory of Sydney Joy Joelson Segal '54 overlooks the EETG. Its rustic two-part design by artisan Frank Hamm provides conversation seating and multi-angled views. The red cedar used in its construction came from trees belonging to Mrs. Segal's family. A plaque with a quote from *Look Stranger!* by W. H. Auden graces the bench:
"Lucky, this point in time and space
Is chosen as my working place."

The Betsy Anderson Fitzgerald '60 Garden Classroom in the cool shade of the white oak.

A rustic cedar bench in memory of Sydney Joy Joelson Segal '54 provides a sunny seat.

Global Flora *Continued from page 2*

nature has documented benefits including reduced stress and improved ability to focus, but the mechanisms of these effects are not well understood. These topics are very appealing to students, and well suited to interdisciplinary teaching and research.

The goal of sustainable design also is well served by the ecosystem approach, as we are thinking of resources such as water and energy as systems, aiming to minimize ongoing dependence on fossil fuels and the campus water supply. We will install a network of sensors to continuously quantify physical conditions (temperature, humidity, light, soil moisture), not only to enable efficient resource use, but also to make possible a wide range of studies with concurrently measured biological responses (e.g. rates of photosynthesis and respiration, changes in microbial communities, human mental acuity). The well-monitored systems will interest students of engineering and architecture as well as science and environment.

As for the rest of the greenhouses, the three "fingers" of shorter greenhouses will remain in place for now. In keeping with the overall Botanic Gardens theme of plants as food, we aim to integrate plants providing food for humans into a Center for Environment space, yet to be fleshed out. The research and student houses also need renovating or replacing as part of Science Center improvements. In preparation for construction, we are culling the collection of duplicates and lower priority plants – keep an eye out for notices of plant give-aways.

So, thanks to Mary White, Nan Schow, and the capital projects team at Wellesley, we are off and running! This summer, a dozen illustrious architectural firms put in proposals for the Global Flora project. One particularly stood out to the selection committee: Sheila Kennedy and Frano Violich of KVA in Boston deeply understood the project and had imaginative relevant experience. The team they are bringing to the project includes expertise in sustainable design, material science, lightweight specialty structures, climate engineering, and interactive graphic design and data visualization. And because integration with landscape is especially crucial for this project, the College brought in Andropogon Associates, in my view the gold standard in science-based ecological landscape design, founded by Carol Franklin '62. It truly is a dream design team, and I just cannot wait for the project to take shape. We may not need to wait long, as the goal is to break ground this coming spring!

— Kristina Niovi Jones,
WCBG Director

Director's Notes *Continued from page 2*

to enable student participation has been fabulous, and will continue to strengthen the connections between students and the amazing botanical resources on campus.

Our new Thorndike Interns are Sarah Russell '17 and Meg McClure '15

Last but not least, one of our treasured papier mâché flower models, the beautiful iris, starred in an exhibition at the Davis Museum called "The Art of Science: Object Lessons at Wellesley College 1870 – 1920." The iris got meticulously restored in preparation, stabilizing the glorious model without erasing signs of use by botany faculty and students over the years.

Doing our best to celebrate the history of botany at Wellesley as we plan for the future! Here's to a beautiful and productive fall season.

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

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: $_____

Membership Gift Payment Type *(circle one)*: CHECK or MasterCard / Visa / AMEX

Acct. # _____

Expiration date: Month: _____ Year.: _____

Or **SEPARATE CHECK FOR MEMBERSHIP GIFT**

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

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 = $_____

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

_____ Women's Medium _____ Men's Medium

_____ Women's Large _____ Men's Large

_____ Women's X-Large _____ Men's X-Large

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

SEPARATE CHECK FOR LOGO ITEMS $ _____

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 WCBG
WELLESLEY COLLEGE BOTANIC GARDENS
Science Center
106 Central Street
Wellesley, MA 02481-8203





Project Handprint Symposium

Join Wellesley faculty, alumnae, students, and WCBG Friends for the second annual Project handprint Symposium, exploring food and water through lenses of environmental sustainability and justice. Keynote talks with Q & A, small group facilitated discussions, posters on current projects, tours of the Edible Ecosystem Teaching Garden, and a panel discussion.

Saturday, November 1,
10:00 a.m. – 4:00 p.m.
Tishman Commons, Lulu Chow Wang Campus Center, Wellesley College $20 registration includes lunch. Additional donations enable students to attend free of charge – thank you! Space is limited.

Please call 781-283-3094 or email handprint@wellesley.edu by Oct. 20 to register.

Global Flora: The Transformation of the Ferguson Greenhouses' Permanent Collection

We will soon be reconstructing the five major houses of the Ferguson Greenhouses. Come and hear our plans for Global Flora, the transforming of our 1920's facility into a showcase of living beauty, highlighting plant form. Global Flora will become a new node for interdisciplinary science research and teaching at the College, as well as an innovative example of sustainable design.

Free presentations:
Mon, Jan. 19 at 11:00 a.m.
Sat, Feb. 28 at 11:00 a.m.