



Wellesley College Friends of Horticulture FALL 2007 NEWS

Plants: For Budding Investigators

by Gail Kahn, WCFH Administrative Manager

The Wellesley College Botanic Gardens have always been a destination for kids as well as adults. From preschoolers to school children and after-school groups, kids have come to explore and learn. It was a natural next step for WCFH to offer programs and classes to these young enthusiasts.

In Winter 2006, WCFH jumped into the kiddie pool with "Greenhouse Kids' Time," a free drop-in program of plant-related crafts and activities on a school vacation day. The success of that first program led to a six-class series last fall called "Plant FBI (For Budding Investigators)". Kids in grades 3-5 collected



and examined plant specimens using dissecting microscopes, performed experiments, and planted vegetative cuttings and many varieties of seeds that were nurtured in the Annex greenhouse.

3-5 on investigations of the outdoor gardens, focusing on the different characteristics of wetlands, meadows, and other habitats.

In WCFH's summer program "Plant FBI: Botanical Illustrators," slightly older kids closely observed fruits, flowers, and plants, then used colored pencils to create detailed drawings of them. By pretending that they were the first persons to find and draw a plant for people who might want to use it as food or medicine, the young botanical artists learned the importance of scientific accuracy.

Propagation Partners, an introductory horticulture course designed for teams of one child and one adult partner, was the idea of our young students. This past June, "Plant FBI: Field Agents" took a group of young scientific minds in grades

Upcoming this year are further courses in botanical art, again prompted by the enthusiasm and requests of the students. Kids will experiment with watercolor and with mixed media in two separate classes during public school vacation weeks. This fall, WCFH welcomes the littlest naturalists with a series of story and craft activities for preschoolers called *Little Seeds*.

With the frenetic, high-tech lives that many families lead, it's more important than ever for kids to unplug and get outdoors to experience the natural world. Using all of their senses to explore plants and nature is so appealing for kids and adults alike, and providing these kinds of opportunities is central to the WCFH mission. We love to help budding investigators grow!



(Please see page 9 for upcoming Children Programs.)



The kids loved *Plant FBI* and asked for more, prompting the expansion of *Plant FBI* into a series of explorations in plant science, ecology, horticulture, and botanical art. This spring's "Plant FBI:

Notes from the Director – Fall 07

Hello from Wellesley! It was wonderful to see so many of you at the ribbon-cutting for the Educational Garden at the June Annual Meeting. Thank you to all who paid tribute to Harriet Creighton and helped bring the garden to life. At the ribbon-cutting Gert Dever said, "Harriet would be dancing if she could see this."



*Monarch Butterfly larva nibbling away on the leaf of *Asclepias purpurascens* (purple milkweed.)*

It is a unique garden in which something different grabs my attention every time, and it's a treat to have it in such close proximity to the Visitor Center. The tiny conifers and rock garden plants are settling in to their new homes, with careful individual watering by our student interns through the summer. The butterfly part of the new garden has filled out substantially and is attracting many visitors, mostly Monarchs and Great Spangled Fritillaries (and bumblebees) so far, with one sighting of a Clearwing Hawkmoth (*Hemaris thysbe*), busily pollinating the flowers of *Monarda fistulosa*.

The butterfly garden is a nice example of the Botanic Gardens' exciting new focus on a fundamental role of plants in nature and in culture: as **food**. This fall we are putting the

finishing touches on a collections policy, with food as a primary focus. Priority for addition to the outdoor plant collections now is based in part on a plant's food value for native birds, insects, and other animals, and the greenhouse collections emphasize plants of cultural significance as food or spice. The focus on the food function of plants also highlights the importance of

minimal synthetic chemical use (see related article on page 3 for more on this topic).

The food theme has already taken off in many directions. GNats (Garden Naturalists) enjoyed botanical delights at their Friday afternoon meetings, from Sonja Hicks' goosetongue greens to MyLien Nguyen's lemongrass-infused sticky rice and tamarind fruit. MyLien's spring Ethnobotany course prepared and ate from a huge range of plants from the greenhouses; the aromas coming from the botany lab were wonderful! And the summer interns, Cathy Chu '10 and Zhiyi Zhang '08, did a lot of enthusiastic botanical foraging followed by culinary adventures guided by Tricia Diggins — transforming cattail pollen into muffins, violet flowers into jelly, and crabapples into an absolutely delicious pie. They also planted a three-sisters garden behind the greenhouses, with towering corn supporting beans climbing on tendrils and various

kinds of squash rambling over the soil surface.

GNats does more than eat, although that is definitely a highlight. This mix of Friends of Horticulture, students, faculty, and staff began last spring by taking Friday afternoon nature walks through the gardens. There are some remarkable botanical artists (notably Carol Govan and Jeanne Kunze) and photographers (David Sommers) among us; the less artistically inclined scribble in our journals or just enjoy the gardens.

We are happy to report that the Bodnense Viburnums that bloomed prematurely in January managed to bloom a bit more when spring truly arrived, with the pink flowers poking out from among

the freeze-dried remnants of the early blooms. GNats also documented the flowering and leaf-out status of over a hundred of the woody plants on Phenology Day (May 10). We will repeat this each year to track the timing of botanical spring as a function of the changing climate.

Whether living in the Wellesley area or visiting from afar, you are welcome to

join GNats on Friday afternoons. Check with the Friends office for an up-to-date schedule of meetings.

The goal of GNats is to really get to know the plants (and animals) of the Botanic Gardens. Learning the diverse woody plants in the gardens is becoming much easier with the addition of great new labels. In the spring Tricia put out

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*Monarch Butterfly nectaring on *Verbena bonariensis* in the WCBG Educational Garden*

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Greenhouse Ecology – Helping Plants to Thrive

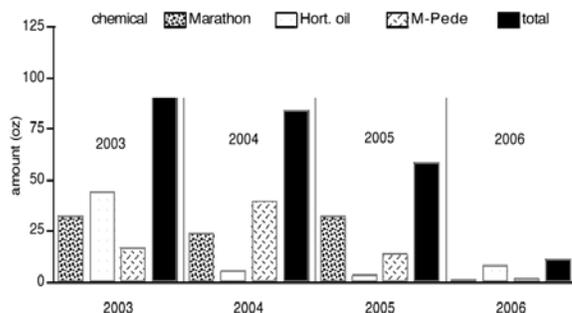
by Kristina Jones, WCBG Director, and Tony Antonucci, WCBG Senior Greenhouse Horticulturist

In the Margaret C. Ferguson Greenhouses you can enjoy the pure scents of flowers, foliage, and healthy soil, without a whiff of synthetic chemicals in the air. We are taking an ecological, holistic approach to plant health care that minimizes chemical use. In theory, plants defend themselves well against pests and diseases if they are otherwise healthy and have a little help from some friends (beneficial organisms). We're putting that theory to the test in an integrated program by providing balanced nutrients, introducing predators of pest insects, and building up a complex web of soil organisms to help with both soil fertility and disease control. Early indications are good, and already there are some exciting success stories we just had to share.

The basic idea is to mimic the natural systems that enable plant defense (see sidebar). Different pieces of this approach were tried in the past, but only in the past year and a half have we put them all together in an integrated program. We have been releasing purchased ladybugs, "mealy bug destroyers" and other beneficial insects, and trying to keep them around by providing appropriate habitats and alternative food for when their prey become scarce. The soil under the Durant Camellia and in the Tropical House was found to be severely imbalanced in favor of bacteria, so we have been top-dressing it and many other plants with special compost high in fungal activity, and brewing compost tea to further inoculate the soil with beneficial microbes. Finally, we've switched to using organic instead of synthetic fertilizers, so that plants can grow as close to "normally" as possible. Our soil foodweb advisor now uses "before and after" photos of the Durant Camellia in talks he gives on the

benefits of soil foodweb analysis.

As part of a full Integrated Pest Management program, we do keep some pesticides on hand for spot use as a last resort. With the implementation of all the above-mentioned methods of helping plants



Chemical use for pest management in the Margaret Ferguson Greenhouses, 2003-2006. The black bar represents the total amount of all chemicals used to control pests that year.

to help themselves when it comes to defense, look at the dramatic drop in the need for chemicals in 2006.

Almost all of the chemical use in 2006 in the greenhouses was relatively benign horticultural oil, and only eight ounces of that! Pest insects generally seem to be at lower levels than in years past. In fact, when the Horticulture (Biology 108) class had their Pests & Diseases lab this spring, we were hard pressed to find examples of some of the pests that were usually easy to come by.

Perhaps the sweetest success story so far was this year's glorious Nasturtium Arch. The Arch is a much-loved tradition at the Ferguson Greenhouses, but Nasturtiums grown indoors seem to be a spider mite's idea of heaven. We'd tried releasing predatory mites to control them, but inevitably a soil drench of the insecticide Marathon was needed as the days warmed in the spring. In 2007 we used larger planter boxes for more soil volume, and Neptune's Harvest instead of Peter's for nutrients. The Arch had some

spider mites, yes, but was covered with flowers into June, without a drop of pesticide. We ate some of those beautiful flowers to celebrate.

So, if you go into the greenhouses on a day when they smell like the ocean (to put it politely), know that it is only the organic fertilizer, one part of our ecological approach to plant health care. Come again on another day and inhale deeply! 🌿



Nasturtium
by Ruth Starratt

A GOOD DEFENSE IS THE BEST OFFENSE

Plants have amazing natural defense arsenals, including many nasty chemicals (think poison ivy or *Digitalis*). They also release volatiles when their cells are broken or crushed, with at least two fascinating results: first, nearby plants can detect that their neighbor has been attacked, and mount their own defenses accordingly (this "Talking Trees Hypothesis" has been shown to apply in a range of unrelated plant species), and second, predators of attacking insects may be alerted to the location of their prey by these plant signals. Also, plant roots release chemicals that attract beneficial microorganisms in the soil, many of which help defend the roots against disease-causing microbes (see Jeff Lowenfels' great book, "Teaming with Microbes" or sign up for his talk on Jan. 31 to hear more about this. See page 8).

These elaborate defense systems are most likely to work if there are predatory insects around, the soil is inoculated with beneficial microbes rather than sterilized, and the plants are receiving a full range of nutrients rather than high doses of NPK fertilizer. Plants that are routinely defended by man-made pesticides never need to make their own defenses, instead continuing to allocate their resources to further growth. Thus they can enter into an unsustainable cycle of chemical dependency, relying on fertilizers for growth and pesticides for defense.

The Science of Gardening at Wellesley

Organic versus Inorganic

by Courtney Streett, Wellesley College Class of 2009



This Sophomore Early Research project was sponsored by the Office of the Dean of the College. Using the Ferguson Greenhouses, Courtney planned the experiment and then executed her study of the effects of soils and fertilizers on pest loads in Calendula.

I have grown up smelling and selling roses but never critically analyzing them. My father owns a landscaping business, I spent hours in my backyard on a daily basis, and I have worked at the local garden nursery. When the opportunity arose for me to study plants at Wellesley, I wholeheartedly applied myself. This past year I was educated on the depth and dedication that research requires. I hope to continue through an independent project as an Environmental Studies major. Here is a summary of my research project:

The Margaret Ferguson Greenhouses welcome visitors with floral displays, especially in spring. Therefore, one goal of the greenhouses is to have healthy plants with many blooms. My project examined methods for growing annual plants to encourage blooming and to discourage pests, which can be a problem on fast-growing greenhouse plants. One plant in particular, *Calendula* (*Calendula officinalis*), popular in the spring display, has both quick growth and a tendency to attract insect pests. *Calendula* is a plant native to the Mediterranean, and is known for its medicinal qualities in the healing of skin.

The experiment was designed to determine the best ways to meet the

needs of *Calendulas*. Different types of soil each received different sources of nutrients through the growing season, to determine which combination of soils and organic or inorganic nutrients were best for this plant.

In the experiment, one-hundred and twenty plants were grown from seed and planted in four different soils (see table below). After adequate growth in the soils the plants were watered with nutrient additives. The three nutrient additives were randomly assigned to the *Calendulas* in each of the four soil treatments, for a total of 12 different soil-nutrient combinations.

The plants were placed in three different greenhouses in November 2006. Each location varied significantly. The Student House was maintained at 70 degrees Fahrenheit. In the Research House plants were

placed under Sodium Vapor Lights, which encouraged rapid growth. The ambient temperature in the room was 70 degrees Fahrenheit, but the lights produce additional heat. Lastly, the Annex was about 60 degrees Fahrenheit and most resembled outdoor conditions.

On a weekly basis I observed the plants, recording their bloom counts and numbers of different types of pest insects. When the plants were past peak bloom, I measured their stress levels with a chlorophyll-A fluorometer and weighed their above-ground biomass.

Many interesting results from the experiment related to stress rates, blooms, and insect attraction. Surprisingly, soil type did not significantly influence these outcomes; rather, it was the source of nutrients that had the greatest effect.

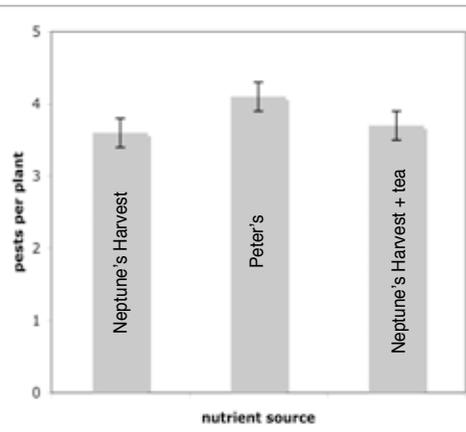
Soil Type	
Metro Mix	Metro Mix is a standard soil that can be purchased at any gardening store.
Metro Mix with Compost	Compost is food and plant matter that have biodegraded to form soil.
Metro Mix with Worm Castings	Worm Castings is compost that has gone through the digestive system of worms, which is supposed to provide added benefits for plants.
Metro Mix with Compost and Worm Castings	Mixture of the above three soil types.

Nutrient Additives	
Neptune's Harvest	Neptune's Harvest is an organic fish and seaweed mix.
Peter's Fertilizer	Peter's is an inorganic fertilizer.
Compost Tea with Neptune's Harvest added	Compost Tea is compost that is placed in a mesh bag and steeped in aerated water for 24 hours. Microorganisms leach from the compost into the water, which is then given to plants

Peter's, the inorganic commercial mix, had the most flowers and the most pests. The nutrients in this fertilizer allowed for rapid growth. The experiment suggests that when plants devote their resources to blossoming, they did not allocate resources to defense. As a result, these plants were more susceptible to insects.

In the Annex, aphids were most attracted to plants fed Peter's and least attracted to Compost Tea with Neptune's Harvest added. The main insect pest observed in the Annex was the aphid, probably because it was too cold for other insects to survive well in this location.

Lastly, plant stress differed depending on the location. Plants were least stressed in the Annex, and this was also the location that had the most blooms. These results could be explained because this location is most like the plant's natural habitat without an excess of sun or heat, and the plants were able to thrive here.



Analyzing the results from the experiment informs the greenhouse staff on the best way to grow and display Calendulas and other similar plants: Calendulas should be grown under cool conditions, such as in the Annex. Additionally, it appears that the best way to encourage blooms is through the use of inorganic fertilizer.

There are drawbacks, however, to using inorganic fertilizers. Plants given Peter's mix had significantly higher pest loads. But besides environmental problems stemming from the use of inorganic fertilizers, the relationships of

plants and insects even in a controlled environment can be changed. Plants can enter a cycle of chemical dependency and not have growth or key functions stimulated without the addition of the fertilizer, as was exemplified in the experiment.

After studying the flowers, I realized that there is no simple explanation as to the best additive to use. The greenhouse staff must decide if their goal is showmanship, which would constitute using the inorganic fertilizer, or growing plants in a sustainable manner. Growth in this way, however, risks reducing the amount of blooms.

Are greenhouse visitors willing to sacrifice a few blooms to have flowers unadulterated by pesticides, with a pure scent, radiant colors, fresh fruits, and more like they are in nature? This spring, the Nasturtiums of the Nasturtium Arch were grown without pesticides for the first time. The Arch was still beautiful and received wide praise. You are the judge and have already rendered your verdict. 🌱

Transitioning from the Friends' Office to a Valued Volunteer

If you have entered the Visitors Center, telephoned the office, or emailed the Friends sometime during the last eight years, odds are that you have been warmly greeted by the dynamic Nancy Webb. She is a veteran docent and a dedicated office professional. In 1999 when we faced a staffing crisis in the Friends' office, Nancy willingly agreed to help out for a few months. That short period of time literally stretched into years as we found her skills and organizational vision hard to replace.

In addition to a myriad of office tasks, Nancy helped edit this newsletter, plan and coordinate our program schedule, recruit new volunteers to continue our mission, lead tours for visitors, and partner with her fellow office workers and the College's faculty and staff. Her critical review

of our budget and membership data kept us on course, and her pertinent questions served to clarify our mission. She could and did do it all.

In September 2007, Nancy retired from the Friends' office and returned to her roots in our volunteer ranks.

For a newsletter profile in 2003 when she was promoted to the Friends' Administrative Manager, she wrote,

"The Friends of Horticulture were looking for volunteers then as we are now. So, I started to volunteer. I did Visitors Center desk duty. Friday afternoons could be somewhat quiet sitting at the desk, but I now appreciate how valuable volunteer staffing of the Visitors Center is to the



Nancy Webb

success of our educational mission."

Nancy continues to share her horticultural passions with all of us in her roles as enthusiastic plant-lover, docent for tour groups, and a valued member of the Steering Committee. What is old is new again ... she now welcomes

visitors one day a week operating from the Visitor Center reception desk. And we are glad she does.

We are extremely grateful to Nancy for continually and graciously rising to every occasion and making a difference in the Friends of Horticulture and in our visitor's world. Welcome back volunteer Nancy Webb! 🌱

Programs *All classes are held in the WCBG Visitor Center unless otherwise noted.*

For a complete listing of programs and/or complete course descriptions, visit our website www.wellesley.edu/WCFH.

For answers to programming questions or if you prefer to be sent the 2007-2008 Program Brochure, call the Friends' Office 781-283-3094.

Introductory Observational Skills with Jeanne Kunze

BAC 08 121

5 Fridays, 9:30 a.m.–12:30 p.m.

October 19, 26; November 2, 9, 16, 2007

Focus on proportion, scale, shape, texture, detail, and the effects of light while using the basic yet versatile tools of pencil, paper, and eraser. This class is appropriate for the beginner as well as the more experienced artist. Class limit: 12
Members \$200 / Non-Members \$250

Beginning Watercolor Painting with Susan Swinand

WCC 08 101

4 Saturdays, 1:00–4:00 p.m.

October 20, 27; November 3, 17, 2007

Develop your knowledge of good watercolor painting methods and procedures. Simple exercises will stimulate your creativity and help you develop your skills. No previous art experience required. Class limit: 12
Members \$115 / Non-Members \$145

Using Plugs to Establish Meadows and Native Groundcovers with Dale Hendricks

HOR 08 001

Friday, November 2, 2007

10:00 a.m.–2:00 p.m.

Garden in the Woods, Framingham, MA

Presented in cooperation with Arnold Arboretum of Harvard University, Massachusetts Horticultural Society, New England Wild Flower Society, and Wellesley College Friends of Horticulture

The growing availability of native plants as plugs makes it possible to establish larger plantings in a variety of habitat types. Join nurseryman Dale Hendricks for an in-depth seminar covering plant selection, establishment techniques, and ordering and holding plant material. Bring a bag lunch or order a box lunch for \$12 with registration.
Members \$60 / Non-Members \$72

Observing Nature: Introduction to Drawing with Carol Ann Morley

BAC 08 050

4 Tuesdays, 9:30 a.m.–12:00 noon

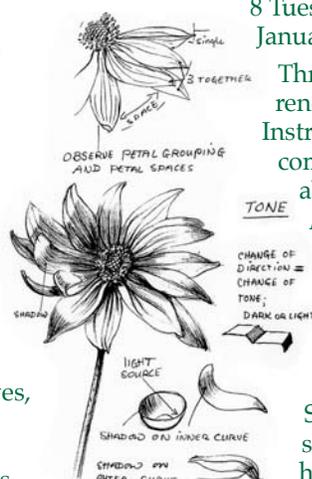
November 6, 13, 20, 27, 2007

Gregg Interactive Learning Studio, Seacoast Science Center, Rye, NH

Presented in cooperation with Seacoast Science Center, and Wellesley College Friends of Horticulture.

This absolute beginner course will move you beyond that frightening state of a blank sheet of paper using the late fall gardens at the Seacoast Science Center, Rye, NH, to supply a bounty of plant parts—leaves, stems, flowers, roots, and seed pods—as drawing subjects.

All skill levels welcome. Class limit 10 adults.
Members \$100 / Non-Members \$125



Colored Pencil Fundamentals with Carol Ann Morley

BAC 08 142B

3 days: Friday, Nov. 30–Sunday, Dec. 2, 2007

9:30 a.m. registration; 10:00 a.m.–4:00 p.m. seminar

Learn colored pencil techniques to create texture and fine details, to mix color hues to create shadows, to make colors recede and advance, and to create harmony and contrast. All levels of students welcome. Class limit: 12
Members \$250 / Non-Members \$300

Pen & Ink Techniques for Botanical Rendering with Carol Ann Morley

BAC 08 143

3 days: Monday, Jan. 7–Wednesday, Jan. 9, 2008

Snow date: Thursday, January 10

9:30 Registration; 10:00 a.m.–4:00 p.m. Seminar

Working with the traditional illustrator's Crowquille pen, learn basic techniques of inking a drawing from start to finish including how to hold the pen; technical exercises for building an ink vocabulary; creating texture and tone using stipple and cross-hatch; and care of equipment. Some drawing skill advised. Class limit: 12
3-day seminar: Members \$250 / Non-Members \$300

Colored Pencil Intermediate with Carol Ann Morley

BAC 08 242

3 days: Friday, Jan. 11–Sunday, Jan. 13, 2008

Snow date: Monday, January 14

9:30 a.m. registration; 10:00 a.m.–4:00 p.m. seminar

Continue to evolve your colored pencil skills as your focus on color hues, color temperatures, and color values of plants. Express yourself with a fun field sketching, two-pencil technique on tinted papers. Students should have taken Colored Pencil Fundamentals and/or must have prior experience in the medium of color pencils. Class limit: 12
Members \$250 / Non-Members \$300

Foundations of Botanical Drawing and Painting with Sarah Roche

BAC 08 102

8 Tuesdays, 9:30 a.m.–12:30 p.m.

January 15, 22, 29; Feb. 5, 12, 26; March 4, 11, 2008

Through demonstrations and tutorials, learn to realistically render botanical forms in pencil and watercolor. Instructional focus includes observational skills, drawing, composition, design, and watercolor techniques. All abilities are welcome! Class limit: 15
Members \$200 / Non-Members \$250

Techniques of Botanical Drawing and Painting with Sarah Roche

BAC 08 202

8 Thursdays: 9:30 a.m.–12:30 p.m.

January 17, 24, 31; Feb. 7, 14, 28; March 6, 13, 2008

Students enrolling in Techniques should have successfully completed two Foundations courses and have the permission of the instructor. Class limit: 15
Members \$200 / Non-Members \$250

Tulips: The Perfect Plant for Beginners BAC 08 120

4 days: Wednesday, March 26–Saturday, March 29, 2008

Snow day: Sunday, March 30

9:30 Registration; 10:00 a.m.–4:00 p.m. Seminar

Whether you are a beginning or experienced artist, explore the basics of botanical drawing with Wendy Hollender while learning to create accurate representations of the variety of exciting forms and structures present in tulip flowers and leaves. This course features carefully constructed exercises using graphite and colored pencil using Wendy's step-by-step analytical approach.

All levels of students welcome.

Materials list sent upon registration. Class limit: 12

Members \$395 / Non-Members \$445

Experienced Watercolor Painting with Susan Swinand WCC 08 202

7 Wednesdays, 1:00–4:00 p.m.

January 30; February 6, 13, 27; March 5, 12, 19, 2008

If you have prior watercolor experience, come and heighten your awareness and ability to see and discover a personal language of form and color. The basics — drawing, color theory, design and technical skills — are always an important part of the class. Group critiques develop critical and analytical skills while trying to determine why a painting works or how it might be improved. Class limit: 12

Per 7-class series: Members \$175 / Non-Members \$225

Winter Tree Observations with Carol Govan

2 Sessions (select one or register for both)

Evergreen Trees

HOR 08 002

Saturday, February 2, 2008, 10:00 a.m.–2:00 p.m.

Deciduous Trees

HOR 08 003

Saturday, February 9, 2008, 10:00 a.m.–2:00 p.m.

Wellesley College Botanic Gardens' Visitor Center

Presented in cooperation with Arnold Arboretum of Harvard

University, New England Wild Flower Society, and Wellesley College Friends of Horticulture

Winter is a great time to identify trees based on their structure and twig and bud characteristics. Close observation can also reveal clues to the adaptive strategies of various tree species. Bring a lunch and hand lens and dress for cold weather.

Sketching in the Tropic House with Carol Govan BAC 08 030

2 Fridays: 9:30 a.m.–12:30 p.m.

February 8 and 15, 2008

Snow date Friday, February 29

Visit the WCBG Tropics and learn the rewarding skill of field sketching. By making simple drawings you will increase your understanding of plants. No previous artistic experience necessary to join this introductory class. **Bring sketchbook/notebook, #2 pencil, hand lens, and your love of plants.**

Class limit 12

Members \$60 / Non-Members \$75

More Program listings on page 8

Adventures of an “Arkansaw Traveler”*

by Barbara Jarvis

**Arkansaw Traveler: A well-known figure from early Arkansas folklore.*

Last winter Little Rock, Arkansas resident Barbara Jarvis came to Wellesley to undertake an intensive study of botanical art with the Friends of Horticulture. While the Friends' Certificate Program in Botanical Art has received a lot of interest from people outside eastern Massachusetts, this is the first time that someone came so far and stayed so long to pursue botanical art studies with us. Excited by the program offerings, Barbara returned for two intensive seminars last August.

After my husband's death in 2005, I devoted more time to our shared post-retirement hobby of watercolor. In June 2006, I finished my first (only!) commission of 38 “botanical” illustrations of wild fruit plants for an Arkansas state park. I then resolved to learn how to make real botanical art, and began to look for a place to learn it.



Last October, while visiting friends in the Boston area, I came to Wellesley College to see a close friend of my daughters and sons, who is now Curator of Painting, Sculpture, and Photography for the Davis Museum and Cultural Center. Knowing of my

interest in plants, she led me through the famous Ferguson Greenhouses, where we were welcomed and offered pamphlets by WCFH volunteer Eleanor Viens '33.

Back home in Little Rock, I read the folder that described WCFH's Certificate Program in Botanical Art. I

immediately called the office, and after a warmly helpful conversation with Nancy Webb, I was sure that this was the program for me. Nancy put me in touch via email with the Certificate Program's Education Director, Sarah Roche, who graciously reviewed a sample of my work and recommended several botanical art courses including

Introduction to Botany through Drawing with the ebullient Carol Govan.

I am immensely grateful to Nancy, Sarah, Carol, and WCFH, for having created this wonderful program and made it available to me. My classmates, too, have made a warm, safe, and stimulating environment for my personal and artistic growth, and I thank them for their hospitality to this stranger. With their encouragement I have joined WCFH, NESBA (New England Society of Botanical Artists), ASBA (American Society of Botanical Artists), and submitted a picture for the Members' Exhibition at the New England Spring Flower Show.

Through this full and challenging program I have, to exploit a few botanical metaphors, prepared ground and sown seeds to keep me busy for a long time cultivating, practicing, and growing in art. This Arkansaw Traveler returned home at the end of March with a pocket full of happy memories and, eventually, a portfolio full of botanical art to share. 

WINTER HORTICULTURAL LECTURE SERIES

Presented in cooperation with Arnold Arboretum of Harvard University, Massachusetts Horticultural Society, New England Wild Flower Society, Tower Hill Botanic Garden, and Wellesley College Friends of Horticulture

Teaming with Microbes: WLS 08 010

The Gardener's Guide to the Soil Food Web with Jeff Lowenfels

Thursday, January 31, 7:00–8:30 p.m.
Elm Bank, Wellesley, MA

Author of Timber Press's best seller, *Teaming with Microbes: A Gardener's Guide to the Soil Food Web* and popular radio show host, Jeff Lowenfels will present the basics of chemical-free gardening. He will explain how soil microbes work and how they might afford you more leisure time to sit and enjoy your garden.

Members \$20 / Non-Members \$25



Teaming with Microbes: WLS 08 011

Compost and Compost Tea with Jeff Lowenfels

Friday, February 1, 9:00 a.m.–12 noon
Garden in the Woods, Framingham, MA

In this interactive seminar for experienced gardeners and green industry professionals, Jeff will discuss compost and compost teas designed to improve plant health, out-compete disease organisms, and encourage beneficial soil organisms.

Members \$50 / Non-Members \$60

Charles Mann's Gardens of Kyoto WLS 08 020

Thursday, February 14, 2008, 7:00–8:30 p.m.
Elm Bank, Wellesley, MA

Join professional photographer, world traveler, and cultural connoisseur Charles Mann for a stunning visual tour of the gardens of Kyoto, and a discussion sure to transcend traditional barriers of language, culture, and garden philosophy.

Members \$20 /
Non-Members \$25



An Evangelical-style Chautauqua on Art, Gardening, and Photography with Charles Mann WLS 08 021

Friday, February 15, 2008, 10:30 a.m.–12:30 p.m.
Elm Bank, Wellesley, MA

Join Charles Mann, one of the southwest's premier garden photographers, for a conversation sure to be pedantic, romantic, and a bit maverick on why we take photos of plants and gardens, the people who create them, and the landscapes that inspire them.

Members \$40 / Non-Members \$48

Photo by Charles Mann

From Emerald Carpet to Amber Wave: Serene and Sensuous Plants for the Garden with Bill Cullina WLS 08 030

Thursday, February 28, 7:00–8:30 p.m.
Elm Bank, Wellesley, MA

New England Wild Flower Society Director of Horticultural Research and award-winning author, William Cullina will introduce some of his favorite native ferns, grasses, and sedges. These delectable plants will supply a garden with a soft, tangible grace that is so subtle that it is overpowering when you really, truly, stop and see.

Members \$20 / Non-Members \$25



Check our Web site www.wellesley.edu/WCFH

or contact the office 781-283-3094 or via email horticulture@wellesley.edu

to be sent a brochure about our programs.

Children's Programs



Wellesley College Friends of Horticulture and Wellesley College Botanic Gardens are committed to growing the next generation of gardeners, scientists, naturalists, and environmentalists. Whether it's an impromptu greenhouse visit, a fun winter afternoon at Greenhouse Kids' Time or a series of Plant FBI classes, come join the fun with a child or grandchild.

All courses are open to the public and are held in the Wellesley College Botanic Gardens' Visitor Center unless otherwise noted.

Visit www.wellesley.edu/WCFH to learn about more Plant FBI courses listed in our 2007-2008 Program Brochure.

Registration forms for children's programs are available on the web at www.wellesley.edu/WCFH. Click on Courses and scroll to Course Registration.

Plant FBI: Little Seeds CHP 08 100
Drop-in Mondays: 9:30–10:30 a.m.
October 22; November 5, 19;
December 3, 17, 2007

Preschoolers can enjoy a special hour in the Ferguson Greenhouses. First, listen to a fun story about plants or the creatures that depend on them. Then it's time for a craft or activity relating to the story we just read—plant seeds, make butterflies, hop frogs, and more! Preschool kids will end their visit with an exploration of one of the 14 greenhouses.

For children ages 2-4 with adult companion.

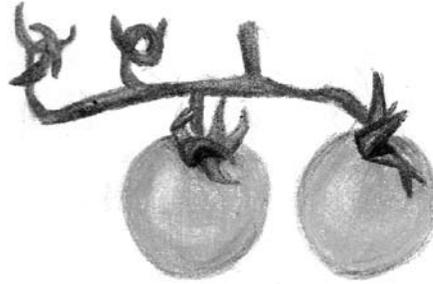
*Each drop-in session for child & adult pair:
Members \$5 / Non-Members \$7*

Greenhouse Kids' Time 2008
Mondays: 1:00–4:00 p.m.
January 21 **CHP 08 102**
(Martin Luther King, Jr. Day)
February 18 **CHP 08 103**
(Presidents' Day)

Looking for an alternative to movies or shopping on a winter vacation day? Join us at the Margaret C. Ferguson Greenhouses for crafts, explorations and scavenger hunts designed especially for school-aged kids (ages 4+). Bask in a tropical environment in the middle of winter. Visit plants around the world without ever leaving Wellesley! Drop in on either or both of these programs, there will be different activities each day.



Free. All children must be accompanied by an adult.



Plant FBI: Botanical Watercolor CHP 08 202
3 mornings: 9:30 a.m.–12:00 noon
Tuesday, February 19–Thursday,
February 21, 2008
Snow date: Friday, February 22, 2008

Kids in grades 4 through 7 explore basic botanical watercolor techniques using the plants of the Ferguson Greenhouses to inspire them. In this fun introductory course with botanical art instructor

Sarah Roche, careful observations lead to accurate graphite pencil drawings that tell the story of how a plant grows. Experiments with color mixing—primary and secondary colors and how color works in nature—will be reflected in the finished watercolor paintings. Art and plant materials will be provided. Students should bring a snack to each class.

For children in grades 4-7. All abilities welcome, no experience necessary. Class limit: 10

Members \$75 / Non-Members \$95



Thanks to the educators of Plant FBI (For Budding Investigators)
During Fall 2006 Wellesley College Biological Sciences lab instructor and WCFH docent Janet McDonough developed and taught the first course with the assistance of several Wellesley College student volunteers. The WC Science Outreach volunteers were key to the success of the program, providing an almost one-to-one pairing of kid and college students. Many thanks go to Maggie Blattner '07, Hillary Chu '09, Joy Ding '09, Dorhyun Johng '08, Arianne Jong '10, Lisa Lim '09, Mehvish Mehrani '08, Sarah Ohle '07, Jamie Rosen '07, and Molly Smith '07 for volunteering their time and talents.

In June 2007 Janet McDonough partnered with friend and educator Patte Bowser to teach these two courses, and the two made a terrific team.

Later that month Sarah Roche, who instructs adults in WCFH botanical art courses, taught an enthusiastic group of young artists observational skills and the nuances of botanical illustration using graphite and colored pencil.

Bravo to all and thanks for helping budding investigators grow!

On the Road in the Mid-Hudson River Valley

by Anne Moore '56



The latest "On the Road with the Friends of Horticulture" featured many delights of the mid-Hudson River Valley ranging from the elegance of large estate gardens such as Edgewater and Wethersfield, through the beautiful landscape and plant collections of Stonecrop and Innisfree, to the ecologically minded and delightful Hawthorne Valley Farm and the Institute of Ecosystem Studies.



During four days in June, fifteen Friends of Horticulture journeyed to this area of upstate New York where much of the wealth of the "gilded age" of the 1800's was concentrated. The pace was steady, but not frantic. The company was fun and friendly. And the weather was most cooperative until, as we got off the bus back at Gray Lot, the skies opened up!



Expertly guided by The New York Times garden writer Leslie Land, we were met at each site and taken around by the resident manager or horticulturist. Walking through a great garden, one senses the lingering spirit of those who designed, planted, and labored in it. This was true at Olana, our first site, which was the home of Frederic Church, one of the most popular landscape painters of the era, who personally improved the land he bought by laying out roads and planting trees specifically to create views for visitors to his home. Edgewater, in Barrytown, is fortunate to be owned at present by a very-much-alive spirit, Richard H. Jenrette, who purchased it from Gore Vidal in 1946. And the quirky spirit of Russel Wright is very evident at Manitoga in Garrison where, during the period in which he became one of the best known designers in the country, he created a unique home and landscape which seem to flow into one another.



Stonecrop Gardens in Cold Spring is one of the most extensive and important new public gardens in the Northeast, containing twelve display acres of woodland plantings, English-style flower gardens, troughs of hardy Alpines, systematic order beds, and water gardens. At Innisfree in Millbrook, the design is based on the Chinese "cup garden" concept, which centers an object of interest within its own landscaped enclosure. And the classical design of Wethersfield reminded us of some of the great Italian gardens with stately columns, allees, statues, water gardens and a wilderness area.



We had a very special invitation to Cedar Heights Orchard in Rhinebeck, the home of Bill and Arvia Morris (Wellesley Class of 1950). After a leisurely stroll through several acres of perennial borders, and an imaginatively designed vegetable garden, we were treated to refreshments on the owners' stone patio with views of the orchard in the distance. A late addition to the itinerary, the stop at The Climbery in Livingston opened our eyes to the joy of clematis. The hilly terrain is covered with stakes for the 5-6,000 vines of about 600 clematis varieties.

In Millbrook, the Institute of Ecosystem Studies is just what its name states—a center for research in ecological systems. This is partly accomplished by managing a landscape that includes several areas. One is display gardens containing plants that attract pollinators, are toxic to certain species, and are deer resistant. Another is Fern Glen, a beautiful natural area, where gardener Judy Sullivan, the "Maven of Muck," groups plants according to habitat, replaces exotics with natives, and just loves to explore, up to her knees, whatever is going on in her bog and fens! Also devoted to ecologically sound practices but with a different focus is Hawthorne Valley Farm, a 400-acre Biodynamic farm whose goal is self-sufficiency using the principles of sustainable, organic farming.

The attractive and comfortable Delamater Inn in Rhinebeck was our headquarters, and we were fortunate to be across the street from Gigi's Trattoria, a delightful restaurant featuring local ingredients. Dining at the Culinary Institute of America, with some time in their gift shop, was a treat. And, there always were aboard-bus snacks! Eating well and visiting great gardens are standards by which to judge a trip, and that, combined with everything else, gives this journey an A-plus! 🌱



Photos by Anne Moore and Kristina Jones; Sketch by Nan Lampton '64

NOTES FROM THE DIRECTOR

continued from page 2



the first round of 248 labels, which were met with great enthusiasm. More labels are on the way!

I want to add a personal thank-you to Nancy Webb, who retired from the Friends office in September. Nancy's friendly guidance was always very helpful to me as I learned to navigate the college's infrastructure, especially with respect to resources and budget management. I am very glad that she is staying on as a docent and volunteer. Thank you, Nancy!

Finally, as fall comes to a close, I hope you can join us at Light Show 2007, on Dec. 12 in the greenhouses. This year's theme will be color and pattern in plants. If you would like to be a docent at the show and get a special sneak preview, please let either Gail or me know.

Happy Fall!



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

PROGRAM REGISTRATION FORM WELLESLEY COLLEGE FRIENDS OF HORTICULTURE

www.wellesley.edu/WCFH email: horticulture@wellesley.edu office: 781-283-3094

NAME: _____

ADDRESS: _____

PHONE: HOME _____

PHONE: WORK _____

CELL _____

E-MAIL _____

If applicable: Wellesley College Class of _____

_____ I would like information on volunteering at WCFH.

Section #	Class title	Fee
_____	_____	_____
_____	_____	_____
_____	_____	_____

SEPARATE CHECK FOR PROGRAMS ENCLOSED \$ _____

Make check(s) payable to: *Wellesley College Friends of Horticulture*

Mail to: Wellesley College Friends of Horticulture
106 Central Street
Wellesley, MA 02481-8203

MEMBERSHIP IN THE FRIENDS OF HORTICULTURE (for the academic year July 2007-June 2008)

Benefactor:	\$2500	Sponsor:	\$100
Patron:	\$1000	Member:	\$50
Supporter:	\$500	Young Alum:	\$15 (5 most recent classes)
Donor:	\$250		

SEPARATE CHECK FOR MEMBERSHIP \$ _____
made payable to: Wellesley College Friends of Horticulture.

Cancellations and Refunds: You may cancel a registration and receive a partial refund by calling the WCFH office at 781-283-3094 ext. 4 at least one week prior to the first class. A cancellation fee (\$5 or 25% of the cost of the course, whichever is greater) will be deducted. Special cancellation policies apply to overnight trips. We regret that no refunds or credits can be given for class cancellations less than one week prior to the start of the class or for classes you have not attended.

Docent Training for the Ferguson Greenhouses

5 Fridays 12:00-3 p.m.
January 18, 25; February 1, 8, 15, 2008

We are seeking people who want to who enrich the lives of others by introducing them to the world of horticulture and plant science. Our volunteers serve as WCBG Tour Docents, Visitor Center Greeters, GNAT (Garden Naturalists), and GREEN THUMBS: hands-on botanic garden helpers. Volunteers are

encouraged to participate in monthly volunteer programs throughout the academic year, which feature talks on horticultural topics and private garden visits.

A new training class for our volunteer docents will be starting after the first of the year. Instruction will be on the history of the Wellesley College Botanic Gardens, the plants in the Ferguson Greenhouse collection, and

how to design and give tours of the Botanic Gardens for specific visiting groups: school classes, senior groups, scout troops, and College groups.

Sign up today! For more details on volunteer opportunities, contact the Friends of Horticulture at 781-283-3094 or via email horticulture@wellesley.edu 



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Friends of Horticulture
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Save the Date



Photo by David Kahn

Light Show 2007

Color and Pattern

Wednesday, December 12

5 pm to 8 pm

WELLESLEY COLLEGE
BOTANIC GARDENS

Ferguson Greenhouses

Come wander the greenhouses as theatrical lighting illuminates fascinating and beautiful color and pattern in plants in ways not observable in ordinary light.

Questions? Contact Wellesley College Friends of Horticulture

781-283-3094 horticulture@wellesley.edu

If you would like to be a docent at the show and get a special sneak preview, contact us.

If you live in the local area, please consider joining our active group of volunteers as a Visitor Center greeter, docent, children's program leader, GNat, or member of our hands-on gardening helpers, the "Green Thumbs."



To schedule a guided group tour, inquire about membership, register for programs, or enroll as a volunteer, contact us at 781-283-3094 or email horticulture@wellesley.edu.



Check out our latest course offerings, art exhibits, and other information on the Web: www.wellesley.edu/WCFH.